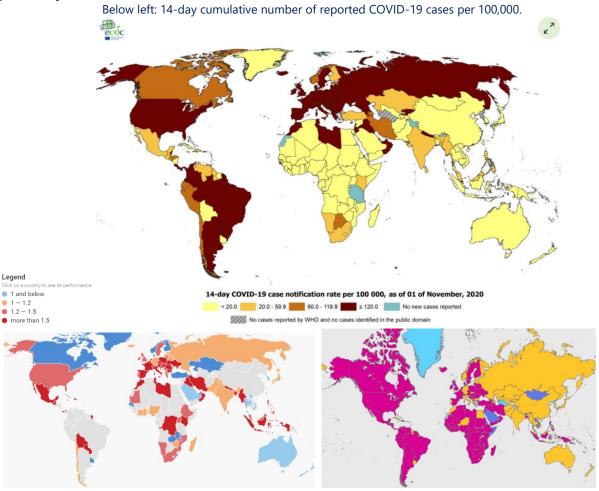
COVID-19 Update 26 October - 1 November

Over 45.9 million cases confirmed and reported, with over 1.1 million deaths reported to date (unofficially over 46.8 million cases and over 1.2 million deaths, over 11.8 million active cases (increase from previous week) and over 33.7 million recovered). The US, Mexico, Brazil and India are reporting the highest daily incidences in death in the last 24 hours. The United States, India, France, Italy, Brazil, the UK, Poland, Russia, Germany, Argentina, Czechia, the Colombia, reporting the highest daily increases, all reporting above 10,000 newly confirmed cases in the past 24 hours. The highest number of new COVID-19 cases have been reported globally last week, with over 2.8 million new cases. Europe accounts for the greatest proportion of new cases reporting 43% of new cases globally in the past 7 days.



Above Left: Test positivity rate (Lancet) Above Right Map by Transmission Classification (Pink=Community Transmission, Yellow= Clusters, Purple= Sporatic Cases, Blue= No cases);

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: 1,178 2. Belgium: 1,159 3. Czechia: 1,067 4. Slovenia: 864 5. Armenia: 824

Countries with highest reported new deaths per 1 million

1. Lichtenstein: 26.2 2. Czechia: 16.2 3. Belgium: 11.4 4. Montenegro: 11.1 5. Aruba: 9.4

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

² NYT

³ Our World in Data <u>Incidence</u>

- Daily confirmed deaths doubling most rapidly in Slovakia, Georgia, Czechia, Jordan, French Polynesia, Tunisia.4
- Cases doubling rapidly in **Slovenia, Liechtenstein**, *Saint Lucia*, **Georgia**, *Switzerland*, **Poland**, **Slovakia**, **Lithuania**, **Jordan**.⁵

Africa Region

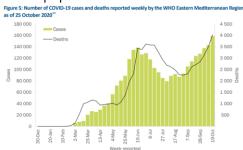
- The region experienced mixed patterns in the epidemic situation, with South Africa,
 Kenya, and Ethiopia continue to report the highest numbers of new cases.
- Kenya has experienced a 51% increase in cases compared to the previous week and now reporting the second highest incidence of cases in the region.

Americas Region

- The region is reporting about one third of new cases in the past week, with the **United States, Brazil**, and **Argentina** reporting the highest number of new cases within the region.
- Cases per million population in the US are reaching close to the previous peak in July,
 13 states have more than 200,000 COVID-19 cases with California and Texas reporting more than 800,000.

MENA Region

- There has been a steady increase in new cases over the past 2 months, with a 6% increase in new cases compared with the week before.
- Highest number of new cases in the region and highest incidence of death per 1 million population is seen in **Iran**, while the highest incidence of new cases per 1 million population is seen in **Jordan**.



• 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 36% increase compared to the previous week in cases and a 37% increase in deaths compared to the previous week. The rate has been increasing for 91 days
- Although the number of deaths is gradually increasing, the proportion of deaths to cases remains relatively low, compared to the early phase of the pandemic in the spring.
- An estimated 18% of reported COVID19 cases have been hospitalized, with 7% of hospitalized patients requiring ICU and/or respiratory support.
- Hospital capacity has been stretched in Czechia (where new deaths per 1 million population have reached their highest level) and in Milan, Italy, where temporary clinics have been opened outside the hospital to relive the health system. The rapid

⁴ https://ourworldindata.org/coronavirus

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

- rise in cases in **Slovenia** the previous week have also stretched national hospital capacity
- 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)
 - 50% of ICU beds are occupied by COVID-19 patients in France In Paris this upwards of 70% of ICU beds are occupied by COVID-19 patients.
- Belgium 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). Officials expect to run out of ICU beds within the next 2 weeks.
- Switzerland: incidence higher than preliminary wave of the pandemic. 14-day incidence estimated for Geneva (where daily incidence is highest) is 1,407 per 100,000 people.

Asia Pacific Region:

- Steady decreases in cases have been seen in the past month in India, Indonesia, Myanmar, Maldives and Bhutan with other countries in the region continuing to fluctuate.
 - India continues to report the highest number of new cases and deaths in the region, but has also seen a 16% decrease in cases and 21% decrease in new deaths compared to the previous week
 - Taiwan reported over 200 days without a locally transmitted case. Taiwan remains a good example how proactive measures (i.e. public messaging on handwashing, face masks, and contact tracing) can be used to control the virus without 'lock-down' measures.
- Overall decrease in new cases reported from the Western Pacific compared to the previous week driven primarily by a decrease in new reported cases in Papua New Guinea and the Philippines.

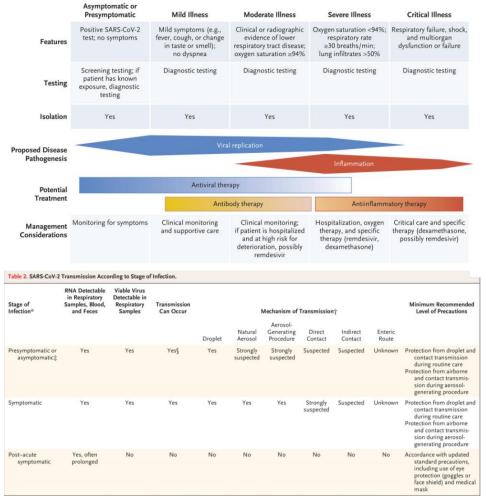
Recent Research/ Evidence

- 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%⁶
- Large study on humoral immunity conducted in Iceland estimates 0.9% of the population had been infected by SARS-Co-V-2, and 30% of infections occurred in those not been identified or quarantined. The study also suggests antibodies were present in those who had been infected for up for 4 months given the study's timeframe.⁷
- Useful diagram on the management of COVID based on disease severity:⁸

⁶ Lancet 28 Oct 2020

⁷ NEJM 29 Oct 2020

⁸ NEJM 29 Oct 2020

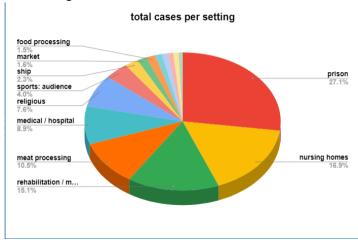


- Stringent controls to limit movement, and specifically the early timing of those controls has had an important impact on containing the spread of COVID-19 across much of the Caribbean. On average, Caribbean governments began controlling movement into countries 27 days before their first confirmed case and 23 days before comparator countries.⁹
- In a <u>pre-print</u>, 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.
- Additional Guidance for mothers who are exposed to, or test positive for COVID-19 while breastfeeding available through a new piece on <u>best practices</u>, highlight:
 - o Mothers who test positive:
 - Should wash hands before and after touching the infant or feeding equipment
 - Avoid using a pump shared by others
 - Wear a mask or face covering during breastfeeding or pumping
 - Follow manufacturer instructions to clean after each use
 - If possible have a healthy caregiver (who does not have COVID-19 but lives in the same home) feed pumped breast milk to the infant.

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⁹ Research in Globalization December 2020

A database compiled by LSHTM from multiple research papers and other sources tracking super-spreading events so far confirms that situations where people are cohabitating in close quarters are the have the highest risk factors

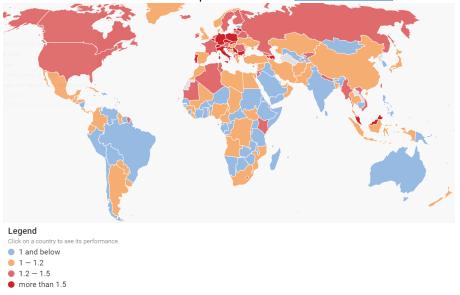


Clinical Trails

- Vaccine manufacturers Sanofi and GlaxoSmithKline have agreed to provide 200 million doses of their joint SARS-CoV-2 vaccine candidate to the COVAX Facility to foster equitable distribution of the vaccine.
- 8 of the 25 clinics involved in Russia's vaccine trials have put the trial on hold due to shortage of doses. 3 clinics are only giving the second dose (administered 21 days after the first) to previous participants. The trial is expected to begin again in full November 10th.
- Interim analysis of a phase 2 trial, one of three doses of neutralizing antibody LY-CoV555 appeared to accelerate the natural decline in viral load over time. 10

Modeling & Forecasting

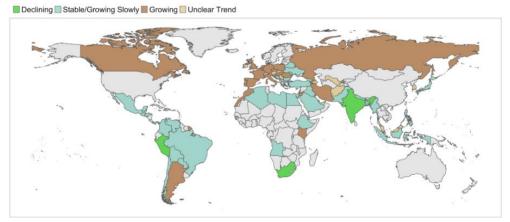
Estimated current effective reproductive rate (Lancet database) as of 31 October 2020



Projections for the reproductive number (ICL weekly projections) 11

¹⁰ NEJM 28 Oct 2020

¹¹ 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



As of October 26th estimates for the effective reproductive number:

- **Europe**: Average of about 1, Highest: **Slovakia**: estimated around 2.5
- Asia: Average of about 1, Highest: *Malaysia* 1.5
- Africa: Average about 1, Highest: Kenya 1.5
- MENA (not included): Highest: Jordan & Morocco (1.5-2)
- North & Central America: Average of about 1, Highest: Canada: 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

- Potential to use **environmental pooled sampling** in low resource settings. A pre-print using this methodology **in low-resource setting** in Buenos Aires using RT-PCR testing they could achieve a sensitivity of 1 case per 135 residents (also matching the expected number through current contact tracing methodologies.¹²
- Using special analysis to examine active cemeteries in Aden, Yemen and civil death notifications, LSHTM research found a peak in daily burials was seen April – July 2020 estimating 1823-2120 excess deaths, with the epidemic waning by September.¹³
- Discussion on complexities of lower reported transmission and deaths in humanitarian settings compared to previous estimates available here
 - **Bangladesh** Cox's Bazar lower infections may have been seen in part due to strict movement restrictions in the camp, along with CBS, contact tracing and other protective measures (compared to external slum settings). Additionally, health services are located within the camp with less mixing across populations. Additionally, refugee populations tend to be younger than host populations.
- 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**.

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

¹² <u>Pre-print</u>: SARS-CoV-2 surveillance in untreated wastewater: first detection in a 2 low-resource community in Buenos Aires, Argentina. 25 Oct 2020

¹³ Pre-print LSHTM 27 Oct 2020

Guidance Launched or Highlighted This week

Weekly update from WHO available here (last updated Epi 27 Oct, Operational 24 Oct)

- Open WHO: New course for safe, effective and quality clinical care for patients with COVID-19
- Assessment tool for laboratories implementing SARS-CoV-2 testing: Interim Guidance
- Draft Landscape of COVID-19 candidate vacciness
- Solidarity Therapeutics Trial produces conclusive evidence on the effectiveness of repurposed drugs for COVID-19 in record time
- HSS WHO: <u>Handbook for public health capacity-building at ground crossings and cross</u> border collaboration
- Thailand is the first country to complete a Joint Intra-Action Review of the Public Health Response to COVID-19 in Thailand, available here.
- US CDC shifted it's <u>definition of a close contact</u> for case investigation which includes 15 minutes of prolonged close contact (within 6 feet) within a 24 hour cumulatively.

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 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

<u>ProMed</u>

Switzerland Specific data and charts

<u>WHO</u>

WHO Technical Guidance for COVID-19

MobLabs

MobLabs Domestic and international risk of importing a case

World Meters