

What You Can Do to Stop Variants and Contribute to Herd Immunity

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Despite the many unknowns about herd immunity, scientists and public health officials agree that working towards this goal is crucial to ending the pandemic.

We're all aware that variants of concern are a major obstacle that complicates and slows down progress towards herd immunity. But the situation isn't hopeless! While many factors are outside of our control, we can still contribute to this goal in small but meaningful ways. It all starts with understanding how to prevent variants from spreading.

Obstacle: Vaccine hesitancy gives variants time to mutate and spread

People who are concerned about the safety of COVID-19 vaccines may still be unsure about if they will get vaccinated. Having doubts and concerns is valid, especially with so many mixed messages, but delaying the decision has an impact on the community. Vaccine hesitancy is still considered one of the main reasons why the virus continues to circulate.*

The Bloomberg School of Public Health at Johns Hopkins University explains, “The more people the virus infects, the more chances it has to mutate. This can increase transmission risk, decrease the effectiveness of vaccines, and make the pandemic harder to control in the long run.”* On the other hand, epidemiologists say that “vaccinating quickly and thoroughly can prevent a new variant from gaining a foothold.”*

According to U.S. medical analyst Dr. Leana Wen, as long as a large portion of the population is unvaccinated, there is still a chance that there will be “a big resurgence, maybe we have variants coming in from other countries, and we could start this whole process all over again and have another huge pandemic in the winter. That’s why getting to herd immunity now as much as possible is really important.”*

She explains that coronaviruses are winter respiratory viruses, so we should strive to reach herd immunity before flu season, when case counts could go up again.* “What I really worry about is that those people on the fence don’t get vaccinated and we don’t reach herd immunity come the fall,” she shares.* Although these sources are from the United States, this information about how the virus mutates and spreads is relevant anywhere in the world.

On a positive note, a survey done in Canada by the Angus Reid Institute shows that, compared to two different surveys done in the fall and winter, “Canadians are more willing to get a COVID-19 vaccine immediately rather than take a ‘wait-and-see’ approach.”*

The CBC reports, “66% of respondents said they would get a vaccine as soon as possible, opposed to a low of 39% who gave the same answer in September. And only 16% said they would wait to get the vaccine, compared to a high of 38% in September. The number of respondents who said they would not get the vaccine at all remained relatively steady at 12%, compared to 14% in July [2020].”* Click [here](#) to read more about this study.

What we can do: Educate ourselves and others with free online resources

Some people will always reject vaccines due to their religious and/or political beliefs, but a greater amount of the people are just “on the fence” due to genuine concerns about safety and side effects.* There are free online resources that could address their concerns.

The World Health Organization (WHO) has a [mythbusters page](#) to clarify misconceptions about the virus and vaccines, including videos and images that you can share on social media. It also has a [Question & Answer](#) page that’s updated regularly, including pages that share [information about vaccines](#) and [the safety of vaccines](#). The WHO’s [Vaccines Explained series](#) has an even more in-depth explanation. These resources are available in multiple languages.

You can also share stories about the variety of personal reasons behind people’s decisions to get vaccinated. For some, this is even more persuasive than facts and figures. As part of their involvement with the vaccine rollout, the Toronto-based organization [BALANCE for Blind Adults](#) produced a number of short videos where they “sat down with clients, staff, and Board members to discuss why they got the COVID-19 vaccine, and how they’re feeling about it.”* Click [here](#) to check it out.

Feel free to share these resources with anyone you know who’s concerned about the safety of vaccines! It could make them feel more confident about their decision, and if they got vaccinated, that would be a significant contribution to herd immunity.

Obstacle: New variants of concern are more resistant to vaccines

It’s common for viruses to mutate, and COVID-19 is no exception. Unfortunately, it’s also common for variants to be more resistant to vaccines simply due to the nature of evolution.* Epidemiologist Matthew Ferrari remarks that “vaccines will almost inevitably create new evolutionary pressures that produce variants.”*

Recent data from Public Health England indicates that the Delta variant, which was first identified in India, “is associated with a 64% increased chance of household transmission compared to the alpha variant (B.1.1.7) first identified in the UK.”* This is why the

provincial government has made “Delta variant hotspots” priority areas for people to have their second dose appointments sooner than the rest of Ontario.* On both a local and global level, “if one community achieves a high COVID-19 vaccination rate and surrounding areas don’t, outbreaks can occur if the populations mix.”*

What’s more, the Delta variant probably won’t be the last variant that’s more contagious and severe than the variants that came before it. So, “it’s in our best interest to vaccinate the world because we need that global immunity,” says Dr. Kelly Grindrod, who is a pharmacist, university professor, and the pharmacy lead for Waterloo Region’s vaccine distribution task force.* In other words, “so long as the virus is uncontrolled anywhere in the world, new variants will continue to emerge and threaten everyone.”*

Shweta Bansal, a mathematical biologist, agrees. She says, “Geographic clustering is going to make the path to herd immunity a lot less of a straight line, and essentially means we’ll be playing a game of whack-a-mole with COVID outbreaks. No community is an island, and the landscape of immunity that surrounds a community really matters.”*

What we can do: Write to politicians about moving away from vaccine nationalism and towards vaccine internationalism

To prevent more deadly and contagious variants from evolving, experts say that wealthy countries need to collaborate to ensure that all countries can access vaccines.* This concept, called vaccine internationalism, will protect everyone in the world from variants.*

It’s estimated that, at this rate, the pandemic will continue in developing countries for another 57 years, as 85% of the world’s vaccines have been given in high-income and upper-middle-income countries while only 0.3% of doses have been given in low-income countries.*

“Part of the resolution [of the pandemic] is a more equitable distribution of vaccines around the world, because what is hindering us [is] the variants and those will be coming from the low-resource countries,” says Dr. Ivar Mendez, provincial head of surgery at the University of Saskatchewan and Saskatchewan health authority.*

Earlier this week, there was a Summit for Vaccine Internationalism, where national and regional governments, political leaders, public health experts, and vaccine manufacturers from over 20 countries met and made commitments to advance vaccine internationalism.* Our federal government didn’t participate, but participants discussed Prime Minister Justin Trudeau not allowing a Canadian vaccine manufacturer to produce vaccines for Bolivia.*

Click [here](#) to read more about the concept of vaccine internationalism, [here](#) to read more about Canada’s role in vaccine nationalism and [here](#) to read more about the recent summit. You can contribute by writing to your local MP saying that you support the Canadian government to participate in future summits on vaccine internationalism.

What we can do: Get both doses of a COVID-19 vaccine

Dr. Wen shares her concern that some people will see the case numbers go down in the summer months and decide it's not necessary to get vaccinated.* “They're hoping if they don't get it, other people will protect them,” comments Dr. Grindrod.* For the Delta variant, “To be protected, you really need the two doses,” she affirms.*

Getting both doses of a COVID-19 vaccine is strongly recommended in the most recent update by Canada's National Advisory Committee on Immunization (NACI). This update says emerging research suggests that two doses of the Pfizer vaccine is 87.9% effective against the Delta variant (compared to 33.2% after one dose), and two doses of the AstraZeneca vaccine is 59.8% effective against the Delta variant (compared to 32.9% after one dose) ([page 51](#)). This update didn't mention anything about the effectiveness of the Moderna or Janssen/Johnson & Johnson vaccines against the Delta variant.

On the topic of the Delta variant spreading more easily than other variants, Canada's chief public health officer Dr. Theresa Tam said, “[It] means in under-vaccinated populations, or if we let go [of] public health measures ... in the context of a transmissible variant, that variant could well take off and replace other viruses in the communities. So it is very important to get that second dose when variants such as the Delta variant [are] in our community.”*

What we can do: Donate to COVAX

Also, you can donate to COVAX, a collaboration between [CEPI](#), [Gavi](#) and the WHO, alongside key delivery partner UNICEF.* The goal of COVAX “is to accelerate the development and manufacture of COVID-19 vaccines, and to guarantee fair and equitable access for every country in the world.”*

According to Alison Thompson, a public health ethicist at the University of Toronto, programs like COVAX are based on the idea that everyone deserves protection from the virus, no matter which country they were born in.*

Many of the less wealthy countries that haven't been able to access COVID-19 vaccines are also facing other public health crises like Ebola, tuberculosis and HIV.* Thompson points out, “That also speaks to the legacy of colonialism and racism and these structural inequities that are really, really impacting global health.”* Click [here](#) to learn more about COVAX.

Final Thoughts

One of the worst things about the pandemic is that there's so much that's out of our control. We may feel like we're at the mercy of the variants and our governments. One way to alleviate these feelings of frustration is to focus on what we *can* control and do our part to end the pandemic, no matter how small it may be.

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If you think you may be experiencing symptoms of COVID-19, take the self-assessment at www.ontario.ca/coronavirus. Follow all directions from your medical provider or your local health unit at the following phone numbers:

Telehealth Ontario: 1-866-797-0000

Toronto Public Health: 416-338-7600

Peel Public Health: 905-799-7700

Durham Region Health Department: 905-668-7711

York Region Public Health: 1-877-464-9675