

# COVID-19 Update: Weeks 43-44

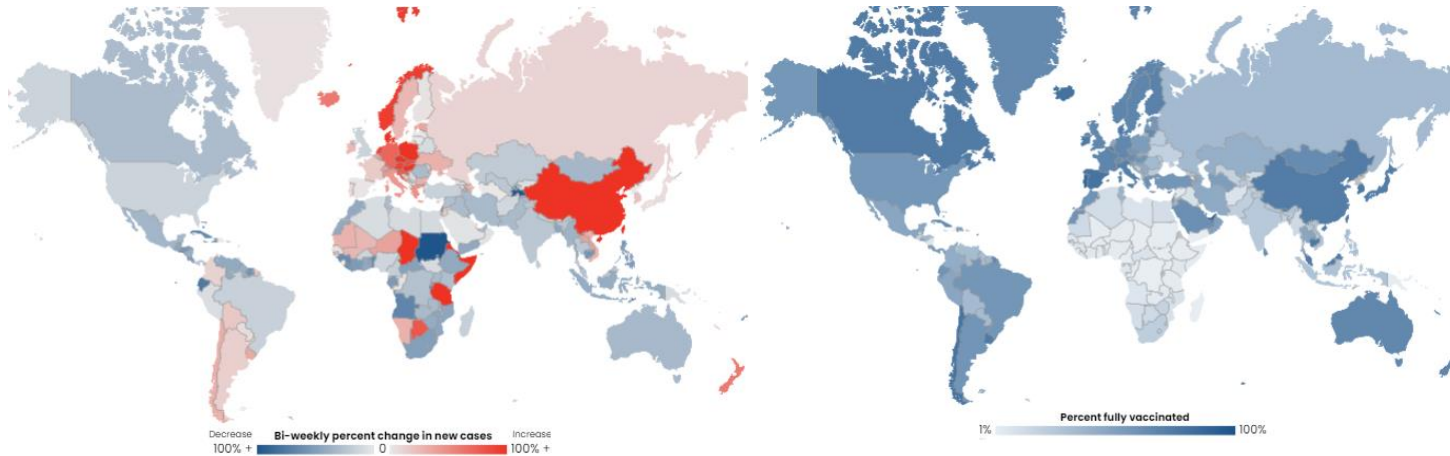


24 October – 6 November 2021

Bi-weekly COVID-19 updates from IFRC focusing on the epidemiological trends and updated evidence are shared through the [Health Help Desk](#). Additional external resources for deeper weekly or monthly subject-area analysis have also been added to the public access page on the Health Help Desk. Internal reports from the IFRC are available on [IFRC Go page for the COVID-19 pandemic](#) (including operational updates, immunization updates and updated figures by IFRC region).

Bi-weekly percent change in new cases

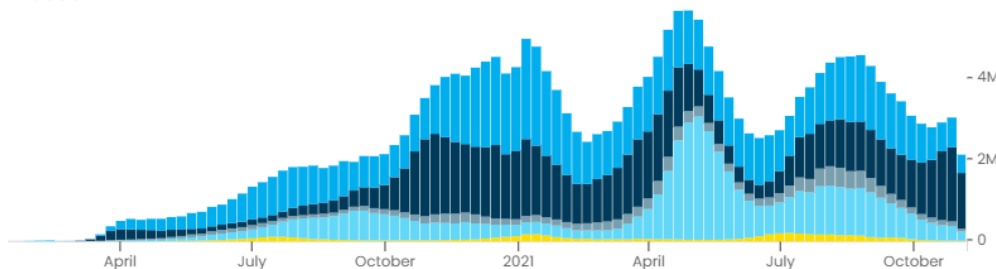
Percentage of population fully vaccinated



## Situation update & Risk Assessment

- **Globally there have been over 248 million cumulative cases and 5 million cumulative deaths of COVID-19 reported worldwide.**
  - 4 to 5 million deaths took 115 days
  - 3 to 4 million deaths took 90 days
  - 2 to 3 million deaths took 90 days
  - 1 to 2 million deaths took 116 days
  - 1 to 1 million deaths took 246 days
- An estimated 50% of the global population has received at least one dose of the COVID-19 vaccine, with an estimated 39.1% fully vaccinated.
- **Only 4.1% of those living in low-income countries have had at least one dose of the COVID-19 vaccine** (however, this has increased significantly in the last two weeks)

## Cases



For the second week in a row, global incidence of COVID-19 cases and deaths increased (by 3% and 8% respectively). The European region continues to report the highest incidence of new cases and deaths, with 17 countries reporting over 300 new cases per 100,000 population. Notably, the European region has surpassed the previous 2021 surge in cases in March/April in the past two weeks with reported COVID-19 infections. In absolute numbers, the United States, the United Kingdom, the Russian Federation, Turkey and Ukraine reported the highest number of cases in the past week (only the UK and Turkey reported declining trends). While the majority of countries facing humanitarian crisis have reported declining trends, several have reported concerning trends in the past few weeks including Syria, Ukraine, DRC and Burkina Faso. Additionally, the recent surge in COVID-19 cases in Europe and China has the potential to negatively impact surrounding regions in the coming month.

## Emerging Evidence Review

### Transmission and Children

- Throughout the COVID-19 pandemic children have shown less severe symptoms compared to adult populations. In a very large cohort study, matched for children and adolescents who had COVID-19 compared to those who didn't, those who had COVID-19 had higher post-covid morbidity (illness) compared to those who did not when comparing routine medical records. The results were lower than what has been seen in adults, but show a similar pattern. More research is underway on this topic as children still are not eligible for vaccination in most countries ([pre-print](#)).

### Vaccine & Treatment Equity

- [BioNTech](#) has signed a deal with Rwanda and Senegal to build Africa's first manufacturing centres for mRNA technology, with each plant with the capacity to produce 50 million doses annually, also with the capacity to expand. The effort is finally good news in a region that has struggled due to major inequity to vaccines, where only 6% of the population throughout the region is vaccinated. However, the production will also need to be pared with the production of other products such as syringes to ensure that roll-out of vaccinations is possible.
- [Merck](#) signed a licensing deal with the Medicines Patent Pool (MPP) that allows MPP to issue sublicenses to permit manufacturers in low and middle-income countries (LMIC) to make and distribute the antiviral treatment molnupiravir (in partnership with Biotherapeutics at Emory University). The agreement does not affect previous agreements with generic drug manufacturers in India, but allows production and distribution to take place around the world. Merck will continue to charge much higher prices for the drug in higher income countries while not receiving royalties from the production and distribution of the drug in lower-income countries. Efforts for the initiative have also been supported by the [Gates Foundation](#).

### Vaccine Safety and Efficacy

- A recent cohort study from nursing homes in the US examining all-cause, non-COVID-19-related mortality following vaccination found relative risk of mortality among those vaccinated (using Moderna, Pfizer, Janssen) was lower when compared to those who did not receive the vaccine. The study reinforces the safety profile of all three vaccines currently in use in the US ([CDC MMWR](#)).

### Vaccines and Children

- [US FDA advisory](#) committee voted to give authorization for the Pfizer Biotech vaccines to be used in children ages 5-11 years. The dose is one third the amount of the dose recommended for adult patients.

### Vaccine Mixing

- In an early study in Spain, a trial of 663 people found strong evidence that the Pfizer vaccine significantly boosted antibody response following 8 weeks after a single dose of the AstraZenica vaccine ([Nature](#)).

## Variants of Concern or of Interest & Implications

- In a study published in [Science](#), the spike protein of SARS-CoV-2 Delta variant was more efficient at binding cells for entry, which has likely contributed to the rapid expansion of the variant globally, and easier transmission from person to person.

Summary impacts of Variants of Concern designated by WHO (referenced from [WHO Situation Report #64](#))

Name/ Label	Alpha	Beta	Gama	Delta <i>Now accounting for over 99% of sequenced SARS-CoV-2 variants</i>
<b>Transmissibility</b>	Increased transmissibility	Increased transmissibility	Increased transmissibility	Increased transmissibility
<b>Disease Severity</b>	Possible increased risk of hospitalization, possible increased risk of severity and mortality	Possible increased risk of hospitalization, possible increased risk of in-hospital mortality	Possible increased risk of hospitalization and/or risk of severe disease	Possible increased risk of hospitalization
<b>Risk of reinfection</b>	Neutralizing activity retained, risk of reinfection remains similar	Reduction in neutralizing activity reported; T cell response elicited by D614G virus remains effective	Moderate reduction in neutralizing activity reported	Reduction in neutralizing activity reported
<b>Impact on Diagnostics</b>	Limited impact	No impact observed	No impact reported	No impact reported
<b>Impact of vaccine efficacy (for those with WHO EUL)<sup>1</sup></b>	Protection retained against all outcomes	Protection maintained against severe disease, limited evidence for reduced efficacy against symptomatic disease (AstraZenica, Pfizer)	Unclear, limited evidence at this time	Protection retained against severe disease, limited evidence for possible reduced infection against symptomatic disease and infection

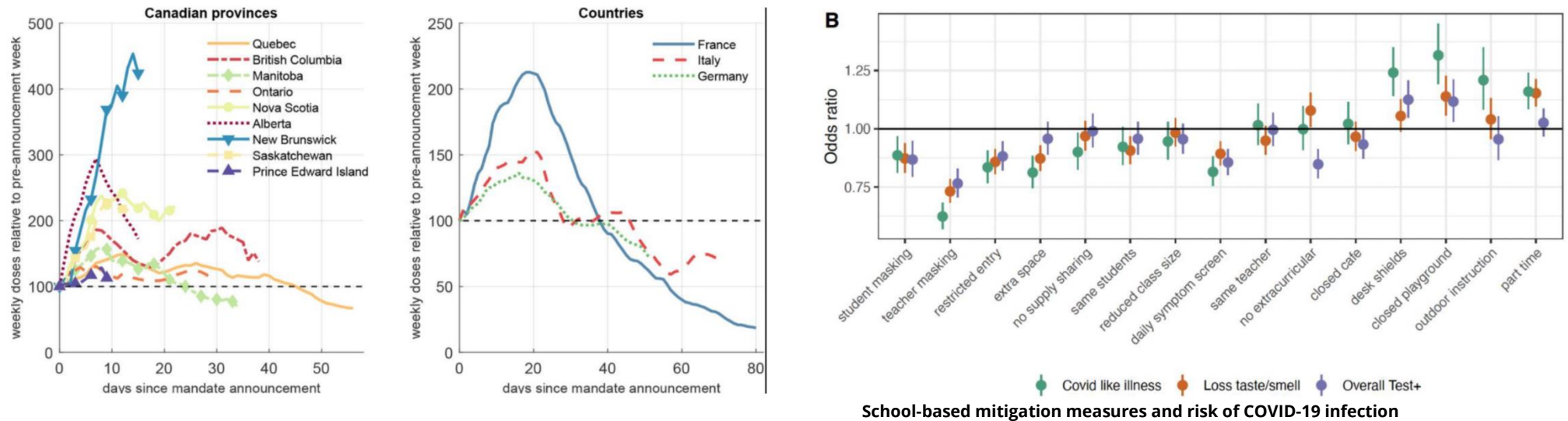
## Spillover

- In a [pre-print of a study](#) sampling from 283 white tail deers (mix between wild and deer in captivity) in Iowa, USA have found SARS-CoV-2 virus in an estimated 33.2% of samples, identifying 12 different lineages of the virus implying that there are likely multiple examples of zoonotic spillover between humans and animals and as well as between deer populations. The study has very important implications for the need of a strong OneHealth approach to COVID-19, ensuring animal surveillance and monitoring is also included in national responses.

<sup>1</sup> Resources and detailed list of vaccine efficacy studies can be found here: [VIEW-hub \(IVAC\)](#)

## Practical Tools/ implications for COVID-19 preparedness & Response strategies

- In a [pre-print](#), researchers have found that the introduction of “vaccine mandates” in Canada led to a 55% uptake in the first dose of the vaccine in the first week and over a 100% increase in first dose of vaccination in the second week. Results appear to be short term, however with the impact reduced by 6-8 weeks of the introduction of mandates. This study shows similar results of what have been seen in France, Italy and Germany (chart from the study shared below left).



- A [study still under peer-review](#) looking at the effects of in-person schooling on the risk of COVID-19 infection found that in-person schooling was associated with increased risk, however the risk could be reduced through mitigation measures – the most effective being teacher masking (chart from the study shared above right).
- In a real-world study setting, masks were found to reduce the risk of infection among those at high-risk exposure to COVID-19 by 48%, and vaccination reduced the odds of infection by 77% ([pre-print](#)), further showing the strength of a combined approach to infection control, especially for those in high-exposure occupations.

## Clinical Trials and Treatments

- Clinical trial of fluvoxamine (a drug typically used for depression) in Brazil found hospitalization was reduced among those who received the drug early in symptom onset for COVID-19. The study requires additional follow-up, including examinations on the dosage and if the same effect is noticed among those vaccinated as well as unvaccinated for COVID-19, but is promising given the cheaper costs of the treatment ([Lancet Global Health](#)).
- The UK Medicines and Healthcare products Regulatory Agency (MHRA) [authorized the use of Molnupiravir](#) for the treatment of mild to moderate COVID-19 in adults with at least one risk factor for developing severe illness.

## Surveillance

- A recent paper and analysis conducted by the [World Bank group](#) found that in high income countries, the majority of deaths (89%), due to COVID-19 and “excess deaths” (a way to measure the impact of COVID-19 informally as official deaths are often under counted) were among those in the age group 65 and older, while in lower-middle-income countries where data existed, 54% of official COVID-19 deaths were in age groups younger than 65. The report highlights significant differences among wealthier and poorer nations dealing with COVID-19 which are likely to have long-term public health, social and economic implications. Notably, the United States also had much higher COVID-19 and excess deaths in the under 65 age category than other high-income countries.

## Excess Mortality

- A detailed analysis of all-cause mortality found that the COVID-19 pandemic has led to excess loss of life in the equivalent of 28 million “life years” in 2020 ([BMJ](#)). The analysis is similar to comparisons of excess deaths during COVID-19, however it also takes into account the age of death and life expectancy by country (27 upper and middle income countries with reliable mortality data were included in the assessment).

## Implications for Public Health in the future

- [The WHO Emergency Committee](#) of advisors agreed, 21 months following the declaration of a “public health emergency of international concern” (PHEIC) that the pandemic is far from over and no changes would be made to its classification. The committee agreed that progress had been made in addressing the COVID-19 pandemic, however significant changes including access to adequate surveillance, monitoring, testing and vaccines exist, especially in the Africa region. Overall, the panel also acknowledged that it is likely that COVID-19 will eventually become an endemic disease.
- Brazil court votes to go forward with criminal charges to the Brazilian President Bolsonaro due to negligence and mishandling of the COVID-19 pandemic in Brazil leading to massive excessive morbidity and mortality nation-wide

## References

### Internal

#### [IFRC Go COVID-19 response](#)

- Dashboards and operational reports
- Monthly vaccine updates and highlights

#### [IFRC Health Help Desk](#)

- Webinars
- Operational Guidance related to the health response to COVID-19

### External

#### [ALNAP COVID-19 Response Portal](#)

#### [British Medical Journal Coronavirus Hub](#)

#### [Centers for Disease Control \(CDC\) Morbidity and Mortality Weekly Report \(MMWR\)- COVID-19 Reports](#)

#### [Johns Hopkins Center for Health Security](#)

- Particularly the [COVID-19 Updates](#) (weekly)

#### Johns Hopkins Center for Communication Programs [COVID-19 Behavior Dashboards](#)

#### [Journal for American Medical Association COVID-19 focus](#) (JAMA)

#### [Nature SARS-COV-2 Review](#)

#### [New England Journal of Medicine COVID-19 page](#) (NEJM)

#### [Our World in Data](#)

#### [Prevent Epidemics In-Depth Science Reviews](#)

#### [UNDP Vaccine Affordability](#)

#### [WHO COVID-19 Dashboards](#)

#### [WHO Epidemiological Situation Reports](#)