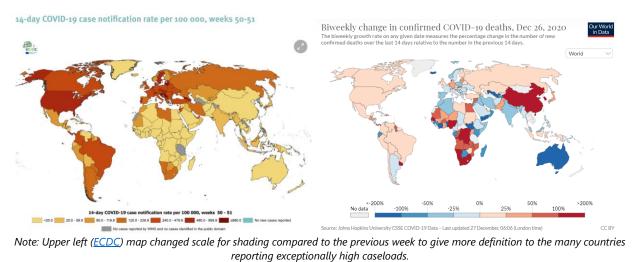
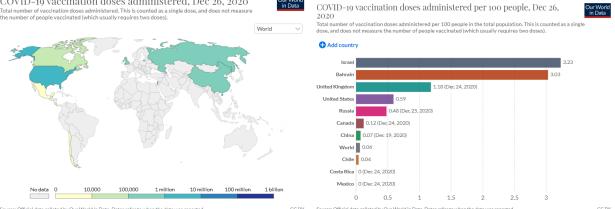
# Weeks 50-51 COVID-19 Update

13-26 December 2020

**Over 79 million cases confirmed** and reported, with **over 1.7 million deaths** reported to date (<u>unofficially</u> over 80.7 million cases and over 1.7 million deaths, over 22 million active cases and over 57 million recovered). **The US, Mexico, and the UK are reporting the highest daily incidences in death** in the last 24 hours. **The United States, The UK, Russia, Brazil, France, Italy, India, Turkey, Colombia, South Africa, Germany, Netherlands, reporting the highest daily increases**, all reporting above 10,000 newly confirmed cases in the past 24 hours.<sup>1</sup> The past seven days showed a global increase of reported cases by 6% and deaths by 4%. The Americas continues to represent over half of global reported cases, while the European region reported the highest number of deaths, and the Africa region saw the highest increase in both reported cases (40-27% increase) and deaths (34% increase).



COVID-19 vaccination doses administered, Dec 26, 2020



Vaccination progress shown above (Source: Our World in Data)

### News / Political Context

- Countries with highest reported new cases per 1 million daily increases (Dec 26<sup>th</sup>)<sup>2</sup>:
  - 1. Lithuania: 863
  - 2. United States: 684
  - 3. Andorra: 647
  - 4. Montenegro: 608
  - 5. Netherlands: 576

- Countries with highest reported new deaths per 1 million (Dec 26<sup>th</sup>)
  - 1. Lichtenstein: 26.2
  - 2. Croatia: 15.8
  - 3. North Macedonia: 12.5
  - 4. Hungary: 12.2
  - 5. Slovenia: 12.0
- Test positivity is highest in Mexico (39%), Oman (36%), Tunisia (34%), Poland (34%), Ukraine (32%)
- Daily confirmed deaths doubling most rapidly in Saint Lucia, Latvia, Lithuania, Cyprus, Slovakia.<sup>3</sup>
- Cases doubling rapidly in Grenada, Turkey, Uruguay, Burkina Faso, Lithuania.<sup>4</sup>
- New variant of COVID-19 has spread quickly across southern UK (SARS-CoV-2 VUI 202012/01). Initial evidence shows the variant may spread more readily between people, but no evidence to support it may cause more severe illness or issues with vaccine efficacy. Research is still ongoing.<sup>5</sup>

<sup>&</sup>lt;sup>1</sup> Official numbers and WHO visualizations available <u>here</u>

<sup>&</sup>lt;sup>2</sup> Our World in Data Incidence

<sup>&</sup>lt;sup>3</sup> <u>https://ourworldindata.org/coronavirus</u>

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

<sup>&</sup>lt;sup>5</sup> WHO Sit Rep 22 Dec 2020; NYT 23 Dec 2020; COVID-19 Genomics Consortium UK

- Outbreak reported at a Chilean research facility in Antarctica with reported cases now on all seven continents
- Africa Region
  - For the past two weeks the Africa region has reported an increase in both new cases and deaths, reporting an increase of 27% new cases, 34% increase in new deaths in the past 7 days.
  - Highest number of new cases were reported in South Africa, Nigeria, Ethiopia, Kenya, Uganda, and Algeria. Eswatini has also seen a high increase in reported cases (170% compared to the previous week).
  - South Africa which has consistently reported the highest number of cases in the region has reported an increased incidence of COVID-19 among the age group 15-19, however it is unclear whether school holidays have impacted this trend.
    - A new variant of SARS-CoV-2 has been detected and may be linked to higher transmissibility. The new variant is still under investigation.

## Americas Region

- The region continues to report the highest incidence of cases in the world, with 13% increase in the past seven days. The majority of cases have been reported from the US, Brazil, Colombia, Mexico, and Canada.
- The US continues to represent the highest increase number of new cases of COVID-19, reporting over 5,000 new cases per 1 million population. Daily deaths in the US exceeded 3,000 per day the week of December 10<sup>th</sup>- highest since the beginning of the pandemic.
   Covid-19 reported to be the third highest cause of death in the US<sup>6</sup>
- Occupancy rate of ICU beds in Buenos Aires, Argentina stands at 54%, with increased incidence reported over the past seven days.
- There have been an increase of cases reported throughout the Caribbean in multiple countries during the month of December

## MENA Region

- The region has continued to see a decrease incidence of cases and deaths for four weeks consecutively. The Islamic Republic of Iran, Morocco, Jordan, and Palestinian territory reported the highest number of cases in the past 14 days.
- There have been a significant increase in cases and deaths in **Syria** over the past several weeks.
- The past week has also seen an increase of cases in Lebanon, and a dramatic increase has been seen in Tunisia.
- UAE is the first country to approve the vaccine produced by Sinopharm in China
- In **Egypt** the Minister of Health stated early in December that 56% of intensive care unit beds and 30% of ventilators are currently occupied, while the occupancy of beds for isolation is 24%, while an increasing incidence of cases and deaths have increased.

## • European Region:

- Following a slight decrease in cases and deaths in the first week, European region saw an increase of 2% new cases and 3% new deaths compared to the past seven days. The highest number of cases were reported in Turkey, Russia and German, and the highest number of deaths reported in Italy, Germany, and Russia.
- Estonia continues to see an increase in cases and deaths reported over the last two weeks
- o Initial vaccinations have started in select countries
- The number of new cases and deaths in **Spain** continued to decrease. Approximately 20% of intensive care unit beds in the country are occupied by COVID-19 patients
- Pooled data from 21 countries in the region show 1.3 patients per 100,000 population were in ICU due to COVID-19
- Mortality rate for EU/EEA & the UK was estimated at 103.2 per 1 million people across 31 countries
- **Switzerland** (<u>14-day incidence available here</u>) has a 7-day incidence of 657.37 new cases per 100,000 population, occupancy rate for ICU estimated at 72.1%.
- Asia Pacific Region:
  - The WHO South East Asia region continued to show declines in both cases and deaths compared to the previous two weeks. Two countries in the region reported an increase in

<sup>&</sup>lt;sup>6</sup> JAMA 22 Dec 2020

new cases: Thailand and Indonesia over the two weeks, and Sri Lanka reported an increase in the first seven days.

- Continued to be a small increase in both new cases and deaths in Western Pacific. Japan and Malaysia continue to report the highest number of new cases in the region, followed by the Philippines and Republic of Korea.
- **Pakistan** reported an increase in both cases and deaths.
- **Indonesia** reported a 13% increase in new deaths in the first week with new deaths remaining stable in the second week.
- **Singapore** approved the Pfizer-BioNTech vaccine and announced that they expect to have enough for the whole country by the third quarter of 2021.

#### Recent Research/ Evidence

- Multi-system inflammatory disease MIS-C associated with COVID-19 in children has been reported in at least 35 children in the Southern Cape of <u>South Africa</u>. Symptoms reporting about 2 weeks after the onset of COVID-19 (Dec 15<sup>th</sup>)
- <u>CDC MMWR</u> report from Mississippi USA reported risk factors for children under the age of 18 who tested positive for COVID-19 were more likely to attend gatherings (weddings, funerals, pay dates, and parties) than their peers who tested negative, and that there was no significant difference whether or not the children have attended school or childcare. The recommendations for preventing transmission among children remain similar to adults physical distancing and mask use both of which reduce risk of COVID-19 transmission (Dec 15<sup>th</sup>).
- Recent seroprevalence study of the presence of SARS-CoV-2 virus among urban residents across Iran showed that significant portions of the population were infected (17.1%), but the majority still do not show seroprevalence, emphasizing the need to reinforce public health measures as multiple waves hit Iran. Seroprevalence is also likely to be much higher than reported COVID-19 infection (Lancet 15 Dec)
- **New variant** in the UK shows signs that it may be more infectious but there is not evidence at this time that it causes more severe illness or would prove the approved vaccinations ineffective. More research is underway.<sup>7</sup>
- Additional research regarding long covid is underway, with guidance for athletes (even young athletes) who experienced moderate to severe covid to wait and get additional tests prior to resuming athletic activities.<sup>8</sup>
- Recent study in <u>NEJM</u> found a substantially lower risk of reinfection with SARS-CoV-2 in the short term among health care workers with anti-spike antibodies and those with anti-nucleocapsid antibodies than among those who were seronegative.
- A <u>review of the evidence</u> from 24 papers looking at air samples within hospitals found 17% of air sampled from close patient environments was positive for SARS-CoV-2 RNA, with viability of the virus found in 9% of cultures (meaning the virus is not likely to transmit and cause illness in someone).

## **Clinical Trails**

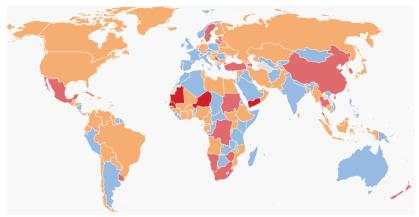
- **US FDA AUTHORIZES MODERNA VACCINE** on Friday, the 18<sup>th</sup>, <u>the US FDA</u> issued an <u>Emergency Use Authorization</u> (EUA) for Moderna's SARS-CoV-2 vaccine
- <u>European Commission</u> issued a conditional marketing authorization for the <u>Pfizer/BioNTech</u> <u>SARS-CoV-2 vaccine</u>, based in part on the recommendation of the <u>European Medicines Agency</u>.
- <u>Switzerland's Swissmedic</u> also authorized the use of the Pfizer/BioNTech vaccine.

## Modeling & Forecasting

• Estimated current effective reproductive rate (Lancet database) as of 22 December 2020

<sup>8</sup> The Lancet 21 Dec 2020

<sup>&</sup>lt;sup>7</sup> WHO Sit Rep 22 Dec 2020; NYT 23 Dec 2020; COVID-19 Genomics Consortium UK



 Legend

 Click on a country to see its performance.

 1 and below

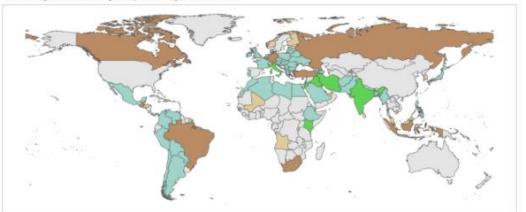
 1 - 1.2

 1.2 - 1.5

 more than 1.5

Projections for the reproductive number (ICL weekly projections) 9

Declining Stable/Growing Slowly Growing Unclear Trend



As of December 14<sup>th</sup> estimates for the effective reproductive number:

- Europe: Average of about 1, Highest: Finland & Norway: estimated around 1-1.5
- Asia: Average of about 1, Highest: South Korea 1.5
- Africa: Average about 1, Highest: South Africa & Angola 1-1.5
- MENA (not included): Highest: *Palestine* (1.5)
- North & Central America: Average of about 1, Highest: Guatemala 1.5
- South America: Average of about 1, Highest: Venezuela: 1-1.5
- <u>IHME projections</u> show the US is expecting to see 539,000 deaths<sup>10</sup> even after vaccination rollout from COVID-19 by April 10<sup>th</sup> due to an expected winter surge on an already very high incidence.

#### Humanitarian Impacts

- <u>Mapping of COVID in Humanitarian settings available here depicted below showing COVID-19</u> <u>cases compared to where vaccination campaigns have been postponed</u>
- <u>Updated repository of Maternal and Child health and Nutrition relating to COVID-19 can be</u> <u>found here.</u>

#### Guidance Launched or Highlighted This week

Weekly update from WHO available here (last updated Epi 13 & 22 Dec)

- WHO: Public health considerations for elections and related activities in the context of the COVID-19 pandemic
- WHO: Evidence to recommendations for COVID-19 vaccines: Evidence framework
- WHO: <u>COVID-19 vaccine introduction and deployment costing tool</u>
- WHO: <u>Checklist to support schools re-opening and preparation for COVID-19 resurgences or</u> <u>similar public health crises</u>
- WHO: Emergency Use Designation of COVID-19 candidate vaccines: Ethical considerations
- WHO: Emergency Global Supply Chain System (COVID-19) catalogue
- WHO: <u>Therapeutics and COVID-19: living guideline</u>
- WHO: COVID-19 diagnostic testing in the context of international travel

<sup>&</sup>lt;sup>9</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% Crl 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% Crl 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% Crl 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% Crl is less than 1, we define the phase as stable/growing slowly. If the width of the 95% Crl 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. <u>ICL short term forecast</u>

<sup>&</sup>lt;sup>10</sup> IHME 3 December 2020

- WHO: <u>Risk assessment tool to inform mitigation measures for international travel in the context of</u>
   <u>COVID-19</u>
- WHO: <u>Considerations for implementing a risk-based approach to international travel in the</u> <u>context of COVID19</u>

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)

Global Health 5050 Sex desegregated data

<u>Health Map</u>

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

<u>WHO</u>

WHO Technical Guidance for COVID-19

**MobLabs** 

MobLabs Domestic and international risk of importing a case

World Meters