

## COVID-19 Update

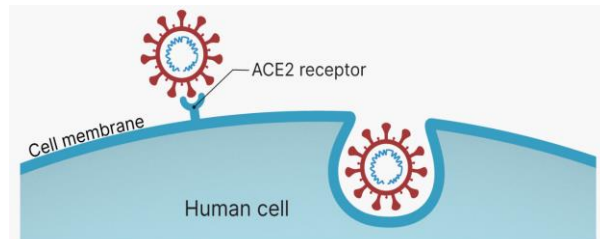
	Ont. cases	Deaths	LTC cases	LTC deaths	% LTC deaths
May 18, 2020	21,966	1,825	2,953	1,456	75.9%
September 15	40,383	2,872	3,274	1,854	64.6%
January 19	244,932	5,568	13,540	3,274	58.8%
January 27	262,463	6,014	14,264	3,518	58.5%
Sep 15 – Jan 19	222,080	3,142	10,990	1,664	52.9%

In second wave of the COVID-19 pandemic LTC deaths continues to account for half of the provincial deaths. Of the 229 homes in outbreak, 119 (52%) have no resident cases.

<https://www.ontario.ca/page/how-ontario-is-responding-covid-19#section-0>

Fatal outbreaks continue to affect relatively few homes. On Wednesday, health officials said testing by the Public Health Ontario laboratory identified SARS-CoV-2 variant in six samples from Roberta Place, in Barrie. It will be another three or four days before genetic sequencing is complete, at which point health officials will know which variant is present. In recent weeks, experts have warned about variant strains from the U.K., South Africa and Brazil.

The new U.K. or B.1.1.7 variant carries a mutation in its spikes that allows it to bind to cells more effectively. This allows the virus to enter cells more easily, making it more infectious. Variants of the COVID virus are identified through genomic sequencing.



Genomic sequencing identifies variants of COVID-19 virus. Sequencing provides insight for the potential for the current vaccines to remain effective, or become less effective, in curbing transmission and prevention if severe disease. So far there is no clear evidence that “vaccine escape” occurs with the current variants and available vaccines. Mutations of the COVID virus are evolving at a higher rate than at the beginning of the pandemic, according to scientists. The South Africa variant, B.1.351, like the UK variant, is also thought to be more transmissible. The mutations could mean that slight alterations in vaccines may be necessary in the future to ensure they remain effective.

[Structure of COVID-19 variant, TheStar Jan 28](#)

### THE VACCINES

LTC residents and staff are among the first to receive the COVID vaccine to decrease the risk of spread to coworkers and residents. LTC staff include anyone who works in a nursing home, such as those who work in environmental services, not just those who perform direct patient care. This also includes staff who visit the nursing home, including MDs, NPs, Pas, medical directors, lab technicians and consultants. Physicians and NPs are leaders for vaccine education, and confronting vaccine hesitancy.

## THE mRNA VACCINES – PFIZER and MODERNA

Once the vaccine is injected, the mRNA is taken up by the macrophages near the injection site and instructs those cells to make the spike protein. The spike protein then appears on the surface of the macrophages, inducing an immune response that mimics the way we fight off infections and protects us from natural infection with SARS-CoV-2. Enzymes in the body then degrade and dispose of the mRNA. No live virus is involved, and no genetic material enters the nucleus of the cells. These are the first mRNA vaccines to be broadly tested and used in clinical practice. The breakthrough for these vaccines is the lipid coating that stabilizes the fragile mRNA molecule. The vaccines are 95% and prevent severe disease. “Prevention of severe disease could convert Covid-19 from the global threat it is now into more of a nuisance, like the common cold.”

The two current vaccines are classified as “reactogenic” — meaning that they will cause some side effects in most people who receive them, reflective of the brisk immune response they generate. Side effects like pain at injection site, fatigue and headache are common responsive to acetaminophen or a nonsteroidal anti-inflammatory drug such as ibuprofen. True allergic reactions are uncommon, less than 1:100,000 for the Pfizer vaccine, even less for Moderna. The current vaccinations of LTC residents will provide real world data on how effective it is in the frail elderly population. Although the studies included older individuals, participants had to be clinically stable and sufficiently healthy. “We do not yet know how effective the vaccines will be in a sicker population, such as the frail older people of advanced age living in nursing homes, or the severely immunocompromised.” (Dr. Paul Sax, NEJM)  
<https://www.nejm.org/covid-vaccine/faq#Clinicians>

## OLTCC MEDICAL DIRECTOR COURSE

The first virtual Medical Director begins next week. The Winter Term will occur over eight weeks, on Monday evenings. The next course, a Spring Term will be on Wednesdays, 3:30 pm to 5:30 pm, starting April 28<sup>th</sup>, 2021 and ending June 16, 2021. Registration brochure and information will be released shortly and will be sent to those on the wait list first. If you would like to be added to the wait list, please email the office at [office@oltcc.ca](mailto:office@oltcc.ca)

