

Contrary to Anand's assertion, however, Tam did not state that a vaccine would not become mandatory.

Nor has Prime Minister Justin Trudeau indicated what approach his government would take.

"We still have a fair bit of time to reflect on that in order to get it right," Trudeau said on April 28, saying there are "important decisions" to take "around the COVID-19 vaccine when it comes."

On Tuesday, Tam did caution Canadians against putting all their hopes in a vaccine, pointing out that many questions remain. Tam repeated warnings issued last week by the WHO that there is "no silver bullet" on the horizon against the coronavirus — warnings Anand and Bains echoed.

The ministers on Wednesday said Ottawa is also spending millions to boost domestic vaccine production capacity — and to ensure an adequate supply of syringes, alcohol swabs and needles — in order to be able to manufacture and distribute a vaccine here.

A vaccine tracker published by the Vaccine Centre at the London School of Hygiene & Tropical Medicine, identified 226 potential vaccine candidates in the development pipeline around the world.

So far, Health Canada has approved clinical trials in Canada to test the safety and effectiveness of just four possible vaccines here.

As of Wednesday, the federal Public Health Agency was reporting the disease has killed nearly 9,000 Canadians and infected at least nearly 118,000.

Tam said Tuesday questions need to be answered through clinical trials of vaccine candidates including "the degree and the duration of the immunity. How many doses of vaccine do we need? Do we need a booster later on?"

Tam said even when a successful vaccine is identified, there will be ongoing challenges to develop, manufacture and distribute enough of it, and the success of any vaccination program "will also depend on how the virus is undergoing evolution. Will it change? Will the current vaccine need to be adapted if the virus should change?"

With those questions in play, Tam said, public health authorities foresee having to manage the pandemic "certainly over the next year but maybe planning for the longer term, the next two to three years during which the vaccine may play a role but we don't know yet"

On Wednesday, the ministers faced questions raised by at least one Canadian company that says it has heard nothing back from Ottawa on its request to begin human clinical trials despite early promising results from animal tests of its vaccine candidate.

Providence Therapeutics said in a news release that after two blinded preclinical studies at the University of Toronto and Mount Sinai Hospital, it was able to stimulate the production of antibodies in mice that were injected with the coronavirus, suggesting their vaccine candidate could produce "possible long-lasting immunity."

Its study had not yet been peer-reviewed, but the company is eager to move to the