COVID-19 Update November 2-8, 2020

Over 49.5 million cases confirmed and reported, with **over 1.2 million deaths** reported to date (<u>unofficially</u> over 50.6 million cases and over 1.2 million deaths, over 13.6 million active cases (*increase of almost 1 million from previous week*) and over 35.7 million recovered). **The US, France, India, and Mexico are reporting the highest daily incidences in death** in the last 24 hours. **The United States, France, India, Italy, Poland, Germany, the UK, Spain, Russia, Czechia Argentina, Ukraine, Romania the reporting the highest daily increases, all reporting above 10,000 newly confirmed cases in the past 24 hours.¹** *Europe accounts for the greatest proportion of new cases reporting around 52% of new cases globally in the past 7 days.*



Above Left: Test positivity rate (Lancet) Above Right 7-day hospitalization rates

News / Political Context

- While case numbers continue to increase, locations seeing a marked increase in cases are not seeing the same rates of hospitalization and need for intensive care as the last wave.²
- Countries with highest reported new
 - cases per 1 million daily increases ³:
 - 1. Andorra: 2,381
 - 2. France: 1,331
 - 3. Luxembourg: 1,078
 - 4. Austria: 877
 - 5. French Polynesia: 878

- Countries with **highest reported new**
 - deaths per 1 million
 - 1. Tunisia: 18.4
 - 2. Belgian: 15.8
 - 3. Czechia: 14.5
 - 4. Slovenia: 12
 - 5. Bosnia and Herzegovina: 10
- Daily confirmed deaths doubling most rapidly in Slovakia, Sri Lanka, Slovenia, Georgia, Tunisia, Czechia, Jordan.⁴
- Cases doubling rapidly in Lithuania, Saint Lucia, Liechtenstein, Poland, Slovenia, Switzerland,
 Slovenia, Jordan, Georgia.⁵
- The COVID-19 pandemic remains a "public health emergency of international concern" following the IHR meeting on 29th of October, to reconvene in three months
 - Proportion of COVID-19 cases in younger populations have been observed over time⁶:
 - o 15-24 Years age group: increase from 4% to 14% during the most recent epi week

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

² <u>NYT</u>

³ Our World in Data Incidence

⁴ <u>https://ourworldindata.org/coronavirus</u>

⁵ Reference to ECDC data using <u>https://ourworldindata.org/coronavirus</u>

⁶ WHO Epi Update 12

- 25-64 age group: increase from 50% to 65%
- \circ $\;$ Smaller increases also seen in 0-4 years (0.5-2%) and 5-14 years (1-5%) $\;$
- 65+ years of age saw a decrease from 40% to 15% in recent weeks (*note, this is still proportionately higher than the estimated percentage of the global population)
- Proportion of deaths by age groups have changed since the beginning of the pandemic the age group 25-64 years increasing from an original 10% to 25% and 65+ years decreasing from an original 90% to 75%
- Hundreds of Mink farms in the process of being culled throughout Denmark following infection of hundreds of humans with a SARS-CoV-2 strain from minks. Prior to this the Netherlands have culled mink farms throughout the country following evidence of infection, and over 3,000 deaths due to COVID-19 in a mink farm in Wisconsin, USA have been reported (although there are no reported human cases associated with the USA mink outbreak)
 - The Danish government reported a variation (confirmed in at least 12 individuals)⁷
 appears to decrease the ability to form antibodies, although evidence for this claim is still under investigation, the region is on strict movement measures.⁸
 - To date, 6 countries, namely Denmark, the Netherlands, Spain, Sweden, Italy, and the United States of America have reported SARS-CoV-2 in farmed minks to the World Organisation for Animal Health (OIE).
 - the Swedish SARS-CoV-2 mink strain has already been genotyped and found not to present the amino acid changes in the spike protein that were found in the 'cluster 5' variant, identified recently in Denmark. The Danish strain was considered to be associated with a decreased susceptibility to post-infection antibodies induced by SARS-CoV-2 in humans, leading to Denmark's decision to cull its entire mink population. - Mod.AS.
- Increasing evidence that recovery for COVID-19 patients may not be linear as we learn more about the longer-term effects on multiple systems
- There is **no notable difference between Male and female proportion of cases or deaths globally**, although these proportions may differ country to country (primarily related to risk factors)
- Africa Region
 - The region experienced a slow increase in cases similar to the past four weeks
 - South Africa, Kenya, and Ethiopia continue to report the highest numbers of new cases, while the highest number of new deaths per million population in the region was reported by South Africa
 - **Uganda** recorded it's highest increase in COVID-19 cases with almost half of new cases from the capital Kampala

Americas Region

- Overall change increase in deaths of 2% compared to last week, and 13% increase in cases compared to last week
- The **United States of America, Brazil**, and **Argentina** continue to report the highest number of new cases, with the United States reporting a 26% increase this week
- Based on a recent study on excess deaths in **Mexico**, the Ministry of Health has said that as many as an additional **50 000 excess deaths** can be attributed to COVID-19.
- $_{\odot}$ The US has seen an estimated 25% increase in mortality rates since September 2nd
- MENA Region
 - The region accounts for 5% of cases globally, and has seen a steady increase over the past month
 - Countries reporting the highest number of new cases include: Islamic Republic of Iran, Morocco and Iraq, all reporting over 550 new cases per 1million population in the past week. The countries with the highest number of new deaths per million population in the past week are Tunisia, the Islamic Republic of Iran and Jordan, with over 28 new deaths per million population.
 - In Iran, authorities declared that they were recording a death from the virus every four minutes
 - **Morocco** has seen a gradual increase in cases and deaths since August, with the majority of cases registered in Casablanca
- European Region:

⁷ WHO report 5 Nov on coronavirus and mink farm variant strain Denmark

⁸ DW: Denmark tightens lockdown over mink coronavirus mutation

- The region experienced a 22% increase in cases and 46% increase in deaths compared with the previous week.
- **France, Italy**, and the **United Kingdom** reported the highest numbers of new cases, although **Andorra**, **Czechia**, and **Belgium** reported the highest **per population** incidence.
- 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
- **France** represented the third highest number of new cases globally with a 27% increase compared to the previous week
- **Belgium** has one of the highest incidents of new cases in the world per 1 million population with 7,000 cases per million (7 day average)
 - Doctors without symptoms and a low viral load have been instructed to continue treating patients while being COVID-19 positive due to the stretched capacity of the Belgian health system. Some patients have been flown to Germany to take strain off of hospitals.
- **Switzerland** has a 14-day incidence of 1192.9 per 100,000 new cases, 497 deaths in the past 14 days and **26.7% test positivity**.
- Slovakia issued 'voluntary' testing among two thirds of it's populations (with those who did not want testing required to quarantine for 10 days with a violation fine of over 1,600 euros), more than 3.6 million individuals were tested in 5,000 testing sites using antigen testing with 38,000 positive cases (1.06% of the population).
- Asia Pacific Region:
 - New cases and deaths in the South East Asia and Western Pacific region have continued to decline primarily due to a decline in India.
 - **Sri Lanka** has reported a 53% increase in the past week in new cases following a cluster of cases found at a garment factory
 - The Marshall Islands reported their first 2 COVID-19 cases in the last week
- **China** has reported over 240 new cases in the past week showing a 32% increase compared to other region

Recent Research/ Evidence

- Ongoing research on <u>the role mass transit plays</u> in SARS-CoV-2 transmission still notes that while
 mass transit poses some of the same risks as any indoor activity, there still is no clear evidence on
 the role of mass transit plays as a driver in community COVID-19 infections. Reasons transmission
 may be relatively low on mass-transit include:
 - Relatively better ventilation than other enclosed spaces
 - Shorter trips
 - Less likely for people to speak during the journey (speaking, singing, etc. is associated with higher particle dispersal)
 - Ridership is down & people generally compliant on mask wearing
- <u>Review</u> of the literature show that school openings likely have not had a significant impact on surges of transmission rates at the population level – a similar comment was made on the risk of transmission and infection among teachers and staff.⁹
- Hospitalized patients with COVID-19 were 3x more likely to die due to COVID-19 in March 2020 compared to August 2020. Multiple reasons are related to this, including better understanding of treatment and care to COVID-19 patients.
- Examining **transmission patters:** Household contacts represented 57% of identified secondary infections in a South Korean study on contact tracing, in congregate residents (such as

⁹ Pediatrics October 2020, e2020031971; DOI: https://doi.org/10.1542/peds.2020-031971

dormitories, prisons and long-term living residences) there is more potential for close contact often leading to high attack rates¹⁰

- Lancet paper shows that lockdowns were effective in reducing population movement in France during the first wave of the virus in April by about 65%¹¹
- In a pre-print, a variant of SARS-CoV-2 (20A.EU1) was found to emerge in the summer (presumably in Spain) and has been spreading rapidly throughout the region, likely exported several times following summer holidays. At this time it isn't clear whether the variant is spreading quickly due to a transmission advantage, or due to travel movements. The authors also highlight the importance to a coherent approach to managing COVID-19 across the region in order to have a sustained impact.

Clinical Trails

- COVAX is now supported by 186 countries, and is working to scale up manufacturing with the hopes to distribute 2 billion doses fairly by the end of 2021.
- US FDA approved first serology test that looks for neutralizing antibodies for COVID-19: cPass SARS-CoV-2 Neutralization Antibody Detection Kit
- Vaccine manufacturers Sanofi and GlaxoSmithKline have <u>agreed</u> to provide 200 million doses of their joint SARS-CoV-2 vaccine candidate to the COVAX Facility to foster equitable distribution of the vaccine.

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 31 October 2020



Projections for the reproductive number (ICL weekly projections)¹³
 Declining Stable/Growing Slowly Growing Unclear Trend



¹⁰ Science 23 Oct 2020

¹¹ Lancet 28 Oct 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 95% Crl is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the 95% Crl is less than 1, we define the phase as stable/growing slowly. If 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>

As of November 2nd estimates for the effective reproductive number:

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

Humanitarian Impacts

- Mapping of COVID in Humanitarian settings available here depicted below showing COVID-19 cases compared to where vaccination campaigns have been postponed
- 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

- Open WHO: <u>New course</u> for safe, effective and quality clinical care for patients with COVID-19
- Draft Landscape of COVID-19 candidate vacciness
- <u>Solidarity Therapeutics Trial produces conclusive evidence on the effectiveness of repurposed</u> <u>drugs for COVID-19 in record time</u>
- Thailand is the first country to complete a Joint Intra-Action Review of the Public Health Response to COVID-19 in Thailand, available <u>here</u>.