



Montreal

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## Covid vaccines: Canada to dispose of 13.6 million AstraZeneca doses owing to lack of demand

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Canada is in the process of destroying 13.6 million expired doses of the Oxford-AstraZeneca coronavirus vaccine, more than half of all the doses it has ever bought, because it was unable to find foreign countries willing to take the vaccines, despite pledging to donate them.

“Due to limited demand for the vaccine and recipient country challenges with distribution and absorption, they were not accepted,” Health Canada said in a statement. Almost all of the vaccines now being thrown away were previously announced as being donated to Covax, the international vaccine access programme set up by the World Health Organization, or to individual countries. But the governments they were intended for chose not to take them.

The expiration of 13.6 million doses follows the expiration of 1.2 million AstraZeneca doses reported in April and May. Most of the expired doses never left the manufacturers’ warehouses. An unknown but smaller number of doses also expired after distribution to provincial governments.

The mass expiration is a remarkable fate for a vaccine that was once desperately awaited in Canada. The country drew criticism early in the pandemic as one of the most aggressive buyers and hoarders of vaccines among rich countries. As multiple vaccines began development, Canada signed deals that reserved up to 500 million doses of seven different prospective vaccines.

But, without manufacturing facilities on its own territory, Canada found itself third in line as the UK and European Union argued over the early production of the AstraZeneca vaccine. The first few shots of Pfizer’s vaccine arrived in Canada four months before the first doses of AstraZeneca’s.

In March 2021 Canada drew further criticism when it became the only G7 country to draw vaccines from Covax, a system primarily designed to get vaccines to poorer countries. Canada’s government argued that it was one of the biggest relative contributors to Covax and had paid in far more than it had taken out. Any excess doses it ended up with would be donated, the Canadian government said.

Over four million AstraZeneca doses arrived in Canada from Covax in spring 2021, but at the same time reports began to circulate in Europe of rare blood clotting events after its administration. This led Norway and Denmark to pause and ultimately halt the vaccine’s use.

Other countries soon followed, and Canada halted the vaccine’s use in under-55s just as it began to arrive in large numbers. Public confidence in the shot collapsed, and its fate in Canada was sealed by the

large scale arrival of Pfizer’s vaccine weeks later. Even as covid cases in his province soared, Ontario premier Doug Ford said, “I’d rather wait a month or two for Pfizer, Moderna, and Johnson and Johnson than roll the dice on AstraZeneca.”

Ultimately only about 2.3 million Canadians ever received an AstraZeneca shot. Canada donated most of its doses from Covax back to the programme, part of a total of 17.7 million AstraZeneca doses it would pledge to donate abroad.

But there was a glut of the vaccine in the Covax system, and the same fears of blood clotting events depressed demand in poor countries. Subsequent research—most recently a large Scandinavian study last month—has shown an increased risk of cerebral venous thrombosis and thrombocytopenia,<sup>1</sup> although the absolute risk is small.

The AstraZeneca expiration raises questions over the likely fate of millions of doses of Novavax and Medicigo vaccine that Canada has approved and ordered but is unlikely to use domestically. WHO has refused to help distribute the plant derived Medicigo vaccine because of the company’s links to the tobacco industry.<sup>2</sup>

Bruce Aylward, a Canadian specialist in infectious diseases who advises WHO, told the *Canadian Press* that the country’s handling of AstraZeneca’s vaccine contributed to vaccine hesitancy worldwide. He said that countries like Canada first hoarded all vaccines, then stopped using AstraZeneca and offered it to lower income nations to fulfil their donation promises, fuelling a perception that it was second rate. Often vaccines were donated close to their expiry dates.

Aylward said a glut of doses of an unpopular vaccine in countries without the infrastructure to quickly deliver them was a recipe for mass rejection and expiration. “They’ve made it incredibly hard for political leaders in low income countries to get coverage up,” he said.

- 1 Dag Berild J, Bergstad Larsen V, Myrup Thieson E, et al. Analysis of thromboembolic and thrombocytopenic events after the AZD1222, BNT162b2, and MRNA-1273 covid-19 vaccines in 3 Nordic countries. *JAMA Netw Open* 2022;5:e2217375. doi: 10.1001/jamanetworkopen.2022.17375. pmid: 35699955
- 2 Dyer O. Covid-19: WHO set to reject Canadian plant based vaccine because of links with tobacco industry. *BMJ* 2022;376. doi: 10.1136/bmj.o811 pmid: 35346968