COVID-19 Update: Week 9-15 November 2020

Over 53.7 million cases confirmed and reported, with **over 1.3 million deaths** reported to date (<u>unofficially</u> over 54.7 million cases and over 1.3 million deaths, over 15.3 million active cases (*increase of more than 1 million from previous week*) and over 38.1 million recovered). **The US, Mexico, Poland, Italy, are reporting the highest daily incidences in death** in the last 24 hours. **The United States, India, Italy, France, Brazil, the UK, Poland, Russia, Germany, Argentina Iran, Ukraine, the reporting the highest daily increases, all reporting above 10,000 newly confirmed cases in the past 24 hours.¹** *The pandemic continues to accelerate globally, increasing by 10 million every 3 weeks. The WHO has recorded a record high in mortality – a 21% increase compared to the previous week (exceeding the first mortality peak in mid-April).*



News / Political Context

 Single day record for highest number of new cases reported to WHO on November 13th with at least 628,000 new cases reported to WHO.

Sep 27

Nov 15, 2020

- Countries with highest reported new cases per 1 million daily increases
 - (Nov 11th)²:
 - 1. Luxemburg: 1,139
 - 2. Montenegro: 919
 - 3. Slovenia: 636
 - 4. Austria: 799
 - 5. French Polynesia: 787

- Countries with highest reported new deaths per 1 million (Nov 11th)
 - 1. Malta: 15.9
 - 2. Bosnia and Herzegovina: 14.9
 - 3. Poland: 14.4
 - 4. Belgium: 13.8
 - 5. Luxembourg: 12.8
- Daily confirmed deaths doubling most rapidly in Sri Lanka, Slovakia, Iceland, Slovenia, Georgia, Jordan.³
- Cases doubling rapidly in Lithuania, Saint Lucia, Georgia, Jordan, Poland, Jordan, Austria, Greece, Bulgaria,.⁴
- Africa Region
 - Continued gradual increase throughout the region. The number of new deaths reported in the last 7 days was 30% higher than it was in the previous week, driven largely by increases seen in **South Africa, Kenya**, and **Uganda**.

¹ Official numbers and WHO visualizations available <u>here</u>

² Our World in Data Incidence

³ <u>https://ourworldindata.org/coronavirus</u>

⁴ Reference to ECDC data using <u>https://ourworldindata.org/coronavirus</u>

- The median age of COVID-19 cases in South Africa is 39 years, and 58% of cases are female. There is a high prevalence among women potentially due to occupations and care seeking practices
- **Kenya** is reporting the second- highest number of weekly new cases in the African Region, numbers have been rising considerably since October

Americas Region

- Overall change increase in cases of 3% compared to last week, and accounted for 32% of all deaths.
- The **United States of America, Brazil, Argentina, Colombia** and **Mexico** reported the highest number of new cases in the last 7 days.
 - Cases have grown by nearly 70% in the US in the past 2 weeks, and represent about 3% of the US population for cumulative incidence, and by every measure the exponential growth of COVID-19 is at a concerning rate
 - Brazil's southeast followed by northeast regions

MENA Region

- weekly number of new cases increased by 18% compared to the previous week, and the region saw a 23% increase in deaths
- The **Islamic Republic of Iran, Morocco, Jordan, Iraq** and **Lebanon** reported the highest number of new cases in the last seven days
- Lebanon has been seeing a steady increase in cases over the past 8 weeks

European Region:

- The region represents 54% of all cases and 47% of new deaths, experiencing an 44% increase in new deaths and 11% increase in new cases compared to the previous week and has continued to increase exponentially
- Spain became the country with the sixth highest number of COVID-19 cases globally
 - 6 of the 17 Autonomous Communities in Spain have reached over 40% Intensive Care Unit (ICU) occupancy
 - Majority of outbreaks affecting 10 people or more in the country continue to be located in care homes for the elderly
- In the five countries that reported data from primary care sentinel surveillance for COVID-19 up to week 44, using the systems established for influenza, nine detections of SARS-CoV-2 were reported among the 70 patients tested.
- Hospitalizations:
 - There were 1.7 patients per 100 000 population in ICU due to COVID-19, which is 66% of the peak ICU occupancy observed during the pandemic. Pooled weekly ICU admissions based on data from 10 countries were 2.1 new admissions per 100 000, which is 54% of the peak rate to date.
 - An estimated (from 26 countries) 15% of COVID-19 patients have needed hospitalization, with 8% of those patients requiring ICU treatment
 - While PPE does not appear to be an issue with this surge in cases, workforce shortages continue to be an issue
- Switzerland has a <u>14-day incidence</u> of 1148.1 new cases per 100,000 population, with 1083 hospitalizations and 441 deaths in the past week. Current test positivity rate (the proportion of tests that are positive) is **26.7% test positivity** (test positivity above 5 is considered high).
 - Hospitals projected to run out of ICU bed capacity by November 13th

• Asia Pacific Region:

- Cases have increased by 2% in Southeast Asia and a 10% increase in deaths.
- The Western Pacific region rose by the highest percentage increase (19%) in new cases compared to the previous week, while the number of cases the region represents globally is 1%. The **Philippines**, **Malaysia**, **Japan** and **French Polynesia** continue to report the highest numbers of new cases in the Region
- The countries reporting the highest numbers of new cases in the South-East Asia region continue to be **India**, **Indonesia and Nepal**, while the highest mortality rates were recorded in Nepal and **Myanmar**.
- In India, new cases seem to have stabilized: The most affected regions in the country are Maharashtra, Karnataka and Andra Pradesh while the regions with the highest number of active cases as of 8 November are Maharashtra, Kerala and Delhi.
- COVID-19 cases started rising in **French Polynesia** at the beginning of August with the number of new cases rising by 95% from the previous week.

Recent Research/ Evidence

- Recent study on the D614G SARS-CoV-2 mutation which early on was only detected in a few samples and is now globally present has found evidence that supports its mutation allows it to be transmitted more readily from person to person. Evidence shows that this strain does not appear to have any change on severity of disease (just transmission) and that the same factors that allow it to be transmitted more readily also may make it more susceptible to vaccines.⁵
 - A <u>previous study</u> in October came to a similar conclusion, with the note that the majority of vaccines in development are modelled off the original D614 strain but should not have an impact on efficacy.
 - <u>Pre-print</u> study notes possible co-infections with multiple strains in Europe and North America (D614G and P314L) may lead to genetic recombination which has the potential to enhance viral stability, however, more research would be needed to support preliminary analysis.
- Study examining the seroprevalence of SARS-CoV-2 in 3,000 samples from blood donations in Kenya found the seroprevalence to be quite high for Kenya's reported incidence (around 5.6%) similar to countries with higher reported incidence such as Switzerland. Seroprevalence ranged significantly with none of the 71 donors from age 55-64 being seropositive, and 7% being seropositive from 35-44 years of age. Urban centers and the Western region of the country also showed higher prevalence than other areas.⁶
- Retrospective study in the <u>Lancet</u> examining adverse effects such as depression and anxiety
 associated with COVID-19 found that survivors appear to be at increased risk for psychiatric
 conditions following recovery, with the greatest health risks for anxiety disorders, insomnia, and
 dementia. Additionally the study notes an increased probability of being diagnosed with COVID19 among those with pre-existing mental health diagnosis, and points towards more research
 needed.
- Two articles describing Outbreaks in the **Hopi Tribe** (Native American sovereign nation located within the United States) show both the <u>challenges in reducing community spread</u> in larger family gathering, but also the promise of locally adapted wide-scale surveillance systems (in the example reporting over 95% acceptance rating).⁷
- Study on transmission patterns within US military confirms high rates of transmission for those who work and live in close quarters: On the Theodore Roosevelt aircraft carrier 26.6% of the crew (1271 members) tested positive for COVID-19 with 76.9% of those with laboratory confirmed testing showing no symptoms at the time of testing, and a total of 55% had symptoms at anytime of illness. Average age of the crew was 27 with all members (active service) in good health. 1 death was reported during the outbreak.⁸
 - Found that the use of facial coverings or masks were associated with a 70% reduced risk in the outbreak described above
 - Another study of Marine recruits during a supervised 2-week quarantine have been able to map various outbreaks through sequencing, noted 1.9% became newly infected during quarantine and the majority were asymptomatic⁹:



 Evidence of universal masking in hospitals (among both health care workers and patients) has shown to drastically reduce risk of infection among healthcare workers, although challenges remain. Other adjustments that should be considered include improved ventilation and space for care providers in break rooms and where meals are eaten.¹⁰

⁵ Y. J. Hou et al., Science <u>10.1126/science.abe8499 (2020</u>).

⁶ Science 11 Nov 2020

⁷ <u>MMWR: Notes from the Field</u>: Development of an Enhanced Community-Focused COVID-19 Surveillance Program — Hopi Tribe, June–July 2020

⁸ <u>NEJM 11 Nov 2020</u>

⁹ NSJM 11 Nov 2020

¹⁰ JAMA 13 Nov 2020

<u>Recent study</u> highlights that many patients who recovered from COVID-19 may be still
positive (albeit at lower levels) for SARS-CoV-2 RNA, but only a minority of the patients may
carry a replicating SARS-CoV-2 in the respiratory tract. Further studies are needed to verify
whether such patients can transmit the virus. 1 out of 32 patients in the study re-tested positive
(no genomic sequencing was available) 16 days after recovery (39 days after diagnosis) meaning
they recurrent infection or reinfection.

Clinical Trails

- Pfizer and BioNTech announce <u>vaccine candidate</u> against COVID-19 achieved success in first interim analysis of Phase 3 trail with 90% efficacy to prevent SARS-CoV-2 infection (the study will continue so measures of efficacy may change)
 - Safety trials will continue for 2 months following the second (and final) dose of the vaccine. The US FDA requires data to be shared through the 3rd week of November. Additional follow-up will continue for 2 years following.
 - Scientific community still awaiting detailed breakdown of the results looking at specific sub groups and understanding protective value for those who do not show symptoms, and length of effectiveness
 - Positive results here do highlight potential positive results to come from other ongoing trials where the immune response triggered is similar to Pfizer's
 - BioNTech official mentioned that the vaccine is not likely to have an impact on the pandemic until the next summer
- Medical community now looking at the need for ultra cold freezers for vaccine distribution given the very low temperatures the Pfizer vaccine will need to be stored at which will pose challenges for distribution.
- Russia has reported about 90% efficacy in i's <u>similar vaccine</u> and suggests that they will publish results of the phase 3 trials soon based on 16,000 participants who have received 2 doses. Data has still not been released to the public or scientific community
- US FDA Emergency use authorization of monoclonal antibody bamlanivimab in some patients
- In an early study including adult outpatients with symptomatic COVID-19 treated with fluvoxamine, compared with placebo, had a lower likelihood of clinical deterioration over 15 days.¹¹
- Currently: 38 vaccines in testing for safety and dosage (Phase 1), 14 vaccines in expanded safety trials (Phase 2), 11 vaccines in large scale efficacy testing (Phase 3), 6 vaccines available for early limited use, 0 approved for widescale use. *Good visualization* <u>here</u>.

Modeling & Forecasting

- Research on 2 vaccine distribution scenarios has found that equitable distribution of vaccines across countries based on populations (opposed to among the 50 wealthiest countries) would prevent nearly twice the number of deaths globally. This is compared to 30-33% of deaths globally if distributed among the top 50 wealthiest countries.¹²
- Estimated current effective reproductive rate (Lancet database) as of 11 November 2020



Projections for the reproductive number (ICL weekly projections)¹³

¹¹ JAMA 12 Nov 2020

¹² Gavi

¹³ **Map**: Estimates of transmissibility in countries with active transmission for the week. A country is defined to be in the declining phase if the 97.5th quantile of the effective reproduction number is below 1. It is defined to be in the growing phase if the 2.5th quantile of the effective reproduction number is above 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% Crl is less than 1. If the 2.5th quantile of the 9

Declining Stable/Growing Slowly Growing Unclear Trend



As of November 9th estimates for the effective reproductive number:

- Europe: Average of about 1, Highest: Slovenia: estimated around 2
- Asia: Average of about 1, Highest: *Pakistan* 1.5
- Africa: Average about 1, Highest: *Kenya 1-*1.5
- MENA (not included): Highest: *Jordan & Algeria* (1.5)
- North & Central America: Average of about 1, Highest: Canada 1.5
- South America: Average of about 1, Highest: Colombia: 1
- IHME projections for daily infections using current trends, easing of mandates and increased mask use

Humanitarian Impacts

- <u>Mapping of COVID in Humanitarian settings available here depicted below showing COVID-19</u> <u>cases compared to where vaccination campaigns have been postponed</u>
- Updated repository of Maternal and Child health and Nutrition relating to COVID-19 can be found here.

Guidance Launched or Highlighted This week

Weekly update from WHO available here (last updated Epi 10 Nov, Operational 15 Nov)

- WHO: <u>An update to the guidance on critical preparedness, readiness and response actions</u>
 - including further subclassifications of transmission scenarios within the community transmission category; and updated guidance on contact tracing, laboratory
- WHO: An update to the guidance on considerations for implementing and adjusting public health and social measures (PHSM) in the context of COVID-19.
- WHO: <u>Update to guidance on health facility assessments</u>,
- WHO: <u>Terms of References for a WHO-convened Global Study of the Origins of SARS-CoV-2</u>. And Phase 1 and Phase 2 studies.
- WHO: <u>Readiness for influenza during the COVID-19 pandemic</u>
- UNICEF & WHO: <u>Call to action to prevent measles outbreak</u>
- US CDC released scientific brief on the use of cloth masks to prevent community spread

Useful Sources

Some additional sources – such as specific journal articles are shared as a foot note and saved to the "Evidence" folder in Teams.

ALNAP launched COVID-19 response portal

Atlantic COVID-19 Tracker (US focus)

BMJ COVID-19 resources

European Centre for Disease Prevention and Control

End Coronavirus Visualizations

Center for Humanitarian Health: COVID-19 Maternal and Child Health, Nutrition Literature Reviews

the width of the 95% Crl is more than 1, the phase is defined as uncertain. Note that estimates of transmissibility rely on a constant rate of reporting of deaths. This assumption does not always hold. <u>ICL short term forecast</u>

The COVID tracking project (US focus) Global Health 5050 Sex desegregated data Health Map Imperial College of London ISARIC COVID-19 resources Johns Hopkins Center for Health Security and CSSE Humanitarian platform for COVID-19 The Lancet LSHTM COVID-19 mapping tool New England Journal of Medicine Next Strain (Phylogeny of SARS-CoV-2) Our world in Data PLOS COVID-19 ProMed Switzerland Specific data and charts **WHO** WHO Technical Guidance for COVID-19 MobLabs MobLabs Domestic and international risk of importing a case World Meters