



**GLOBAL**

515 950 497  
confirmed cases  
499 100 000  
recovered  
6 245 271 deaths

**USA**

(7-days incidence 114)  
80 878 589  
confirmed cases  
79 108 270 recovered  
990 008 death

**IND**

(7-days incidence 1,6)  
43 088 118  
confirmed cases  
42 520 340 recovered  
523 920 deaths

**BRA**

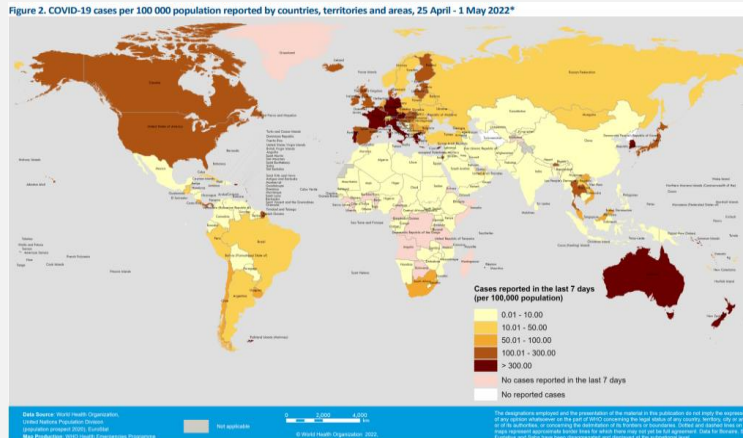
(7-days incidence 49,4)  
30 482 429  
confirmed cases  
29 570 064 recovered  
663 930 deaths

**News:**

- **CDC:** [CDC Recommendation for Masks and Travel](#)
- **CDC:** [Proactive Statement: MMWR on children with acute hepatitis and adenovirus infection in Alabama](#)
- **ECDC:** [Joint statement: Ensuring high-quality viral hepatitis care for refugees from Ukraine](#)
- **WHO:** [WHO reveals shocking extent of exploitative formula milk marketing](#)
- **WHO:** [UNICEF and WHO warn of perfect storm of conditions for measles outbreaks, affecting children](#)

**Topics:**

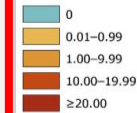
- COVID-19 situation
- Global situation: Updates on COVID-19
- Ukraine War
- Unknown Hepatitis
- Other Infectious Disease Outbreaks
- Summary of Information on the Individual National Corona Restrictions
- Travel Recommendations and other Useful Links



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Notification rate of measles (per million), April 2021–March 2022

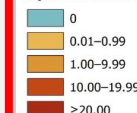


Not included

Countries not visible in the main map extent  
Luxembourg  
Malta



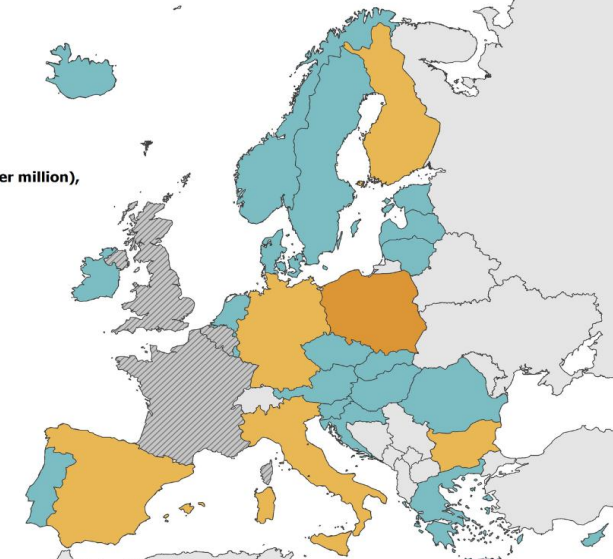
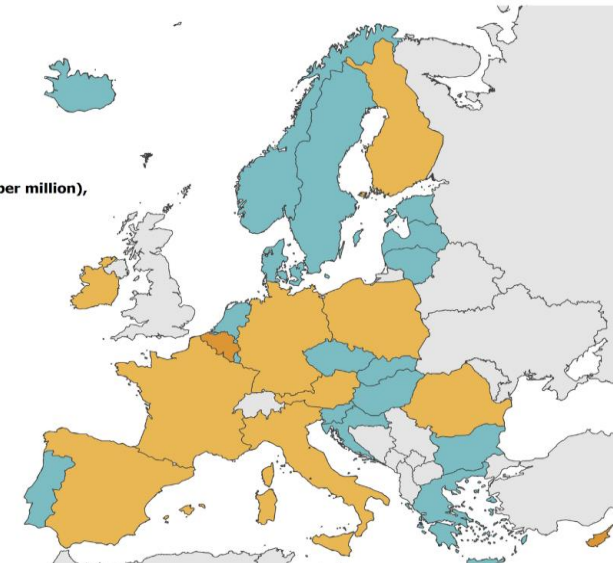
Notification rate of rubella (per million), April 2021–March 2022



No data

Not included

Countries not visible in the main map extent  
Luxembourg  
Malta



**EUROPE**

208 524 301  
confirmed cases  
201 500 000  
recovered  
1 920 343 deaths

**FRA**

(7-days incidence 525)  
28 984 497  
confirmed cases  
27 668 001 recovered  
147 299 deaths

**GBR**

(7-days incidence 119)  
22 073 858  
confirmed cases  
21 629 021 recovered  
175 319 deaths

**DEU**

(7-days incidence 888)  
25 034 097  
confirmed cases  
22 840 000 recovered  
135 963 deaths

# COVID-19 Situation by WHO Region, as of 1 May

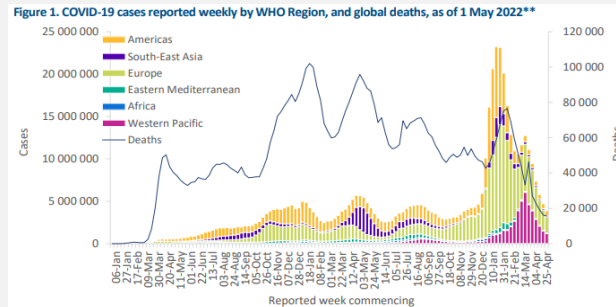
## Global epidemiological situation overview; WHO as of 1 May 2022

Globally, the number of new COVID-19 cases and deaths has continued to decline since the end of March 2022. During the week of 25 April through 1 May 2022, over 3.8 million cases and over 15 000 deaths were reported, decreases of 17% and 3% respectively, as compared to the previous week (Figure 1). However, not all the Regions reported decreasing trends: the number of new weekly cases increased in the African Region (+31%) and in the Region of the Americas (+13%), while the number of new weekly deaths increased in the South-East Asia Region (+69%) largely due to a delay in the reporting of deaths from India. As of 1 May 2022, over 500 million confirmed cases and over six million deaths have been reported globally. These trends should be interpreted with caution as several countries have been progressively changing their COVID-19 testing strategies, resulting in lower overall numbers of tests performed and consequently lower numbers of cases detected.

The highest numbers of new cases were reported from:

- Germany (558 958 new cases; -24%),
- Italy (384 825 new cases; -8%),
- France (382 208 new cases; -30%),
- Republic of Korea (380 455 new cases; -35%) and
- United States of America (372 167 new cases; +27%)

Source: [Weekly epidemiological update on COVID-19 - 4 May 2022 \(who.int\)](#)



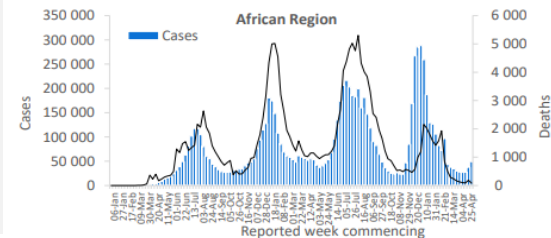
## WHO regional overviews:

Epidemiological week 25 April - 1 May 2022\*\*

### African Region

Following the decreasing trend observed since January 2022, the Africa Region showed an increase in cases for the second consecutive week (+31% as compared to the previous week), with over 49 000 new weekly cases reported. Twelve (24%) countries in the region reported an increase of over 20% in cases, with some of the greatest proportional increases observed in Burundi (1253 vs 343 new cases; +265%), Rwanda (45 vs 18 new cases; +150%) and Eswatini (359 vs 186 new cases; +93%). The highest numbers of new cases were reported from South Africa (32 236 new cases; 54.4 new cases per 100 000 population; +67%), Réunion (12 889 new cases; 1439.6 new cases per 100 000; -7%), and Burundi (1253 new cases; 10.5 new cases per 100 000; +265%).

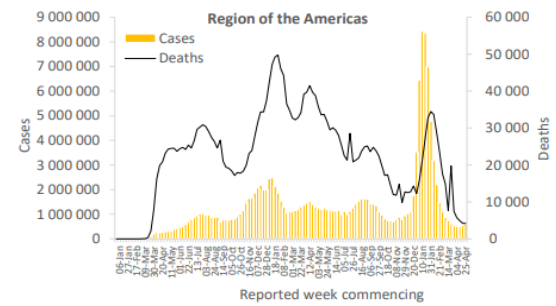
The Region reported 84 new weekly deaths, a 56% decrease as compared with the previous week. The highest numbers of new deaths were reported from South Africa (65 new deaths; <1 new death per 100 000 population; -58%), Réunion (seven new deaths; <1 new death per 100 000; -36%), and Seychelles (three deaths; 3.1 new deaths per 100 000; similar to the previous week's figures).



### Region of the Americas

The Region of the Americas shows an increasing trend for the third consecutive week, with over 616 000 new cases reported, a 13% increase as compared to the previous week. Twenty-two (39%) countries in the Region reported increases in new cases of 20% or greater, with the largest increases observed in Montserrat (39 vs one new case; +3800), Haiti (42 vs 15 new cases; +180%) and Costa Rica (4290 vs 1642 new cases; +161%). The highest numbers of new cases were reported from the United States of America (372 167 new cases; 112.4 new cases per 100 000; +27%), Brazil (94 345 new cases; 44.4 new cases per 100 000; +3%), and Canada (54 519 new cases; 144.5 new cases per 100 000; -14%).

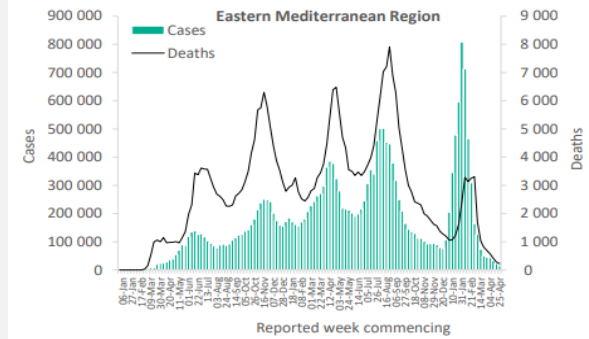
The number of new weekly deaths in the Region remained similar to the number reported during the previous week, with 4200 new deaths reported. The highest numbers of new deaths were reported from the United States of America (2199 new deaths; <1 new death per 100 000; -5%), Brazil (853 new deaths; <1 new death per 100 000; +31%), and Canada (477 new deaths; 1.3 new deaths per 100 000; +6%).



### Eastern Mediterranean Region

In the Eastern Mediterranean Region, new weekly cases have continued to decline after reaching a peak in early February 2022. Over 16 000 new weekly cases were reported last week, a 29% decrease as compared to the previous week. However, Djibouti reported an increase in new weekly cases of 54% (29 vs 13 new cases). The highest numbers of new cases were reported from the Islamic Republic of Iran (6141 new cases; 7.3 new cases per 100 000; -41%), Bahrain (2876 new cases; 169.0 new cases per 100 000; -6%), and the United Arab Emirates (1679 new cases; 17.0 new cases per 100 000; +3%).

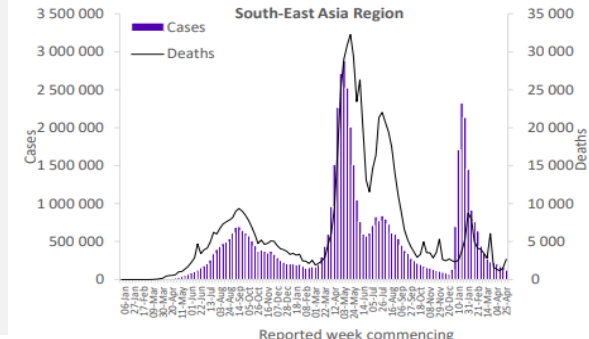
The number of new weekly deaths in the Region decreased by 21% when compared to the previous week, with 223 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (121 new deaths; <1 new death per 100 000; -25%), Egypt (42 new deaths; <1 new death per 100 000; similar to the previous week), and Tunisia (17 new deaths; <1 new death per 100 000; -29%).



### South-East Asia Region

The South-East Asia Region reported over 123 000 new weekly cases, a 24% decline as compared to the previous week, continuing the decreasing trend observed since January 2022. However, Timor-Leste and India reported increases in new weekly cases of 57% (11 vs 7 new cases) and 40% (21 643 vs 15 448 new cases), respectively. The highest numbers of new cases were reported from Thailand (96 610 new cases; 138.4 new cases per 100 000; -29%), India (21 643 new cases; 1.6 new cases per 100 000; +40%), and Indonesia (2890 new cases; 1.1 new cases per 100 000; -32%).

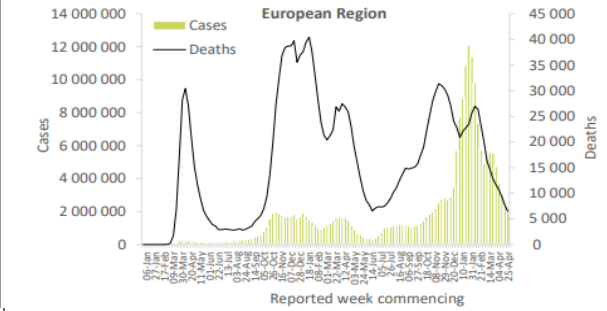
New weekly deaths increased by 69% in the Region as compared to the previous week, with over 2600 new deaths reported, mostly due to a delay in reporting of deaths from India. The highest numbers of new deaths were reported from India (1650 new deaths; <1 death per 100 000; +273%), Thailand (842 new deaths; 1.2 new deaths per 100 000; -6%) and Indonesia (173 new deaths; <1 new death per 100 000; -26%).



### European Region

After the increase observed during the first half of March 2022, new weekly cases have continued to decrease in the European Region. Just under 1.9 million new cases were reported, a 22% decrease as compared to the previous week. However, six (10%) countries in the Region reported increases in new cases of 20% or greater, with the largest increases observed in Cyprus (9901 vs 6115 new cases; +62%), Spain (110 116 vs 76 005 new cases; +45%) and Kazakhstan (174 vs 125 new cases; +39%). The highest numbers of new cases were reported from Germany (558 958 new cases; 672.1 new cases per 100 000; -24%), Italy (384 825 new cases; 645.2 new cases per 100 000; -8%) and France (382 208 new cases; 587.7 new cases per 100 000; -30%).

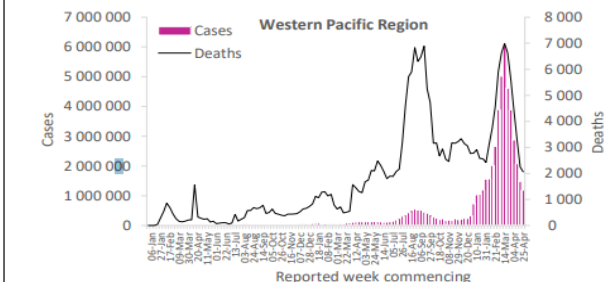
The number of new deaths has continued to decrease in the Region, with just over 6400 new deaths reported this week, a 16% decrease as compared to the previous week. The highest numbers of new deaths were reported from the Russian Federation (1129 new deaths; <1 new death per 100 000; -19%), France (900 new deaths; 1.4 new deaths per 100 000; +2%), and Italy (898 new deaths; 1.5 new deaths per 100 000; -11%).



### Western Pacific Region

In the Western Pacific Region, new weekly cases have continued to decline since March 2022. Over 1.1 million new cases were reported, a 20% decrease as compared to the previous week. However, nine (29%) countries in the Region reported an increase of 20% or greater, with some of the largest increases observed in the Solomon Islands (2202 vs 299 new cases; +636%), Fiji (110 vs 22 new cases; +400%) and New Caledonia (96 vs 36 new cases; 167%). The highest numbers of new cases were reported from the Republic of Korea (380 455 new cases; 742.1 new cases per 100 000; -35%), Australia (271 216 new cases; 1063.6 new cases per 100 000; -8%), and Japan (254 946 new cases; 201.6 new cases per 100 000; -11%).

The number of new weekly deaths in the Region shows a decrease of 8% as compared to the previous week, with over 2000 new deaths reported. The highest numbers of new deaths were reported from the Republic of Korea (742 new deaths; 1.4 new deaths per 100 000; -29%), China (416 new deaths; <1 new death per 100 000; +93%), and Japan (283 new deaths; <1 new death per 100 000; -3%).



# Global Situation



## Omicron Sublineage BA.2.12.1

The Omicron variant continues to be the dominant variant globally, with the emergence of several sublineages including BA.2.12.1. This sublineage was first detected on December 14, 2021, in the United States (U.S.) and most recently has been increasing across a few countries. (1) According to GISAID as of April 26, approximately 4,803 BA.2.12.1 positive sequences have been detected worldwide in at least 19 countries, with the highest prevalence reported in the U.S. and Canada.

This Omicron sublineage shares most mutations with BA.2, but also contains two distinct mutations in the spike region. (2) One of the mutations, in the L452 position, was also noted in previous variants of concern such as Delta and Lambda. Experimental studies suggest that this mutation in Lambda contributed to increased immune escape and infectivity. (3) However, currently there is limited data on disease severity of BA.2.12.1 compared to other Omicron sublineages. The high burden of BA.2 in recent months may provide a degree of population-level protection and dampen the initial surge in BA.2.12.1.

Based on data from the U.S. Centers for Disease Control and Prevention (CDC), BA.2.12.1 is increasingly contributing to the number of new weekly cases in the U.S. It is estimated to account for 28.7% of cases for the week of April 23, a 48% relative increase compared to the previous week (19.4% of cases). (4) BA.2.12.1 has been progressively outcompeting its preceding variant BA.2 in a few states. Notably, half of the health administrative regions in the U.S. are reporting an estimated prevalence of BA.2.12.1 greater than 25% of all cases. (4) Health administration region 2, which includes New Jersey, New York, Puerto Rico, and the Virgin Islands, is the only region at the time reporting a BA.2.12.1 prevalence of over 50%. Based on early state-level evidence, the New York Department of Public Health suggests that the newer sublineage has a growth advantage of at least 23% over BA.2. (5)

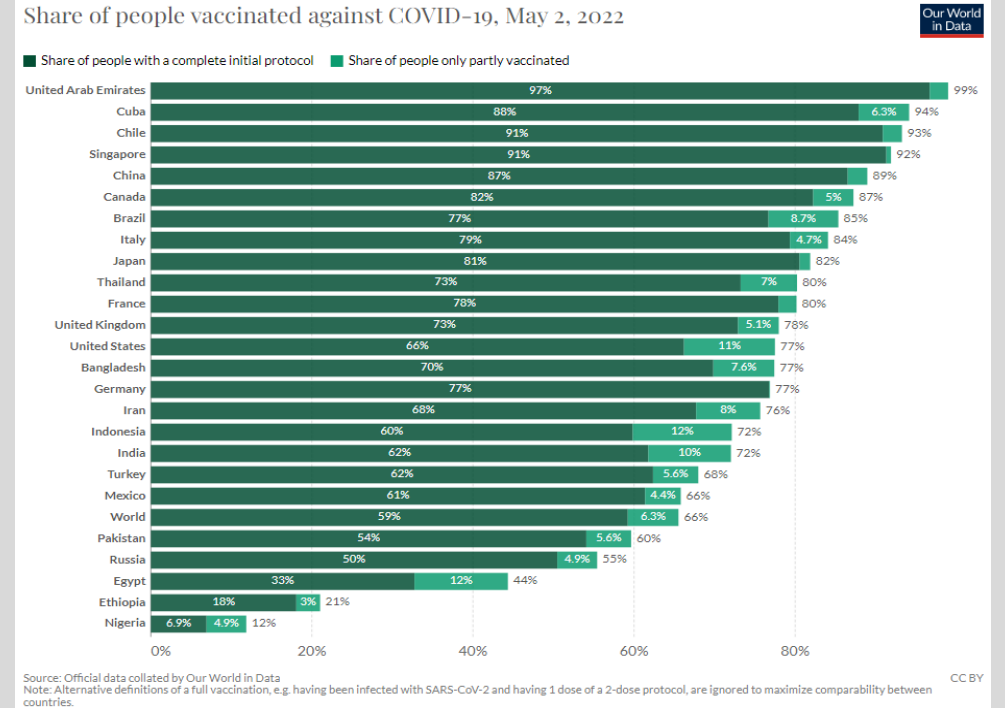
An unexpected increase in COVID-19 cases in the U.S. was first noted in Central New York. The New York State Department of Health determined that the newer sublineage BA.2.12.1 and BA.2.12 have contributed to over 90% of cases in April compared to the 70% in March. (5) Concurrently, upward trends in cases in New York have been observed since mid-March. As of April 28, weekly reported cases have increased by 14% compared to the previous 7 days (30,060 cases vs. 26,310 cases). (6) Although trends in deaths have not followed a similar consistent upwards pattern in the past month, New York is reporting 75 deaths in the recent week, which represents a 50% increase compared to the previous 7 days. (6) Further data from additional locations are needed in order to fully understand the epidemiological impact of BA.2.12.1. Since a majority of cases have been localized to a particular region, the observed impact may be influenced by other specific factors.

Source: [COVID-19 Notable Update and Global Update for April 29, 2022 \(mailchi.mp\)](#)

## Where COVID-19 vaccines go to waste

Vaccine inequity is alive and kicking, but rich countries [queue-jumping](#) and dose-hoarding are no longer the only culprits. Two thirds of the world's population have received a COVID-19 vaccine dose, but this plummets to only 15 percent in the world's low-income countries, according to [Our World in Data](#), published by University of Oxford researchers. Recent media coverage has [seized](#) on vaccine wastage in low-income countries as evidence against vaccine inequality. But a new commentary published in the journal BMJ Global Health examines how vaccine wastage [persists](#) in both high- and low-income countries. Up to 30 percent of vaccines may be going unused, according to reports cited by the authors, with high rates in countries like Australia, the UK, and the Netherlands. Poorer countries recorded vaccine wastage as well, but this was often because wealthy countries donated doses that were about to expire (the WHO has said that the majority of donated doses are only [weeks away from expiry](#)). Vaccine hesitancy and misinformation, poor rollouts, and inadequate health systems all play a role, but it's far from the only reason why inequality persists. "Late-date donations' create the false impression that [high-income countries] are 'doing their bit' while [low- and middle-income countries] are incapable of effectively distributing vaccines," wrote the authors, who include researchers and health experts from institutions in Australia, Spain, and the United States.

Source: [The New Humanitarian | Ukraine diplomacy, wasted COVID vaccines, and Darfur's rising toll: The Cheat Sheet](#)



# Global Situation –

## Updates on COVID-19 Vaccine Administration and Research



### Part 1: Vaccine Administration

As of April 25, 2022, more than 11.5 billion COVID-19 vaccine doses have been administered across 184 countries, with an average of 13.2 million doses being administered per day. <sup>1</sup> This represents a 25% relative decrease in the average daily administration rate compared to one month ago. Approximately 59.4% of the world's population have received a primary series of a COVID-19 vaccine. A breakdown of the percentage of the population that has been vaccinated with a primary series is provided in the Appendix.

### Part 2: Spotlight on Vaccine Effectiveness against the BA.2 subvariant

As several countries including the USA, Canada, as well as several European countries, enter or are in the midst their next wave of the COVID-19 pandemic, a large majority of the cases are now attributed to the BA.2 Omicron subvariant. Current research has suggested that the BA.2 subvariant is approximately 30% more transmissible than BA.1, and on average, it takes less time for someone with BA.2 to infect another person, which may have resulted in accelerated community transmission. Several observational studies have been carried out globally to assess vaccine effectiveness (VE) against this variant, and how it might compare with VE against BA.1.

Recent studies indicate that currently available vaccines (specifically, Pfizer-BioNTech, Oxford/AstraZeneca, and Sinovac vaccines) remain highly effective against severe disease and death from the BA.2 Omicron subvariant. Vaccine effectiveness against the BA.2 variant was found to be similar to vaccine effectiveness against the BA.1 variant in studies so far, with effectiveness declining at the same rate against both variants

Although more studies may be required to confirm these findings, it can be concluded from the above studies that currently available vaccines remain effective against severe disease and death from the BA.2 subvariant, and there are minimal differences in vaccine effectiveness against BA.1 and BA.2. Hence, booster doses should be prioritized in countries where COVID-19 incidence is increasing due to BA.2, particularly for those most vulnerable to severe disease.

### Part 3: Vaccine Safety, Side Effects, and Allergic Reactions

Within the reporting period, over 298 million doses of an mRNA vaccine were administered in the United States. The study included 340,522 VAERS reports and 7,914,583 v-safe self-reports from individuals 16 years and older who have received two doses of an mRNA vaccine. Most VAERS reports (92.1%) indicated a non-serious event. These findings are supported by the v-safe data (capture the expected side effects that occur within 7 days of vaccination) with most reports involving mild or non-serious events. Less than one-third of respondents reported health impacts within 7 days of vaccination, including symptoms that impeded their normal activity or work. Fortunately, only a small proportion required emergency room visit (0.2%) or hospitalization (<0.1%).

Based on the study, for every million doses of an mRNA vaccine administered we can expect 1,049 non-serious reports and 90 serious reports (including death). 81.6% of deaths (3,647 out of 4,471) occurred in individuals over the age of 60. Notably, the rate of deaths of elderly participants in the study may be comparable to agespecific mortality rates in the general population. At the time of analysis, death certificates were available for 18.1% of the total deaths reported, indicating heart disease or COVID-19 as the likely cause of death. For the individuals without a death certificate, the event was usually attributed to heart disease or COVID-19 but for a majority was unknown/unclear. Reports of pre-specified adverse events were rare, ranging from 31.3 reports of COVID-19 per million doses administered to 0.1 reports of narcolepsy per million doses administered. Other events of interest included in the list were coagulopathy, seizures, stroke, Bell's palsy, and anaphylaxis.

[Full report: BlueDot\\_VaccineAdministration34.pdf \(mcusercontent.com\)](#)

How has total coverage for a primary series COVID-19 vaccine changed globally in the past month?

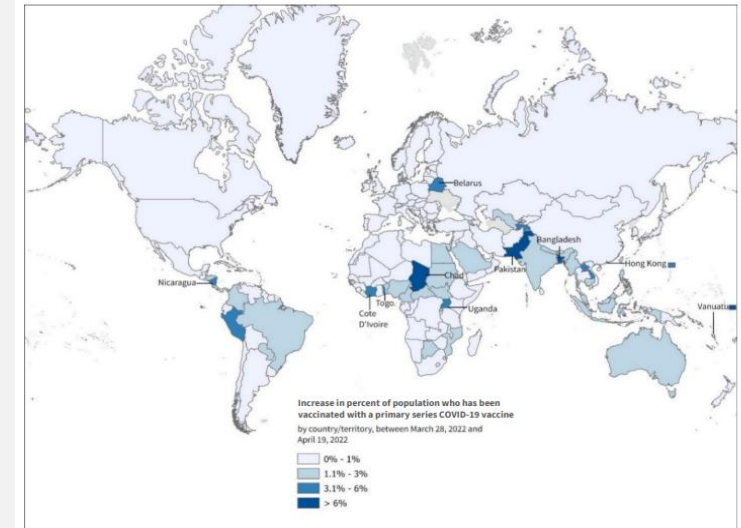
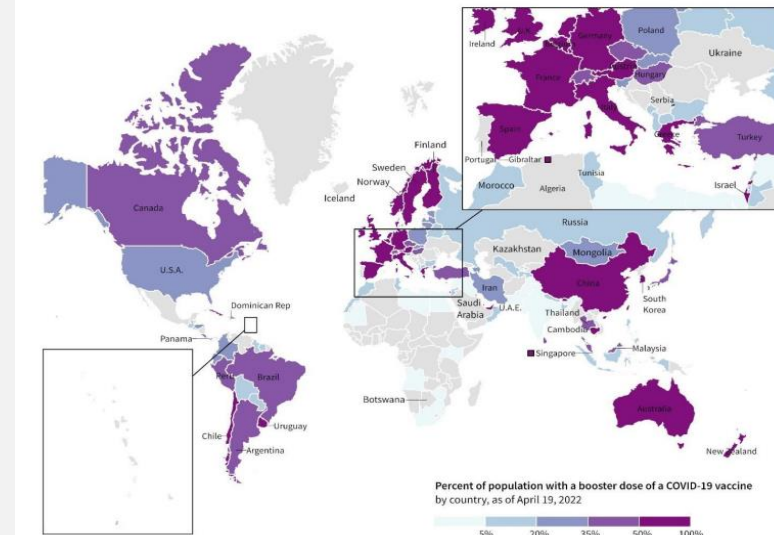


Figure 1A. Absolute change in cumulative percent of population that has received a primary series of a COVID-19 vaccine, as of April 19, 2022 compared to March 28, 2022. Source: BlueDot Data Suite.

What percentage of the population has received a booster dose?



# War in Ukraine

Russian forces are continuing to focus their attacks on the east of the country but opposition from Ukrainian troops is slowing their progress.

Here are the latest developments:

- Russian forces are bombarding the north-eastern city of **Kharkiv**
- But strong Ukrainian defences in **Donbas** region are holding for now
- Russian forces still trying to clear **Mariupol** of last Ukrainian troops
- Concern grows that Russia wants conflict to spread to **Moldova**

Source: [Ukraine war in maps: Tracking the Russian invasion - BBC News](#)

## Key figures - UKRAINE

- 304,975 people reached with essential food and non-food items, winter clothes and shelter materials
- 99,749 people received protection assistance at border crossing points, transit and reception centres and through hotlines
- 162,015 people enrolled for multipurpose cash assistance. 96,357 already received first payment
- 30,172 people received assistance through humanitarian convoys delivered to hard-hit areas
- 149 reception and collective centres were supported with essential items

Source: [Document - Ukraine situation: Flash Update #10 \(unhcr.org\)](#)



## Joint statement: Ensuring high-quality viral hepatitis care for refugees from Ukraine

To ensure that the needs of refugees in relation to viral hepatitis are appropriately met, for all stages along the continuum of care from prevention through to treatment, it is critical for countries across Europe to consider the following actions.

### Vaccination

- Hepatitis B vaccination should be offered for children and adolescents with unknown vaccination status or known delayed or missing vaccines, and others with risk factors who do not have official records or evidence of immunity.
- Hepatitis A vaccination should be considered according to local guidelines. Close contacts of acute cases of HAV infection should be traced, provided with information and offered HAV vaccination. In the case of an outbreak, rapid and widespread vaccination should be considered to help control the outbreak, supplemented with health education and measures to improve sanitation.

### Testing considerations

- Surveillance of hepatitis A should be strengthened by informing clinicians and health-care workers of the need to consider timely testing for any suspected cases of HAV infection. When clusters of infections are identified, samples from a proportion of cases should be considered for genome sequencing.
- When settled in the host country, testing for HBV and HCV should be voluntary and offered to all adult refugees in a non-discriminatory manner.

### Linkage to care and treatment

- Governments should provide free and accessible hepatitis B and hepatitis C care, including diagnosis and antiviral therapy, as well as harm-reduction services where needed. These services can be provided by a network of designated health-care settings that take into account the language, culture and mental health needs of refugees and may be best provided for refugees when settled in the host country.
- Linkage to care with local services for further clinical evaluation and assessment for treatment should be ensured for all HBsAg-positive and/or HCV RNA-positive individuals.
- It is essential that patients already on treatment for hepatitis B and/or hepatitis C should continue treatment. Therapy for hepatitis B and hepatitis C should be newly initiated for all individuals who meet the criteria for therapy, in accordance with EASL clinical practice guidelines (17,18) or local clinical guidelines. Timely initiation of treatment is a priority for individuals with advanced liver disease, hepatocellular carcinoma, those with HIV coinfection and clinically significant extrahepatic manifestations. Patients with chronic hepatitis B and/or hepatitis C should be followed-up according to clinical practice guidelines.
- Antiviral therapy for the total course of hepatitis C treatment with direct-acting antiviral agents and/or at least 90 days of hepatitis B antiviral therapy should be provided in cases of onward transit to other countries.
- Documentation confirming the presence of HBV and/or HCV infection and further clinical details of hepatitis B and/or hepatitis C, including any antiviral therapy provided, should be given to refugees who are in transit by the clinical services involved in their care.

Source: [Joint statement: Ensuring high-quality viral hepatitis care for refugees from Ukraine \(europa.eu\)](#)

# Acute Hepatitis of Unknown Origin Among Children



## Introduction:

On April 5, 2022, the World Health Organization was notified of increasing trends in severely acute hepatitis of unknown etiology among healthy children across central Scotland, U.K. According to a recent publication from the European Centre for Disease Prevention and Control (ECDC), the increasing trend in the U.K. began in February 2022, but most cases have presented with symptoms from March 2022 onward.

By April 8, at least 74 cases had been identified in the United Kingdom (U.K.). Shortly after, cases were also reported in Spain, and the United States. As of April 27, 2022, the United Kingdom accounted for the majority (114/190) of global cases. As of April 27, 2022, similar cases have been reported in 15 other countries. Investigations are still ongoing in all geographies where cases have been reported.

Preliminary reports indicate that although all cases have clinical similarities, there have been different laboratory findings for some of the affected children. Some cases have required transplantation due to liver failure. On April 24, the first associated death was reported in the United Kingdom.

ECDC, WHO, and other key partners are working with teams in each of the countries reporting cases to support the ongoing investigations. ECDC facilitates the sharing of information as it becomes available and tools for investigations. Health authorities in the U.K. are considering this as an infectious disease based on the clinical and epidemiological features of the cases under investigation.

## Common Findings Across Affected Countries:

- Affected children have ranged in age from one month to 16 years old.
- Of the total worldwide cases as of April 23 (169), 17 children (10%) have required liver transplantation and there has been one death reported.
- Common clinical presentation: many cases have reported gastrointestinal symptoms including abdominal pain, diarrhea, and vomiting preceding the severe acute hepatitis with jaundice and increased levels of liver enzymes (aspartate transaminase (AST) or alanine aminotransaminase (ALT) greater the 500 IU/L).
- Most cases did not have a fever which is a remarkable clinical finding: acute infectious diseases in children are usually associated with fever. The absence of fever could indicate more of an autoimmune response as a result of a previous pathogen that may have triggered such severe presentation.
- International travel or links to other countries based on the currently available information have not been identified as factors.
- There is also uncertainty around the risk factors and/or transmission routes since a unique confirmed source of infection has not been identified.
- Common causes of infectious hepatitis (i.e., viral hepatitis types A, B, C, D, and E) in children have been ruled out across the affected geographies. There is limited information as to whether other common causes of acute hepatitis in children that could progress to severe cases (e.g., cytomegaloviruses, Epstein-Barr virus aka. mononucleosis) have been tested for and ruled out.
- Across the affected geographies, adenovirus has been detected in at least 74 cases (18 of these specifically with adenovirus F41, previously rarely linked to cases of hepatitis).

## Potential Causes Under Consideration:

**An adenovirus** — This is the most frequently hypothesized cause under consideration. However, adenoviruses usually cause respiratory or gastrointestinal symptoms and are not commonly the cause of severe hepatitis in children unless they are immunocompromised.

**SARS-CoV-2 association** — This hypothesis is being considered as many of the cases have been reported in locations with high community transmission of SARS-CoV-2. At least 19 (12%) of the 169 cases globally as of April 25 had a recent history or concurrent COVID-19. In the U.K., 5 of 13 cases examined had a recent positive SARS-CoV-2 test result and most affected children were unvaccinated. Scientific evidence of SARS-CoV-2 tropism for the liver and as a cause of liver injury in hospitalized COVID-19 adult patients has been described. However, acute severe hepatitis has not been a feature of COVID-19 in children. While COVID-19-associated hepatitis in children (CAH-C) has been described previously in a hospital in central India, the cases were all treated symptomatically and resolved, and appeared to be less severe than what has been more recently described. Of the hepatitis cases in the U.S. that tested positive for COVID-19, four have been genotyped; two were the Omicron BA.2 sublineage and the other two were also Omicron (sublineage unknown). Of note, these variants have been associated with more frequent gastrointestinal symptoms compared to other variants that emerged earlier in the pandemic. A change in the clinical impact of a recent or a new variant subtype cannot be ruled out. Importantly, an association with SARS-CoV-2 vaccine has been ruled out as most cases have no history of COVID-19 vaccination.

**Foodborne infectious and/or environmental causes** – These are also being actively investigated though they are less likely causes as detailed investigations have failed to identify any common exposure within or across the various locations.

**Other viral causes** - The U.K. has also expanded viral testing to other pathogens that can cause hepatitis. Not all affected individuals to date have been tested. The other viral pathogens being considered included enterovirus, para-echovirus, human herpesvirus 6 and 7, varicella-zoster, parvovirus, leptospirosis, influenza, and HIV (Human Immunodeficiency Virus). Thus far, no consistent pattern has been observed to attribute a unique pathogen as the cause of these cases.

Source: [BlueDot BriefFocusReport AcuteHepatitisUnknownOrigin.pdf \(mcusercontent.com\)](#)

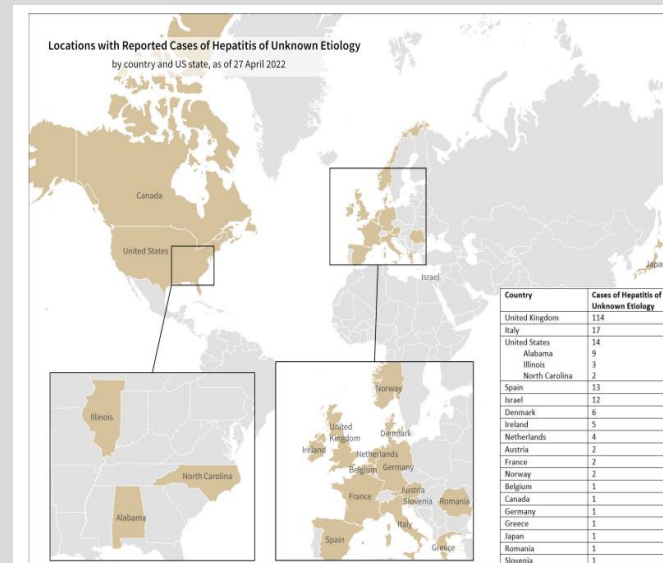


Fig 1. Countries and U.S. states that reported cases of hepatitis of unknown etiology, as of April 27, 2022.



# Other Infectious Disease Outbreaks/ Conflicts



## Malaria

**Thailand** - The Department of Disease Control indicated in a warning statement that cases of malaria due to Plasmodium knowlesi species, an emerging pathogen, are continuing to be found. The first reported cases of malaria due to P. knowlesi in Thailand were found in 2004 and since then a total of 70 cases have been confirmed, around 10 cases per year. However, none of such cases have been found throughout 2022. Plasmodium knowlesi is a malaria parasite found in wild monkey populations and transmitted from this animal reservoir to humans via infected mosquitoes. It causes severe and fatal diseases in humans and is the most common cause of malaria in parts of Malaysia. This event is noteworthy since the geographical distribution of this disease is largely unknown because it is often misdiagnosed as one of the common pathogens that cause malaria including P. vivax, P. falciparum, and P. ovale. These pathogens are primarily transmitted between humans via mosquitoes and are not frequently transmitted from other animals to humans.

**Pakistan** – Cases of malaria continue to be reported in the Sindh province of Pakistan in 2022. According to the National Institute of Health in Pakistan, the province accounted for 51% of the country's total reported cases as of mid-March. Media reports are raising concerns over increasing disease activity in urban centers and that fumigation campaign have been stalled since August 2021. Local health officials are citing shortages in anti-mosquito chemicals as a challenge in disease management.

**Zimbabwe** - Cases of malaria continue to be reported in Zimbabwe in 2022. Zimbabwe's Ministry of Health and Child Care reports that there has been a decrease in the number of malaria cases in 2022 when compared to 2021. The Weekly Surveillance Report shows that the highest case burden is held in the provinces of Manicaland, Mashonaland Central, and Mashonaland East. Together, these provinces make up 77% of the 3066 cases reported in April 2022. News media reports that to meet the Global Malaria Strategy 2030 targets, which include reducing the incidence and mortality rate by 90%, the country has started to conduct preventative house spraying methods in all 10 provinces, in addition to providing bed nets to locations with known outbreaks.

Source: [Insights by BlueDot](#)

## Unknown Hepatitis

**Indonesia** - The Indonesian Health Agency indicated in a statement that there have been three probable cases of hepatitis of unknown origin, first observed in the United Kingdom. All three of these cases resulted in death. According to the reports, these cases have been found among children who presented at a local hospital in the capital city of Jakarta with symptoms, including fever, vomiting, diarrhea, and epilepsy, for which an underlying cause was not identified.

**Singapore** - According to media reports, the first case of acute hepatitis of unknown origin in a child (multi-country investigation, first reported in the United Kingdom) has been reported in Singapore in 2022. The affected child is 10-month-old that has tested negative for hepatitis A, B, C, and E. The results of further testing have not been reported. The child is reported to also have been infected with SARS-CoV-2 in December. Further investigations are ongoing globally across geographies reporting cases to identify the underlying cause of disease.

Source: [Insights by BlueDot](#)

## Crimean-Congo Hemorrhagic Fever

**India** - Cases of Crimean-Congo Hemorrhagic Fever (CCHF) continue to be reported in India in 2022. News media reports that a case and subsequent death of a patient has been reported in the Bhavnagar district of Gujarat, located on the western coast of India. The 58-year-old patient was admitted to hospital due to fever and passed away while receiving treatment. Blood test results were received after the death of the patient and indicated a potential diagnosis of CCHF. According to news media, the district health and animal husbandry departments implemented precautionary measures to prevent the possible further spread of the disease. This includes surveying households, examining both humans and animals, distributing pest-control materials, and providing public education, especially for local cattle breeders. CCHF is transmitted to people by tick bites or contact with infected animal blood or tissues during, or immediately after, slaughter. Health authorities advise the public to wear clothing which minimizes possible areas of exposure to tick bites and to seek medical attention immediately if symptoms are suspected.

Source: [Insights by BlueDot](#)

## Measles

**Somalia** - According to official data from the WHO provisional monthly measles data, cases of measles continue to be reported in 2022. This year to date, Somalia has seen a **3.8-fold increase** in cases, as compared to the same period in 2021.

**Bangladesh** - According to official data from the WHO provisional monthly measles data, cases of measles continue to be reported in 2022. This year to date, Bangladesh has seen a **decrease of 49%** in cases, as compared to the same period in 2021.

**India** - According to official data from the WHO provisional monthly measles data, cases of measles continue to be reported in 2022. This year to date, India has seen an **increase of 57%** in cases, as compared to the same period in 2021.

**Nepal** - According to official data from the WHO provisional monthly measles data, cases of measles continue to be reported in 2022. This year to date, Nepal has seen an **increase of 55%** in cases, as compared to the same period in 2021.
















**Tajikistan** - According to official data from the WHO provisional monthly measles data, cases of measles continue to be reported in 2022. This year to date, Tajikistan has seen over a **four-fold increase** in cases, as compared to the same period in 2021.

**China** - According to official data from the WHO provisional monthly measles data, cases of measles continue to be reported in China for 2022. This year to date, China has seen an **increase of 4%** in cases, as compared to the same period in 2021.

Source: [Insights by BlueDot](#)

# Summary of information on the individual national Corona restrictions
















The icons are linked to the respective information. Please click on the icons for information.

NATO Member State (click on country for official COVID-19 information)		Approved vaccines											
		Comirnaty	Spikevax	Janssen	Vaxzevria	Nuvaxovid	Sputnik V	CoronaVac	Covishield	Convidecia	Covilo	Turkovac	
	<a href="#">Albania</a>	X			X		X	X					
	<a href="#">Belgium</a>	X	X	X	X	X							
	<a href="#">Bulgaria</a>	X	X	X	X	X							
	<a href="#">Canada</a>	X	X	X	X				X				
	<a href="#">Croatia</a>	X	X	X	X	X							
	<a href="#">Czech Republic</a>	X	X	X	X	X							
	<a href="#">Denmark</a>	X	X	X		X							
	<a href="#">Estonia</a>	X	X	X	X	X							
	<a href="#">France</a>	X	X	X	X	X							
	<a href="#">Germany</a>	X	X	X	X	X							
	<a href="#">Great Britain</a>	X	X	X	X								
	<a href="#">Greece</a>	X	X	X	X	X							
	<a href="#">Hungary</a>	X	X	X	X	X	X		X	X	X		EMA Authorized
	<a href="#">Italy</a>	X	X	X	X	X							
	<a href="#">Iceland</a>	X	X	X	X	X							EMA & FDA Authorized



# Summary of information on the individual national Corona restrictions

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NATO Member State (click on country for official COVID-19 information)		Approved vaccines										
		Comirnaty	Spikevax	Janssen	Vaxzevria	Nuvaxovid	Sputnik V	CoronaVac	Covishield	Convidecia	Covilo	Turkovac
	<a href="#">Latvia</a>	X	X	X	X	X						
	<a href="#">Lithuania</a>	X	X	X	X	X						
	<a href="#">Luxembourg</a>	X	X	X	X	X						
	<a href="#">Montenegro</a>				X		X			X		
	<a href="#">Netherlands</a>	X	X	X	X	X						
	<a href="#">North Macedonia</a>	X			X		X			X		
	<a href="#">Norway</a>	X	X	X		X						
	<a href="#">Poland</a>	X	X	X	X	X						
	<a href="#">Portugal</a>	X	X	X	X	X						
	<a href="#">Romania</a>	X	X	X	X	X						
	<a href="#">Slovakia</a>	X	X	X	X	X						
	<a href="#">Slovenia</a>	X	X	X	X	X						
	<a href="#">Spain</a>	X	X	X	X	X						
	<a href="#">Turkey</a>	X					X	X				X
	<a href="#">USA</a>	X	X	X								

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EMA & FDA  
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# Travel Recommendations and other Useful Links

## Travel Recommendations

Many countries have halted some or all international travel since the onset of the COVID-19 pandemic but now have re-open travel some already closed public-travel again. This document outlines key considerations for national health authorities when considering or implementing the gradual return to international travel operations.

The decision-making process should be multisectoral and ensure coordination of the measures implemented by national and international transport authorities and other relevant sectors and be aligned with the overall national strategies for adjusting public health and social measures.

Travel has been shown to facilitate the spread of COVID-19 from affected to unaffected areas. Travel and trade restrictions during a public health event of international concern (PHEIC) are regulated under the International Health Regulations (IHR), part III.

The majority of measures taken by WHO Member States relate to the denial of entry of passengers from countries experiencing outbreaks, followed by flight suspensions, visa restrictions, border closures, and quarantine measures. Currently there are exceptions foreseen for travellers with an essential function or need.

**Information on COVID-19 testing and quarantine of air travellers in the EU and the US you can find following the link:**

- <https://www.ecdc.europa.eu/en/publications-data/guidelines-covid-19-testing-and-quarantine-airtravellers>
- <https://www.cdc.gov/coronavirus/2019-ncov/travelers/how-level-is-determined.html>

**More information about traveling worldwide:**

- National regulation regarding travel restrictions, flight operation and screening for single countries you will find [here](#) (US) and [here](#) (EU).
- Official IATA travel restrictions. You will find [here](#).

**More information about traveling in the EU**

- by the **European Commission** you will find here:

<https://www.consilium.europa.eu/en/policies/coronavirus/covid-19-travel-and-transport/>

- The **ECDC** publishes a map of EU Member States, broken down by regions, which show the risk levels across the regions in Europe using a traffic light system. Find it [here](#).

As a general rule, information on new measures will be published 24 hours before they come into effect.

All information should also be made available on [Re-open EU](#), which should contain a cross-reference to the map published regularly by the European Centre for Disease Prevention and Control.

## Useful links

**ECDC:**

- [All info about the COVID-19 pandemic](#); (situation updates, latest news and reports, risk assessments etc.)
- [COVID-19 Vaccine tracker](#)
- [SARS-CoV-2 variants dashboard](#) for EU
- [Latest Risk assessment on COVID-19](#), 15 Feb 2021
- All “guidance’s and technical reports” can be found under “All COVID-19 outputs” on this page [here](#)

**WHO:**

- Epi-WIN [webinars and updates](#)
- All information about the COVID-19 pandemic: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>

**CDC:**

- COVID [Data Tracker](#) and [weekly review](#)
- [What’s new and Updated](#)
- [Guidance for COVID-19](#)

**References:**

- European Centre for Disease Prevention and Control <https://www.ecdc.europa.eu/en>
- World Health Organization WHO; [www.who.int](http://www.who.int)
- Centres for Disease Control and Prevention CDC; [www.cdc.gov](http://www.cdc.gov)
- European Commission; [https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/travel-and-transportation-during-coronavirus-pandemic\\_en](https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/travel-and-transportation-during-coronavirus-pandemic_en)
- Our World in Data; <https://ourworldindata.org/coronavirus>
- Morgenpost; <https://interaktiv.morgenpost.de/corona-virus-karte-infektionen-deutschland-weltweit/>
- BlueDot; <https://bluedot.global/>