# COVID-19 Update: Epi Week May 24- 30th 2020

Nearly 5.8 million cases confirmed and reported, with over 362,000 deaths reported to date (unofficially over 6.1 million cases and over 371,000 deaths, over 3 million active cases and over 2.7 million recovered). Countries with the highest number of cases include the USA, Brazil and Russia. South America emerging as the new hotspot for the pandemic, Brazil had the highest daily increase in reported cases in the past 48 hours[1]

Week by week change of confirmed COVID-19 deaths, May 30, 2020
The weekly growth rate on any given date measures the percentage change in number of confirmed deaths over the last seven days relative to the number in the previous seven days.
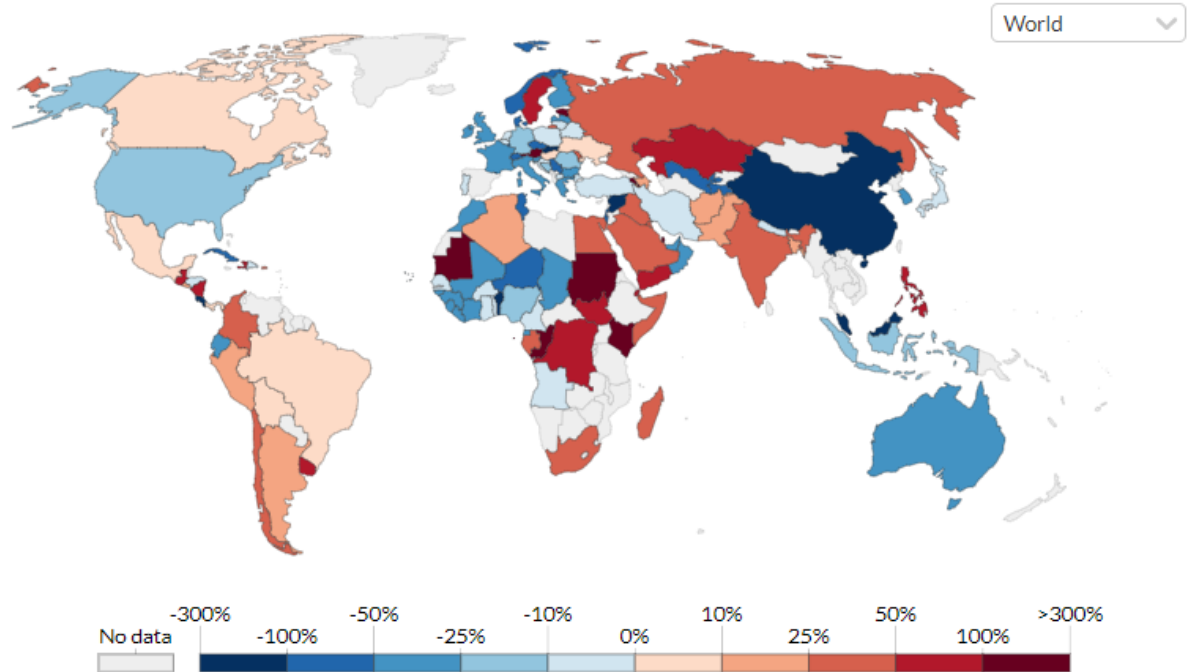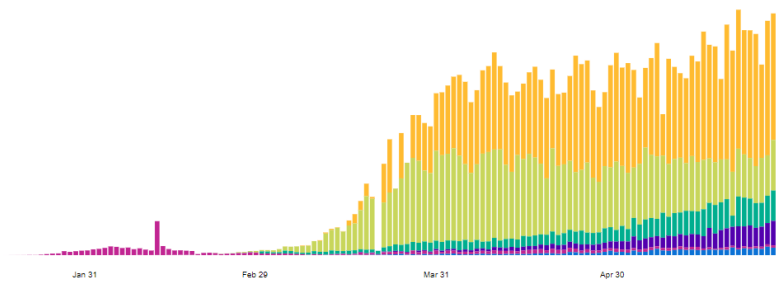
Source: European CDC – Situation Update Worldwide – Last updated 30th May, 10:45 (London time)   CC BY

Case Comparison
WHO Regions

Region	Confirmed cases
Americas	2,677,500
Europe	2,122,350
Eastern Mediterranean	489,921
South-East Asia	252,102
Western Pacific	180,446
Africa	96,902

Source: World Health Organization

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[1] *Official numbers and WHO visualizations available [here](), WHO Europe Epi Week of May 4th-10th ([WHO Weekly Epi Report)](*

Weekly update (official) based on locations with highest case increases – last updated: WHO SitRep #131

Americas Region Country	Daily change in new reported cases (decreasing shown in blue, increasing in red)						
	Sunday 24-May	Monday 25-May	Tuesday 26-May	Wednesday 27-May	Thursday 28-May	Friday 29-May	Saturday 30-May
United States	20 475	24 151	26 158	15 253	24 886	16 362	19 606
Brazil	20 803	16 508	15 813	11 687	16 324	20 599	26 417
Peru	2 929	4 056	4 205	4 020	5 772	6 154	5 874
Canada	1 127	1 189	1 022	895	941	963	954
Chile	3 536	3 709	4 895	3 964	4 328	4 654	3 695
Mexico	2 960	3 329	2 764	2 485	3 455	3 463	3 377

Health system in Santiago, Chile close to collapse due to strain from COVID-19

European Region Country	Daily change in new reported cases (decreasing shown in blue, increasing in red)						
	Sunday 24-May	Monday 25-May	Tuesday 26-May	Wednesday 27-May	Thursday 28-May	Friday 29-May	Saturday 30-May
Russia	8 599	8 946	8 915	8 338	8 371	8 572	8 952
UK	2 959	2 405	1 625	4 043	2 013	1 887	2 095
Spain	466	482	- 372	1 231	510	1 137	658
Italy	669	531	300	397	584	593	516
Germany	431	289	432	362	353	741	738
Turkey	1 186	1141	987	948	1 035	1 182	1 141

MENA Region Country	Daily change in new reported cases (decreasing shown in blue, increasing in red)						
	Sunday 24-May	Monday 25-May	Tuesday 26-May	Wednesday 27-May	Thursday 28-May	Friday 29-May	Saturday 30-May
Iran	1 869	2 180	2 023	1 787	2 080	2 258	2 819
Saudi Arabia	2 442	2 399	2 235	1 931	1 815	1 644	1 581
Qatar	1 732	1 501	1 751	1 742	1 740	1 967	1 993
UAE	812	781	822	779	883	563	638
Kuwait	900	838	665	608	692	845	1 072

| Asia Pacific Region Country	Daily change in new reported cases (decreasing shown in blue, increasing in red)						
	Sunday 24-May	Monday 25-May	Tuesday 26-May	Wednesday 27-May	Thursday 28-May	Friday 29-May	Saturday 30-May
India	6 767	6 977	6 535	6 387	6 566	7 466	7 964
Pakistan	2 164	1 748	1 356	1 446	2 076	2 801	2 429
Bangladesh	1 873	1 532	1 975	1 166	1 541	2 029	2 523
Singapore	642	548	344	383	533	373	611
Indonesia	949	526	479	415	1 473	687	678
Philippines	180	258	284	350	380	539	1 046
Afghanistan	716	512	737	548	637	643	784

Timeline for Western Pacific available here. China NOT reporting on asymptomatic positive cases

Africa Region Country	Daily change in new reported cases (decreasing shown in blue, increasing in red)						
	Sunday 24-May	Monday 25-May	Tuesday 26-May	Wednesday 27-May	Thursday 28-May	Friday 29-May	Saturday 30-May
South Africa	1 218	1 240	1 032	649	1 673	1 466	1 837
Nigeria	265	313	229	276	389	182	387
Ghana	131	66	125	156	339	0	313
Cameroon	0	0	490	546	0	0	0
Guinea	62	99	47	36	88	107	103

Daily vs. Total confirmed COVID–19 cases

Shown is the 7-day rolling average of confirmed COVID-19 cases. The number of confirmed cases is lower than the number of total cases. The main reason for this is limited testing.
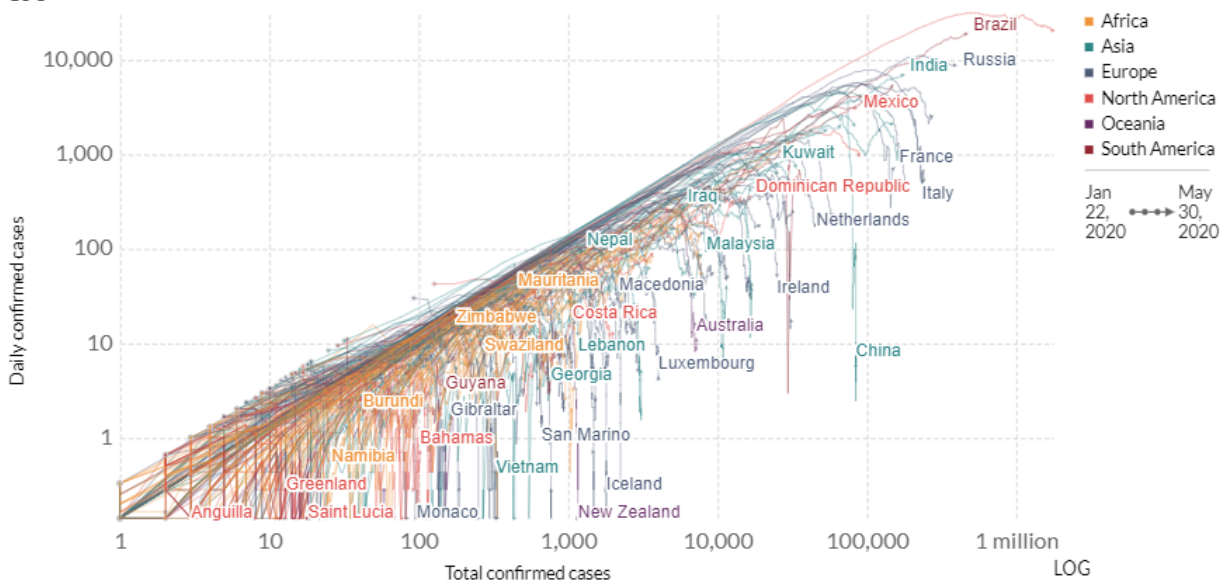
Source: European CDC – Situation Update Worldwide – Last updated 30th May, 10:45 (London time)

Shows when each country began to "flatten" or bend the curve with respect to their ongoing outbreak

News/ Political Context

- Daily confirmed deaths increasing most rapidly in **Madagascar**, **Mauritania, Nicaragua, Djibouti**, **Nepal**, **Yemen, Qatar, Sudan, Guatemala.**[2]
- Cases doubling rapidly in **Western Sahara** (1 day), **Malawi** (2 days), **Zimbabwe** (3 day), **Nicaragua** (4 days), **Nepal** (5 days), **South Sudan** (7 days), **Mauritania** (7 days), **Syria** (7 days), **Ethiopia** (7 days), **Comoros** (8 days), **Haiti** (8 days), **Uganda** (8 days), **CAR** (8 days).[3]
- At least 80 million children under one years of age at risk of disease such as diphtheria, measles and polio as COVID-19 disrupts routine vaccination efforts (Gavi, WHO, UNICEF)[4]
- Seeing COVID-19 emerge and wane in different parts of the US making state-by-state approach challenging and an "end" to the first wave more challenging to distinguish
- New toolkit launched by WHO and Vital strategies for rapid mortality surveillance and epidemic response
- Continue to see a **significant proportion of cases among migrant workers** in several countries
- **Disproportionate numbers of deaths among indigenous communities** throughout the Americas continue to be reported.[5] Navajo Nation in the US currently has the highest per-capita rate of infection in the country.
- **East Africa** looking to implement mandatory screening of truck-drivers for COVID-19 after many have tested positive in Kenya, Uganda and Tanzania.
- Concern rising over lack of official data being reported from Tanzania, while PoE screenings show high rates of COVID-19 infection are likely
- 19% infections in Europe reported among **health workers**[6]
- Updates to WHO clinical guidelines (link also below) to highlight:

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[2] https://ourworldindata.org/coronavirus
[3] Reference to ECDC data using https://ourworldindata.org/coronavirus
[4] WHO, Gavi, UNICEF
[5] Reuters, AP, WIRED
[6] WHO EURO weekly COVID-19 report

- o Discontinue transmission-based precautions (and isolation) on release of COVID-19 patient care due to evidence showing viral shedding of up to 9 days following mild symptoms and 3 weeks following hospitalized care – preliminary evidence shows this is not infectious.
    - o Treatment for acute co-infections of with COVID-19 should not give antibiotics unless there is a bacterial infection confirmed
    - o Suggestion to use pharmacological prophylaxis in adults and adolescents to prevent thromboembolism when not contraindicated. Mechanical prophylaxis suggested for those with contraindications.
    - o WHO does not recommend the use of listed drugs such as antivirals, immunomodulators, and others outside of clinical trials.
- [Framework](#) developed with 5-step process to considering whether and how to implement **mass-vaccination campaigns for VPDs**.[7]
    1. Assess the potential impact of the VPD/HID outbreak using key epidemiological criteria
    2. Assess the potential benefits of a mass vaccination campaign and the country capacity to implement it safely and effectively
    3. Consider the potential risk of increased COVID-19 transmission associated with the mass vaccination campaign
    4. Determine the most appropriate actions considering the COVID-19 epidemiological situation
    5. If a decision is made to proceed with a mass vaccination campaign, implement best practice
- Remote regions of Peru facing major strains in hospital capacity, oxygen supply and testing capacity.[8]

Recent Research/ Evidence

- **Disease progression**: There is a general decline in viral RNA in respiratory samples with time, but positive PCR can be found for some weeks after initial infection. Antibodies also appear late in the infection.
- Key interventions and **lessons learned** from Ebola response listed in an opinion piece in American Journal of Hygiene and Tropical Medicine, including an emphasis on surveillance and case investigation as well as coordination, analysis capacity, RCCE, IPC, free care to case management, operational preparedness and a multi-sectoral approach.[9]
- Additional research still needed to determine the role children and adolescents play in the transmission of COVID-19. Current evidence shows lower infection rates.[10]
- Reports that COVID-19 has spread from minks to 2 humans in the Netherlands calls for closer investigation and safety precautions, but authorities list risk as small[11]
- Additional **evidence compiled for argument to use universal-mask coverage** as part of the larger public health strategy to reduce COVID-19 transmission given that a large proportion of the spread of COVID-19 is through people who do not show symptoms breathing and speaking.[12]
    - o Evidence that there is a significant route of infection in indoor environments, evidence that respiratory droplets undergo evaporation also may lead to smaller droplets traveling further than the estimated 2 meters.[13]
    - o Additional evidence that respiratory droplets with SARS-CoV-2 may also travel farther when higher pollution particulates are present.[14]

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[7] [WHO SitRep #131](#)
[8] [Lancet 30 May 2020](#)
[9] [Am. J. Trop. Med. Hyg., 00(0), 2020](#)
[10] [Lancet 24 May 2020](#) – transmissibility of COVID-19 among children and adolescents
[11] Veterinary interview ProMed
[12] [Science. Reducing transmission of SARS-CoV-2. 27 May 2020](#)
[13] [Environmental International 10 April 2020](#)
[14] [Environmental Research and public health 17 April 2020](#)

- o Imaging of a sneeze showing smaller aerosol droplets can travel the entire distance of a room (6-8 meters)[15]
- o Images of coughing and aerosols[16]
- Patients with mild symptoms have SARS-CoV-2 RNA for an average of 14 days, while patients with sever illness have SARS-CoV-2 RNA in respiratory samples for an average of 21 days. Data collection ongoing[17]
- 88% drop in non-COVID-19 related illnesses in the ICU in NY from 15 February – 15 April 2020 suggesting the majority of these patients are putting off treatment, potentially dying at home, or are presenting with co-morbidities.[18]
- Multi-center retrospective cohort study to examine the effect of cancer on severity of COVID-19 disease showed **those that had cancer were statistically significantly more likely to experience severe COVID-19** than those without, and additional risk factors such as age, and severity of cancer stage had additional influence on severe COVID-19 experience.[19]

Clinical Trails

- **Solidarity trials**: over 400 hospitals in 35 countries are actively recruiting patients and nearly 3500 patients have been enrolled from 17 countries to test 4 drugs for treatment of COVID-19[20]
- First human trial of COVID-19 vaccine finds it is safe and induces rapid immune response. Second phase trials planned.[21]
- **WHO has set a temporary pause in the use of hydroxychloroquine in trials** due to higher death rates reported in recent lancet article (shared last week)
  - o A multinational registry analysis of the use of **hydroxychloroquine of chloroquine with or without a macrolide** for treatment in 671 hospitals in 6 countries found that both hydroxychloroquine and chloroquine (with or without macrolide) were **associated with increased mortality in the hospital** after accounting for confounding variables. Mortality in control group (9.3%), hydroxychloroquine (18%), hydroxychloroquine with a macrolide (23.8%), chloroquine (16.4%), chloroquine with a macrolide (22.2%).[22]
- (*Last week*): Recent double-blind randomized study showed **Remdesivir was superior to placebo** in shortening the time to recovery in adults hospitalized with Covid-19 and evidence of lower respiratory tract infection.[23]
  - o Limitations: little benefit to patients who were on mechanical ventilation. While mortality was lower, it was not statistically significant
- **Convalescent plasma** transfusion is a potentially efficacious treatment option for patients hospitalized with COVID-19, but may offer greater benefit to non-intubated patients than intubated.[24]
- In an age and sex-matched control trial, using multivariable analyses, **use of ACE inhibitors or ARBs, compared with use of other antihypertensive drugs, was not associated with excess risk for being diagnosed and hospitalized with COVID-19**.[25]

[15] NEJM 25 August 2016. A sneeze

[16] NEJM 9 October 2008

[17] NEJM Viral Load Dynamics in Patients Infected with SARS-CoV-2. 27 May 2020

[18] NEJM 29 May 2020. COVID-19 X-curves

[19] Lancet 29 May 2020. Clinical characteristics and risk factors associated with COVID-19

[20] WHO Media briefing

[21] Lancet 22 May 2020

[22] The Lancet 22 May 2020. Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis

[23] NEJM 22 May 2020. Remdesivir for the treatment of COVID-19 – preliminary report

[24] Pre-print: Convalescent plasma treatment of severe COVID-19: A matched control study. 22 May 2020

[25] NEJM. Renin-Angiotensin System Inhibitors and Susceptibility to COVID-19. 26 May 2020

- Ana-COVID study in Paris, France showed **Anakinra reduced both need for invasive mechanical ventilation in the ICU and mortality among patients with severe forms of COVID-19**, without serious side-effects. Additional clinical control studies needed.[26]
    - Suggestions that treating COVID-19-associated cytokine storm syndrome may be the key in reducing general mortality in severe COVID-19 cases.[27]

Modeling

- **ICL modeling of the COVID-19 epidemic in the US estimates** that the epidemic is not experienced evenly throughout the US[28] with an overall 4.1% of the population having been infected to date (and in locations hardest hit less than 25% of the population has been infected – including New York with an estimated 16.6% have been infected). As of May 17th, a **strong association is found between the initial reproductive number and population density and date of when 10 cumulative deaths occurred**.[29]
    - If relationship between mobility and mortality remains constant, mortality is expected to double over the next 2 months as social restrictions become more relaxed.
    - Weekly mortality trends suggest the highest R_t are found in Afghanistan (2.72), Chile (2.67), Bulgaria (1.77%), Kuwait (1.74%), and Bangladesh (1.65%).[30]
- **IHME estimates deaths to reach 135,109 in the US by August**. The majority of states have also returned to baseline mobility except for NY which currently remains at 50% limited mobility. Of special concern are California and Arizona where mobility is increasing rapidly.[31]
- Analysis of anonymized and aggregated **mobility data from mobile phone use in the UK** shows general compliance with social distancing measures compared to average mobility data (ICL).[32]
- The high volume of testing and low number of deaths suggests that **South Korea** experienced a small epidemic of infections relative to other countries. Therefore, caution is needed in attempting to duplicate the South Korean response in settings with larger more generalized epidemics, where this strategy may be more difficult (ICL).[33]
- **Projections for the reproductive number** (ICL weekly projections)
    - **In Europe** show it is likely to remain stable or continue to decrease in the coming week with the major exception of Russia where it remains high as well as increasing. Ukraine, Sweden and the UK also remain high but are decreasing.
    - **In Asia,** Afghanistan, Bangladesh, India and Indonesia are expected to continue with the most rapid increases in reproductive numbers throughout the week with India by far with the highest reproductive number and expected increase.
    - **In MENA,** most countries expected to begin seeing a stabilized reproductive number with the exceptions of Saudi Arabia and Egypt where it is expected to increase.
    - **In Africa,** South Africa is expected to continue seeing an increase in reproductive number as well as Sudan.
    - **In the Americas,** Mexico is predicted to see a rapid increase in expected reproductive number along with Chile, Argentina, Brazil and Colombia, with Peru reaching a stabilized point in estimated reproductive number. Brazil likely to see the highest number of deaths along with the greatest increase.

[26] Lancet 29 May 2020
[27] Comment in Lancet 29 May 2020
[28] Atlantic 20 May 2020: America's Patchwork Pandemic Is Fraying Even Further
[29] ICL Report # 23
[30] ICL Weekly short-term forecast of COVID-19 deaths
[31] COVID-19 updated estimates IHME 26 May 2020
[32] ICL Report #24
[33] ICL Report #25

Humanitarian Impacts

- **Yemen raising major concerns** with a suspected full community transmission suspected in Aden, under-reporting from government officials and reports of health workers lacking PPE and social distancing not possible. An estimated 80% of the population is already in need of humanitarian aid, facing cholera, diphtheria and chikungunya outbreaks at the same time. **Reports of people dying in the 40-50 age group**. Based on applied models an **estimated 28 million are expected to be infected and 65,000 deaths**.[34]
- Development of a humanitarian platform for COVID-19 by Johns Hopkins, LSHTM & Geneva Center for Education and Research in Humanitarian Action – designed for collecting evidence and lessons learned from actors on the ground.
- Resources on the effects of COVID-19 on malnutrition
    - Nutrition Observatory for Development (NODE): COVID-19 time for a nutrition-sensitive agenda
    - Action Against Hunger: Multi-sectoral surveillance system in COVID-19 context
        - Provides cross-cutting multi-sectoral indicators, sampling methodology and guidelines on surveillance for early warning
    - Review of existing and innovative information systems for nutrition (and health). Action Against Hunger
- Mapping of COVID in Humanitarian settings available here

Guidance Launched or Highlighted This week

- Revealing the toll of COVID-19: A technical package for rapid mortality surveillance and epidemic response (WHO and Vital Strategies)
- Assessment of risk factors for coronavirus disease 2019 (COVID-19) in health workers: protocol for a case-control study (WHO)
- WHO released updated scientific brief on the impact of smoking on COVID-19 outcomes
- Updates to the COVID-19 WHO appeal and pieces of the strategic preparedness and response plan
- WHO Protocol developed for population-based age-stratified seroepidemiological investigation for COVID-19 virus infection
- WHO Updated Guidance on the clinical management of COVID-19
- Ethical considerations to guide the use of digital proximity tracking technologies for COVID-19 contact tracing
- Surveillance protocol for SARS-CoV-2 infection among health workers
- WHO Europe: Strengthening the health system response to COVID-19 technical guidance
- Handbook for public health capacity-building at ground crossings and cross-border collaboration
- WHO developed guidance on planning for mass gatherings in context of COVID-19 outbreak
- Framework for decision-making: implementation of mass vaccination campaigns in the context of COVID-19

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[34] Fears of "highly catastrophic" COVID-19 spread in Yemen. Lancet 30 May 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

BMJ COVID-19 resources

European Centre for Disease Prevention and Control

Health Map

Imperial College of London

ISARIC COVID-19 resources

Johns Hopkins Center for Health Security and CSSE

The Lancet

LSHTM COVID-19 mapping tool

New England Journal of Medicine

Next Strain (Phylogeny of SARS-CoV-2)

Our world in Data

ProMed

WHO

MobLabs

MobLabs Domestic and international risk of importing a case

World Meters