

# Weeks 10-11: COVID-19 Update

March 7 -20, 2021

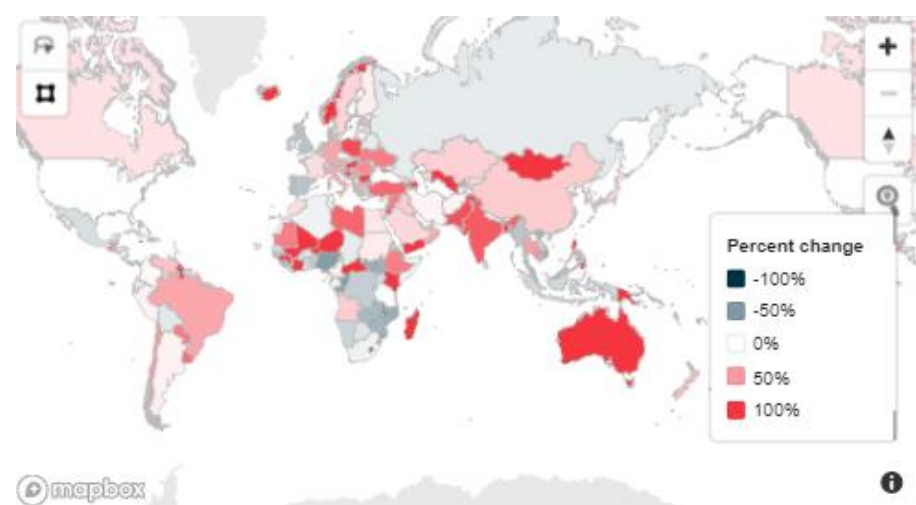
Over **122.5 million cases confirmed** and reported, with **over 2.7 million deaths** reported to date ([unofficially](#) over 123.5 million cases and over 2.7 million deaths, over 21.2 million active cases (increase) and over 99.5 million recovered). **Brazil, The US, Mexico, are reporting the highest daily incidences in death** in the last 24 hours. **Brazil, The US, India, France, Italy, Poland, Turkey, Germany, Ukraine, Hungary, Czechia, are reporting the highest daily increases, all reporting above 10,000 newly confirmed cases in the past 24 hours.**<sup>1</sup> After decreasing trends in January and February, the world has continued to see an increase incidence in reported COVID-19 cases for the third week in a row, by 10% compared to the previous reporting week, while new deaths continue to decline globally. The Americas and Europe continue to account for 80% of new cases and deaths globally. All regions except for Africa reported an increase incidence of cases.

The recent increase is likely due to multiple factors including the spread of new variants in both Europe (primarily B.1.1.7) and Americas (P1 among others) that are more transmissible or have the potential for reinfection (P1 in the Americas specifically) and relaxing of physical distancing and mask requirements as countries begin vaccination campaigns. **At least 143 countries are reporting the roll-out of vaccination campaigns.**

Top 5 countries with biggest bi-weekly percent increase  
Daily new cases per 100k people



Bi-weekly percent change in COVID-19



## News / Context

- Country with **highest reported new cases per 1 million** daily increases (Mar 20<sup>th</sup>)<sup>2</sup> Estonia 1,094
- Country with **highest reported new deaths** per 1 million (Mar 20<sup>th</sup>): Czechia: 19.3
- **Test positivity** is highest in Paraguay (36.2%), Oman (36.1%), Tunisia (34%), Madagascar (35%), Tunisia (34.1%)
- Investigation into origins of the COVID-19 pandemic, point most likely to wild animal farms found (now closed down) in South East China- one of the sources of wild animals in the Wuhan market. WHO report expected to be published later in the week ([NPR](#))
- First detection of B.1.1.7 variant in animals (domestic pets) reported in the US through a [Texas A&M research project](#). The pets were likely infected by their owner who tested positive and showed only mild symptoms before improving.
- [WHO statement on AstraZenica vaccine](#) assures investigations are ongoing, but at the moment all research points to the benefits of the vaccine all outweigh the risks
- Since the onset of the pandemic, **COVID-19 has accounted for 4.4% of all reported deaths** globally, making it the **fourth leading cause of death** behind ischemic heart disease, stroke and COPD. It was also notably the leading cause for death in several countries in South America, Mexico, Spain and France. In Africa region, COVID-19 was the 24<sup>th</sup> leading cause of death ([Think Global Health](#))
- **Tokyo Olympics** to be held without spectators this year.

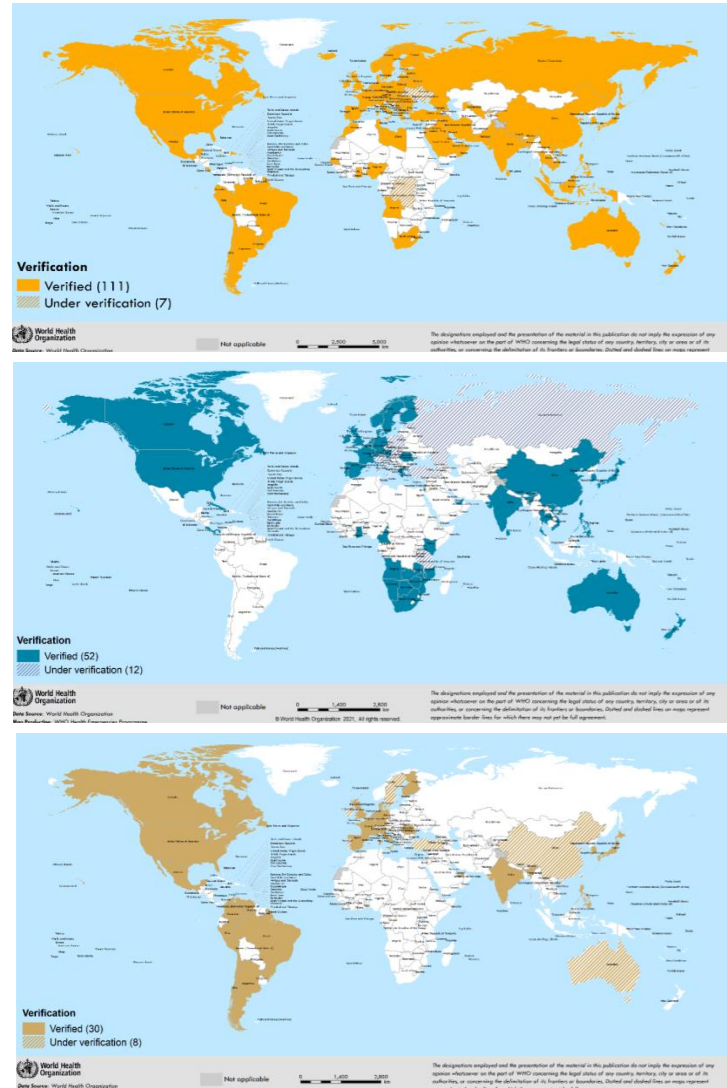
<sup>1</sup> Official numbers and WHO visualizations available [here](#)

<sup>2</sup> Our World in Data [Incidence](#)

## New variants of SARS-CoV-2<sup>3</sup>

New variants are expected as virus mutations are common, but the detection of several variants of concern highlights the need to continue genetic sequencing of samples – noted that these detections are likely underestimates due to low genetic sequencing. Specific resources on variants of interest of concern are available in footnotes, and definitions of VOI per WHO are available [here](#)<sup>4</sup>

- **(SARS-CoV-2 VUI 202012/01 or “B.1.1.7”)** first detected in the UK has now been detected in **118 countries**.
  - Increased transmissibility
  - [Evidence](#) for increased mortality (4.1 deaths opposed to 2.5 per 1,000 detected cases).
  - No significant implications for vaccines, potential implications for testing
  - Proportion of new cases with the variant continue to rise in Europe
- **(501Y.V2 or “B.1.351”)** detected in **South Africa** has been **detected in 58 countries**. With increasing prevalence in many Southern African countries.
  - Increased transmissibility
  - No evidence on increased severity
  - Reduction of neutralizing antibodies from several vaccines (moderate infection) – however vaccines still effective against severe disease
- **B.1.1.28 (P.1) detected in Japan from travellers coming from Brazil** has now been **reported 38 countries**.
  - Potential increased transmission.
  - Decreased neutralization capacity - reinfection has been reported
- Worries that a **mutation detected in Maharashtra, India** may be linked to the significant increase in cases reported from the area. Similar mutations have also been linked to increased transmission of COVID-19 in California, USA ([Telegraph India](#)).
- [Research continues](#) into the **P.3 variant in Philippines** (estimated third generation of the P.1 variant in Brazil).



## Regional Trends

- **Africa Region**
  - Following six weeks of decreasing new reported cases, the region experienced a 10% increase for one week, but remained stable this past week compared to the previous one (with a continued decrease in newly reported deaths).
  - Countries reporting the highest new cases include: **South Africa** (increasing), **Ethiopia** (increasing), and **Kenya** (increasing), with South Africa, Ethiopia and Botswana reporting the highest incidence of new deaths.
  - Seroprevalence studies in Kenya have shown a high prevalence of COVID-19 in tested samples (almost 50%), especially in urban areas prior to the second wave. Ongoing studies continue.
  - Travelers from **Tanzania** continue to test positive, suggesting wide-spread community transmission throughout the country, however the country continues not to report COVID-19 cases to WHO.

<sup>3</sup> Information primarily used from [WHO Situation Reports](#) and updates on New Variants unless otherwise stated. Additional resources listed at the end of the update each week. Definitions of VOC and VOI can be found [here](#).

<sup>4</sup> Additional useful sources: [US CDC](#), [WHO](#), [ECDC Risk Assessment related to SARS-CoV-2 VOC in the EU/EEA](#), [Public Health England investigation of novel SARS-CoV-2 variant](#). Additional resources shared on the last page in the [resource section](#), [GISAID variants tracking](#).

- **Americas Region**
  - The region experienced a 13% increase in new cases compared to the previous week, with a continued decline reported in new deaths. **With the US and Brazil alone accounting for 76% of new cases reported in the region for the week.**
  - Most cases have been reported from the **US** (increasing), **Brazil** (increasing), **Peru** (increasing), with the highest number of new deaths reported in the US (decreasing), Brazil (increasing), and Mexico (decreasing). **These three countries account for 85% of all deaths reported this week.**
  - **Brazil** has surpassed the US in consistently reporting the highest incidence of new cases and deaths globally, and several reports have suggested that the **healthcare system in the country is on the verge of collapse.**
- **MENA Region**
  - For five weeks the region has seen an increase in new cases and three weeks of increasing trends in new deaths (14% and 7% increases compared to the previous week respectively).
  - The Islamic Republic of **Iran** (increase), **Iraq** (increase), and **Jordan** (increase) reported the highest number of cases over the past week, with Iran, Jordan (both increasing) and **Lebanon** (decreasing) reporting the highest number of deaths.
- **European Region:**
  - New cases in the region have been steadily reported in the past three weeks, last week with an increase of 6% compared to the previous week, while still experiencing eight weeks of declines in new reported deaths. The decline in reported deaths is likely due to a number of factors, including increased ICU capacity in many countries, increased knowledge on treatments, as well as increased proportion of vulnerable populations vaccinated throughout the region.
  - The highest number of cases were reported in **France** (increase), **Italy** (increase) and **Poland** (increase), with the highest number of deaths reported by the **Russia** (no change), Poland (decrease), Italy (increase).
  - Many countries in Eastern and Central Europe are experiencing a “third wave,” resembling the second wave observed in November and December.
  - Mortality rate for EU/EEA & the UK was estimated at 66.9 per 1 million people across 30 countries (decreasing for 2 week). ICU new admissions (from 12 countries) were 3 per 100,000 (slight increase compared to previous week). An estimated 10.4 patients per 100,000 are in the hospital across 22 countries due to COVID-19.
  - **Italy** reinstated new lockdown measures following recent increase in cases- estimated to continue until April 6<sup>th</sup>.
  - **Switzerland** (14-day incidence [available here](#)) has a 7-day incidence of 193.2 new cases per 100,000 population (increasing), occupancy rate for ICU for COVID-19 estimated at 17.6% (total ICU occupancy at 67.9%). Positive test rate has remained stable around 4.9% (PCR) and 5.1% (Antigen). Reproductive number has been increasing for the past few weeks and currently estimated at 1.12 (Geneva 1.12).
- **Asia Pacific Region:**
  - The WHO South East Asia region experienced an increase in new cases (by 19%) and decrease in new deaths (by 3%) Countries with the highest number of new cases include **India** (increase), **Indonesia** (decrease) and **Bangladesh** (increase). The same countries reported the highest number of new deaths.
  - Following six weeks of decreasing trends, the WHO Western Pacific region reported increases in both new cases and deaths last week (by 19% and 14% respectively). **Japan, Malaysia & the Philippines** continue to report the highest number of new cases in the region, all of which were also reporting the highest new deaths in the region.
  - **Papua New Guinea** continued to see significant increases in COVID-19 cases

## Recent Research/ Evidence

- Scientists in Brazil have found **multiple cases where people were co-infected with different variants of the virus** – those testing positive for two strains did not have severe symptoms, however the co-infection of multiple variants highlights the potential for recombination of viral strains or SARS-CoV-2 ([Virus Research](#)).
- **Researchers have found there is evidence for increased mortality associated with the B.1.1.7 variant of SARS-CoV-2.** In a recent article published in [Nature](#), researchers found about a 61% increase risk for mortality, and in an article published in [BMJ](#) researchers have found an increase in deaths in those infected with the B.1.1.7 variant from 2.5 to 4.1 per 1,000 testing positive.
- **Equitable access to vaccines** continues to be a concern within countries as well as between countries. In a recent study in the US, using a social and vulnerability index the CDC found that lower coverage availability was found in areas with socioeconomic disparities where the difference in access and vaccination distribution varied by 2.5% points ([CDC MMWR](#)). Despite being at higher risk for infecting, in many locations prisoners have not been prioritized in vaccination roll-outs.
- Analysis on clinical and economic effects of wide-spread rapid testing in the US found that **if a weekly home-based SARS-CoV-2 test was available compared to current status quo, there would be an estimated 8 million averted infections and 15,700 averted deaths.** Incremental costs per death avoided were estimated at \$1.4 million and \$7,890 per case avoided, far outweighing the costs. Costs of this strategy were also found to easily fall into statistical values for cost per life saved even when considering pessimistic behavioral patterns suggesting this strategy should be considered as part of a national containment strategy. Note that the study took place in the US but has implications for abroad ([Annals of Internal Medicine](#)).
- **Wastewater sampling** continues to show benefits to detecting SARS-CoV-2 outbreaks even before detected through laboratory or clinical testing ([pre-print](#)). This research further supports previous research ([pre-print](#)) on the same topic, that also suggests wastewater sampling can be used to detect and track variants of the virus.
- In an effort to increase school re-openings, a study has found no significant difference in COVID-19 cases in public school districts (study from the US) that implemented 3 foot physical distancing policies compared to 6 foot physical distancing policies keeping all other protection mandates in place (including mask wearing and hygiene). [Oxford Clinical Infectious Disease](#).
- **Emerging evidence has shown many people** (even those initially with mild symptoms) have **experienced persistent symptoms 30, 60 and more days following COVID-19 illness.** In a [pre-print](#) study, researchers have estimated that presence of **persistent symptoms were in 52.5% of participants (30 plus days) and 35% participants (60 plus days).** Symptoms were statistically higher among those who were hospitalized (40% higher) and low-income participants.
- Qualitative study from **Bangladesh emphasizes the need to take a science-based professional response involve relevant experts such as public health professionals from the beginning in decision making** to reduce misinformation, improve coordination and legitimacy of care-givers (awaiting peer review [F1000Research](#)).
- In a cross-sectional sample of the population of **Wuhan, China, 6.92% of population study participants developed antibodies against SARS-CoV-2, with only 39.8% of this population having neutralizing antibodies,** with lower neutralizing antibody prevalence among those who were asymptomatic or with mild symptoms. This highlights that even in Wuhan, which was hit hard initially by the virus, a large-scale vaccination effort is needed ([Lancet](#)).
- **Modelling** of the effects of **vaccination and physical distancing** in the UK predict with the continued and expansive roll-out of COVID-19 vaccines, physical distancing requirements may not be required to limit COVID-19 to small outbreaks and may come at a societal unacceptable cost estimate ([Lancet](#)). However, other modelling studies ([Lancet](#)) also suggest that vaccines alone with no **non-pharmaceutical interventions** would not be enough to curb the current trajectory of the pandemic (shown to right).

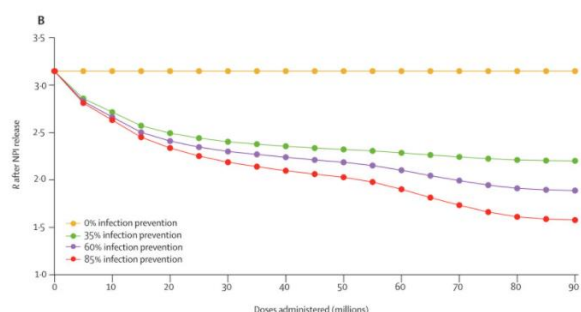
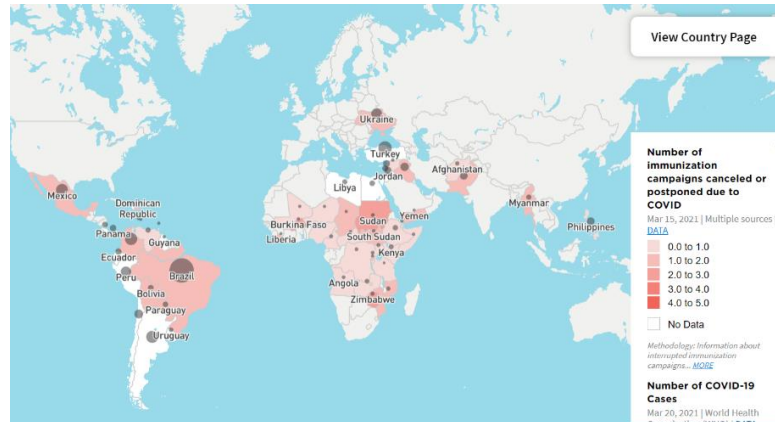
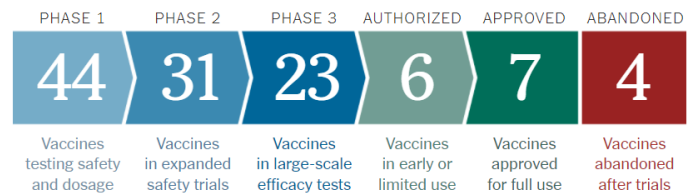


Figure 1 Scheduling and impact of vaccine uptake

## Vaccination Updates

### New additions and recent updates

March 20	Cuba's <b>Abdala</b> vaccine moves to Phase 3.
March 18	The U.S. will send surplus doses of the <b>Oxford-AstraZeneca</b> vaccine to Mexico and Canada.
March 18	Europe's drug regulator says the <b>Oxford-AstraZeneca</b> vaccine is safe.
March 16	Canada's <b>Medicago</b> begins a Phase 3 trial of a plant-derived vaccine.
March 16	<b>Meissa Vaccines</b> begins a Phase 1 trial of an intranasal vaccine.
March 16	Iran's <b>Ministry of Defence</b> announces a new Phase 1 vaccine.
March 15	China authorizes a vaccine by <b>Anhui Zhifei Longcom</b> and <b>IMCAS</b> .
March 15	Germany, France and Italy are the latest countries to suspend use of the <b>Oxford-AstraZeneca</b> vaccine.
March 13	Brazil gives full approval to the <b>Oxford-AstraZeneca</b> vaccine.
March 12	A vaccine from <b>Sanofi</b> and <b>Translate Bio</b> enters Phase 1/2.
March 11	<b>Novavax</b> reports strong trial results.
March 11	Italy's <b>ReiThera</b> moves to Phase 2/3.
March 11	The European Union authorizes <b>Johnson &amp; Johnson's</b> vaccine.
March 11	Denmark, Iceland and Norway suspend the use of the <b>Oxford-AstraZeneca</b> vaccine because of concerns about blood clots.



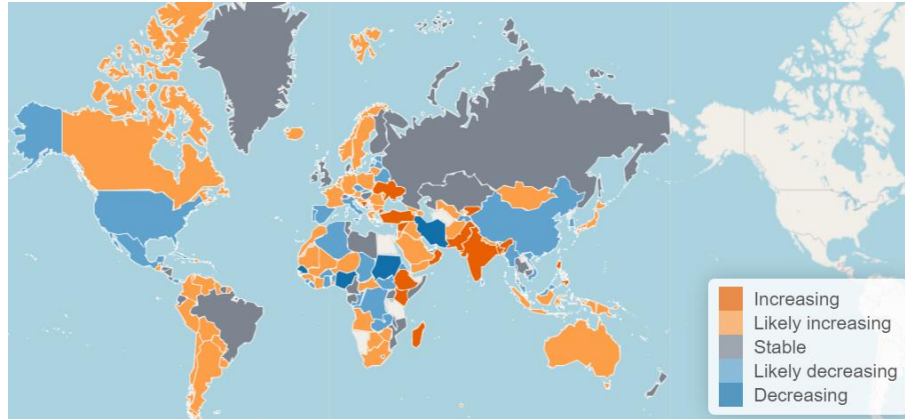
### Resources:

COVAX and other vaccine distribution in humanitarian settings ([HdX](#)); Coronavirus Vaccine Tracker (above [NYT](#)); COVID-19 vaccine tracker ([LSHTM](#)); COVID-19 vaccine tracker ([RAPS](#))

- In an article published in [NEJM](#), researchers in South Africa and the UK found that **AstraZenica vaccine had a low efficacy against the B.1.351 variant**. Of note, the results were not statistically significant, and there were no reports of severe illness (in control group or vaccinated group), but researchers found efficacy against the new variant to be around 10.4%
- Important to note that it is **challenging to make comparisons across vaccines** using the clinical data available, because each was conducted independently and cannot necessarily be comparable with each other – this should be emphasized as people begin (in some high-income countries) to weigh the benefits of one vaccine against another. When options exist, healthcare providers will consider the risks and benefits of each individual for vaccine selection (some resources: [Atlantic](#).)
- The European Medical Association has continued to support the benefits outweigh the risks of the AstraZenica vaccine
  - **Several European countries have stopped administration of the AstraZenica vaccine due to concerns regarding blood clots in elderly patients**. Trial studies do not show a correlation with blood clots and the vaccine, however additional investigations are underway.
  - Additionally, **DRC and Cameroon have suspended the roll-out of the AstraZenica vaccine**. Perceptions of the vaccine in Africa region remain a concern regarding vaccine roll-out delays given that the vaccine is one of the few that can be stored at higher temperatures, making the supply chain easier in rural locations throughout the region.
  - **Both WHO and EMC (European Medical Commission)** have released statements that while research is ongoing, there is no convincing evidence that says the risks of AstraZenica vaccine outweigh the benefits
  - **Africa CDC** also recommends that African Union member states should continue to utilize and roll-out vaccination efforts with AstraZenica
- Some people who received doses of the Sinovac vaccine in UAE have required a third dose of the vaccine to boost the immune response to acceptable levels
- **Moderna** administered first doses of it's Phase 2/3 [clinical trial in children](#) 6 months to 12 years of age, and began [Phase 1 of clinical trial](#) of a version of the vaccine that does not require the same extreme cold chain for distribution.

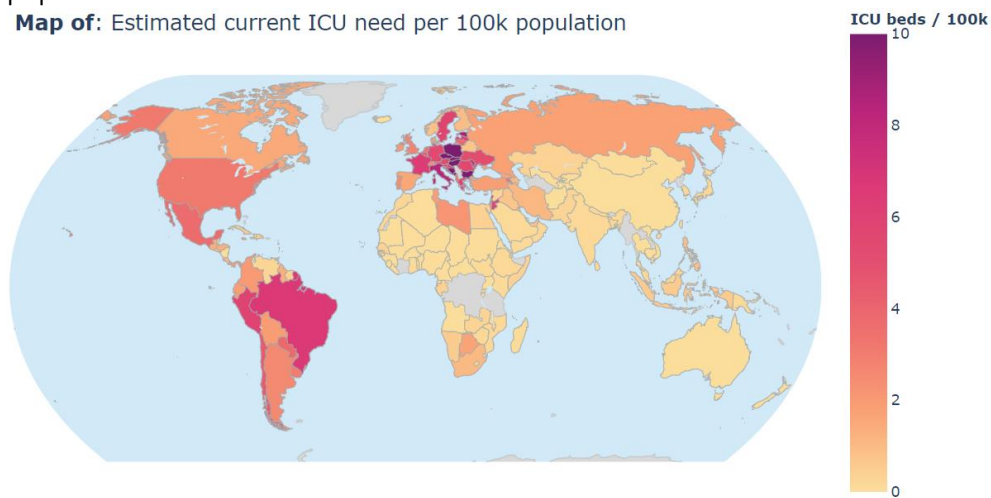
## Modeling & Forecasting

- Reproductive number estimates from the [LSHTM Mathematical modeling department](#) (showing trends of increasing, no change or decreasing):



- Imperial College of London mathematical modeling of [estimated ICU needs](#) per 100k population:

**Map of:** Estimated current ICU need per 100k population



- [IHME](#) updated estimates also show estimated increasing effective reproductive rate compared to previous two weeks in the Americas leading to higher mortality rates in Brazil and Peru:


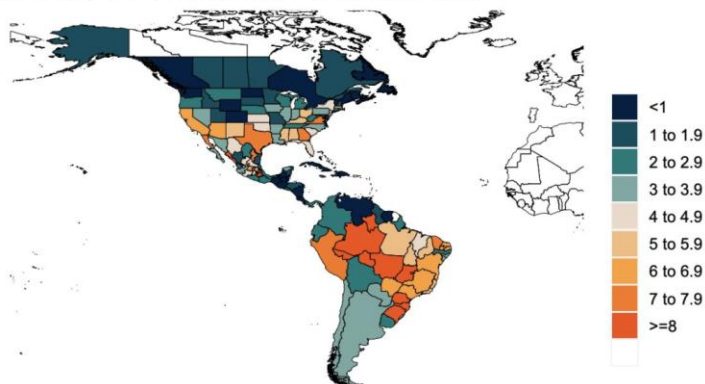
 IHME Region of the Americas COVID-19 RESULTS BRIEFING

Figure 3. Daily COVID-19 death rate per 1 million on March 08, 2021



## Humanitarian Impacts

- UNICEF reporting that **over 168 million school children have had school closures affect them during the pandemic**, with two thirds of countries with full or partial closures are in Latin America and the Caribbean ([UNICEF](#))
- More than **94 million people are at risk for having missed a vaccine** due to changes in campaigns in 2020 ([UNICEF](#)).
- Papua New Guinea** scheduled to impose new measures following a dramatic increase in new cases, overwhelming the health system. **Half of pregnant women in hospitals are testing positive** for COVID-19 with large numbers of healthcare workers and **test positivity as high as 30% in some locations**. Meanwhile vaccinations are not scheduled to arrive in the country to begin vaccination campaigns for weeks (end of April) through COVAX. Australia has promised a shipment of vaccines in the meantime, but no timeline is yet available. The current spike and lack

of access to vaccines highlights in the inequalities of vaccine access across countries ([New Humanitarian](#)).

- [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 \(last updated March 7 & 16th\)](#)

- US CDC [Interim Public Health Recommendations for Fully Vaccinated People](#)
- [COVAX First Round of allocations](#)
- WHO: [Background document on the AZD1222 vaccine against COVID-19 developed by Oxford University and AstraZeneca](#)
- WHO [COVID-19 vaccine checklist](#)
- WHO: [Health worker communication for COVID-19 vaccination flow diagram](#)
- [WHO adds Jensen vaccine to approved list](#)
- Collective Service: [10 steps to community readiness: What countries should do to prepare communities for a COVID-19 vaccine, treatment or new test](#)
- Updated IFRC Guidance available on the [Health Help Desk](#)

### 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 clinical treatment for COVID-19 \(from WHO, including visuals\)](#)

[European Centre for Disease Prevention and Control](#)

[End Coronavirus Visualizations](#)

[Evidence Aid COVID-19 Evidence](#)

[Center for Humanitarian Health: COVID-19 Maternal and Child Health, Nutrition Literature Reviews](#)

[The COVID tracking project \(US focus\)](#)

[COVID-19 Vaccine Tracker](#)

[Global. Health](#)

[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 \(Phylogeny of SARS-CoV-2\)](#)

[OCHA HdX](#)

[Our world in Data](#)

[PLOS COVID-19](#)

[ProMed](#)

[Switzerland Specific data and charts](#)

[Transdisciplinary Insights e-journal: Living Paper: COVID-19](#)

[WHO](#)

[WHO Technical Guidance for COVID-19](#)

[MobLabs](#)

[MobLabs Domestic and international risk of importing a case](#)

[UNICEF COVID-19 vaccine dashboard](#)

[World Meters](#)



