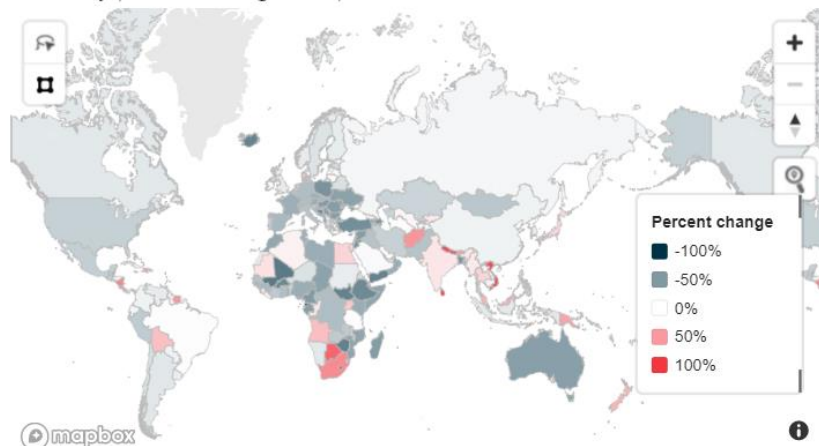


COVID-19 Update: Weeks 18-19

May 2-16, 2021

Over **162.1 million cases confirmed** and reported, with **over 3.3 million deaths** reported to date **India** (representing 33% of global deaths in the past 7 hours), **Brazil, and the US, are reporting the highest daily incidences in death** in the last 24 hours. **India** (representing 50% of global cases in the last 7 days), **Brazil, the US, Argentina, Columbia, France, Turkey, are reporting the highest daily increases**, all **reporting above 10,000 newly confirmed cases in the past 24 hours**.¹ Global incidence in both cases and deaths stabilized this week, with a slight decrease overall in reported cases. However, **global incidence for both cases and deaths remains the highest it has been since the beginning of the pandemic**. Notably, India represents 50% of cases and over 30% of deaths globally in the past week, while Nepal has seen a 79% increase in new cases in the past week. While not influencing global trends, there are **countries in every region that have shown concerning increases in incidence** and test positivity over the past week.

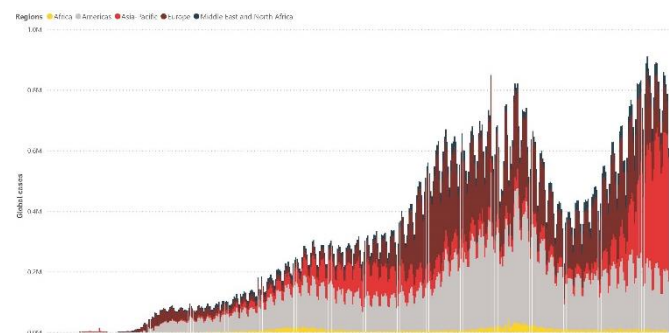
Bi-weekly percent change in reported new cases



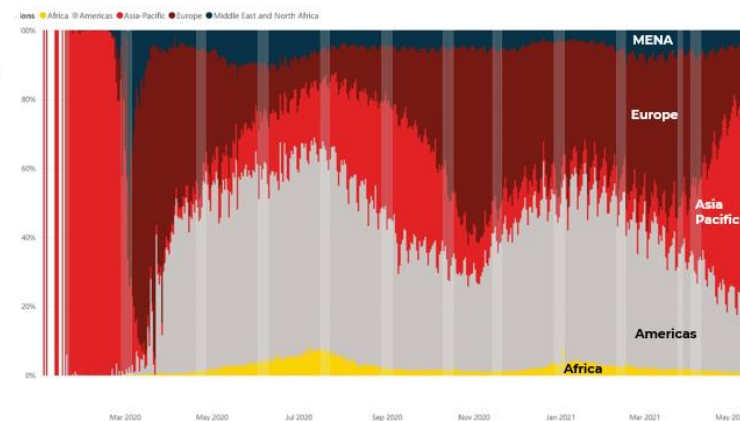
Top 5 countries with biggest bi-weekly percent increase
Daily new cases per 100k people



Daily incidence of COVID-19 cases by IFRC region



Percent of global COVID-19 cases reported by IFRC regions over time



News / Context

- Countries with **highest reported new cases per 1 million** daily increases (May 16th)² Seychelles, Maldives, Bahrain, Uruguay, Sweden.
- Countries with **highest reported new deaths** per 1 million (May 16th): Uruguay, Argentina, Paraguay, Colombia, Croatia.
- **Countries vaccinating at the fastest rate** (relative to population size) currently: Mongolia, San Marino, Iceland, Malta, Montenegro.

¹ Official numbers and WHO visualizations available [here](#)

² Our World in Data [Incidence](#)

- US supports temporary waiver on intellectual property protections for COVID-19 vaccine
- WHO has **reclassified the variant B.1.617, the variant detected and rapidly spreading through India as a “Variant of Concern”**
- **WHO Risk Assessment: The COVID-19 pandemic shows no signs of slowing down with 1/3rd of COVID-19 cases and deaths ever reported being reported in the past 3 months.**
- Globally, **health systems are stretched**, and showing gaps in capacity to provide care for both COVID-19 cases as well as other illnesses. **90% of countries have reported levels of service disruptions and 40% have reported disruptions to essential primary health services** (WHO).

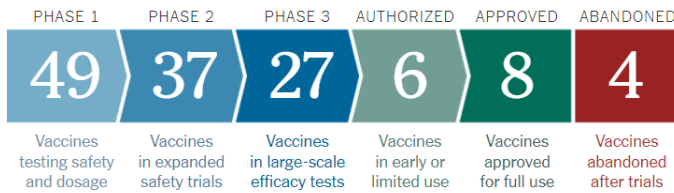
Regional Trends

Including “Countries to watch” and potential future trends

- **Africa Region**
 - The decreasing trend in both cases and deaths has continued for the past 3 weeks, however several countries individually are seeing steady high incidence or increasing trends in cases including Cameroon, Sudan, Angola and Somalia.
 - Countries reporting the highest new cases include **South Africa, Ethiopia, and Cameroon** with South Africa, Ethiopia and Kenya reporting the greatest number of deaths.
 - **Countries to watch** reporting worrisome increasing trends include Cameroon, Sudan, Eritrea, Somalia, Angola, and Namibia.
- **Americas Region**
 - For the third week in a row the region saw a declining incidence in new cases and saw an 8% decrease in reported deaths. However specific countries within the region have continued to see increasing incidence, specifically in Panama, Costa Rica and Nicaragua as well as worrisome trends seen in Uruguay and Haiti.
 - The highest number of new cases were reported from Brazil, the US, and Argentina, Brazil, the US and Colombia reported the highest number of deaths.
 - A **shift in demographics for severe COVID-19 has been observed to younger populations** in the US (and many other countries) driven in part by vaccination rates among older populations as well as new variants and opening/ relaxing of physical distancing norms. While cases among 65+ age group have continued to decrease, there has been an increasing trend in cases among the 15-24 age group (see below).
 - **Argentina** has passed 3 million cases of COVID-19 and are experiencing significant strain on health systems. The country experienced a significant increase in new cases since March, with incidence slowing and dropping only at the end of April. Due to the lag in deaths to cases, the country is only just seeing stabilization in incidence of COVID-19 deaths, with a surge beginning in early April.
- **MENA Region**
 - The region saw a 13% decrease in both cases and deaths after 10-11 weeks of increasing trends.
 - The Islamic Republic of **Iran, Iraq and Pakistan** (IFRC AP region) reported the highest number of cases over the past week, with Iran, Pakistan and **Tunisia** reporting the highest number of deaths.

- **Countries to watch:** Algeria, Egypt (both experiencing over 20% increase in bi-weekly trends) Iraq, Iran, and Tunisia.
- **European Region:**
 - New cases and deaths have continued to decrease, now following a month-long trend.
 - The highest number of new cases were reported in **Turkey, France and Germany** with the highest number of deaths reported by **Poland, Russia and Turkey**.
 - Mortality rate for [EU/EEA & the UK](#) was estimated at 65.4 per 1 million people across 30 countries (decrease). ICU new admissions (from 13 countries) were 2.6 per 100,000 (decrease compared to previous week). An **estimated 10.7 patients per 100,000 are in the hospital across 24 countries due to COVID-19** (a decrease from last week).
 - Only 12 countries across EEA/ EU meet recommendations for sequencing capacity (10% of positive tests). Through these samples, over 86% sampling positive for the B.1.1.7 variant and less than 1% for other VOC.
 - **Switzerland** (14-day incidence [available here](#)) has a 14-day incidence of 241 new cases per 100,000 population (decreasing), occupancy rate for ICU for COVID-19 estimated at 22.7% (total ICU occupancy at 71%). Positive test rates reported at 7.5% (PCR) and 4.2% (Antigen) have remained relatively stable. Reproductive number is currently estimated at 0.89 (Geneva 0.97).
 - **Countries to watch** of concern due to increasing trends include Georgia, Latvia, Lithuania, and Ukraine.
- **Asia Pacific Region:**
 - For the ninth week in a row, the region has continued to see an increase in both cases (by 6%) and deaths (by 15%) compared to previous weeks. The surge is heavily influenced by **India, Nepal** (seeing a 79% increase compared to last week), **and Indonesia**. India, Indonesia and Bangladesh continue to report the highest number of deaths in the region.
 - In the first time in 8 weeks, the WHO Western Pacific region reported a decrease in new cases, while continuing to report a 34% increase in new deaths compared to the previous week. Japan, the Philippines and Malaysia continue to report the highest number of new cases, with Malaysia reporting a 19% increase compared and deaths in the region, with **Malaysia** seeing a 23% increase in new cases and 70% increase in new deaths.
 - **Countries to watch: Nepal** has consistently reported rapid increased incidence (over 370% in two weeks), and test positivity (over 45%) shaking an already strained health system, **Afghanistan, Sri Lanka, Myanmar** and Vietnam (Vietnam originally did a very good job preventing transmission of COVID-19 in previous waves, however recently they have been reporting a high increase in incidence over the past couple weeks as well as the proportion of tests that are positive to total tests in the country, which may be a larger indication for the regional pressures as a whole).

Vaccination Updates



New additions and recent updates

- May 14 France's **OSE Immunotherapeutics** enters Phase 1.
- May 10 The F.D.A. authorizes the **Pfizer-BioNTech** vaccine for children 12 to 15.
- May 7 The W.H.O. gives emergency use authorization to the **Sinopharm** vaccine.
- May 6 Russia authorizes a one-dose version of the **Gamaleya** vaccine, dubbed "Sputnik Light."
- May 5 China's **Lanzhou Institute of Biological Products** enters Phase 1/2.
- May 3 Denmark announces it will no longer use **Johnson & Johnson's** vaccine.

Resources:

[IVAC/JHU View-Hub](#) (map shown above); [COVAX and other vaccine distribution in humanitarian settings \(HdX\)](#); [Coronavirus Vaccine Tracker](#) (tables above [NYT](#)); [COVID-19 vaccine tracker \(LSHTM\)](#); [COVID-19 vaccine tracker \(RAPS\)](#)

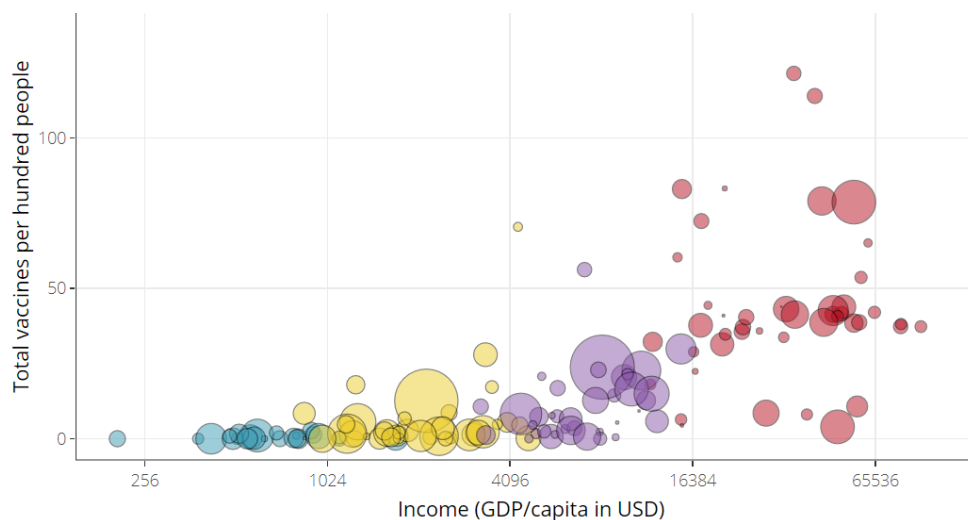
- **Global vaccination rates** continued to increase at a rate of 13% compared to the previous week averaging over 22 million doses administered a day. While data is limited, an estimated 4.4% of the global population is estimated to be fully vaccinated against COVID-19.
- **Israel** and the **Seychelles** continue to have the highest percentage of their population fully vaccinated (Seychelles estimates 61.4% and Israel estimates 58.8% of it's total population is vaccinated).
- **US updated guidance** for COVID-19 vaccines to include recommendations for Pfizer Biotech for adolescents ages 12-15 (US [FDA](#)).

Overview

	Global COVAX	
Introduced	178	77
Planning	16	13



Vaccine Equity comparing GDP per capita to percentage of the population vaccinated



- **Out of the 1.3 billion vaccine doses that have been distributed 81% have been distributed to high or upper-middle income countries.**
- **Over 52% of vaccines have been administered in the richest 50 countries.**

- High income economies have been able to provide at least one vaccine doses to between 4 and 122 people per 100 population.
- **Less than 2% of vaccine doses have been administered in the 32 countries experiencing severe or very severe humanitarian crises.**
- Low-income economies have on average been able to provide between 0 and 2.7 vaccines per 100 population.
- **Only 1 in 4 doses (27%) of COVID-19 vaccine globally have been reported administered in countries experiencing any type of humanitarian crisis,** whether conflict, complex emergencies, displacement, or others.
- There are estimates that put **the vaccination gap between advanced economies and developing economies at 43%**, with estimates that equity will not be reached until 2023 ([Center for Global Development](#)).

New variants of SARS-CoV-2³

New variants are expected as virus mutations are common, but the detection of several variants of concern (VOC) and variants of interest (VOI) highlights the need to continue genetic sequencing of samples to better understand the prevalence of different variants. Additional resources on variants are available in footnotes, and definitions per WHO are available [here](#)⁴ *This week the variant discovered in India, B.1.617 has recently been added as a VOC.*

	Variant of Concern (VOC) or Interest (VOI)	Why is it of concern?	Emerging Evidence
VOC	202012/01 or "B.1.1.7" First detected in the UK Now reported in 149 countries	<ul style="list-style-type: none"> • Increased transmissibility & potential increase in severity, with possible implications for testing • None/ minimal impact on vaccines 	<ul style="list-style-type: none"> • Mixed Evidence for increased severity and mortality (Lancet Infectious Disease) • Real world evidence shows strong support for efficacy (pre-print; PH Ontario; Lancet; pre-print)
	501Y.V2 or "B.1.351" First detected in South Africa Now reported in 102 countries	<ul style="list-style-type: none"> • Increased transmissibility & potentially mortality among hospitalized • Potential risk for evading vaccine response and potential reinfection 	
	B.1.1.28 (P.1) first detected in Japan from travellers coming from Brazil Now reported in 60 countries	<ul style="list-style-type: none"> • Evidence for increased transmissibility • Reinfection has been reported, with potential implications for vaccine efficacy 	Evidence for no/minimal loss of protection against severe disease (NEJM ; NEJM)

³ Information primary 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](#).

⁴ 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](#), [GISAIID variants tracking](#).

	<p>B.1.617 (.1; .2; .3)</p> <p>Detected first in India</p> <p>Now reported in 44 countries</p>	<ul style="list-style-type: none"> • Appear to have higher rates of transmission • Increased prevalence within the country testing samples where it is prevalent over-taking other variants • Some evidence for reduced efficacy of Banlanivimab neutralizing antibodies 	<p>Research on the implications of this variant still ongoing (pre-print)</p> <p>B.1.617.1 and B.1.617.2 account for 21 and 7% of sequenced samples in India (GISAID)</p> <p>Studies still underway, potentially reduced neutralizing effect of some vaccines (in lab) more research ongoing (preprint; pre-print on mRNA vaccines)</p> <p>More ongoing studies found here</p>
VOI	B.1525		Detected in multiple countries
	20C/S.452R B.1.427/ B.1.429	<ul style="list-style-type: none"> • Evidence for increased transmissibility • Potential reduced neutralization from antibody treatment and vaccines – more research underway 	US CDC definitions for VOC in the United States
	20B/S.484K B.1.1.28.2, alias P.2		Detected in Brazil in April 2020
	B.1.1.28.3, alias P.3		Research continues into the P.3 variant in Philippines (estimated third generation of the P.1 variant in Brazil)
	20C, B.1.526 with E484K or S477N	<ul style="list-style-type: none"> • Unknown: Two key mutations in the spike protein have been identified and are being followed closely 	
	20C, B.1.616		Detected in France in January 2021

Recent Research/ Evidence

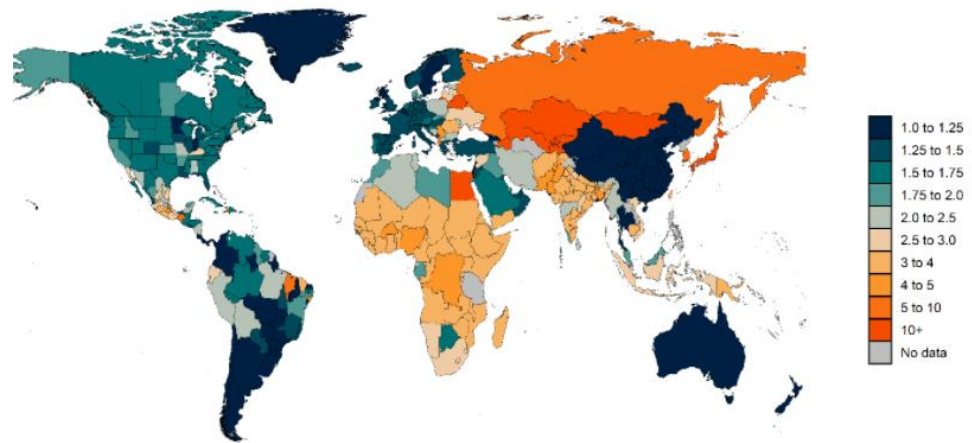
- Recent article published in the [Journal of Infectious Diseases](#) researchers modeled that in the US, **for every 1% increase of the population vaccinated, an average of over 876,000 cases, 6,660 deaths and USD 602.8 million in direct medical costs and 1.3 billion USD in productivity costs can be averted.**
- [Scientific briefing by WHO](#) investigating **COVID-19 natural immunity** found:
 - 90-99% of individuals infected with SARS-CoV-2 develop detectable neutralizing antibodies within 4 weeks following infection
 - The majority of evidence supports natural immunity protects against SARS-CoV-2 for 6-8 months, however this varies by age and sex and person to person. Additionally it is unclear how strong protection is against some new and emerging variants of concern or interest.
- **Secondary attack rate for SARS-CoV-2 transmission within the household was found to be significantly lower when the index case was a child (under 18) than**

adult. The likelihood of members of the household being seropositive increased with household size and households with children and adolescents were less likely to completely test positive compared to households of all adults ([Journal of Infection](#)).

- An earlier study found the infectivity of children was around 63% of adults for COVID-19 (based on population-level city data in Israel). ([PLOS Computational Biology](#))
- Additional studies in Hong Kong have found **households – not schools were the primary sources for COVID-19 outbreaks** as schools re-opened in the area ([JAMA](#)).
- Safety trials of a 3rd “**booster**” shot for Moderna vaccine adjusted to account for the mutation in the spike protein of the B.1.351 found **that neutralizing titers for B.1.251 were about 2 times higher with the modified dose than the original**, but overall immune reaction was similar ([pre-print](#) not peer reviewed yet).
- Evidence from a social perception survey in 24 countries have found that **Perceived economic risk has a stronger association with support for COVID-19 preventive measures than perceived health risk**, emphasising the need to include these concerns in future public health messaging ([Nature](#)).
- Analysis of the **efficacy of mRNA vaccination campaign in Israel** found that the Pfizer Biotech vaccine was **91.5% effective against asymptomatic SARS-CoV-2 infection and 97% effective against symptomatic COVID-19 infection**. Vaccinations also appeared to be 97.5% effective during the analysis period against severe or critical COVID-19 hospitalization and 96.7% against COVID-19 related deaths ([Lancet](#)).
- **Lab confirmed COVID-19 deaths in Mexico accounted for only 38.64% of excess deaths** in 2020, implying that either laboratory testing was very low, or there was a significant increase in deaths due to other causes during the pandemic in Mexico ([BMC](#))
- Recent clinical studies have found the **NVX-CoV2373 vaccine was efficacious in preventing Covid-19, with higher vaccine efficacy observed among HIV-negative participants**, also showing around 50% efficacy against the B.1.351 variant ([NEJM](#)).
- Recent analysis of **contact tracing application** by NIH in the UK found that **one case was averted for every case that consented to notifying their contacts through the application**. Overall an estimated 284,000 to 594,000 cases have been averted through the use of the mobile application ([Nature](#)).

Modeling & Forecasting

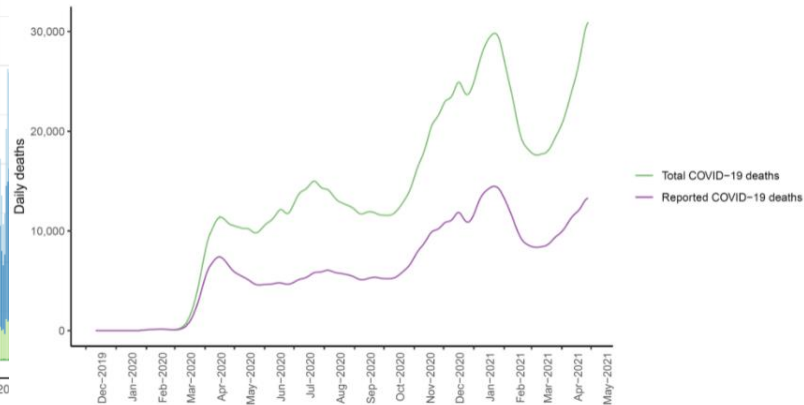
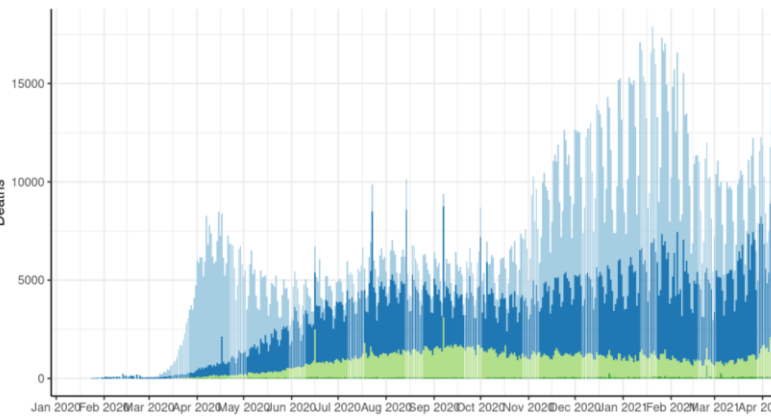
- Predicted ratios for COVID-19 compared to official reporting ratios ([IHME](#))
 - Updated models comparing reported COVID-19 deaths compared to the likely **true burden has found reported COVID-19 deaths have likely been significantly under-reported, and likely double** ([STAT News](#); [Vox](#)).
 - Notably, Sub-Saharan Africa region shows many countries have likely experienced significantly more COVID-19 deaths than what were captured in the traditional vital statistics. Regions in India, where the current surge in COVID-19 is taking place, COVID-19 mortality is estimated to be three to five times higher than what has been reported.



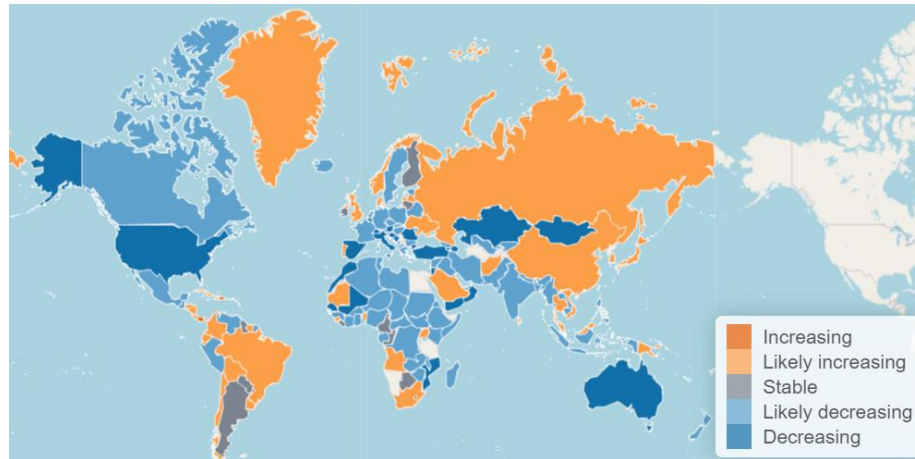
Mortality Estimates by economic category ([Imperial College of London](#) modeling)

Global reported compared to likely total deaths due to COVID-19

High income Upper middle income Lower middle income Low income



- Previous models have also estimated global mortality due to COVID-19 to be significantly under-reported by 1.4 to 7 times the official numbers ([Wiley System Dynamic Review](#))
- Additional studies have also noted increases in overall excess mortality, including one assessment in the US that estimates a 20% increase in all-cause excess mortality that is only partially explained by confirmed COVID-19 deaths ([JAMA](#)).
- Reproductive number estimates from the [LSHTM Mathematical modeling department](#) (showing trends of increasing, no change or decreasing):
 - Regions where COVID-19 has surged most recently such as Southeast Asia are now beginning to experience a decline in the estimated effective reproductive number, while other countries, in particular Afghanistan, Angola and generally in Central and South America are seeing a likely increasing reproduction number (where COVID-19 is estimated to be increasing at a faster rate).



Humanitarian Impacts

- [Mapping of COVID in Humanitarian settings available here](#) depicted below showing COVID-19 cases compared to where vaccination campaigns have been postponed
- While representing 17% of the global population, Africa has reported less than 3% of global cases and less than 4% of deaths reported for COVID-19. However, the low numbers are more likely due to a number of factors including: different age structures, under-reporting and quick government responses during the initial period of the pandemic. **Evidence shows that the true likely impact of COVID-19 on Africa continent is considerably greater than officially reported** (though autopsy data and community-based studies). Read more from [Preventing Epidemics](#).
- 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 May 4th & 11th)

- [Independent Panel for Pandemic Preparedness and Response: COVID-19 : Make it the last Pandemic](#)
- US CDC: Updated [Interim public health recommendations for fully vaccinated people](#), suggesting those fully vaccinated no longer need to wear [masks](#) except for in very busy locations or on public transport.
- WHO: [COVID-19 Exercise Programme - Drills for Vaccine Deployment](#)
- WHO & UNICEF: [Disability considerations for COVID-19 vaccination: WHO and UNICEF policy brief, 19 April 2021](#)
- WHO: [Tool 11. Conducting safe onsite COVID-19 intra-action reviews during the pandemic - 28 April 2021](#)
- WHO: [Tool 12. Conducting effective online COVID-19 intra-action reviews during the pandemic - 28 April 2021](#)
- WHO [Seroprevalence tracker Tool](#)
- WHO, Germany launch new [global hub for pandemic and epidemic intelligence](#)
- WHO: [Report of the Review Committee on the Functioning of the International Health Regulations \(2005\) during the COVID-19 response](#)
- WHO: [COVID-19 home care bundle for health care workers](#)
- WHO Guidance note: [Estimating COVID-19 vaccine effectiveness against severe acute respiratory infections \(SARI\) hospitalizations associated with laboratory-confirmed SARS-CoV-2: an evaluation using the test-negative design](#)
- 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](#)

Scenario Planning

[International science council COVID-19 scenarios project \(Lancet\)](#)

[University of Basil COVID-19 scenarios](#)

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

[WHO](#)

[WHO Detailed COVID-19 dashboards](#)

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

[MobLabs](#)

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

[UNICEF COVID-19 vaccine dashboard](#)

[World Meters](#)