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PERSPECTIVES ON HEALTH CARE IN CANADA

What the Data Tell Us

This document presents a statistical portrait of the pre-pandemic state of health care in Canada. The data are placed both in an international comparative context and also disaggregated by province.¹ The portrait is focussed on 2019 and the years immediately preceding, owing partly to the latest data that is available, and partly to avoid the exceptional conditions created by the Covid-19 pandemic. Those deserve separate treatment. The document is organized in two major Sections—*I The State of Health Care in Canada*; and *II How the Provinces Stack Up*. Section I presents evidence relevant to the following questions:

- Is Canada’s health care system a top-tier performer compared with other highly developed countries?
- Do health care systems in other advanced countries provide relevant models for Canada?
- Is health care in Canada on a sustainable track?
- Has federal fiscal support of Provincial health care delivery been declining?
- Would increased federal cash transfers to the Provinces, beyond those already scheduled, encourage and enable improved delivery of health care?

Section II (page 16) provides a province-by-province perspective on health care under eight sub-sections:

1. Spending on health care
2. Factors that influence the health status of a population
3. Selected indicators of health status
4. Supply of doctors, nurses, and hospital beds
5. Selected indicators of health system performance
6. Public perception of the quality of health care provision
7. Tabulated summary of indicator data
8. Conclusions

The main conclusions of Sections I and II are summarized below and serve as an Executive Summary of the document.

Conclusions in Summary

Section I

1. *Is Canada’s health care system a top-tier performer relative to other highly developed countries?* Based on a broad array of internationally comparable indicators that are periodically assessed by the Commonwealth Fund, Canada’s health care performance ranks below that of many peer countries with the notable of exception of the US. Canada is not in the top tier.
2. *Do health care systems in other advanced countries provide relevant models for Canada?* Every health care system bears the imprint of a country’s history, culture, and unique circumstances. No

¹ Data are sourced primarily from the [Canadian Institute for Health Information](#) (CIHI); from the [OECD health indicators](#) data base; and indirectly from the assessment of 11 advanced country health systems undertaken periodically by the [Commonwealth Fund](#) (as reported by CIHI). In some cases, international and provincial indicators could not be directly compared based on data from the foregoing sources.

model can be transferred to Canada, holus-bolus. But examination of the systems in Western Europe, Australia, and New Zealand yields lessons that can be adapted here. This examination also provides counter-examples that dispel several myths about the superiority of Canada's system that have become embedded in public belief as a result of comparison exclusively with the United States. (See Annex C.)

3. *Is health care in Canada on a sustainable track?* Contrary to frequent assertions, publicly-funded health care in Canada appears to be sustainable relative to trend growth of the economy (GDP). It should be expected that health care spending as a share of GDP will continue to increase in Canada and in other affluent, aging populations. Within a fairly broad range, the level of health spending is a *political choice*, to be weighed against other consumption and taxation choices.
4. *Has federal fiscal support of Provincial health care delivery been declining?* Measured by the size of the Canada Health Transfer relative to provincial government health care spending, federal support has been on an *increasing* trend for the past 15 years and in 2019 constituted about 23% of provincial government health spending. This cash transfer is effectively unconditional and constitutes general revenue for recipient governments.
5. *Would increased federal cash transfers to the Provinces, beyond those already scheduled, encourage and enable improved delivery of health care?* There is considerable room for improvement in Canada's health care system as demonstrated by countless reports over the years. But the structure of the system has proven remarkably resistant to significant reform. Federal cash transfers have not been able to "buy" reform and actually *reduce* the incentive for it. That is because Ottawa's cash has relieved some of the pressure for reform—which is the sole responsibility of the Provinces and will always be politically difficult—and allowed provincial politicians to shift blame for the system's shortcomings onto the federal government because of what they claim is the inadequacy of the Canada Health Transfer (CHT). The *CHT should be ended* and the funds that are freed-up should be made available to a revamped Equalization program together with a transfer of tax points from the federal to provincial governments.

Section II

6. Medical science and the quality of health care is but one factor determining the average health of any population. The general pace of economic and social development is the primary driver. When all is said and done, *the best guarantor of population health is a strong economy combined with robust social and cultural institutions that distribute the benefits fairly.*
7. This is illustrated by the fact that the conditions that affect health status are correlated (negatively) with the degree of economic development among the provinces. The picture tends to be least favourable in Atlantic Canada (especially in Newfoundland & Labrador), and most favourable in Ontario, Alberta, BC, and Quebec.
8. Poor health outcomes in Canada are unacceptably high among socially disadvantaged groups—notably in Indigenous communities, as illustrated by the extremely high rates of infant mortality in Manitoba and Saskatchewan. The most readily available way to increase life expectancy in Canada in the near term would be to dramatically reduce infant mortality among marginalized groups.
9. Provinces with weaker economies tend also to have poorer health status and must spend more to achieve acceptable health outcomes, thereby exacerbating the fiscal burden. This underlines the

importance of increased federal Equalization payments (see Section I) that help less economically successful provinces provide a reasonable standard of Provincially-funded health care without having to resort to tax rates that would further hobble economic performance and risk worsening health outcomes.

10. Health care consumed an increasing share of provincial budgets for decades, reaching an average of 40% in 2007 before dropping to just under 36% in 2008 and remaining approximately flat in *percentage* terms for 11 years through 2019. Going forward, cost pressures will intensify as the population ages and larger numbers of health care workers and associated investment are needed to improve standards of care, particularly shorter wait times.
11. While there is relatively little variation among Canadian provinces in the treatment of truly urgent and/or life-threatening conditions, there are significant differences in the time taken to access non-urgent and elective care, the availability of which can be critical for quality of life.
12. In 2019, the average hospital bed in Canada was occupied almost 92% of the time, the highest among 27 OECD countries surveyed. While Canada's exceptionally high bed-occupancy rate represents efficient use of a scarce resource it provides too little margin to cope with surges and contributes to relatively long wait times for less urgent cases. A similar situation applies to diagnostic imaging facilities.
13. The number of family doctors has been increasing more or less steadily as a *percentage* of the total Canadian population for at least the past 50 years. But approximately a third of family physicians are now over 55 implying that Canada will have to train and/or recruit a great many more in view of the impending retirement bubble.
14. On a per capita basis there are about 2.8 times as many general practitioners in urban centers as in rural Canada. This is to be compared, for example, with a ratio of 1.7 in Australia and 1.2 in Norway. To the extent that changing work patterns encourage increased migration to rural areas and small communities, Canada's relatively extreme urban-rural physician imbalance will have to adjust.
15. According to OECD data, less than a quarter of Canadian physicians are foreign-trained, significantly fewer than Australia (33%), and Norway (41%). Canada should be doing more to employ foreign-trained doctors.
16. The challenging conditions created by the pandemic have stimulated a great deal of health care *innovation*, demonstrating better methods that could now become the new norms. These should be catalogued and systematically communicated across the country and supplemented with information on the wealth of micro-innovation that has occurred worldwide in response to the pandemic.

Section I: The State of Health Care in Canada

This Section presents data describing the state of Canadian health care, placing it in an international context, and assembling evidence relevant to the five questions posed at the beginning of this document. The Section comprises four sub-sections: (1) Health Care Spending; (2) Canadian Health Care From an International Perspective; (3) Rising Above Mediocrity; and (4) Conclusions.

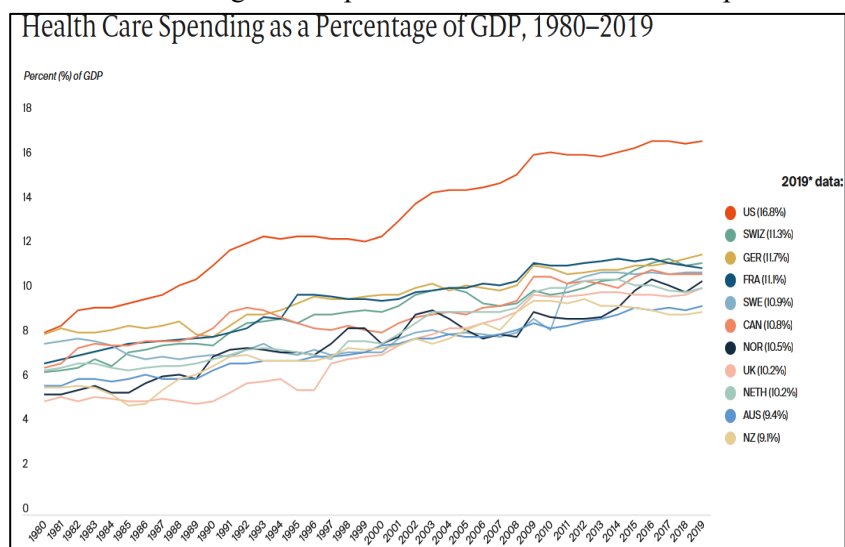
1. Health Care Spending

International context: Total health care spending (public plus private) has been growing as a percentage of GDP in all highly developed countries—from a range of 6-8 percent of GDP in 1980 to 8-12 percent by 2019. Canada is in the middle of the pack (10.8% of GDP in 2019) while the US is a dramatic outlier. American health spending of US\$3.8 trillion in 2019 was almost 17% of GDP. For comparison, US defence spending that year (\$690B) was *only* a little more than 3% of GDP.

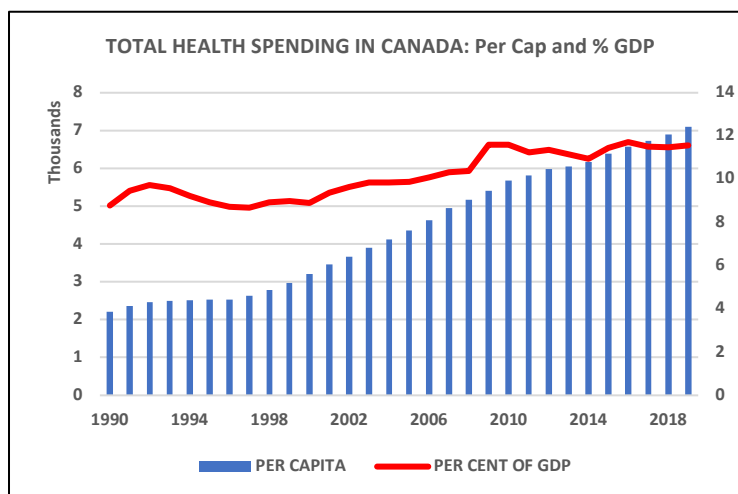
The long-term trend increase in health spending as a share of rich country economies is principally driven by: (i) advances in medical science and

treatments and related public expectations, (ii) population aging, and (iii) relatively slow productivity growth in the labour-intensive health care domain. These factors have been partially offset by efforts to improve efficiency and by fiscal restraint. It is hoped by many health system experts that the growing application of information technology, including electronic health records, telehealth, AI, and certain robotic services, will eventually bend the cost curve of health care provision. On the other hand, technology may simply encourage greater demand for care and leave cost pressures pretty much the same.

Populations in the rich countries should expect to devote an ever greater *share* of national resources to health care. Improved efficiency can only moderate the rate of increase, at least for the foreseeable future. At the prevailing rate of increase of health spending as a share of GDP in advanced countries (about three-quarters of a percentage point per decade), it would take 70-100 years to reach the 17% share already tolerated by the US. *Although the American health system is no model to emulate, at least it demonstrates that an affluent society can devote a much larger share of its resources to health (however wastefully and inequitably) than Canada and peer countries now do.*



The Canadian context: The chart at right traces total health expenditure *per capita* in Canada (blue bars; left scale \$'000). Spending has increased sharply since 1997, growing from \$2,633 to \$7,108 by 2019—an average annual rate of 4.6% in current dollar terms. In constant dollars (i.e., net of inflation) the average annual growth rate was a more moderate 2.4%. What matters most in terms of national affordability and ultimate sustainability is the growth of total health spending relative to the output of the economy (GDP). By that standard, spending as a percent of GDP (red line; right scale %) has been essentially flat for the 10 years following the great recession in 2009, and before the onset of Covid-19.



CIHI estimates that health spending in 2021 was \$308 billion or 12.7% of GDP, a big jump from 11.6% in 2019.² It remains to be seen if spending going forward will (a) eventually return to the immediate pre-Covid track growing sustainably at roughly the same pace as GDP, or (b) resume the rapid growth as a share of GDP experienced between 2000 (8.9% of GDP) and 2009 (11.6%). Obviously, such a rapid pace could not be sustained indefinitely, but a wealthy country like Canada could “afford” to devote a much higher share of its economy to a highly valued service like health care. That is ultimately a political choice as to allocation of a society’s consumption and investment.

Public vs. private funding: The public sector funds approximately 70% of health care in Canada, a fraction that has remained roughly constant for several decades.³ Private expenditure, 30% of the total, covers a range of services including, for example, drugs (outside those provincially insured), dental, vision, and various other privately-insured services. The structure of health care spending in Canada—i.e., the shares born by the key players—has remained nearly constant for many years, evidence of a stable equilibrium around the status quo.

Provincial and Territorial governments directly funded 64.7% of health spending in 2019, a proportion that has hovered around 65% for at least the past three decades. Direct health spending by the federal government (e.g., military, certain Indigenous groups) was 3.7% of the total in 2019, a share that has been slightly increasing since 2010. Municipal governments and social security funds contribute a further small amount of public funding—\$4.8B or 1.8% of the total in 2019.

There is considerable variation in total health spending (public and private) among provinces as detailed in Section II. Per capita spending is higher in the smaller provinces, reflecting less opportunity for scale

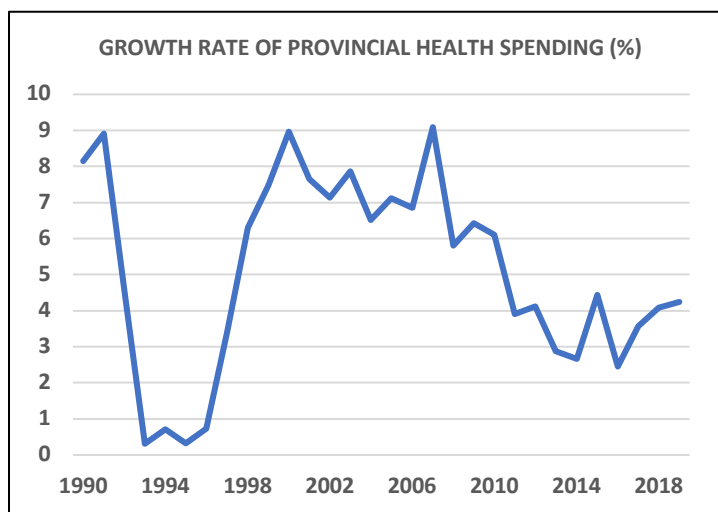
² The OECD figure for Canada in 2019 was 10.8% (see chart on prior page). The methodology used by CIHI gives a higher estimate, but the trend is similar from both sources. We use the OECD data for international comparisons (based on domestic currency amounts converted to \$US at a “Purchasing Power Parity” exchange rate).

³ For comparison, models of public provision cover about 85% of health expenditure in Norway, Germany, France and Sweden; just under 70% in Australia and 73% in the UK. The US is again an outlier with the public sector (Medicare for the aged, Medicaid for low income groups, and Veteran’s Affairs) covering just under 50% of total health spending. But because of America’s out-sized *total* spend, public expenditure per capita is in fact greater in the US than in Canada.

economies and, in the case of Atlantic Canada, an older population. Alberta's per capita spending in 2019 was 11.2% above the national average, presumably reflecting Alberta's affluence.

Growth in Provincial health spending:

After increasing by 8% and 9% in 1990 and '91, provincial government health spending was virtually frozen in 1993-96 before increasing dramatically, beginning in 1997 and until the severe recession applied the brakes in 2009. Since then, until the pandemic, annual provincial spending increased by a moderate 3 to 4 percent annually in current dollars, in parallel with GDP growth and subdued inflation.⁴



It is notable that provincial governments (as a whole) froze health spending in

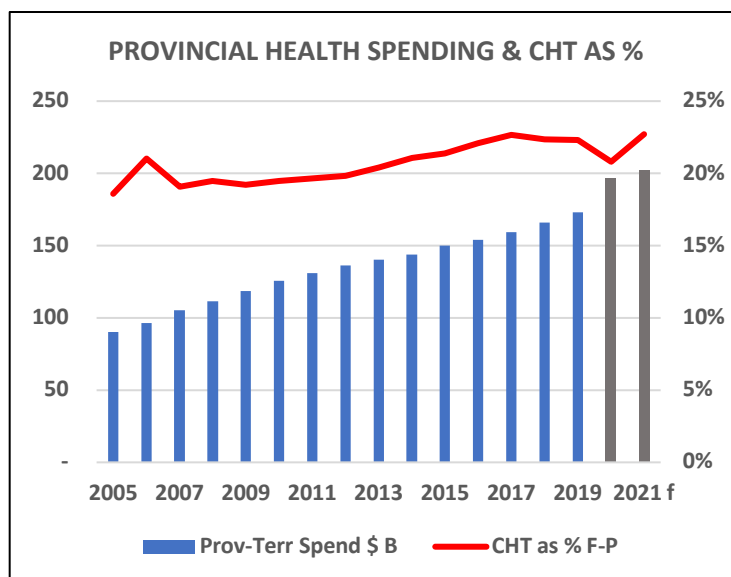
1993, two years *before* the federal austerity budget in 1995. Moreover, that budget delayed the reduction of the federal health and social transfer to the Provinces⁵ until FY1997-98, by which time Provincial health spending was once again growing strongly. Clearly the Provinces were setting their own spending priorities in the face of the fiscal stress facing all governments in the early 1990s. Although it was politically convenient to blame the 1995 federal budget for the decisions of provincial governments to severely constrain health spending, the timing of earlier spending cuts and later increases illustrated in the chart shows that Provincial budgeting was largely unrelated to the federal fiscal actions announced in 1995.

Federal transfer payments: In 2004 the Martin government split the prevailing Canada Health and Social Transfer (CHST) into (i) a Canada Health Transfer (CHT) of \$15.3B (plus a one-time Health Reform Transfer of \$1.5B) and (ii) a Canada Social Transfer (CST) of \$8.3B—see Annex A for a time history of these transfers. Since then, the CHT and CST have remained separate and subject to different growth regimes. The CHT will be \$45.2B in FY2022-23 and is [projected](#) to grow to \$56B by FY2026-27.

⁴ References to Provincial-Territorial spending will usually be shortened simply to “Provincial” to encompass both. The Territorial amounts are very small relative to the Provincial totals. Note that “Province” capitalized refers to the provincial government, whereas lower case “province” refers to the geographic entity.

⁵ Prior to 1996-97, the federal *cash* transfer to the Provinces, ostensibly to help support health and higher education, was labeled Established Programs Financing (EPF). In addition, the Canada Assistance Plan (CAP) was designed to support provincially-delivered social services. In FY1995-96, the EPF transfer was \$10.6B and CAP was \$7.8B, a total of \$18.4B. The 1995 budget combined EPF and CAP into a single cash transfer—the Canada Health and Social Transfer (CHST)—which was set at \$14.7B in FY1996-97, a reduction of \$3.7B from the total of CAP and EPF the prior year. In FY1997-98, the CHST was reduced to \$12.5B but began a steady increase in FY1999-00 (see Annex A).

The bars in the chart at right trace the growth of Provincial health spending from 2005 through 2021. Superimposed as the red line is the CHT cash transfer as a percent of spending. This has risen from 18.5% in 2005 to about 23% in 2019. Although provincial governments would always welcome more federal cash transfers, there is no evidence of a declining federal contribution—quite the opposite.



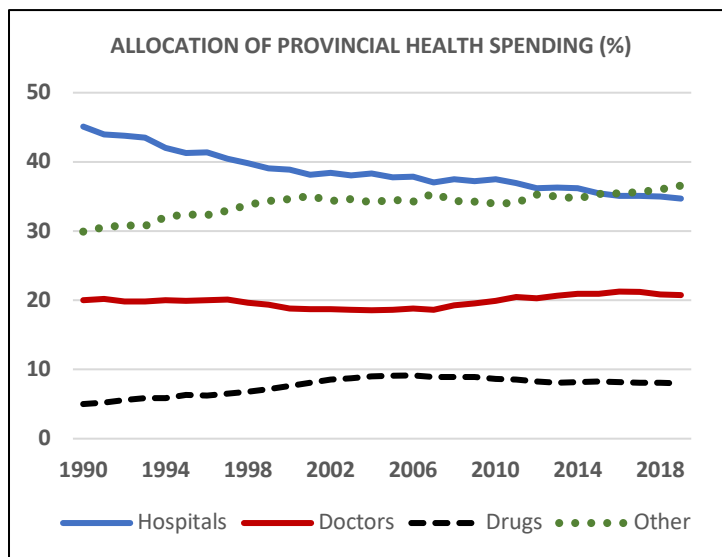
It is important to recognize that the CHT, and the CHST before it, are “block” transfers to provincial treasuries, essentially without conditions as to how the funds can be spent. They are general revenue just like income tax. Although the “H” in CHT suggests that the transfer must be spent on health, that is not the case. The only condition is that Provinces are expected to deliver health care in accordance with five general [principles](#) set out in the Canada Health Act of 1984. Should a Province fail to do so the federal government would be within its rights to reduce the transfer to that Province by an appropriate amount. There has never been a [significant hold-back](#).⁶

Why then do both the federal and provincial governments continue to purport that the CHT is somehow *earmarked* exclusively for health care? The (mis)nomenclature is convenient for provincial governments because it allows them to imply to their public that they could provide better health care if only Ottawa increased its support via the CHT. It is less clear why successive federal governments have allowed themselves to be put on the defensive by attaching a “health” label to an unconditional transfer that will never be large enough. Apparently, Ottawa wants to be seen contributing to a service that Canadians treasure, but the purchase price for this “branding right” is a very steep one. This issue is addressed in detail subsequently.

Allocation of health care spending: The next chart traces the allocation of Provincial health spending to the three principal categories—hospitals, physicians, and drugs—that are covered by Provincial programs. The “Other” category includes non-hospital institutions involved in care, public health, other health professionals, capital spending, administration, and miscellaneous categories included under CIHI’s definition of health expenditure.

⁶ The Canada Health Act (CHA), despite its name, does not define a federal role in the delivery of health care. Provision of health care, with a few exceptions, is exclusively within Provincial jurisdiction. The CHA is actually fiscal legislation. It defines a set of criteria (the five principles enshrined in the Act) which, if not satisfied by a given Province, would justify the withholding of an appropriate portion of the funds that Ottawa would otherwise transfer to the Province.

The allocation of Provincial spending has remained roughly constant for the past 15-20 years—approximately 35% to hospitals; 20% to physicians; a bit less than 10% to drugs; and the remaining 35% to the Others. The latter category, as well as spending on drugs, grew rapidly until about 2000 and have substituted for some hospital-delivered services—e.g., moving patients where possible out of acute care beds into more appropriate and cheaper alternatives; and the use of pharmaceutical products to keep sick people out of hospitals, as recently spectacularly illustrated by Covid vaccines. While the lines in the chart are fairly flat as *percentages* of total spending since about 2000, the actual payments to the various services have been rising at approximately the same rate as overall Provincial spending on health, which in recent years (prior to Covid-19) has been comparatively subdued.

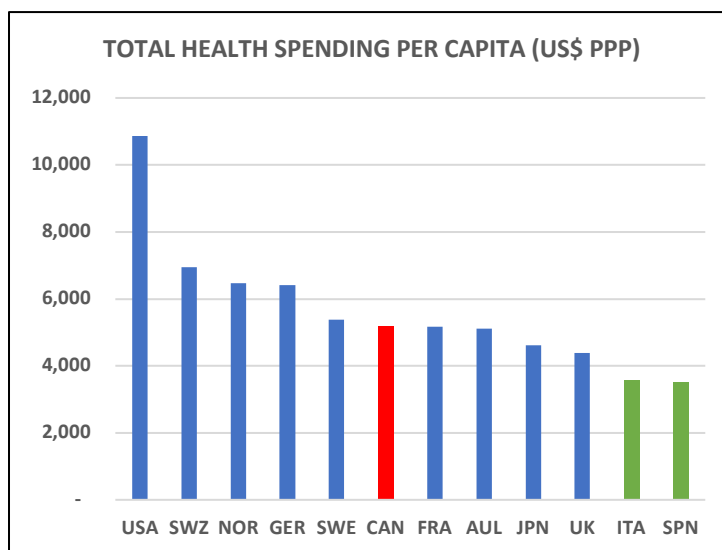


Resisting reform: The fact that the expenditure shares of the main elements of the health system have remained roughly constant for two decades is further evidence of the stable equilibrium—some might say a strait-jacket—in which the sector operates. But because demand for better care and service is unrelenting, the equilibrium is unsatisfactory for most participants. Yet the power structure *balance* in the system has been sufficient to stymie reform that might involve a significant, if not radical, reallocation of resources. Such reallocation would inevitably create winners and losers. To date, those who fear being losers, if only in relative terms, have been able to wield blocking power. As countless expert reports have [demonstrated](#), reform to make delivery of health care more effective and efficient is not a matter of *what* to do, but rather *how* to get it done.

2. Canadian Health Care from an International Perspective

Per capita spending: Aside from the outlier status of the United States, where per capita health spending was \$10,856 in 2019, there is significant variation in spending among highly developed nations, ranging in this chart from US\$ 6,942 in Switzerland down to a little more than \$3,500 in Spain and Italy. Canada, as usual, is in the middle of the pack (US\$ 5,190), roughly the same as Sweden, France, and Australia but about 20% below Norway and Germany; and some 15% above Japan and the UK.

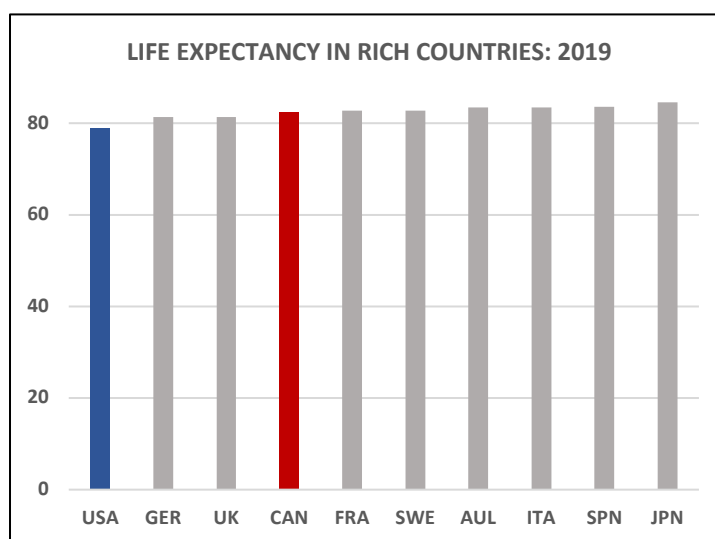
Although the burden of health spending is generally assumed to be greater for older



populations, in the case of the countries shown above the relationship is nearly the opposite. Spain and Italy are among the “oldest” countries in the OECD with median ages of 46 and 48 respectively, yet they spend the least on health care in per capita terms. Japan also has a rapidly aging population—almost 30% of the population is over 65—but has nevertheless managed to keep health spending per capita lower than most peer countries. The US, on the other hand, has the youngest population among the countries in the chart (median age of 38 in 2019).

There are a great many factors other than the age profile that influence health spending—e.g., those factors that increase the risk of disease including lifestyle behaviours like smoking; incidence of obesity; as well as different national choices regarding the organization of delivery of health care, and different political priorities accorded to health spending. A subsequent chart tabulates a number of these factors across a sample of Canada’s peer countries. But first, consider how countries rank in terms of life expectancy which is, in an important sense, the bottom line.

Life expectancy: Life expectancy at birth varies little among the OECD group of countries, a sample of which is shown in this chart. The Japanese can expect to live longest at 84.6 years (average of male and female), closely followed by the Spanish (83.6) and Italians (83.5). Canada is middling (82.4). The US is the depressing outlier at 78.9 years. Referring to the previous chart of per capita health spending, we see that it trends oppositely from life expectancy. Americans spend more and survive less; whereas the Spanish, Italians, and Japanese, spend less and survive longer. Canada, as usual, is somewhere in the middle. Yet the striking thing about life expectancy across the rich countries is how similar it is. The bottom line is that life expectancy in a *nation* (or for a large sub-component of a population) is determined largely by the general state of development. Factors like diet, obesity, smoking and the resources devoted to health care all matter; but in the end, for rich countries, average life expectancy is tightly clustered despite quite wide variation in lifestyle habits, diet, and health spending.



Life expectancy in broader perspective: Over long periods, the trend of life expectancy tends to mirror the pace of economic and social development. The *social* upheavals in China in the late 1950s and early 60s (Mao’s inaptly dubbed “Great Leap Forward”); the collapse of the USSR in 1991; and the chaos—including the terrible toll of AIDS—that beset post-apartheid South Africa, are plainly visible in the long-term trends of life expectancy in the chart below.

Equally prominent is the general upward slope of the curve in response to economic development, and spectacularly so in the case of China between 1960 and 1985, which began well before Mao's death in 1976.

Arguably the greatest indictment of social policy in the United States is the widening gap in American life expectancy relative to Canada and every other highly developed country. While the rate of increase of life expectancy has slowed in most OECD

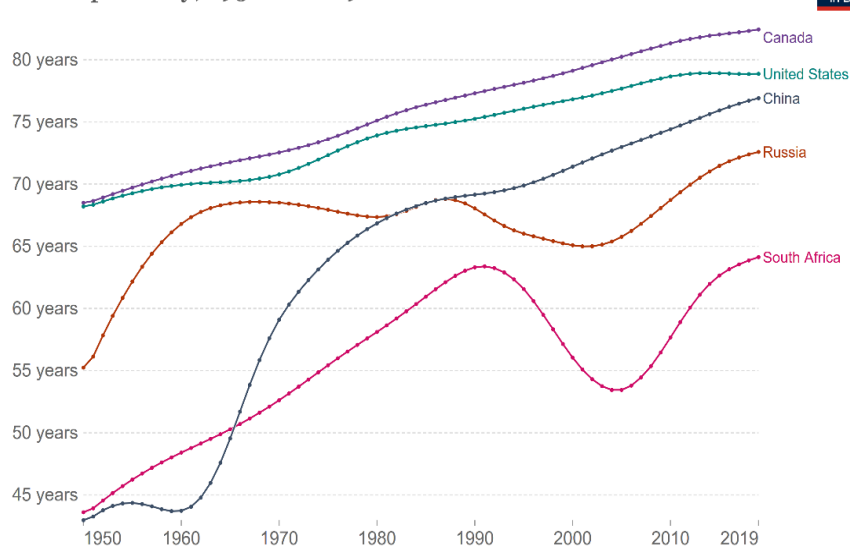
countries, it has actually stopped growing in the US, even well before the Covid shock. This is despite the fact that life expectancy in the black and Hispanic populations in the US has continued to increase, although from levels significantly below that of whites. The problem is that so-called “deaths of despair” have been increasing among a young white “underclass” that has been disproportionately ravaged by drug overdoses and other lethal effects, [reflecting](#) the psychological impact of a relative loss of social status and economic opportunity.

The message of the evolution of life expectancy illustrated above is that medical science and the quality of health care is but one factor, albeit important, in determining average lifespan. The general pace of economic and social development is the *primary* driver, and provides both the motivation and the resources to invest in medical science and a high-performing health system. When all is said and done, *the best guarantor of population health is a strong economy combined with robust social and cultural institutions that distribute the benefits fairly.*

Health systems at a glance: The table below (with rows ordered by per capita health spending) is based on data from the Commonwealth Fund, an organization considered to be the gold standard for international benchmarking and assessment of health systems. For each metric, the green cell is the best in the sample, and the red cell the worst. (Blank cells are those for which data was not available.)

Canada generally ranks at the lower end of four “supply” metrics—especially for hospital beds and wait time for elective surgery. Our risk factors, other than obesity, compare well. Canada also performs reasonably well on a key performance measure—the number of deaths per 100,000 population considered to have been preventable or otherwise amenable to health care (72 in Canada vs 60 for the best performers—Germany and Norway). Survey results give Canada at best a middling ranking for general satisfaction with the health care system (35%) well below Norway and Germany (about 60%), but far above the US at 19%. The same survey found that 9% of Canadians believe that the system needs to be completely rebuilt while, not surprisingly, almost a quarter of Americans have that opinion.

Life expectancy, 1950 to 2019



Source: Riley (2005), Clio Infra (2015), and UN Population Division (2019)

Note: Shown is period life expectancy at birth, the average number of years a newborn would live if the pattern of mortality in the given year were to stay the same throughout its life.

OurWorldInData.org/life-expectancy • CC BY

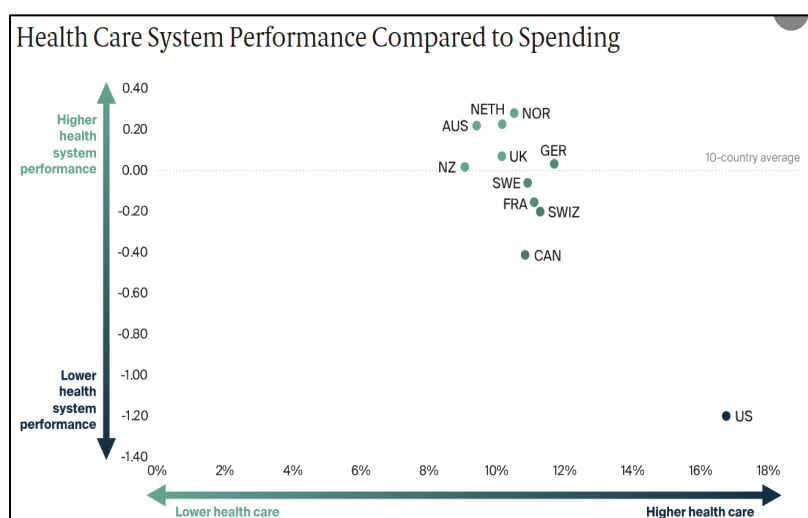
INTERNATIONAL COMPARISONS: SAMPLE OF COMMONWEALTH FUND DATA (2017)										
	SUPPLY METRICS					POPULATION RISK METRICS			PERFORMANCE	
	Spend 2019 \$US /cap PPP	Doctors per 1000	Acute Beds per 1000	Wait > 4 mos Elect. Surg. (%)	MRI Exams per 1000	Demography % > Age 65	Obesity BMI>30 (%)	Smokers Daily %	Avoidable death/100K	General satisfaction (%)
USA	10,860	2.6	2.4	4	111	16	40	11	112	19
Norway	6,476	4.7	3.2	15		17	12	11	60	59
Germany	6,410	4.3	6.0	0	143	21	24	19	86	60
Sweden	5,390	4.1	2.0	12		20	13	10	65	31
Canada	5,190	2.7	2.0	18	51	17	26	12	72	35
France	5,170	3.2	3.1	2	114	19	17	22	60	54
Australia	5,130	3.7		8	45	15	30	12	62	44
Japan	4,610	2.4	7.8		112	28	4	18		
UK	4,390	2.8	2.1	12	62	18	29	17	84	44
Italy	3,570	4.0	2.6		71	22	11	20		

There are noteworthy cross-country variations among the “supply” and “risk” factors in the table—e.g., Japan and Germany have far more hospital beds per capita than other peer countries. Japan, US, UK and Canada have relatively few doctors per capita. Very few Germans, French and Americans wait more than 4 months for elective surgery, whereas almost 20% of Canadians do. Japan’s population is old and has a relatively high percentage of smokers, but per capita health spending is among the lowest, perhaps helped by a very low incidence of obesity. But the UK and Australia have comparatively high obesity rates, yet relatively low health spending.

In short, the factors typically cited as driving health spending vary widely across national systems. Although sophisticated statistical analyses can tease out all manner of correlations, causal relationships that hold generally across countries are hard to find or have relatively small overall impact. In rich countries, a great deal of time and money is spent promoting nostrums that have marginal effect on *population* health and life expectancy, although they may be significant for certain individuals.

Health system performance: The [Commonwealth Fund](#) regularly assesses national health care performance based on an extensive set of indicators (71 measures in the 2021 analysis) grouped under five performance categories: Access to Care; Care Process; Administrative Efficiency; Equity; and Health Care Outcomes. The indicators for the 11 countries assessed in the latest evaluation are combined into a single rating relative to the 10-country average. (The US, as an outlier, is excluded from the average but is ranked relative to it.)

The chart (with spending as a % of GDP on the horizontal axis) shows that Norway leads the latest ranking (based primarily on 2019 data), closely followed by the Netherlands and Australia. The United States, not surprisingly, is in distant last place. Although Canada ranks considerably higher than the US, it ends up 10th of the 11 countries at



Although Canada ranks considerably higher than the US, it ends up 10th of the 11 countries at

the bottom of the non-US peer group. (See Annex B for country ranks across each of the five performance categories.)

While the Commonwealth Fund rankings are considered to be the gold standard for assessment of health system performance among rich countries there is some unavoidable arbitrariness in the choice of metrics and particularly in the methodology for combining them into a single indicator. Nevertheless, the method is sufficiently robust to separate the best performers from the mediocre. Canada clearly falls into the latter category, notwithstanding chest-thumping by politicians and by those advocates who tend to limit their comparisons to the United States—far too soft a target!

Government coverage of health services: Among highly developed countries, and with the exception of the United States, the fraction of health care that is publicly funded in Canada is relatively low at 70%. Western European countries are typically in the range of 85% (see table below). Among the 10 peer countries illustrated, Canada ranks last in public coverage of both pharmaceutical expense (37%) and dental expense (6%). This is to be compared for example with Germany where the public coverage of these costs is 82% and 68% respectively. On the other hand, governments in Germany spend almost 50% more per capita than governments in Canada to cover all health care expenses. But remarkably, governments in Australia spend 12% *less* per capita than in Canada yet provide greater coverage of drugs and dental care while, according to the Commonwealth Fund assessment, delivering more effective health care overall. (In the table below, the highest percentages in each column are coloured green, and the lowest are in red.)

PUBLIC FINANCING OF HEALTH CARE (OECD 2019)						
	Total Spend US\$/Capita	Percent of Total Financed by Governments				
		All Services	Hospitals	Outpatient	Pharmaceutical	Dental
NOR	\$6,745	86%	99%	86%	54%	29%
GER	\$6,518	85%	97%	89%	82%	68%
NTH	\$5,739	83%	91%	85%	67%	12%
SWE	\$5,552	85%	99%	91%	54%	43%
CAN	\$5,370	70%	91%	85%	37%	6%
FRA	\$5,274	84%	96%	80%	80%	n.a.
AUL	\$4,919	67%	62%	84%	50%	16%
JPN	\$4,691	84%	92%	85%	72%	79%
UK	\$4,500	79%	93%	89%	59%	46%
OECD	\$4,087	74%	87%	77%	58%	30%
ITA	\$3,653	74%	96%	60%	62%	n.a.

3. Rising Above Mediocrity

Standing in the way of reform: There is considerable room for improvement in Canada’s health care system as demonstrated in the periodic assessments by the Commonwealth Fund—most recently ranking Canada 10th out of 11 peers—and by countless Canadian reports over the years—e.g., the [Romanow Report](#) in 2002. But the structure of the system has proven remarkably resistant to significant reform. Federal cash transfers have not been able to “buy” reform. In fact they now actually *reduce* the incentive for reform. That is because Ottawa’s cash has relieved some of the pressure for reform—which will always be politically difficult—and allowed provincial politicians to shift blame for the system’s shortcomings onto the federal government because of what they invariably claim is the inadequacy of the Canada *Health Transfer*.

Why the CHT should end: The key fact is that that Provinces alone are in control of the tools to implement health care reform, a constitutional prerogative they guard jealously. The federal government can only plead. Consequently, it is the Provinces that should be made to weigh the public desire for better health care against public resistance to (provincial) tax increases. That calculation has been distorted by the federal cash transfer which, despite being effectively unconditional, retains the politically salient association with “health”. That is why *the Canada Health Transfer should end* and be replaced with an alternative, described below, that gets the incentives right.

One taxpayer: Since there is only one taxpayer, the *division* of one’s tax dollar between what goes to Ottawa and what goes to the provincial government should match as nearly as possible the jurisdictional responsibilities of each. If government X is wholly responsible for service Y, it should also be responsible for raising the taxes to deliver Y. That is the only way to establish political accountability for taxes raised and outcomes achieved. The split of one’s tax dollar between the federal and provincial governments should never create an opportunity for political blame-shifting.

An alternative to the CHT: The CHT should be ended and replaced by a new fiscal regime, initially yielding the same total revenue to the Provinces, and consisting of two components: (a) a transfer of “tax points” (or what is sometimes called “tax room”) from the federal to provincial governments and for which there is [long-established precedent](#), and (b) a more richly-funded Equalization program. The latter addresses the fact that the government of a poorer province has to tax its residents more heavily than a richer one in order to raise the same amount of revenue per capita, and thus to deliver approximately the same quality of a service such as health care. One hypothetical illustration of how the new regime would work is summarized in the Box below.

From the perspective of the taxpayer, at least initially, the transfer of tax points (or “tax room”) would mean that your federal tax payment would go down and your provincial tax would go up by an equal offsetting amount. Your total tax bill would be unchanged. But as time goes on, provincial governments might use the new tax room to either increase or decrease rates depending on a political assessment of the best trade-off between services like health care and the taxes needed to pay for them. Federal Equalization funds would meanwhile serve to offset the tax-raising disadvantage of poorer provinces. There would be several advantages:

- The new arrangement would end the CHT mythology that the funds are reserved exclusively for health care. They are not, but the mythology has been sustained by the fact that the *name* of the transfer program has mattered hugely. In the arena of public perception and political accountability, the “H” in CHT has established significant federal responsibility for the performance of a system over which it has neither constitutional nor *de facto* authority.⁷

⁷ The existing role played by Health Canada, and other federal activities that impinge on health (e.g., support of research; Public Health Agency of Canada; food inspection; national border issues, and others), would be

- The permanent transfer of tax room from the federal to provincial governments would give the Provinces control, and therefore certainty, over the revenue needed to support their constitutional jurisdiction for health care. This would respond to their perennial complaint that the federal CHT is both inadequate and, in the mid to longer term, uncertain since it is subject to Ottawa’s discretion. For purely political reasons Provinces have nevertheless welcomed an annual block of cash without responsibility for the tax rates needed to raise it. Many could therefore be expected to object to the proposed replacement of the CHT, preferring instead to have revenue without accountability and someone else to share blame for any shortcomings of the health care system.
- The new model would establish approximate horizontal fiscal equity across the Provinces—i.e., the governments of poorer provinces would receive more, via increased Equalization, than they now do from the equal-per-capita CHT.
- Without the word “health” explicitly attached to the (Equalization + tax room) transfer, it would finally be clear to the public that health care policy and delivery is essentially the sole responsibility of provincial governments. And without Ottawa to share the blame for underperformance, provincial governments would have a much stronger incentive to organize the delivery of health care so as to achieve greater quality and *public satisfaction* per dollar spent.

A fragmented system? It might be argued that without the notional threat of withholding a CHT transfer from a Province that violates the Canada Health Act, our national health care system would be at risk of fragmenting? Certainly, with more reform pressure being directly felt by the Provinces, there would be experimentation and innovation. Indeed, that would be welcome. But almost four decades after passage of the Canada Health Act, the principle of universally affordable access to health care is now firmly embedded both institutionally and politically. There is essentially zero risk of backsliding into a US-style system that is scorned around the world and increasingly in the US itself. The fact is that there are many other models of health care delivery, founded on majority public-sector involvement, that deliver better results and greater citizen satisfaction than Canada’s sclerotic system does—see Annex C.

Replacing the CHT: Hypothetical Illustration

New tax room could be made available to the Provinces via the GST and/or the personal and corporate income tax. Purely for purposes of illustration (not recommendation), suppose that the \$45B CHT (in 2022-23) were replaced as follows: (i) add \$3B to Equalization, leaving \$42B to be permanently made available to the Provinces by (ii) a reduction of the federal GST from 5% to 4% while the Provinces (except Alberta?) increased their sales tax by one percentage point, yielding about \$4.8B based on federal budgetary [estimates](#) for FY2022-23, and (iii) lower federal personal and corporate tax rates by amounts sufficient to reduce the federal share of these revenue sources by 17% and 5% respectively. If the Provinces fully took up this “room” their personal and corporate tax revenues would increase by about \$34B and \$3.4B respectively based on 2022-23 budgetary estimates. In sum, Provincial revenue collectively would increase by approximately \$42B which, with the addition of \$3B of Equalization transfers, would replace the CHT. Obviously, there are many other ways to make up the total and would be the subject of negotiation, although ending the CHT and vacating some federal tax room could not be blocked by the Provinces. Since the transfer of tax room would be permanent, the Provinces would have the *certainty* of new revenue, under their control and *accountability*, with which to finance health care and other services within their jurisdictions.

It is time to become open to new approaches. It would be well to recall the [wisdom of Francis Bacon](#): “*He that will not apply new remedies, must expect new evils; for time is the greatest innovator.*”

unchanged. From a jurisdictional perspective the proposed replacement of the CHT is entirely a fiscal matter, normally the purview of Finance Canada.

Conclusions

Returning to the five questions posed at the beginning, following are conclusions drawn from the quantitative evidence presented:

- **Is Canada’s health care system a top-tier performer relative to other highly developed countries?** Based on a broad array of objective, internationally comparable indicators that are periodically assessed by the Commonwealth Fund, Canada’s health care performance clearly ranks below that of many peer countries, with the notable exception of the US. Canada is not in the top tier.
- **Do health care systems in other advanced countries provide relevant models for Canada?** Every health care system bears the imprint of a country’s history, culture, and unique circumstances. So no model can be transferred to Canada, holus-bolus. But examination of the systems in Western Europe, Australia, and New Zealand yields lessons that can be adapted here. This examination also provides counter-examples that dispel several myths about the superiority of Canada’s system that have become embedded in public belief as a result of comparison exclusively with the United States. (See Annex C.)
- **Is health care in Canada on a sustainable track?** Contrary to frequent assertions by provincial governments, publicly-funded health care in Canada appears to be sustainable relative to trend growth of GDP. The level and trend of Canada’s spending, both as a share of GDP and per capita, is comparable to that of other peer countries (the US excepted). It should be expected that health spending as a share of GDP will continue to increase in Canada and in other affluent, aging populations. Within a fairly broad range, the level of health spending is a *political choice*, to be weighed against other consumption and taxation choices.
- **Has federal fiscal support of Provincial health care delivery been declining?** Measured by the size of the Canada Health Transfer relative to provincial government health care spending, federal support has actually been on an increasing trend for the past 15 years and in 2019 constituted about 23% of Provincial health spending. This cash transfer is effectively unconditional and constitutes general revenue for recipient governments. Apparently forgotten is that the federal government in 1977 also [surrendered income tax “room”](#) to Provinces as part of a program to assist delivery of health and certain other services in provincial jurisdiction. The transfer of personal and corporate income tax (percentage) points to provincial governments obviously increased their revenue-raising potential without, at the time, increasing the total tax rates (federal + provincial) for individual taxpayers. Today, only cash transfers seem to count since the 1977 deal has faded from the collective memory.
- **Would increased federal cash transfers to the Provinces, beyond those already scheduled, encourage and enable improved delivery of health care?** There is considerable room for improvement in Canada’s health care system, as demonstrated by countless reports over the years. But the structure of the system has proven remarkably resistant to significant reform. Federal cash transfers have not been able to “buy” significant reform and actually *reduce* the incentive for it. That is because Ottawa’s cash has relieved some of the pressure for reform—which is the sole responsibility of the Provinces and will always be politically difficult—and allowed provincial politicians to shift blame for the system’s shortcomings onto the federal government because of what they claim is the inadequacy of the Canada Health Transfer. The *CHT should be ended* and the funds that are freed-up should be made available to a revamped Equalization program together with a transfer of tax points from the federal to provincial governments.

Section II How the Provinces Stack Up

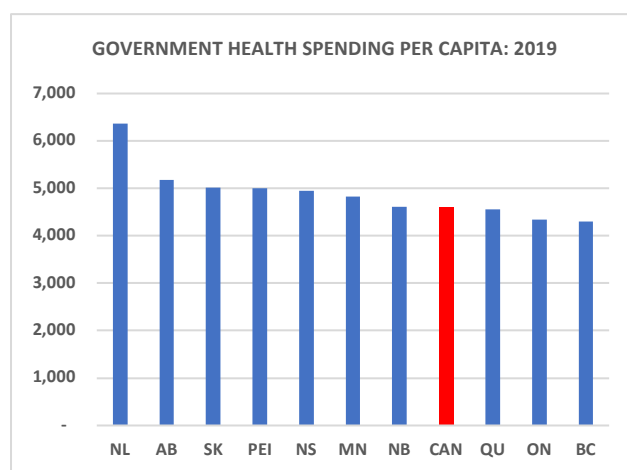
This Section presents a statistical portrait of the delivery of health care in Canada, broken down by province and where possible also placed in an international context.⁸ There are eight sub-sections:

1. Spending on health care
2. Factors that influence the health status of a population
3. Selected indicators of health status
4. Supply of doctors, nurses, and hospital beds
5. Selected indicators of health system performance
6. Public perception of the quality of health care provision
7. Tabulated summary of indicator data
8. Conclusions

Caveat: While it has been said that “numbers don’t lie” they also rarely tell the whole truth. Much is concealed, for example, by the averages over populations that are focus of this document. Indeed, there is a deeper story behind every number. And while data collection and analysis agencies like the OECD and CIHI make every effort to ensure apples-to-apples comparisons, the ways in which data are reported vary and are subject to error. And when drawing conclusions, trend data are obviously more reliable than figures for a single year. Most importantly, there is more than one way to deliver good, cost-effective health care. So different jurisdictions, for different reasons, will combine resources in quite different ways to deliver what, in the end, may be similar outcomes. That is why the differences reported throughout this document—especially the international comparisons—require deeper examination to uncover the reasons for significant variances. Sometimes there will be good reasons, but other times the variance is due to practices that need to be improved. *The data in this document should therefore be regarded as analogous to an initial medical examination, identifying symptoms in need of further investigation.*

1. Spending on health care

Provincial government spending on health care in 2019 was \$173 billion or just under 65% of total Canadian health spending of \$267 billion, public and private combined. On a per capita basis, provincial government spending ranged from a high of \$6,359 in Newfoundland & Labrador (38% above the all-province average of \$4,600) to a low of \$4,307 in BC (6% below the average.) Per capita spending by the governments of Nunavut and NWT, at \$15,725 and \$12,068 respectively, was far higher due to the



⁸ Data are sourced from the [Canadian Institute for Health Information](#) (CIHI); from the [OECD health indicators](#) data base; and indirectly from the assessment of 11 advanced country health systems undertaken periodically by the [Commonwealth Fund](#) (as reported by CIHI). In some cases, international and provincial indicators could not be directly compared based on data from the foregoing sources.

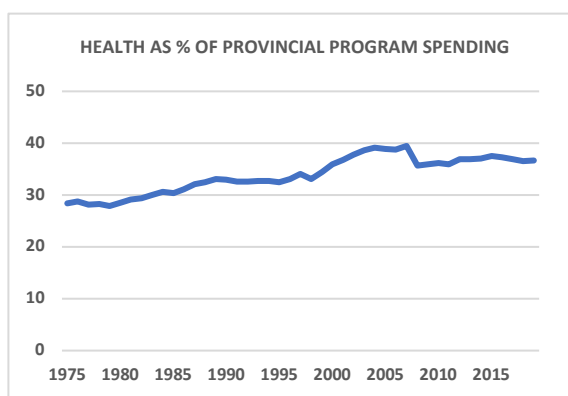
extraordinary cost of providing service to the sparse populations of the far north.⁹

Between 2010 and 2019 health spending by most provincial governments increased between 30 and 40 percent with the exception of Quebec on the high side (48%) and Nova Scotia and New Brunswick on the low side (28% and 23% respectively). Health spending by provincial governments collectively increased by an annual average of just under 3.6% over the period.

Health as a Share of Provincial Budgets: The provision of health care has until recently consumed an increasing share of provincial budgets—from about 28% of spending on all programs in 1975 to a high of 40% in 2007, just before the onset of the recession.¹⁰ In 2008 health’s share dropped to just under 36% and remained approximately flat in *percentage* terms through 2019 (37%), on the eve of the pandemic.

There is moderate variation across the Provinces in the percentage of program spending devoted to health—from a high in 2019 of 40.7% in Newfoundland & Labrador to a low of 32.1% in New Brunswick. The share in Quebec was 34.6% (the 3rd lowest) and in Ontario, 39.1% (the 2nd highest as a share of program spending).

The following three sections examine a representative set of factors that contribute to the demand for health care services and to the cost of providing those services.



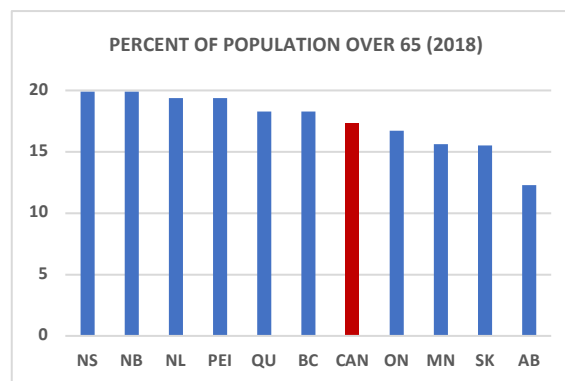
2. Factors that influence the health status of a population

There are many factors that influence the health of individuals including age, genetics, lifestyle behaviours, environmental conditions, education, income, as well as access to health care. To give some sense of the variation in health “risk” among the provinces—i.e., factors that may lead to more intensive use of publicly provided health care—the following charts focus on age (the percent of a population over 65); smoking (the percentage of adults that smoke regularly); obesity (the percentage of adults with a body mass index (BMI) over 30); and alcohol consumption (liters per adult per year). The provincial indicators are supplemented with those of several countries with which Canada is often compared—notably Australia (AUL), Germany (GER), UK and the US, plus the average across OECD countries. (The data on smoking, obesity and alcohol consumption are for 2017.)

⁹ Most of the data in this document will be restricted to provinces. Per capita figures in the Territories are often extreme, but in total dollar terms are small relative to provincial aggregates.

¹⁰ Program spending is total budgetary spending less interest on provincial government debt. In 2019 health spending by the Provinces collectively was 36.7% of program spending, and 34% of total spending.

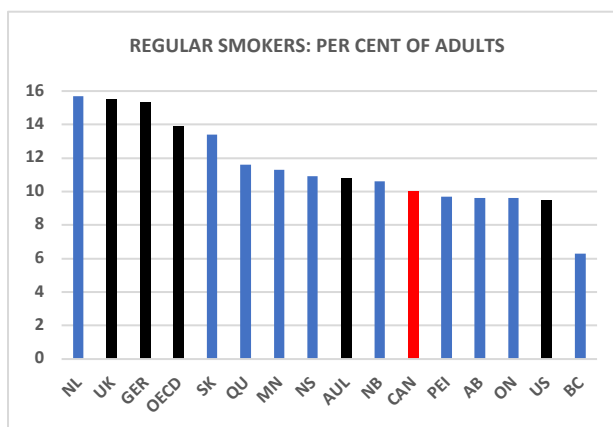
Age: An age gradient across the provinces is evident. With the exception of BC (a retirement mecca) the farther west one goes, the lower the proportion of over-65s—ranging from about 20% in the Atlantic Provinces to just over 12% in Alberta. With every passing year the national population over-65 is increasing—e.g., from 17.3% of Canadians in 2018 to 18.5% in 2021.



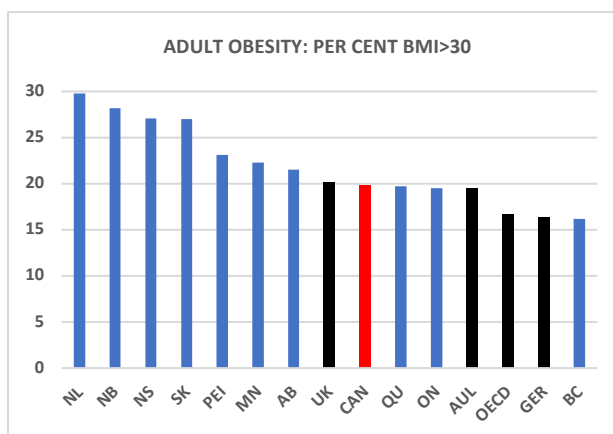
Among peer countries Canada is, as usual, near the middle of the pack. In 2018, about 15.6% of Australians, 16% of Americans, 18% of Brits, and 21.4% of Germans were over 65. Japan and Italy have among the world's oldest populations with 28% and 23% respectively over 65 in 2018; yet these countries have lower per capita health spending than Canada, Germany, Australia, the UK and, of course, the US. Age is nevertheless an important factor in health care cost. Average provincial government health spending in 2019 was \$11,815 per capita for those over 65, as compared with \$3,200 for those 15-64 and \$1,776 for the cohort aged 1-14. But the highest cost was incurred for infants under one year of age--\$13,474 per capita, albeit for a relatively small number of individuals.

The following three charts highlight provincial and international variation in a set of factors—*smoking, obesity, and alcohol consumption*—that are believed to have significant adverse health consequences averaged across populations, although individuals may escape the ravages owing to genetic and other offsetting factors. In view of the large number of interacting variables that determine population health status and the cost of care, there is no robust causal formula that relates the following risk factors to health outcomes and costs. Moreover, little significance should be attached to relatively small differences among jurisdictions in any given year for any particular indicator. Nevertheless; some patterns emerge from the data that correlate roughly with overall health status—see the summary table in sub-section 7.

Smoking: The proportion of the adult population (over 15) that smokes daily is between 9% and 11% across most provinces, with Newfoundland & Labrador (NL) and Saskatchewan (SK) being outliers on the high side and BC well below the average at only 6%. The World Health Organization [estimates](#) that smoking causes some 8 million annual deaths globally. Fortunately, by international standards Canadians are not heavy smokers on average, being well below the rates in the UK, Germany, and the OECD group as a whole (black bars in the chart). Greater awareness of the health risk, regulation of tobacco advertising, and a high “sin” tax have driven a declining trend of smoking throughout the OECD countries.

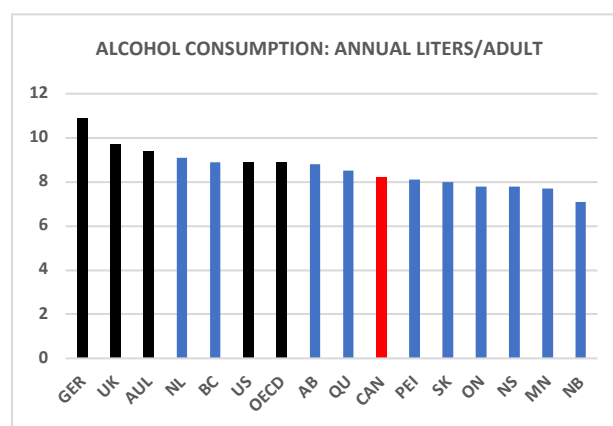


Obesity: The OECD [estimates](#) that treatment of conditions associated with, or exacerbated by, obesity accounts for more than 8% of total health care cost averaged across member countries. The incidence of obesity (BMI>30) and “overweight” (BMI > 25)¹¹ has been increasing in almost all highly developed countries but has remained roughly constant in Canada over the past 10 years. Approximately 60% of the adult population of the OECD group is overweight, ranging between 73% in the US and 27% in Japan, with Canada at the average of about 60%. (However, Canada exceeds the OECD average in terms of obesity.)



Provincially, obesity is far more prevalent in Atlantic Canada (e.g., 30% of adults in NL), but is also above the national average in Saskatchewan, Manitoba, and Alberta; while well below the all-Canada average in BC. The prevalence of obesity tends to correlate with the relative state of economic development within rich countries, or with certain ethnic groups, including many Indigenous populations.

Alcohol: Immoderate drinking¹² increases a number of health risks--e.g., liver and heart disease, certain cancers, accidents—and in the case of alcoholism can destroy relationships and earning prospects. Light to moderate drinking, on the other hand, may have few adverse consequences, but that hinges on the [definition of “moderate”](#) which depends in turn on a number of individual considerations.¹³ Within the OECD group, Canadians, on average, are relatively moderate drinkers and the provincial variation in consumption is slight. While NL and BC tend to be at opposite extremes in terms of many healthy lifestyle indicators, they have very similar rates of alcohol consumption. Concealed in the averages is the fact that heavy drinkers account for a grossly disproportionate share of consumption—e.g., the 6% of drinkers in Canada that imbibe heavily account for [more than a third](#) of the alcohol consumed.



¹¹ BMI is defined as weight in kilograms divided by the square of one’s height in meters.

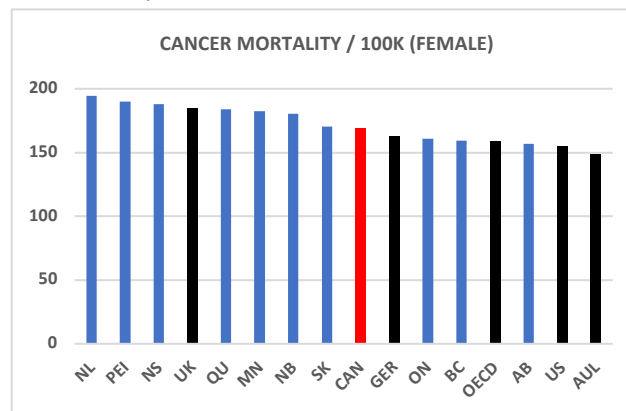
¹² Consumption is measured as units of pure alcohol to permit comparison among a wide variety of beverages. Data are from 2017. In Canada a “standard drink” contains 17 ml of pure alcohol and is approximately the amount contained a 12 ounce can of 5% beer; or a 5 ounce glass of wine; or in a shot glass (1.5 ounce) of spirits.

¹³ The Canadian Centre for Substance Abuse and Addiction has recently [recommended](#) that the prevailing guidelines for alcohol consumption be reduced. The Centre cites new evidence indicating that the health risk from a couple of drinks a week is negligible, but the risk rises rapidly beyond 6 drinks per week, especially for women.

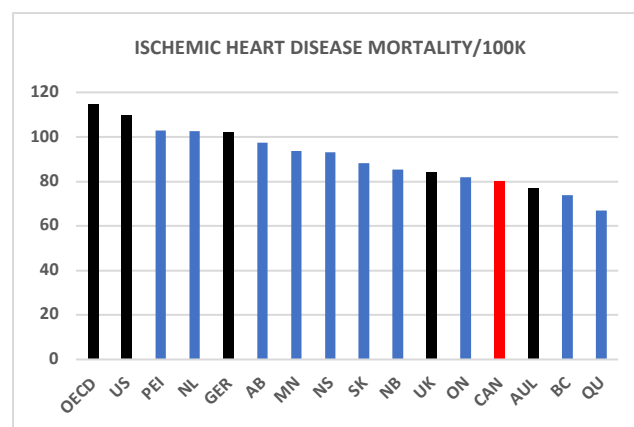
3. Selected indicators of health status

The question arises as to the extent to which various health risk factors, such as those summarized above, translate (or not) into adverse health outcomes at the national and provincial levels. The following charts present comparative data on the per capita incidence of mortality due to cancer, heart disease, and infant mortality, as well as life expectancy, which in an important sense is the bottom line. (The data are from the OECD and CIHI and usually relate to 2017.)

Cancer: The chart presents the age-standardized¹⁴ death rate per 100,000 (females) from all types of cancer. The Atlantic Provinces have relatively the worst outcomes; Ontario, BC, and Alberta, the best. Despite the age-standardization of the death rate, it correlates in this case with the proportion of the provincial populations over 65. Canada's average is comparable to that of peer countries, reflecting the relatively favourable rates in Ontario, BC and Alberta which are about 15% below the rates in Atlantic Canada.



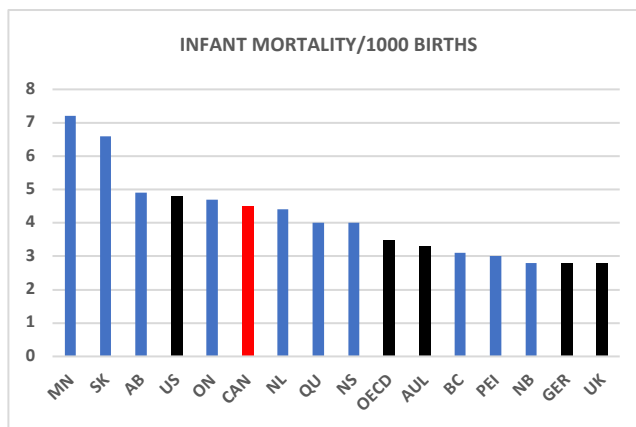
Heart Disease: The age-standardized death rate for ischemic heart disease (the typical cause of “heart attacks”) has been [declining](#) for decades in the highly-developed countries reflecting reduced smoking and better control of cholesterol and blood pressure, among other factors. Canada has been notably successful in combatting this scourge. While there are many factors that contribute to heart disease prevalence, the cross-provincial incidence correlates roughly with rates of smoking and obesity—e.g., Ontario and BC have the lowest rates in Canada for both. Quebec is above the national average for smoking, and only slightly below for obesity, so its low rate of heart mortality also reflects other factors.¹⁵



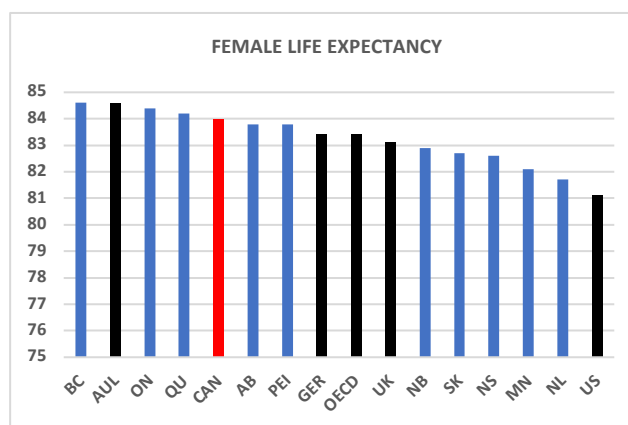
¹⁴ [Age-standardization](#) is used to improve comparability between jurisdictions with older (e.g., Atlantic Provinces) and younger (e.g., Alberta) populations. The “standard” population distribution across age cohorts in this case is that of the OECD group as a whole in 2010. The age-specific death rate in a particular jurisdiction is then given the standard distribution’s weighting in calculating the total death rate in the jurisdiction.

¹⁵ The cross-provincial mortality gradient for heart disease is steeper than for cancer—i.e., the ratio of the highest to lowest rates among provinces is approximately 1.5 for heart disease (PEI and NL relative to QU) vs. 1.2 for cancer (NL relative to AB).

Infant Mortality: Low infant mortality (death before the age of 1) is a hallmark of economic and social development. Unfortunately, both Canada and the US are relative outliers compared with Western Europe. Within rich countries the rate of infant mortality tends to be unacceptably high in socially disadvantaged groups—in Canada, notably in Indigenous communities, as reflected in the extremely high rates in Manitoba and Saskatchewan, and to a lesser extent in Alberta. The low rates of infant mortality in NB, PEI, and NS show that jurisdictions that are less well off *economically* nevertheless need not experience above average infant mortality. Social [marginalization](#) appears to be by far the more significant factor.



Life Expectancy: In most countries female life expectancy is about 4-5 years greater than for males, although the gender difference has been [narrowing](#) in tandem primarily with better control of heart disease, which tends to affect men at a younger age than women. In Canada, life expectancy in 2020 was 84 for females and 79.5 for males.



The inter-provincial differences appear somewhat exaggerated in the chart since the scale is compressed between ages 75 and 85. The actual difference between NL (with the lowest life expectancy among provinces) and BC (with the highest) is less than 3 years. In other words, a woman born in NL today can expect, on average, to live almost 97% as long as a woman born in BC. And even in NL, which has some of the most adverse health indicators in Canada, a woman can expect to outlive her average counterpart in the US by more than half a year. At the other end of the spectrum, an average woman in Japan can expect the longest life among OECD countries at 87.7 years, about 3 years beyond the currently estimated life span of a woman in BC.¹⁶ So there is plenty of room for improvement.

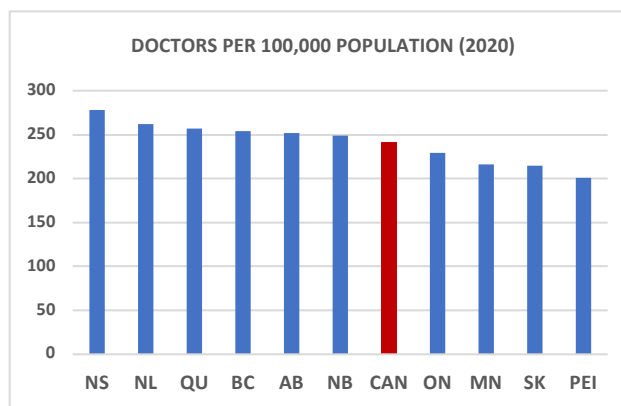
The most readily available way to increase life expectancy in the near term would be to reduce infant mortality. When a baby dies in Canada, more than 80 years of potential life are lost, whereas the death of an octogenarian does nothing to affect average life expectancy currently. Recall that Manitoba and Saskatchewan have by far the highest rates of *infant* mortality in Canada. We see the consequence in the relatively low (female) life expectancies in Manitoba (82.1) and Saskatchewan (82.7) compared with, for example, Ontario (84.4).

¹⁶ Life expectancy for a person born today assumes a continuation throughout their life of the age-specific death rates that are *currently* observed in the jurisdiction in question. Given prospective advances in medical science and other factors that extend life, it likely that actual lifespan of a person born today will be greater than the current estimate.

4. Healthcare resources: doctors, nurses, and hospital beds

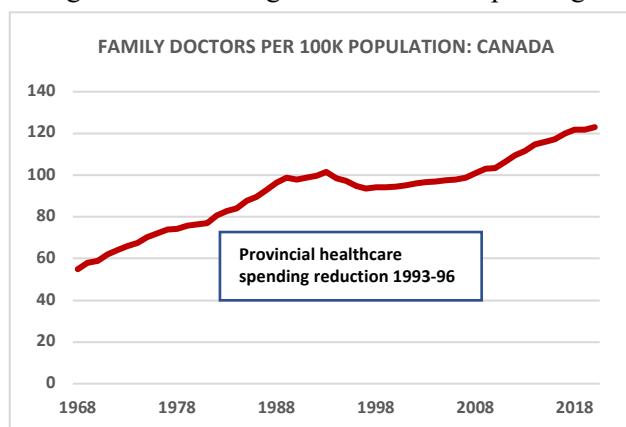
Returning to a focus on the nuts and bolts of health care delivery in Canada, the next several charts illustrate three of the principal supply factors of every health care system—doctors, nurses, and hospital beds. (The data are the latest from CIHI.)

Physicians: There is a significant variation in the number physicians among provinces ranging from a high of 278 per 100,000 population in Nova Scotia to a low of 200 in PEI and 215 in Manitoba and Saskatchewan. The high number in NS may reflect the effect of the Dalhousie medical school and associated teaching hospitals (which is a resource for the Maritime Provinces) in the context of the relatively small Nova Scotia population.



Canada has a little under 250 practising physicians per 100,000 population (2.42 per 1,000). This per capita number is roughly the same as the US (2.6 per 1,000 in 2019) and the UK (3.0), but well below Australia (3.8), Germany and Switzerland (4.4), Norway (5.0), and the OECD average (3.6).¹⁷ Average annual consultations per physician (other than by telehealth) total about 2,400 in Canada compared with 2,230 in Germany, 1,900 in Australia, and under 900 in Norway. These figures translate to approximately 6.6 doctor consultations per person per year on average in Canada versus 7.3 in Australia and 9.8 in Germany, but only about 4.4 in Norway. Despite having twice as many doctors per capita as Canada, the average Norwegian physician provides only a little more than a third the number patient consultations per year as the Canadian average of 2,400.

It may be surprising that the number of doctors in general practice in Canada (family doctors) has been increasing steadily as a *percentage* of the total population for at least the past 50 years with the exception of the period from 1993 through 1996 when provincial governments sought to curb health spending to help bring chronic deficits under control. In 2000 there were just under 95 family doctors per 100,000 population nationally. By 2020 the number had grown to 123 per 100,000—an increase, relative to population, of 30% in a decade. (Currently, the number of specialists and general practitioners is about equal.)



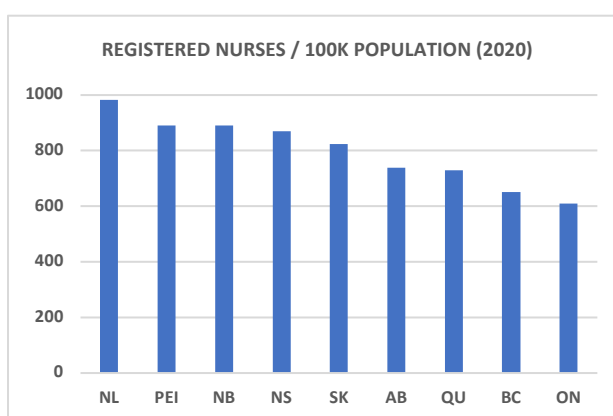
Approximately a third of family physicians in Canada are over 55, as compared with 40% and 45% in the US and Germany respectively, but only 26% in Australia and 14% in the UK. Canada will have to train and/or recruit a great

¹⁷ The CIHI and OECD data differ somewhat on the number of doctors per capita in Canada—CIHI cites slightly fewer than 2.5 per 1,000 in 2020, whereas the OECD cites 2.7 in 2019. These differences would presumably be due to somewhat different definitions of “practicing physician”. The OECD raw data come from CIHI but would then be “massaged” to better accord with data from other countries to facilitate international comparison.

many more family doctors in view of the impending retirement bubble and the trend among the younger cohort to work fewer hours than those now retiring.

There is also the challenge of attracting family physicians to rural communities. On a per capita basis there are about 2.8 times as many general practitioners in urban centers relative to rural areas in Canada. In Australia the ratio is 1.7, and in Norway, it is under 1.2. To the extent that changing work patterns enabled by broadband communications encourage increased migration to more rural areas, the relatively extreme urban-rural physician imbalance in Canada will have to adjust. To this end, Canada could be doing more to employ foreign-trained doctors. According to OECD data, fewer than a quarter of Canadian physicians are foreign-trained, about the same as the US but significantly less than the UK (30%), Australia (33%), and Norway (41%)¹⁸.

Nurses: The chart refers to registered nurses (RNs) providing direct care as distinct from administrative functions and other roles. The provincial variation differs in some significant respects from the per capita distribution of doctors. The Atlantic Provinces and Saskatchewan average about 3.5 RNs per physician (PEI is an outlier at 4.4),¹⁹ whereas the ratio was under 3 for the larger provinces, ranging from 2.6 in BC, 2.7 in Ontario, 2.8 in Quebec, to 2.9 in Alberta. There are many nursing roles and specializations ranging from nurse practitioners to various assistants, depending on the level of training and experience. It is well beyond the scope of this paper to delve into the structure of nursing roles and the extent to which this may contribute to the variation in the ratio of RNs to doctors across provinces.



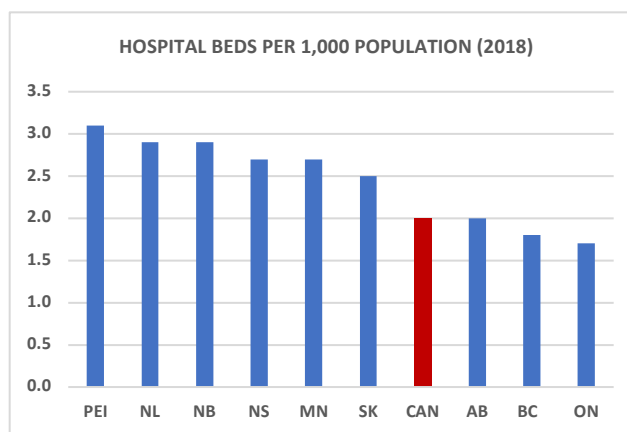
OECD data for 2019 shows that Canada has about 10 “practising nurses” (RNs and others) per 1,000 population; slightly more than the UK (8.2), but fewer than the US (12.0) and significantly fewer than Australia (12.2), Germany (13.9), and Norway (17.9). Given that the latter three countries also have more doctors per capita than Canada demonstrates that there are several peer countries with significantly higher numbers of trained health care professionals. This translates to the superior health care provided in those countries as documented for decades by the Commonwealth Fund.

Hospital Beds: The provincial variation in acute care beds per 1,000 population closely mirrors the variation in nurses—Alberta, BC and Ontario being at the low end in both cases in per capita terms. (Data were not available for beds in Quebec.) The latest OECD statistics indicate that Canada has 2.5 hospital beds per 1,000 population. (This is higher than the CIHI figure of 2.0 in the chart due to differences in definition to facilitate international comparison.) Canada ranks 30th in beds per capita among 38 countries compared by the OECD. The US has 2.8 beds per 1,000; Norway 3.5; Australia 3.8; Germany 7.9; and a 38-country average of 4.4. The Atlantic Provinces are fairly close to these international norms, but Ontario and BC are well below.

¹⁸ Norway is a significant comparator because its health care system is the highest ranked among 11 advanced countries (including Canada) in the latest [assessment](#) by the Commonwealth Fund.

¹⁹ Data for 2020 was not available for Manitoba. In 2018, Manitoba had about 750 RNs per 100K population.

Canada nevertheless appears to compensate for the relative paucity of beds through very high utilization. According to OECD figures for 2019, the average hospital bed in Canada was occupied almost 92% of the time, the highest among 27 countries tabulated. Average occupancy in Norway and Germany was about 80%; the US only 64%; and the 27-country average was 76%. Canada's exceptionally high bed-occupancy rate represents efficient use of a scarce resource but provides little margin to cope with surges and probably contributes to relatively long wait times for less urgent cases. (See statistics on wait times later in this document).



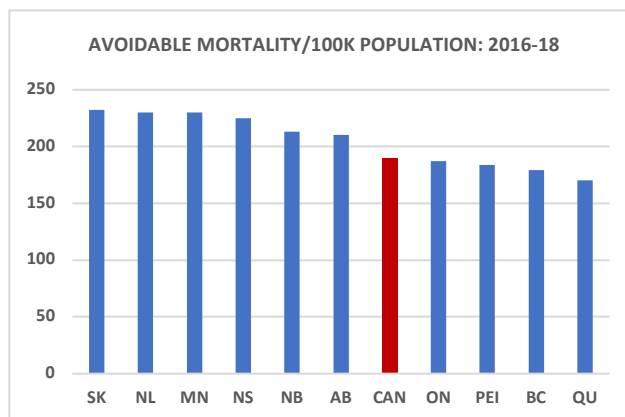
Imaging equipment is an important cost driver in hospitals and specialized clinics. As is the case with hospital beds, OECD data show Canada near the back of the pack in the combined number of MRI and CT and PET scanners with 26 per million population, far below the US (91), Australia (88), Germany (71), Norway (45), but above the UK's 16. It appears that Canada uses imaging equipment quite intensively—e.g., based on scans per 1,000 population per year, Canada's average utilization rate is twice Germany's and more than 50% greater than the OECD average. This represents efficient use of valuable capital assets but perhaps at the cost of longer wait times.

5. Selected indicators of health system performance

There is a large and growing number of metrics by which the performance of health care delivery can be monitored and assessed. The vast data bases maintained by CIHI and the OECD are like catnip for stats junkies. Here we present only a very small number of high-level indicators to give some flavour of interprovincial and international variation in performance with a particular focus on wait times for care. The latter tend to be the differentiating factor in determining public satisfaction with the provision of health care in any particular jurisdiction.

Fortunately there is relatively little variation among OECD countries, and among Canadian provinces, in the treatment of truly urgent and/or life-threatening conditions. But there are very significant differences in the time taken to access more routine, non-urgent, and elective care. There are also meaningful differences in the extent to which the public health and acute care systems interact to minimize deaths that could reasonably be avoided, whether by prevention or by medical intervention. The next chart illustrates.

Avoidable Mortality: The chart [data](#), which are age-standardized, refer to individuals *under the age of 75* judged to have died from causes that that could reasonably have been prevented with more effective public health measures or, once diagnosed, treated more effectively through health care. The estimated national cumulative toll over the three years 2016-18 was approximately 70,000 potentially avoidable deaths. The gradient in this key indicator is similar to many others in this document—significantly better performance in Quebec, BC, and Ontario (at the right hand end of the chart) and poorer results in the Atlantic Provinces, Manitoba, and Saskatchewan, with the latter two affected by the high rates of infant mortality and other risk factors concentrated in disadvantaged groups in those provinces.

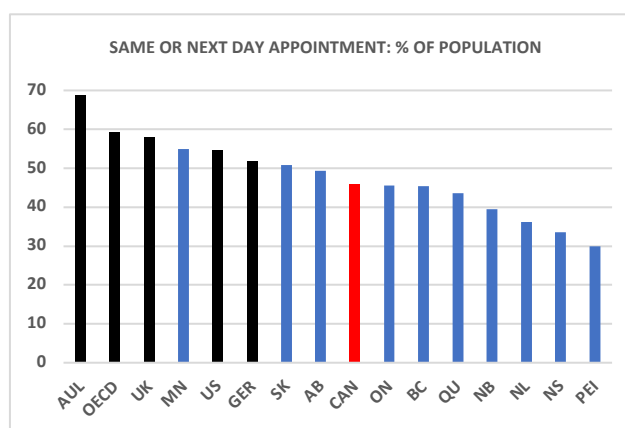


It is estimated that about 60% of potentially avoidable mortality is from causes that could reasonably be prevented through, for example, accident reduction, vaccination, and behaviour modification. The other 40% could potentially be avoided through measures such as screening for early detection of serious disease and better treatment of chronic conditions. CIHI estimates that the elimination of all avoidable mortality (as the concept is defined for analytical purposes) could increase Canadian life expectancy by almost 5 years, bearing in mind that many potentially avoidable deaths afflict younger people—e.g., infant mortality, car accidents, drug overdoses.

It is encouraging that Canada's avoidable mortality rate per capita is almost 15% below the OECD average; is comparable with the rates in Germany and the UK; and is about 35% below the rate in the US; but, on the other hand, is almost 25% above Australia's rate. As with so many international comparisons, Canada fares reasonably well but rarely makes the top ranks.

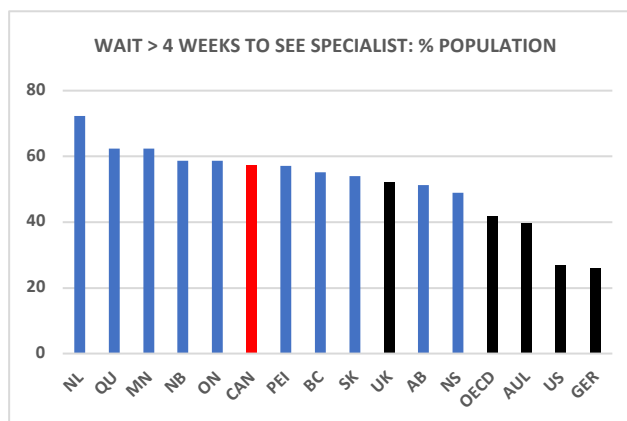
The following charts present several different measures of wait times for health care, beginning with the percentage of population able to get an appointment with a doctor on the same day or the day after.

Timely access to a doctor: This chart, based on 2016 survey data, illustrates a common theme: *By peer country standards Canada does not provide timely access to health care, at least in non-urgent situations.* While 55% of Manitobans report being able to see a doctor with at most a day's wait—the best result in Canada—this was below the OECD average of 60% and well below Australia's nearly 70%. Same or next day access in the Atlantic Provinces was below the Canadian average despite the fact that NL and NS have the highest number of doctors per capita in the country. (PEI, on the other hand, has the fewest which may explain its position at the bottom of the chart above.)

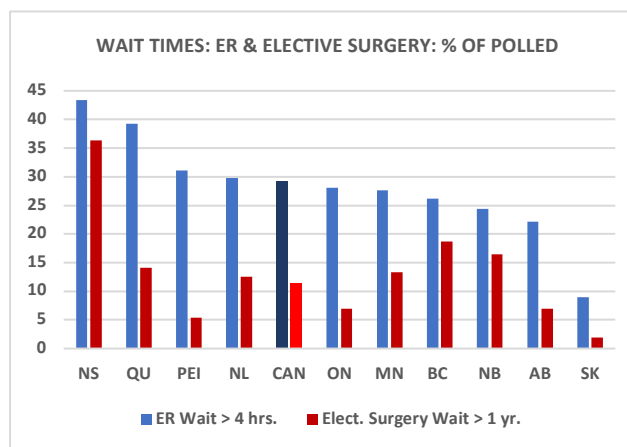


When waiting to see a specialist Canadians fare no better. Almost 60% on average wait more than 4 weeks compared with 40% of Australians and about 25% of Americans and Germans (at the right hand end of the chart).

This is one of the few wait time measures on which Nova Scotia ranks reasonably well, perhaps reflecting the relatively high number of specialists associated with teaching hospitals in Halifax.



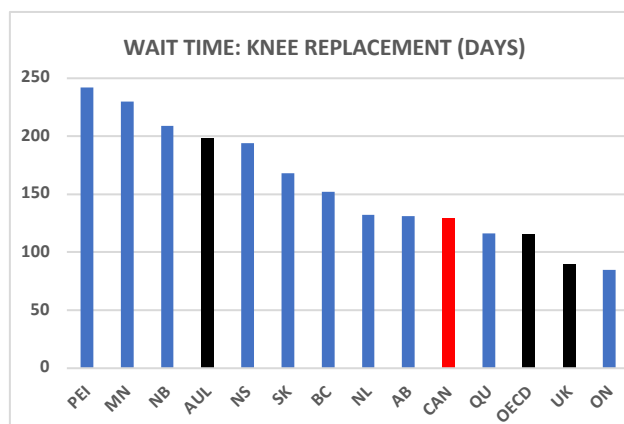
Nothing is more symbolic of Canadians' frustration with the health care system than waiting in the Emergency Room, often when one is unable to get an appointment with one's regular doctor, assuming one has a regular doctor.²⁰ In NS and Quebec about 40% of those polled claim to have waited more than 4 hours in the Emergency Room. For some reason this appears to be a much less common irritant in Saskatchewan. About 10% of Canadians, based on polling, report waiting more than a year for elective surgery, with very long waits particularly prevalent in Nova Scotia (36%) and BC (19%), but much less so in Ontario (7%) and Saskatchewan (2%). Waiting times for elective surgery have obviously been exacerbated by Covid-19 (see below).



Elective Surgery: As populations age in affluent countries the demand for knee and hip replacement and cataract surgery has increased substantially. Although these conditions are not life-threatening, they can have a very significant effect on quality of life. And if one has few years of life left in reasonably good health, delayed treatment is all the more frustrating.

The provincial *variation* in waiting time for knee replacement is largely similar for hip replacement and cataract removal. Ontario and Quebec have consistently the shortest waits and PEI and Manitoba the longest. With respect to these three procedures, Canada's wait times are approximately at the OECD average and, perhaps oddly, shorter than Australia (which tends to be a top performer on most metrics) but longer than the UK (which usually ranks in the middle or lower).

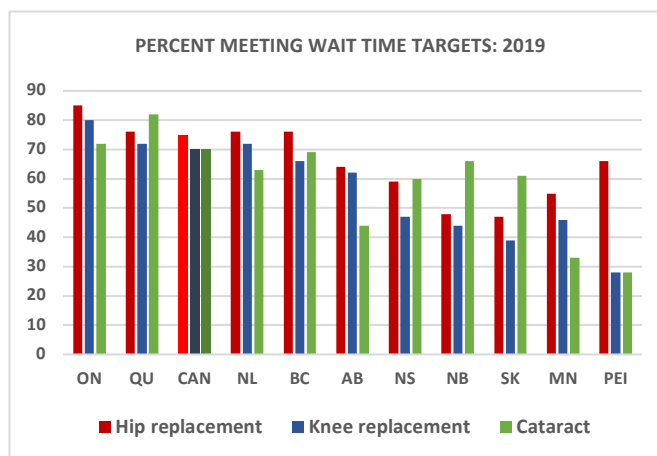
Canada has targeted wait times for knee, hip, and cataract surgeries for particular attention



²⁰ According to OECD and CIHI data, 92% of Canadians report having a regular doctor, ranging between 85% in Quebec and 97% in Ontario. This is to be compared with an OECD average of 95% and a German rate of 99%.

during the past 15 years as Ottawa encouraged provincial governments to report publicly at regular intervals on wait times for a specified group of procedures. This attention, along with growing demand from sufferers, appears to have borne some fruit. But there is always a risk that resources will be reallocated from other elective procedures to reduce waiting times for those that are placed under the spotlight.

The [chart](#) at right shows that Ontario, Quebec, NL and BC, have done the best job in meeting the national benchmark²¹ for maximum waiting times for hip, knee and cataract surgery. It is significant that the benchmark for radiation therapy—4 weeks—is met for virtually all patients in all provinces. For Canada as a whole, 97% of patients in 2019 received radiation treatment within the benchmark timeframe with a provincial variation ranging from 88% in BC (an outlier on the downside among provinces for this indicator) to 100% in Manitoba and NL and 98% in Ontario and Quebec. *When it comes to treatment for potentially life-threatening conditions, waiting time appears not to be an issue in Canada or in any of the provinces.*



Impact of the pandemic: The pandemic has obviously had an adverse impact on the availability of resources to treat conditions other than Covid-19. However, this has [not been the case](#) for radiation therapy. In both 2020 and 2021, about 98% of Canadians were treated within the benchmark time, essentially the same percentage as in 2019. Although the number of cancer surgeries was reduced in the early months of the pandemic, by 2021 the national average waiting time was back to pre-pandemic levels. The Canada average wait for an MRI exam, after the first COVID wave had passed, was actually *shorter* than the pre-pandemic time, although there was considerable variation among the provinces. Joint replacement surgeries have shown a greater pandemic impact—e.g., Canada-wide prior to the pandemic, 71% occurred within the 6-month benchmark, but this fell to 61% in the 12 months from October 2020 to September 2021.

Meanwhile the challenging conditions created by the pandemic have stimulated *innovation*. For example, in Halifax, 700 hip or knee replacements were [performed](#) on an out-patient basis in 2021-22 (i.e., discharge the same day, thus freeing up beds) versus only 100 in 2019-20! No doubt there have been countless examples across Canada of crisis-inspired innovation that demonstrate better methods that could now become the new norms. These should be catalogued and systematically communicated across the country and supplemented with information on the wealth of micro-innovation that has occurred worldwide in response to pandemic conditions. *This would help accelerate the diffusion of innovation which can otherwise take years to seep into clinical practice, particularly outside major research-oriented hospitals.*

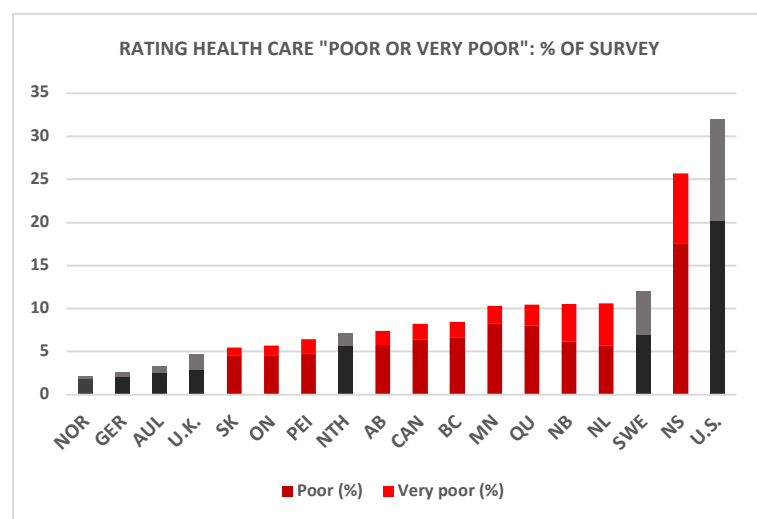
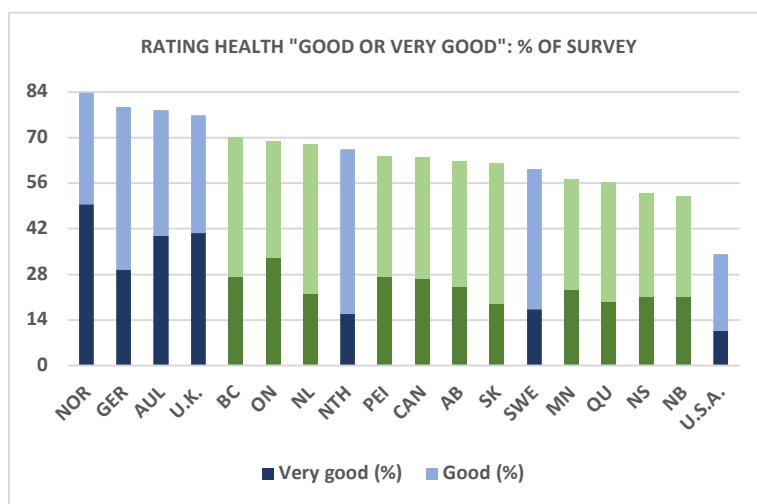
²¹ The benchmarks are wait times not to exceed 6 months for hip and knee replacement; 16 weeks for cataract surgery; 4 weeks for radiation therapy; and 48 hours for repair of hip fracture.

6. Public perception of the quality of health care provision

There is obviously no single indicator that fully captures public satisfaction with health care provision in any particular jurisdiction. Moreover, the degree of satisfaction, or dissatisfaction, will vary over time in reaction to changing local circumstances. With that caveat, the following two charts present results from an extensive [survey](#) conducted by the Commonwealth Fund and covering 11 countries as well as Canada's provinces.²² The question whose responses are graphed below was: "How would you rate the overall performance of the health care system in your country/province?" The first chart shows the percentage of those replying: "very good" and "good". The second shows the percentage replying: "poor" and "very poor".²³ The provinces, and the Canadian average, are compared with 7 countries: Norway (NOR), Germany (GER), Australia (AUL), UK, Netherlands (NTH), Sweden (SWE), and US.

The survey results at the provincial level show that on average about 60% of Canadians rate their health care system as good or very good, ranging from BC (70%) to New Brunswick (52%). Dissatisfaction (i.e., poor or very poor ratings) ranged between about 5% for Saskatchewan and Ontario through 10% for Manitoba, Quebec, NB, and NL. Nova Scotia was a dismal outlier with more than a quarter of those surveyed describing the province's health care system as poor (17.6%) or very poor (8.1%). Recall that NS also ranked poorly on various waiting time indicators. Other factors probably have been at play and the small survey sample (about 250) may have given rise to an anomalous result. Certainly, the extraordinarily poor rating merits further investigation.

For a second opinion, the OECD [reports](#) the result of the Gallup World Poll 2020 which asks: "Are you satisfied with the availability and quality of health care where you live?" The proportion answering "yes" was a remarkable 93% in Norway but also 92% in the Netherlands, 85% in Germany, 83% in Australia, 82% in Sweden, 78% in Canada, and 75% in the UK. (A provincial breakdown is not provided.)



²² The national random sample sizes were in the range of 1-3 thousand, except for Canada at 5,300. The sample sizes in Ontario and Quebec were 1,500 and 1,000 respectively, with the other provinces in the 250 range. The survey was carried out from March 6 to June 15, 2020.

²³ An intermediate response: "acceptable" is not shown. It is the residual needed to make up 100%.

Unaccountably, 83% of the Americans polled also expressed satisfaction. The OECD average was 71% with less developed member countries reporting very low levels of satisfaction—e.g., Poland, at the bottom, at 26%.

Comparing the results of the Gallup World Poll with those of the Commonwealth Fund survey illustrates the hazard of interpreting the results of any particular poll/survey as definitive. Many factors combine to produce differences. Where there are particularly striking inconsistencies—e.g., the US results—these provide a signal to look behind the numbers and dig deeper. That said, both Gallup and the Commonwealth Fund are reasonably consistent in identifying the countries at the top of the satisfaction rankings. Canada ranks at best “middling” within its peer group.

7. Tabulated summary of indicator data

The foregoing sub-sections contain a wealth of comparative information presented in more than 20 charts. To grasp the overall messages contained in this data portrait requires that it be presented in a format that permits patterns to stand out. To that end, the table on the following page includes a row for each indicator included in this Section and a column for each province. Each row of the table contains the rankings of the provinces for the particular indicator—1 to 10, with “1” being the most favourable, and “10” the least favourable. The indicator values on which the rankings are based can be seen in the bar charts throughout the document. The cells in each row of the table are coloured *green, yellow, and red*, to provide a more vivid representation of the ranking. (The resulting picture is sometimes referred to as a “heat map”.) The colouring reflects roughly the gradation of the information in the bar charts—green cells are clearly more favourable than the “average” and red cells clearly less favourable, while the yellow cells denote indicator values that are fairly close to the all-province average. Values that are significantly more or less favourable are given a darker colour—dark green or dark red.

Health Status: The general pattern revealed in the table on the next page is consistent with the pattern of economic development among the provinces. The associated factors that affect health status, and indicators of health status itself, are roughly correlated in the data. The picture tends to be least favourable in Atlantic Canada (especially in NL), and most favourable in Ontario, Alberta, Quebec, and especially BC in respect of smoking and obesity. Manitoba and Saskatchewan benefit from relatively young populations, but this is offset to some extent by other risk factors, and especially by extraordinarily high rates of infant mortality with its visible impact on life expectancy. The pattern, although always with exceptions, confirms that the state of economic and social development combined with certain cultural factors are the principal determinants of *population* health.

Health Care Resources: The Atlantic Provinces lead Canada in the per capita supply of physicians (PEI excepted²⁴), registered nurses, and hospital beds, whereas Ontario, Alberta, and BC trail, particularly in the per capita numbers of nurses and beds. Not surprisingly, the need for health care resources approximately mirrors health status which puts extra strain on the less economically robust provinces that also tend to have the most challenging health status.

²⁴ PEI is an outlier, or at least departs from the Atlantic Provinces average, on several indicators, due perhaps to its small population and less diverse economy.

INDICATOR	PROVINCIAL RANKING: MOST FAVOURABLE (1) TO LEAST FAVOURABLE (10)									
	NL	NS	PEI	NB	QU	ON	MN	SK	AB	BC
A. Factors influencing health status (1=lowest)										
Percent of Population over 65	8	10	7	9	6	4	3	2	1	5
Regular Smokers: Percent of Adults	10	6	4	5	8	2	7	9	3	1
Adult Obesity: Percent with BMI>30	10	8	6	9	3	2	5	7	4	1
Alcohol Consumption: Ann. liters/adult	10	3	6	1	7	4	2	5	8	9
B. Selected indicators of health status										
Cancer Mortality per 100K (female) (1=lowest)	10	8	9	5	7	3	6	4	1	2
Heart Disease Mortality per 100K (1=lowest)	9	6	10	4	1	3	7	5	8	2
Infant Mortality per 1,000 Live Births (1=lowest)	6	4	2	1	5	7	10	9	8	3
Life Expectancy at Birth (female) (1=highest)	10	8	5	6	3	2	9	7	4	1
C. Health care resources (1 = highest)										
Physicians per 100K Population	2	1	10	6	3	7	8	9	5	4
Registered Nurses per 100K Population	1	4	2	3	8	10	6	5	7	9
Hospital Beds per 1,000 Population	2	4	1	3	NA	9	5	6	7	8
D. Indicators of health system performance										
Avoidable Mortality per 100K Popl. (1 = best)	9	7	3	6	1	4	8	10	5	2
Wait Time Indicators (1 = best performance)										
Same or Next Day Appointment: % Population	8	9	10	7	6	4	1	2	3	5
Wait > 4 Weeks to See Specialist: % Population	10	1	5	7	9	6	8	3	2	4
Wait Times: Emergency Room > 4 Hours	7	10	8	3	9	6	5	1	2	4
Wait Times: Non-urgent Surgery > 1 Year	5	10	2	8	7	3	6	1	4	9
Wait Times: Knee Replacement (Days)	4	7	10	8	2	1	9	6	3	5
Percent Meeting Wait Time Target: Hip Repl.	2	7	5	9	2	1	8	10	6	2
Percent Meeting Wait Time Target: Knee Repl.	2	6	10	8	2	1	7	9	6	4
Percent Meeting Wait Time Target: Cataract	5	7	10	4	1	2	9	6	8	3
E. Public Perception: Commonwealth Fund										
Rating Health Care Good/Very Good: % (1=high)	3	9	4	10	8	2	7	6	5	1
Rating Health Care Poor/Very Poor: % (1=lowest)	9	10	3	8	7	2	6	1	4	5
F. Health Care Financing										
Provincial Spending Per Capita:2019 (1=lowest)	10	6	7	4	3	2	5	8	9	1
Spending Growth 2010-19 (%) (1=lowest)	5	2	9	1	10	4	3	6	8	7
Spending as % of Prov. Prog. Spend (1=lowest)	10	8	6	1	3	9	7	2	4	5
Health Spend (Pub & Priv) as % GDP (1=lowest)	6	10	9	8	5	3	7	2	1	4

Note: Green cells denote favourable ratings relative to average; red cells comparatively unfavourable ratings; and yellow cells denote a roughly average rating. Cells of the same colour indicate that there are *not* significant differences among the included provinces, except if the colour is dark green or dark red.

Waiting Times: Waiting times for health care, the subject of 8 indicators, reflect the tension between demand and supply and tend everywhere to be a hot button issue. Waiting times are particularly problematic in the Maritime Provinces despite the fact that these provinces have among Canada’s highest per capita numbers of doctors, nurses, and beds. NL is somewhat less afflicted, especially in terms of waiting for non-urgent surgery, notably joint replacement and cataract removal. There appears to be quick access to physicians in Saskatchewan, Alberta, and BC but significantly less so in Quebec and Manitoba. With regard to the high profile issue of waiting times for joint replacement and cataract surgeries, Ontario, Quebec, and BC are the clear national leaders with Manitoba and Saskatchewan near the bottom.

Public Perception: The survey by the Commonwealth Fund of general satisfaction with the various provincial health care systems found Ontario’s to be the leader followed by BC, while NS, NB, Quebec, and Manitoba all received *relatively* poor assessments, although every province merited a rating of “good or very good” from more than half of those surveyed. Opinion was quite polarized in NL and BC with relatively high positive *and* negative ratings. There appears to be a rough correlation of satisfaction ratings with wait times (with the exception of PEI.)

Financing Health Care: There is no simple relationship between provincial health spending and (a) results (e.g., wait times) or (b) public satisfaction. Ontario and BC spend among the *least* per capita, but get among the best results and satisfaction ratings. NL and Alberta spend the most and also achieve reasonably good results (except in avoidable mortality for NL). On the other hand, New Brunswick spends less per capita than the other Atlantic Provinces and has had the least spending growth between 2010 and 2019 which probably contributed to longer waiting times and quite a lot of public dissatisfaction. Provinces with weaker economies also tend to predominate in risk factors that adversely affect health status and must therefore spend more to achieve acceptable outcomes, thereby exacerbating the fiscal burden. This underlines the importance of federal [Equalization payments](#) that help the less economically successful provinces provide a reasonable standard of provincially-funded services, including health care, without having to resort to tax rates that would further hobble economic performance and risk worsening health outcomes.

8. Conclusions

While it has been said that “numbers don’t lie” they also rarely tell the whole truth. For that reason, *the data presented here should be regarded as analogous to an initial medical examination, identifying symptoms in need of further investigation.* Some broad messages emerge:

- Medical science and the quality of health care is but one factor in determining the average health of any population. The general pace of economic and social development is the *primary* driver, and provides both the motivation and the resources to invest in medical science and a high-performing health system. *The best guarantor of population health is a strong economy combined with robust social and cultural institutions that distribute the benefits fairly.*
- In Canada, this principle is illustrated by the fact that the conditions that affect health status are correlated (negatively) with the degree of economic development among the provinces. The picture tends to be least favourable in Atlantic Canada, especially in Newfoundland & Labrador, and most favourable in Ontario, Alberta, BC, and Quebec.
- Poor health outcomes in Canada are unacceptably high among socially disadvantaged groups— notably in Indigenous communities, as reflected by the extremely high rates of infant mortality in Manitoba and Saskatchewan. At the same time, the low rates of infant mortality in NB, PEI, and NS

show that jurisdictions that are less well off *economically* nevertheless need not experience above average infant mortality. Social marginalization appears to be by far the more significant factor. The most readily available way to increase life expectancy in Canada in the near term would be to dramatically reduce infant mortality among marginalized groups.

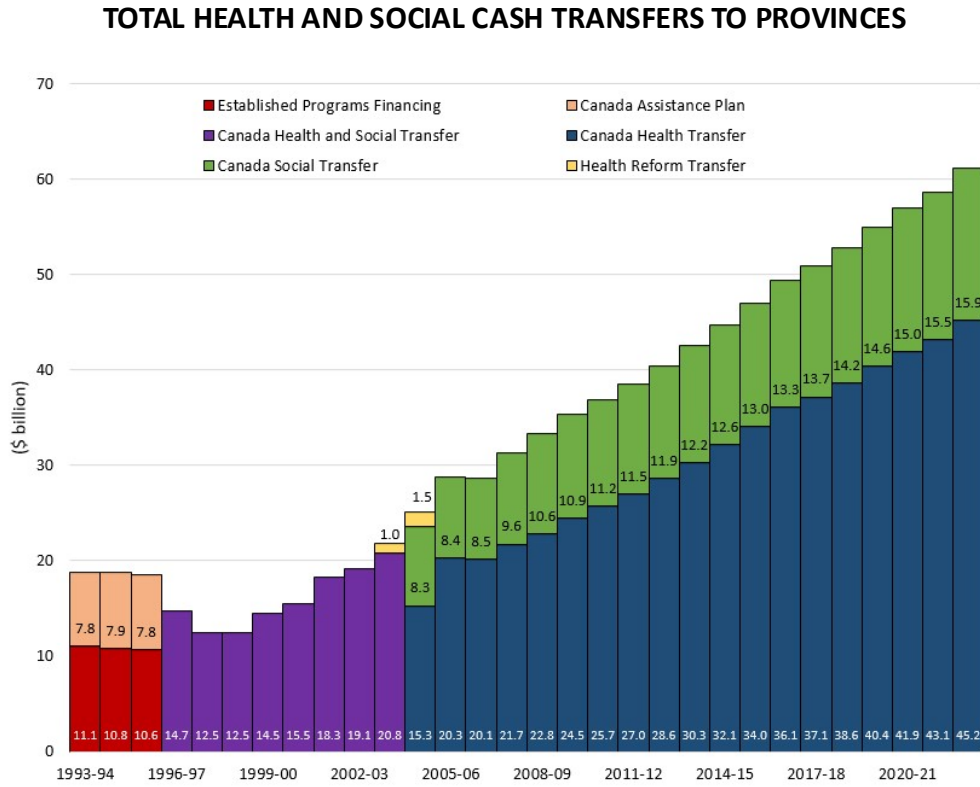
- Provinces with weaker economies tend also to have poorer health status and must spend more to achieve acceptable health outcomes, thereby exacerbating the fiscal burden. This underlines the importance of increased federal Equalization payments (see Section I) that help the less economically successful provinces provide a reasonable standard of provincially-funded health care without having to resort to tax rates that would further hobble economic performance and risk worsening health outcomes.

The data also support a number of more specific observations regarding the delivery of health care:

- Health care consumed an increasing share of provincial budgets for decades, reaching an average of 40% in 2007 before dropping to just under 36% in 2008 and remaining approximately flat in *percentage* terms for 11 years through 2019. Going forward, after the effect of the pandemic has worked its way through the system, cost pressures will intensify as the population ages and larger numbers of health care workers and associated investment are needed to improve standards of care, particularly shorter waiting times.
- By peer country standards Canada does not provide timely access to health care in non-urgent situations. While there is relatively little variation among Canadian provinces in the treatment of truly urgent and/or life-threatening conditions, there are significant differences in the time taken to access non-urgent and elective care, the availability of which can be critical for quality of life.
- In 2019, the average hospital bed in Canada was occupied almost 92% of the time, the highest among 27 OECD countries surveyed. While Canada's exceptionally high bed-occupancy rate represents efficient use of a scarce resource it provides too little margin to cope with surges and contributes to relatively long wait times for less urgent cases. A similar situation applies to diagnostic imaging facilities.
- The number of family doctors has been increasing more or less steadily as a *percentage* of the total population for at least the past 50 years. But approximately a third of family physicians are now over 55 implying that Canada will have to train and/or recruit a great many more in view of the impending retirement bubble and the trend among the younger cohort to work fewer hours than those now retiring.
- There is a major challenge in attracting family physicians to rural communities. On a per capita basis there are about 2.8 times as many general practitioners in urban centers as in rural Canada as compared, for example, with a ratio of 1.7 in Australia and 1.2 in Norway. To the extent that changing work patterns encourage increased migration to rural areas and small communities, Canada's relatively extreme urban-rural physician imbalance will have to adjust.
- According to OECD data, fewer than a quarter of Canadian physicians are foreign-trained, significantly fewer than Australia (33%), and Norway (41%). Canada should be doing more to employ foreign-trained doctors.
- The challenging conditions created by the pandemic have stimulated a great deal of health care *innovation*, demonstrating better methods that could now become the new norms. These should be catalogued and systematically communicated across the country and supplemented with information on the wealth of micro-innovation that has occurred worldwide in response to the pandemic. This would accelerate the diffusion of innovation to improve care and reduce cost which otherwise might take years to seep into clinical practice, particularly outside major research-oriented hospitals.

ANNEX A History of Federal Health and Social Transfers

This chart was prepared by Finance Canada



ANNEX B: Commonwealth Fund Ranking of Health Care Systems

The summary Table below is from <https://www.commonwealthfund.org/publications/fund-reports/2021/aug/mirror-mirror-2021-reflecting-poorly#rank>. The Commonwealth Fund's full report contains a wealth of detail underlying the rankings tabulated below. (Following the table are short definitions of the dimensions that are ranked.)

EXHIBIT 1

Health Care System Performance Rankings

	AUS	CAN	FRA	GER	NETH	NZ	NOR	SWE	SWIZ	UK	US
OVERALL RANKING	3	10	8	5	2	6	1	7	9	4	11
Access to Care	8	9	7	3	1	5	2	6	10	4	11
Care Process	6	4	10	9	3	1	8	11	7	5	2
Administrative Efficiency	2	7	6	9	8	3	1	5	10	4	11
Equity	1	10	7	2	5	9	8	6	3	4	11
Health Care Outcomes	1	10	6	7	4	8	2	5	3	9	11

Data: Commonwealth Fund analysis.

Source: Eric C. Schneider et al., *Mirror, Mirror 2021: Reflecting Poorly: Health Care in the U.S. Compared to Other High-Income Countries* (Commonwealth Fund, Aug. 2021).



- **Access to care** includes measures of health care's *affordability* and *timeliness*.
- **Care process** includes measures of *preventive care*, *safe care*, *coordinated care*, and *engagement and patient preferences*.
- **Administrative efficiency** refers to how well health systems reduce documentation (paperwork) and other bureaucratic tasks that patients and clinicians frequently face during care.
- **Equity** focuses on income-related disparities, based on standardized data across the 11 countries, in the *access to care*, *care process*, and *administrative efficiency* performance domains.
- **Health care outcomes** refer to those health outcomes that are most likely to be responsive to health care.

ANNEX C Health Care Provision in Australia, Germany, and Norway

The purpose of this Annex is to illustrate a range of approaches to the provision of health care in economically advanced countries using Australia, Germany and Norway as examples that provide a standard of publicly underwritten care equal to or superior to that available in Canada. Two comparators, Australia and Germany, operate in federal systems. All three are among the top-ranked in the most [recent](#) Commonwealth Fund evaluation. The descriptions below are (verbatim) edited versions of outlines provided by the Commonwealth Fund (CF) based on documentation, as of 2020, by experts in the various national systems. (The numbered footnote references can be found in the original CF documents.)

Although both Australia and Germany have federal systems of government, authority for most aspects of health care policy, regulation, and funding rests at the federal level. Institutional arrangements that foster collaboration with State governments—or in Norway with municipalities—are features of all three systems. But federal dominance creates a very different health care governance environment than in Canada where Provincial dominance is constitutionally-mandated.

Another significant feature of the Australian, German, and Norwegian systems is the coexistence of private health insurance with the publicly-funded system. Private insurance is used by a relatively small percentage of patients in those countries to receive quicker care in non-urgent situations. But this has not led to an exodus of medical talent and resources from the public to the private system, and suggests the concern that a parallel private system in Canada would undermine the public system may be overblown. The perception in Canada that “private”, in a health care context, equals “American” has made it virtually impossible to consider how the issue of providing care outside the public system might be managed so as to ensure that publicly-insured care is not degraded. The high level of performance and public satisfaction with health care in Australia, Germany, and Norway suggests that public and private insurance of medically necessary care can in fact coexist positively.

AUSTRALIA

Australia (population 26 million) has a regionally administered, universal public health insurance program (**Medicare**) that is financed through general tax revenue and a government levy. Enrollment is automatic for citizens, who receive free public hospital care and substantial coverage for physician services, pharmaceuticals, and certain other services.

Role of government: Three levels of government are collectively responsible for providing universal health care. The *federal government* provides funding and indirect support for inpatient and outpatient care through the **Medicare Benefits Scheme** (MBS) and for outpatient prescription medicine through the **Pharmaceutical Benefits Scheme** (PBS). The federal government is also responsible for regulating private health insurance, pharmaceuticals, and therapeutic goods. It has a limited role in direct service delivery. Under Australia’s constitution, health care is a *concurrent* jurisdiction but with explicit federal paramountcy.

States own and manage service delivery for public hospitals, ambulances, public dental care, community health (primary and preventive care), and mental health care. They contribute their own funding in addition to that provided by federal government. States are also responsible for regulating *private* hospitals, the location of pharmacies, and the health care workforce.

Intergovernmental collaboration and decision-making occur through the **Council of Australian Governments** (COAG), with representation from the prime minister and the first ministers of each State. The COAG focuses on the highest-priority issues, such as major funding discussions and the interchange of roles and responsibilities among governments.

Role of private health insurance: Private health insurance is readily available and offers coverage for out-of-pocket fees and private providers, greater choice of providers (particularly in hospitals), *faster access to nonemergency services*, and rebates for selected services. Private health insurance may include coverage for hospital care, general treatment, or ambulance services. For hospital services, patients can opt to be treated as a public patient (with full fee coverage) or as a private patient (with 75% fee coverage).

Government policies encourage enrollment in private health insurance through a tax rebate and an income-based penalty payment (1%–1.5%) for *not* having private insurance. This penalty, known as the **Medicare Levy** surcharge, applies only to singles with incomes above \$90,000 and families with incomes above \$180,000.⁷ Nearly half of the Australian population (46%) had private hospital coverage and nearly 55 percent had private general treatment coverage in 2016.⁸

Cost-sharing and out-of-pocket spending: Out-of-pocket payments accounted for 16.5 percent of total health expenditures in 2016–2017. The largest share (68%) was for primary care, of which one-third (37%) was for medications, followed by hospital care (11%).¹¹

Under Medicare, there are no deductibles or out-of-pocket costs for public patients receiving public hospital services. Cost-sharing for outpatient care varies. The federal government sets Medical Benefits Schedule (MBS) fees for general practitioner (GP) and specialty visits; it pays GPs 100 percent of the fee and specialists 85 percent. Patients pay the remaining 15 percent of specialist fees, as well as any surcharges. GPs and specialists can choose to charge above the MBS fees, although there is a maximum patient out-of-pocket fee per service. About 86 percent of GP visits were provided without an additional charge to patients. GPs are paid primarily on a fee-for-service basis through the MBS model, although they can also receive funding from a performance-based initiative called the Practice Incentives Program.

Outpatient specialist care: Specialists deliver outpatient care in private practice or in public hospitals. They receive federal subsidies for 85 percent of the MBS fee and set their patients' out-of-pocket fees independently. *Many specialists split their time between private and public practice.*

Physician education and workforce: Physicians are trained primarily at public universities, with their fees subsidized through the tax system. The federal government provides primary care doctors with financial incentives to practice in rural and remote areas. There is no cap on the

number of physicians in Australia, and workforce shortages are addressed through internationally trained providers.

Hospitals: Public hospitals receive a majority of funding (92%) from the federal government and state governments, with the remainder coming from private patients and their insurers. State governments fund their public hospitals largely on an activity basis, using diagnosis-related groups. Federal funding for public hospitals includes a base amount plus money for growth.

Strategies to ensure quality of care The overarching strategy is captured in the National Healthcare Agreement of the COAG (2012) which sets out the performance indicators and benchmarks on which progress is assessed. It also sets out national-priority policy directions, programs, and areas for reform. Indicators and benchmarks in the agreement address issues of quality from primary to tertiary care and include disease-specific targets of high priority, as well as general benchmarks.

The Australian Commission on Safety and Quality in Health Care has developed standards for conducting patient surveys, which must be met by hospitals and day surgery centers to ensure accreditation. The National Health Performance Authority reports on the comparable performance of Local Hospital Networks, public and private hospitals, and other key health service providers. The reporting framework, agreed to by the Council of Australian Governments (COAG), includes measures of equity, effectiveness, and efficiency.

Status of electronic health records The Australian Digital Health Agency has national responsibility for the country's digital health strategy. As of February 2019, all Australians have a My Health Record created for them unless they have opted out of the system. The record supports prescription information, medical notes, referrals, and diagnostic imaging reports. Patients can view their own medical information and control who can see it.

Cost containment The major drivers of cost growth are the MBS and PBS. The federal government regularly considers opportunities to reduce spending growth in the MBS through its annual budget process. To influence PBS costs, the government makes determinations about which pharmaceuticals to list on the scheme and negotiates the price with suppliers. Hospitals are funded on the basis of what is determined to be an efficient price for delivering services, as determined by the Independent Hospital Pricing Authority. Through 2020, the Commonwealth will fund 45 percent of the efficient growth in these services, capped at 6.5 percent of total growth.³⁴ States are required to cover the remaining cost of services, providing an incentive to keep costs at the efficient price or lower. Beyond these measures, health costs are controlled mainly through capacity constraints, such as workforce supply.

GERMANY

Health insurance is mandatory in Germany (population 84 million). Approximately 86 percent of the population is enrolled in **Statutory Health Insurance (SHI)**, which provides inpatient, outpatient, mental health, and prescription drug coverage. Administration is handled by nongovernmental insurers known as **Sickness Funds** that compete for business. *Government has virtually no role in the direct delivery of health care.* Sickness funds are financed through general wage contributions (14.6%). Copayments apply to inpatient services and drugs, and sickness funds offer a range of deductibles. *Germans earning more than \$68,000 can opt out of SHI and choose private health insurance instead.* There are no government subsidies for private insurance. About 88 percent of the population receives primary coverage through sickness funds, and 11 percent through private insurance.

Unlike insurance schemes in many other countries, sickness funds and private health insurers, as well as long-term care insurers, use the same providers. In other words, *hospitals and physicians treat all patients regardless of whether they have SHI or private insurance.*

Role of government: The German health care system is notable for the sharing of decision-making powers among the federal and state governments and self-regulated organizations of payers and providers. The federal government has wide-ranging *regulatory power* over health care. The Federal Joint Committee, which is supervised by the Federal Ministry of Health, determines the services to be covered by sickness funds. To the extent possible, coverage decisions are based on evidence from comparative-effectiveness reviews. The Federal Joint Committee also sets quality measures for providers and regulates ambulatory care capacity (the number of SHI-contracted physicians practicing), using needs-based population–physician ratios,

Germany’s 16 state governments determine hospital capacity and finance hospital investments. States also supervise public health services.

Role of private health insurance: In 2017, private health insurance accounted for 8.4 percent of total health expenditures.⁵ This includes substitutive coverage purchased by individuals who are exempt from or can opt out of SHI (such as higher-income individuals) as well as supplementary policies bought by sickness fund enrollees. The privately insured pay a risk-related premium; risk is assessed only on entry, and contracts are based on lifetime underwriting. The federal government determines provider fees under substitutive, complementary, and supplementary private insurance through a fee schedule. These fees tend to be higher than SHI fees. Private benefit packages purchased by higher-income earners who opt out of SHI may be more extensive.

Cost-sharing and out-of-pocket spending: Out-of-pocket spending accounted for 13.5 percent of total health spending in 2017, and most individual spending went to nursing homes, pharmaceuticals, and medical aids.⁸ *Physicians who contract with sickness funds are not allowed to charge above the fee schedule for services in the SHI benefit catalogue.* However, a list of individual health services outside the comprehensive range of coverage may be offered for a fee to patients paying out of pocket.

Individuals have free choice among GPs (who have no formal gatekeeping function) and specialists. GPs. Under SHI, GPs and specialists are generally reimbursed on a fee-for-service basis according to a uniform fee schedule that is negotiated between sickness funds and regional associations of physicians. The average SHI reimbursement for a family physician is more than EUR 200,000 per year. This must cover

the costs of operating a practice, including personnel, etc. *Physicians may also earn income from privately insured patients.*

After-hours care: After-hours care assistance is available mainly through a nationwide telephone hotline. However, physicians are obliged to provide after-hours care in their practices, with differing regional regulations.

Hospitals: Public hospitals make up about half of all beds, while private not-for-profits account for about a third. The number of private, for-profit hospitals has been growing in recent years (now accounting for about one-sixth of all beds). All hospitals are staffed principally by salaried physicians.

Strategies to ensure quality of care The Institute for Quality Assurance and Transparency (IQTiG) is responsible for measuring and reporting on quality of care and provider performance. The institute also develops criteria for evaluating certificates and quality targets and ensures that the published results are comprehensible to the public. Indicators for quality-related hospital accreditation and payment are currently being developed. Structural quality is further assured by the requirement that providers have a quality management system, by the stipulation that all physicians continue their medical education, and by health technology assessments for drugs and procedures.

Reducing disparities Compared to percentages in other European countries, the share of population reporting an unmet need for medical care is very low (0.3%), ranging between 0.8 percent in the lowest income quintile and 0.1 percent in the highest income quintile in 2017.¹³ This suggests good access with few disparities.

Status of electronic health records Since 2015, electronic medical chip cards have been used nationwide by all the SHI-insured; they encode information including the person's name, address, date of birth, and sickness fund, along with details of insurance coverage and the person's status regarding supplementary charges.¹⁸ Patients can decide whether they want clinical data, such as on medications, to be stored and whether these are to be passed on to their physician. SHI physicians receive additional fees for sharing electronic medical reports with other providers. In the future, SHI physicians who do not participate in online review of the basic insurance claims data will receive reduced remuneration.

Cost containment Recently, there has been a shift away from reliance on overall budgets for ambulatory physicians and hospitals toward an emphasis on quality and efficiency. The Hospital Care Structure Reform Act of 2016 aims not only to link hospital payments to good service quality but also to reduce payments for low-value services. All drugs, both patented and generic, are placed into groups with a reference price serving as a maximum level for reimbursement, unless an added medical benefit can be demonstrated.

Major innovations and reforms recently introduced The Ministry of Health has recently issued a decree on minimum staffing requirements for nurses in hospitals. The maximum number of patients per nurse has been defined for hospital units where nursing staff is particularly needed — intensive care, geriatric, cardiology, and trauma surgery — to guarantee patient safety. To further expand the capacities of nurses in hospitals and in long-term care and to reform salaries

and working conditions for nurses, the Nursing Staff Strengthening Act was enacted in September 2018.²²

NORWAY

Note: Since Norway (population 5.3 million) is not a federation, comparison with Canada regarding funding and governance of health care is not complicated by constitutional separation of jurisdiction. In Norway the national government dominates, although in collaborative partnership with Municipal units.

Norway has universal health coverage (known as the **National Insurance Scheme (NIS)**), funded primarily by general taxes and by payroll contributions shared by employers and employees. Services covered include primary, ambulatory, mental health, and hospital care, as well as selected outpatient prescription drugs. *Patients make copayments for some services and products*, with caps on out-of-pocket contributions for most services. The national government is responsible for providing health care in accordance with the goal of equal access to care regardless of social or economic status or geographical location.¹ It is also responsible for regulating, funding, and overseeing the provision of care. Responsibility for the administration of care is shared with the municipalities which are also responsible for providing long-term care which is not included in universal health insurance.

Hospital and specialty care are handled at a local level through four Regional Health Authorities (RHAs). The RHAs have the overall responsibility for implementing national health policy through planning, organizing, managing, and coordinating activities with the hospital and pharmacy trusts in their region.

Role of private health insurance: For-profit insurers offer *quicker access to outpatient services* and greater choice of private providers. Private insurance policies cover fewer than 5 percent of elective services; it does not cover acute-care services. In 2016, about 10 percent of the population had some private insurance. About 90 percent of these policies are paid for by an employer.⁵

Health coverage has two main funding sources: the general tax system and household out-of-pocket payments. The split between public and private funding has been stable for the past 20 years. Government funding for Municipalities is generally not earmarked, and budgets are set locally by the municipality councils. The main sources of income for municipalities are taxes (55%) and block grants from the government (45%).

Out-of-pocket payments account for the biggest part of private revenues and made up approximately 14.3 percent of health expenditures in 2015. *Patients owe copayments for most types of outpatient care.* The major safety-net mechanisms are annual caps, set by Parliament.

General practice doctors: GPs are mostly self-employed; only 6 percent are salaried municipal employees. A GP referral is required for coverage of specialist treatment. GPs receive 35 percent of their income from the municipalities, 35 percent on a fee-for-service basis from the central government, and *30 percent from out-of-pocket payments from patients.* GP financing is determined nationally through negotiations between the Norwegian Medical Association and the central government.

Outpatient specialist care: Public hospitals and self-employed specialists provide specialty care. There are 2.8 specialists in hospitals or ambulatory care for every practicing primary care physician.⁸ Hospital-based specialists are salaried. *Private-practice specialists may or may not*

contract with a municipality to be reimbursed under the NIS. These specialists also receive fee-for-service payments and copayments. GPs and specialists who do not receive public financing are neither regulated nor subject to out-of-pocket expenditure caps.

In principle, patients can choose their own specialists; in practice, however, specialist availability varies by geographic location. In densely populated areas, private multidisciplinary physician clinics have emerged in the last few years and seem to be increasing in number. *Hospital-employed specialists cannot see private patients at the hospital, but may practice privately after hours.*

After-hours care: The municipalities are responsible for arranging after-hours emergency primary care. Contracts with GPs include a requirement to provide after-hours emergency services on rotation. In larger cities, there are a few private after-hours clinics where patients pay in full.

Hospitals: Acute-care hospital services are the responsibility of the RHAs. Most hospital care is provided through 20 public hospital trusts, which are state-owned and -governed as publicly owned corporations. The for-profit hospital sector, which is small, covered 6.5 percent of daytime stays, mostly outpatient surgeries.⁹ Some services in private hospitals may receive public funding. The RHAs are free to decide how hospitals are paid, and all four have chosen a diagnosis-related group (DRG) funding mechanism. All hospital personnel are salaried, including doctors.

Long-term care and social supports: The municipalities are responsible for providing long-term care and may contract with private providers. The majority of long-term care recipients (70%) receive care at home, while 10 percent live in sheltered or assisted housing facilities, which are independent housing arrangements in between home and institutional care. About 20 percent of recipients live in an institution or a home with personnel available 24 hours a day.¹¹ Twenty-five percent of patients with extensive needs for assistance live in their own home.

Quality assurance: Norway has 54 national clinical registries and 17 national health registries. Clinical registries, which are initiated by individuals, hospitals, or educational institutions, provide information for assessing the effects of treatments, including sometimes at the hospital ward level. They are used for quality assurance, research, and improvement activities. The national, statutory registries cover the entire population and, unlike the clinical registries, do not require patient consent (some are based on anonymous data).

The Directorate of Health oversees a national program tracking health care quality indicators.¹⁴ The program includes results from national patient experience surveys, as well as such quality indicators as survival rates, infection rates, and wait times. No information is gathered or disseminated regarding the results or quality of individual health care professionals' performance. Indicators for nursing homes are scarce and incomplete.

Recent demographic studies of mortality differences between immigrant and Norwegian populations reveal *no disadvantage for immigrants*. Disparities between the indigenous people of northern Europe, the Sami, and Norwegian populations are studied through the SAMINOR population-based study.¹⁸ So far, there is *little evidence for health disparities* between the two.

Status of electronic health records All residents have a unique personal identification number, used in primary care and for hospital medical records. Virtually all GPs use electronic health records and transmit prescriptions electronically to pharmacies. Patients can request access to their complete medical record.

Cost containment Health technology assessments (HTAs) are used systematically to inform decision-making regarding the adoption of new technologies. Drugs are always assessed at a national level. The System for the Introduction of New Health Technologies also addresses cost-effectiveness. Measures taken to reduce low-value care include clinical guidelines and a surgical atlas that tracks variation in the frequency of some procedures (www.helseatlas.no). Patient out-of-pocket-payments are another measure to contain costs.

An OECD analysis of health spending in Norway suggested that high staffing levels and high salaries could partly explain the higher health care prices in Norway. However, Norway's wage negotiation model, which involves tripartite bargaining, has been successful in keeping costs at bay in recent years.²³