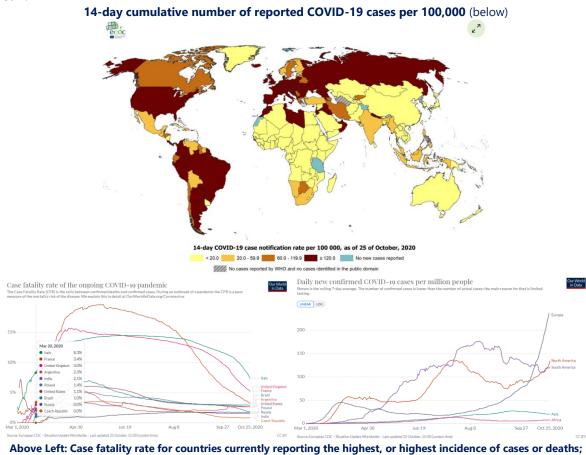
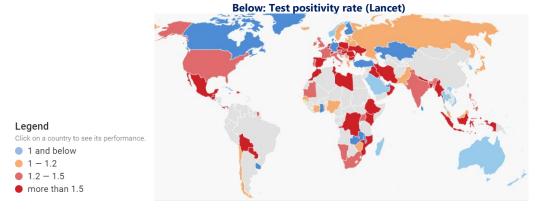
COVID-19 Weekly Update

Over 42 million cases confirmed and reported, with over 1.1 million deaths reported to date (unofficially over 42.9 million cases and over 1.1 million deaths, over 10.1 million active cases (increase from previous week) and over 31.7 million recovered). The US, India, Brazil, Mexico are reporting the highest daily incidences in death in the last 24 hours. The United States, India, France, Brazil, the UK, Spain, Italy, Russia, Argentina, Czechia, Germany, and Poland reporting the highest daily increases, all reporting above 10,000 newly confirmed cases in the past 24 hours. New cases have continued to increase worldwide, with over 2.4 million new cases and 36 000 new deaths reported over the past week (deaths remained relatively stable). Europe is experiencing the highest proportion of new cases globally, reporting over 3x more cases per day than during the April peak.



Above Left: Case fatality rate for countries currently reporting the highest, or highest incidence of cases or deaths; Above Right: Daily newly confirmed cases by region (7-day rolling average per100.000)



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

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. Armenia: 1,528

2. Luxembourg: 1,377

3. Czechia: 1,165

4. Georgia: 967

5. Slovenia: 945

 Countries with highest reported new deaths per 1 million

1. Montenegro: 12.7

2. Guam: 11.8

3. Armenia:11.8

4. Czechia: 9.9

5. Macedonia: 6.7

- Daily confirmed deaths doubling most rapidly in Slovakia, Jordan, Georgia, Czechia, French Polynesia, Tunisia.4
- Cases doubling rapidly in Liechtenstein, Slovenia, Georgia, Czechia, Slovakia, Vatican, Jordan, French Polynesia.⁵
- **Africa Region**
 - Number of new cases has continued to rise (11% more newly reported cases compared to the previous week, and 8% newly reported deaths), primarily driven by South Africa and Ethiopia, with Kenya and Botswana following
 - o Kenya's incidence has increased by a factor of 5since the end of September, returning to the level of transmission experienced earlier in the epidemic.

Americas Region

- o There was a slight decrease in new cases reported across the region last week, but the region accounts for 45% of the deaths reported globally for the last week. Community transmission is still widespread
- Highest incidence of new cases per million population was reported in Argentina, Bahamas, Costa Rica and Saint Martin, all with more than 1600 cases per million in the past 7 days. Highest number of new cases still reported in the US, Brazil, Argentina, Colombia and Mexico.

MENA Region

- o Weekly number of new cases and deaths have continued to increase gradually, reaching the highest weekly incidence since the beginning of the pandemic.
- The Islamic Republic of Iran, Iraq and Morocco are reported the highest number of new cases while **Bahrain**, **Lebanon** and **Jordan** report the highest incidence, with over 1500 new cases per million population.
- **Libya** also showing a surge of new cases, with around 1 in 4 tests coming back positive

European Region:

- The region is reporting over 3 times more cases per day than it did during the original April peak, deaths remain 5 times lower than the peak in April.
- Europe saw its highest increase in both cases and deaths, reporting a 25% increase compared to the previous week in cases and a 29% increase in deaths compared to the previous week, with the majority of countries reporting community transmission. The region has been increasing for 91 days.

² NYT

³ Our World in Data Incidence

⁴ https://ourworldindata.org/coronavirus

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

- France has extended curfew from 9PM to 6AM, Slovenia has also introduced a
 evening curfew after seeing a 150% increase in cases this week. Ireland has
 implemented the most stringent measures in the region, restricting gatherings and
 religious services (schools remain open)
- Belgian reporting at capacity for hospital admissions due to the massive increase in COVID-19 cases (in one testing facility they are seeing 250 people per hour and 1/3 people are testing positive for COVID-19)
- Switzerland: Saw most new reported cases in a day since the beginning of the pandemic. 7-day incidence rates reported over 200 per 100,000 (consistently within the top ten incidence in the world daily)

Asia Pacific Region:

- The Southeast Asia region has seen an overall decline in newly reported cases, and
 Western-Pacific has reported a 8% increase in cases (representing 1% of global cases).
 Most countries are reporting clusters of cases as the primary transmission pattern
 - India has seen a decrease in incidence of 40% in the past 5 weeks
- Nepal has seen new COVID-19 cases increase by 12% from the previous week and deaths increase by 31%
- o **Bangladesh** reported an 8% increase in new weekly cases, most new cases being reported among adults and nearly 2/3 male.
- Myanmar reported a 6% increase in new weekly deaths compared to last week. The
 majority of the cases and deaths continue to be reported from Yangon Region.
- In WHO Western Pacific, most new cases are reported from the Philippines, Malaysia and Japan. Whereas French Polynesia and Guam reported the highest incidence of new cases – 3713 and 3258 new cases per one million inhabitants, respectively.
- Papua New Guinea has seen a 200% increase in newly reported cases compared to the previous week

Recent Research/ Evidence

- Recent study looking at all cause mortality following the first wave of the pandemic in 21 countries, showed a general increase in all-cause mortality with the increase similar among both men and women, despite earlier reports of higher mortality among men.⁶
 - Suggestions from the article show that while 'lockdowns' may be useful in short term decreases in all-cause mortality, they should continue to be viewed as a last resort given the short and long term adverse social, psychological, economic and health consequences. Additional suggestions point to avoiding such measures by including appropriate testing, contact tracing and health strategies.
- Research on excess mortality associated with COVID-19 in the US show that COVID-19 deaths
 likely underestimate the weight of the pandemic, with <u>estimates from US CDC</u> of nearly
 300,000 excess deaths, and 66% of those attributable to COVID-19, with the largest increases
 in mortality among age groups 25-44 years, and among Hispanic or Latino persons.
- New evidence from a case study at a correctional facility in the US shows that "close contact" may not need to be for the extended amount of time previously thought to be infected with SARS-CoV-2. In the case, the correctional officer was only within 6 feet of infected individuals for short time periods at least 22 times before becoming infected. This has also prompted a shift in the CDC definition of a close contact.

⁶ Nature Medicine 14 Aug 2020

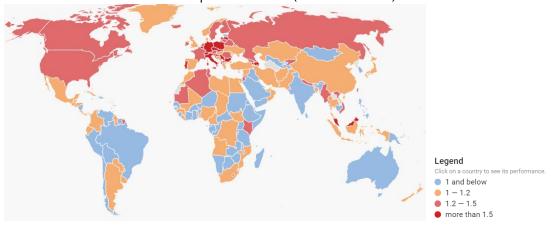
⁷ MMWR 21 Oct 2020 – Vermont

Clinical Trails

- 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.
- 44 candidate vaccines in clinical evaluations, likely to see the majority of data becoming
 available in the beginning of next year, while data from one to two trials may be available by
 the end of the year.
 - Several companies have already begun manufacturing several million doses in preparation once results are released to be able to provide doses to COVAX facility⁸.
- Monoclonal antibodies (two companies Eli Lily and Regeneron) waiting on approval by US FDA
- In the US, 4 vaccines in Phase 3 trials (2 have almost finished enrollment of participants). 2 trials currently on hold due to potentially safety questions
- Interim results from the Solidarity Therapeutics Trial, coordinated by WHO, indicate that remdesivir, hydroxychloroquine, lopinavir/ritonavir and interferon regimens appear to have little or no effect on 28-day mortality or the in-hospital course of COVID-19 among hospitalised patients.⁹
- **Remdesivir** has obtained full regulatory approval as the first drug to treat COVID-19 for patients over the age of 12 and 40 kg. The decision was based off of the success of 3 randomized controlled studies that had statistically significance improvement to recovery time (none had statistically different outcomes in mortality).¹⁰
- Moderna Therapeutics completed enrollment of the Phase 3 clinical trial for its candidate SARS-CoV-2 vaccine, enrolling 300,000 individuals. About 42% of the trial participants are considered "high risk" (due to age, or pre-existing conditions), 37% of enrolled participants are racial or ethnic minorities.
- AstraZeneca/Oxford candidate vaccine phase 3 trials continue one participant has died, however the participant was part of the control group who received an approved meningitis vaccine and died of unrelated causes.¹¹

Modeling & Forecasting

• Estimated current effective reproductive rate (Lancet database) as of 22 October 2020



⁸ WHO press release

⁹ WHO Solidarity Therapeutics Trials

¹⁰ US FDA

¹¹ CNN;

Projections for the reproductive number (ICL weekly projections) 12



As of October 19th estimates for the effective reproductive number:

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

Humanitarian Impacts

- New studies including a recent survey in four countries (DRC, Kenya, Burkina Faso, and Nigeria) 75% of women interviewed reported that their household lost at least partial income since the start of COVID-19, and the major concern listed was feeding the family¹³
- Knowledge of coronavirus remained high, however 90% of women responding in the <u>survey</u> across four countries mentioned physical distancing was not possible as part of their everyday life
- Mapping of COVID in Humanitarian settings available here depicted below showing COVID-19
 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</u> found **here**.

Guidance Launched or Highlighted This week

- Guidance on risk assessments for Health Care workers (WHO)
- Multiple trainings available on https://openwho.org/
- The Lancet COVID-19 Data Portal provides useful maps
- Public consultation for review of draft Considerations for the Assessment of COVID-19
 Vaccines for Listing by WHO
- Useful Sources

¹² **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, 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. ICL short term forecast 13 Institute for Population and Reproductive health, JHU

- 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
- <u>Center for Humanitarian Health: COVID-19 Maternal and Child Health, Nutrition Literature</u>
 Reviews
- 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