

Vaccinations: State of Play

A Publication of BMO Capital Markets Economic Research · Douglas Porter, CFA, Chief Economist, BMO Financial Group

The conventional view on the global economy generally, and Canada specifically, is that activity will struggle notably in the opening months of the year before giving way to a robust recovery beginning around the spring. But this relatively upbeat outlook rests importantly on the assumption that portions of the economy will re-open again, which in turn **relies heavily on a relatively expeditious rollout of vaccines**. Against that background, clearly the pace of vaccine distribution is a critical element for the outlook, and arguably should be the number one priority for policymakers.

It has now been three weeks since the first people were vaccinated in both the U.S. and Canada. Yes, it is early days, but there is little doubt that time is absolutely of the essence and thus it's never too early to make some assessments on such a critical file—critical not only from a health care standpoint, but also for the livelihood of millions of Canadians.

The attached table is pulled from Bloomberg data, largely from national sources. While the data availability (and reliability) may be slightly different between nations, it nevertheless gives an early sense of how the distribution is proceeding so far. Also keep in mind that injections began at different times, with the U.K. leading and the EU lagging on that front, and this will affect the early cross-comparisons. (We did not display the global per capita figure because most nations have yet to begin vaccinations; but, for reference the current rate overall works out to about 0.17%.)

Outlook on herd immunity: So far, it looks like governments may have to redouble their efforts to inoculate enough people to reach herd immunity by fall 2021. For more infectious diseases like measles, vaccination rates of up to 95% of the population are typically required for immunity. We still don't know what the required threshold for COVID-19 is, but most estimates put it somewhere between 60% and 80%. As *Table 1* suggests, Israel has not wasted any time, as it has already vaccinated almost 14% of its population. But in less dense and more geographically expansive countries like Canada and the U.S., the initial rollout hasn't kept pace with public health ambitions.

For relatively early starters (e.g., the U.K. and U.S.) to reach 60% of the population by the end of September will require an increase in the vaccination rate per

ECONOMIC RESEARCH economics.bmo.com

Douglas Porter, CFA, Chief Economist
douglas.porter@bmo.com

Robert Kavcic, Senior Economist
robert.kavcic@bmo.com

Erik Johnson, Economist
erik.johnson@bmo.com

Shelly Kaushik, Economist
shelly.kaushik@bmo.com

Table 1
Vaccinations: By Country
(ranked by per capita)

Country	Doses Administered	as % of Population	Last Updated
Global Total	13,097,005	—	Jan. 4
Israel	1,224,000	13.52	Jan. 4
U.K.	947,206	1.42	Dec. 31
U.S.	4,661,821	1.42	Jan. 4
Denmark	46,975	0.81	Jan. 4
Russia ¹	800,000	0.55	Jan. 2
China	4,500,000	0.32	Dec. 31
Canada	121,345	0.32	Jan. 4
Germany	265,986	0.32	Jan. 4
Portugal	32,000	0.31	Jan. 4
Italy	128,880	0.21	Jan. 4
Austria	6,000	0.07	Dec. 30
Finland	3,604	0.07	Jan. 4
Chile	8,648	0.05	Jan. 2
Mexico	24,998	0.02	Dec. 30
France	516	0.00	Jan. 3

¹ number of people receiving at least one dose of a vaccine; the total number of doses is likely higher

Sources: BMO Economics, Bloomberg

week by between 3 and 4 times the current pace. The U.S. has averaged about 1.5 mln initial vaccination doses per week thus far but will likely need to reach 5 mln the rest of the way to hit the threshold in time. Canada has been a relative underperformer given its early approval compared to some other G7 countries—Germany only started rolling out vaccinations on December 27 and yet is now on par with Canada in per capita terms at slightly more than 0.3%. Canada has averaged just over 40,000 initial doses per week and would likely have to improve on that pace by a factor of 13.5 or to around 550,000 vaccinations per week to reach 60% of the population by the end of September (meeting the federal government's goal to immunize all persons who want the vaccine by then). As more supply becomes available, the pace will almost certainly quicken. Countries such as Canada can only afford to lag for the first few months of the year before they need a significant summertime ramp-up to hit national rollout plans.

So, while the initial vaccination campaign was expected to be slow, the downside risks of a slower rollout are increasing and governments across the globe will have to pick up the pace to reach a large enough segment of the population by the fall to achieve herd immunity. And yet it's still remarkable that these vaccinations are taking place a mere year after discovering COVID-19.

Turning back to **Canada**, the pace is so far lagging some of our closest peers and is currently running at less than one-quarter of the per capita rates seen in the U.S. and Britain. This slower pace could be due to Canada's unique form of federalism. At the same time, we would note that among the four largest provinces, there is not a wide difference in vaccination rates to date. Similarly, the rate among four large U.S. states is also not very different from each other (*Table 2*). This appears to indicate that the relatively slower roll-out reflects a broad issue, such as current vaccine availability, as well as some specific local distribution issues or bottlenecks. The fact that only about a third of available vaccine doses have been administered so far is partly due to the decision by some provinces to hold back half for second injections—a decision that is now being actively reviewed.

Digging deeper into on **the regional story**, the early vaccine rollout appears to be relatively uniform across Canada. All provinces but PEI (with a small population base) have seen doses administered to between 0.25% and 0.37% of the population. That said, there are some differences that appear to be driven by decisions surrounding holiday closures, delivery priority (i.e., immediate delivery to long-term care facilities versus health care workers), some slight differences in reporting dates, and some potential under-reporting (i.e., on Moderna's vaccine). With that in mind, Manitoba, Nova Scotia, and Ontario sit at the low end on a per-capita

Table 2

North American Vaccinations: By Region

(provinces/states ranked by per capita)

Region	Doses Administered	as % of Population	Last Updated
Canada	121,345	0.32	Jan. 4
Prince Edward Island	1,950	1.24	Jan. 3
New Brunswick	2,905	0.37	Dec. 28
Newfoundland and Labr.	1,950	0.37	Dec. 30
Quebec	30,473	0.36	Jan. 4
British Columbia	17,510	0.34	Dec. 31
Alberta	14,244	0.33	Jan. 1
Saskatchewan	3,866	0.33	Jan. 3
Ontario	42,419	0.29	Jan. 4
Nova Scotia	2,596	0.27	Jan. 3
Manitoba	3,432	0.25	Jan. 2
United States	4,661,821	1.42	Jan. 4
New York	300,000	1.55	Jan. 4
Texas	414,211	1.41	Jan. 4
Illinois	176,577	1.40	Jan. 4
California	454,306	1.15	Jan. 4

Sources: BMO Economics, Bloomberg, Haver Analytics

basis, while Quebec and the other Atlantic provinces are slightly ahead of the national average.

Bottom Line: While it has been only three weeks since the vaccination process began in North America, we can draw some early conclusions. To this point, the pace of injections appears to be lagging initial timelines, notably for the U.S., yet Canada is trailing even further behind. This is of course a significant issue for the outlook for health care, but also for the timeline on re-opening activity and, thus, for individual livelihoods. Some of the sluggish pace may simply reflect teething pains that might get smoothed in the weeks ahead; if not, current robust expectations for activity later this year may soon see some serious scaling back.

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