## Weak SARS-CoV-2 vaccine booster campaign resurrects specter of health care hesistancy

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Canada's National Advisory Committee on Immunization has opened the door to a wider rollout of fourth shots or second boosters of SARS-COV-2 vaccines as the country faces yet another wave of new infections. However, mistrust and misinformation have cast a long shadow over vaccination efforts — including among health care personnel.

According to the advisory committee, SARS-COV-2 vaccine boosters may be offered every 6 months after a previous dose or infection, and everyone aged 12–64 years may receive a fall booster regardless of the number of doses they have received before.

However, waning vaccine efficacy and public perception that the pandemic is over have complicated booster campaigns, even as infections and hospital admissions have picked up in recent weeks.

Uptake of third and fourth doses of SARS-COV-2 vaccines remains low. In Quebec, for example, just over half the population has received a third shot, while fewer than 1 in 5 people have received a fourth shot.

Some provinces, including Ontario, have restricted access to fourth doses, despite some health care workers raising concerns that they are no longer protected by the boosters they received in the spring.

Meanwhile, jurisdictions including New Brunswick have dropped or walked back vaccine mandates for health care workers after achieving relatively high uptake of at least two doses. Repeated boosters, however, may be another matter.

## Early hesitancy among health care workers

Health care workers were among those who were most likely to express vaccine hesitancy early in the pandemic, according to a *BMJ Open* study presented at the Canadian Public Health Association Conference.

Researchers polled more than 15 000 people in Canada at 5 intervals in 2020 and early 2021 about their likelihood of accepting a SARS-CoV-2 vaccine if it became "available today." Those who said they were very unlikely, unlikely or somewhat likely were categorized as having some degree of vaccine hesitancy.

"We were interested in understanding which groups are more susceptible [to hesitancy] and susceptible to misinformation which feeds that," said Samir Gupta, a respirologist and coauthor of the study.

After adjusting for other factors, Gupta said he was "little bit surprised" to find that essential and health care workers were significantly more likely to express hesitancy as defined by the study — as were women, people of colour, parents of children younger than 18 years, and those who were younger, poorer and less educated.

The study did not dig into which sorts of health care workers were more likely to be hesitant. Still, the authors noted that "data from previous reports suggests this is more common among female healthcare workers, as well as nurses and paramedical professionals rather than physicians or health administrators."

A review of studies from around the world published last year showed that younger, female, nonphysician health care workers were less likely to hold positive views about vaccination than their older, male physician colleagues early in the pandemic.

One Canadian study of 2761 health care workers invited for vaccination in December 2020 found that nurses, particularly, were less likely to accept SARS-CoV-2 vaccines than physicians, environmental services workers and health care managers. However, most who initially refused the shots indicated that they were open to receiving the vaccine within a year.

What followed was somewhat messier. After a strong initial uptake, SARS-CoV-2 vaccination among health care workers plateaued in 2021, with 1 in 10 remaining unvaccinated in some provinces.

Many jurisdictions did not track or report the numbers of health care workers who remained unvaccinated, let alone data on booster uptake.

## Why do nurses seem particularly prone to hesitancy?

Meanwhile, nursing organizations have been grappling with divisions over vaccines alongside an exodus from the profession.

Some, including the Registered Nurses Association of Ontario (RNAO), have taken a hard line calling for vaccine mandates for all health care workers.

Nurses who post antivaccination memes online may also face regulatory repercussions. The College of Registered Nurses of Alberta notes that spreading misinformation about vaccines goes against its code of ethics and standards of practice.

The Canadian Nurses Association is currently "responding to a matter that is before the courts around this issue." Three nurses who faced regulatory investigations for their online statements about the pandemic are suing the organization and a media outlet for libel.

Other organizations seem to be walking a tightrope between encouraging vaccination and protecting vaccine refusers. The Ontario Nurses' Association (ONA), for example, urges health care employers "not to rely solely on vaccinations to prevent the spread of COVID-19" and "supports education and addressing vaccine hesitancy, not penalizing and terminating nurses when we need them most."

As an alternative to mandates, the ONA "supports regular testing of employees ... reassignment, or other measures."

Doris Grinspun, chief executive officer of the RNAO, says there are several reasons why some nurses may have been hesitant to accept SARS-CoV-2 vaccines.

Initially, the novelty of the vaccines and "a feeling of not wanting to be first" may have contributed to caution, she says.

The antivaccination movement has also co-opted pro-choice rhetoric and sentiment. "I am a feminist and a strong believer in 'My body, my choice," says Grinspun. "But not when it turns into 'My body, my choice, which compromises your body, your choice as a patient."

Meanwhile, she says, racialized health care workers may have "justifiable mistrust" owing to Canada's legacy of medical discrimination and experimentation on people of colour.

Vaccine hesitancy may also be a symptom of the broader crisis of burnout and disillusionment in health care, Grinspun says. Thousands of nurses have quit their positions during the pandemic, citing poor working conditions.

"Many have left because they're exhausted," Grinspun says. "If nurses had been attended to with the same care that they provided to patients, the public, and the health system, likely, you would have seen less hesitancy."

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