



**GLOBAL**

↓  
**501 494 308**  
confirmed cases  
476 300 000  
recovered  
6 188 543 deaths

**USA**

(7-days incidence 79)  
↑  
**79 907 992**  
confirmed cases  
78 428 654 recovered  
981 660 death

**IND**

(7-days incidence 0,5)  
↓  
**43 036 928**  
confirmed cases  
42 496 650 recovered  
521 710 deaths

**BRA**

(7-days incidence 69)  
↓  
**30 161 909**  
confirmed cases  
29 136 385 recovered  
661 576 deaths

News:

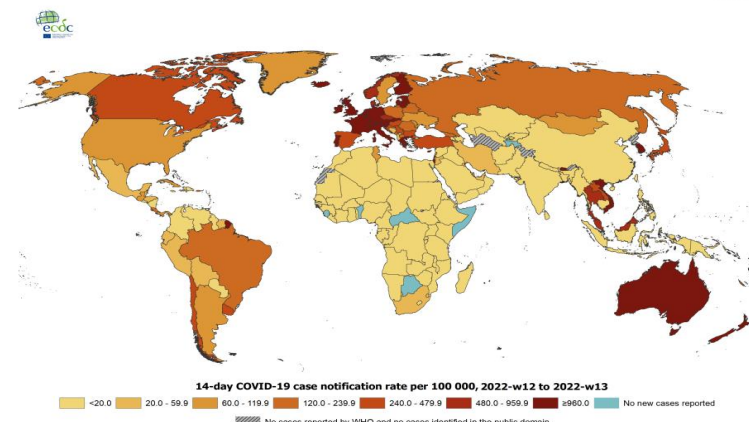
- **ECDC, EMA:** issued an [advice on the fourth doses of mRNA COVID-19 vaccines](#), concluding that it is too early to consider using a fourth dose of mRNA COVID-19 vaccines (Pfizer's Comirnaty and Moderna's Spikevax) in the general population.
- **UN:** [COVID-19 vaccine access in conflict areas remains critical](#). Although safe and effective COVID-19 vaccinations are available, the pandemic is still far from over, and countries affected by conflict are in danger of being left behind.
- **WHO:** WHO urges accelerated action [to protect human health and combat the climate crisis](#) at a time of heightened conflict and fragility.
- **WHO:** published a [Manifesto for a healthy recovery from COVID-19](#). Including prescriptions and actionables for a healthy and green recovery.
- **WHO:** The world needs to work better and collaborate with sectors beyond health to implement the [Global Vector Control Response 2017–2030](#) (GVCR), which aims to prevent and control diseases that are transmitted by vectors, particularly mosquitoes.
- **WHO, WIPO, WTO:** launched a trilateral [COVID-19 technical assistance platform](#). This new tool aims to help members and WTO accession candidates address their capacity building needs to respond to the COVID-19 pandemic.
- **CDC:** New data suggest [STDs continued to increase during first year of the COVID-19 pandemic](#)
- **WHO:** announces updates on optimized broth microdilution plate [methodology](#) for drug susceptibility testing of Mycobacterium tuberculosis complex. Using this method up to 12 anti-TB agents can be tested simultaneously providing quantitative levels of resistance and aid individualized patient treatment decisions.
- **SAGE:** WHO Strategic Advisory Group of Experts on Immunization (SAGE) review found out that a [single-dose Human Papillomavirus \(HPV\) vaccine delivers solid protection against HPV](#), that is comparable to 2-dose schedules. This could be a game-changer for the prevention of the disease; seeing more doses of the life-saving jab reach more girls.

Topics:

- COVID-19 situation
- Global situation: Updates on COVID-19 vaccines and Deltacron Spotlight
- WHO Manifesto for a Healthy Recovery from COVID-19
- War in Ukraine
- Other FHP News
- Other Infectious Disease Outbreaks
- Summary of information on the individual national Corona restrictions
- Travel Recommendations and other Useful Links

Geographic distribution of 14-day cumulative number of reported COVID-19 cases per 100 000 population, worldwide, 2022-w12 to 2022-w13

Source: ECDC



During the 2022 Hong Kong COVID-19 outbreak, 7 out of 10 deaths\* have been among adults ages 60 years and older who were unvaccinated



\* COVID-19-associated deaths reported to the Hong Kong Department of Health during January 6–March 21, 2022  
<sup>+</sup> Compared with fully vaccinated adults ages 60 years and older

[bit.ly/MMWR7115](https://bit.ly/MMWR7115)



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**EUROPE**

↓  
**201 591 465**  
confirmed cases  
190 600 000  
recovered  
1 892 553 deaths

**FRA**

(7-days incidence 1 417)  
↓  
**27 353 225**  
confirmed cases  
25 150 849 recovered  
144 662 deaths

**GBR**

(7-days incidence 405)  
↓  
**21 679 280**  
confirmed cases  
20 670 243 recovered  
170 395 deaths

**DEU**

(7-days incidence 1 045)  
↓  
**23 017 148**  
confirmed cases  
19 180 000 recovered  
132 385 deaths

# COVID-19 Situation by WHO Region, as of 10 April

## Global epidemiological situation overview; WHO as of 10 April 2022

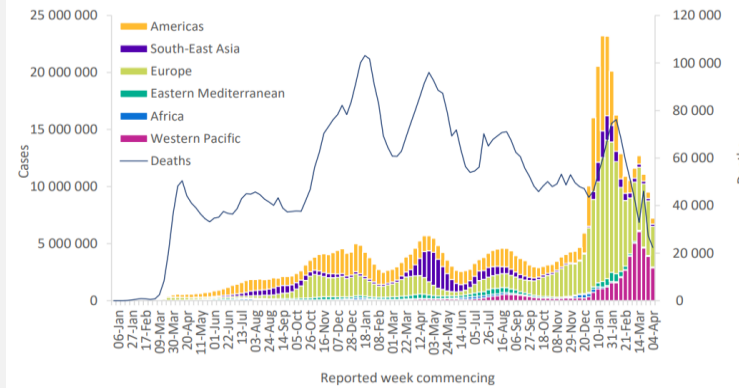
Globally, during the week of 4 through 10 April 2022, the number of new COVID-19 cases and deaths has continued to decline for a third consecutive week, with over 7 million cases and over 22 000 deaths reported, a decrease of 24% and 18% respectively, as compared to the previous week (Figure 1). All regions reported decreasing trends in the number of new weekly cases and deaths (Table 1). As of 10 April 2022, over 496 million confirmed cases and over 6 million deaths have been reported globally. These trends should be interpreted with caution as several countries are 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:

- Republic of Korea (1 459 454 new cases; -29%),
- Germany (1 019 649 new cases; -26%),
- France (927 073 new cases; -3%)
- Vietnam (453 647 new cases; -43%) and
- Italy (447 322 new cases; -8%)

Source: [Weekly epidemiological update on COVID-19 - 12 April 2022 \(who.int\)](https://www.who.int/news-room/fact-sheets/item/weekly-epidemiological-update-on-covid-19-12-april-2022)

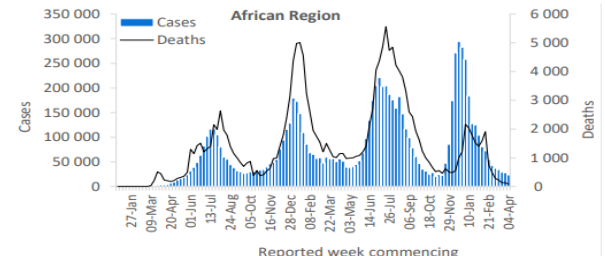
Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 10 April 2022\*\*



## WHO regional overviews: Epidemiological week 4 – 10 April 2022\* African Region

The African Region has continued to report a decreasing trend in new cases since January 2022, with just under 23 000 new weekly cases reported, representing a 17% decrease as compared to the previous week. However, seven (14%) countries in the Region reported an increase of over 20% in cases, with some of the greatest proportional increases observed in Lesotho (58 vs 15 new cases; +287%), Mali (53 vs 23 new cases; +130%) and Mayotte (67 vs 52 new cases; +29%). The highest numbers of new cases were reported from Réunion (10 996 new cases; 1228.2 new cases per 100 000 population; +13%), South Africa (9182 new cases; 15.5 new cases per 100 000; -6%), and Seychelles (510 new cases; 518.6 new cases per 100 000; -1%).

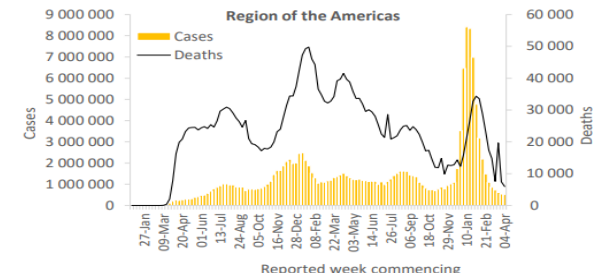
The number of new weekly deaths in the Region decreased by 40% as compared to the previous week, with over 80 new deaths reported. The highest numbers of new deaths were reported from South Africa (50 new deaths; <1 new death per 100 000 population; -38%), Réunion (11 new deaths; 1.2 new deaths per 100 000; +57%), and Zimbabwe (11 new deaths; <1 new deaths per 100 000; +22%).



## Region of the Americas

With just over half a million new weekly cases and just below 6000 new weekly deaths (representing decreases of 4% and 19% respectively as compared to the previous week), the decreasing trend observed since mid-January 2022 has continued in the Region of the Americas. However, twelve (21%) countries in the Region reported increases in new cases of 20% or greater, including the United States Virgin Islands (108 vs 45 new cases; +140%), Sint Maarten (89 vs 41 new cases; +117%), Puerto Rico (4236 vs 2396 new cases; +77%) and Argentina (22468 vs 12894 new cases; +74%). The highest numbers of new cases were reported from the United States of America (208 732 new cases; 63.1 new cases per 100 000; +4%), Brazil (148 798 new cases; 70.0 new cases per 100 000; -14%), and Canada (60 099 new cases; 159.2 new cases per 100 000; +7%).

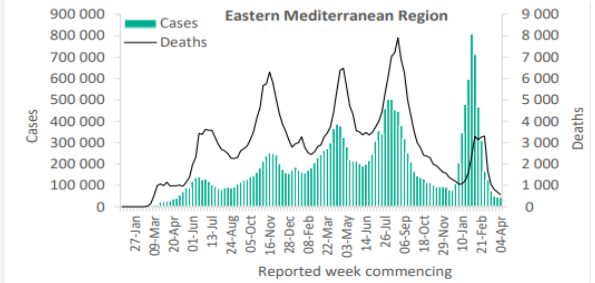
The highest numbers of new deaths were reported from the United States of America (3682 new deaths; 1.1 new deaths per 100 000; -9%), Brazil (1120 new deaths; <1 new death per 100 000; -22%), and Chile (308 new deaths; 1.6 new deaths per 100 000; -21%).



## Eastern Mediterranean Region

In the Eastern Mediterranean Region, new weekly cases have continued to decline since early February 2022. Just under 44 000 new weekly cases were reported last week, a 4% decrease as compared to the previous week. However, three (14%) countries in the Region have reported increases in new cases of 20% or greater, with the largest observed in the occupied Palestinian territory (537 vs 282 new cases; +90%) and the Islamic Republic of Iran (22378 vs 17582; +27%). The highest numbers of new cases were reported from the Islamic Republic of Iran (22 378 new cases; 26.6 new cases per 100 000; +27%), Egypt (3913 new cases; 3.8 new cases per 100 000; -11%), and Bahrain (3871 new cases; 227.5 new cases per 100 000; -26%).

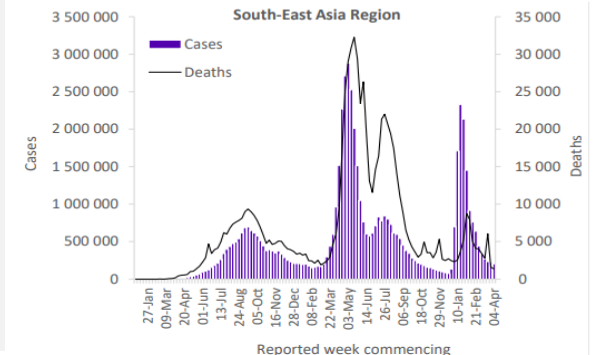
The number of new weekly deaths in the Region decreased by 18% when compared to the previous week, with over 550 new deaths reported. The highest numbers of new deaths were reported from the Islamic Republic of Iran (300 new deaths; <1 new death per 100 000; -2%), Tunisia (102 new deaths; <1 new death per 100 000; -35%), and Egypt (56 new deaths; <1 new death per 100 000; similar to the previous week's figures).



## South-East Asia Region

The South-East Asia Region reported over 204 000 new weekly cases, an 8% decline as compared to the previous week, continuing the decreasing trend observed since mid-January 2022. However, Bhutan reported an increase in new weekly cases of 70% (10785 vs 6357 new cases). The highest numbers of new cases were reported from Thailand (171 890 new cases; 246.3 new cases per 100 000; -6%), Indonesia (12 726 new cases; 4.7 new cases per 100 000; -39%), and Bhutan (10 785 new cases; 1397.7 new cases per 100 000; +70%).

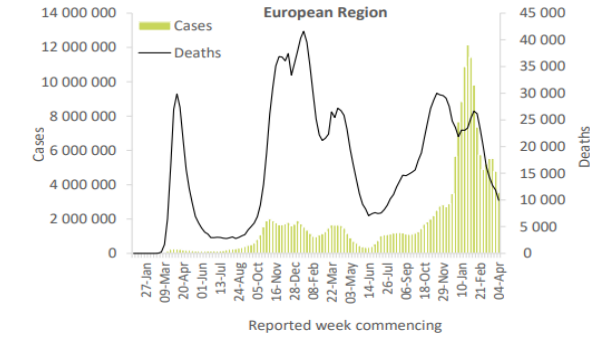
The Region reported just over 1300 new weekly deaths, representing a 15% decrease as compared to the previous week. The highest numbers of new deaths were reported from Thailand (668 new deaths; 1.0 new deaths per 100 000; +8%), India (340 new deaths; <1 new death per 100 000; similar to the previous week's figures), and Indonesia (338 new deaths; <1 new death per 100 000; -45%).



## European Region

In the European Region, new weekly cases have continued to decline for a third consecutive week after the increase observed in mid-March 2022, with over 3.5 million new cases reported, a 26% decrease as compared to the previous week. None of the countries in the Region reported increases in new cases of 20% or greater. The highest numbers of new cases were reported from Germany (1 019 649 new cases; 1226.0 new cases per 100 000; -26%), France (927 073 new cases; 1425.4 new cases per 100 000; -3%), and Italy (447 322 new cases; 750.0 new cases per 100 000; -8%).

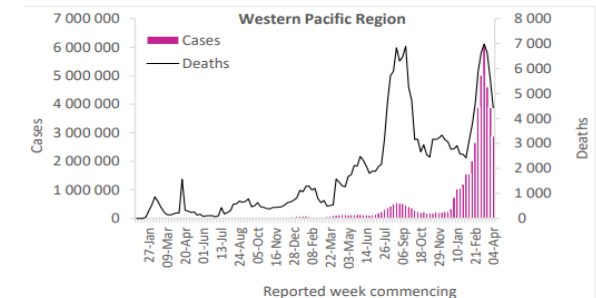
Also the number of new weekly deaths has continued to decrease in the Region, with over 9900 new deaths reported, a 16% decrease as compared to the previous week. The highest numbers of new deaths were reported from the Russian Federation (2008 new deaths; 1.4 new deaths per 100 000; -15%), Germany (1686 new deaths; 2.0 new deaths per 100 000; +6%), and the United Kingdom (1026 new deaths; 1.5 new deaths per 100 000; -35%).



## Western Pacific Region

After the peak reached in early March 2022, cases have continued to decline in the Western Pacific Region, with over 2.8 million new weekly cases reported, representing a 26% decrease as compared to the previous week. However, five (16%) countries in the Region reported an increase of 20% or greater, with some of the largest increases observed American Samoa (1208 vs 600 new cases; +101%), Samoa (1607 vs 917 new cases; +75%) and Fiji (67 vs 39 new cases; +72%). The highest numbers of new cases were reported from the Republic of Korea (1 459 454 new cases; 2846.6 new cases per 100 000; -29%), Viet Nam (453 647 new cases; 466.1 new cases per 100 000; -43%), and Australia (392 569 new cases; 1539.5 new cases per 100 000; -2%).

The number of new weekly deaths shows a decrease of 21% as compared to the previous week, with just under 4400 new deaths reported. The highest numbers of new deaths were reported from the Republic of Korea (2186 new deaths; 4.3 new deaths per 100 000; -6%), China (645 new deaths; <1 new death per 100 000; -33%), and the Philippines (406 new deaths; <1 new death per 100 000; -8%).



# Global Situation – Updates on COVID-19 Vaccine



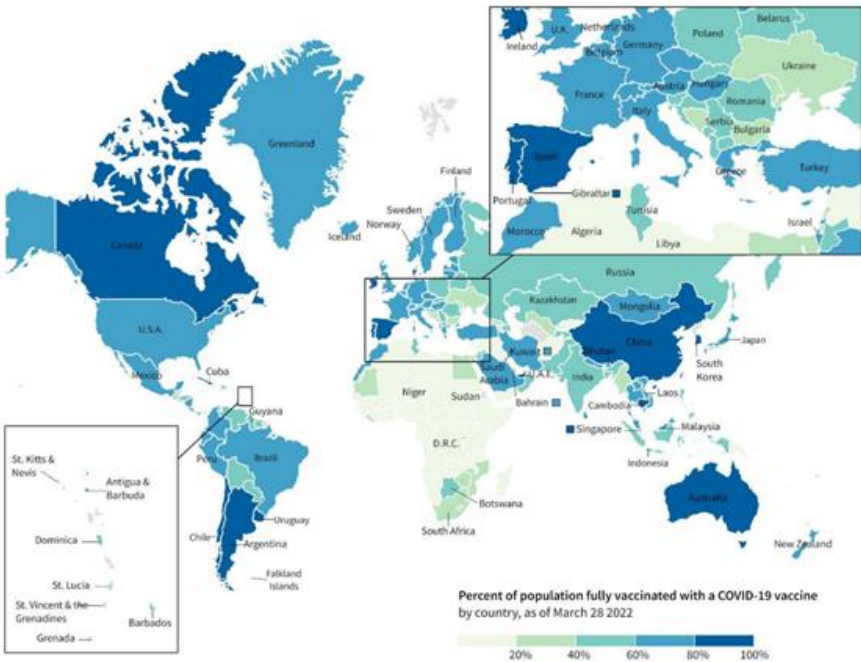
## Spotlight on Vaccine Efficacy in Children under 6

Preliminary results from Moderna’s Phase 2/3 randomized trial of its COVID-19 vaccine in children under the age of 6 showed promising results. The vaccine was generally well tolerated, with the majority of adverse events being mild or moderate. Study results were statistically significant and indicated that vaccine efficacy against symptomatic SARS-CoV-2 infection in children between the ages of 6 months to 2 years was 43.7%, and in children between the age of 2 and under 6 was 37.5%. This study was undertaken during the time in which the Omicron variant became the predominant variant, hence, efficacy was likely lower due to the higher transmissibility and immune evasion properties of Omicron. These findings were similar to the observed vaccine effectiveness in fully vaccinated adults during the Omicron wave. Further real-world data will be needed to assess vaccine effectiveness against severe disease and death due to COVID-19 among children.

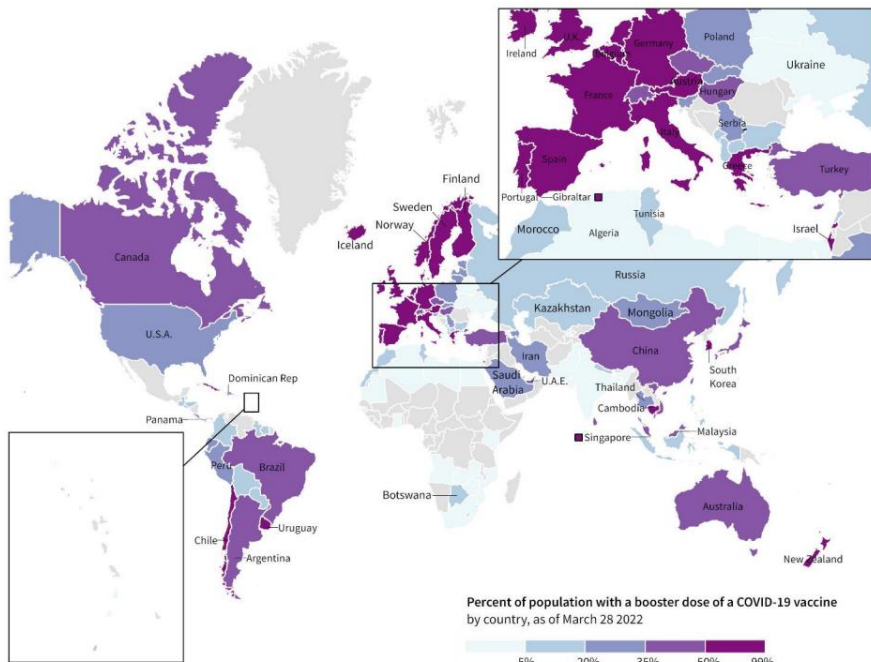
## Vaccine Research Updates

Recent research from two observational studies in Israel suggest that a second booster of the PfizerBioNTech vaccine significantly lowered rates of infection, severe disease, and mortality in adults 60 and older during the first 6 weeks following administration. Although more research is needed to confirm these findings and to determine the duration of protection, second boosters may be helpful for certain high-risk populations to reduce risk of death due to COVID-19, especially as global COVID-19 incidence rises in the context of the Omicron subvariant (BA.2). The study found that the adjusted rate of confirmed infection (confirmed via PCR or state-regulated rapid test) was significantly lower in the four-dose group compared to both control groups, and the difference was the highest during weeks 3 and 4 after administration of the fourth dose. In week 4, the adjusted rate of confirmed infection in the four-dose group was 2.0 times lower (95% CI: 1.9 to 2.1) compared to the three-dose group, and 1.8 times lower (95% CI: 1.7 to 1.9) compared to the internal control group. After four weeks of second booster uptake, the rate ratio started to decline and by the eighth week, the rate of infection was almost similar in all three groups.

What percentage of the population has received a full primary series of a COVID-19 vaccine?



What percentage of the population has received a booster dose?



With regards to severe infection, the study found that the adjusted rate ratio of severe disease was also significantly lower when comparing the four-dose group compared to the two control groups, and by a higher magnitude. In week 4, the adjusted rate of severe disease in the four-dose group was 3.5 times lower (95% CI: 2.7 to 4.6) compared to the three-dose group, and 2.3 times lower (95% CI: 1.7 to 3.3) compared to the internal control group. Protection against severe disease continued to be observed throughout the study, and no signs of waning immunity against severe disease was observed up to the end of the observation period (by the sixth week).

Source: [BlueDot\\_VaccineAdministration33.pdf \(mcusercontent.com\)](#)

# Global Situation – Deltacron Spotlight and Fourth Doses of COVID-19 Vaccines



Several recombinant variants of circulating SARS-CoV-2 strains are currently being monitored globally. Recombinant variants can occur when two or more SARS-CoV-2 strains coinfect an individual and share genetic material during replication. This is a common way that viruses evolve to overcome selective pressures and adapt to new hosts or environments. Recombinant variants that contain advantageous mutations can spread at a faster rate than the strains that are circulating in a given location.<sup>(1)</sup> BlueDot recently reported on a potential [Delta-Omicron recombinant](#) (also referred to as ‘Deltacron’) that was considered to likely be the result of laboratory contamination. Since that time, further Delta-Omicron recombinant variants have been **detected** globally.

It is now considered likely that Delta and Omicron strains have recombined independently in different regions of the world, driven by high rates of co-circulation.<sup>(2)</sup> As of April 8, five countries have submitted 83 sequenced genomes of Delta (AY.4) - Omicron (BA.1) recombinant variants to GISAID. To date, these countries include France, Denmark, Germany, the Netherlands, and Belgium.<sup>(3)</sup> Evidence of the first Delta (AY.4)-Omicron (BA.1) recombinant sequence was reported in France by the Institut Pasteur through GISAID.<sup>(4)</sup> Through further analysis, this recombinant variant was determined to have been circulating in France since early January 2022 and later spread to other European nations of Denmark and the Netherlands. By March 19, the WHO acknowledged that the Delta (AY.4) - Omicron (BA.1) recombinant variant was detected globally but did not show changes in severity compared to other variants.<sup>(5)</sup> In addition, several Delta (AY.4) - Omicron (BA.2) recombinant cases were detected in Sweden and India. However, these recombinant variants did not appear to circulate further.<sup>(6)</sup>

Some authorities, such as the China CDC, have described the Delta-Omicron recombinant variants as a slowly emerging threat due to concerns that the spike protein of the Omicron variant could lead to increased infectivity and transmissibility, while the mutations specific to the Delta variant may increase disease severity.<sup>(7)</sup> Fortunately, none of the recombinants containing segments of the BA.1 have shown signs of increased growth advantage over the BA.2 Omicron variant. New Omicron-Delta recombinants are becoming less likely to arise with the decline in Delta cases observed worldwide. Importantly, these recombinants should continue to respond to existing vaccines and pre-existing immunity against severe disease. Currently, the high global transmission of the Omicron variant is driving further evolution of new Omicron variants and their recombinants. These new variants may continue to cause epidemic waves, tempered by pre-existing population immunity acquired through vaccination and previous Omicron infections. However, there is the ongoing risk of the emergence of an entirely new variant that poses more concern for evasion of population immunity. With several countries winding down surveillance efforts and low genomic sequencing in many parts of the world, there may be less advanced warning than previously occurred during the emergence of Omicron BA.1. Countries will be better equipped to deal with new emerging highly transmissible variants if they incorporate ‘vaccines plus’ strategies, such as including airborne mitigation measures and strengthening surveillance methods.

**Key Takeaway:** The Delta (AY.4) + Omicron (BA.1) variants thus far do not seem to outcompete BA.2 variants and few Delta + BA.2 variants. This is because, by the time BA.2 was introduced into most populations, Delta had been surpassed by BA.1. Source: [COVID-19 Global Update and Country Spotlight for April 8, 2022 \(mailchi.mp\)](#)

## The 5 countries with the HIGHEST number of cumulative people fully vaccinated per 100,000 population

1	Gibraltar	122,610
2	United Arab Emirates	96,320
3	Portugal	92,600
4	Brunei Darussalam	91,790
5	Singapore	91,120

## The 5 countries with the LOWEST number of cumulative people fully vaccinated per 100,000 population

1	Burundi	80
2	Democratic Republic of the Congo	560
3	Haiti	990
4	Yemen	1,330
5	Papua New Guinea	2,820

### ***ECDC and EMA issue advice on fourth doses of mRNA COVID-19 vaccines***

CDC and EMA’s COVID-19 task force (ETF) have concluded that it is **too early to consider using a fourth dose** of mRNA COVID-19 vaccines (Pfizer’s Comirnaty and Moderna’s Spikevax) in the general population.

Both agencies agreed however that a fourth dose (or second booster) can be given to adults 80 years of age and above after reviewing data on the higher risk of severe COVID-19 in this age group and the protection provided by a fourth dose.

ECDC and EMA also noted that there is currently no clear evidence in the EU that vaccine protection against severe disease is waning substantially in adults with normal immune systems aged 60 to 79 years and thus no clear evidence to support the immediate use of a fourth dose. Authorities will continue to monitor data to determine if there is an increasing risk of severe illness among those who are vaccinated.

As re-vaccination campaigns could start in the autumn, authorities will consider the best timing for additional doses, possibly taking advantage of updated vaccines.

So far, no safety concerns have emerged from the studies on additional boosters.

### **What the evidence says about second booster doses**

Evidence on the effects of a fourth dose comes largely from Israel, where data indicate that a second booster given at least 4 months after first booster restores antibody levels without raising any new safety concerns. Data also suggest that a second booster provides additional protection against severe disease, although the duration of the benefits is not yet known and the evidence is still limited.

Details of the evidence assessed by both agencies is available in the [joint ECDC-EMA statement on second boosters](#).

### **Other factors to be considered in vaccination campaigns**

National authorities in the EU make final decisions on the roll-out of vaccines, including booster doses, taking into account factors such as the spread of infection, the effects of COVID-19 in different populations and the emergence of new variants.

ECDC and EMA will continue to review available evidence on the effectiveness of COVID-19 vaccines and update their recommendations accordingly. EMA will also consider all emerging data on the safety and effectiveness of booster doses with a view to updating the product information for COVID-19 vaccines where applicable.

Source: ECDC - <https://www.ecdc.europa.eu/en/news-events/ecdc-and-ema-issue-advice-fourth-doses-mrna-covid-19-vaccines>

# WHO Manifesto for a Healthy Recovery from COVID-19 – Prescription and Actionables for a Healthy and Green Recovery

COVID-19 is the greatest global shock in decades. Hundreds of thousands of lives have been lost, and the world’s economy likely faces the worst recession since the 1930s. The resulting loss of employment and income will cause further damage to livelihoods, health, and sustainable development. The following WHO prescriptions and accompanied actionables are practical steps for implementing the WHO Manifesto for a healthy recovery from COVID-19. They aim at creating a healthier, fairer and greener world while investing to maintain and resuscitate the economy hit by the effects of COVID-19.

## **Prescription 1: Protect and preserve the source of human health – Nature**

Economies are a product of healthy human societies, which in turn rely on the natural environment - the original source of all clean air, water, and food. Human pressures, from deforestation, to intensive and polluting agricultural practices, to unsafe management and consumption of wildlife, undermine these services. They also increase the risk of emerging infectious diseases in humans – over 60% of which originate from animals, mainly from wildlife. Overall plans for post-COVID-19 recovery, and specifically plans to reduce the risk of future epidemics, need to go further upstream than early detection and control of disease outbreaks. They also need to lessen our impact on the environment, so as to reduce the risk at source.

## **Prescription 2: Invest in essential services, from water and sanitation to clean energy in healthcare facilities**

Around the world, billions of people lack access to the most basic services that are required to protect their health, whether from COVID-19, or any other risk. Handwashing facilities are essential for the prevention of infectious disease transmission, but are lacking in 40 % of households. Antimicrobial-resistant pathogens are widespread in water and waste and their sound management is needed to prevent the spread back to humans. In particular it is essential that health care facilities be equipped with water and sanitation services, including the soap and water that constitutes the most basic intervention to cut transmission of SARS-CoV-2 and other infections, access to reliable energy that is necessary to safely carry out most medical procedures, and occupational protection for health workers. Overall, avoidable environmental and occupational risks cause about one quarter of all deaths in the world.

## **Prescription 3: Ensure a quick and healthy energy transition**

Currently, over seven million people a year die from exposure to air pollution – 1 in 8 of all deaths. Over 90% of people breathe outdoor air with pollution levels exceeding WHO air quality guideline values. Two-thirds of this exposure to outdoor pollution results from the burning of the same fossil fuels that are driving climate change. At the same time, renewable energy sources and storage continue to drop in price, increase in reliability, and provide more numerous, safer and higher paid jobs. Energy infrastructure decisions taken now will be locked in for decades to come. Factoring in the full economic and social consequences, and taking decisions in the public health interest, will tend to favour renewable energy sources, leading to cleaner environments and healthier people. A rapid global transition to clean energy would not only meet the Paris climate agreement goal of keeping warming below 2C, but would also improve air quality to such an extent that the resulting health gains would repay the cost of the investment twice over.

## **Prescription 4: Promote healthy, sustainable food systems**

Diseases caused by either lack of access to food, or consumption of unhealthy, high calorie diets, are now the single largest cause of global ill health. They also increase vulnerability to other risks - conditions such as obesity and diabetes are among the largest risk factors for illness and death from COVID-19. Agriculture, particularly clearing of land to rear livestock, contributes about ¼ of global greenhouse gas emissions, and land use change is the single biggest environmental driver of new disease outbreaks. There is a need for a rapid transition to healthy, nutritious and sustainable diets. If the world were able to meet WHO’s dietary guidelines, this would save millions of lives, reduce disease risks, and bring major reductions in global greenhouse gas emissions.

## **Prescription 5: Build healthy, liveable cities**

Over half of the world’s population now lives in cities, and they are responsible for over 60% of both economic activity and greenhouse gas emissions. As cities have relatively high population densities and are traffic-saturated, many trips can be taken more efficiently by public transport, walking and cycling, than by private cars. This also brings major health benefits through reducing air pollution, road traffic injuries – and the over three million annual deaths from physical inactivity. Many of the largest and most dynamic cities in the world, such as Milan, Paris, and London, have reacted to the COVID-19 crisis by pedestrianizing streets and massively expanding cycle lanes - enabling “physically distant” transport during the crisis, and enhancing economic activity and quality of life afterwards.

## **Prescription 6: Stop using taxpayers money to fund pollution**

The economic damage from COVID-19 and the necessary control measures, is very real, and will place huge pressure on Government finances. Financial reform will be unavoidable in recovering from COVID19, and a good place to start is with fossil fuel subsidies. Globally, about US\$400 billion every year of taxpayers money is spent directly subsidizing the fossil fuels that are driving climate change and causing air pollution. Furthermore, private and social costs generated by health and other impacts from such pollution are generally not built into the price of fuels and energy. Including the damage to health and the environment that they cause, brings the real value of the subsidy to over US\$5 trillion per year- more than all governments around the world spend on healthcare – and about 2,000 times the budget of WHO. Placing a price on polluting fuels in line with the damage they cause would approximately halve outdoor air pollution deaths, cut greenhouse gas emissions by over a quarter, and raise about 4% of global GDP in revenue. We should stop paying the pollution bill, both through our pockets and our lungs.

# War in Ukraine

## WHO records 100th attack on health care in Ukraine

On April 7 a grim milestone has been crossed in the war in Ukraine – more than 100 attacks on health care verified by WHO since the start of the war on 24 February. The attacks so far have claimed 73 lives and injured 51.

Of the current total of 103 attacks, 89 have impacted health facilities and 13 have impacted transport, including ambulances.

This milestone of over 100 attacks on health spans barely 42 days since Russia's invasion of Ukraine began. The impact of this violence is not only immediate, in the numbers of deaths and injuries – but also long-term in the consequences for Ukraine's health care system. It's a major blow to the country's efforts to institute health reforms and achieve universal health coverage, a goal it had made significant progress on before the war erupted.

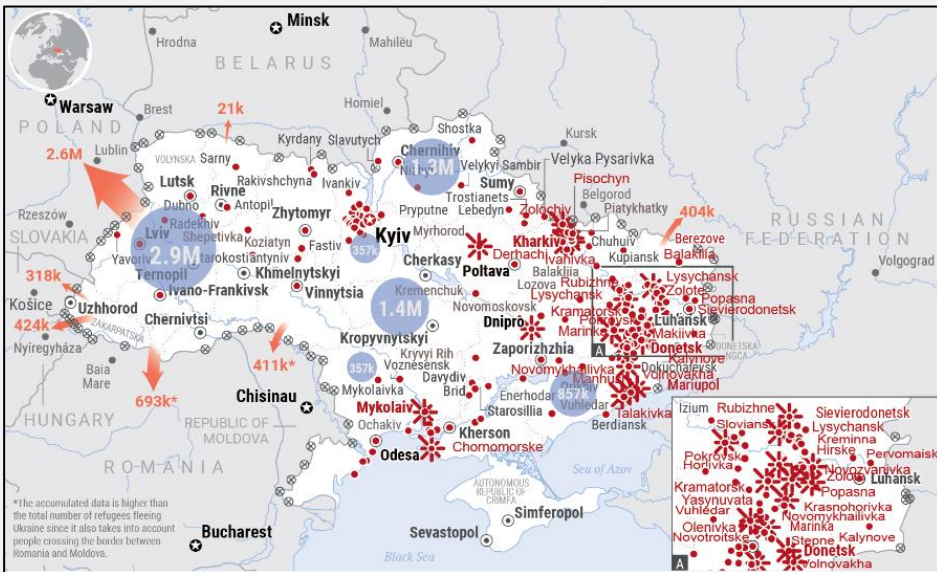
Attacks on health are unfortunately seen amid conflicts globally. Since 1 January 2022, WHO has verified 160 attacks on health care in 11 countries and territories resulting in 97 deaths and 74 injuries. Outside of Ukraine at this time, Sudan is also witnessing a recent increase in attacks on health care.

## Does WHO investigate attacks on health care?

WHO is neither mandated nor equipped to investigate these attacks, including identification of the perpetrators. WHO's role is to systematically collect and disseminate data on attacks. It does so by verifying that attacks on

healthcare have occurred in order to highlight their extent and consequences. Other bodies within the United Nations system have the mandate to investigate attacks on healthcare and WHO cooperates with them.

Source: WHO - <https://www.who.int/news/item/07-04-2022-who-records-100th-attack-on-health-care-in-ukraine>



Sources: border crossing points – multiple sources; Country and administrative division – UN GIS and State Scientific Production Enterprise "Kartographia"; Refugee outflow – the refugee figures provided by UNHCR are based on reports received from respective governments including the figures on movements to Russian Federation and Belarus; IDPs – IOM; Hostilities – public sources and local reports.

## Testing for tuberculosis infection and screening for tuberculosis disease among incoming refugees from Ukraine to European countries

Testing for tuberculosis infection of the mass influx of refugees from Ukraine into the EU, ECDC and the WHO Regional Office for Europe have released an information note on testing for tuberculosis infection and screening for tuberculosis disease.

### Testing for tuberculosis (TB) infection

Universal testing of refugees arriving in European countries from Ukraine for TB infection is **not recommended**. Specific groups should be considered for TB testing, such as household contacts of bacteriologically confirmed pulmonary cases or immunocompromised individuals (e.g. those preparing for dialysis).

### Screening for TB disease

Universal screening for TB disease of refugees arriving in European countries from Ukraine is **not recommended**. In certain groups at risk of TB, such as people living with HIV or those who are contacts of TB patients, screening for TB disease is important, while in those without disease, assessment for TB preventive treatment is recommended.

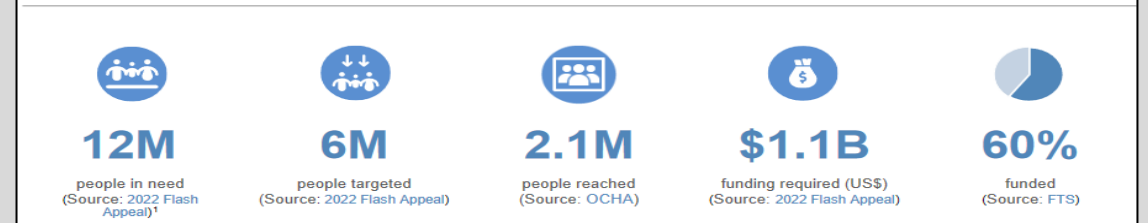
## Tuberculosis epidemiological situation in Ukraine

Ukraine is considered a TB high priority country in the WHO European Region and is one of nine countries globally with a high burden of multidrug-resistant TB. The estimated TB incidence is 73 per 100 000 population compared to 9.5 per 100 000 in the EU/EEA. In 2020, 19 521 TB cases were notified, 44.6 per 100 000 population. The total number of TB cases in the EU/EEA was 33 148 in the same period.

In 2020, 32.6% of all bacteriologically confirmed pulmonary TB cases in Ukraine were rifampicin-resistant or multidrug-resistant TB (RR/MDR-TB) and 4,117 MDR/RR-TB cases were notified. The total number of RR/MDR-TB cases in the EU/EEA was 595 in 2020. Of note is the male/female ratio in Ukraine of 2.4, thus the largest part of TB cases is diagnosed in men. Also, only a small proportion of RR/MDR-TB is diagnosed in children.

Source: ECDC - <https://www.ecdc.europa.eu/en/publications-data/testing-tuberculosis-infection-and-screening-tuberculosis-disease-among-displaced>

### KEY FIGURES (FLASH APPEAL 2022)



<sup>1</sup> With the scale and direction of the ongoing military operation, 18 million people are projected to become affected. Of the affected population, 12 million people are expected to need humanitarian assistance, and 6 million with the most urgent humanitarian needs will be assisted with the resources required under the Flash Appeal, including 2.1 million IDPs covering the initial period of three months. The Flash Appeal 2022 supersedes the 2022 Humanitarian Response Plan (HRP), as of 1 March.

## Other FHP News

### One-dose Human Papillomavirus (HPV) vaccine offers solid protection against cervical cancer

The 4-7 April convening of the WHO Strategic Advisory Group of Experts on Immunization (SAGE) evaluated the evidence that has been emerging over past years that single-dose schedules provide comparable efficacy to the two or three-dose regimens.

SAGE's review concluded that a single-dose Human Papillomavirus (HPV) vaccine delivers solid protection against HPV, the virus that causes cervical cancer, that is comparable to 2-dose schedules. This could be a game-changer for the prevention of the disease; seeing more doses of the life-saving jab reach more girls.

Often referred to as the 'silent killer' and almost entirely preventable, cervical cancer is a disease of inequity of access; the new SAGE recommendation is underpinned by concerns over the slow introduction of the HPV vaccine into immunization programs and overall low population coverage, especially in poorer countries.

More than 95% of cervical cancer is caused by sexually transmitted HPV, which is the fourth most common type of cancer in women globally with 90% of these women living in low- and middle-income countries.

"The HPV vaccine is highly effective for the prevention of HPV serotypes 16 & 18, which cause 70% of cervical cancer," said Dr *Alejandro Cravioto*, SAGE Chair. "SAGE urges all countries to introduce HPV vaccines and prioritize multi-age cohort catch up of missed and older cohorts of girls. These recommendations will enable more girls and women to be vaccinated and thus preventing them from having cervical cancer and all its consequences over the course of their lifetimes."

SAGE recommends updating dose schedules for HPV as follows:

- **one or two-dose schedule** for the primary target of girls aged **9-14**
- **one or two-dose schedule** for young women aged **15-20**
- Two doses with a 6-month interval for women **older than 21**.

Immunocompromised individuals, including those with HIV, should receive three doses if feasible, and if not at least two doses. There is limited evidence regarding the efficacy of a single dose in this group.

Source: [One-dose Human Papillomavirus \(HPV\) vaccine offers solid protection against cervical cancer \(who.int\)](https://www.who.int/news/item/04-05-2022-one-dose-human-papillomavirus-(hpv)-vaccine-offers-solid-protection-against-cervical-cancer)

### Increase in hepatitis cases in children – United Kingdom

An increase in hepatitis cases in children has been reported in the United Kingdom. In England, approximately 60 cases in children under 10 are under investigation. In Scotland, 11 cases which required hospital admission, in children aged between 1- 5 years are under investigation. Most of the cases in Scotland presented from March 2022 onwards. In Wales, there are currently no known cases under investigation, but a very small number of cases from early 2022 had similar clinical presentation. In Northern Ireland, there are currently no confirmed cases reported. At present, the cause of hepatitis in these cases is unknown. The common viruses that cause hepatitis (hepatitis viruses A, B, C, D and E) have not been detected in any of the cases. There is currently no clear connection between the reported cases. Public Health Wales reports that there is no known association with travel. Investigations are underway across the UK to investigate the potential cause. Public Health Scotland reports that all potential causes are being explored, but at this time, infection is considered to be the probable source.

Source: ECDC - [Cdrtr \(europa.eu\)](https://ecdc.europa.eu/en/press/news/20220408-hepatitis-cases-children-uk)

### Salmonella Typhimurium outbreak linked to chocolate products

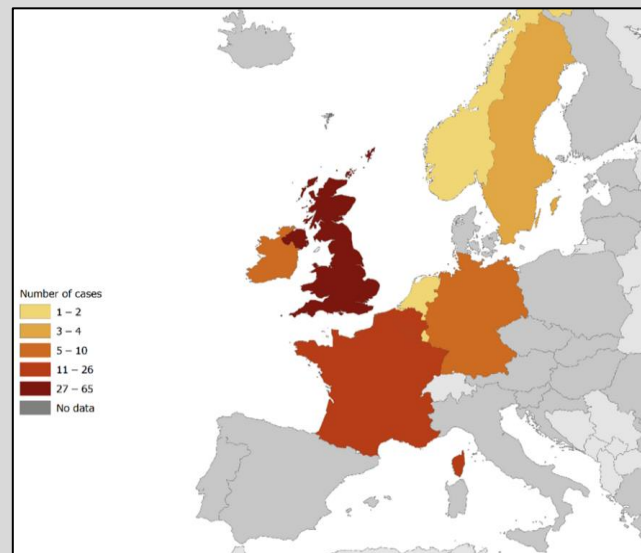
An outbreak caused by monophasic *Salmonella* Typhimurium is rapidly evolving in eight EU/EEA countries and the United Kingdom (UK). As of 8 April 2022, 142 cases have been reported, mainly among children under 10 years old. The first case was identified in the UK on 7 January 2022. Since 17 February 2022, cases have also been identified elsewhere in Europe. The outbreak is characterised by an unusually high proportion of children being hospitalised, some with severe clinical symptoms such as bloody diarrhoea. Based on interviews with patients and initial analytical epidemiological studies, specific chocolate products have been identified as the likely route of infection. Affected cases have been identified through advanced molecular typing techniques. As this method of testing is not routinely performed in all countries, some cases may be undetected.

The outbreak has been linked to a factory in Arlon (Belgium). Belgian authorities suspended all activities, all products that were manufactured there will be recalled, and retailers are also asked to remove the products from their shelves.

Product recalls have been launched in several countries to date, to prevent the consumption of products potentially contaminated with *Salmonella*. Further investigations are being conducted by public health and food safety authorities in countries where cases are reported, to identify the cause and the extent of the contamination, and to ensure contaminated products are not put on the market.

ECDC and EFSA are assessing the available data from these countries and preparing a rapid outbreak assessment to be published next week. Questions regarding ongoing product recalls should be addressed to national food safety authorities.

Source: [8 April update: ECDC/EFSA investigation into multi-country Salmonella outbreak continues \(europa.eu\)](https://ecdc.europa.eu/en/press/news/20220408-salmonella-typhimurium-outbreak)





# Other Infectious Disease Outbreaks/ conflicts



## Crimean-Congo Hemorrhagic Fever

**Iraq** - (Apr 11) According to news media, health authorities have reported 20 cases of Crimean-Congo Hemorrhagic Fever (CCHF) so far in 2022 in the Dhi Qar governorate located in southern Iraq. Of these cases, 15 were reported within the last two weeks. Health authorities have also confirmed the deaths of seven individuals since the beginning of 2021 in the Dhi Qar governorate. The rural governorate is known for its agriculture practices, rearing cattle, sheep, and goats. Health authorities confirmed that all patients have been employed in the livestock sector.

Source: [Insights by BlueDot](#)

**United Kingdom** - As of April 9, the United Kingdom Health Security Agency (UKHSA) has confirmed that no new cases of Crimean-Congo haemorrhagic fever (CCHF) among close contacts from the index case have been identified, and thus there are no risk to others at this time. Health authorities have been praised for their prompt action and timely diagnoses which prevented further spread. Source: [Insights by BlueDot](#)

## Anthrax

**Kazakhstan** - A confirmed case of anthrax has been reported in Kazakhstan in 2022. The affected individual, traveling between the Turkestan region and Kokshetau, was identified by association with a contact that had become ill previously. Both individuals are reported to have had exposure to locally obtained horse meat. An additional companion traveling with the patient has tested negative. They have been admitted to an infectious disease hospital in Kokshetau, where they will be monitored and receive treatment.

Source: [Insights by BlueDot](#)

## COVID-19

**Nauru** - The first cases of COVID-19 have been reported in the small island nation of Nauru, located in the southwestern Pacific Ocean in Micronesia, northwest of Australia. Three confirmed COVID-19 cases were detected in travellers who arrived on a flight from Brisbane, Australia on March 31. Additional suspected cases are currently under investigation. The positive cases and all close contacts are currently isolating at a local hospital. Health authorities report that the travellers had tested negative three times daily during their pre-travel quarantine since March 27. Officials note that likely exposure was at the Brisbane Airport, and others on the same flight to Nauru may have been exposed. With a population of 10,834, 96% of individuals aged 18 and older, and 80% of individuals 12 to 17 years in Nauru have received a full regime of COVID-19 vaccine. Approximately 64% of adults have received booster shots. Currently, the Comirnaty (Pfizer/BioNTech) COVID-19 vaccine is approved in Nauru.

Source: [Insights by BlueDot](#)

## Cholera

**Zambia** - The Zambian Ministry of Health has confirmed a case of cholera in the Mutendere township, located within Zambia's capital city of Lusaka, in the southeastern province of Lusaka. The patient is a 3-year-old who presented to the hospital with severe acute diarrhea and vomiting. Health authorities report that the child is in stable condition and that field investigations are being conducted by the Zambia National Public Health Institute to identify the source of the bacterium and contain the disease. Source: [Insights by BlueDot](#)

## Brucellosis

**Bosnia and Herzegovina** - A human case of brucellosis has been confirmed in the village of Mokro in the municipality of Pale, in Bosnia and Herzegovina. According to a local media report, the human case was notified along with an outbreak among a flock of sheep confirmed by a veterinary clinic. Brucellosis is a worldwide zoonosis. In Bosnia and Herzegovina, the first cases of brucellosis were registered in 2000, and since then the disease has shown signs of expansion. After the implementation of a program for mass vaccination of animals in 2009, the incidence of human brucellosis rapidly decreased. However, after some period of decreasing brucellosis, it became endemic throughout the country over the past ten years. The most common ways people get infected with brucellosis are while working with unvaccinated infected animals and/ or by consumption of unpasteurized dairy products. Public health authorities advise the public to avoid the consumption of unpasteurized dairy foods, take enhanced safety precautions if working in a high-risk workplace, and cook meat thoroughly.

Source: [Insights by BlueDot](#)

## Chikungunya

**Argentina** - An imported case of chikungunya has been reported in the municipality of Gualeguay, in the Gualeguay department in the province of Entre Ríos, Argentina. According to a media report, the affected has a recent history of travel to the state of Parana in central Brazil where cases of chikungunya have been reported since the beginning of 2022. Argentina has an ongoing risk of chikungunya transmission since its first detection in 2013.

Source: [Insights by BlueDot](#)

## Pertussis

**Colombia** - An alert for pertussis (whooping cough) has been issued in Santa Marta, in the department of Magdalena, northern Colombia. According to media reports, an undisclosed number of children from the Kogui indigenous community located in the region have contracted the illness. Additionally, approximately 40 associated deaths have been reported with the majority being among infants under three years of age. The National Reference Laboratory confirmed the detection of the Bordetella Pertussis bacterium that causes pertussis following laboratory testing.

Source: [Insights by BlueDot](#)

## Listeria
















**United Kingdom** - Outbreaks of listeria have been reported in the United Kingdom in 2022. The UK Health Security Agency, Food Standards Agency and Food Standards Scotland state investigations are underway for a current outbreak linked to smoked fish. In total, 12 cases of listeriosis have been identified since 2020, of which six were in 2022. Current cases for this year have been identified in England and Scotland. Health officials stress, individuals at a higher risk for listeria infections, including pregnant people and those with weakened immune systems, ensure these products are properly managed according to food safety and is thoroughly cooked before consuming.

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

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		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								

EMA  
Authorized

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/>