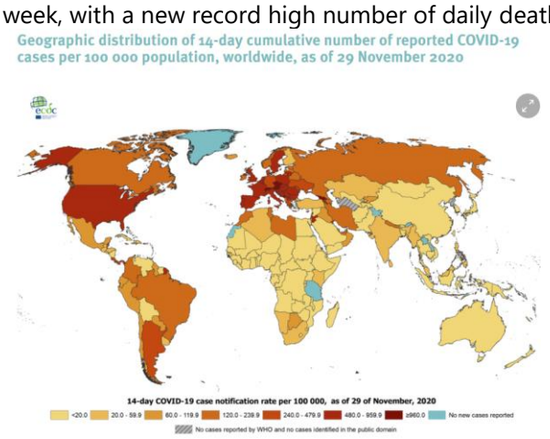
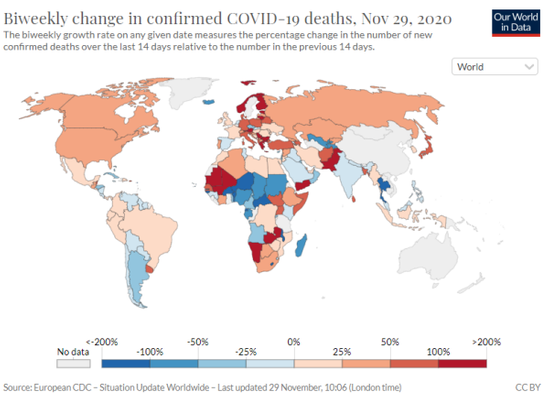
COVID-19 Update: Week 22-28 November 2020

Over 61.6 million cases confirmed and reported, with **over 1.4 million deaths** reported to date (unofficially over 62.7 million cases and over 1.4 million deaths, over 17.9 million active cases and over 43.3 million recovered). **The US, Brazil, India, Mexico, are reporting the highest daily incidences in death** in the last 24 hours. **The United States, India, Brazil, Italy, Russia, Germany, Poland, Ukraine, the UK, Iran, France, Mexico, Colombia, reporting the highest daily increases**, all reporting above 10,000 newly confirmed cases in the past 24 hours.[1] Global accellaration of new cases has slowed, but new deaths continues to rise. There was an 11% increase in incidence of deaths compared to the previous week, with a new record high number of daily deaths (11,863) reported on November 21st.





Note: Upper left (ECDC) map changed scale for shading compared to the previous week to give more definition to the many countries reporting exceptionally high caseloads.

News / Political Context

- Countries with **highest reported new cases per 1 million daily increases** (Nov 28th)[2]:
  1. Georgia: 1,110
  2. Serbia: 1,035
  3. Montenegro: 984
  4. Croatia: 971
  5. San Marino: 943
- Countries with **highest reported new deaths per 1 million** (Nov 28th)
  1. San Marino: 29.5
  2. Macedonia: 19.7
  3. Hungary: 16.1
  4. Poland: 15.8
  5. Slovenia: 14.4
- Testpositivity is highest in Poland (52%), Mexico (44%), Bulgaria (40%), Oman (39%), Macedonia (39%). Mexico currently testing 17.2 per 1,000 people.
- **Daily confirmed deaths doubling most rapidly** in **Gibralter**, **Lichtenstein**, **Greece**, **Sri Lanka, Slovakia, Lithuania, Georgia.**[3]
- Cases doubling rapidly in **Serbia**, **Lithuania**, **Dominica**, **Mongoia**, **Georgia, Saint Lativa**.[4]
- Zoonosis:
  - First genome sequencing published from infection of a cat in France. The cat showed mild symptoms and had the same sequencing as is circulating similar areas of France suggesting that the cat likely was infeted from it's owner. There is still no evidence that cats can circulate the virus back to humans. All testing among dogs was negative.[5]
  - First Mink farm in France has reported infection, genome analysis is underway
- An estimated 14% of cases reported are identified as healthcare workers
- Hospitalization surviaval has increased for COVID-19 patients, primarily due to HW learning, and EAUs, however it remains to be seen if this trend continues as the Northern hemisphere enters into winter and holiday seasons (generally with greater numbers of social gathersings) and strains on healthcare systems continue to rise.
- **Africa Region**
  - Africa region continued to see a 15% increase in new cases and 30% increase in deaths compared to the previous week. The highest new case and death counts were reported in **South Africa, Algeria and Kenya.**
  - **Rwanda** is reported a 25% increase with large outbreaks reported in Kigali, Southern and Eastern provinces.

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[1] *Official numbers and WHO visualizations available here*

[2] Our World in Data Incidence

[3] https://ourworldindata.org/coronavirus

[4] Reference to ECDC data using https://ourworldindata.org/coronavirus

[5] Transboundary and Emerging Disease: DOI: 10.1111/tbed.13659

- In **Zimbabwe** outbreaks at schools have caused closures, with the majority of cases in the country occurring in the age group 20-40 years of age, and the majority of deaths reported from the 40-80 age group.

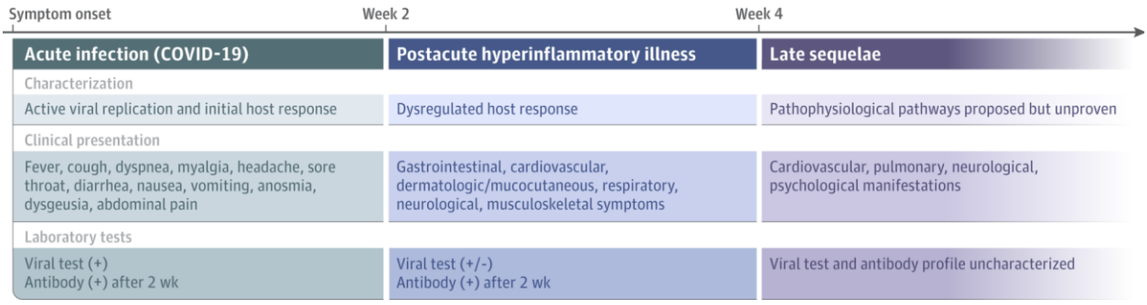
- **Americas Region**
  - Cases continue to rise in the Americas with a 11% increase and 15% increase in incidence in deaths in the past week. The US, Brazil and Mexico have reported the greatest increases.
  - The **US** represents the highest number of new cases in the region, reporting over 1.1 million new cases (9,918 cases per 1 million population). COVID-19 is also now the 3rd leading cause of death in the US.
    - Deaths in the US have increased by 23% compared to the previous week.
    - Despite travel warnings, an estimated **50 million Americans are expected to travel** for the holiday (Nov 26th) this week.
    - US CDC has included 179 countries in their new "level 4" travel restrictions where "avoid all travel" is advised. Cruise ships have also been included in the new guidance.
    - Reports that over 1,000 hospitals throughout the US are critically short staffed. Considerable burdens in rural hospitals are now being shifted to urban hospitals due to capacity
  - **Canada** is also seeing an increased incidence in new cases – in particular among vulnerable populations such as long-term living facilities, indigenous communities, industrial work settings and gatherings.
  - **Argentina** is still reporting the third highest number of weekly cases in the region, but is showing a declining trend in incidence with the exception of increases in neighbourhoods of Buenos Aires.
- **MENA Region**
  - Incidence of new cases continued to rise by 5% compared to the previous week, with a 10% increased incidence of deaths compared to the precious week. Weekly cases and deaths have been increasing in the region since August.
  - **Iran, Jordan, Morocco, Pakistan, Iraq and Lebanon** reported the highest numbers new cases.
  - **Jordan** is reporting the highest number of new cases per million population, with nearly half of all cases reported from the capital of Amman. Most cases are reported in the 25-34 age group, with the majority of deaths in those over 55%.
- **European Region:**
  - The region represents 44% of all cases and 49% of new deaths globally, however, the region continued to decline by 6% in the number of new cases reported compared to the previous week, and deaths saw a decline of 10% compared to the previous week.
  - **Italy** reported the highest number of cases in the region for the week. While the country may have reached its peak, it is seeing an increase of new deaths by 26% compared to the previous week and is reporting high capacity of ICU beds.
  - Hospitalizations: Pooled data from 19 countries reporting to ECDC show that 1.8 patients per100,000 in ICU are COVID-19
  - Czechia and & Belgium's cases peaked slightly before other countries in the region, and we are seeing that they may heve just peaked with corresponding deaths (which are typically delayed 2-3 weeks). France & Spain showing signs they are now reaching their peak
  - **Poland** has reported a rise in new deaths by 35% compared to the previous week.
  - **France's** incidence fell 50% the week of Nov 15th.
  - **Switzerland** has a 14-day incidence of 348.4 new cases per 100,000 population, with 926 hospitalizations and 523 deaths in the past week. Current test positivity rate (the proportion of tests that are positive) is **20.8% test positivity for the last 14-days** (test positivity above 5 is considered high).
- **Asia Pacific Region:**
  - Countries with the highest number of weekly new cases in South-East Asia region were **India, Indonesia, Bangladesh, Nepal and** Myanmar.
  - The Western Pacific continues to see a rise in new cases by 9% compared to the previous week, while deaths still remain stable. Japan, Republic of Korea, Mongolia and Australia reported an increase in cases compared to the previous week. Japan, Philippines,

Malaysia, Republic of Korea and French Polynesia reported the largest number of new weekly reported cases.

- **Myanmar** saw a 74% increase in cases compared to the previous week, with an increase in new deaths by 36%. There appear to be a high increase in cases following the recent elections and gathersing after. International travel has stopped.
- **Sri Lanka** has also continued to see increasing trends in both cases and deaths.
- **Bangladesh** is also reported an increase in new cases by 29% compared to the previous week and increase in deaths. Testing capacities have remained stable, but but test positivity has been on the rise. One of the measures implemented in Bangladesh was to close scools, with many children in the country without access to internet this means they now lack access to education.
- **Japan** reported the largest increase in new cases since the beginning of the outbreak. With a 41% increase from the previous week. The number of new deaths also rose by 28% compared to the previous week.
- **Mongolia** has reported an increase in cases reporting two larger outbreaks
- The previous week also saw notable surgest in Pakistan and Afghanistan.

Recent Research/ Evidence

- Recent study by US CDC have shown cloth masks used by the general public can limit potential infectious droplets in the air for both others as well as the wearer.
  - Recent study in MMWR from Kansas (US) found that counties that implemented a mask mandate saw a 6% reduction of incidence of COVID-19 cases compared to those who did not (and experienced a 100% increase incidence of cases).
- Article in JAMA details various clinical progressions of COVID-19 among patients, highlighting that patients do not nessisarrily go through all phases – and that earlier phases are not required to experience later phases of the disease. This research has consequences for cost and care long after initial diagnosis.



- Research in review process gives evidence for decreased severe disease among those with previous other endemic coronavirus infections. While there is not evidence that prior infection protects one from SARS-CoV-2 infection – it may decrease symptom severity.
- In an analysis of 177,919 samples, fewer that 10% of the US population is estimated to have seroprvalence fo SARS-CoV-2 infection with district ranges from less than 1% to over 23%.6

Clinical Trails

- **AstraZeneca** has started late-stage trials of an **experimental long-acting monoclonal antibody** combination drug it hopes could be used as a so-called prophylactic to prevent COVID-19 infection in at-risk people for up to 12 months7
- **AstraZeneca** reported the results of **phase three trials** with overall efficacy of 70%. Those who received a half dose in the preliminary vaccination showed 90% efficacy and those who received two whole doses showed 62%. The study has included over 11,000 participants and 131 positive COVID-19 cases. The released data is still waiting to be peer reviewed.8
  - The vaccine can be stored at room temperature for up to 6 months.
  - AstraZenica has committed more doses to COVAX than any other manufacturer
- US FDA considering requests of Pfizer and BioNTech for emergency use authorization

6 JAMA 24 Nov 2020

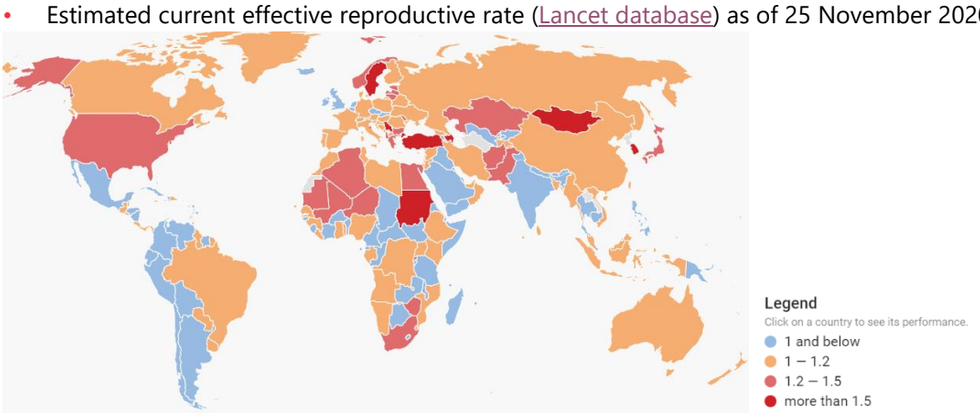
7 https://www.cbc.ca/news/health/astrazeneca-antibody-cocktail-1.5811763

8 STAT 23 Nov 2020

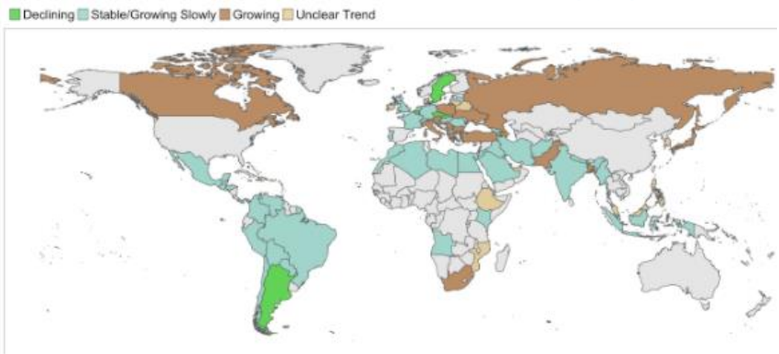
- Preliminary results of the **Sputnik V SARS-CoV-2vaccine** is 91.4% efficacious at 28 days after the first dose and 95% efficacious after 42 days. The study has included 19,000 participants and has identified 39 COVID-19 patients thus far.
- Randomized trial of those who received **convalescent plasma** treatment in **COVID-19 severe pneumonia** found no significant differences were observed in clinical status or overall mortality between patients treated with convalescent plasma and those who received placebo.

Modeling & Forecasting

- Estimated current effective reproductive rate (Lancet database) as of 25 November 2020



- **Projections for the reproductive number** (ICL weekly projections) 9



As of November 23rd estimates for the effective reproductive number:

- **Europe**: Average of about 1, Highest: ***Serbia***: estimated around 1.5
- **Asia**: Average of about 1, Highest: ***Afghanistan*** 1.5
- **Africa**: Average about 1, Highest: ***South Africa*** 1.5
- MENA (not included): Highest: ***Palistine*** (1.5)
- **North & Central America**: Average of about 1, Highest: ***Dominican Republic*** 1.5
- **South America**: Average of about 1, Highest: ***Brazil***: 1-1.5

- **IHME projections** for daily infections using current trends, easing of mandates and increased mask use

Humanitarian Impacts

- Since the beginning of the **conflict in the Nagorno-Karabakh** region between Armenia and Azerbijan **COVID-19 cases have increased 8x in Armenia**, however it has been challenging to track the progression of COVID-19 given the burden of the health system currently with the ongoing conflict.10
- The coronavirus has spread rapidly through the **Yanomami indigenous reservation** in northern **Brazil** and more than 1/3 of its 27 000 people could have been exposed, according to a report produced by their leaders where confirmed cases have risen by over 260% since August.11

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9 **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% CrI is less than 1. If the 2.5th quantile of the effective reproduction number is below 1 and the width of the 95% CrI is less than 1, we define the phase as stable/growing slowly. If the width of the 95% CrI 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. ICL short term forecast

10 Lancet 27 Nov 2020

11 Merco Press 20 Nov 2020

- Dramatic increases of COVID-19 have been observed in **Gaza, Palistine**, likely influenced both by over-crowding and lack of PPE supplies (with restrictions from both Isreal and Egypt). Reports that hospitals and the health system is becoming overrun.
- Reports from **Arsal** (**Syrian refugee camp in Lebenan**) is that misinformation and stigma are leading to COVID-19 to be under-reported throughout the camp, and worries that the high rates of infection currently in Lebenon will be exasperated by the crowding in Syrian camp conditions.12
- Worries of increasing COVID-19 cases in **Afghanistan** and both low-levels of care-seeking behavoir as well as decreased capacity to provide care due to strains on the health system and escalating violence. While efforts have been made to prepare for another COVID-19 wave, it is unclear how they may reduce the impact.13
- 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 (*last updated Epi 22 Nov)*

- Johns Hopkins Center for Health Security released guidance on how to improve Crisis Standards of Care (CSC) based on research following the surge of cases in NYC.
    - Included recommendations that CSC plans need to include specific trigger points and formal declarations the specific scope and situations in which CSC plans apply.
    - Recognizing that one of the major challenges during COVID-19 surges were people not equipment.
- WHO: Guidance on developing a national deployment and vaccination planning for COVID-19 vaccines
- WHO: Priority medical devices list for COVID-19 and technical specifications
- WHO: Diagnostics, therapeutics, vaccine readiness, and other health products for COVID-19, which was developed to assess present and surge capacities for the treatment of COVID-19 in health facilities.
- WHO: Continuity of essential health services: Facility assessment tool
- WHO: Therapeutics and COVID-19: living guideline

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

BMJ living Guidance on clincal treatment for COVID-19 (from WHO, including visuals)

European Centre for Disease Prevention and Control

End Coronavirus Visualizations

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

The COVID tracking project (US focus)

Global Health 5050 Sex desegregated data

Health Map

Imperial College of London

ISARIC COVID-19 resources

12 Syria Direct (interview with MSF) 22 Noc 2020

13 Lancet 28 Nov 2020

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