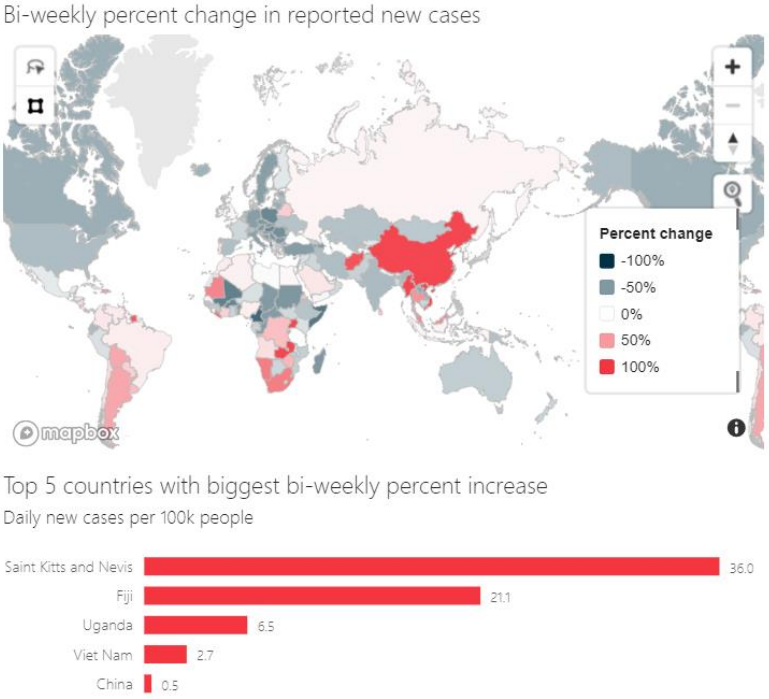
COVID-19 Update: Weeks 20-21

May 16-29, 2021

Over 169.5 million cases confirmed and reported, with **over 3.5 million deaths** reported and **over 1.5 billion vaccine doses administered** to date. **India**, **Brazil, and the US, are reporting the highest daily incidences in death** in the last seven days. **India (**representing 44% of global cases in the last 7 days), **Brazil, Argentina, the US, Colombia reporting the highest number of cases in the past 7 days.** Global incidence in both cases and deaths continued to decrease this week, with the European region reporting the largest decrease in both cases and deaths. Notably, there are **countries in every region that have shown concerning increases in incidence** and test positivity over the past week.



News / Context

- Countries with **highest reported new cases per 1 million** daily increases (May 30th)[1] Maldives, Bahrain, Seychelles, Uruguay, Argentina, Costa Rica.
- Countries with **highest reported new deaths** per 1 million (May 30th): Paraguay, Uruguay, Bahrain, Argentina, Trinidad and Tobago.
- **Countries vaccinating at the fastest rate** (relative to population size) currently: Mongolia, Saint Kitts and Nevis, Malta, Cyprus, China.
- Launch of new international expert panel to address emergence and spread of zoonotic diseases to advise the FAO, OIE, UNEP and WHO on appropriate plans of action to avert outbreaks using a One Health approach.

[1] Our World in Data Incidence

Regional Trends

This section has been adjusted to reflect a more simple analysis of "countries to watch" in the coming weeks. For more detailed epidemiological descriptions by region, please see WHO weekly epidemiological updates.

Africa Region	
What to Watch	**General updates**
Countries to watch reporting worrisome increasing trends include the Democratic Republic of the Congo, Uganda, South Sudan & Zambia. All countries report over 120 increase incidence compared to the previous week	The region saw a small increased incidence of both cases and deaths, reporting similar numbers as the previous week.
Americas Region	
What to Watch	**General Updates**
Countries to watch due to high increases in incidence and estimated effective reproductive numbers include Argentina, Bolivia, Paraguay, Uruguay, Colombia, Nicaragua, Haiti	The region reported similar incidence in cases and deaths compared to the previous week, however South America is reporting the highest incidence of COVID 19 cases in the world relative to its population
MENA Region	
What to watch	**General Updates**
Countries to watch reporting worrisome trends include Tunisia, Libya, Morocco, Algeria, all reporting over a 30% increase compared to previous years	The region reported similar incidence in cases and deaths compared to the previous week
Europe Region	
What to Watch	**General Updates**
Countries to watch of concern due to increasing trends include Belarus, Portugal, the United Kingdom, Norway. All countries showing signs of high effective reproduction numbers (the average number of secondary cases from the first case) And less than 3 of the population in Belarus has received a vaccine dose	For the past five weeks the European region has continued to see a sharp decrease in both COVID 19 cases and deaths
Asia Pacific Region	
What to Watch	**General Updates**
Countries to watch: Afghanistan, Bangladesh, Vietnam, Malaysia, Indonesia and Taiwan. All countries reporting over 50 increased incidence in COVID 19 cases compared to the previous week (Afghanistan has seen an increase by over 117	The region continued to see a decreasing trend in COVID 19 cases, however for the 10th week in a row the region saw an increase in deaths

Vaccination Updates

New additions and recent updates

May 28	A vaccine from the French company **Sanofi** moves to Phase 3.
May 25	Pennsylvania-based **VaxForm** enters Phase 1.
May 20	China's **Stemirna Therapeutics** enters Phase 1.
May 18	China authorizes **Shenzhen Kangtai**'s vaccine for emergency use.
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."

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)

- Low-income countries receiving only 0.3% of COVID-19 vaccines globally
- Two studies have found the effectiveness of Sinovac in Brazil during high transmission of P.1 was similar to what was observed 14 days (41.6%) and after 21 days (49.4%) after second dose in clinical trials (preprint, NIH)
- Pre-print found the effectiveness of AstraZeneca and Pfizer was slightly reduced against severe disease caused by B.1617.2 compared to B.1.1.7
- Monthly newsletter on vaccination to contain more Red Cross and Red Crescent specific details

New variants of SARS-CoV-2[2]

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 [3] *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	• Increased transmissibility & potential increase in severity, with possible implications for testing • Increased secondary attack rate • None/ minimal impact on vaccines • Risk of reinfection similar to original variant	• 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	• Increased transmissibility & potentially mortality among hospitalized	Potential increase in mortality in hospitalized patients (preprint)

[2] 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.
[3] 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.

		• Potential risk for evading vaccine response and potential reinfection • No likely impact on testing	
	B.1.1.28 (P.1) first detected in Japan from travellers coming from Brazil Now reported in 59 countries	• Evidence for increased transmissibility • Reinfection has been reported, with potential implications for vaccine efficacy (limited evidence) • No reported impact on diagnostics	Evidence for no/minimal loss of protection against severe disease (NEJM; NEJM)
	B.1.617 (.1; .2; .3) Detected first in India Now reported in 44 countries	• Increased transmissibility evidenced by increased prevalence within the country testing samples where it is prevalent over-taking other variants • Some evidence for reduction in neutralization activity, still under investigation, limited evidence supports minimal loss of efficacy for severe disease	Research on the implications of this variant still ongoing (pre-print) B.1.617.1 and B.1.617.2 account for 21 and 7% of sequenced samples in India (GISAID) Studies still underway, potentially reduced neutralizing effect of some vaccines (in lab) more research ongoing (preprint; pre-print on mRNA vaccines) More ongoing studies found here

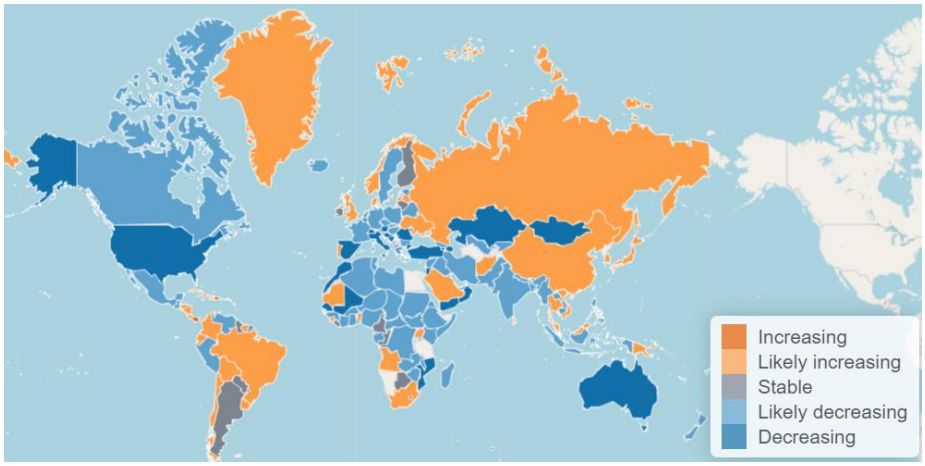
- All VOCs have been associated with increased proportions of those infected being hospitalized (Eurosurveillance preprint).

Recent Research/ Evidence

- In a randomized study to examine the effects of mixing vaccines, participants receiving 2 doses of different vaccines reported more systemic symptoms (e.g., chills, fatigue, feverishness, headache, malaise) than those who received 2 doses of the same vaccine (Lancet).
- Study in JAMA found pregnant and lactating women have strong immune responses to mRNA vaccines that also recognize known SARS-CoV-2 variants.
- The Moderna mRNA-1273 and Pfizer/BioNTech BNT162b2 mRNA vaccines likely provide protective immunity against the B.1.617.1 variant, which has spread rapidly throughout India and to several other countries (preprint).

Modeling & Forecasting

- 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

- Updated repository of Maternal and Child health and Nutrition relating to COVID-19 can be found **here**.
- In **Haiti**, like several other locations, lack of trust in the government, and health system has caused lack of trust and uptake of COVID-19 vaccines when available (The New Humanitarian)

Guidance Launched or Highlighted This week

Weekly update from WHO available here *(last updated May 18th & 25th)*

- Updated IFRC Guidance available on the Health Help Desk
- WHO: Continuity of essential health services: Facility assessment tool
- WHO: Health systems for health security – Strengthening prevention, preparedness and response to health emergencies
- WHO: Health worker communication for COVID-19 vaccination flow diagram
- COVID-19 vaccine explainer: AstraZeneca ChAdOx1-S/nCoV-19 [recombinant], COVID-19 vaccine
- WHO: Preventing and mitigating COVID-19 at work
- Statement of the COVID-19 subcommittee of the WHO Global Advisory Committee on Vaccine Safety (GACVS) on safety signals related to the Johnson & Johnson/Janssen COVID-19 vaccine

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 clincal 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 dashbaords

WHO Technical Guidance for COVID-19

MobLabs

MobLabs Domestic and international risk of importing a case

UNICEF COVID-19 vaccine dashboard

World Meters