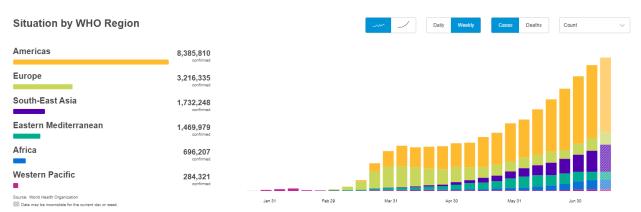
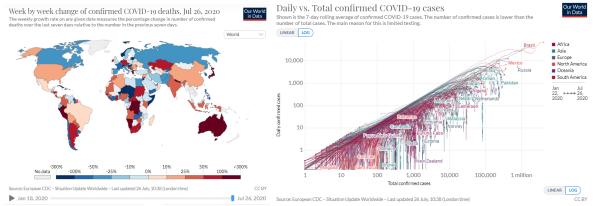
COVID-19 Update: Epi Week 19-25 July 2020

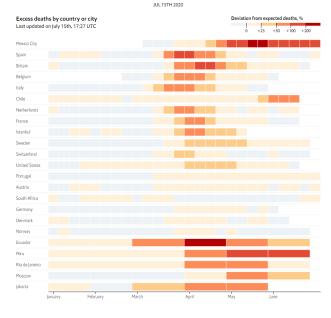
Over 15.7 million cases confirmed and reported, with **over 640 thousand deaths** reported to date (<u>unofficially</u> over 16.2 million cases and nearly 649 thousand deaths, over 5.6 million active cases and over 9.9 million recovered). Brazil, the United States and Mexico are reporting the highest daily increases in deaths, United States, India, Brazil and South Africa are reporting the highest daily increases in new cases.¹

Weekly cases per 1 million population (WHO)





https://ourworldindata.org/covid-deaths



¹ Official numbers and WHO visualizations available <u>here</u>

Excess Deaths as of 15 July 2020 for select cities and countries (The Economist)

News/ Political Context

- Daily confirmed deaths increasing most rapidly in Namibia, Lesotho, Costa Rica, Gambia, Kyrgyzstan, Malawi, Madagascar.²
- Cases doubling rapidly in Gambia (4 days), Papua New Guinea (5 days), The Bahamas (6 days), Kyrgyzstan (9 days) Zimbabwe (10 days), Zambia (12 days).³
- While the past 2 weeks indicated **Brazil** had past it's peak, new data for the past 2 days has Brazil reporting its highest daily totals in the past 2 days.
- Central and South America still hot spots in the epidemic, with highest daily increases reported in Colombia and Mexico. MENA region also continues to be a hot spot, with Oman reporting the highest daily increase per million population.
- Amazon river in Brazil especially hard hit by the coronavirus, cities and towns along the river reporting the highest deaths per capita in the country, taking an especially high toll among indigenous populations (Indigenous people are 6x more likely to be infected by SARS-CoV-2 than white people)⁴
- India's incidence almost doubled since beginning of July and is increasing rapidly⁵
- Bangladesh is reported increased incidence, but it is paired with a decrease in in testing
- Several states in the US reporting high incidence of deaths including Arizona, reporting more than 1.1 daily deaths per 100,000 population, which is more than double the current rate in Florida and Texas.
 - Likely just beginning to see resurgence from independence day celebrations this week
 - US passes 4 million confirmed cases:
 - to 1 million cases: 81 days
 - 1 million to 2 million cases: 44 days
 - 2 million to 3 million cases: 27 days
 - 3 million to 4 million cases: 14 days
- Second waves beginning to be observed in Tokyo, Japan, Melbourne, Australia, and several locations in Spain, and South Africa. South Africa is reporting an overall increase in all-cause mortality as well.
- Mask use mandatory in public spaces and on transport in France and the UK. Many cantons in Switzerland have similar rules as well as several US states.
- EU stimulus package signed for 360 billion Euros
- Updated guidance by the WHO listing the possibility of airborne transmission of SARS-CoV-2, but droplet particles still thought to be the majority of transmission mechanisms.⁶
- Continued increased cases and deaths within indigenous populations in the Americas⁷
- Recent report from WHO regional office highlights the concern regarding high numbers of African HCWs infected with COVID-19.⁸
- COVID-19 law lab initiated by WHO, UNDP, UNAIDS, O'Neil Institute for National and Global Health Law, and Georgetown University
- COVID-19 Supply Chain System Update (from WHO Sit Rep #185):
 - Diagnosis: 6.5 million PCR tests and 5.6 million sample collection kits allocated to 134 countries
 - Biomedical equipment: 3,960 oxygen concentrators have been shipped to 37 countries, 2,925 patient monitors

⁷ <u>PAHO</u>

² <u>https://ourworldindata.org/coronavirus</u>

³ Reference to ECDC data using <u>https://ourworldindata.org/coronavirus</u>

⁴ New York Times 25 July 2020

⁵ Johns Hopkins Center for Health Security

⁶ WHO: Transmission of SARS-CoV-2: implications for infection prevention precautions

⁸ WHO Africa regional report

• Supply: 61.4 million pieces of PPE have been shipped

Recent Research/ Evidence

- Recent evidence shows antibody loss for SARS-CoV-2 is quicker than reported for SARS-CoV-1, raising concerns about immunity for SARS-CoV-2 among infected with mild illness may not be long-lasting. This also raises questions of the validity of 'immunity passports,' herd immunity and potentially vaccine durability.⁹
- Due to several reasons reported COVID-19 deaths in Italy likely underestimate true mortality related to COVID-19 in Italy. Official SARS-CoV-2 deaths only reported for in hospital or some nursing homes where positive tests were completed. Comparing all-cause mortality with previous year's, researchers found an increase in all-cause mortality of 104.5% March 1- April 4th, nearly half were in the Lombardy region. This indicates that COVID-19 reported deaths may underestimate the impact of the epidemic on the population.¹⁰
- **Preprint**¹¹ of study examining the **presence of SARS-CoV-2 virus in aerosol form shows it can be present suggesting airborne transmission is possible**, but more research needed to understand the role it plays in transmission of the virus.¹²
- Recent reports show evidence in support of wearing a mask to protect one's self from infection not just others. Absence of apparent transmission of SARS-CoV-2 from 2 stylists following exposure with universal mask covering requirements described in the <u>weekly MMWR report</u>.
- Recent review of data shows that SARS-CoV-2 is transmitted by both small and large particle aerosols. Surgical masks offer some protection although protection is increased when patients also wear a mask, PAPRs offer the most protection in hospital settings. The authors suggest airborne infection isolation rooms and other airborne precautions. Very good review of respiratory disease transmission particles in The Lancet, Respiratory Medicine.¹³
- Contact Tracing strategies among Native American communities in Arizona, US show a shift from looking only at location for contact tracing, but targeting high risk groups (i.e. asking who their grandparents were) in a community where 'self-isolation' apart from family is not feasible led to ability to catch cases before they became too severe to treat. Additional referral mechanisms were also planned in advance for severe cases. Success of the program has been attributed to strong partnerships with tribal leaders, trust and traditional door to door public health approach.¹⁴
- Joint effort from Africa CDC and WHO to investigate traditional medicine in research across Africa¹⁵
- Evidence compiled by Johns Hopkins (monthly) on evidence related to **Maternal and Child Health and Nutrition** in relation to COVID-19. Resources can be found <u>here</u>.
- Telepsychology has been discussed by many as a way to support the poor, those living in rural areas and refugees to access to care, however many of these suggestions are not evidence-based and require adequate risk assessments regarding the use of telepsychology given particular barriers including access to appropriate devices, restrictions to use, and potential further burden on health systems.¹⁶

Clinical Trails

• Currently 25 candidate vaccines are under clinical evaluation. More can be seen in WHO report.¹⁷

peer review of the article methods and conclusions are deemed by the scientific community to be not reliable. ¹² <u>MedRxiv 20 July 2020</u>: The Infectious Nature of Patient-Generated SARS-CoV-2 Aerosol

⁹ <u>NEJM 21 July 2020</u>: Rapid Decay of Anti–SARS-CoV-2 Antibodies in Persons with Mild Covid-19

¹⁰ JAMA 20 July 2020: Comparison of Reported Deaths From COVID-19 and Increase in Total Mortality in Italy
¹¹ **Pre-print articles* have not yet undergone stringent peer-review and are released during the pandemic for scientists and doctors to have all evidence available to them in real time. Please note that sometimes after

¹³ The Lancet 24 July 2020

¹⁴ NEJM 16 July 2020

¹⁵ WHO

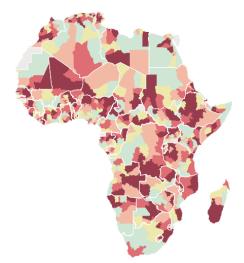
¹⁶ <u>The Lancet Psychiatry 1 Aug 2020</u>: The hope and hype of telepsychiatry during the COVID-19 pandemic

¹⁷ WHO

- US government shared paper on the **Rapid Acceleration of Diagnostics program (RADx**) national plan, led by NIH in partnership with other US government entities, including the Biomedical Advanced Research and Development Authority (BARDA) and the Department of Defense initiated in the US. Focuses include focus on technology, underserved populations, and increased testing capacity.¹⁸
- Preliminary results of Phase 1 trials of MRNA-1273 vaccine show solicited immune response in all participants without safety concerns identified.¹⁹
- Phase 1/2 single-blind, randomized, controlled trial of a chimpanzee adenovirus-vectored vaccine (ChAdOx1 nCoV-19) expressing the SARS-CoV-2 spike protein compared with a meningococcal conjugate vaccine (MenACWY) as control showed acceptable safety profile and increased immune response suggesting moving on to phase 3 trials.²⁰
- Recent controlled, open-labeled **trial of dexamethasone** found that patients hospitalized with Covid-19, the use of dexamethasone resulted in lower 28-day mortality among those who were receiving either invasive mechanical ventilation or oxygen alone at randomization but not among those receiving no respiratory support.²¹
- The **US government has finalized an agreement with Pfizer and BioNTech** to acquire 100 million doses of their candidate SARS-CoV-2 vaccines, worth US\$1.95 billion.²²

Modeling

- An estimated 1/3rd of people in the Americas are at increased risk of developing severe COVID-19 illness due to underlying conditions.²³
- Additional modeling of COVID-19 vulnerability at the county level for Africa can be found <u>here</u>





 Projections for the reproductive number and deaths (ICL weekly projections) Assuming the underlying CFR 1.38% forecasting for the upcoming week (from 19th July) based on 53 countries are below:

¹⁸ <u>NEJM 22 July 2020</u>. Rapid Scaling Up of Covid-19 Diagnostic Testing in the United States — The NIH RADx Initiative

¹⁹ <u>NEJM 14 July 2020</u>: An mRNA Vaccine against SARS-CoV-2 — Preliminary Report

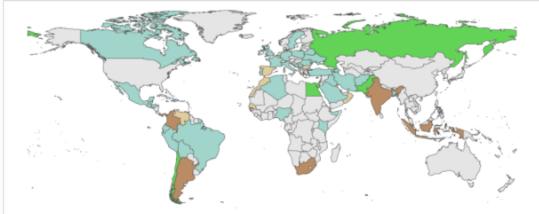
²⁰ The Lancet 20 July 2020

²¹ <u>NEJM 17 July 2020</u>: Dexamethasone in Hospitalized Patients with Covid-19 — Preliminary Report

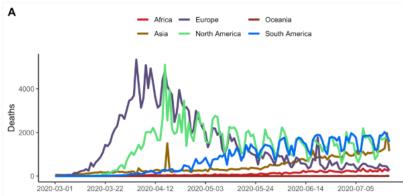
²² New York Times 22 July 2020

²³ LSHTM and PAHO

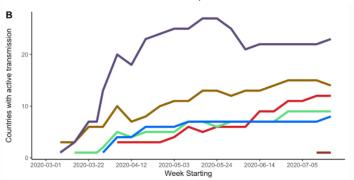








Total number of deaths reported (above). Number of countries with active transmissions with at least 100 deaths and at least 10 deaths reported in the last two weeks (below)



- Modeling for US timelines and policy changes by state available <u>here</u>.
- Descriptive analysis of the COVID-19 epidemic in China now available, examining the epidemic trends along with public health interventions using aggregate data.²⁴

Humanitarian Impacts

- Mental health needs spiking in Haiti during COVID-19 outbreak, with an overloaded 12 years following the earthquake and SGBV has been on the rise since the lock-down measures.²⁵
- Reports coming from Yemen confirm the devastating reports of COVID-19 cases coming out of Aden.²⁶
- Despite representing 51% of coronavirus cases globally, **women represent only 27% of the COVID-19** cases reported in **Afghanistan** and comprise of less than 30% of reported cases in **CAR**, **Chad**,

²⁴ <u>ICL Report 30. 3 July 2020</u>

²⁵ New Humanitarian 19 July 2020

²⁶ New Humanitarian

Pakistan, Somalia and Yemen, highlighting the gender gap in those who seek care or testing at a facility.

<u>Mapping of COVID in Humanitarian settings available here</u>

Guidance Launched or Highlighted This week

Weekly update (official) based on locations with highest case increases - last updated: WHO SitRep #188

- <u>Resources and tools on the re-opening of schools</u> developed by CDC for US
- <u>Go.Data</u> gaining recognition and use globally
- Transmission of SARS-CoV-2: implications for infection prevention precautions
- PAHO Epidemiological Alert: COVID-19 among indigenous peoples in the Americas 15 July 2020
- WHO: Safe Eid al Adha practices in the context of COVID-19: Interim guidance
- <u>WHO: Draft landscape of COVID-19 candidate vaccines</u>
- WHO: Preventing and managing COVID-19 across long-term care services: Policy brief, 24 July 2020
- WHO: Guidance for conducting a country COVID-19 intra-action review (IAR)

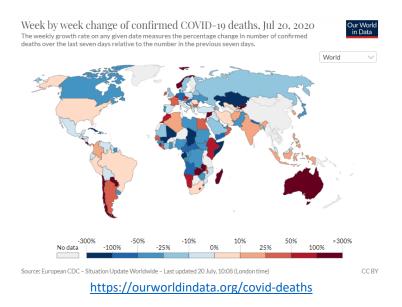
Previous Epi Weeks: 5 July – 18th July 2020

Situation by WHO Region				/	Daily Weekly	Cases Deaths	Count ~
Americas	7,584,675						
Europe	3,079,218						
South-East Asia	1,436,141 confirmed						
Eastern Mediterranean	1,387,295						
Africa	597,223						
Western Pacific	263,565				=		
Source: World Health Organization		Jan 31	Feb 29	Mar 31	Apr 30	May 31	Jun 30

Excess mortality since region/country's first 50 covid deaths

Updated on June 13th 19:08 UTC

Updated on June 13th	n 19:08 UTC			COVID-19 AS
REGION / COUNTRY	TIME PERIOD	COVID-19 DEATHS	TOTAL EXCESS DEATHS	% OF TOTAL
Britain	Mar 14th-May 29th	50,176	63,066	80%
Spain	Mar 11th-May 26th	28,717	43,668	66%
Italy	Feb 26th-Apr 28th	26,665	41,433	64%
France	Mar 11th-May 26th	28,497	28,137	101%
New York City	Mar 15th-May 23rd	21,271	25,333	84%
Netherlands	Mar 16th-May 31st	5,936	9,405	63%
Belgium	Mar 23rd-May 24th	9,102	7,887	115%
Sweden	Mar 18th-Jun 2nd	4,672	4,623	101%
Jakarta	Mar 1st-May 31st	520	4,465	12%
Istanbul	Mar 25th-May 12th	1,925	3,817	50%
Austria	Mar 23rd-Apr 5th	188	330	57%



News/ Political Context

- Daily confirmed deaths increasing most rapidly in Lesotho, Kyrgyzstan, Zambia, Costa Rica, Palestine, Malawi.²⁷
- Cases doubling rapidly in Kyrgyzstan (3 days) Lesotho (9 days), Namibia (10 days), Zimbabwe (12 days), Madagascar (12 days), Costa Rica (12 days).²⁸
- United Nations confirms the US intends to withdraw completely rom the WHO, effective July 6, 2021. The US is currently #1 globally in terms of daily and cumulative COVID-19 incidence and total deaths, and its epidemic has been accelerating since early June.
- **GOARN** partners supporting 24 international deployments including Angola, Bangladesh, Nepal, Sao Tome and Principe. Deployments have been challenging due to travel restrictions.
 - **RCCE Collaboration** to provide key principles that need to inform the contact tracing strategy in different response scenarios including humanitarian settings
 - Over 50 **Go.Data** implementations in place
- Access to HIV medication is becoming an issue in several countries due to COVID-19²⁹

Recent Research/ Evidence

- **High rates of preterm birth and cesarean delivery** have been reported in women with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection³⁰.
- Study found that **immunity to COVID-19 may be short lived**, suggesting that repeated infection may be possibility³¹.
- Data compiled from the US shows the racial and minority disparities of coronavirus cases by race.

²⁷ https://ourworldindata.org/coronavirus

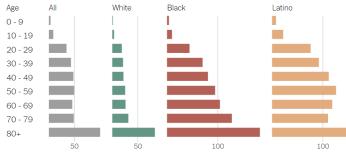
²⁸ Reference to ECDC data using <u>https://ourworldindata.org/coronavirus</u>

²⁹ WHO Sit Rep #169

³⁰ JAMA Change in the Incidence of Stillbirth and Preterm Delivery During the COVID-19 Pandemic

³¹ Longitudinal evaluation and decline of antibody responses in SARS-CoV-2 infection

Coronavirus cases per 10,000 people, by age and race



Source: Centers for Disease Control and Prevention | Note: Data is through May 28.

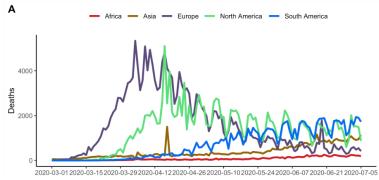
- Study found that connectivity matters more than density in the spread of the COVID-19 pandemic.³²
- Evidence compiled by Johns Hopkins (monthly) on evidence related to Maternal and Child Health and Nutrition in relation to COVID-19. Resources can be found <u>here</u>.

Clinical Trails

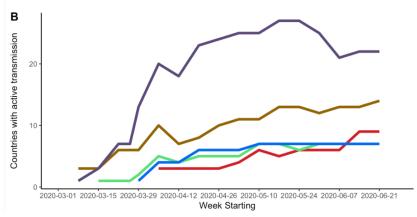
 WHO has accepted the recommendation from the Solidarity Trial's International Steering Committee to discontinue the trial's hydroxychloroquine and lopinavir/ritonavir treatment arms for COVID-19.³³

Modeling

• **Projections for the reproductive number and deaths** (ICL weekly projections) Assuming the underlying CFR 1.38% forecasting for the upcoming week (from 5th July) are below:



Total number of deaths reported (above). Number of countries with active transmissions with at least 100 deaths and at least 10 deaths reported in the last two weeks (below)



• **Europe:** Increases expected in Ukraine, Sweden, Azerbaijan and Armenia. Stabilization expected in Turkey, the UK, Germany and France.

³² JAPA. Does Density Aggravate the COVID-19 Pandemic?

³³ WHO Sit Rep #167

- **MENA:** Increases expected in Iraq, Oman and Iran. Stabilization expected in Bangladesh, Qatar, Kuwait and UAE.
- **Asia Pacific:** Stabilization expected in Bangladesh, Indonesia, Afghanistan, increases expected in India.
- Africa: Rapid increases still expected in South Africa with stabilization expected in Kenya, Senegal, Ghana, and Nigeria.
- Americas: Increases expected in Mexico, Panama, Honduras, Guatemala, El Salvador, Colombia, Argentina, Bolivia, and Dominican Republic. Stabilization expected in Haiti with a decrease in Canada.

Country 0	Deaths Observed (last week) 🕴	Predicted Deaths (this week)	R_t
Kazakhstan	55	88 (63 - 126)	1.56 (1.22 - 2.39)
El Salvador	54	84 (59 - 119)	1.55 (1.21 - 2.23)
Honduras	121	183 (149 - 257)	1.53 (1.28 - 2.55)
Colombia	813	1,150 (1,000 - 1,340)	1.45 (1.35 - 1.62)
Iraq	647	953 (745 - 1,070)	1.41 (1.22 - 1.53)
Portugal	33	43 (27 - 81)	1.41 (0.94 - 3.03)
Austria	12	16 (6 - 49)	1.38 (0.61 - 4.51)
Argentina	242	337 (288 - 391)	1.37 (1.20 - 1.75)
Panama	99	128 (96 - 168)	1.35 (1.06 - 1.98)
Guatemala	192	254 (200 - 311)	1.29 (1.11 - 1.60)

Forecasted weekly deaths shown below

- Commentary article suggests that if outbreaks begin to spike in localized contexts, Modelling suggests that **brief lockdowns** (eg, for 2 weeks) **followed by relaxations for between 2 and 6 weeks might be enough to cut lines of virus transmission** however this is highly dependent on the **trust** within the community, government and epidemiological models. Emphasis needs to be made on a multi-public health methods approach (**not one solution will slow the effective reproductive number**).³⁴
- Modeling for US timelines and policy changes by state available <u>here</u>.
- **HIME:** Estimates 208,255 COVID-19 related deaths will be reported in the US through November 2020, and that more than 45,000 lives could be saved if 95% of people wear masks in public.³⁵
 - Projection visualization tools can be found <u>here</u> for multiple countries

Humanitarian Impacts

- State of Food Security and Nutrition report forecasts the COVID-19 pandemic could tip an additional 130 million more people into chronic hunger by the end of 2020.
- African Migrants face increasing danger and persecution in Yemen due to coronavirus³⁶ While many borders have closed during the pandemic, migrants remain stuck in country, with thousands arrested and relocated to the southern part of the country.
- Using an electronic registry system, researchers found the mean number of daily immunization visits decreased by 52.8% during the lockdown compared to baseline in Karachi, Pakistan. A steady recovery was reported after the lock-down was lifted, with the base number reduced by 27.2%. Additional findings found outreach services affected more than facility services, and supply in several centers was also affected (18% of all immunizations needed to close temporarily).³⁷
- New report from the Global Fund estimates deaths from HIV, TB and Malaria Could Almost Double in 12 Months³⁸

³⁴ Lancet. 27 June 2020. Second Wave

³⁵ <u>IHME</u>

³⁶ New York Times 28 June 2020

³⁷ Lancet 29 June 2020

³⁸ Global Fund 24 June 2020

- UN brief released on the three crises facing people on the move (health, protection, and socioeconomic), emphasizing the advantages of safe and inclusive human mobility during and in the aftermath of COVID-19:
 - Exclusion is costly in the long-run whereas inclusion pays off for everyone.
 - The response to COVID-19 and protecting the human rights of people on the move are not mutually exclusive.
 - No-one is safe until everyone is safe.
 - People on the move are part of the solution
- Work ongoing to improve humanitarian access to primary health services in Yemen³⁹
- 5% reduction in vaccination rates in Syria in the first half of 2020⁴⁰
- Mapping of COVID in Humanitarian settings available here

Guidance Launched or Highlighted This week

- ArcGIS for COVID-19 response package has been made available to all non-profits responding to the pandemic
- <u>Go.Data</u> gaining recognition and use globally
- Investing in and building longer-term health emergency preparedness during the COVID-19 pandemic
- Framework for Managing the COVID-19 Infodemic: Methods and Results of an Online, Crowdsourced WHO Technical Consultation

³⁹ <u>WHO</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

BMJ COVID-19 resources

European Centre for Disease Prevention and Control

End Coronavirus Visualizations

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

<u>WHO</u>

WHO Technical Guidance for COVID-19

<u>MobLabs</u>

MobLabs Domestic and international risk of importing a case

World Meters