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HEALTHCARE POLICY

Healthcare Costs in Canada: Stopping Bad News Getting Worse

by

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- Government health budgets have tended to grow faster than Canada's economy, raising concerns about the fiscal sustainability of our healthcare system.
- While initial projections of government spending on healthcare in the Canadian Institute for Health Information's annual National Health Expenditure (NHEX) report have recently suggested moderating growth rates, the initial figures reflect intentions: the revised figures in later NHEX reports have turned out to be materially higher.
- Addressing this tendency to overshoot budget targets – and the consequent threat to healthcare's sustainability – will require reforms to encourage more cost-conscious behaviour from officials, managers, providers and patients, as well as better budgetary discipline overall.

The long-term sustainability of publicly funded healthcare in Canada is a matter of ongoing debate. Many people worry that slower economic growth and other claims on government will crimp the resources available for healthcare, even as aging, new treatments, rising patients' expectations, powerful provider groups and chronically slow productivity growth push costs up.¹ Others take a more sanguine view of governments' ability to contain costs while funding acceptable levels of care.

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1 See Busby, Robson, and Jacobs (2014) for projections of how healthcare and other demographically sensitive programs and taxes will squeeze provincial budgets in the coming decades.

In this context, the annual National Health Expenditure (NHEX) reports from the Canadian Institute for Health Information (CIHI) earlier this decade sounded reassuring. The CIHI's preliminary estimates of spending by provincial and territorial governments, which finance front-line health services for most Canadians, showed declining rates of growth – declines emphasized in CIHI's news releases for the reports.² Not so in 2017: the top-line takeaway from the most recent NHEX report is bad news, with preliminary figures showing the biggest increase since 2010. Bad – but not, on its face, disastrous. The preliminary figure for spending growth in 2017 is 3.3 percent. Many forecasts show Canadian gross domestic product (GDP) – in current dollars; that is, real incomes plus inflation – rising about that fast, on average, over the medium term.

Push a layer deeper in the 2017 report, however, and things get worse. The NHEX draws its preliminary figures for the year of publication from government budgets and other plans. Each report also contains revised figures for previous years, based on actual spending.³ The revised figures in the latest report show that, over the previous three years (2014–16), spending growth across the country averaged 1.5 percentage points above the preliminary figures in those years' reports.

This pattern – revised numbers exceeding the preliminary ones – is a longstanding feature of the NHEX reports. Add a 1.5 percent overshoot to the 3.3 percent preliminary figure for 2017 growth – boosting the anticipated increase of \$5.1 billion this year by a further \$2.3 billion – and concerns about the sustainability of our current model of publicly funded health care in Canada become more acute, and the attraction of reforms to keep healthcare budgets sustainable and avoid more wrenching changes in the future grows.

Growth of Healthcare Spending: Intentions versus Results

The CIHI's NHEX is a unique aggregation of healthcare spending in Canada. For those who are concerned about the sustainability of publicly funded healthcare, a key compilation is spending by provincial and territorial governments.⁴

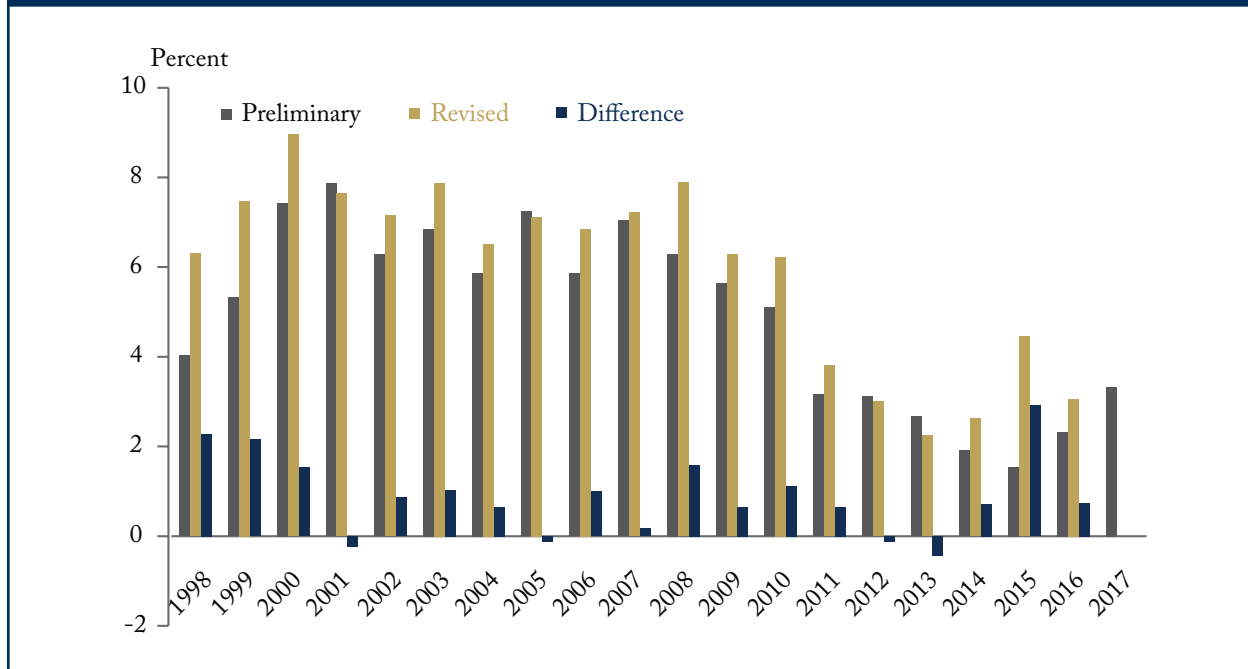
For many years after the inaugural NHEX in 1998, the tale told by the annual growth rates for provincial-territorial healthcare spending was disturbing. Until 2011, spending rose at a 7.0 percent annual rate (the gold bars in Figure 1 show the latest, revised figures for each year) – much faster than any estimate of Canada's long-term potential economic growth. This contrast between rapid growth in healthcare spending and more modest

2 The 2015 NHEX report emphasized modest recent increases (CIHI 2015), and each of its predecessors in 2012, 2013 and 2014 (CIHI 2012, 2013, 2014) highlighted decelerations from prior growth rates that observers often characterized as fiscally unsustainable.

3 Each NHEX report since their inception in 1998 has provided historical figures since 1975 and estimates for both the year of the report and the previous year, enabling a comparison of successive reports to see how CIHI revised its preliminary estimates as actual figures became available. For example, one can compare the increases shown for 1998 in the 1998 NHEX report with the increases shown for 1998 in the 2017 report, the increases shown for 1999 in the 1999 report with those for 1999 in the 2017 report and so on. In the 2017 report, 2015 is the most recent year based on final numbers, while the numbers for 2016 are revised, but not yet final. So the 2017 report provides 18 years (1998 to 2015) of final numbers that one can compare with the preliminary estimates for those years, as well as revised figures for 2016 that one can compare with the preliminary estimates for that year.

4 Table B.4.1 in recent NHEX reports, including 2017.

Figure 1: Provincial/Territorial Healthcare Spending, Preliminary versus Latest Changes, 1998-2017



Source: Author's calculations from CIHI NHEX reports for years shown.

economic growth implied that, absent major changes to curb costs such as user fees or significant service reductions, publicly funded healthcare was on course to absorb an ever-increasing share of GDP, and financing it would require ever-rising tax rates.

For this reason, the declining rates of growth toward the end of the 2000s, and even more, the downshift to rates below 4 percent in the current decade, came as a relief. They suggested that Canada might have “bent the cost curve” (Mendelsohn and Falk 2013), alleviating the threat that fiscal pressures will force changes in the way healthcare is financed and delivered that Canadians would prefer to avoid. The preliminary numbers in the 2014 and 2015 NHEX reports (the light blue bars in Figure 1) reinforced the impression that healthcare spending was growing more slowly than the economy, and that the chronic pressure provincial health ministers were putting on finance ministers and taxpayers was a problem of the past.

On its face, the rebound in spending growth in the preliminary numbers in the 2016 and 2017 NHEX reports constitutes a warning that the downward trend of the decade's first half has not continued. It does not, however, prefigure unsustainable growth. Even with the growth of what is traditionally considered the working-age population – say, those between the ages of 20 and 64 – below 1 percent in the years ahead, modest increases in output per working-age person, plus inflation of 2 percent, would raise nominal GDP at about that rate. But the superficial story is not the full story.

The CIHI relies on government budgets and spending estimates to compile these numbers and, as numerous C.D. Howe Institute reports have documented, governments routinely overshoot their spending targets. Not

surprisingly, since healthcare is the single-largest item in provincial budgets and since pressures on healthcare are especially hard to control, what is true for spending in general is true for healthcare in particular. In 15 of the 19 years for which revised data are available in the NHEX, the revised figures compiled from records of actual spending have exceeded the preliminary ones (the dark blue bars in Figure 1 show the difference between the two). Over the entire period, growth rates calculated from revised figures have outpaced growth rates calculated from the preliminary figures by an average of 0.9 percent per year.

An overshoot of 0.9 percent in one jurisdiction in one year would be nothing frightening, but overshoots that big across the country, year after year, add up. Since 1998, the year of the first NHEX report, they compound to 18.5 percent: almost one-fifth. Scaled to the preliminary dollar figures for 2017, that cumulative overshoot signifies that governments' healthcare spending last year would have been \$28 billion lower – roughly equal to anticipated health spending for all of British Columbia and the entire Atlantic region in 2017 – if governments had hit the annual targets implied by their preliminary numbers.⁵ And, critically, overshoots that big year after year affect judgments about fiscal sustainability. Although annual economic growth of 3.3 percent over the coming decades might be possible, sub-1 percent workforce growth would be a major brake on the economy: it is hard to imagine any combination of higher labour force participation rates and productivity increases that would push growth up to 4.2 percent. So the difference between the preliminary and revised numbers in the NHEX, projected into the future, is the difference between the continued availability of funds for other priorities and stable tax rates on the one hand, and chronic pressure on other programs, deficits and tax hikes on the other.

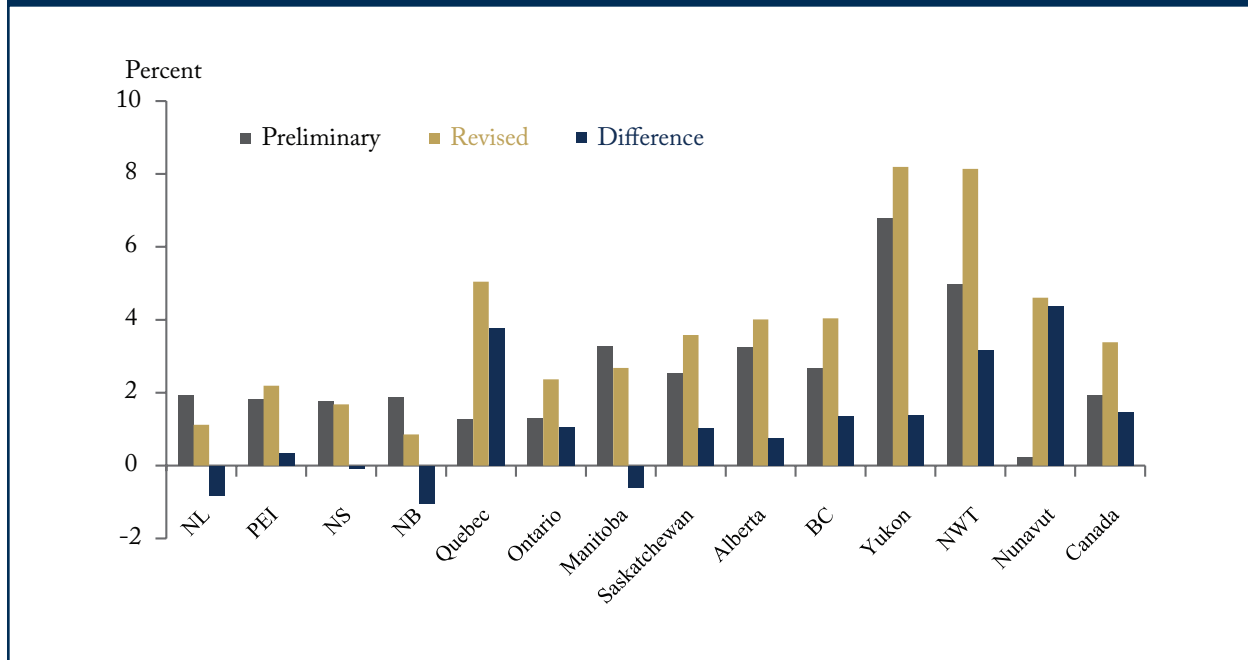
Worse, after undershoots in 2012 and 2013 – a remarkable deviation from the historical pattern and one that appreciably lowers the average for the period – the overshoot in the three years from 2014 to 2016 averaged 1.5 percentage points. The year 2015 stands out as unusual: the preliminary figures for that year suggested the slowest rate of spending since the NHEX's inception, whereas the revised figures show growth fully three times faster. But if the experience of the most recent years for which we have both preliminary and revised numbers is a guide to the future, healthcare will again begin absorbing more of Canadian output, and funding it will squeeze budgets further.

Experience by Jurisdiction

What happened in the 2014–16 period? One way to cut into the national figures is by jurisdiction: scanning experience across the provinces and territories during those years. Figure 2 presents 2014–16 averages of preliminary figures (light blue bars), revised figures (gold bars) and the difference between them (dark blue bars) for each province and territory. Across jurisdictions, overshoots are more common than undershoots, but overshoots are not universal, and their size varies markedly.

5 The 2017 NHEX report's preliminary numbers put provincial and territorial healthcare spending for that year at \$152.3 billion. Chaining annual revisions in this fashion is not unreasonable, since it treats bygone overshoots as bygones that raise the base for each subsequent year's projections. It is open, however, to one objection: the growth rate for each current year is calculated from the previous year's figures in the same NHEX, but the previous year's figures are still partly estimated, and they too have tended to be slightly lower than the final numbers in the *subsequent* NHEX report. Annual growth rates are more intuitive, however, so this survey ignores the first round of revisions, and thus slightly understates the tendency for revised growth rates to exceed preliminary ones.

Figure 2: Changes in Provincial/Territorial Healthcare Spending, by Jurisdiction, 2014–16 Averages



Source: Author's calculations from CIHI NHEX reports for years shown.

The Atlantic region stands in stark contrast to the rest of the country. Among these provinces, Prince Edward Island registered the only overshoot – a small one – over the 2014–2016 period. Newfoundland and Labrador, Nova Scotia and New Brunswick all prefigured small average increases in their fiscal projections and held actual expenditures lower than projected. The preliminary numbers from Quebec and Ontario suggested even more modest increases, but their revised numbers tell a different story, with Quebec's overshoot being especially startling.⁶ Preliminary figures from the western provinces prefigured larger increases than in the East. While the revised NHEX figures show Manitoba coming in below its projections, overshoots prevailed in Saskatchewan, Alberta and British Columbia. The territories differed in their preliminary numbers, but the revised numbers show sizable overshoots and much bigger increases in all three.

These differences suggest that governments' willingness and ability to budget modest increases in healthcare spending, and stick to them, is partly a function of how constrained they feel by their bottom line. The Atlantic provinces are in chronic fiscal trouble, and have budgeted and achieved only modest healthcare spending

⁶ Quebec's overshoot in 2015 – a 0.5 percent increase in the preliminary figures versus a 9.8 percent increase in the revised figures – was large enough to affect the national total. Excluding Quebec, the tally for the rest of the country would have been a 1.8 percent increase in the preliminary figures versus a 3.0 percent increase in the revised figures – an overshoot of 1.2 percent. Unfortunately, the 2016 NHEX report does not contain numbers on Quebec's use of funds in 2015 and 2016, so it cannot be used for information about which categories of spending might account for this startling figure.

Figure 3: Changes in Provincial/Territorial Healthcare Spending, by Use of Funds, 2014-16 Averages



Source: Author's calculations from CIHI NHEX reports, 2014-2017.

increases in recent years. Quebec and Ontario have been reporting improved bottom-line results – albeit with reservations by the respective provincial auditors – and might feel less obliged to deliver on conservative projections. In the western provinces, an unexpectedly prolonged resource boom and the political power of provider groups might have weakened adherence to even relatively lax budget targets. As for the territories, expectations that Ottawa will step in to solve any budget crises might make bottom-line constraints feel less binding than they do in the provinces, which, combined with rapidly rising expectations for care in regions where needs are great, will likely foster continued rapid spending increases, whatever their budget targets.

Experience by the Use of Funds

A second way to cut into differences between preliminary and revised spending is to look at the various uses of funds in provincial and territorial health budgets. Figure 3 presents 2014–16 averages of preliminary figures for growth rates (light blue bars), revised figures for growth rates (gold bars) and the differences between them (dark blue bars) for the major categories of spending that the NHEX breaks out. These are national totals, so they reflect mainly the experience of the larger provinces.⁷

⁷ Given the absence in the 2016 NHEX report of numbers on use of funds in 2015 and 2016 by Quebec, those numbers were interpolated using the proportions in each category from the 2015 and 2017 reports, and prorated to match the provincial totals. So the national numbers are probably not precisely the same as they would have been with a Quebec breakdown for 2016, and the Quebec numbers underlying Figure 4 are interpolated.

The preliminary figures, more reflective of intentions, show a mix of growth rates. In aggregate, they indicate relatively subdued planned growth for hospitals, drugs and administration, and a drop in capital spending.⁸ Governments evidently planned somewhat larger increases for institutions other than hospitals, doctors and public health, and much larger increases for other professionals – presumably reflecting their desire to substitute relatively cost-effective settings and practices for settings and practices they expect to be more expensive.

Turning to the growth rates for these years in the revised figures, a striking fact is that they exceed the preliminary figures in every category. In some cases, such as spending on doctors and administration, the overshoot was small; in some cases, notably spending on other professionals, it was large; and in one case, capital, it represented a smaller decline than anticipated. But in each case, the revised figures show higher spending than the preliminary ones led us to expect. These elements in healthcare budgets are very different in size: hospitals are almost 40 percent of provincial/territorial healthcare budgets and physicians almost one-quarter, while other professionals and administration are only about 1 percent. So Figure 3 does not convey the implications of these overshoots for overall spending.

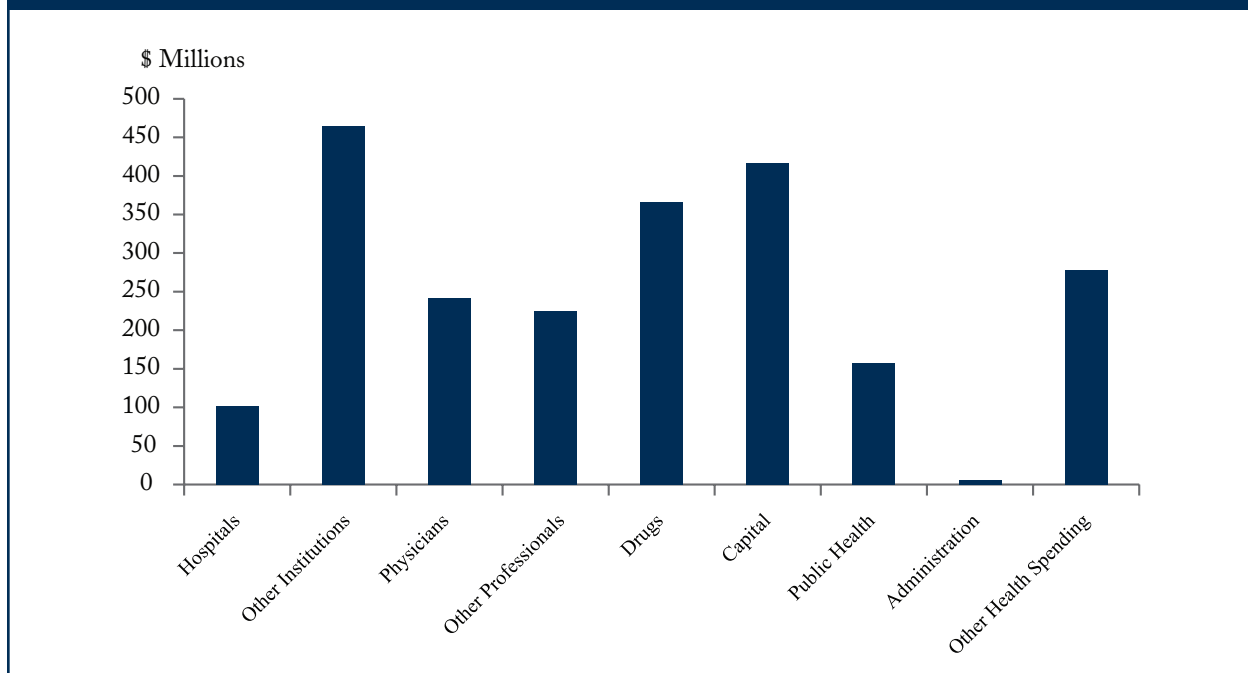
A better sense of the sensitivity of budgets to overshoots in each category comes from scaling the average revisions in 2014, 2015 and 2016 to projected national spending on each in 2017, as in Figure 4.⁹ Hospitals are big enough that even small overshoots add up, but the larger-than-anticipated increases in other areas, notably on other institutions and drugs, are much bigger amounts of money, and the tendency for unbudgeted increases in compensation for doctors and other healthcare providers to put pressure on budgets is also evident in this view. “Other” is a category that is notorious among statisticians for rapid growth, as items previously too small to warrant breaking out are often the ones that grow fastest. Although changes in categorization in Quebec might distort figures for “other” institutions, professionals and spending, future NHEX surveys could usefully provide more detail on some of these residual categories.

Displaying all preliminary and revised figures on spending by the use of funds in each jurisdiction, and the differences between them, would fill a lot of space with a lot of detail. For a quick scan, however, of areas where the pressure for overruns seem greatest across the country, Table 1 presents the average differences over the 2014–16 period by use and jurisdiction. The differences are shaded so that categories where revised growth was equal to or less than preliminary growth estimates are white, and categories where revised growth exceeded preliminary growth are varying shades of blue, with the deeper shades corresponding to the larger overshoots. The table also roughly scales the jurisdictions and categories of spending to their dollar amounts to give an impression of the importance of performance by jurisdiction and category to the national result.

8 The figures compiled in the NHEX survey look at cash outlays for capital spending, rather than using the more modern practice – embodied in current public sector accounting standards and reflected in most provincial budgets and public accounts – of capitalizing long-lived assets and expensing them over a period of years as they deliver their services. So the capital spending portion of the NHEX is not consistent with, and is considerably more volatile than, provincial and territorial budgets and public accounts.

9 As noted, the CIHI compilation looks at cash outlays for capital. A comparison of expenditures that used amortization – the consumption of capital already invested – as the measure of spending would show much less year-to-year variation and much smaller differences between intentions and actual results.

Figure 4: Overshoots in Provincial/Territorial Healthcare Spending, by Use of Funds, 2014-2016, Scaled to Preliminary 2017 Spending



Source: Author's calculations from CIHI NHEX reports, 2014-2017.

As the table shows, capital is clearly subject to big swings, with a better or worse economic and fiscal situation and the election cycle likely affecting these numbers. “Other professionals” is a pressure point in many jurisdictions, although Quebec’s massive swing might exaggerate the national number. The drug budget, although not registering as strongly on the national scale, is also subject to overruns in most places. Increasing rates of opioid poisoning are putting pressure on healthcare delivery, but these breakdowns by jurisdiction and category of spending do not seem to reveal anything informative at the aggregate level. There is more blue in the western and northern areas of the country, where opioid poisoning is more common, but those are jurisdictions in which spending is on a stronger upward trend in any event – and categories of spending, including hospitals, that one might expect to be more affected do not stand out in the national picture. One striking aspect of Table 1 is that paler cells exist even in rows with lots of blue – which suggests that provinces and territories that are having problems controlling their budgets in specific areas have opportunities to learn from successful restraint elsewhere.

Ensuring the Sustainable Growth of Healthcare Spending

The varied experience of healthcare spending across the country and over time suggests that, although overshoots are a chronic hazard, they are by no means inevitable. In thinking about ways governments might improve their chances of holding spending within the limits they have budgeted, two categories of ideas come to mind, some specific to healthcare itself, others relevant to budgeting more generally.

In the first category, the market and political power of provider groups is a major challenge – and not one governments are well equipped to meet if they encounter it as a power struggle in a centrally planned system.

Table 1: Overshoots in Provincial/Territorial Healthcare Spending, by Use of Funds and Jurisdiction, 2014-16, Percent

Use of Funds	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT	NU
Hospitals	-0.2	1.7	1.1	-1.2	1.8	-0.7	0.3	-0.4	-0.2	0.4	3.9	1.9	1.5
Other Institutions	3.0	2.6	-0.3	-2.8	8.2	0.6	-0.4	-0.5	-0.3	0.4	0.8	4.5	3.6
Physicians	-0.4	3.8	-1.6	2.0	2.0	0.1	-0.1	0.4	0.5	0.9	7.4	4.9	0.9
Other Professionals	-3.0	-0.3	3.4	3.5	52.8	-7.2	0.7	2.5	2.0	-0.1	6.1	5.9	1.7
Drugs	-0.2	-3.8	0.6	-4.0	1.9	3.6	1.1	0.8	5.7	2.9	6.7	12.6	-2.1
Capital	-35.8	-31.4	1.1	1.7	-2.6	15.5	-18.6	23.5	4.1	16.4	10.2	9.4	43.4
Public Health	2.8	-3.8	-11.2	-1.5	-2.7	3.5	2.4	0.7	-1.2	2.4	-1.4	4.6	5.6
Administration	-6.9	-9.9	1.4	-9.5	-3.9	4.4	-0.1	-1.4	-9.5	5.2	2.5	-0.4	5.9
Other Health Spending	2.7	-0.7	1.4	-0.9	20.6	-0.6	0.9	0.3	-4.1	-3.8	8.1	-0.8	0.8

Note: Colour darkness indicates the magnitude of overshoot. Column widths and row heights roughly scale the jurisdictions and categories of spending to their dollar amounts.

Source: Author's calculations from CIHI NHEX reports, 2014-2017.

Reforms that introduce more market-like incentives – such as appropriately blended mixtures of per-patient and per-treatment remuneration for providers, and deductibles and co-payments for some services – could steer the behaviour of both providers and patients in ways that improve the bang for each buck spent (Blomqvist and Busby 2012, 2015). Attempts to incentivize managers to achieve savings – bonuses for hospital administrators who come in under budget, for example, or penalties for officials who overshoot – have a problematic history, but the importance of healthcare to patients and citizens generally, and its growing fiscal cost, mean that the search for effective incentives has to continue.

In prioritizing reforms, changes that bring forth reasonable cost estimates for services provided in the publicly funded health system should be closer to the front of the line. For decades, critics have pointed out that information is lacking on the personnel, material and capital costs of even the most common procedures. Without such information, proper cost-benefit analysis is impossible, and senior health ministry officials and ministers cannot respond intelligently to requests for more spending by asking to see business cases or by evaluating alternative uses of the money.

In the second category, the C.D. Howe Institute's fiscal accountability reports have found that certain conditions foster spending overruns – notably, positive revenue “surprises.” When revenue comes in lower than budgeted, spending also tends to come in lower than budgeted; when – as has been more common since the late 1990s – revenue comes in higher than budgeted, so does spending. The same pattern noticeable in overall spending is also noticeable in healthcare (Robson 2016). The deliberate under-projection of revenue to improve the chances of hitting a bottom-line target can undermine budget discipline during the year as in-year revenue comes in better than projected – and especially if the players anticipate it ahead of time. Contingency reserves and rules about allocating them are far from foolproof, but they are better than publishing deliberately misleading pessimistic revenue forecasts and spending unbudgeted “windfalls” in an unplanned fashion.

One final comment concerns the volatility of capital spending in the NHEX reports and the extraordinary range of differences between preliminary and final numbers – from minus 36 percentage points in Newfoundland and Labrador to plus 43 percentage points in Nunavut – during the 2014–16 period alone. Capital budgets are notoriously on the front line for cuts when budgets are tight, and for increases when budgets are easy. This stop-and-start approach is hardly ideal when the buildings and infrastructure at issue will deliver services for decades and ought to be part of long-term plans. It is also not what modern accrual budgeting, which spreads the cost of capital assets over their useful lives, is supposed to deliver.¹⁰ Long-term capital plans, with revenues and expenses matched to the lives of assets, are useful for any organization in the private or public sector, including those delivering healthcare. Such plans could help buffer capital spending from near-term pressures resulting from economic cycles or overruns in spending elsewhere in the budget.

Bending the Healthcare Cost Curve Down Again

The 2017 NHEX report from the CIHI contains bad news on its surface and worse news deeper down. Its preliminary figures for provincial and territorial government healthcare spending show the biggest national

¹⁰ Changes in capital spending have only small immediate effects on budget surpluses and deficits in an accrual accounting framework, since the related costs come into spending only as the asset depreciates. A government that invests \$1 billion in a facility expected to last 20 years, for example, will record \$50 million a year in expenses over its lifetime.

increase since 2010. Worse, the revised figures for previous years show that, over the period from 2014 to 2016, spending rose 1.5 percentage points faster than the preliminary figures for those years showed. This difference is big enough to affect judgments about fiscal sustainability. The 3.3 percent preliminary figure for growth in 2017 is in line with expectations for growth in Canada's economy and in governments' tax bases in the decades ahead. But if the 0.9 percentage point difference between preliminary and later growth rates throughout the NHEX's history – let alone the 1.5 percentage point difference in the most recent three years – is a guide, healthcare budgets again threaten to crowd other government programs and/or push taxes higher.

Since provincial and territorial governments presumably do not normally budget increases in healthcare spending that are fiscally unsustainable, the key challenge is for them to make their budget targets – the intentions that underlie the NHEX's preliminary figures – stick. That will require both health policy reforms that align the behaviour of officials, managers, providers and patients better with fiscal reality, and better overall budgetary discipline. All Canadians – patients, healthcare providers, taxpayers and citizens alike – have a stake in the fiscal sustainability of publicly funded healthcare. Keeping costs in line with our ability to pay is not just a matter of budgeting sustainable increases; it is also – and critically – a matter of achieving them.

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