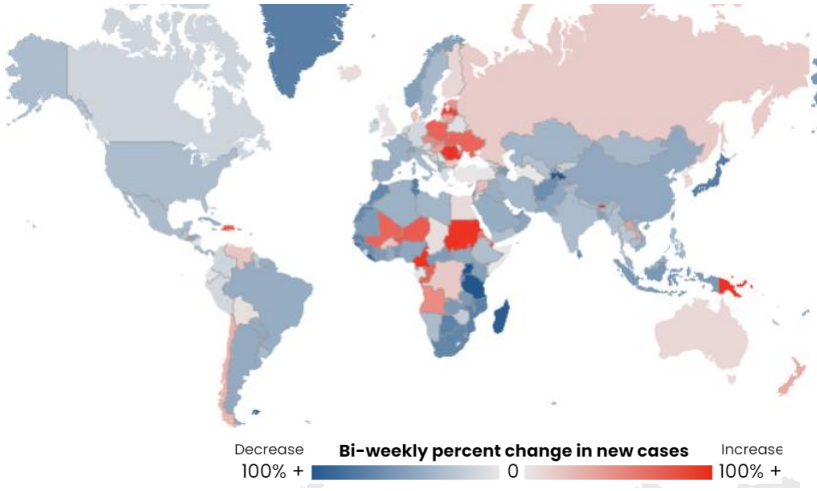
COVID-19 Update: Weeks 39-40

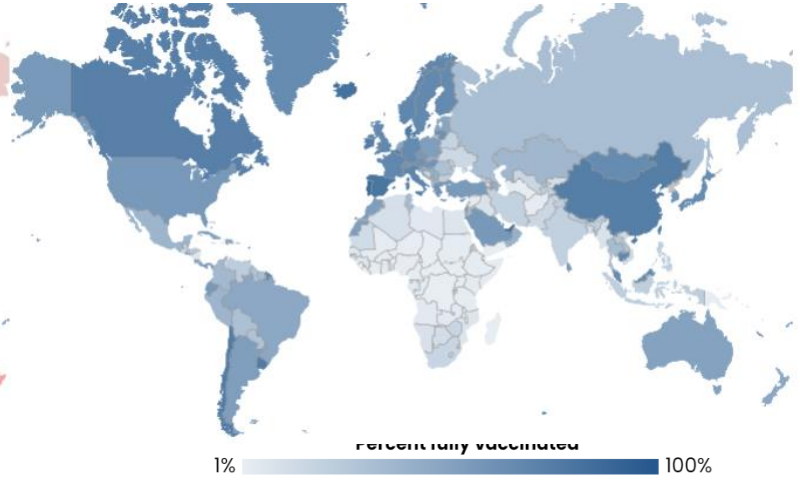
26 September – 9 October 2021

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

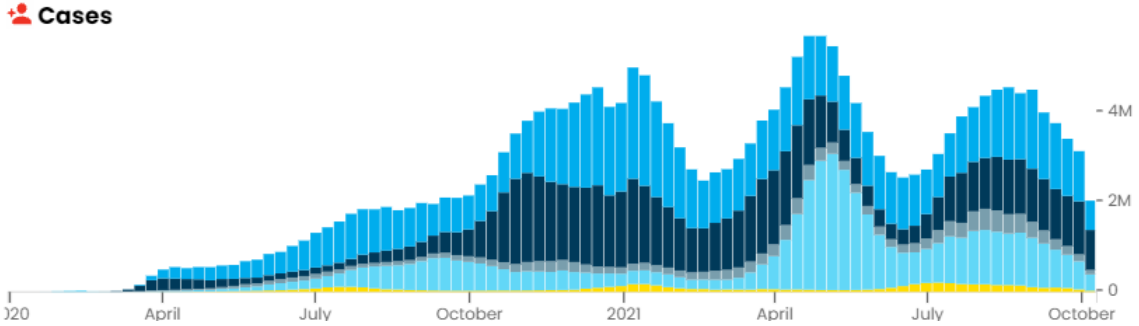


Percentage of population fully vaccinated



- **Globally there have been over 236 million cumulative cases of COVID-19 reported worldwide. New reported cases continue to decrease.**
- An estimated 46.4% of the global population has received at least one dose of the COVID-19 vaccine, with an estimated 34.7% fully vaccinated.
- **Only 2.5% of those living in low-income countries have had at least one dose of the COVID-19 vaccine**
- Almost one third of countries in the Africa Region have reached 10% of their population vaccinated.

Situation update & Risk Assessment



For over a month, new COVID-19 cases have continued to decline globally, while new reported deaths declined following a slower trend. Most recently, the Africa region has reported the greatest decline in COVID-19 cases (by over 40%), while the European region reported a small increase in new cases compared to the previous week (by 5%). Countries reporting the highest number of new cases are the US, the UK, Turkey, Russia and India. Notably Russia continues to report daily records in COVID-19 deaths, while Syria reported its largest COVID-19 peak thus far.

For further information or feedback please contact: Rachel Goodermote, with the Health and Care Department, IFRC

Secondary Impacts

- A recent study in the US has found that 1 in 500 US children has experienced orphanhood due to parents or caregivers dying of COVID-19 (US CDC). The proportion is even worse for specific communities with children of racial and ethnic minorities accounting for 65% of those who lost a primary care giver. The emerging data highlights a trend we have seen in past epidemics and pandemics around the world and will likely have a significant impact in the years to come.
- A systematic review of global health data looking at the impact of COVID-19 on mental health found that two impact indicators; daily SARS-CoV-2 infection rates and reduction in human mobility were associated with increased prevalence of major depressive and anxiety disorders (the Lancet).

Vaccine Safety and Efficacy

- A study published in the Lancet found declining efficacy in the Pfizer-BioTech may be due to waning immunity rather than breakthrough infections due to the delta variant. The study included 3.4 million individuals from the US found waning immunity from 97% one month following both doses of the vaccine to 67% 4-5 months following the second dose for preventing non-delta infections, while results show a decrease from 93% efficacy one month following full vaccination to 53% 4 months following both vaccine doses against the delta variant. Notably, the vaccine was still found to be 93% effective in both scenarios in preventing severe COVID-19 and hospitalization 6 months following the full vaccination regimen.
- Pfizer Biotech has requested Emergency Use Authorization for the use of its SARS-CoV-2 vaccine in children 5-11 (using a two shot regimen with about 1/3rd of the adult dosing) to the US FDA. Notably in September the US saw a disproportionate number of COVID-19 cases among children in this age group.
- An article published in NEJM from Israel examining acute myocarditis following vaccination found among 5.1 million individuals vaccinated, 142 cases were observed after receiving the Pfizer Biotech vaccine (with 95% of these cases presenting with mild symptoms), and the highest incidence among males ages 16-19 (a rate of 13.73 per 100,000). Similar results were published in JAMA from the US, found an incidence of 5.8 per one million second doses from observing 2.4 million individuals (all among males 20-32) – none requiring intensive care. These rates are considered low, but important to continue to monitor in different demographic groups.

Long-COVID

- WHO published a clinical case definition for "post COVID-19 condition" or long covid which has a combination of laboratory confirmation, 3-month minimum from onset, a two month minimum of symptoms, and symptoms matching specific descriptions which include "brain fog," chest pressure, depression, fatigue, fever, heart palpitations, and shortness of breath among others that cannot be attributed to another cause.

Variants of Concern or of Interest & Implications

- A recent study in France comparing viral loads in those admitted with the Delta variant, Alpha variant Beta variant and other variants (not classified as of concern) found that the Delta and Alpha variants had significantly higher viral load (by an estimated 2.5x) compared to the Beta and variants not classified as of concern (Journal of Infection, Oct).

- A pre-print study of demographic characteristics of COVID-19 infection with the delta variant in India, found that while early infections with the virus (original variants or "wild type") had a higher association among older adults and males, new infections have increased with the delta variant among younger individuals and women. Overall, among those with a positive delta infection, there was a lover mean age of infection, hospitalization and mortality, and higher incidence of break-through infections among those vaccinated (compared to 'wild type' variants).

Summary impacts of Variants of Concern designated by WHO (referenced from WHO Situation Report #60)

Name/ Label	Alpha Detected in 195 countries	Beta Detected in 145 countries	Gama Detected in 99 countries	Delta Detected in 192 countries
Transmissibility	Increased transmissibility	Increased transmissibility	Increased transmissibility	Increased transmissibility and secondary attack rate.
Disease Severity	Increased risk of hospitalization, possible increased risk of severity and mortality	Not confirmed, possible increased risk of in-hospital mortality	Possible increased risk of hospitalization and/or risk of severity, research still underway	Increased risk of hospitalization
Risk of reinfection	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
Impact on Diagnostics	Limited impact	No impact observed	No impact reported	No impact reported
Impact of vaccine efficacy (for those with WHO EUL)[1]	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

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

- High vaccination rates (reported at 93% for those eligible) and a phased approach using non-pharmaceutical interventions was credited for the success of nine summer camps in the US during the months of June- August which reported only 9 confirmed COVID-19 cases and no secondary infections among 7,173 campers and staff. Strategies included requests for negative COVID-19 tests 72 hours prior to the camp and using masked indoors policies as the camps phased

[1] Resources and detailed list of vaccine efficacy studies can be found here: VIEW-hub (IVAC)

a slow increasing 'pod' or small groups. Negative tests were required prior to merging each group, and as each group "merged" restrictions within the group were reduced, with three camps reaching camp-wide expansion (CDC MMWR).

Clinical Trials and Treatments

- AstraZeneca has reported (not yet peer reviewed) that its long-acting antibody combination drug AZD7442 (designed to remain in the body for up to one year) reduced the risk of symptomatic COVID-19 by 77%. The company has also submitted a request to the US FDA for EUA.

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