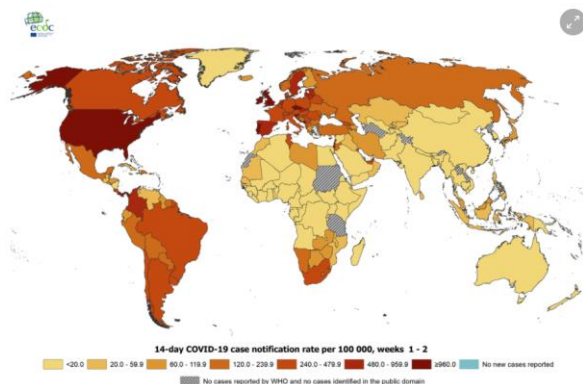


# Weeks 2-3: COVID-19 Update

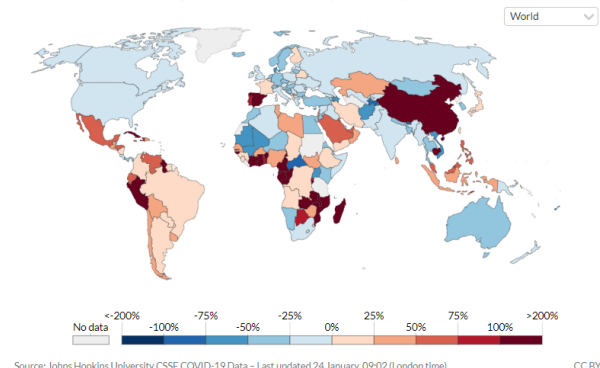
10- 23 January 2021

Over 97.4 million cases confirmed and reported, with over 2.1 million deaths reported to date ([unofficially](#) over 99.5 million cases and over 2.1 million deaths, over 25.8 million active cases (increase) and over 71.5 million recovered). **The US, Mexico, the UK, Brazil reporting the highest daily incidences in death** in the last 24 hours. **The US, Brazil, the UK, France, Russia, Mexico, Portugal, Colombia, India, Italy, South Africa, Germany, Indonesia, Argentina, reporting the highest daily increases**, all reporting above 10,000 newly confirmed cases in the past 24 hours.<sup>1</sup> The Americas, Europe and Southeast Asia all showed declines in overall reported cases in the last week, with MENA, Africa and Western Pacific reporting increases. However, all regions reported an increase in new deaths (9% global increase), reaching new global records for incidence of COVID-19 deaths.

14-day COVID-19 case notification rate per 100 000, weeks 1-2



Biweekly change in confirmed COVID-19 cases, Jan 23, 2021  
The biweekly growth rate on any given date measures the percentage change in the number of new confirmed cases over the last 14 days relative to the number in the previous 14 days.



## News / Context

- Countries with **highest reported new cases per 1 million daily increases** (Jan 24<sup>th</sup>)<sup>2</sup>:
  1. Portugal: 1,504
  2. Andorra: 1,074
  3. Monaco: 866
  4. Czechia: 1,180
  5. Slovenia: 741
- Countries with **highest reported new deaths per 1 million** (Jan 24<sup>th</sup>)
  1. Andorra: 38.8
  2. Portugal: 26.9
  3. The UK: 19.9
  4. Ireland: 15.6
  5. Lithuania: 13.6
- Test positivity is highest in Bolivia (44%), Mexico (41%), DRC (38%), Malawi (38%), Oman (36%).
- **Daily confirmed deaths doubling most rapidly** in **Comoros, Malawi, Saint Lucia, Monaco, Botswana**.<sup>3</sup>
- Cases doubling rapidly in **Saint Vincent and the Grenadines, Seychelles, Comoros, Saint Lucia**.<sup>4</sup>
- **Cyber attack on European Medicines Agency (EMA)** targeted information on vaccine clinical trials and authorization process. EMA reported several documents have since been modified by the attackers and published publicly with the intent to decrease public opinion on the COVID-19 vaccine.
- **Independent Panel** for Pandemic and Preparedness and Response evaluation of the response to the COVID-19 pandemic noted “a series of **critical early failings in the global and national responses to COVID-19**. There had been a failure to prepare adequately for a pandemic threat, despite years of warnings that better preparation was necessary” and that WHO and academic institutions did not do well in predicting how countries and governments would control the pandemic. Full report available [here](#).
- **South Africa has reported potentially 4,000 reinfection cases of COVID-19** marking concerns and additional investigation since there have been relatively few reinfection cases documented globally.

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

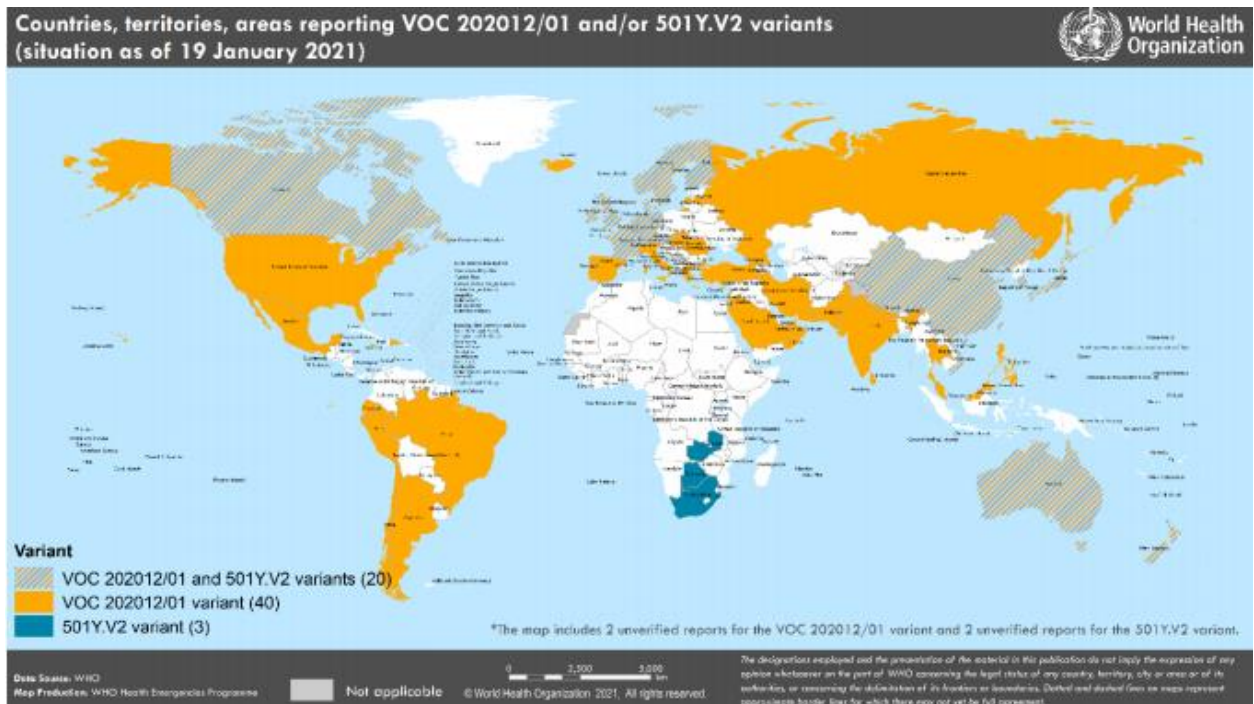
<sup>2</sup> Our World in Data [Incidence](#)

<sup>3</sup> <https://ourworldindata.org/coronavirus>

<sup>4</sup> Reference to ECDC data using <https://ourworldindata.org/coronavirus>

## New variants of SARS-CoV-2

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.<sup>5</sup>



- **(501Y.V2) detected in South Africa** has been detected in 23 countries.
  - Preliminary investigations show the variant is more transmissible, although it does not cause more severe illness it has placed health systems under greater pressure. More details [here](#).
- **(SARS-CoV-2 VUI 202012/01 or “B.1.1.7”)** detected in the UK has now been detected in 60 countries, and all local regions of England.
  - **Sex and age distribution of the new variant is similar to previous variants.**
  - Contact tracing has shown **higher transmissibility** (secondary attack rate) with the new variant with more contacts listed testing positive than previous variants (some estimates place potential transmissibility 50-70% higher)
  - Ongoing studies on the variant are available [here](#) from Public Health England
  - [Pre-print article](#) suggests there is evidence that the new **variant has been circulating in the US since November** from multiple introductions
  - CDC officials projected that the B.1.1.7 variant is likely to become the [dominant variant in the US](#)
- **B.1.1.28 (P.1) detected in Japan from 4 travellers coming from Brazil** which contain several of the same mutations as the two above variants. The extent and significance of these variants is still under investigation.
  - Variant identified in **Nigeria** was first detected in the [state of Osun still under investigation](#)

## Regional Trends

- **Africa Region**
  - Africa has seen the high percentage increase in both cases and deaths compared to the previous two weeks, with a 34% increase in reported new cases the first week and continued 1% increase the second. The region reported a 31% followed by a 16% increase in the past two weeks in deaths. Cases in the region have been increasing since mid-September with the most rapid increases observed since mid-November.
  - Countries reporting the highest new cases include: **South Africa, Nigeria, and Zambia** and **Zimbabwe**, with South Africa, Zimbabwe and **Malawi** reporting the highest number of deaths.
  - Nigeria officials reporting strains in hospitals and isolation centres throughout the country as they continue to see a spike in new cases.

<sup>5</sup> Additional useful sources: [US CDC](#), [WHO](#), [Sit Rep 19 Jan \(WHO\)](#), [ECDC Risk Assessment related to SARS-CoV-2 VOC in the EU/EEA](#), [Public Health England investigation of novel SARS-CoV-2 variant](#)

- [Pre-print](#) study examining the incidence of COVID-19 among deceased at the University Teaching Hospital (UTH) morgue in Lusaka, Zambia found the majority of COVID-19 related deaths took place in the community and did not have access to testing. Additionally, the majority of deaths at a health facility also did not have COVID-19 testing prior to death despite many of them having the typical symptoms of COVID-19 **indicating that the true incidence of COVID-19 and related deaths are likely underestimated in Lusaka, Zambia.**
- Efforts underway to strengthen genomic sequencing throughout the region. Currently Africa represents only 2% of sequences done thus far. Ongoing efforts to research the emergence of two new variants found in South Africa and another in Nigeria.
- **Americas Region**
  - The region saw a 30% increase in new reported cases followed by a 2% decrease in the past 2 weeks and 18% followed by a 15% increase in reported deaths compared to the previous week. The majority of cases have been reported from the **US, Brazil, Colombia**, with the highest number of new deaths reported in the US, Brazil and **Mexico**.
  - COVID-19 cases **continue to accelerate throughout the Caribbean**
  - The **US** surpassed 400,000 deaths since the beginning of the pandemic, and currently is reporting a 17.5% increase compared to the previous pandemic peak. The US now requires all passengers to have a negative COVID-19 test prior to entering the US within 3 days or proof of previous infection and recovery.
    - 4,383 new deaths were reported on 21 Jan, the highest single-day total to date
  - **Brazil's** total recorded deaths from COVID-19 pass 200,000
  - **Latin America continues to report a surge in COVID-19 cases** with Mexico reporting 90% hospital beds occupied
- **MENA Region**
  - Following a sustained decrease since the end of November, the region saw an increase of 11% and 7% respectively for reported new cases compared to the previous week, with deaths continuing to decrease. The Islamic Republic of **Iran, Lebanon**, and **UAE** reported the highest number of cases over the past week, with Iran, **Tunisia** and **Egypt** reporting the highest number of deaths.
- **European Region:**
  - The region continues to report a large increase in cases, but decreased by 15% compared to the previous week. The region reported an increase in deaths (7% and 2%) for the past two weeks. The highest number of cases were reported in the **UK, Russia** and **France** and **Germany**, with the highest number of deaths reported by the UK, Germany, **Russia**, and **Italy**.
  - Several countries have **shifted their requirements from cloth masks to medical masks on public** transport (Germany and Austria) with other countries considering similar moves. The goal is to enhance protection for the wearer and those around them, as it is difficult to tell the quality of cloth masks from person to person (some meet filtering requirements, some do not).
  - **Portugal** showing a dramatic increase in the incidence of new cases and deaths reported due to COVID-19
  - Mortality rate for EU/EEA & the UK was estimated at 103.2 per 1 million people across 31 countries
  - **Switzerland** ([14-day incidence available here](#)) has a 7-day incidence of 374 new cases per 100,000 population, occupancy rate for ICU for COVID-19 estimated at 34% (total ICU occupancy at 73.5%). Positive test rate 12.6% (PCR) and 10.6% (Antigen).
- **Asia Pacific Region:**
  - The WHO South East Asia region continued to show declines in both cases and deaths since early September. Countries with the highest number of new cases and deaths include **India, Indonesia** and **Bangladesh**.
  - New cases in the Western Pacific Region have increased by 36% and 14% over the last two weeks and deaths have increased by 14% and as high as 35% in the second week. Compared to the previous week **Japan, Malaysia** & the **Philippines** continue to report the highest number of new cases in the region, highest deaths reported by Japan, the Philippines and **Republic of Korea**.
  - **New variant** of SARS-CoV-2 discovered in four passengers arriving in **Japan** from Brazil which is genetically distinct from the 501Y.V2 and VUI 202012/01. At this time the new variant does not appear to be more severe, or transmissible, but studies are underway.

- **Japan** experiencing one of the largest surges in COVID-19 cases, with a state of emergency declared in Tokyo.
- **China** expands lock-down to Shijiazhuang and Xingtai as well as cities in 11 other provinces as they seek to contain the recent spread of COVID-19.

### Recent Research/ Evidence

- Study published in [JAMA](#) looking at surges in ICU capacity in CA and IN in the United States found **patients treated in an ICU when demand—percent of the maximum ICU patient load—was greater than 75% were nearly twice as likely to die compared to patients treated when ICU demand was 25% or less.**
- Research ongoing to understand **transmission risks among children** and at schools. Several studies have shown there have not been significant increases in new cases associated with school openings except for select cases where mitigation measures were not enforced. Typically, transmission in schools reflects community transmission patterns, therefore, it remains essential to keep community transmission low, and have protective measures in place at school facilities.
  - Smaller class sizes, children over 12 wearing masks and physical distancing is encouraged
  - School closures should be considered even as a last resort and should only be temporary then. When closed remote learning and psychosocial support should be provided, and other services (meals, immunization, etc. should be maintained).<sup>6</sup>
- In a [preprint article](#), researchers have found a strong **correlation between high saliva viral loads of SARS-CoV-2 and severe disease and death.**
- In a systematic review published in [JAMA](#) saliva NAAT had a similar sensitivity and specificity to that of nasopharyngeal NAAT, meaning saliva can offer an alternative to the traditional nasopharyngeal swab.
- In a study of 406446 hospitalized women for childbirth, **higher rates of preterm birth, preeclampsia, thrombotic events and death among women with COVID-19**, highlighting the need to include pregnant women in trials for COVID-19 treatment ([JAMA](#)).
- Large systematic review of the evidence supports the strong encouragement of public mask use by governments in policy ([PNAS](#)).
- Study in [JAMA](#) found that government **restrictions in Nigeria** were associated with significant **reductions in aggregate mobility** trends (using mobile data) and potentially **slowed the spread** of COVID-19 in the country. Accelerated community spread was however noted in residential areas, transit hubs and workplaces.
- Research from the state of Massachusetts suggest that an increase in suicide deaths in was not associated with the stay-at-home advisory (comparing matched data from 2019 and 2020). [JAMA](#)
- A study in the [Lancet](#) have found at **6 months after acute infection**, COVID-19 survivors were mainly troubled with fatigue or muscle weakness, sleep difficulties, and anxiety or depression. The symptoms were typically reported worse among those with more severe symptoms during COVID-19 infection.
- A self-reported survey of over 370,000 individuals in the US found mask use and physical distancing found that a **10% increase in mask use compliance was associated with increased transmission control.** However, reported mask use increased separately from when government mandates were put in place, highlighting a need for stronger PH messaging ([Lancet](#)).
- A small [study](#) found the potential for **Ivermectin** to be used as treatment for COVID-19, and was found to reduce viral load and improve recovery time. Additional larger studies are needed.
- **Eli Lilly** states in a clinical trial (not published or peer-reviewed yet), their monoclonal **antibody treatment** bamlanivimab may be used as a **prophylaxis and was associated with an 80% reduction in developing COVID-19** after 8 weeks ([STAT](#)).
- Preliminary data from **Pfizer show effectiveness of it's vaccine against the new variant ("B.1.1.7"** originally discovered in the UK), with more studies continuing ([pre-print](#)).

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<sup>6</sup> Key References available for schools listed on page 6 of [19 Jan 2021](#) WHO Situation Report



## Vaccination Updates

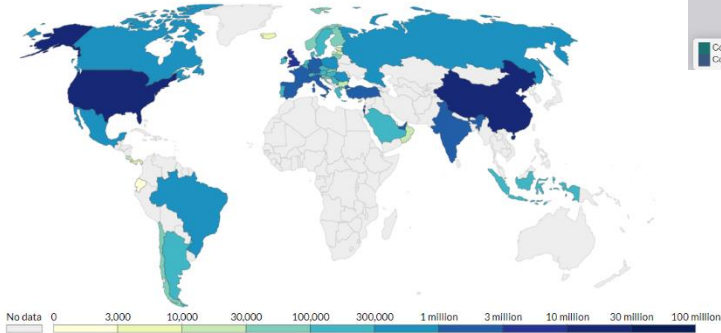
Useful sources for tracking vaccination progress:

### New additions and recent updates

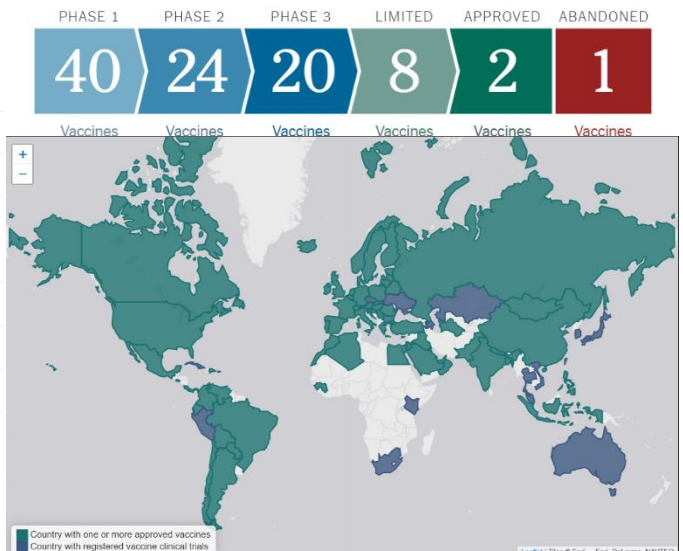
- Jan. 21 **Gamaleya** begins testing a single-dose version called "Sputnik Light."
- Jan. 21 Turkey's **Erciyes University** moves to Phase 2.
- Jan. 20 Korea's **Genexine** moves to Phase 1/2.
- Jan. 14 The **Israel Institute for Biological Research** moves to Phase 2.
- Jan. 13 Brazil announces **Sinovac's** vaccine has an efficacy of just over 50 percent.
- Jan. 12 California-based **Arcturus** moves to Phase 2.
- Jan. 12 Canada's **VIDO** enters Phase 1/2.

Cumulative COVID-19 vaccination doses administered, Jan 23, 2021

This is counted as a single dose, and may not equal the total number of people vaccinated, depending on the specific dose regime (e.g. people receive multiple doses).



Source: Official data collated by Our World in Data - Last updated 24 January, 08:20 (London time)

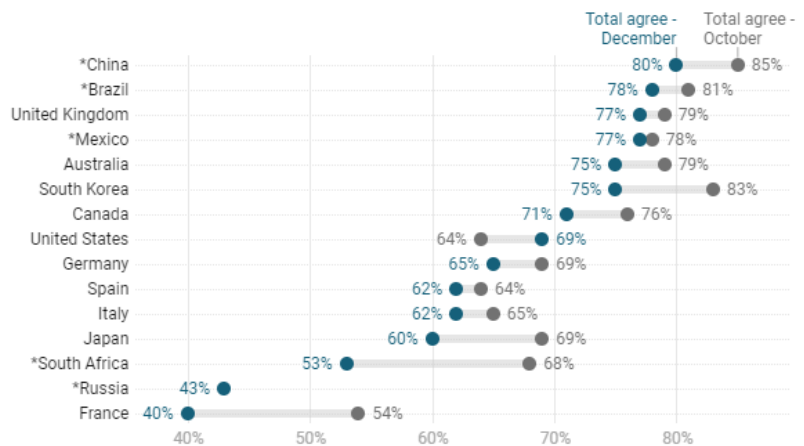


Left: Vaccination progress shown above (Source: [Our World in Data](#))

- [Coronavirus Vaccine Tracker \(NYT\)](#)
- [COVID-19 Vaccine Tracker \(McGill\)](#)
- [COVID-19 vaccine tracker \(RAPS\)](#)

- Useful survey data on vaccine acceptance from [Ipsos](#) highlighting an increase in acceptance of the COVID-19 vaccine in the US.

### If a vaccine for COVID-19 were available, I would get it



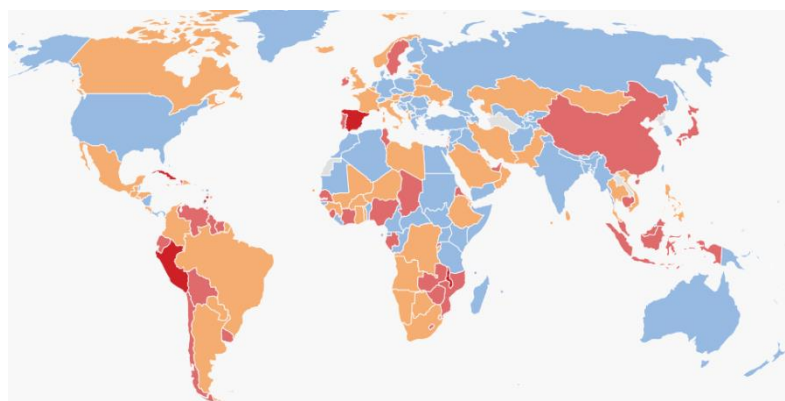
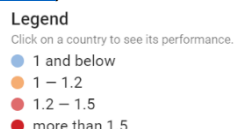
Base: 13,542 online adults aged 16-74 across 15 countries \*Online samples in Brazil, China, Mexico, Russia, and South Africa tend to be more urban, educated, and/or affluent than the general population

Chart: Ipsos • Source: [Global Advisor](#) • [Get the data](#) • Created with [Datawrapper](#)

- **Johnson & Johnson (J&J)/Janssen candidate** SARS-CoV-2 vaccine published Phase 1/2 trial data in [NEJM](#) showing vaccine generated neutralizing antibody response in 90% of participants after 29 days and in 100% after 57 days, and the vaccine exhibited an acceptable safety profile. The vaccine also requires a single dose.
- [European Medicines Agency \(EMA\) received the conditional marketing application](#) for AstraZeneca/Oxford University's SARS-CoV-2 vaccine.
- [WHO issues its first emergency use validation for a COVID-19 vaccine and emphasizes need for equitable global access](#)
- **Brazil scaled back efficacy of China's Sinovac Biotech Phase 3 clinical trial results from 78% to just above 50%**, with nearly 100% protection to prevent severe disease/ hospitalization. The study sample size however is still too small to determine significance of findings.
  - Researchers in Turkey reported 91%
  - [Indonesia reported 65%](#)

## Modeling & Forecasting

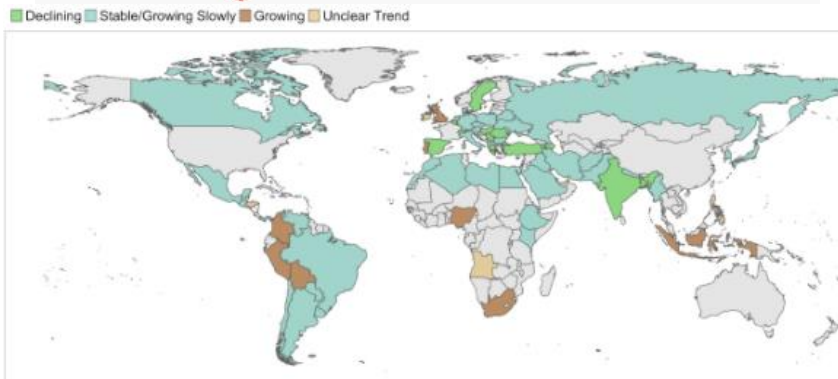
- Estimated current effective reproductive rate ([Lancet database](#)) as of 19 January 2020



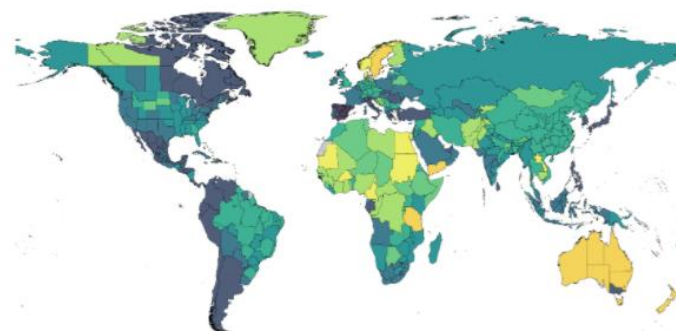
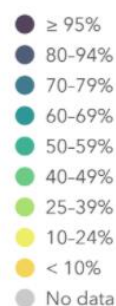
- Projections for the reproductive number ([ICL weekly projections](#))<sup>7</sup>

As of January 18<sup>th</sup> estimates for the effective reproductive number:

- Europe:** Average of about 1, Highest: **Ireland:** estimated 2.5-3
  - Asia:** Average of about 1, Highest: **Indonesia & Japan:** 1.5
  - Africa:** Average about 1, Highest: **Angola & Rwanda** 1.5-2
  - MENA (not included): Highest: **UAE** 1.5
  - North & Central America:** Average of about 1, Highest: **Guatemala** 1- 1.5
  - South America:** Average of about 1, Highest: **Bolivia:** 1-1.5
- IHME behavior survey on mask use left.



Percent who say they always wear a mask when going out, December 1



IHME | UNIVERSITY of WASHINGTON

Data sources: Premise Data, Facebook Global symptom survey (This research is based on survey results from the University of Maryland Social Data Science Center.)

## Humanitarian Impacts

- Africa CDC requesting countries with over-orders of vaccines to donate to COVAX** which has only identified enough doses to cover frontline workers in the region.
- Continued worries over reports of vaccine-derived polio outbreaks** in under-immunized populations spilling over into new countries – all impacted due to reduced or cancelled vaccination campaigns during COVID-19 ([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 \(last updated Epi 12 & 19 Jan\)](#)

- WHO: [Practical Guidelines for National and Subnational decision-makers for Analysing and using routine data to monitor the effects of COVID-19](#)
- [WHO issues its first emergency use validation for a COVID-19 vaccine and emphasizes need for equitable global access](#)

<sup>7</sup> **Map:** Estimates of transmissibility in countries with active transmission for the week. A country is defined to be in the declining phase if the 97.5<sup>th</sup> quantile of the effective reproduction number is below 1. It is defined to be in the growing phase if the 2.5<sup>th</sup> quantile of the effective reproduction number is above 1 and the width of the 95% CrI is less than 1. If the 2.5<sup>th</sup> 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](#)

- WHO: [Who can take the Pfizer-BioNTech COVID-19 vaccine?](#)
- WHO: [Interim recommendations for use of the Pfizer–BioNTech COVID-19 vaccine, BNT162b2, under Emergency Use Listing](#)
- WHO: [SARS-CoV-2 genomic sequencing for public health goals: Interim guidance, 8 January 2021](#)
- WHO: [Infection prevention and control guidance for long-term care facilities in the context of COVID-19 update](#)
- Vaccine access and allocation
  - [Access and allocation: how will there be fair and equitable allocation of limited supplies?](#)
- Vaccine research and development
  - The race for a COVID-19 vaccine, explained
  - [Standardization of vaccines for coronavirus disease \(COVID-19\)](#)
- Emergency Committee on COVID-19
  - [Emergency Committee on COVID-19 advises on variants, vaccines](#)
  - [Statement on the 6th meeting of the International Health Regulations \(2005\) Emergency Committee regarding the coronavirus disease \(COVID-19\) pandemic](#)
  - [5th Open meeting of the Review Committee on the Functioning of the International Health Regulations during COVID-19](#)
  - [WHO Director-General's opening remarks at the 6th Meeting of the IHR Emergency Committee on COVID-19](#)

### 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 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](#)

[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](#)



