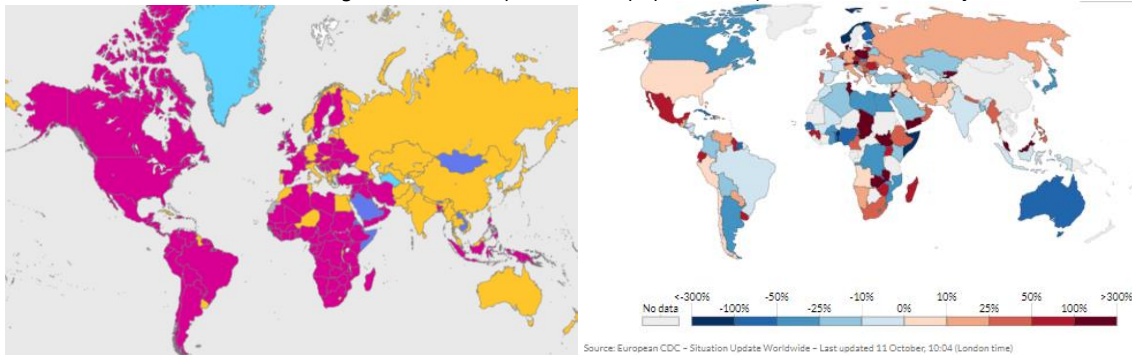


COVID-19 Update Week 4-10 October

Over 36.7 million cases confirmed and reported, with **over 1 million deaths** reported to date (unofficially over 37.5 million cases and over 1 million deaths, over 8.2 million active cases (increase from previous week) and over 28.1 million recovered). **India, the US, Brazil, are reporting the highest daily incidences in death** in the last 24 hours. **India, the United States, Brazil, France, the UK, Argentina, Spain and Russia reporting the highest daily increases**, all reporting above 10,000 newly confirmed cases in the past 24 hours.¹ Number of new cases per week has remained stable at 2 million per week globally. **New record for daily global incidence set on October 9th with 336,500 new cases reported. Weekly incidence was highest in Israel with 3717 new cases per 1 million population.**

Weekly cases and transmission classification (WHO)

Below Left Map by Transmission Classification (Pink=Community Transmission, Yellow= Clusters, Purple= Sporadic Cases, Blue= No cases); Below Right: WHO: Cases per 1 million population reported in the last 7 days

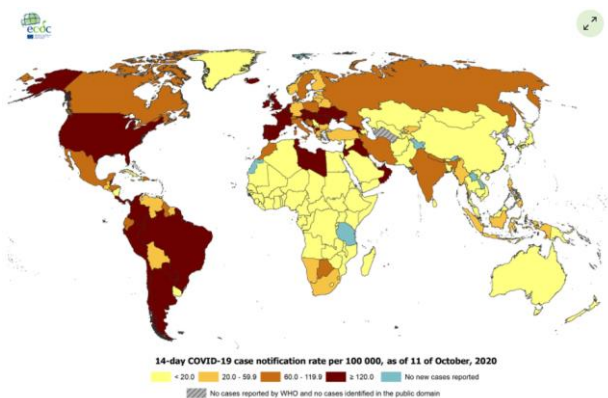
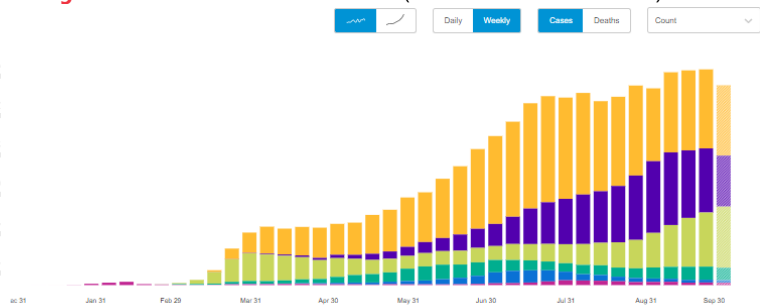


Above Right: **Week by week change in confirmed COVID-19 deaths** (Source: Our World in Data)

Situation by WHO Region

| | |
|-----------------------|----------------------|
| Americas | 17,662,955 confirmed |
| South-East Asia | 7,823,832 confirmed |
| Europe | 6,809,678 confirmed |
| Eastern Mediterranean | 2,585,780 confirmed |
| Africa | 1,222,956 confirmed |
| Western Pacific | 648,453 confirmed |

Source: World Health Organisation
Data may be incomplete for the current day or week.



Left: **Cases per 1 million in the last 14 days** (ECDC)

News / Political Context

- Countries with **highest reported new cases per 1 million daily increases**²:
 1. **Guam** (US territory): 527

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

² Our World in Data [Incidence](#)

2. Montenegro: 467
3. France: 412
4. Curacao: 402
5. Netherlands: 379
6. Slovakia: 346
7. Argentina: 275 ****Argentina reporting test positivity rate of 65%**
8. Costa Rica: 272
9. Tunisia: 265
10. Ukraine: 264
11. Iceland: 255

- **Daily confirmed deaths doubling most rapidly in Jordan, Georgia, Myanmar, Tunisia, French Polynesia, Jamaica, Malta,** (trends remained stable for over 1 week).³
- Cases doubling rapidly in **Jordan** (10 days), **Myanmar** (11 days), **Slovakia** (12 days), **Georgia** (13 days), **French Polynesia** (13 days), **Tunisia** (14 days).⁴
- **Highest percent of cases reported in the 25-39 age group globally,** while 75% of deaths remain in the 65+ age category⁵
- **60% of new cases globally last week were from 5 countries:** India, the US, Brazil, Argentina and France.
- Several countries show that they never “left” the first wave of the pandemic, but have had continued increase in incidence including: Indonesia, Iraq and Myanmar.
- Rapid assessment by WHO noted significant disruption to both emergency, school-based and other MHPSS due to COVID-19:
 - One-third (33%) of responding countries reported complete or partial disruption across at least 75% of specific MNS-related interventions/services. This level of disruption was the highest within countries in the community transmission stage of COVID-19 (44%).
 - 35% of countries reported some disruption of management of emergency MNS manifestations
 - Almost 60% of all psychotherapy and counselling services were reported as partially disrupted.
 - Overdose prevention and management programmes and critical harm reduction services were disrupted in more than 50% of countries.
- Statement by WHO that the world can no longer question the links between public health and the general resilience of economies and societies⁶. A “whole of government, and whole of society” approach is needed – as of now, only an estimated 1/3rd of countries have put in place the capacities for PH emergency management systems as required under IHR (2005) including standardized outbreak alert system linked to concrete national-level responses. Recommended actions include:
 1. URGENTLY CONTROL FURTHER TRANSMISSION OF COVID-19
 2. PROTECT DELIVERY OF OTHER ESSENTIAL HEALTH SERVICES
 3. MASSIVELY EXPAND ACCESS TO NEW RAPID DIAGNOSTICS AND TREATMENTS AND ENSURE FUTURE COVID-19 VACCINES ARE A GLOBAL PUBLIC GOOD WITH EQUITABLE ACCESS FOR EVERYONE, EVERYWHERE
 4. ACHIEVE UNIVERSAL HEALTH COVERAGE

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

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

⁵ [WHO Sit Rep Epi Report 5Oct](#)

⁶ [WHO Policy Brief on Universal Health Coverage](#)

5. STRENGTHEN NATIONAL AND GLOBAL PANDEMIC PREPAREDNESS AND AIM FOR HEALTHY SOCIETIES FOR THE FUTURE

- **EMT Updates:** EMT from **Turkey** (UMKE) verified as type 2 (23rd Sep); Simulation exercise for EMT coordination took place October 1-2; Over 50 EMT missions deployed thus far to respond to COVID-19 – lessons learned report will be shared next week; EMT response to Greece and Lebanon ongoing
- **Asia Pacific Region:**
 - The region represents over one third of global cases, but weekly incidence is now much lower than Europe and the Americas.
 - **India's** incidence continues to decline from its peak in mid-September
 - In a nationwide survey, **75% of Indians reported being food insecure** in part due to secondary impacts of COVID-19⁷
 - **Indonesia** reporting the second highest number of cases in the region, with 60% of cases being reported from the island of Java, however testing has remained a significant problem with test positivity estimated around 23%.
 - **Myanmar's** incidence has risen sharply over the past week, doubling each week since mid-August
 - **Malaysia** reporting an increase of 119% in new cases compared with last week.
 - New cases per week also remain high in the **Philippines**, with community transmission across all provinces
- **European Region:**
 - EU/EEA and UK case notification rate is 130.6 per 100,000 and **has been increasing for 77 days**. High levels of sustained increase in cases have been seen in at least 28 countries. The death rate for the region has been increasing for 23 days. Test positivity has been high (over 3%) or increased in 14 countries.⁸
 - **Europe's epidemic is now twice the size that it was in April at its previous peak**. Per capita daily incidence has now surpassed the Americas and is trending to pass AP.
 - **Russia** is seeing an increase in incidence of cases compared to the previous week- at the current rate it is expected to pass its previous peak
 - **France**, the **Russian Federation**, the **United Kingdom**, **Spain**, and **Israel** reported the highest numbers of new cases in the past week.
 - **40% of ICU beds in Paris, France are currently occupied**
 - **Ukraine** reporting a 21% increase in cases compared to the previous week.
 - **Switzerland:** Overall Incidence for the country is estimated at 60 per 100,000. Incidence rates highest in Geneva Canton: 208 per 100,000 (14-day incidence 25 Sep-8 Oct)
 - Resurgence in Europe has put a **strain on the supply chain and availability of Remdesivir**, causing rations to be made in parts of the UK
- **Americas Region**
 - The **United States of America, Brazil, Argentina, Colombia, Mexico** and **Peru** registered the highest number of weekly new cases.
 - **Canada** and **Argentina** both reporting an **increased incidence of death** in the past week
 - Deaths in the region have been disproportionately heavier on older age groups. Canada reported over 80% of deaths in the country were in long-term care facilities.

⁷ [Interview, WBUR](#)

⁸ [ECDC](#)

- US President tested positive for COVID-19 on October 2nd along with several of his close advisers.
- **Highest daily incidence in the US** (at 53,051 new cases) was reported on October 8th (highest since August 15th). Mixed messages, lack of a coherent singular strategy for COVID-19, along with trends lead analysts to suggest the US is heading towards a “3rd wave” of the virus.
- **MENA Region**
 - **Iraq, Iran, Morocco, and Lebanon** are reporting the highest numbers of new cases for the past week.
 - **Iraq** has reported over 200,000 new cases per week since the beginning of August,
 - **Jordan** has had incidence doubling for the past 3 weeks (this week there was a 90% increase from the previous week)⁹
 - WHO launched clinical management of COVID-19 online course in Jordan
 - **Lebanon** reporting a 19% increase in incidence from the previous week, reporting 1209 cases per 1 million population
- **Africa Region**
 - For the first week since early August, the number of new deaths has risen – led by South Africa with a 29% increase in deaths in the past week.
 - **South Africa and Ethiopia** continue to report the highest numbers of new cases in Africa, followed by **Mozambique, Uganda, and Nigeria**.

Recent Research/ Evidence

- Case study of COVID-19 **symptomatic re-infection** described in a patient 144 days following the previous infection in the US (reinfection with the new strain harboring the spike variant D614G). [Pre-print study](#) provides an initial in-depth assessment of humoral immune responses during reinfection.
- Study by UCL in a review of symptoms and sensitivity, and specificity of testing of 36,000 individuals found 76.5% of those who tested positive were asymptomatic on the day of testing, concluding that **presence or absence of symptoms was a poor indicator of SARS-CoV-2 infection**.¹⁰
- **Pooled testing** can significantly increase the available testing capacity without the need for additional tests or equipment, which can enable large-scale, rapid screening and/or substantially expand testing capacity in resource-limited settings¹¹:
 - Mathematical model suggests improved pooled testing technique allowing one to use 10 tests per 200 samples – if 5 tests are positive, the exact specimen that caused the positive test could be identified.¹²
 - Previous study ([pre-print](#)) suggests the use of a ‘hypercube model’ to create overlapping pools that give highly accurate results in 2 tests, increase available testing capacity
- Research & scientific theory supports **probability that there is a dose-response between number of SARS-CoV-2 virus particles exposed to and COVID-19 severity**, although this has not been proven at this time.¹³ Face coverings are likely to reduce the viral load from individuals infected (whether or not they are symptomatic).

⁹ [WHO Sit Rep Epi Report 5Oct](#)

¹⁰ [Clinical Epidemiology 8 Oct 2020](#)

¹¹ Johns Hopkins Center for Global Health Security

¹² [Journal Health Systems 13 Sep 2020](#)

¹³ [Prevent Epidemics: Dose \(inoculum\) of SARS-CoV-2 and COVID-19 severity](#)

- Recent research of **susceptibility of SARS-CoV-2** infection among children and adolescents compared to adults found **children and adolescents were 60% as likely to become infected**, however, the study did not conclude the role these age groups play in transmission of the virus.
- Research into the **long-term effects of COVID-19** show that while the effects are more likely to be experienced by those with severe disease, the effects are also being experienced by those who reported initial mild symptoms from COVID-19. Manifestations are noted in 3 organ systems: **Cardiovascular, pulmonary and neurological**.¹⁴
 - One study found more than 60% of patients had persistent symptoms in their lungs 3 months after discharge. Another study found decreased lung strength in 50% of patients 30 days after discharge.
 - As evidence emerges regarding the long-term health affects of COVID-19, evidence points towards continuing to prioritize prevention measures.
- Recent study shows potential proof of concept of the use of machine learning and **proximity tracing applications** as part of the epidemiological toolkit for reducing the spread of COVID-19¹⁵
- **Population crowding** found to be a significant contributor to the shape of the epidemic in a comparison of data sets from China and Italy outbreaks in a recent study looking at temporal clustering. Non-pharmaceutical interventions are also likely to have a more significant affect in densely urban settings (especially in-city movement), but that previous reduced spread in smaller cities may make those populations at higher risk for elevated outbreak in the second and third waves.¹⁶
- **Policy recommendations** for France by the COVID-19 independent council: **reduce quarantine period to 7 days** (based of evidence of reduced risk of viral shedding at this time) and include incentives to successfully following the quarantine period. Reduction in quarantine measures should improve social acceptance and match neighbouring Belgian's requirements.¹⁷
- The findings from 1054 patients in the UK suggest that testing suspected COVID-19 at the point-of-care could help health-care providers better manage a surge in cases and reduce infection spread within the hospital.¹⁸
- Essential to follow the lessons learned through Ebola and HIV/AIDS epidemics, including timely local interventions as well as honest direct communication to encourage trust and buy-in.¹⁹
- Study of children ages 1 month to 18 years in Turkey found **Patients with COVID- 19 had significantly lower vitamin D levels** and those with low levels.²⁰

Clinical Trails

- **Regeneron Pharmaceuticals** applied for an **Emergency Use Authorization** (EUA) from the US FDA for its **monoclonal antibody cocktail**. The antibody cocktail was used on President Trump as one of his treatments for COVID-19, but has not yet demonstrated safe or effective

¹⁴ [JAMA 25 Sep 2020](#)

¹⁵ [Nature 6 Oct 2020](#)

¹⁶ [Nature Medicine 5 Oct 2020](#)

¹⁷ [Lancet Public Health 9 Oct 2020](#)

¹⁸ [The Lancet Respiratory Medicine 8 Oct 2020](#)

¹⁹ [NEJM 7 Oct 2020](#)

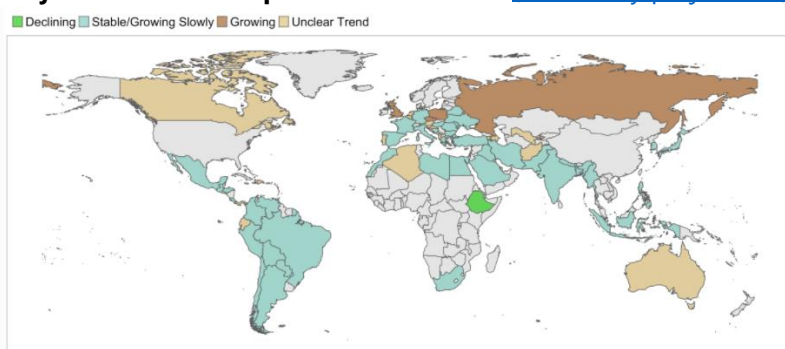
²⁰ [Pediatric Pulmonology 5 Oct 2020](#)

in clinical trials. [Preliminary results](#) from Phase 1 clinical trial (including 275 individuals) did show that the drugs showed promise in reducing viral loads in non-hospitalized patients.

- US FDA released guidance notes on the [emergency authorization of a COVID-19 vaccine](#)
- Abbott BinaxNOW SARS-CoV-2 antigen tests to be [piloted](#) in the US – it is the only point-of-care antigen test with an EUA issued by the FDA.
- PAHO [Solidarity Clinical trials for COVID-19](#) to take place in Argentina, Brazil, Chile, Colombia, El Salvador, and Mexico. Participation in the solidarity clinical trials do not imply access to the vaccine through the COVAX and PAHO fund.
- In a randomized controlled open-label platform trial patients hospitalized with Covid-19, those who received **hydroxychloroquine** did not have a lower incidence of death at 28 days than those who received usual care (final review).²¹

Modeling & Forecasting

- **Projections for the reproductive number** ([ICL weekly projections](#))²²



As of October 5th estimates for the effective reproductive number:

- **Europe:** Average of about 1, Highest: **the UK:** estimated around 1.5-2
- **Asia:** Average of about 1, Highest: **Myanmar** 1.5-2 (increase from last week)
- **Africa:** Average just below 1, Highest: **South Africa** about 1 (entire region decrease)
- MENA (not included): Highest: **Lebanon** (1.5-2)
- **North & Central America:** Average of about 1, Highest: **Canada:** 1.5-2 (increase from last week)
- **South America:** Average of about 1, Highest: **Equator:** 1-1.5
- Sampling and Modeling from Imperial College of London on the outbreak in the UK, shows indication that the epidemic is slowing, but still showing an estimate of $R=1.1$ compared to the previous estimate of 1.7.²³
- [IHME projections](#) for daily infections using current trends, easing of mandates and increased mask use

²¹ [NEJM 8 Oct 2020](#)

²² **Map:** Estimates of transmissibility in countries with active transmission for the week ending 27th September 2020. A country is defined to be in the declining phase if the 97.5th quantile of the effective reproduction number is below 1. It is defined to be in the growing phase if the 2.5th quantile of the effective reproduction number is above 1 and the width of the 95% CrI is less than 1. If the 2.5th 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](#)

²³ ICL: [High prevalence of SARS-CoV-2 swab positivity in England during September 2020: interim report of round 5 of REACT-1 study](#). September 2020.

Humanitarian Impacts

- [Yemen facing over-lapping humanitarian crisis, including funding gaps, fuel, disease and famine.](#)
- [Mapping of COVID in Humanitarian settings available here depicted below showing COVID-19 cases compared to where vaccination campaigns have been postponed](#)
- [Migrants facing increased challenges given COVID-19 and restrictions in many countries](#)²⁴
- [COVID-19 has highlighted the need to build public health policies with the engagement of indigenous populations. Indigenous communities in the Americas have faced multiple epidemics throughout history which have had a devastating effect on their communities and populations, and likewise the COVID-19 epidemics in the Amazon, and specifically Brazil are revealing the same patterns.](#)²⁵

Guidance Launched or Highlighted This week

Weekly update [from WHO available here](#) (last updated Epi 5 Oct, Operational 9 Oct)

- Policy Brief: [COVID-19 and Universal Health Coverage](#)
 - Reviews how COVID-19 pandemic has exposed the need to improve health systems around the world, and that financing health services off of a wage-based approach is inadequate to providing healthcare
- UN General Assembly: [Sustainable preparedness for health security and resilience: Adopting a whole-of-society approach and breaking the “panic-then-forget” cycle](#)
- [US CDC updated guidance on airborne transmission](#)
- Multiple trainings available on <https://openwho.org/>

²⁴ [New Humanitarian](#)

²⁵ [The Lancet 10 Oct 2020](#)

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](#)

[European Centre for Disease Prevention and Control](#)

[End Coronavirus Visualizations](#)

[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](#)

[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](#)

[WHO](#)

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

[MobLabs](#)

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

[World Meters](#)