

Economics IN FOCUS

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Low hospital capacity in Canada: A continued economic risk as Covid becomes endemic

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The conflict between lives and livelihood has defined the Covid crisis since day one. The Delta variant makes the road to safety longer and curvier. While some countries, such as Australia and New Zealand, as well as provinces in Atlantic Canada, were able to control previous outbreaks with short stringent lockdown measures that weren't as economically damaging as restrictions elsewhere, the more contagious Delta variant is making such a response more difficult.

Slowly we are starting to realize that society will have to learn to coexist with the virus and all of its mutations. In this reality, in addition to the vaccination take-up in which Canada has done well, the capacity of the health care system will be an important factor determining Covid-related government policies. On this score Canada's status does not bode well. By almost any measure of health care capacity we lag most OECD countries, meaning that the threshold to ignite restrictive policies is low. The economic cost of that is clear and evident, and represents a near-term risk as we head into fall and winter.

Covid-19, however, may be the wake-up call we need to increase investment in health care infrastructure. Any improvement here will help not only to alleviate the pressure on an overextended system, but also will carry a notable economic dividend for the future.

Fear vs availability

At any point in time, the interrelationship between the virus and the pace of economic activity is a function of two factors: household fears of contagion that impact their activity, and public health regulations that impact the availability of those activities. The fear factor is always there. Early in the crisis we saw that factor dominate activity. In the US, consumers behaved identically in states that were relatively open or more closed in terms of public health restrictions (Chart 1).

Naturally as the rate of vaccination rises, the economic impact of the fear factor diminishes. But we suspect that it will reappear as we approach fall and winter, with growing uncertainty regarding the duration of the vaccine effectiveness, alongside rising cases.

While we cannot control or easily predict fear, we clearly can control availability. And increasingly decisions surrounding whether to tighten or loosen availability of close-contact services are a function of, not cases, but the ability of the health system to deal with those cases. The good news is that vaccinations have clearly altered the relationship between cases, hospitalizations and ultimately deaths. And of course, Canada as a whole is one of the global frontrunners in vaccinations. The provinces that are seeing the largest increases in cases and hospitalizations, including Saskatchewan and most notably Alberta, have had the loosest restrictions and have the lowest vaccination rates.

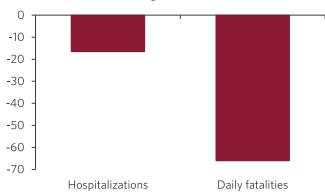
Chart 1: Fear factor determined spending during first wave

Re-opened states vs. Control states: Consumer spending 0 Change in Consumer Spending Opening Relative to January 2020 -10 -20 Control states -30 Opening states -40 -80 20 -60 -40 -20 Days Relataive to Re-Opening

Source: OpportunityInsights.org

Chart 2: Death toll much lower, but improvement in hospitalization more modest relative to similar period in 2nd wave

% change in key Covid-19 health statistics versus late November 2020 during the second wave



Source: Our World in Data, CIBC

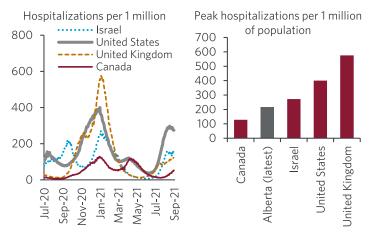
The bad news is that the Delta variant is having a bigger impact on younger age groups, who either can't be vaccinated or are less likely to have taken up the vaccine. Also, a minority of fully vaccinated persons can still develop a severe case if exposed. Looking at a comparison of the current situation to that of late November, when nationwide case numbers were similar and rising during the second wave, the daily fatality rate from Covid-19 is some 60% lower. However, hospitalizations are only 15% lower (Chart 2). More recoverable cases appear to be reaching the hospitals, making hospital capacity just as or arguably even more important than in prior waves, and still, something that will govern public health restrictions.

Health system tested

Unfortunately, hospital capacity is an area where Canada doesn't fair particularly well against global peers. That fact was highlighted during the most significant and revealing Covid-related test the global health system faced during the second wave. In the dark days of early 2021 hospital capacity rates were stretched to the maximums and beyond. But, as can easily be seen in Chart 3, not all maximums were created equal. Covid-related hospitalizations per one million of the population in the US and the UK were 4 and 5 times higher than seen in Canada. Yet, as we all surely recall, the hospital system in Canada during the second wave was at its wits' end. Simply put, we reached capacity at levels that many other countries consider to be acceptable.

More recently, the number of Covid-related hospitalizations per one million of the population in Alberta, which forced the provincial government last week to reintroduce some restrictions on social gatherings, also stands well below the peaks reached in many other countries (Chart 3, right).

Chart 3: Hospitalization peak much lower in Canada than other countries (L), Even latest Alberta figures lower than peaks elsewhere (R)



Source: Our World in Data, Province of Alberta, CIBC

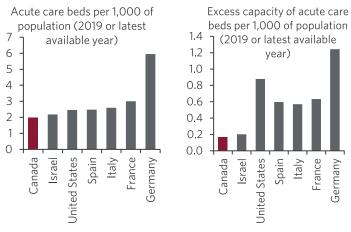
Of course, reaching the capacity of hospitals sooner than other countries in earlier waves, forcing physical distancing restrictions to be applied earlier, has meant that Canada has paid a lower social cost in terms of Covid-related fatalities than those other nations. That's clearly good news. Any long-term health impacts from Covid-19 infections, which could have an economic impact in the medium-term as well as a social impact, should also be lower than other nations.

However, in the endemic stage that we are entering, hospital capacity could still be tested at times, even if virus-related fatalities remain lower than earlier waves and even in areas of the country with relatively high vaccination rates. Using that capacity to care for Covid-related cases also often brings delays in other health services such as non-essential surgeries, which could have an economic and social impact later. And of course, hospital capacity has been a signpost for provinces to impose or reimpose social distancing restrictions, as we will discuss later.

The fact that the hospital system in Canada is stretched is hardly a secret. But Covid has exposed its fragility. The issue isn't just about the number of acute care beds that are available, but also how they are used and staffed. Data from the OECD show that, before Covid-19 hit, the number of acute care beds per million of the population was at the low end of the range for peer countries, but not dramatically so (Chart 4, left).

However, that same data also show that the average length of stay in hospital was typically well above that of other countries, resulting in a higher proportion of hospital capacity in use at any given time. Typically, hospitals should run around 85% capacity. OECD data suggests that Canadian acute care capacity use was north of 90% even in 2019, well before Covid-19 struck. Therefore, the available excess capacity, above that of normal use was and likely still is well below peer countries (Chart 4, right).

Chart 4: Canada had less acute care capacity (L) and much less excess capacity (R) going into the pandemic



Source: OECD, CIBC, Frances Woolley "Coronavirus is about to reveal how fragile our health system is"

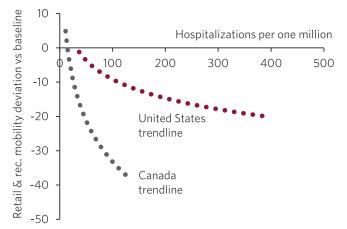
An aggregate view of health care systems globally, the Global Health Security Index, tells a similar story. Overall, Canada is ranked at a very respectable 6th place. But, when it comes to the subcategory of capacity, we are well back, ranked 41st out of 137.

Economic implications

If hospitalization rates are the main factor influencing covidrelated government policy, then a lower health capacity threshold means quicker and longer restrictions, resulting in a lower rate of economic growth. As illustrated in Chart 5, for a given rate of hospitalization, the Canadian economy was notably less open than the US—an important factor behind the relative underperformance of the Canadian economy.

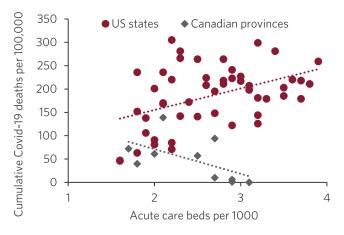
Of course, those stricter lockdown measures have so far enabled Canada to achieve a much better outcome in terms of Covid-related fatalities than the US. Indeed, US states that have the greatest hospital capacity have thus far seen some of the

Chart 5: Strictness of lockdown measures has been greater in Canada relative to hospitalizations



Source: Our World in Data, Google, CIBC

Chart 6: Covid-19 fatalities have been higher in US states with greater hospital capacity. Not so in Canadian provinces



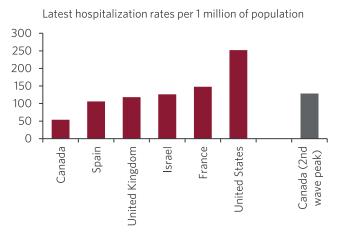
Source: OECD, Statista, CIBC

highest death rates per capita from the pandemic (Chart 6). In other words, those states have been willing to use that available capacity, meaning looser restrictions, have seen economic outperformance but a worse public health outcome. We'll leave it to others to judge whether the additional GDP was worth the toll in life lost.

That's in contrast to the trend seen in Canada, where provinces that generally have the highest hospital capacity have so far achieved decent results in terms of health and economic performance. Those are generally the provinces in Atlantic Canada that used early, short, but strict lockdown measures including controls on interprovincial travel.

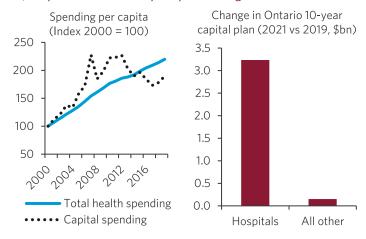
Now the 4th wave is upon us, and with Canada still facing a lower threshold for hospital capacity, the risk of having to reintroduce restrictions here is higher than among many other OECD countries. Indeed, many countries that were reopening earlier, and so are further along in the current wave of infections, are already seeing hospitalization rates at or above the previous peaks we allowed (Chart 7). Most have

Chart 7: Current hospitalization rates are at or above previous Canada peak in comparable countries



Source: Our World in Data, CIBC

Chart 8: Capital spending in health has fallen per capita in past decade (L), but plans have been ramped up for coming decade (R)



Source: National Health expenditure database, Province of Ontario, CIBC

vaccination rates that are comparable to those here in Canada, highlighting the risk that hospitalizations could rise to these levels and result in restrictions tightening once again even in provinces outside of Alberta.

A wake-up call

While Canada's low hospital capacity is a potential speed limit on the economic recovery in the quarters ahead, it has given governments a wake-up call to invest and build additional capacity for the future. After performing well in the first part of this millennium, capital spending in the health sector has drastically lagged overall spending since the global financial crisis (Chart 8, left).

However, in response to the Covid-19 pandemic this is turning around, with many provinces setting aside additional funds within their capital plans for healthcare. Indeed, almost all the increase in Ontario's 10-year capital plan relative to where it stood in 2019 is accounted for by planned spending on new hospitals (Chart 8, right).

Of course, holding extra capacity comes with a cost in non-pandemic times when these beds are not required but the buildings still need to be maintained and staffed. The high cost of healthcare in the US, for example, is in part a consequence of such extra excess capacity during "normal" times. However, given how stretched Canada's hospital capacity was even before the pandemic struck, we appear to be a long way away from overinvesting.

Of greater concern is how we will staff any additional capacity that is built over the coming years. As discussed earlier, Canada also doesn't fair particularly well in terms of the number of doctors and nurses per capita. Any plans to increase hospital capacity will need to be accompanied by measures to raise such staffing levels, something which, like building hospitals, can't be done overnight.

Our base case forecast for a continued, albeit slower, economic recovery over the winter months assumes that restrictions on service industries don't go any further than the vaccine passport systems already announced. However, there is clearly downside risk to that forecast. While vaccinations have altered the relationship between cases, hospitalizations and fatalities, the emergence of the Delta variant means that hospital capacity could still be stretched across more of the country and result in a re-tightening of restrictions. For the sake of public health and the economy, we hope that isn't the case.

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