

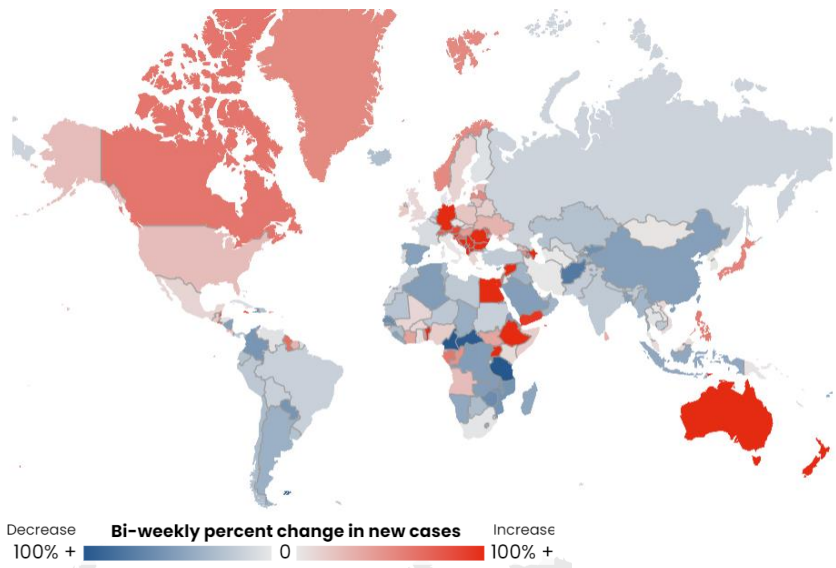
# COVID-19 Update: Weeks 31-34



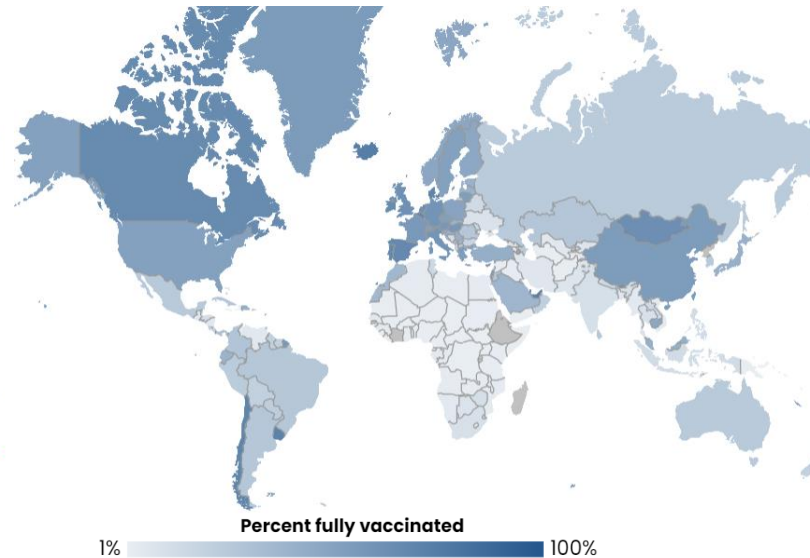
August 2021

The new COVID-19 update from IFRC shared through the [Health Help Desk](#) will continue as a bi-weekly update in September 2021. This update serves for August (epidemiological weeks 31-34) with global trends and emerging evidence. Additional resources for deeper weekly or monthly subject-area analysis have also been added to the public access page on the Health Help Desk. Additional 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



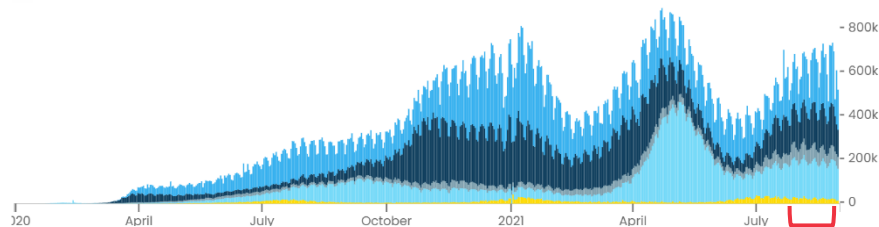
Percentage of population fully vaccinated



- **Global COVID-19 incidence surpassed 200 million reported cases and 4.5 million deaths** in August since the beginning of the pandemic
- **Only 1.4% of those living in low-income countries have had at least one dose of the COVID-19 vaccine**
- Over 84% of COVID-19 vaccines have been administered in “high” to “very high” income countries, with only 10 countries accounting for 75% of vaccine doses distributed

## Situation update & Risk Assessment

Cases



During epidemiological weeks 31-34 in the month of August the world reached a new milestone in COVID-19 cases with over 216 million cases and 4.5 million deaths reported to WHO since the beginning of the pandemic. The month of August saw steep rises in cases in all regions, with varying trends sub-regionally. Vaccine distribution averaged at 35.8 million doses per day worldwide but saw slowing trends throughout the month. The Americas region continues to report the highest number and number per population of new COVID-19 cases.

## Emerging Evidence Review

### Transmission and Children

- A Canadian study in [JAMA](#) paediatrics shows evidence that older children are more likely than younger children to be the index COVID-19 patient in a household (with probability increasing by age), however younger children are more likely to transmit the virus within the household once infected.

### Influence of smoke pollution on COVID-19 (implications for climate change and natural hazards)

- A recent paper ([Science Advances](#)) found strong evidence to support that increased exposure to wildfires (and associated fine particulates in the air PM<sub>2.5</sub>) even over the short term were linked to increased COVID-19 cases and mortality. The study found that 52 out of 92 counties included from the western US saw a positive association of increased risk of COVID-19 cases by 11.7% and deaths by 8.4% one month following increased exposure to PM<sub>2.5</sub> (by 10 µg/m<sup>3</sup>) with risk of COVID-19 cases varying from one county to another. The study has major implications as Red Cross and Red Crescent National Societies work alongside communities from the US, to Algeria, Morocco, Greece, Turkey and others to combat wildfires this summer.

### Vaccine Safety and Efficacy

- Sustained effectiveness of mRNA vaccines (which include Pfizer and Moderna) was observed in a recent real-world evaluation following 1,129 patients who received 2 doses of an mRNA vaccine over a 6-month period. Vaccine effectiveness during the first 12 weeks of the study was estimated at 86% and estimated at 84% during the second 12 weeks of the study. The sustained efficacy was also noted among those at highest risk for severe COVID-19 ([CDC MMWR](#)).
- Other recent studies – not all peer reviewed yet – have shown evidence for decreased vaccine efficacy over time. In another [MMWR](#) article, researchers following a longitudinal study of healthcare workers in the US found that with the recent spike and circulation of the Delta variant vaccine efficacy dropped from 91% in mid-December to 66% in mid-August. Another ([not peer-reviewed](#)) study from the UK found that for AstraZeneca-Oxford efficacy shifted from 77% one month after the second dose to 67% 4-5 months later with the circulation of the Delta variant, and for Pfizer-BioNTech shifted from 88% to 74%, noting that the dataset is not a fully representative sample of the UK population.
  - While there is some evidence for vaccine efficacy waning, a recent study (with similar implications of many others worldwide) have found that in Los Angeles County, USA, unvaccinated people are 4.9 times more likely to be infected by SARS-CoV-2 and 29.2 times more likely to be hospitalized for COVID-19, further emphasizing the need to increase vaccination rates worldwide to reduce the burden of COVID-19 on health systems ([MMWR](#)).
  - Examining existing evidence and current realities regarding the global pandemic [WHO released a statement](#) that “booster doses will exacerbate inequalities by driving up demand... while priority populations... have not yet received a primary vaccination series.”
- For patients who are immunocompromised including transplant patients, a third booster shot for mRNA has been found to be safe in multiple studies, and effective for boosting the immune response for COVID-19 among immunocompromised individuals who did not mount a strong immune response to the dose recommended to the general population. The alteration of dosage, or number of vaccine doses for immunocompromised individuals is not new to the COVID-19 vaccine and is a strategy used during several other vaccine regimens for those at risk and immunocompromised. Evidence for an improved response among transplant patients can be seen in an article published in [NEJM](#), and a good summary of implications can be found on [Prevent Epidemic Science Review](#).

- The [US FDA](#) has given full approval to the Pfizer mRNA COVID-19 vaccine for children and adults 12 years of age or older. As in many countries the US has been administering COVID-19 vaccines with Emergency Use Authorization status, but after a full review of the safety and efficacy of the vaccine the FDA has approved Pfizer Bio-Tech COVID-19 vaccine.

### Variants of Concern or of Interest & Implications

- A study in the [Lancet Infectious Diseases](#) shows evidence that people infected with the Delta variant (which has already been identified as more transmissible) are twice as likely to be hospitalized as those infected with the Alpha variant.
- A retrospective study of an outbreak in Massachusetts, USA published in [CDC MMWR](#) suggests that for larger gatherings, governments and organizers should continue to include non-pharmaceutical intervention measures such as universal masking in public spaces due to the high transmissibility of the Delta variant even when large proportions of a population is vaccinated. While vaccines are found to be effective against severe COVID-19, mixing of populations, including those vaccinated and not from different locations increases the opportunities for transmission.
- Recent [pre-print study](#)<sup>1</sup> from the UK has highlighted that vaccines alone will not be able to protect populations from spikes of COVID-19 cases without adequate non-pharmaceutical interventions due to the increased transmissibility of the Delta variant, and this increased transmissibility should be part of the considerations when reassessing reductions of non-pharmaceutical interventions.
- A [pre-print study](#) describes researcher’s finding and sequencing of the C.1.2 variant in South Africa which has now been detected in the majority of South African provinces, the Democratic Republic of the Congo, Mauritius, New Zealand, Portugal and Switzerland. The variant has not yet been named a “variant of concern” (see list below) or “variant of interest,” but researchers are concerned that several mutations within the variant are associated with increased transmissibility, viral reproduction and potential antibody evasion. Continued work is underway to understand vaccine efficacy against the new lineage.

*Summary impacts of Variants of Concern designated by WHO (referenced from [WHO Situation Report #54](#))*

Name/ Label	Alpha Detected in 192 countries	Beta Detected in 141 countries	Gama Detected in 86 countries	Delta Detected in 163 countries
<b>Transmissibility</b>	Increased transmissibility and secondary attack rate	Increased transmissibility	Increased transmissibility	Increased transmissibility and secondary attack rate <sup>13</sup> Similar transmissibility between vaccinated and unvaccinated individuals
<b>Disease Severity</b>	Increased risk of hospitalization <sup>17</sup> , possible	Not confirmed, possible increased risk of in-hospital mortality	Not confirmed, possible increased risk of hospitalization	Increased risk of hospitalization

<sup>1</sup> Pre-print studies have not undergone the peer-review process yet, and are subject to withdrawals and critiques regarding the methods and reported results of the study prior to acceptance to publication in a scientific journal.

	increased risk of severity and mortality			
<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

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

- In rural locations or areas with long wait times for laboratory testing, rapid point of care antigen tests may provide a solution to reducing case incidence with or without vaccination rollouts. In a remote community in Alaska USA, the introduction of rapid point-of-care antigen testing was followed by a more than 3x reduction in daily COVID-19 case rates prior to vaccination campaigns in the area ([CDC MMWR](#)). The study was observational and didn't include a control group and did not necessarily account for the lower sensitivity (greater number of false negatives) of antigen testing, or the complications of emphasizing the need to remain in isolation following a negative test result

### Investigations into the Origins of SARS-CoV-2

- Following the [inconclusive report](#) shared by intelligence groups to the president of the US, the international team of independent researchers who were members of the WHO origin study released a comprehensive piece in [Nature](#) outlining the steps taken during the phase one study ([shared](#) in March) to the origins of SARS-CoV-2 and highlighting the urgent need to conduct a phase two if answers are to be learned.

## 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)

#### [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](#)

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

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