



Update 98 COVID-19 Coronavirus Disease 12 January 2022



GLOBAL



313 731 574

Confirmed cases

276 500 000 recovered

5 507 075 deaths

USA

(7-days incidence 1.592)



61 906 084

confirmed cases

51 770 000 recovered

838 361 death

India

(7-days incidence 67,3)



35 875 790

confirmed cases

34 310 000 recovered

484 213 deaths

Brazil

(7-days incidence 120,2)



22 636 359

confirmed cases

21 630 000 recovered

620 507 deaths

News:

- **WHO:** warned against treating COVID-19 as an endemic disease like the flu. So far, there is still a great deal of uncertainty and a virus that is evolving quite quickly and presenting the world with new challenges. The point at which the virus can be described as endemic has certainly not yet been reached.
- **WHO:** published an [interim statement](#) on COVID-19 vaccines in the context of the circulation of the Omicron SARS-CoV-2 Variant
- **WHO:** published a [technical brief and priority actions](#) for member states to enhance readiness for Omicron (B.1.1.529).
- **CDC:** has adjusted their [recommendation for when people can receive a booster shot](#), shortening the interval from 6 months to 5 months. After the recommendation for recipients of a Pfizer-BioNTech primary series and, after FDA action external icon CDC extends this recommendation to recipients of a Moderna primary series. This means that people who initially received an mRNA vaccine series – two doses of Moderna or Pfizer-BioNTech – can now receive an mRNA booster shot 5 months after completing their initial series.
- **CDC:** Updated their COVID-19 [travel recommendations](#) by destination.
- **WHO/BioNTech:** WHO experts have called for the rapid adaptation of existing corona vaccines to new virus variants. In the long term, the development of new vaccines is also necessary. Meanwhile, BioNTech has already begun production of a corona vaccine adapted to the Omicron variant for later commercial use. A clinical trial of the vaccine will begin at the end of January. The market could be supplied by March, if the official approvals have been obtained. The European Medicines Agency (EMA) has not yet declared whether it considers a vaccine adapted to Omicron with a different composition than the vaccine currently in use to be necessary.

Topics:

- Global situation
- Stringency Index
- European situation
- Vaccination news
- SARS-CoV-2 VOIs and VOCs
- Subject in Focus: Omicron overruns the USA
- Other Infectious Disease Outbreaks

Almost 9 in 10 younger adults with diabetes delayed health care during the pandemic

Maintain diabetes care to prevent serious illness:

Keep routine appointments

Take prescribed medications

Seek care for urgent medical issues

Get a COVID-19 vaccine

bit.ly/MMWR7046a2

COVID-19 vaccines are safe

COVID-19 vaccines reduce risk for infection, serious illness, and death

A study of 11 million people found no increased risk of death among COVID-19 vaccine recipients

Get vaccinated as soon as possible



Data from December 2020 to July 2021

bit.ly/MMWR7043e2



MMWR

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EUROPE



109 639 706

confirmed cases

92 980 000

recovered

1 644 780 deaths

GBR

(7-days incidence 1.642,3)



14 732 598

confirmed cases

12 100 000 recovered

150 609 deaths

France

(7-days incidence 2.957,5)



12 573 263

confirmed cases

9 181 000 recovered

126 059 deaths

Russia

(7-days incidence 77,0)



10 503 101

confirmed cases

9 897 000 recovered

311 281 deaths

Situation by WHO Region, as of 11 January

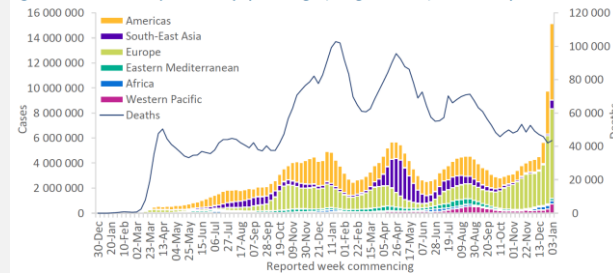
Global epidemiological situation overview; WHO as of 11 January 2022

Globally, the number of new cases increased markedly in the past week (3-9 January 2022), while the number of new deaths remained similar to that of the previous week. Across the six regions, over 15 million new cases were reported this past week, a 55% increase as compared to the previous week and over 43 000 new deaths were reported. As of 9 January, over 304 million confirmed cases and over 5.4 million deaths have been reported. All regions reported an increase in the incidence of weekly cases with the exception of the African Region, which reported an 11% decrease. The South-East Asia region reported the largest increase in new cases last week (418%), followed by the Western Pacific Region (122%), the Eastern Mediterranean Region (86%), the Region of the Americas (78%) and the European Region (31%). New weekly deaths increased in the African Region (84%) and Region of the Americas (26%). The number of new deaths remained similar to that of the previous week in the Western Pacific Region, while a decrease was reported in the Eastern Mediterranean Region (11%), the European Region (10%) and in the South-East Asia Region (6%). The regions reporting the highest weekly case incidence per 100 000 population continue to be the European Region (765.8 new cases per 100 000 population) and the Region of the Americas (597.9 new cases per 100 000 population). Both regions also reported the highest weekly incidence in deaths of 2.2 and 1.4 per 100 000 population, respectively, while <1 new death per 100 000 was reported in all other regions.

The highest numbers of new cases were reported from:

- United States of America (4 610 359 new cases; 73% increase),
- France (1 597 203 new cases; 46% increase),
- United Kingdom (1 217 258 new cases; 10% increase),
- Italy (1 014 358 new cases; 57% increase) and,
- India (638 872 new cases; 524% increase),

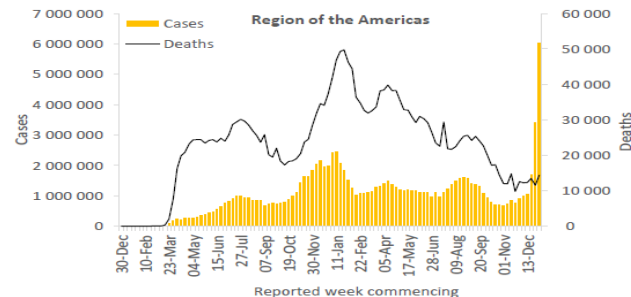
Figure 1. COVID-19 cases reported weekly by WHO Region, and global deaths, as of 9 January 2022**



Region of the Americas

The Region of the Americas has continued to report an increasing trend in weekly cases for over a month, with the highest number of weekly cases (over six million new cases) ever reported this week, a 78% increase as compared to the previous week. The Region also reported over 14 000 new deaths, a 25% increase as compared to the previous week. This increase in weekly cases and deaths is mainly driven by large increases in the United States of America with four additional countries (80%) reporting an increase of 50% or more compared to the previous week.

The highest numbers of new cases were reported from the United States of America (4 610 359 new cases; 1392.8 new cases per 100 000; a 73% increase), Argentina (461 408 new cases; 1020.9 new cases per 100 000; a 101% increase), and Canada (254 299 new cases; 673.8 new cases per 100 000; a 15% increase). The highest numbers of new deaths were reported from the United States of America (11 182 new deaths; 3.4 new deaths per 100 000; a 26% increase), Brazil (766 new deaths; <1 new death per 100 000; a 15% increase), and Mexico (560 new deaths; <1 new death per 100 000; a 28% increase).

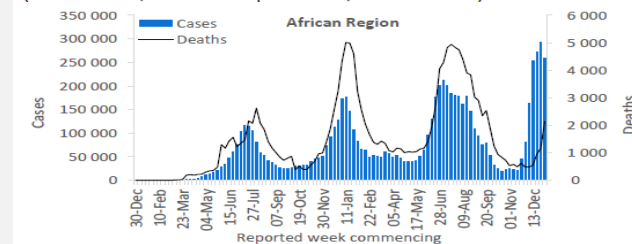


WHO regional overviews Epidemiological week 3 – 9 January 2021

African Region

After showing a continuous increase in weekly cases for six weeks, the African Region reported an 11% decrease in weekly cases as compared to the previous week, with over 260 000 new cases reported this week. This decrease was mainly driven by decreases in new weekly cases reported by Mozambique (17 667 vs 26, 860 new cases) and South Africa (53 433 vs 60 142 new cases). However, one-third of countries (16/49), still reported increases of over 50%. The highest numbers of new cases were reported from South Africa (53 433 new cases; 90.1 new cases per 100 000 population; an 11% decrease), Zambia (23 628 new cases; 128.5 new cases per 100 000; a 10% decrease), and Ethiopia (18 999 new cases; 16.5 new cases per 100 000; a 34% decrease).

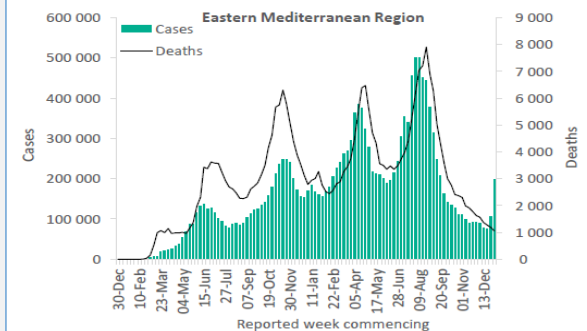
The number of new weekly deaths continues to increase in the Region, with over 2100 new deaths reported this week, an 84% increase as compared to the previous week. This increase is largely due to retrospective reporting of 500 deaths on 6 January, resulting in an increase in weekly deaths of 176%. The highest numbers of new deaths were reported from South Africa (1173 new deaths; two new deaths per 100 000 population; a 176% increase), Zimbabwe (131 new deaths; <1 new death per 100 000; a 1% decrease), and Madagascar (90 new deaths; <1 new death per 100 000; a 190% increase).



Eastern Mediterranean Region

The Eastern Mediterranean Region reported over 200 000 new cases and over 1000 new deaths, an 86% increase and an 11% decrease, respectively as compared to the previous week. This week, 35% of all new cases were reported from two countries including Lebanon (38,112 new cases) and Morocco (31,701 new cases). In the past week, 12 countries in the Region (57%) reported an increase of 50% or greater in the number of new cases, with Kuwait reporting the highest proportional increase in cases (2812 vs 13 197 new cases, a 369% increase). The highest numbers of new cases were reported from Lebanon (38 112 new cases; 558.4 new cases per 100 000; a 90% increase), Morocco (31 701 new cases; 85.9 new cases per 100 000; a 222% increase), and the United Arab Emirates (18 373 new cases; 185.8 new cases per 100 000; a 23% increase). These countries account for almost half (44%) of all new cases in the Region.

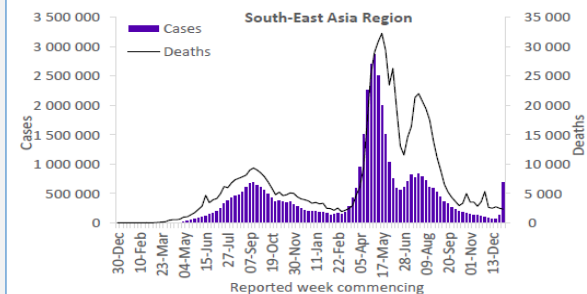
The highest numbers of new deaths were reported from the Islamic Republic of Iran (208 new deaths; <1 new death per 100 000; a 29% decrease), Jordan (172 new deaths; 1.7 new deaths per 100 000; a 28% decrease), and Egypt (170 new deaths; <1 new death per 100 000; a 14% decrease).



South-East Asia Region

During the past week, the South-East Asia Region reported over 699 000 new cases, a 418% increase, an incidence not seen since mid-August 2021. Seven countries (78%) reported large increases, of over 50%, with the highest increases reported from India, Timor-Leste (six vs 17 new cases; a 183% increase) and Bangladesh.). The highest numbers of new cases were reported from India (638 872 new cases; 46.3 new cases per 100 000; a 524% increase), Thailand (39 992 new cases; 57.3 new cases per 100 000; a 104% increase), and Bangladesh (7234 new cases; 4.4 new cases per 100 000; a 125% increase).

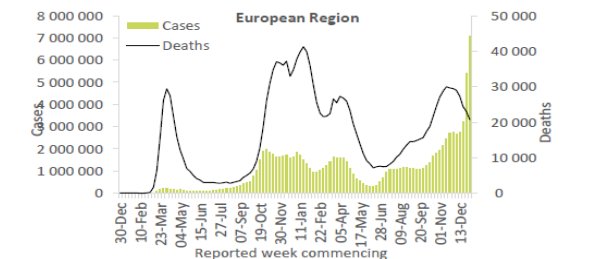
The number of deaths however, declined in the past week with over 2300 new deaths reported, a 6% decrease as compared to the previous week. The highest numbers of new deaths were reported from India (2020 new deaths; <1 new death per 100 000; similar to the previous week's figures), Thailand (105 new deaths; <1 new death per 100 000; a 25% decrease), and Sri Lanka (100 new deaths; <1 new death per 100 000; a 26% decrease).



European Region

The number of new cases continued to increase this week in the European Region with over 7.1 million new cases reported, a 31% increase as compared to the previous week. However, the number of weekly deaths continued to decline with over 20 000 new deaths reported, a 10% decrease as compared to the previous week. In the past week, 27 countries in the Region (44%) reported an increase of 50% or greater in the number of new cases with the highest increases reported from Kosovo^[1] (842 vs 204 new cases, a 313% increase), Greenland (1883 vs 475 new cases, a 296% increase) and Israel (100 353 vs 26 913 new cases, a 273% increase). The highest numbers of new cases were reported from France (1 600 121 new cases; 2460.2 new cases per 100 000; a 46% increase), the United Kingdom (1 217 258 new cases; 1793.1 new cases per 100 000; a 10% increase), and Italy (1 014 358 new cases; 1700.8 new cases per 100 000; a 57% increase).

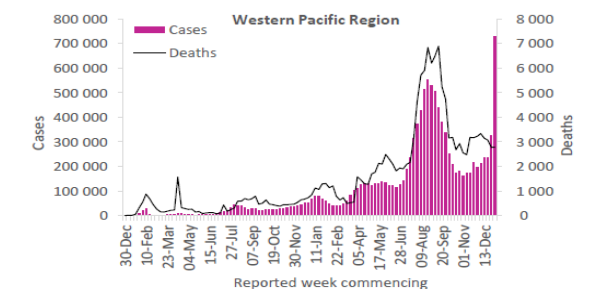
The highest number of new deaths were reported from the Russian Federation (5645 new deaths; 3.9 new deaths per 100 000; a 10% decrease), Poland (2150 new deaths; 5.7 new deaths per 100 000; a 34% decrease), and Germany (1822 new deaths; 2.2 new deaths per 100 000; similar to the previous week's figures).



Western Pacific Region

The number of reported new cases in the Western Pacific Region more than doubled (122%) in the past week with over 732 000 new cases reported. Of the 27 countries in the Region, 10 (37%) reported an increase of over 50% in new cases this week with the highest increases reported from the Philippines, Japan (23 168 vs 2777 new cases, a 734% increase) and Guam (666 vs 92 new cases, a 624% increase). The highest numbers of new cases were reported from Australia (420 079 new cases; 1647.4 new cases per 100 000; a 204% increase), Viet Nam (130 302 new cases; 133.9 new cases per 100 000; a 19% increase), and the Philippines (89 409 new cases; 81.6 new cases per 100 000; an 880% increase).

Just over 2700 new deaths were reported this week, similar to the previous week's figures. The highest numbers of new deaths were reported from Viet Nam (1507 new deaths; 1.5 new deaths per 100 000; a 6% decrease), the Philippines (590 new deaths; <1 new death per 100 000; a 65% increase), and the Republic of Korea (343 new deaths; <1 new death per 100 000; a 24% decrease).



Source: <https://www.tagesschau.de/thema/liveblog/>
<https://www.thenewhumanitarian.org>



Global Situation

Notable Update: Worldwide, there have been over **301 million cases** and approximately **5.5 million deaths** attributed to COVID-19 reported. According to the WHO, from December 27, 2021, to January 2, 2022, the global number of new cases experienced a sharp increase of **71%** (9.5 million new cases), and the global number of new deaths decreased by **10%** (41,000 new deaths), when compared to the previous week. All regions reported an increase in new weekly cases, with the three largest increases being reported by the **Americas region** (100%), **South-East Asia region** (78%), and the **European region** (65%). All regions reported a decrease in the number of new deaths, excluding the African region which reported an increase of 22%.

Based on the BlueDot COVID-19 Data Suite, as of January 6, the top five countries with the highest seven-day rolling average number of daily new cases are the **United States, France, United Kingdom, Italy, and Spain**. The top five countries/territories with the highest seven-day rolling average number of daily new cases per million population are **Aruba, Jersey, Bonaire, Saint Eustatius and Saba, Ireland, and Andorra**.

As of January 6, **Europe** is the continent with the largest proportion of countries (**82%**, or 42 out of 51) with a **high incidence rate** (>350 per 100,000 over the past 14 days) and a stable or increasing trend in daily new cases over the last seven days. **Asia** has the highest proportion of countries (**44%**, or 21 out of 48) with a **low** (<=140) to **moderate** (140.1 - 350) incidence rate and an increasing trend in new cases over the last seven days. **Africa** has the highest proportion of countries (**48%**, or 27 out of 56) reporting a **low incidence rate** (<= 140) with a stable or decreasing trend in new cases.

CDC: has been monitoring the emerging science on when and for how long a person is maximally infectious with Omicron, as well as the effectiveness of COVID-19 vaccines and booster doses against Omicron infection. CDC has updated COVID-19 [isolation and quarantine recommendations](#) with shorter isolation (for asymptomatic and mildly ill people) and quarantine periods of 5 days to focus on the period when a person is most infectious, followed by continued masking for an additional 5 days. With the recommended shorter isolation and quarantine periods, it is critical that people continue to wear well-fitting masks and take additional precautions for 5 days after leaving isolation or quarantine. Isolation ends after 5 full days if fever-free for 24 hours without the use of fever-reducing medication and all other symptoms have improved.

Early warning system for high risk variants : BioNTech has developed an early warning system with the British company InstaDeep for the detection of high-risk variants of the coronavirus. Meanwhile, the Mainz company's sales forecast is causing disappointment. The Mainz vaccine developer BioNTech and the British company InstaDeep have developed a new calculation method with which high-risk variants of SARS-CoV-2 can be predicted. It is a kind of early warning system based on data calculated by artificial intelligence (AI). The highly contagious Omicron variant was classified as a high-risk variant by the system on the first day its sequence became available. The new method combines the structure of the spike protein with AI algorithms to detect potentially dangerous variants of the corona virus as such within less than a day, explained BioNTech. To do this, the system uses information from Covid sequence databases, such as the viral fitness of the virus and its properties for immune evasion.

CHN: In four weeks, the Olympic Winter Games will begin in Beijing under high security precautions. In light of the first local omicron cases in China, the northeastern city of Tianjin has ordered mass tests for the entire population. While the state broadcaster CCTV initially reported two Omikron cases in the city, the state newspaper "Global Times" reported 20 corona infections, but left it open as to whether they were all of the Omikron variant. The tests started on Sunday should be completed within two days.



Country profile: Epidemiological Overview of COVID-19 in Brazil and Omicron's wave

- Disease activity in Brazil reached **all-time low levels** throughout December 2021, with the seven-day rolling average number of daily new cases at **3,102** on December 15, 2021, only comparable to the numbers reported at beginning of the pandemic (April 2020).
- Between April 2020 and today, the **peak** of the seven-day rolling average of daily new cases was on June 22, 2021, when it reached **78,464**. Similarly, the reported number of daily deaths fell to **under 200** on a seven-day rolling average as of December 3, with the rate per 100,000 residents below the United States (U.S.), and the United Kingdom (U.K.). The **peak** of the seven-day rolling average of **daily new deaths** was on July 5, 2021, with **1,572**.
- During a devastating wave of infections between June and September 2021, Latin America's most populous nation was the **epicentre of the global outbreak**, peaking at more than 4,200 fatalities recorded in a single 24-hour period.
- Brazil has the second-highest death toll worldwide from the disease after the U.S., and 10th highest on a per capita basis.
- After being one of the world's worst-hit countries by COVID-19, Brazil **staged a turnaround with a steep drop in cases and deaths due to a massive inoculation campaign** while it also scaled up its ability to manufacture coronavirus shots.
- It is also noteworthy that **Brazil's recent success came despite a chaotic pandemic outset**, where there was no national consensus on restrictive measures, questionable lockdowns, the use of mandatory face masks, and pushing unproven drugs such as hydroxychloroquine while rejecting various offers of vaccines.
- Following a slow start and initial supply shortages, by December 5 more than 60% of **Brazil's 213 million population was fully inoculated, ranking well above the world average of 44%**.
- As of January 10, 2022, according to Our World in Data, **Brazil ranks fourth among the ten most populous vaccinated nations**.
- As of January 10, at least **77.86%** of the population is vaccinated, with **67.57% of the population fully vaccinated and 10.39% partially vaccinated**. The two biggest cities have **record-high rates of vaccinations**. Official data indicates that at least **98% of adults in Sao Paulo** have received at least one dose of a two-dose schema. Similarly in **Rio de Janeiro, 95%** of the total eligible population has been vaccinated (received at least one dose).
- Brazil has been praised for its success across many vaccination programs for more than five decades. Year after year, the country manages to vaccinate 80 million people against influenza in a record six weeks.
- Brazil's success has to do with government research facilities such as Butantan or Fiocruz on the one hand, and a **population that trusts the vaccine on the other**. The opposite scenario has played out in some European countries which had early vaccine availability but struggled with the **population's vaccine hesitancy**.
- However, it is noteworthy that health authorities are raising awareness among the population about the upcoming carnival holidays and considering further cancellations as the Omicron variant is causing a sharp spike in cases in Brazil after a long respite.
- Media reports are raising concerns that **official data is under-representative of the new wave** because the system used by states, municipalities, and private laboratories to report cases to the federal government has been mostly down since a cyber-attack in December 2021.
- For context, some private diagnostics companies have seen positivity rates skyrocket to as much as **40% in January, from less than 5% just a month ago**. The demand for tests is surging, with emergency rooms in cities like Sao Paulo and Brasilia packed with people reporting flu-like symptoms
- A medical academic team, part of the COVID-19 Brazil monitoring group, estimates that the country is **failing to report between 6% to 10% of cases and that only 30% of the population has access to COVID-19 tests**.
- In Rio de Janeiro, there were over 1,200 new cases on January 1, from about 90 a month before.
- On January 5, Brazil reported **27,267 new cases, the highest daily toll in three months**. While it is a fraction of the more than 100,000 it registered at the height of the pandemic in mid-2021, the real numbers are far greater, according to health experts.
- However, despite these findings, many media reports indicate that so far there has not been an onslaught of patients seeking intensive care units like in mid-2021 before vaccines were widely available.

Stringency Index

Source: <https://ourworldindata.org/covid-stringency-index>

The [Oxford Coronavirus Government Response Tracker \(OxCGRT\)](#) project calculate a Stringency Index, a composite measure of nine of the response metrics.¹

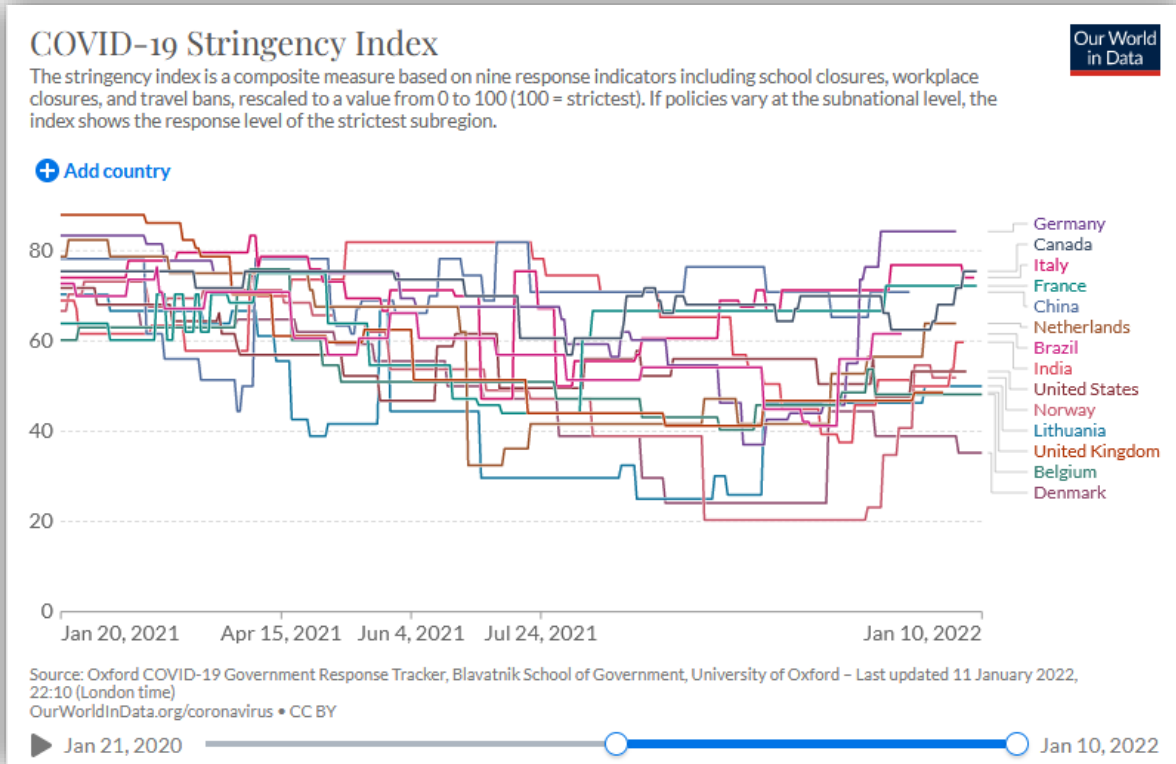
The nine metrics used to calculate the Stringency Index are: school closures; workplace closures; cancellation of public events; restrictions on public gatherings; closures of public transport; stay-at-home requirements; public information campaigns; restrictions on internal movements; and international travel controls.

You can explore changes in these individual metrics across the world in the sections which follow in this article.

The index on any given day is calculated as the mean score of the nine metrics, each taking a value between 0 and 100. See the authors' [full description](#) of how this index is calculated.

A higher score indicates a stricter response (i.e. 100 = strictest response). If policies vary at the subnational level, the index is shown as the response level of the strictest sub-region.

It's important to note that this index simply records the strictness of government policies. It does not measure or imply the appropriateness or effectiveness of a country's response. A higher score does not necessarily mean that a country's response is 'better' than others lower on the index.



Containment and Health Index

The OxCGRT project also calculate a Containment and Health Index, a composite measure of thirteen of the response metrics.

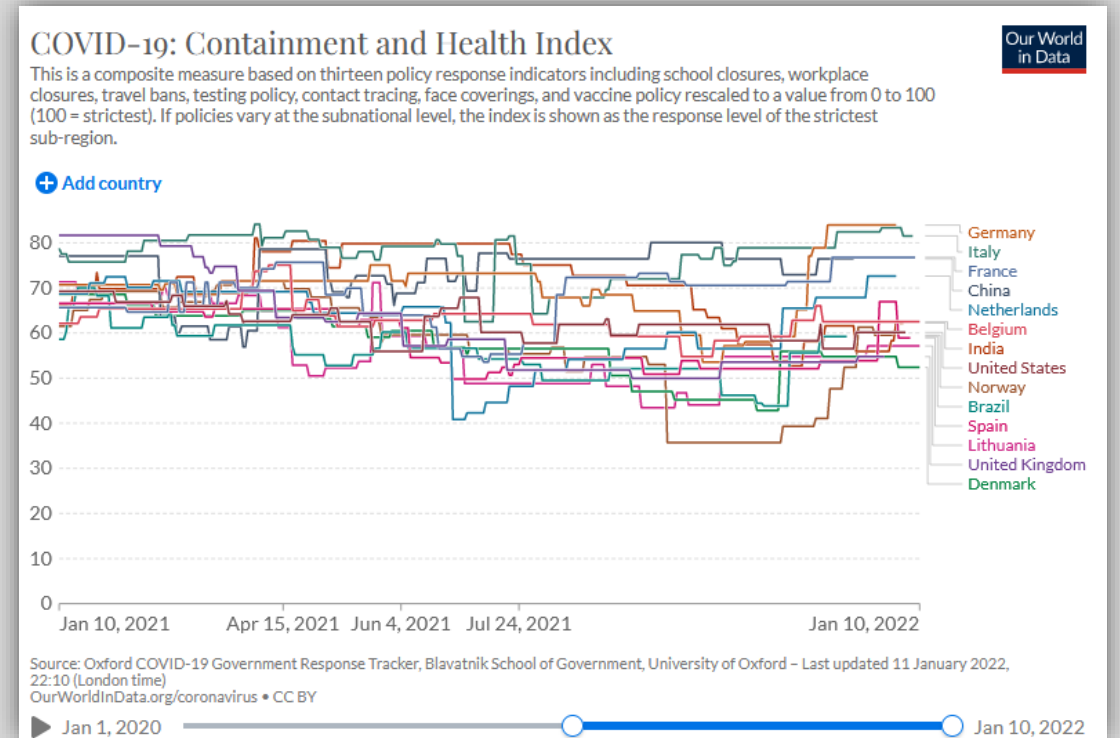
This index builds on the Stringency Index, using its nine indicators *plus* testing policy, the extent of contact tracing, requirements to wear face coverings, and policies around vaccine rollout. It's therefore calculated on the basis of the following thirteen metrics: school closures; workplace closures; cancellation of public events; restrictions on public gatherings; closures of public transport; stay-at-home requirements; public information campaigns; restrictions on internal movements; international travel controls; testing policy; extent of contact tracing; face coverings; and vaccine policy.

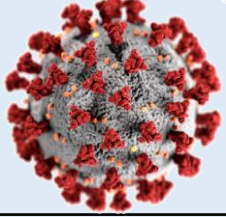
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Vaccination News



A total of 10 countries/territories accounted for **64.8%** of all vaccinations administered globally as of January 6. The top five countries/territories with the highest number of cumulative people fully vaccinated per 100,000 population are **Gibraltar** (118,920), **United Arab Emirates** (91,370), **Portugal** (89,650), **Brunei Darussalam** (87,290), and **Singapore** (87,000). Conversely, the top five countries with the lowest number of cumulative people fully vaccinated per 100,000 population are **Burundi** (30), the **Democratic Republic of the Congo** (130), **Chad** (480), **Haiti** (650), and **Guinea-Bissau** (1,150).

CDC: CDC now [recommends](#) that adolescents age 12 to 17 years old should receive a booster shot 5 months after their initial Pfizer-BioNTech vaccination series. Data show that COVID-19 boosters help broaden and strengthen protection against Omicron and other SARS-CoV-2 variants. ACIP reviewed the available safety data following the administration of over 25 million vaccine doses in adolescents; COVID-19 vaccines are safe and effective. At this time, only the Pfizer-BioNTech COVID-19 vaccine is authorized and recommended for adolescents aged 12-17. For some immunocompromised children aged 5-11 years old, CDC recommends an additional dose of the Pfizer-BioNTech COVID-19 vaccine to complete the primary series – a total of three doses.

ISR: The Israeli Ministry of Health announced that so far 254,000 people have been vaccinated with the fourth dose. According to an expert recommendation, these have so far only been given to people over 60, immunocompromised and medical staff. At the weekly cabinet meeting, Israeli Prime Minister Naftali Bennett spoke of a high willingness to vaccinate among risk groups, "which will prevent a great many serious illnesses and suffering". The number of new corona infections in Israel in the Omicron wave is higher than ever since the beginning of the pandemic. In view of the increasing number of infections, including among medical staff, according to media reports, the Ministry of Health is considering letting doctors and nurses work despite positive corona findings as long as they have no symptoms. The reason is the fear of a nursing emergency due to the isolation of skilled workers.

ITA: In Italy, the compulsory corona vaccination has come into force for people over 50 years of age. The decree passed by the Council of Ministers on Wednesday came into effect today after it appeared in the Official Journal yesterday. However, unvaccinated people still have time before they face consequences. From February 1, there will be a fine of 100 euros for those who have not yet been vaccinated or who have not received their second dose or the booster even though they could. The vaccination is compulsory until June 15th and applies to all people over 50 who are resident in Italy, including foreign nationals. From February 15, new rules will also apply to people over 50 at work. Anyone who has not been vaccinated or has been shown to have recovered from then on, for example, can no longer come to the office. A negative test is sufficient for younger employees. Anyone who appears and is caught, as before, must expect a fine of between 600 and 1500 euros.

USA: In the United States, more and more children under the age of five infected with the coronavirus are hospitalized. The CDC announced that their number has risen to the highest level since the beginning of the pandemic. It is the only group that is not eligible for vaccination because of its young age. Since mid-December, the number of hospital admissions per 100,000 children has risen from 2.5 to 4. In the group of children aged five to 17, the value is around 1.0 per 100,000, according to the CDC data. They are based on information from more than 250 hospitals in 14 US states. CDC director Rochelle Walensky pointed out that more than 50 percent of children aged 12 to 18 and only 16 percent in the group of 5 to year olds are fully vaccinated. It is necessary that more older children and adults get vaccinated to protect their environment, especially those who are too young to be vaccinated, said Walensky. All in all, the rate of hospital admissions among children and adolescents is still lower than in other age groups. On average, they accounted for less than five percent of hospital admissions, calculated the CDC.

Notable Update: Epidemiological Overview of COVID-19 in Israel and Second Boosters

According to the BlueDot COVID-19 Data Suite, disease activity has been **rapidly increasing in Israel since mid-December** and the country is reporting **17,043 new cases as of January 6**. The seven-day rolling average number of daily new cases has **increased nearly 15-fold**, from 596 cases on December 15 to 9,432 cases on January 6. At this point, the seven-day rolling average number of daily new deaths remains low with two deaths on January 6; however, as a lagging indicator, there may be a delay between rising cases and observed deaths. The 14-day test positivity rate as of January 6 was **2.3%** out of 14,372 tests performed per 100,000 people; percent positivity has been **slightly increasing since late November** with consistent testing rates. It should be noted that straining pressures on testing capacities has prompted a change in protocol, as of January 7, PCR tests are prioritized for individuals 60 years and older or are at high-risk, the remaining population will be directed to at-home antigen testing. The number of patients **hospitalized** due to COVID-19 **increased by over 100%** with 413 patients on January 6 compared to 152 near the beginning of the current wave in early December. According to media sources, the majority of the patients in serious conditions are still attributed to the Delta variant. However, the number of patients in serious conditions has increased by **7%** over the last day with 143 patients as of January 7. Daily case changes have surpassed the largest single-day increase observed during the previous Delta wave and the country is reporting approximately **2,582 Omicron cases as of January 6**. Israel will begin administering **fourth doses** of COVID-19 vaccines to a select population (including people 60 years and older, healthcare workers, and the immunocompromised) as a measure to combat the increasing case counts. This decision is based on the outcome of initial boosters reducing the previous wave. Preliminary findings from the Sheba Medical Centre suggest a **five-fold increase in neutralizing antibodies** a week later based on the 150 healthcare workers immunized with a fourth Comirnaty (Pfizer/BioNTech) COVID-19 vaccine four to five months after their third doses. So far, the adverse events recorded are similar to the effects reported after third doses. There are plans to assess the safety and efficacy of a fourth dose of the Spikevax (Moderna) COVID-19 vaccine.

As of January 6, **73.0%** of Israel's population of over nine million has received at least one dose of a COVID-19 vaccine and **65.7%** have received two doses. The country now only recognizes people that have received three doses of a COVID-19 vaccine as fully vaccinated, accounting for **46.4%** of the population.

Source: <https://www.timesofisrael.com/health-ministry-shifts-emphasis-to-home-testing-as-surg-ing-virus-strains-capacity/>
<https://www.washingtonpost.com/world/2022/01/04/israel-fourth-shot-booster/>

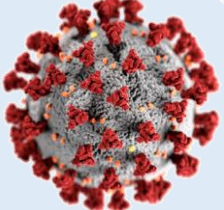
Vaccine effectiveness against infection and/or severe disease due to Omicron ECDC Update:

Preliminary data from [UK](#) and [Denmark](#) show a significantly reduced vaccine effectiveness against symptomatic disease with Omicron VOC compared to Delta VOC, which further rapidly declines few months after dose 2, and by 10 weeks after dose 3. This waning is faster with the Omicron VOC than with the Delta VOC. A booster dose confers a stronger protection against symptomatic disease due to the Omicron VOC compared to two doses of vaccine. Information on the extent and duration of viral shedding from vaccinated individuals infected with Omicron VOC is currently missing or very preliminary.

Due to the limited data on vaccine effectiveness against severe disease caused by Omicron VOC, it is not yet possible to draw conclusions based on real-life data. [Data](#) from South Africa have recently shown a 70% (95% CI: 62-76%) vaccine effectiveness against hospitalisation during the Omicron period compared to the 93% (95% CI: 90-94%) observed in the pre-Omicron period [REF]. A UK [study](#) that examined association between both variant and vaccination status and risk of hospitalisation estimated a vaccine effectiveness against hospitalisation of 88% (78 to 93%) for Omicron after three doses of vaccine.

A recent [preprint](#) has also shown for Comirnaty and Janssen COVID-19 vaccine (that use two different technology platforms) broad cross-reactive cellular immunity against all variants, including Omicron. As cellular immunity is considered important, particularly for the protection against severe COVID-19 disease, the expectation is that vaccine effectiveness against severe disease should be somewhat reduced, but higher and more sustained than the one observed for infection and symptomatic disease due to Omicron. It is important to consider that vaccine effectiveness is a relative measure (risk of hospitalisation due to Omicron VOC among vaccinated individuals compared to the risk among unvaccinated individuals) and should be interpreted in the light of the baseline severity of the Omicron VOC compared to the baseline severity of the previous variants. Preliminary [data](#) are in fact suggesting a two-thirds reduction in hospitalisations with the Omicron VOC compared to the Delta VOC.

Source: <https://www.ecdc.europa.eu/en/news-events/weekly-epidemiological-update-omicron-variant-concern-voc-week-1-data-7-january-2022>



Vaccination News

	WHO Emergency Use Listing (EUL) Qualified Vaccines*							Vaccines without WHO EUL*		
	AstraZeneca-Vaxzevria/SII - Covishield	Beijing CNBG-BBIBP-CoV	Bharat-Covaxi	Janssen-Ad26.COV 2.S	Moderna-mRNA-1273	Pfizer BioNTech-Comirnaty	Sinovac-CoronaVac	Anhui ZL-Recombinant	Gamaleya-Sputnik V	Novavax-Covavax
Alpha^{39,40}										
Summary of VE*	Protection retained against all outcomes									
- Severe disease	↔ ₂	-	-	-	↔ ₂	↔ ₆	-	-	-	-
- Symptomatic disease	↔to↓ ₅	-	-	-	↔ ₁	↔ ₄	-	-	-	↓ ₁
- Infection	↔to↓ ₄	-	-	-	↔ ₃	↔ ₃	-	-	-	-
Neutralization	↔to↓ ₉	↔ ₁	↔ ₂	↔ ₅	↔to↓ ₅	↔to↓ ₈	↔to↓ ₈	↔ ₂	↔to↓ ₃	↓ ₂
Beta⁴¹⁻⁴⁴										
Summary of VE*	Protection retained against severe disease; reduced protection against symptomatic disease; limited evidence									
- Severe disease	-	-	-	↔ ₁	↔ ₁	↔ ₃	-	-	-	-
- Symptomatic disease	↔to↓ ₂	-	-	↔ ₁	↔ ₁	↔ ₂	-	-	-	↓↓↓ ₁
- Infection	-	-	-	-	↔ ₁	↓ ₁	-	-	-	-
Neutralization	↓to↓ ₁₁	↓ ₃	↓ ₂	↓to↓ ₉	↓to↓ ₈	↓to↓ ₇	↓to↓ ₇	↔to↓ ₃	↓to↓ ₄	↓↓to↓ ₂
Gamma										
Summary of VE*	Unclear impact; very limited evidence									
- Severe disease	↔ ₁	-	-	-	↔ ₁	↔ ₂	-	-	-	-
- Symptomatic disease	↔ ₁	-	-	-	↔ ₁	↔ ₁	-	-	-	-
- Infection	↔ ₁	-	-	-	↔ ₁	↔ ₁	↔ ₁	-	-	-
Neutralization	↔to↓ ₄	-	-	↔to↓ ₅	↓ ₀	↔to↓ ₈	↓ ₅	↔ ₁	↓ ₁	↓ ₁
Delta⁴⁵										
Summary of VE*	Protection retained against severe disease; possible reduced protection against symptomatic disease and infection									
- Severe disease	↔ ₃	-	-	↓ ₁	↔ ₃	↔ ₆	-	-	-	-
- Symptomatic disease	↔to↓ ₆	-	↓ ₁	-	↔ ₂	↔to↓ ₅	-	-	-	-
- Infection	↔to↓ ₄	-	-	↓↓↓ ₁	↔ ₃	↔to↓ ₃	-	-	-	-
Neutralization	↓ ₃	↓ ₂	↔to↓ ₃	↔to↓ ₉	↔to↓ ₁₁	↔to↓ ₉	↓to↓ ₈	↔to↓ ₂	↓to↓ ₃	↓ ₁
Omicron										
Summary of VE*	Reduced protection against infection and symptomatic disease; possible reduced protection against severe disease; limited evidence									
- Severe disease	-	-	-	-	-	↓↓↓ ₁	-	-	-	-
- Symptomatic disease	↓↓↓ ₁	-	-	-	↓↓↓ ₁	↓↓↓ ₁	-	-	-	-
- Infection	-	-	-	-	↓↓↓ ₁	↓↓↓ ₂	-	-	-	-
Neutralization	↓↓↓ ₃	-	-	↓↓↓ ₁	↓↓↓ ₂	↓↓↓ ₂₀	↓ ₁	-	↓↓↓ ₁	↓↓↓ ₁

VE refers to vaccine effectiveness and vaccine efficacy. *Summary of VE: indicates the general conclusions but only for the vaccines evaluated against the specific variant. Arrows generalize the magnitude of reduction in VE or neutralization: "↔" <10% reduction in VE, or VE >90% with no comparator, or that there was a <2-fold reduction in neutralization; "↓" 10 to <20% reduction in VE, or 2 to <5-fold reduction in neutralization; "↓↓" 20 to <30% reduction in VE, or 5 to <10-fold reduction in neutralization; "↓↓↓" ≥30% reduction in VE, or ≥10-fold reduction in neutralization. When more than one neutralization study is available, the interquartile range (25th and 75th percentiles) of fold-reductions across all studies for specific vaccine/variant was used. "Moderna-mRNA-1273/Pfizer BioNTech-Comirnaty" indicates that both vaccines were evaluated together in study. The number of studies is shown as subscripts: vaccine effectiveness and neutralization studies informing this table can be found on the [VIEW-hub Resources Library](#). References indicated by superscripts next to VOC name in column 1 are vaccine efficacy results from randomized controlled trials informing this table.

European Situation on Vaccination

Source: <https://gap.ecdc.europa.eu/public/extensions/COVID-19/vaccine-tracker.html#uptake-tab>

Total doses distributed to EU/EEA countries

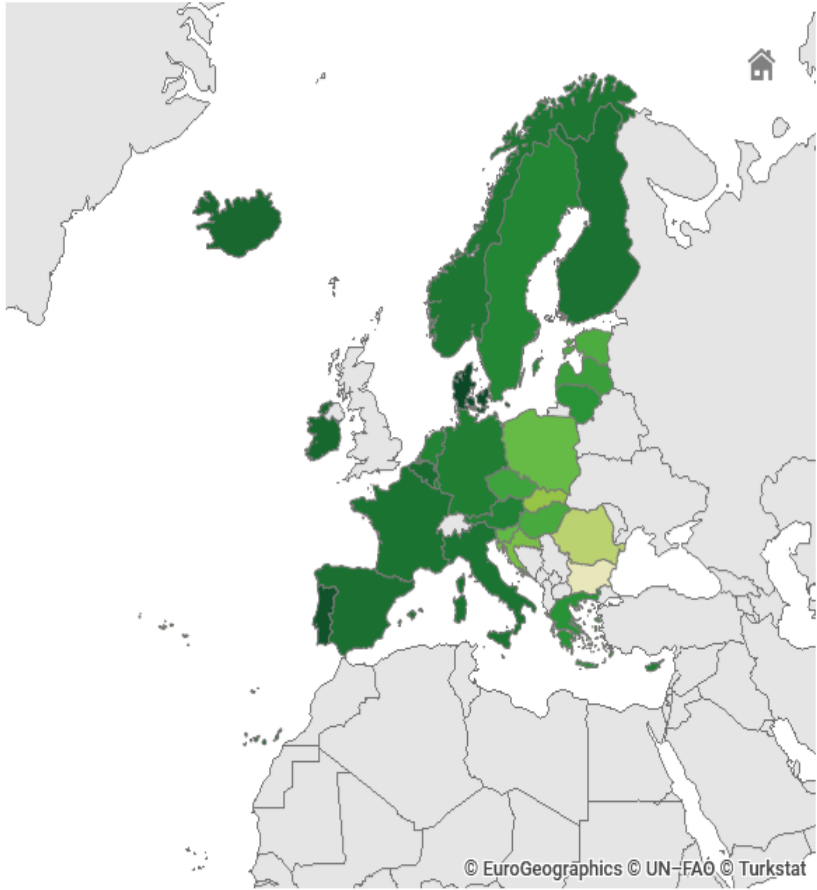
977,791,976

771,421,466

Indicator: Uptake full vaccination

Country: All EU/EEA countries

Cumulative uptake (%) of full vaccination in the total population in EU/EEA countries as of 2022-01-12



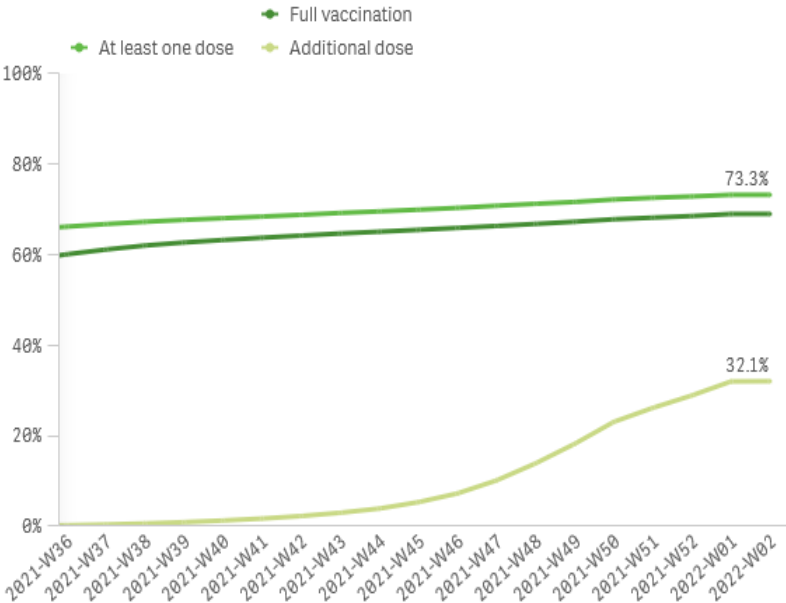
Uptake full vaccination (%)



Cumulative uptake of at least one dose in the total population in EU/EEA	Cumulative uptake of full vaccination in the total population in EU/EEA
73.3%	69.0%

Cumulative vaccine uptake (%) in the total population in EU/EEA countries as of 2022-01-12

by reporting week (data for the current week are preliminary)



Uptake (%) of additional vaccine dose is based on 30 countries

Cumulative uptake (%) of full vaccination by age group in EU/EEA countries as of 2022-01-12

Country	60+ years	50-59 years	25-49 years	18-24 years	<18 years
Austria	91.1%	81.2%	74.4%	71.7%	25.1%
Belgium	94.0%	91.1%	84.3%	81.8%	29.5%
Bulgaria	36.3%	37.3%	31.1%	25.9%	1.6%
Croatia	76.2%	68.4%	56.0%	42.3%	3.6%
Cyprus	93.9%	87.2%	82.9%	68.2%	14.9%
Czechia	85.3%	77.4%	64.3%	67.0%	16.6%
Denmark	99.5%	93.9%	84.5%	81.6%	32.9%
Estonia	75.3%	73.1%	66.3%	68.6%	17.2%
Finland	95.2%	87.7%	81.2%	75.6%	26.6%
France	90.4%	88.2%	83.1%	84.5%	24.5%
Germany	-	-	-	-	-
Greece	84.7%	80.3%	72.4%	66.8%	14.4%
Hungary	81.3%	74.6%	64.1%	51.5%	19.4%
Iceland	100.0%	92.3%	87.0%	85.6%	26.8%
Ireland	100.0%	99.3%	88.5%	85.7%	25.3%
Italy	90.1%	84.1%	77.5%	82.6%	24.6%
Latvia	73.3%	76.0%	73.8%	75.9%	17.6%
Liechtenstein	-	-	-	-	-
Lithuania	77.8%	77.9%	78.1%	73.2%	14.3%
Luxembourg	90.4%	85.5%	75.9%	70.5%	25.6%
Malta	99.1%	88.4%	92.3%	84.3%	26.9%
Netherlands	-	-	-	-	21.0%
Norway	98.9%	94.5%	84.5%	83.1%	9.8%
Poland	75.8%	67.0%	58.6%	53.6%	15.1%
Portugal	100.0%	94.1%	88.2%	86.2%	30.2%
Romania	45.7%	55.5%	48.6%	47.7%	6.5%
Slovakia	70.1%	59.8%	50.8%	49.7%	8.3%
Slovenia	83.1%	69.1%	55.8%	57.1%	9.6%
Spain	98.2%	89.8%	77.3%	72.6%	27.0%
Sweden	93.8%	89.6%	79.6%	73.7%	11.6%

SARS-CoV-2 Variant of Concern: Omicron in the EU/EEA

Source: <https://www.ecdc.europa.eu/en/news-events/weekly-epidemiological-update-omicron-variant-concern-voc-week-1-data-7-january-2022>
<https://www.ecdc.europa.eu/en/news-events/ecdc-updates-guidance-regarding-quarantine-and-isolation-considering-spread-of-omicron>

Disease severity related to Omicron

The current limited and preliminary evidence suggests that Omicron has a less severe clinical presentation. However, it is still premature to make a complete assessment of Omicron's severity, and more research and data, including from the EU/EEA countries, are required in order to fully determine the effect and to assess if it applies to all population groups, considering differences in vaccination coverage and population composition.

Recently [published](#) but not peer-reviewed data from Gauteng Province in South Africa show that despite recording a higher number of SARS-CoV-2 cases during the Omicron wave, hospital admission rates were lower (4.9%) than in the previous waves (Beta 18.9%, Delta 13.7%). Likewise, fewer patients had severe disease during the Omicron wave (28.8%) than the Beta (60.1%) and Delta (66.8%) waves. The median length of hospital stay was with 4 days (IQR 2-6) also shorter in the most recent wave than in the Beta and Delta waves (7 days (IQR 4-11) and 8 days (IQR 4-14), respectively). Omicron hospitalised patients were 73% less likely to be severely ill than patients admitted during the preceding waves (aOR 0.27, 95% CI 0.25-0.31). However, it is important to consider that 73% of the adult population in Gauteng Province was already infected before the Omicron dominance.

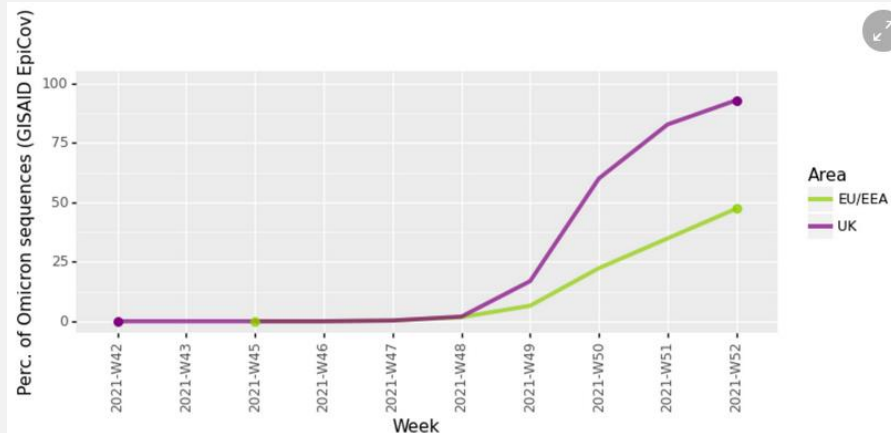
The UK Health Security Agency shared a [report](#) estimating that Omicron infected individuals have 50% lower risk to visit or to be admitted to the hospital than people with infection due to Delta variant (hazard ratio 0.53, 95% CI 0.50-0.57). They also found a 65% lower hospitalisation risk for Omicron cases who had received 2 doses of a vaccine and 81% reduction with 3 doses, compared to unvaccinated Omicron cases.

Another [study](#) from Scotland used the national data of individuals with symptomatic Omicron infection and identified a reduced hospitalisation risk compared to Delta cases, while the rate of possible reinfection for Omicron was 10 times that of Delta. Vaccinated individuals with the third/booster dose had a 57% (95% CI 55-60) lower risk to experience symptoms following Omicron infection.

A recent Canadian [report](#) confirmed low hospital admission rates (0.3%) and case fatality (<0.1%) for Omicron cases. Shorter median length of hospital stay and reduced need for respiratory support than the previous variants were also reported in another [publication](#) (not peer-review) from Texas.

It usually takes several weeks for the accumulation of clinical outcomes to conclude on the impact of a specific variant in hospital admissions, intensive care need and deaths. It is important to highlight that prior immunity from natural infection and/or vaccination and improved treatment options will contribute to less severe outcomes from subsequent infection. The true risk of severe infection may be underestimated by the large

numbers of vaccinated or previously infected people, which was not the case in the beginning of preceding waves. It is also essential to account for the relatively young age of most people who have been infected with Omicron so far, and thus far there is little data on the severity among older age-groups and people with underlying risk factors.



Therefore, early results may not represent the entire Omicron wave and the clinical profile of Omicron may change with upcoming evidence. Importantly, the combination of higher growth rate and immune evasion indicate that any potential advantage Omicron may have in terms of decreased severity, could be countered by increased community infection rates leading to substantially additional burden for the hospitals, while primary care may be overburdened even more than during previous waves. As more evidence accumulates, a better assessment of clinical outcomes and long-term consequences, such as post-COVID-19 condition will be feasible.

Overall level of risk and options for response

Based on the current situation and the available evidence, ECDC's Rapid Risk Assessment 18th Update on the impact of Omicron remains valid: the overall level of risk to public health associated with the further emergence and spread of the SARS-CoV-2 Omicron VOC in the EU/EEA is assessed as **VERY HIGH**.

Over the coming weeks, the very high growth advantage of Omicron is expected to result in even higher overall case notification rates. Such high levels of SARS-CoV-2 transmission may lead to high levels of absence from work including among healthcare and other essential workers and are likely to overwhelm the testing and contact tracing capacities in many EU Member States. The sheer volume of COVID-19 cases anticipated to occur are expected to place considerable strain on healthcare systems and society. Please see the ECDC's [Rapid Risk Assessment](#) for epidemiological forecasts and options for response (non-pharmaceutical interventions, health system strengthening, vaccination, testing and contact tracing, and risk communication). ECDC will publish updates on the epidemiological situation, severity, spread, and vaccine effectiveness in short intervals. Awaiting further evidence becoming available, an urgent and strong action is needed to reduce transmission, keep the burden on healthcare systems manageable, and protect the most vulnerable in the coming months. Member States should urgently assess their acceptable levels of residual risks, current healthcare system capacities, and available risk management options (e.g. contingency and business continuity measures, surveillance and testing strategy, quarantine and isolation policy, etc.). Strengthening of non-pharmaceutical interventions is necessary to reduce ongoing Delta VOC and Omicron VOC transmission and keep the COVID-19-related disease burden manageable. These measures include avoiding large public or private gatherings, extended use of face masks, reduced contacts between groups of individuals in social or work settings, teleworking, and reduced inter-household mixing. Vaccination remains a key component of the multi-layered approach needed to address the ongoing circulation and reduce the impact of the Delta and Omicron VOCs. Efforts should continue to increase full vaccination uptake in individuals who are currently unvaccinated or partially vaccinated and accelerate the roll-out of booster doses. Member States are strongly encouraged to conduct and share findings on outbreak investigations and epidemiological studies to inform future risk assessments.

Action needed to continue addressing the pandemic

Urgent and strong action is needed to reduce transmission, to keep the burden on healthcare systems manageable, and to protect the most vulnerable in the coming months.

Vaccination remains key to address the ongoing circulation of the virus and to reduce the impact of the Delta and Omicron VOCs. Efforts to increase full vaccination uptake in individuals who are currently unvaccinated or partially vaccinated should continue, as well as the acceleration of the roll-out of booster doses.

Non-pharmaceutical interventions such as avoiding large public or private gatherings, extended use of face masks, reduced contacts between groups of individuals in social or work settings, working from home and reduced inter-household mixing need to be strengthened and sustained.

Member States should also urgently assess their acceptable levels of residual risks, current healthcare system capacities, and available risk management options (e.g. contingency and business continuity measures, surveillance and testing strategy, and quarantine and isolation policy, amongst others).

SARS-CoV-2 Variant of Concern:



Delta VOC (WHO Update 11 January 2022)

Several additional studies have assessed the effectiveness of COVID-19 vaccines against the Delta variant. A retrospective cohort study (not yet peer reviewed) conducted among a cohort of healthcare worker in South Africa during a period when the Delta variant was the dominant variant found the Janssen-Ad26.COVS vaccine to be 67% (62 to 71%) and 82% (74 to 89%) effective at preventing hospitalization and death, respectively, over a median follow-up time of 3.6 months. Another retrospective study among adults in Scotland, the United Kingdom, during a Delta dominant period found the AstraZeneca-Vaxzevria vaccine to be 83.7% (79.7 to 87.0%) effective at preventing hospitalization or death 14-27 days after receipt of second dose, with VE decreasing to 53.6% (48.4 to 58.3%) approximately five months after.

Five new studies assessed the ability of a booster dose of mRNA vaccines to prevent infection and disease due to the Delta variant. A retrospective cohort study from Singapore (not yet peer reviewed) found an increased vaccine effectiveness of three doses of Pfizer BioNTech-Comirnaty and Moderna-mRNA-1273 *relative to two doses* of each vaccine during a period when Delta was dominant. The VE of three versus two doses of Pfizer BioNTech-Comirnaty against infection, symptomatic disease, and severe disease was 73% (71 to 74%), 72% (71 to 74%), and 95% (92 to 97%), respectively. A booster dose of Moderna-mRNA-1273 after Pfizer BioNTech-Comirnaty primary series resulted in higher VE estimates for infection (82%), symptomatic disease (82%) and severe disease (92%) compared to receiving a booster of Pfizer BioNTech-Comirnaty. The VE of three compared to two doses of Moderna-mRNA-1273 against infection and symptomatic disease was 86% (81 to 90%) and 85% (79 to 89%), with no estimate available for severe disease. The maximum potential follow-up time from receipt of booster dose for this study was six weeks.

To date many studies have provided evidence of high VE against the Delta variant, especially against severe disease due to Delta, with VE decreasing over time among vaccinated people. These recent studies provide further evidence that booster vaccination may improve VE against Delta, although more data are needed to fully assess the duration of protection.

WHO Technical brief

Enhancing Readiness for Omicron (B.1.1.529): Technical Brief and Priority Actions for Member States

On 26 November 2021, WHO designated the variant B.1.1.529 a variant of concern (VOC) (1), following advice from the WHO's Technical Advisory Group on Virus Evolution. The variant was given the name Omicron. Omicron is a highly divergent variant with a high number of mutations, including 26-32 mutations in the spike protein, some of which were likely to be associated with humoral immune escape potential and higher transmissibility.

The overall risk related to Omicron remains very high for a number of reasons. First, the global risk of COVID-19 remains very high overall. Second, current data indicate that Omicron has a significant growth advantage over Delta, leading to rapid spread in the community. The rapid increase in cases will lead to an increase in hospitalizations, may pose overwhelming demands on health care systems and lead to significant morbidity, particularly in vulnerable populations.

The overall threat posed by Omicron largely depends on four key questions: (i) how transmissible the variant is; (ii) how well vaccines and prior infection protect against infection, transmission, clinical disease and death; (iii) how virulent the variant is compared to other variants; and (iv) how populations understand these dynamics, perceive risk and follow control measures, including public health and social measures (PHSM). This global risk assessment, and public health advice, are based on the currently best available evidence and will be updated frequently as more information becomes available in relation to these key questions.

To view previous versions of this technical brief, please see the links below. The current version of all WHO information products and publications is authoritative.

Summary of phenotypic impacts* of variants of concern

WHO label	Alpha	Beta	Gamma	Delta	Omicron
Transmissibility	Increased transmissibility ¹²	Increased transmissibility ^{13,14}	Increased transmissibility ^{14,15}	Increased transmissibility ^{14,16,17}	Increased transmissibility ¹⁻⁴
Disease severity	Possible increased risk of hospitalization ^{15,19} , possible increased risk of severe disease and death ^{20,21}	Possible increased risk of hospitalization ¹⁹ , possible increased in-hospital mortality ²²	Possible increased risk of hospitalization ¹⁹ , possible increased risk of severe disease ²³	Possible increased risk of hospitalization ^{24,25}	Possible reduced risk of hospitalization and severe disease ⁵⁻⁸
Risk of reinfection	Neutralizing activity retained ²⁶ , risk of reinfection remains similar ²⁷	Reduction in neutralizing activity reported; T cell response elicited by D614G virus remains effective ²⁸	Moderate reduction in neutralizing activity reported ²⁹	Reduction in neutralizing activity reported ³⁰⁻³²	Increased risk of reinfection ^{11,33}
Impacts on diagnostics	Limited impact – S gene target failure (SGTF), no impact on overall result from multiple target RT-PCR; No impact on Ag RDTs observed ³⁴	No impact on RT-PCR or Ag RDTs observed ³²	None reported to date	No impact on RT-PCR or Ag RDTs observed ³⁵	PCR continues to detect Omicron. Impact on Ag-RDTs is under investigation: Results are mixed as to whether or not there may be decreased sensitivity to detect Omicron. ^{1,8,36-38}

*Generalized findings as compared to previously/co-circulating variants. Based on emerging evidence, including non-peer-reviewed preprint articles and reports, all subject to ongoing investigation and revision.

New Variant (B.1.640.2) Detected in France

Initial Interpretation: This new variant is **unlikely** to cause major disruption, or to become a new Variant of Concern. We will continue to monitor the event and notify you if our assessment changes.

A new COVID-19 variant (B.1.640.2) was detected in France in early December 2021. The variant was detected in a sample collected in mid-November from a traveller who had previously been vaccinated against COVID-19 and had returned to France from Cameroon. Two days after returning to France, the traveller began experiencing mild respiratory symptoms and tested positive for the SARS-CoV-2 virus. Since then, at least 11 other people in the same region, (Forcalquier, in the southern French region of Alpes-de-Haute-Provence) have tested positive for the B.1.640.2 variant.

Despite being first detected in early December 2021, cases of the B.1.640.2 variant have yet to be detected anywhere outside of the southern Alps region of France. Due to the limited information currently available regarding the B.1.640.2 variant, and the limited number of cases detected so far, there is **little evidence** to suggest that this new variant is more transmissible, more likely to cause severe outcomes, or is more capable of evading existing immune protection than previous COVID-19 strains. To date, the WHO has yet to deem the B.1.640.2 variant as either a variant of concern, variant of interest, or even a variant under investigation. Despite the variant being first detected in a traveller from Cameroon, it also remains **unknown where the variant first emerged** as it did not necessarily emerge in the Central African country. Unfortunately, many African countries continue to have low vaccination rates against COVID-19, which may drive the spread and the emergence of new coronavirus mutations.

According to a preprint study, the new variant has been named the "IHU variant" because it was first reported by a team from the Méditerranée Infection University Hospital Institute (IHU) in Marseilles, France. The B.1.640.2 variant has **46 mutations and 37 deletions** in its genome, with several of these mutations affecting the spike protein, including the N501Y and E484K mutations. The N501Y mutation was detected in the Alpha variant and was associated with stronger binding to human cells and spread more easily in the human body. The E484K mutation has been detected in Beta and Gamma variant spike proteins and could reduce the effectiveness of COVID-19 vaccines. The parent lineage (B.1.640) has been identified in France in April 2021, in Indonesia in August 2021, in the Republic of the Congo in September 2021 and was also involved in a cluster of cases in Brittany, France in mid-October 2021.

Subject in Focus

Omicron overruns the USA

Chaos grips the U.S. as Omicron cases soar. Yet vaccinations are sputtering along, and more children are being hospitalized.

On a weekly average, 3.5 million people in the US catch the coronavirus, reports John Hopkins University. And the trend is rising. The rapidly spreading Omicron variant in the Corona pandemic is pushing the US healthcare system to its capacity limits.

After the new record of over one million newly infected people on Monday (with the actual number likely to be far higher because six states have not reported their infection numbers), government experts predict up to 2.5 million new infections in the next few weeks - every 24 hours.

A solid supply in the clinics can then no longer be guaranteed, even if the Omicron variant triggers according to the preliminary state of science so far mainly mild patient courses, it is said from government circles. 116,000 Americans are currently hospitalized for Corona; a third more than last week - and the trend is rising every day. The previous highest level in intensive care units was around 137,000 in mid-January 2021.

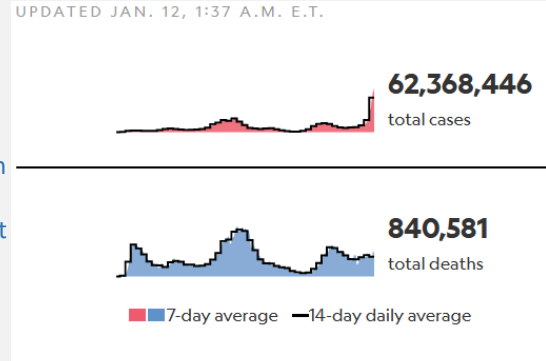
Concern for rural areas

Cases are rising sharply in every state in the country, but more than 40 states have experienced a triple-digit rise in cases compared with two weeks ago. The worst outbreaks are largely in the eastern third of the country, with Rhode Island, New York, and New Jersey leading the country with cases per capita. Washington, D.C., has the highest rate of hospitalization. The surge is largely due to the rapid spread of the wildly infectious Omicron variant. Within just a month, Omicron went from causing less than one percent of new COVID-19 cases to almost 95 percent; Delta accounts for the remaining 5 percent.

The biggest problem child in the first quarter of this year will be the southeastern United States, epidemiologists say. Republican-dominated seeds such as Florida, Georgia, Louisiana and Mississippi, which traditionally have low vaccination rates and are politically active against precautions such as mask-wearing, are already reporting the steep rise in hospital admissions.

Experts expect catastrophic conditions in rural areas with poor hospital care in the coming weeks. Doctors in New York regularly warn that the system is on the verge of collapse because growing numbers of patients are meeting a physically and psychologically exhausted workforce of doctors and nurses.

In intensive care units, doctors and nurses have long been working above the limit. Since the beginning of the pandemic, the healthcare sector has lost nearly 20 percent of its workforce nationwide. Tens of thousands of doctors and nurses suffer from burn-out or are considering quitting the job, which, despite goggles, masks and gloves, involves enormous risks to their own health.



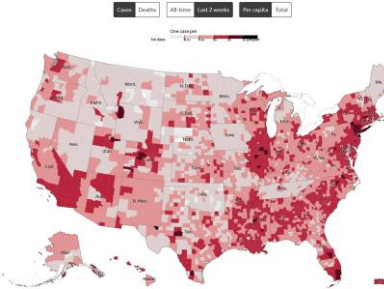
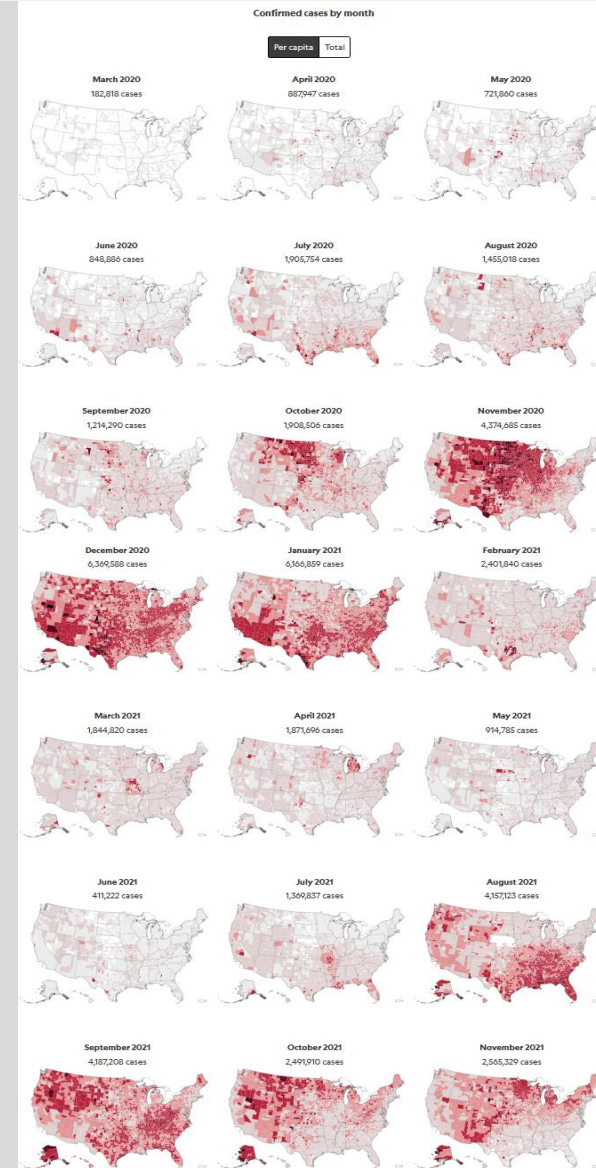
And it is only just the beginning of the next wave. Even as studies from South Africa, the United Kingdom, and Canada suggest that Omicron causes less severe illness than the Delta variant. But Anthony Fauci, director of the National Institute of Allergy and Infectious Diseases said, at a White House press conference last Wednesday “we should not be complacent,” Overall the cases may be less severe, but because the sheer volume of cases is so large, Fauci said, a significant proportion will be severe.

The tsunami of cases has caused widespread chaos, as more sick people lead to school closures, cancelled flights, overwhelmed hospitals, reduced public transport, lower numbers of police officers and firefighters, and shuttered businesses. To help prevent the country from shutting down, the Centers for Disease Control and Prevention made the controversial move of updating their guidance on isolation and quarantine, stating that infected individuals only need to self-isolate for five days rather than 10 because the vast majority of viral transmission happens in those first five days.

But even with concerns about Omicron, the number of fully vaccinated Americans is stalled at 62 percent, and rates have remained relatively constant with about a million new people receiving a jab each day for the past two weeks. That means 40 million Americans who are eligible for a vaccine still have not received a shot.

As of January 5 only 25 percent of children between the ages of 5 and 11 had received at least one dose of a COVID-19 vaccine, with vaccination rates varying widely across states. And as Omicron spreads, more children are being hospitalized. The outlook is better for older kids, but many teens are still vulnerable because only 53 percent of those between 12 and 17 are fully vaccinated. The good news is that this week the CDC authorized booster shots for adolescents ages 12 to 15 five months after full vaccination.

<https://www.nationalgeographic.com/science/graphics/graphic-tracking-coronavirus-infections-us>



Other Infectious Disease Outbreaks / Human Disasters



Lassa fever

Nigeria - A medical doctor working with the World Health Organization (WHO) in Makurdi, Benue State has reportedly died from Lassa fever. Another medical doctor remains in isolation and is receiving prophylaxis. In addition, there are reports that two other individuals have also passed away due to the disease, however, the State's Commissioner of Health and Human Resources only confirmed the death of the WHO doctor. There is a history of Lassa fever cases documented in the same residence (compound) as the deceased doctor from December 2021, indicating a likely risk of exposure through the reservoir rat species. Of the two additional reported deaths, one allegedly ate a rat. Officials are asking anyone who had contact with the deceased doctor or who have a fever to seek medical attention and residents are urged to avoid close contact with rats. The state government is working towards organizing a workshop on Lassa fever to create more awareness around the disease and measures by which individuals can avoid exposure to rats and their excrement in and around their homes

Source: NewsMedia - <https://tribuneonline.com/doctor-dies-of-lassa-fever-in-benue/>

Dengue

Pakistan - Cases of dengue fever and related deaths continue to be reported in Pakistan since the beginning of 2022 and are associated with the 2021 outbreak season. Dengue fever is endemic in Pakistan, however, there were upward trends in disease incidence over the past 2 years with more than 50,000 cases reported throughout 2021. According to the WHO, the most notable recent outbreak in Pakistan was reported between September and December 2019 with 53,498 cases and 95 deaths. Throughout 2021 the provinces with the highest incidence include Punjab, Khyber Pakhtunkhwa, Sindh, Balochistan, and the federally administered Islamabad Capital Territory (ICT), and Azad Jammu and Kashmir autonomous territories (AJK), Pakistan. As of 25 November, Punjab province reported the highest incidence accounting for 49.4% and 69.4% of all cases and deaths, respectively. The deaths were mainly reported from Lahore district. Additional information indicates that there was circulation of the four different serotypes (DENV-1, DENV-2, DENV-3, DENV-4) in various parts of the country. The population is at risk of re-infection and therefore, serious complications if not treated promptly and appropriately. There are concerns that with the ongoing COVID-19 pandemic and competing communicable disease outbreaks, there is a high risk of serious health impacts from dengue fever. This outbreak highlights the need for improved vector surveillance, enhanced laboratory capacity for better case detection, and improved surveillance of acute febrile illness in Pakistan to better define disease burden and seasonality patterns.

Indonesia - Cases of dengue fever continue to be reported in Indonesia since the beginning of 2022 and are associated with the 2021 outbreak season. Media reports indicate that health authorities in Sampang Regency (Indonesian: Kabupaten) within East Java province are warning the population to protect themselves against mosquito bites and eliminate breeding sites as the peak of the rainy season approaches in February. Similar to other regions, in Sampang Regency, cases of dengue fever fluctuate from one year to another, official information indicates that in 2019, there were 152 cases, while it increased in 2020 to 229 cases, and slightly decreased in 2021 to 208 cases.

Bangladesh: Cases of dengue fever have been reported in Bangladesh since the beginning of 2022 and are believed to be associated with the 2021 outbreak season. According to officially available information, there were over 26,000 cases recorded and more than 100 deaths attributed to dengue fever in the country in 2021. A large upward trend in cases occurred between July and October 2021, which is aligned with the country's dengue season which typically takes place during the rainy months from June to September. To date, the country recorded the highest number of dengue fever infections in 2019 with more than 100,000 cases.

Source: NewsMedia – <http://outbreaknewstoday.com/pakistan-punjab-accounts-for-about-half-of-all-dengue-cases-87986/>
<https://surabaya.kompas.com/read/2022/01/06/195148178/belum-genap-sepekan-di-awal-tahun-6-kasus-dbd-ditemukan-di-sampang>
<https://www.jagonews24.com/national/news/729399>

Vaccine-derived Poliomyelitis

Spain - A media report indicates that an imported case of circulating vaccine-derived poliovirus type 2 (cVDPV2) has been detected in the region of Murcia, southwestern Spain. According to available information, the affected is a child who arrived in Murcia from Senegal at the beginning of August 2021 is under 6 years old. The child had been hospitalized in Senegal for Acute Flaccid Paralysis (AFP) of unknown etiology in early July 2021, but was later discharged due to clinical improvement. The case was further investigated in September 2021 by the health authorities of Murcia as part of a systematic monthly search for AFP patients. The case's immunization record showed four doses of oral polio vaccine and one dose of inactivated polio vaccine (IPV) received during the first year of life. The case was reported to the WHO Regional Office for Europe and the focal point in Senegal, and reported through the European Union's early warning and response system and was classified as an event without proof of transmission in Spain. Senegal has an ongoing cVDPV2 outbreak. According to the GPEI, the recent outbreak of cVDPV2 detected in Senegal is linked to ongoing transmission in other regions of West Africa. The WHO European Region was declared polio-free in 2002. Given the current circulation of wild poliovirus type 1 and cVDPV2 around the world, as well as the continued use of live attenuated vaccines in some countries, there is a risk of introduction of wild polioviruses or vaccine-derived polioviruses into countries previously declared polio-free. Given the high standards of sanitation and hygiene, high immunization coverage and high level of polio immunity, as well as prompt response capacities to polio-related events, the risk of transmission of poliovirus in the WHO European Region is estimated to be low. However, this event is a reminder that early detection of cases as well as the maintenance of good vaccination coverage is essential (in Spain, vaccination coverage at the national level is above 95%) to maintain a polio-free status, and also highlights the risks of importation events.

Source: NewMedia - <https://www.mesvaccins.net/web/news/18636-un-cas-importe-de-paralysie-flasque-aigue-a-poliovirus-circulant-derive-d-une-souche-vaccinale-de-type-2-a-ete-rapporte-en-espagne>

Malaria

Ukraine – The first imported case of malaria in 2022 has been confirmed in the city of Kharkiv, in northeast Ukraine. A media report indicates that the affected individual recently arrived from the Republic of the Congo, and the case was detected during a medical examination. Local malaria transmission in Ukraine has not been registered since 1956, however, every year imported cases are confirmed mainly from countries in Africa, Asia, South, and North America. There is no evidence that known competent Aedes mosquito vectors (such as A. aegypti and A. albopictus) are present in Ukraine. However, the competence of other Aedes species that are present, such as A. cretinus on the Black Sea coast, is not well understood and cannot be ruled out. Given the continuing importation of malaria, epidemiological surveillance of all cases and ruling out the presence of autochthonous cases remains important to prevent local spread.

Source: ProMed - <https://promedmail.org/promed-post/?id=8418981>

Influenza

Europe - [Week 52/2021 \(27 December 2021 – 02 Januar 2022\)](#)

- Influenza activity continued to increase throughout the European Region
- Albania, Israel, North Macedonia, Norway, Russian Federation and Sweden reported widespread influenza activity and/or medium influenza intensity.
- 23% of all sentinel primary care specimens from patients presenting with ILI or ARI symptoms tested positive for influenza virus, with a predominance of A(H3) viruses.
- Six countries reported seasonal influenza activity above the 10% positivity threshold in sentinel primary care: Armenia (78%), Israel (68%), Sweden (36%), France (33%) Republic of Moldova (24%) and Albania (18%).
- Hospitalized cases with confirmed influenza virus infection were reported from intensive care units (29 type A viruses and 1 type B) and SARI surveillance (18 type A viruses).
- Both influenza type A and type B viruses were detected with A(H3) viruses being dominant across all monitoring systems.

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](#)
- Status of “[COVID-19 Vaccines within WHO](#) EUL/PQ evaluation process” and the “Draft landscape and tracker of [COVID-19 candidate vaccines](#)”
- Weekly [Epidemiological and operational updates](#)
- COVID-19 new variants: [Knowledge gaps and research](#)
- COVID-19 [Dashboard](#)
- [Vaccines explained](#)
- Tracking [SARS-CoV-2 variants](#)
- Science in 5: [WHO’s series on science and COVID-19](#)
- [Quick links](#)

CDC:

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

References:

- European Centre for Disease Prevention and Control www.ecdc.europa.eu
- World Health Organization WHO; www.who.int
- Centres for Disease Control and Prevention CDC; www.cdc.gov
- European Commission; 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/>