Force Health Protection Branch NATO MilMed COE Munich



Update 102 COVID-19 Coronavirus Disease 09 February 2022



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<u>GLOBAL</u> ۲ 01 270 128

401 270 128 Confirmed cases 346 800 000 recovered 5 767 492 deaths

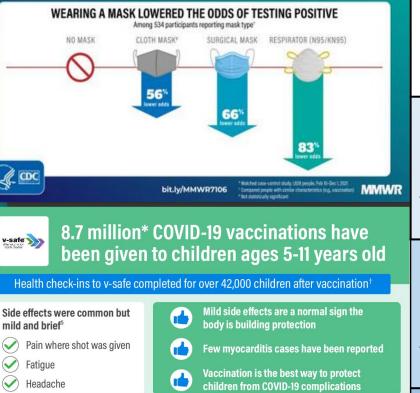
USA (7-days incidence 528,5) ۲6 526 166 confirmed cases 69 390 000 recovered 904 455 death

India (7-days incidence 63,9) لا 42 410 976 confirmed cases 38 780 000 recovered 505 279 deaths

Brazil (7-days incidence 547,1) ی 26 793 497 confirmed cases 23 370 000 recovered 634 118 deaths

- News: WHO: WHO chief Tedros Adhanom Ghebreyesus was approved as the nominee for another term at the annual Executive Board meeting in Geneva at the end of January. Tedros called for a more sustainable funding model for the persistently underfunded organisation - which primarily relies on assessed fees of member states based on their income and population size. Voluntary contributions from private institutions or governments top that up, but are earmarked for certain projects, limiting its flexibility. The WHO faced a significant drop in US funding under the Trump administration. It's still unclear if that will be reversed under Biden. EU: announced The Commonwealth Secretariat and WHO: signed a Memorandum of Understanding (MoU) committing to strengthening their collaboration on a broad range of public health issues of particular concern to Commonwealth member states and governments, such as the response to the COVID-19 pandemic, vaccine equity, advancing universal health coverage, and building resilient health systems. WHO/FRA: The Government of France and WHO today announced a new €50 million contribution agreement that will help countries' health systems overcome bottlenecks in the COVID-19 response and speed up equitable access to testing, treatments and vaccines. WHO/FIFA: FIFA is working with WHO to encourage football fans, world leaders and policymakers to #ACTogether to end the COVID-19 pandemic, with a special campaign running throughout the FIFA Club World Cup 2021[™] in Abu Dhabi. ECDC: publishes 'Considerations for the use of face masks in the community in the context of the SARS-CoV-2 Omicron variant of concern', a document which updates and complements 'Using face masks in the community: first update - Effectiveness in reducing transmission of COVID-19'. CDC: In response to the COVID-19 pandemic, CDC launched the National Wastewater Surveillance System (NWSS) in September 2020. CDC developed NWSS to coordinate and build the nation's capacity to track the presence of SARS-CoV-2, the virus that causes COVID-19, in wastewater samples collected across the country. **CDC**: published a study on the effectiveness of face mask or respirator use in indoor public settings for prevention of SARS-CoV-2 infection. Topics: Global situation European situation/Vaccination News **European Situation on Vaccination** SARS-CoV-2 VOIs and VOCs Subject in Focus: The Use and Benefits of face masks Other Infectious Disease Outbreaks
 - Summary of information on the individual national Corona restrictions
- Travel Recommendations and other Useful Links
- Risk Assessment of NATO-/EU- Missions screened by EpiNATO-2

People who reported always wearing a mask in indoor public settings were less likely to test positive for COVID-19 than people who didn't*



* As of December 19 2021

[†] V-safe, a voluntary smartphone vaccine safety monitoring system ⁵ After the 2nd dose, about 2/3 children had a local reaction such as arm pain; 1/3 had a reaction beyond the injection site

bit.lv/MMWR705152a1

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CDC

125 100 000 recovered 1 737 335 deaths France (7-days incidence 2 209,5) الا 21 039 639 confirmed cases 16 640 000 recovered 133 614 deaths

GBR

(7-days incidence 759,3)

17 932 807

EUROPE

152 048 396

confirmed cases

confirmed cases 15 730 000 recovered 158 677 deaths <u>Russia</u>

MMWR

(7-days incidence 784,9) 7 **12 946 888** confirmed cases 10 680 000 recovered 329 951 deaths

Situation by WHO Region, as of 08 February

Global epidemiological situation overview; WHO as of 08 February 2022

Globally, during the week of 31 January to 6 February 2022, the number of new COVID-19 cases decreased by 17% as compared to the number reported during the previous week, while the number of new deaths increased by 7% (figure 1). Across the six WHO regions, over 19 million new cases and just under 68 000 new deaths were reported. As of 6 February 2022, over 392 million confirmed cases and over 5.7 million deaths have been reported globally.

At the regional level, the Eastern Mediterranean Region reported an increase of 36% in the number of new weekly cases while all other regions reported decreases: The Region of the Americas (36%), the South-East Asia Region (32%), the African Region (22%), the Western Pacific Region (8%) and the European Region (7%). The number of new weekly deaths continued to increase in the South-East Asia (67%) and Eastern Mediterranean Regions (45%), while the number remained similar to that of the previous week in the Region of the Americas and the European Region and decreased in the African (14%) and Western Pacific Regions (5%).

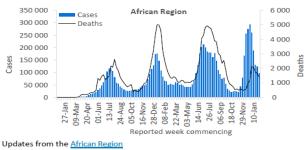
The highest numbers of new cases were reported from:

- United States of America (1 874 006 new cases; 50% decrease)
- France (1 738 189 new cases; 26% decrease),
- Germany (1 285 375 new cases; 22% increase),
- Brazil (1 241 025 new cases; similar to previous week) and,
- India (1 095 616 new cases; 41% decrease),

WHO regional overviews Epidemiological week 31 January – 6 February 2022** African Region

The African Region reported over 98 000 new cases, a 22% decrease as compared to the previous week. This follows the declining trend observed since early January 2022. Despite this, two countries still reported increases in new cases of over 20%; Comoros (101 vs 34 new cases, a 197% increase) and Guinea (250 vs 155 new cases; a 61% increase). The highest numbers of new cases were reported from Réunion (45 474 new cases; 5079.1 new cases per 100 000 population; similar to the previous week's figures), South Africa (20 580 new cases; 34.7 new cases per 100 000; a 7% decrease) and Algeria (8288 new cases; 18.9 new cases per 100 000; a 44% decrease).

This week, over 1400 new deaths were reported in the Region, corresponding to a 14% decrease as compared to the previous week. The highest numbers of new deaths were reported from South Africa (912 new deaths; 1.5 new deaths per 100 000 population; an 8% increase), Algeria (85 new deaths; <1 new death per 100 000; a 15% increase) and Uganda (34 new deaths; <1 new death per 100 000; a 31% decrease).



Source: https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---8-february-2022

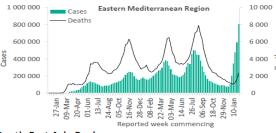
deaths; 4.3 new deaths per 100 000; a 15% decrease), e deaths; 4.3 new deaths per 100 000; a 39% increase) and M deaths; 2.2 new deaths per 100 000; a 39% increase) and M deaths; 2.3 new deaths per 100 000; a 48% increase).



Eastern Mediterranean Region

The number of new weekly cases has continued to increase in the Eastern Mediterranean Region this week, with over 808 000 new cases reported, a 36% increase as compared to the previous week. Increasing numbers of new cases have been reported in the Region since the end of December 2021. This week, nine countries reported increases of 20% or greater, with the highest relative increases reported from the Islamic Republic of Iran, Afghanistan (4046 vs 2118 new cases; a 91% increase) and Jordan. The highest numbers of new cases were reported from the Islamic Republic of Iran (221 654 new cases; 263.9 new cases per 100 000; a 188% increase), Jordan (116 993 new cases; 1146.6 new cases per 100 000; an 85% increase) and the occupied Palestinian territory (58 046 new cases; 1137.8 new cases per 100 000; a 75% increase).

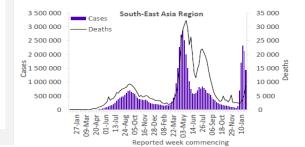
Over 2300 new deaths were reported in the Region this week, corresponding to a 45% increase as compared to the previous week. The highest numbers of new deaths were reported from Tunisia (383 new deaths; 3.2 new deaths per 100 000; a 39% increase), the Islamic Republic of Iran (365 new deaths; <1 new death per 100 000; a 105% increase) and Egypt (311 new deaths; <1 new death per 100 000; a 32% increase).



South-East Asia Region

The South-East Asia Region reported a marked decline of 32% in new cases in the past week, with over 1.4 million new cases reported. However, half of the countries in the Region (5/10) still reported increases in new cases of 20% or greater, with the countries reporting the highest proportional increase including: Timor-Leste (466 vs 69 new cases; a 575% increase), Indonesia and Myanmar (2647 vs 1183 new cases; a 124% increase). The highest numbers of new cases were reported from India (1 095 616 new cases; 79.4 new cases per 100 000; a 41% decrease), Indonesia (173 295 new cases; 63.4 new cases per 100 000; a 205% increase), and Bangladesh (76 200 new cases; 46.3 new cases per 100 000; a 24% decrease).

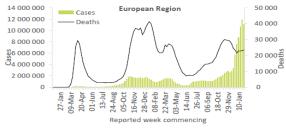
Conversely, the Region reported a 67% increase in the number of newly reported deaths as compared to the previous week, with over 8700 new deaths reported. This is largely due to reporting of back-dated deaths in India. The highest numbers of new deaths were reported from India (7888 new deaths; <1 new death per 100 000; a 202% increase), Indonesia (251 new deaths; <1 new death per 100 000; a 202% increase). and Bangladesh (226 new deaths; <1 new death per 100 000; a 61% increase).



European Region

Following an increase in the incidence of weekly cases since mid-December 2021, the European Region reported over 11.1 million new cases this week, a 7% decrease as compared to the previous week. However, eleven countries reported an increase in new cases of 20% or greater in the past week. Those reporting the highest relative increase were Belarus (30 475 vs 13 698 new cases; a 122% increase), Azerbaijan (39 839 vs 19 307 new cases; a 106% increase) and the Russian Federation. The highest numbers of new cases were reported from France (1 738 189 new cases; 2672.5 new cases per 100 000; a 26% decrease), Germany (1 285 375 new cases; 1545.5 new cases; 735.3 new cases per 100 000; a 71% increase).

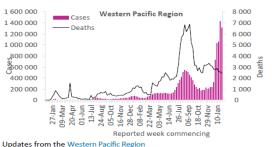
Over 23 000 new deaths were reported, in the Region, similar to the previous week's number. The highest numbers of new deaths were reported from the Russian Federation (4686 new deaths; 3.2 new deaths per 100 000; similar to the previous week), Italy (2628 new deaths; 4.4 new deaths per 100 000; similar to the previous week), and France (1867 new deaths; 2.9 new deaths per 100 000; similar to the previous week's figures).

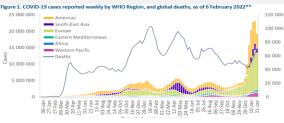


Updates from the <u>European Region</u> Western Pacific Region

Following an increase in the number new cases last week, the Western Pacific Region reported over 1.3 million new cases, an 8% decrease as compared to the previous week. However, nearly half (13/28; 46%) of the countries in the Region reported increases in new cases of 20% of greater with the highest increases reported from Kiribati (1206 vs 142 new cases; a 749% increase), Brunei Darussalam (1059 vs 261 new cases; a 306% increase) and the Solomon Islands (1892 vs 609 new cases; a 211% increase). The highest numbers of new cases were reported from Japan (623 128 new cases; 492.7 new cases per 100 000; a 34% increase), Australia (215 234 new cases; 844.1 new cases; 353.1 new cases pr 100 000; a 91% increase).

The number of new deaths also declined in the Region with over 2400 new deaths reported, a 5% decrease as compared to the previous week. The highest numbers of new deaths were reported from Viet Nam (714 new deaths; <1 new death per 100 000; a 25% decrease), Australia (528 new deaths; 2.1 new deaths per 100 000; a 7% decrease), and Japan (528 new deaths; <1 new death per 100 000; a 121% increase).





Region of the Americas

The Region of the Americas reported over 4.4 million new cases, a 36% decrease as compared to the previous week, a trend that has continued since mid-January. However, eight countries reported increases in new cases of 20% or greater, with the highest proportional increases reported from the Dominica (968 vs 515 new cases; an 88% increase) and Honduras (5674 vs 3438 new cases; a 65% increase). The highest numbers of new cases were reported from the United States of America (1 874 006 new cases; 566.2 new cases per 100 000; a 50% decrease), Brazil (1 241 025 new cases; 583.8 new cases per 100 000; similar to the previous week's figures) and Argentina (283 743 new cases; 627.8 new cases per 100 000; a 51% decrease).

This week the number of new deaths remained similar to that of last week with over 29 000 new deaths reported in the Region. The highest numbers of new deaths were reported from the United States of America (14 090 new deaths; 4.3 new deaths per 100 000; a 15% decrease), Brazil (4610 new deaths; 2.2 new deaths per 100 000; a 39% increase) and Mexico (2910 new deaths; 2.3 new deaths per 100 000; a 48% increase).

Global Situation



Essential health services face continued disruption during COVID-19 pandemic

Two years into the pandemic, health systems are still facing significant challenges in providing essential health services. Ongoing disruptions have been reported in over 90% of countries surveyed in the third round of WHO's Global pulse survey on continuity of essential health services during the COVID-19 pandemic.

Countries reported disruptions across services for all major health areas including sexual, reproductive, maternal, newborn, child and adolescent health, immunization, nutrition, cancer care, mental, neurological and substance use disorders, HIV, hepatitis, TB, malaria, neglected tropical diseases and care for older people. Additionally, even as COVID-19 vaccination has scaled up, increased disruptions were reported in routine immunization services.

Findings from this latest survey, conducted at the end of 2021, suggest that health systems in all regions and in countries of all income levels continue to be severely impacted, with little to no improvement since early 2021, when the previous survey was conducted.

Disruption continues in all health-care settings

Countries reported disruptions in all health-care settings. In more than half of countries surveyed, many people are still unable to access care at the primary care and community care levels. Significant disruptions have also been reported in emergency care, particularly concerning given the impact on people with urgent health needs. Thirty-six per cent of countries reported disruptions to ambulance services; 32% to 24-hour emergency room services; and 23% to emergency surgeries.

Elective surgeries have also been disrupted in 59% of countries, which can have accumulating consequences on health and well-being as the pandemic continues. Disruptions to rehabilitative care and palliative care were also reported in around half of the countries surveyed.

Major barriers to health service recovery include pre-existing health systems issues which have been exacerbated by the pandemic as well as decreased demand for care.

Bottlenecks to scaling up COVID-19 tools

While countries continue to face challenges to maintain essential health services, 92% of countries also reported critical bottlenecks to scaling up access to essential COVID-19 tools, including COVID-19 diagnostics, therapeutics, vaccines and personal protective equipment (PPE).

The survey highlighted health workforce issues as the biggest barriers to access to COVID-19 tools, likely caused by health workers facing exhaustion, being infected with COVID-19 or leaving the workforce. Health workforce challenges were reported by 56% of countries for diagnostics and testing; 64% for COVID-19 therapeutics and treatments, and 36% for PPE distribution and use. Demandside challenges, such as lack of community acceptance, access and affordability, are the most frequently reported bottlenecks for COVID-19 vaccination. Fifty-eight per cent of countries reported demand-side challenges as a main bottleneck to COVID-19 vaccine access and 35% reported health workforce challenges.

Other obstacles include lack of funding; supply and equipment shortages; and lack of data, information, strategies and guidance. Plans for recovery underway

All countries surveyed are, however, adopting strategies to overcome disruptions and recover services. These include strengthening health workforce training and capacities, providing home-based or telehealth services, procuring essential medicines and health products, implementing risk communications and community engagement strategies and implementing health financing strategies. They are also looking forward towards longer-term health service resilience, with half of countries surveyed having developed a health service recovery plan to prepare for future health emergencies and 70% of countries having allocated additional government funding to recovery efforts around health workforce capacity strengthening; access to medicines and other health products; digital health; facility infrastructure, and information and misinformation management.

Even moderate disruptions to essential health services lead to negative consequences on health and well-being. The results of this survey highlight the importance of urgent action to address major health system challenges, recover services and mitigate the impact of the COVID-19 pandemic. WHO will continue to support countries to address priority health system needs to transition towards recovery, end the acute phase of the COVID-19 pandemic and prepare for future health emergencies.

ACT-Accelerator calls for fair share-based financing of US\$ 23 billion to end pandemic as global emergency in 2022

World leaders will today (Feb 9) launch a call to end the pandemic as a global emergency in 2022 by funding the Access to COVID-19 Tools (ACT) Accelerator, a partnership of leading agencies that is providing low and middle-income countries with tests, treatments, vaccines, and personal protective equipment.

With a significant proportion of the global population still unable to get vaccinated, tested or treated, US\$ 16 billion in grant funding is urgently required from governments to fund the work of the ACT-Accelerator agencies. This investment will allow them to procure essential tools to fight COVID-19 and provide them to low- and middle-income countries.

The ACT-Accelerator is calling for the support of higher income countries, at a time when vast global disparities in access to COVID-19 tools persist. Over 4.7 billion COVID-19 tests have been administered globally since the beginning of the pandemic. However, only about 22 million tests have been administered in low-income countries, comprising only 0.4% of the global total. Only 10% of people in low-income countries have received at least one vaccine dose. This massive inequity not only costs lives, it also hurts economies and risks the emergence of new, more dangerous variants that could rob current tools of their effectiveness and set even highlyvaccinated populations back many months.

The ACT-Accelerator Facilitation Council's Finance and Resource Mobilization Working Group, comprised of countries across income groups and chaired by Norway, has agreed a new financing framework to help overcome this inequity. The framework sets out guidance on the 'fair share' of financing that richer countries should each contribute to the ACT-Accelerator's global response. 'Fair shares' are calculated based on the size of their national economy and what they would gain from a faster recovery of the global economy and trade.

Supporting the rollout of tools to fight COVID-19 globally will help to curb virus transmission, break the cycle of variants, relieve overburdened health workers and systems, and save lives. With every month of delay, the global economy stands to lose almost four times the investment the ACT-Accelerator needs.

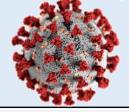
Closing the US\$ 16 billion gap facing the ACT-Accelerator will enable the partnership to:

- in-country rollouts to get vaccines into arms, create a Pandemic Vaccine Pool of 600 million doses, support community engagement and cover ancillary costs for donations - contributing to countries' national vaccination objectives towards the global target of 70% coverage in all countries by mid-2022.
- Purchase 700 million tests of the total 988 million targeted in the overall ACT-Accelerator budget and expand sequencing capacity, enabling countries to direct public health measures, deliver more effective 'test & treat' strategies, and track how the virus evolves.
- Procure treatments for 120 million patients, as well as 433 million cubic metres of oxygen, including 100% of the oxygen needs of • low-income countries.
- Protect 1.7 million health workers with PPE – of the total 2.7 million targeted in the overall ACT-Accelerator budget – as well as budget and monitor ongoing needs in real-time to help identify and address bottlenecks facing rollouts of products. Support clinical trials for treatments and vaccines, to help address variants of concern and initiate the development of broadly protective coronavirus vaccines.

The Government of France was the first who announced a new €50 million contribution agreement to the ACT Accelerator today.

Pacific islands: Pacific nations that had largely kept COVID-19 at bay are imposing lockdowns and declaring emergencies as the virus reaches remote countries with limited health systems. Solomon Islands recorded hundreds of cases through January, and its first deaths last week. Kiribati has announced a state of disaster as cases rise, and Samoa has also declared a national emergency, warning that the "day dreaded by authorities for COVID-19 to invade Samoa is here". Another Pacific nation, Tonga, is desperately trying to maintain its COVID-free status in the aftermath of the violent volcanic eruption that blanketed parts of the island nation in ash - jeopardising water and food sources. Tonga has asked for international help, but aid must be "contactless" and even cargo goes through a 72-hour quarantine.

See full report here.



European Situation

Vaccination News



ECDC COVID-19 country overviews report Week 02, as of 03 February 2022

At the end of week 4 2022 (week ending Sunday, 30 January), the overall epidemiological situation in the EU/EEA was characterised by a very high overall case notification rate that has increased rapidly in the past six weeks and an elevated but stable death rate. Case notification rates were highest among age groups under 50 years old. Rates among older age groups have also been increasing but appear to have stabilised over recent weeks. Case notification rates and death rates are both forecast to increase over the next two weeks. **An epidemiological situation of high or very high concern was observed in 27 EU/EEA Member States**.

The Omicron variant of concern is now dominant in most EU/EEA countries. Case notification rates were currently lower, albeit with an increasing trend, in eastern parts of the EU/EEA where the Omicron variant was introduced later. A decreasing trend in case rates is observed in some southern countries and in Finland. The rapidly changing and diverse testing strategies currently adopted by EU/EEA countries should be considered when interpreting case notification rates and test positivity.

The overall COVID-19 case notification rate for the EU/EEA was 3 605 per 100 000 population (3 251 the previous week). This rate has been increasing for six weeks. The 14-day COVID-19 death rate (48.2 deaths per million population, compared with 50.4 deaths the previous week) has been stable for 10 weeks.

Of 29 countries with data on hospital or ICU admissions or occupancy up to week 4, 17 reported an increasing trend in at least one of these indicators compared to the previous week. ECDC's assessment of each country's epidemiological situation is based on a composite score based on the absolute value and trend of five weekly COVID-19 epidemiological indicators. 13 countries (Belgium, Bulgaria, Croatia, Czechia, Denmark, Estonia, France, Hungary, Iceland, Latvia, Portugal, Romania and Slovenia) were categorised as of **very high concern**, 14 countries (Austria, Germany, Greece, Ireland, Italy, Liechtenstein, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Slovakia and Sweden) as of **high concern** and three countries (Cyprus, Finland and Spain) as of **moderate concern**. Compared with the previous week, five countries (Czechia, Denmark, Hungary, Iceland and Malta) moved to a higher category, five countries (Finland, Norway, Slovakia, Spain and Sweden) moved to a lower category and 20 countries stayed in the same category.

Forecasts of cases and deaths from the European COVID-19 Forecast Hub provide predictions for weeks 5 and 6. Compared with the current week, increasing trends in cases and increasing trends in deaths are forecast in the EU/EEA by the end of week 6.

By the end of week 4, the cumulative uptake of the primary course of COVID-19 vaccination in the EU/EEA was 81.7% (country range: 34.5–94.6%) among adults aged 18 years and older and 70.4% (country range: 28.9–84.4%) in the total population. The cumulative uptake of a booster/additional dose was 54.8% (country range: 9.6–82.6%) among adults aged 18 years and older and 45.2% (country range: 7.9–65.3%) in the total population. The estimated distribution (median and range of values from 22 countries for weeks 2 to 3, 10 January to 23 January 2022) of variants of concern (VOC) was 92.6% (33.3–99.9%) for B.1.1.529 (Omicron), 5.5% (0.0–65.2%) for

B.1.617.2 (Delta) and 0.0% (0.0–0.0%) for B.1.351 (Beta).

In the same period, B.1.1.529 (Omicron) was the dominant variant (accounting for >50% of sequenced viruses) in 19 of the 22 EU/EEA countries with adequate sequencing volume. A description of trends in aggregate detections and of the epidemiology of 268 835 reported Omicron cases is available in the <u>virus variants</u> <u>summary</u> and <u>variants</u> sections.

Weekly COVID-19 epidemiological category by country, week 42 2021 to week 42 2022
 Composite score (1-10) based on value and tend of five indicators. Categories are derived from score epidelies.
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A total of 10 countries account for **64%** of all vaccinations administered globally as of February 3. The top five countries/territories with the highest number of cumulative people fully vaccinated per 100,000 population are **Gibraltar** (120,870), **United Arab Emirates** (93,350), **Brunei Darussalam** (91,360), **Portugal** (90,540), and **Chile** (88,200). Conversely, the top five countries with the lowest number of cumulative people fully vaccinated per 100,000 population are **Burundi** (50), the **Democratic Republic of Congo** (230), **Haiti** (690), **Chad** (800), and **Yemen** (1,130).

<u>COVID-19 vaccines for adolescents offer a very high level of protection against infection, symptomatic disease, and severe disease</u>

As of 30 January 2022, 70.9% of adolescents aged 15-17 years and 34.8% of 10-14 year-olds completed the primary course of COVID-19 vaccination, though with a broad range across EU/EEA countries. More than half of adolescents aged 10 to 17 in the EU/EEA have not yet completed a primary course.

The data is revealed in the ECDC report COVID-19 vaccine effectiveness in adolescents aged 12-17 years and interim public health considerations for administration of a booster dose, released on 8 of February 2022.

While the risk of hospitalisation, ICU admission and death remain very low for 12-17 year-olds, the number of cases in this age group have been among the highest of any age group in the EU/EEA. Furthermore, symptomatic cases among 12-17 year-olds have increased steadily since July 2021, largely mirroring the increased reporting rate observed in all age groups during the Delta and Omicron waves. However, a decrease in notification rates has been observed in recent weeks.

There is limited evidence available of waning of immunity following vaccination among adolescents. The available data suggest a waning of vaccine effectiveness against symptomatic infection 5-6 months following completion of the primary vaccination course, however, no evidence of waning of immunity against severe disease is currently available.

Regarding the booster dose in adolescents, preliminary data on vaccine effectiveness suggest an increase in protection against documented SARS-CoV-2 infection compared to the primary vaccination course. However, there is currently no information on the duration of protection, and data on the benefit-risk of a booster dose in this age group should be carefully reviewed as they become available.

When considering the administration of booster doses to adolescents, other aspects that should be factored in are the epidemiological situation, the priorities and objectives of national COVID-19 vaccination campaigns, the status of the roll-out of the COVID-19 vaccine, and additional doses in priority groups and in the general population. Vaccination equity across all groups in the population should also be ensured so that no vulnerable group is left behind.

The anticipated impact of booster doses is expected to be the highest if priority groups, who account for the highest burden of COVID-19 in the population, are protected first and with high coverage. Reaching a very high coverage of booster doses in groups at high risk of severe COVID-19 should remain the public health priority before focusing on boosting the immunity of other groups at low risk of severe COVID-19.

Source: https://www.ecdc.europa.eu/en/publications-data/covid-19-vaccine-effectiveness-adolescents-and-interim-considerations-for-booster-dose

European Situation on Vaccination

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

	Total doses distributed to EU/EEA countrie	es 1,068,463,616	843,481,774	Cumulative uptake (%) of the primary course by age group in EU/EEA countries as of 2022-02-07									
Indicator:	Uptake of the primary course 💌	Cumulative vaccine uptake (%) in the t 2022-02-07	total population in EU/EEA countries as o	Country	60+	50-59	25-49	18-24	<18				
		by reporting week (data for the current week are p	oreliminary)	Country	years 92,4%	years	years	years	years				
	b) of the primary course in the total population in EU/EEA	🔶 Prir	mary course	Austria Belgium	92.4%	82.5% 91.3%	76.4% 84.8%	74.3% 82.5%	28.7% 30.8%				
countries as of 2022	-02-07		oster/additional dose	Bulgaria	94.2% 37.4%	38.4%	32.1%	82.5% 27.1%	1.8%				
No. K				Croatia	77.1%	69.3%	57.2%	43.6%	3.9%				
RW		80%		Cyprus	94.2%	87.9%	84.4%	70.6%	18.0%				
	Alter and a second second	00%	74.1%	Czechia	85.7%	78.0%	65.0%	68.2%	18.3%				
A	and the second se	60% -		Denmark	99.7%	94.2%	85.5%	82.7%	42.1%				
		00%		Estonia	75.8%	73.6%	66.9%	69.6%	17.7%				
r dar 🚽		40% —	45.8%	Finland	94.0%	86.7%	81.1%	76.3%	27.0%				
	1	40% -		France	91.5%	90.4%	85.8%	88.0%	25.6%				
	e			Germany	89.4%	-	-	-	-				
	1 5 3 4	20% -		Greece	87.7%	81.8%	74.1%	68.8%	17.6%				
				Hungary	81.5%	75.1%	64.7%	52.2%	21.8%				
		0%	41, 1148, 1149, 1159, 1151, 1152, 1180, 1180, 1180, 1180, 1180, 1180	Iceland	100.0%	92.5%	87.4%	86.0%	28.4%				
		ຼາຍີ້າຍີ້າຍີ່າຍີ່າຍີ່ງຍີ່ງຍີ່ງຍີ່ງຍີ່ງຍີ່ງຍີ່ງຍີ່ງຍີ່ Cumulative number of vaccine doses a	ອ ^{ໃນ} ຈອ ^{ໃນ} ລອ ^{ໃນ}	Ireland	100.0%	99.6%	89.1%	86.9%	27.6%				
		EU/EEA countries as of 2022-02-07		Italy	91.0%	85.5%	79.4%	85.0%	32.4%				
	and a second and a	by reporting week (data for current week are prelin	minary)	Latvia	75.1%	77.8%	75.8%	77.9%	18.6%				
			specified doses oster/additional do	Liechtenstein	-	-	-	-	1.7%				
	A Contraction of the second	900M		Lithuania	78.5%	78.9%	79.4%	74.3%	15.9%				
				Luxembourg	91.0%	87.3%	77.8%	73.0%	27.8%				
		_		Malta	99.2%	88.7%	93.0%	85.0%	36.8%				
í				Netherlands	-	-	-	-	21.4%				
	and a strange			Norway	99.2%	95.2%	85.8%	84.8%	10.8%				
	· CI (Sha K	450M — — — — — — — — — — —		Poland	76.2%	67.6%	59.6%	54.9%	19.5%				
	St A A Later			Portugal	100.0%	94.6%	89.0%	87.0%	30.9%				
				Romania	46.1%	56.1%	49.2%	48.5%	6.6%				
	© ÉuroGeographics © UN-FAO © Turkstat			Slovakia	71.5%	60.3%	51.4%	50.5%	9.0%				
Uptake full vaccination	(%)			Slovenia	83.9%	69.8%	56.5%	57.8%	10.2%				
		21, M29, MA8, MA1, MA2, MA3, MA4, MA5, MA6, MA	21, WA8, WA9, W59, W51, W52, W81, W82, W83, W84, W85	Spain	98.3%	89.3%	77.5%	72.7%	27.3%				
29.3%	84.4%	28 28 28 28 28 28 28 28 28 28 28 28 28 2	2° 2° 2° 2° 2° 2° 2° 2° 2° 2° 2° 2°	Sweden	94.0%	90.1%	80.8%	75.9%	12.0%				

SARS-CoV-2 Variant of Concern: Notable Update on Omicron

The current global epidemiology of SARS-CoV-2 is characterized by the continued rapid global spread of the Omicron variant. All other variants, including VOCs (Alpha, Beta, Gamma and Delta) and VOIs (Lambda and Mu) continue to decline in all six WHO regions. Among the 426 363 sequences uploaded to GISAID with specimens collected in the last 30 daysi, 412 265 (96.7%) were Omicron, 13 972 (3.3%) were Delta, two (<0.1%) were Gamma, and two (<0.1%) were Alpha. There were no sequences reported for any other variant, including for VOIs Mu and Lambda.

Since the designation of B.1.1.529 as a VOC on 26 November 2021, several lineages have been identified. These include Pango lineages BA.1, BA.1.1, BA.2 and BA.3, which are all being monitored by WHO under the umbrella of 'Omicron'. BA.2 shares many mutations with BA.1, but also has a number of differences, including in the Spike protein – critically, it does not carry the Spike 69-70 deletion associated with S-gene target failure, used as a proxy for detecting BA.1, BA.1.1, B.1.1.529 and BA.3. BA.1.1 carries an additional R346K mutation, which is suspected to provide additional immune escape potential.

Most of the current evidence describing the phenotypic characteristics of the Omicron variant is based on the BA.1 Pango lineage. However, a relative increase in the BA.2 lineage has been observed in multiple countries and investigations into the characteristics of BA.2, including its transmissibility, immune escape properties and virulence, need to be prioritized independently (and comparatively) to BA.1. Additionally, it is important to consider the relative proportions of the BA.1 and BA.2 sequences in the context of the case incidence when interpreting the spread and relative growth of different lineages.

The prevalence of the Omicron variant has increased globally and is now detected in almost all countries. However, many of the countries which reported an early rise in the number of cases due to the Omicron variant have now reported a decline in the total number of new cases since the beginning of January 2022. The figures below, shows a decrease in the proportion of BA.1 sequences compared to the other lineages since epidemiological week 2 (10-16 January 2022) with a proportional increase in BA.1.1 and BA.2 sequences. Figures on the right shows an increase in the number of sequences of the Omicron lineages submitted to GISAID in December 2021 and a decrease since the beginning of January 2022. This global trend has been observed in several countries, including some with high sequencing capacity; the pattern may be different in others. These trends should be interpreted with due consideration of the limitations of surveillance systems, including differences in sequencing capacity and sampling strategies between countries, as well as laboratory turn-around times for sequencing and delays in reporting.

Global distribution and relative proportion of Omicron lineages for sequences submitted to GISAID presented by epidemiological week of specimen collection

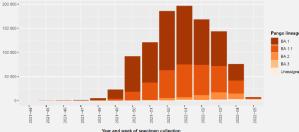
Relative proportions of Omicron	lineages over the last 4	weeks by specimen	collection week.
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			Ov	erall (%)	Last 4 weeks by collection date (%					
Lineage	Countries	Sequences*	SGTF⁵	Total	2022-02	2022-03	2022-04	2022-05		
BA.1	140	655 702	96.51	62.07	56.17	50.32	45.19	30.55		
BA.1.1	125	339 667	95.63	32.15	37.12	37.90	35.48	28.57		
BA.2	69	49 835	0.07	4.72	5.96	10.43	15.56	7.68		
BA.3	16	288	98.96	0.03	0.04	0.05	0.01	0.06		
Unassigned	37	10 945	0.05	1.04	0.70	1.30	3.76	33.15		

*Data source: sequences and metadata from GISAID

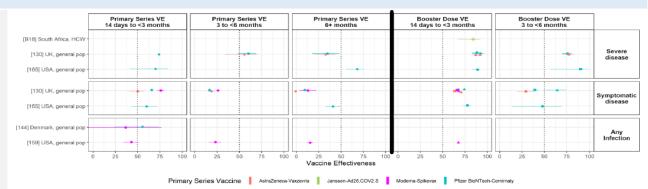
*Percentage of sequences with Spike H 69-70 deletion associated with S gene target failure

Incidence of Omicron lineages by week of specimen collection

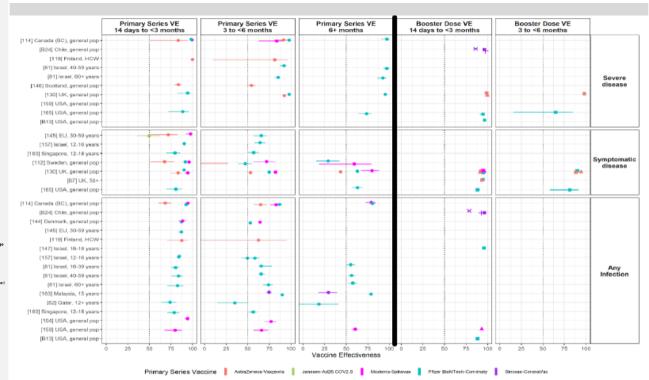


Vaccine effectiveness (VE) of primary series and booster vaccination against the Omicron variant of concern The figures on the right side summarize the impact of Omicron and Delta variants, respectively, on product-specific vaccine effectiveness (VE) over time for both primary series vaccines and booster vaccines. The methods for including estimates in the plot are described on the next page.









SARS-CoV-2 Variant of Concern: Notable Update on Omicron



Source: https://www.medrxiv.org/content/10.1101/2022.01.28.22270044v1.full-text#T3 https://globalnews.ca/news/8582784/omicron-subvariant-ba2-more-infectious-study/ https://www.medrxiv.org/content/10.1101/2022.01.25.22269794v1.full-text https://www.sciencedirect.com/science/article/pii/S0140673622000174 https://coronavirus.data.gov.uk/details/whats-new/record/beb802ac-1ed2-47ac-b314-69a5c3f712b5 https://coronavirus.data.gov.uk/details/whats-new/record/8055ae4e-ba2a-450a-bff8-42e9e4d1575b

Interpretation of the results of the VE for the Omicron variant

Limited data are available for the VE for the Omicron variant. However, available estimates show reduced protection of the primary series COVID-19 vaccines against the Omicron variant for all outcomes (*severe disease, symptomatic disease,* and *infection*) than has been observed previously for other variants of concern. Importantly, VE estimates against the Omicron variant remains highest for *severe disease,* while they are lower for *symptomatic disease and infection.* Booster vaccination substantially improves VE for all outcomes for all products with available data. More data are needed on the duration of the VE following a booster dose. VE estimates for the Pfizer BioNTech-Comirnaty vaccine against *severe disease* due to the Omicron variant within the first three months following the primary series (without a booster dose) range from 70-74% and decrease over time since vaccination, with VE estimates of 60% between three and six months, and 35-68% at six months or more. Between three and six months and six months and over, VE estimates for the AstraZeneca-Vaxzevria vaccine against *severe disease* reduced from 56% to 33%, with relatively wide confidence intervals. Early VE estimates (measured from 14 days up to three months after vaccination) of the primary series against *symptomatic disease* are generally lower than those for *severe disease*, though it remains at or above 50% for AstraZeneca-Vaxzevria, Moderna-Spikevax, and Pfizer BioNTech-Comirnaty vaccines. In contrast, most estimates of VE against *infection* at 14 days up to three months after the primary series are below 50%. All available estimates against both *symptomatic disease* and *infection* measured three or more months after completion of the primary series indicate VE estimates of less than 50% for the three vaccines (Pfizer BioNTech-Comirnaty, Moderna-Spikevax and AstraZeneca-Vaxzevria).

A booster dose increases VE estimates against *severe disease* to above 75% for all vaccines for which data are available, with this effect maintained up to six months after the booster dose. A booster dose increased VE estimates against *symptomatic disease* in the first three months following vaccination to 63%-78% for all vaccines, however, these decreased to 29-64% at 3-6 months. Limited evidence is available for VE against *infection* due to the Omicron variant following a booster dose, with only one study showing a VE of 68% within the first 3 months of a booster dose of Moderna-Spikevax.

Interpretation of the results of the VE for the Delta variant

Most of the evidence to date supports effectiveness of the mRNA vaccines (Pfizer BioNTech-Comirnaty and Moderna-Spikevax) remains high against *severe disease* associated with Delta variant infection at six or more months after the primary series, with three of four studies reporting VE estimates of >90% and one study reporting a VE of 74% at six months or more. Three studies report high VE (>80%) of the AstraZeneca-Vaxzevria vaccine three to six months following the primary series, while one study reports a lower VE (54%), compared to the first three months (84%).

VE estimates against *symptomatic disease* and *infection* range from 73-96% following the primary series of one of the two mRNA vaccine from 14 days up to three months after vaccination and 68-88% following the primary series of the AstraZeneca-Vaxzevria vaccine during the same time period. There is, however, consistent evidence of decreasing VE against *symptomatic disease* and *infection* over time following the primary series for all of the vaccines for which data are available. Despite this, most of the evidence still report VE estimates of >50% (59-80%) at six months or more following either mRNA vaccine, with two estimates falling below 50%. Three of the four studies of evaluating the AstraZeneca-Vaxzevria vaccine also showed a VE >50% (54-65%) at three to six months, though in one of these studies the VE decreased to 43%. A single study of Sinovac-CoronaVac (an inactivated vaccine) conducted in Malaysia reported a VE against *infection* of 74% three to six months following the primary series, which decreased to 30% beyond six months. Receipt of a booster dose of mRNA, vector-based and inactivated vaccines, for which there is data available, resulted in a VE of >79% for *all outcomes* within the first three months. At three to six months following the booster dose, the VE of an mRNA booster vaccine against *severe disease* remained >95% in a single study conducted in the United Kingdom, but decreased to 65% from 95% in a single study conducted in the United States of America in the same time period. The VE against *symptomatic disease* at three months or more following a booster dose with an mRNA vaccine was >75% after a primary series of either the AstraZeneca-Vaxzevria or the Pfizer BioNTech-Comirnaty vaccines.

Source: https://www.who.int/publications/m/item/weekly-epidemiological-update-on-covid-19---8-february-2022

Danish Data Indicates Omicron BA.2 is More Transmissible than Omicron BA.1

- Throughout late 2021 and early 2022 the **Omicron** (B.1.1.529) variant of concern has emerged as the dominant SARS-CoV-2 variant in many countries and has **diverged into four sub-lineages**, BA.1, BA.1.1, BA.2., and BA.3. In countries such as Denmark, the newer sub-lineage BA.2 has become the dominant sub-lineage, overtaking the original Omicron sub-lineage BA.1.
- In a non-peer reviewed study **Danish scientists compared households with BA.1 cases to households with BA.2 cases**, in order to understand the transmissibility and susceptibility of infection of the sub-lineages.
- They calculated **secondary attack rate** (SAR), a rate which measures the spread of disease from person-to-person. They found that when comparing over 2,000 households with BA.2 and almost 6,500 households with BA.1 cases over the span of a week, by day seven the SAR for households with BA.1 was estimated to be 29%, whereas households with BA.2 were estimated to be 39%. After a 14-day follow-up, they found a SAR of 42% and 36% for BA.2 and BA.1, respectively. This indicates that BA.2 is substantially more transmissible than BA.1.
- Increased transmissibility was found in households where the primary case was unvaccinated (Odds Ratio (OR) = 2.62), however increased transmissibility was not observed when the primary case was fully or booster-vaccinated (OR < 1). This led researchers to estimate that BA.2 is 33% more infectious than BA.1, but vaccination appeared to protect against transmission when the index case in a household was a breakthrough infection.
- When comparing BA.2 households to BA.1 households, researchers also found **increased susceptibility** to infection for unvaccinated, fully vaccinated, and booster-vaccinated individuals. However, severity of illness was not measured.
- These findings suggest that in locations where BA.2 is overtaking BA.1, there may be an anticipated increase in COVID-19 cases, particularly in the context of relaxing restrictions. However, high vaccination coverage should provide some mitigation against spread.

Immune Status following Breakthrough Infections with Delta and Omicron Variants

- A recent non-peer reviewed study from a multidisciplinary team of researchers from the United States evaluated the neutralizing antibody
 response in fully-vaccinated and booster-vaccinated individuals who after vaccination, with either an mRNA vaccine or the Janssen vaccine
 (Johnson and Johnson), developed a breakthrough infection due to either Delta or Omicron variants.Previous studies have indicated that
 the Omicron variant causes milder disease with a reduced risk of hospitalization and death when compared to previous linages, such as
 the Delta variant.
- Following vaccination or infection, neutralization titres generally increase. Those who have received a booster have higher neutralization titres than those who are not boosted.
- The American researchers found that those with Omicron breakthrough infections who were not booster-vaccinated had a smaller rise in neutralization titres when compared to those with Delta breakthrough infections.
- For Omicron breakthrough infections, the rise in neutralization titres among primary series recipients was observed to be 1/3 the level observed among those who were booster-vaccinated.
- Researchers also showed that Omicron breakthrough infections may enhance cross-protection against Delta infection, however, this was strongly related to the clinical severity of the infection, with more severe infection providing greater immunity.
- Overall, this showed that Omicron-induced immunity, particularly following mild illness, may provide less protection against infection from currently circulating or future variants. Furthermore, this study supports the recommendation for booster-vaccination as a means to strengthen baseline neutralizing immunity.

Revision of England's COVID-19 Case and Death Definition

- According to official sources, the COVID-19 case and deaths definition for England has been updated to reflect cases and deaths which occur following reinfection with SARS-CoV-2.
- Prior to these changes in the definition for cases, one metric was collected to encompass the number of people who have had at least one
 positive COVID-19 test result. The updated metric will now consider possible reinfections outside of a 90-day window. This allows for
 counting of an individual's multiple episodes of infection. In terms of COVID-19 deaths, previously an individual's death after reinfection
 was not attributed to COVID-19 because the time between an individual's first-ever positive test result (from original infection) to death
 after re-infection exceeded the timeframe of "within 28 days of the positive test". The updated metric will now include deaths that occur
 after the most recent COVID-19 infection rather than after the individual's first positive test.
- Given the high transmissibility and increased potential for reinfection with the Omicron variant, the revised definitions will provide a more accurate metric to understand the true case burden and mortality of COVID-19 disease.

Subject in Focus Part 1

Considerations for the use of face masks in the community in the context of the SARS-CoV-2 **Omicron variant of concern; ECDC**

Background

Wearing a face mask can help reduce the spread of COVID-19 in the community by reducing the release of respiratory droplets from infected individuals who are not aware they are infected (asymptomatic), have not yet developed any symptoms (pre-symptomatic), or have mild non-specific symptoms. The use of face masks for this purpose may be adopted to reduce the societal impact associated with absence from work or healthcare pressures due to infection, or to protect vulnerable individuals in particular settings. During the course of the pandemic, all EU/EEA countries have implemented various recommendations regarding the use of face masks as a complementary non-pharmaceutical intervention in closed places (including retail and public transportation) as well as in public places where physical distancing is not always possible. In most of these countries, the use of face masks has been or continues to be mandatory.

Scientific evidence on transmission

The Omicron VOC has a significant growth advantage, an increased household transmission risk, and an increased secondary attack rate compared to the Delta VOC. According to data from the United Kingdom (UK), the adjusted odds ratio (aOR) for household

transmission from an Omicron index case compared to a Delta index case, based on routine testing data, was estimated to be 3.2 (95% CI: 2.0-5.0), and the OR for a close contact becoming a secondary case was 2.09 (95% CI: 1.54-2.79).

The household secondary attack rate in the UK was estimated to be 21.6% (95% CI: 16.7-27.4%) for the Omicron VOC, compared to 10.7% (95% CI: 10.5 – 10.8%) for Delta.

In most instances, coronaviruses are transmitted primarily from person to person via respiratory droplets, either by being inhaled or deposited on mucosal surfaces, including aerosols produced when coughing and speaking.



Medical face mask

Community face covering

The concentration of infectious respiratory droplets decreases with increasing distance from the source because large droplets fall on the ground or surfaces due to gravity, while small droplets that can remain suspended in the air (aerosols) are diluted. Furthermore, the droplets become less infectious with time. As a result, transmission is more likely with close proximity to a source. However, there is evidence from several SARS-CoV-2 outbreak investigations that transmission also occurs in closed, poorly ventilated spaces, even without close proximity to the source, thus supporting the role of aerosols in transmission of SARS-CoV-2.

Recent non-peer-reviewed experimental data indicate that the Omicron VOC is more stable on plastic surfaces and human skin compared to the Wuhan strain and the Delta VOC, but not significantly more stable than the Alpha and Beta VOCs. There are no data showing that Omicron has an increased ability to survive in aerosols or be transmitted through aerosols compared with previously circulating variants. The apparent increased transmissibility of Omicron is more likely to be primarily due to immune escape or intrinsic virological characteristics of the variant (such as higher affinity to the angiotensin-converting enzyme 2 (ACE2) receptor and optimised cell entry) rather than a change in the ability to be transmitted through aerosols or increased survival in aerosols.

Scientific evidence on face masks for the prevention of SARS-CoV-2 infection

In 2021, ECDC published a systematic review of the literature on the effectiveness of face masks in the community for the prevention of SARS-CoV-2 infection. This review concluded that there was evidence of low to moderate certainty for the useof medical face masks providing a small to moderate protective effect against COVID-19 in the community, both in terms of personal protection as well as source control (protection of others). The results of studies published after the systematic review are consistent with this conclusion.

A cluster- randomised trial conducted between November 2020 and April 2021 in rural Bangladesh (600 villages; 342 183 adults) showed that increasing proper mask-wearing from 13.3% in the control group to 42.3% in the intervention group was associated with a decrease in symptomatic seroprevalence.

Due to their better filtration efficiency, respirators have been considered for use in the community, particularly since the emergence of more transmissible new variants of SARS-CoV-2. Experimental studies indicate that respirators are more effective than medical face masks both in limiting the release of infectious respiratory droplets when worn by the infectious source and in limiting the exposure when worn by the exposed person.

Based on data from experimental studies on efficacy of filtration and leakage comparing respirators with medical face masks and face coverings, the ACGIH (formerly the American Conference of Governmental Industrial Hygienists) estimated that when both the source and the exposed person wear a well-fitting respirator, the time to infectious dose increases to 25 hours from 15 minutes when neither the source nor the exposed person wear any face mask. However, evidence regarding the effectiveness of respirators compared to medical face masks to prevent transmission of SARS-CoV-2 in community settings remains very limited and inconclusive. Evidence from healthcare settings is also limited, and it is unclear to what extent it can be extrapolated in the community.



A prospective cohort study of 3 259 healthcare workers (HCWs) facing COVID-19 patients showed that FFP2 use was nonsignificantly associated with a decreased risk for SARS-CoV-2positive swab (adjusted hazard ratio [aHR] 0.8, 95% CI 0.6-1.0, p 0.052). In subgroup analysis, FFP2 use was shown to be protective in the group of HCWs with exposure to more than 20 COVID-19 patients (aOR 0.7, p<0.001).

A study from the UK analysing the incidence of COVID-19 among HCWs before and after the implementation of a change from surgical face masks to FFP3 respirators in COVID-19 wards found that the incidence of infection attributed to ward-based exposure decreased to levels similar to the incidence in non-COVID-19 wards.

Respirator

Fit is important for the effectiveness of face masks. For respirators, an appropriate fit is necessary to ensure that the filtration level for which the respirator was designed is achieved. Fit can be affected by the size of the face and other facial characteristics, such as the presence of facial hair.

A review of the evidence for using masks during the COVID-19 pandemic also provides information on sociological factors such as risk compensation behaviour, stigma, and symbolism around wearing a mask. It concluded that accurate messaging is very important accompanied by the other measures that need to be followed, and that even viewing masks as a social practice could enhance their uptake. There is limited evidence of harms related to the use of face masks.

A systematic review identified discomfort as the most common complaint, while respirators were more commonly linked to reports of headache, difficulty breathing and pressure on the nose, compared to medical face masks. The most common adverse effects associated with the use of respirators by healthcare workers have been discomfort (52%), difficulty breathing (19%), and headache (13%). In subjects with chronic obstructive pulmonary disease, the use of respirators was linked to increased breathing frequency and exhaled carbon dioxide levels, and decreased blood oxygen saturation.

Subject in Focus Part 2

Considerations for the use of face masks in the community in the context of the SARS-CoV-2 Omicron variant of concern

Considerations for the use of face masks for the prevention of COVID-19 in the community

In areas where the public health objective is to reduce ongoing community transmission of COVID-19, wearing a face mask (i.e. medical face mask, respirator, or community face covering – see Annex) should be considered as one of a range of possible measures in confined public spaces, such as stores, supermarkets, transportation hubs (e.g. ports, airports, train/coach stations) and when using public transport.

Wearing a face mask should be considered in crowded outdoor settings where physical distancing is not possible when the public health objective is to limit community transmission.

A public health policy for wearing a face mask in public spaces should be considered in areas with community transmission when the public health objective is to limit community transmission. Such a policy would complement other measures that are recommended to reduce community transmission, such as physical distancing, teleworking if possible and appropriate ventilation of indoor spaces. An additional option is to focus on the use of face masks in specific settings to protect people vulnerable to severe COVID-19, such as the elderly and people with underlying medical conditions. In this case, face masks can be recommended both for vulnerable people and for people regularly interacting with them, such as in care settings. Proportionality to other measures, acceptability by the population, and environmental impacts are factors to be considered when selecting the most appropriate strategy.

Selecting the type of face mask should take into account access, availability, and tolerability, in addition to effectiveness. Based on experimental efficiency data and given the lack of high-quality evidence, respirators are in general expected to be more effective than medical masks while community face coverings not manufactured according to the specifications in available guidelines for filtration efficacy and breathability are expected to be less effective than medical face masks.

People vulnerable to severe COVID-19, such as the elderly or those with underlying medical conditions, high-risk contacts of COVID-19 cases who cannot stay in quarantine for the full recommended quarantine period, as well as COVID-19 cases who cannot isolate for the full recommended isolation period should consider wearing a respirator if available and tolerated. In households, the use of a medical face mask or a respirator should be considered for people with symptoms of COVID-19 or confirmed COVID-19 and for the people who share their household, especially when isolation of the person with symptoms of or confirmed COVID-19 is not possible.

When community face coverings are used, it is advisable to choose coverings that comply with available standards for filtration efficacy and breathability. The appropriate use of face masks is important. The face mask should completely cover the face from the bridge of the nose down to the chin. The mask should be correctly adjusted on the bridge of the nose and to the face to minimise open space between the face and the mask. Based on experimental studies, options to maximise the fitting of medical face masks have been proposed, e.g. making knots close to the mask on each of the mask's ear loops, applying a mask fitter or wearing a community face covering over a medical face mask. The choice of a suitable respirator for the shape of a user's face (type and size) and performing a pre-use seal check are important requirements to ensure the maximum protective effectiveness of respirators [26]. The seal check should be repeated every time a user puts on the respirator. In the community, appropriate use and fitting of respirators may be challenging, so any possible added value of respirators in preventing respiratory infections is expected to be lower in the community than in healthcare.

Source: https://www.ecdc.europa.eu/sites/default/files/documents/Considerations-for-use-of-face-masks-in-the-community-in-the-context-of-the-SARS-CoV-2-Omicron-variant-of-concern.pdf

Glossary

Face mask is an overarching term used for any device (i.e. a community face covering, medical face mask or a respirator) that is worn over the mouth and nose to prevent the inhalation of harmful substances such as infectious respiratory droplets or the release of infectious respiratory droplets produced by breathing, speaking, coughing or sneezing in the environment.

Source control: When face masks are used to prevent the release of infectious respiratory particles such as droplets or aerosols by SARS-CoV-2-positive people into the environment to decrease the likelihood that these particles are inhaled by another healthy person or deposited on mucous membranes (i.e. protection of others).

Wearer protection: When face masks are intended to prevent SARS-CoV-2-containing infectious splashes and respiratory droplets, including aerosols from the environment to be inhaled or deposited on mucous membranes.

Community face coverings (or non-medical face masks, 'community' masks) include various forms of self- made and commercial masks, including re-usable face covers made of cloth, other textiles and other disposable materials such as paper. They are not standardised and are not intended to be used in healthcare settings or by healthcare workers. The minimal requirements for reusable or disposable community face coverings intended for the general public are specified in CWA 17553 (European Committee for Standardisation – CEN).

A medical face mask (also known as surgical or procedure mask) is a disposable medical device used by healthcare workers to prevent large respiratory droplets and splashes reaching the mouth and nose of the wearer, and as a means of source control to stop the spread of large respiratory droplets by the person wearing them. Requirements for medical face masks, including the duration of use, are defined in the European Committee for Standardization's published standards. Medical face masks are not defined as personal protective equipment in Regulation (EU) 2016/425 of 9 March 2016 or Directive 89/656/EEC on personal protective equipment. However, for the purpose of this document and in accordance with guidance on infection prevention and control in the context of COVID-19 by the World Health Organization (WHO) and on transmission-based precautions, medical face masks are considered to provide protection against infections transmitted by droplets.

A respirator (also known as a filtering face piece (FFP) mask or filtering half mask) is a device designed to protect the wearer from exposure to airborne contaminants (e.g. from inhaling dust or infectious particles). Requirements for FFPs, including the intended duration of use, are specified in the European Committee for Standardization's published standards, and respirators are classified as personal protective equipment. An N95/N99 respirator is the United States' equivalent of FFP2/FFP3 respirators as defined by US standard NIOSH 42 CFR, part 84. The KN95/KP95 standards (China) has similar performance requirements. FFP2 respirators have a filtering capacity of at least 94% for 0.3 µm particles, while FFP3 respirators have a filtering capacity of at least 99% for 0.3 µm particles. Respirators are mainly used by workplace users, including healthcare professionals, to protect themselves, especially during dust- and aerosol-generating procedures, and require a fitting test to ensure proper protection.

Effectiveness of Face Mask or Respirator Use in Indoor Public Settings for Prevention of SARS-CoV-2 Infection — California, February–December 2021 - CDC

Summary

What is already known about this topic?

Face masks or respirators (N95/KN95s) effectively filter virus-sized particles in laboratory settings. The real-world effectiveness of face coverings to prevent acquisition of SARS-CoV-2 infection has not been widely studied.

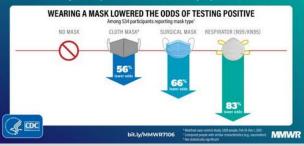
What is added by this report?

Consistent use of a face mask or respirator in indoor public settings was associated with lower odds of a positive SARS-CoV-2 test result (adjusted odds ratio = 0.44). Use of respirators with higher filtration capacity was associated with the most protection, compared with no mask use.

What are the implications for public health practice? In addition to being up to date with recommended COVID-19 vaccinations, consistently wearing a comfortable, well-fitting face mask or respirator in indoor public settings protects against acquisition of SARS-CoV-2 infection; a respirator offers the best protection.

Source: https://www.cdc.gov/mmwr/volumes/71/wr/mm7106e1.htm?s_cid=mm7106e1_x

People who reported always wearing a mask in indoor public settings were less likely to test positive for COVID-19 than people who didn't*



Other Infectious Disease Outbreaks / Human Disasters

<u>Anthrax</u>

Democratic Republic of the Congo – Cases of suspected anthrax have been reported South Kivu, Democratic Republic of the Congo in 2022. Initial reports indicate that nine individuals have been affected including children. Among the nine cases, two have died. The affected individuals are residents of Kalehe territory and the infections have been linked to the consumption of guinea pigs. Presenting symptoms included vomiting and diarrhea, which are consistent with gastrointestinal anthrax. Officials are reassuring residents that this outbreak is currently under control and that those currently in hospital are recovering well. Officials have recommended that people stop consuming guinea pigs that are over five years of age. Guinea pig farming is often a popular approach to combating malnutrition, especially in regions of extreme poverty and widespread lawlessness. The animals small size make them easy to hide compared to other livestock. It is possible that the animals become infected by consuming anthrax spores in the environment; livestock can develop acute and chronic infections with a range of clinical signs. Further information on this event is currently limited, including whether anthrax has been confirmed based on laboratory detection in either the affected human cases or livestock.

Source: NewsMedia - http://outbreaknewstoday.com/anthrax-outbreak-linked-to-consuming-guinea-pigs-in-south-kivu-drc-13604/

Unknown Illness

Uganda - Cases of an unknown illness and associated deaths have been reported in Kyotera district, Central Region, Uganda in 2022. To date, the death toll from this unknown illness has reached 10. According to the media report, there have been at least 5 individuals with similar symptoms that have recovered after unspecified treatment, and one 14-year old individual under medical supervision, although the total number of affected individuals is unclear. The first known affected individual, identified six months ago, as a 45-year-old farmer who died five days after developing painful swellings on their neck, face, chest, skin, and hypothermia in Nakatoke B village, Kijonjo parish, Kasasa sub-county. Since then cases have been reported in Kijonjo A, Kijonjo B, Nakatoke A, and Nakatoke B villages. Infected individuals present with fever, swellings, abdominal and chest pain, vomiting, and general body weakness and the fatal cases have died within a week of symptoms onset. The WHO and the Ministry of Health are jointly investigating the unknown illness to establish the cause. Samples have been sent to Uganda Virus Research Institute (UVRI). So far, Ebola, Marburg, Crimean Congo Hemorrhagic Fever, and Rift Valley Fever have been ruled out as causes of the disease. Officials recommend that all cases identified in the affected communities be isolated immediately for proper management by skilled health care workers.

BlueDot's Initial Assessment: This event is noteworthy as the underlying cause of the deaths has not been ruled out and the illness appears to be affecting the region for at least six months. The wide variety of symptoms described and limited details challenge the identification of the likely cause. There is no information on whether any of the affected have underlying conditions, the age distribution of cases and deaths, or successful treatments among those who have recovered. Endemic vector-borne diseases with compatible symptoms, including malaria and yellow fever, have not been mentioned as being ruled out through laboratory testing. According to the WHO, Uganda has the 3rd highest global burden of malaria cases and the 8th highest level of deaths. It also has the highest proportion of malaria cases in East and Southern Africa, accounting for 23.7% of cases in the region, with year-round transmission in 95% of the country and significant upward trends observed in 2021. Vector-borne diseases may be under-surveilled with stretched laboratory resources amid COVID-19 pandemic. We will follow up and provide further information as it becomes available. Source: ProMed - https://promedmail.org/promed-post/?id=8701246

Measles

Afghanistan - Media reports are raising concerns over at least 74 measles-associated deaths in the province of Badakhshan, north-eastern Afghanistan. Although the number of cases has not been disclosed, media reports quoted an official statement indicating that pockets of measles outbreaks are ongoing over the past two months. Cases have been reported across several districts in the province of Badakhshan, including remote areas such as Kuf Ab, Darwaz, Kohistan as well as in the provincial capital Faizabad city and its outskirts. Most of the deaths have been among children living in remote areas without access to healthcare and/or local mobile vaccination clinics. The WHO has raised concerns over significant upward trends in Afghanistan in 2021. Official information indicates that there were over 60,000 cases and more than 80 deaths; however, these figures are believed to be underestimated. In addition, the United Nations warned that Afghanistan is on the brink of the world's worst humanitarian crisis, with more than half the country facing acute food shortages, forcing millions to choose between emigration and starvation. Malnutrition is an associated factor that contributes to measles morbidity and mortality. Afghanistan's current measles situation is also the result a reduction in the frequency of mass vaccination campaigns amid COVID-19. A report released in November 2021 from the WHO and the US CDC warned that the COVID-19 pandemic may have halted the progress against vaccine-preventable diseases, including measles, due to disruptions on vaccination campaigns. In addition, this report emphasized that at least 22 million children missed the first dose of the measles vaccine in 2020, which is the highest figure in the last 20 years. The provincial health officials are calling on the population to stay vigilant and to consult the nearest health centers in case of symptoms among children, including fever, generalized rash, conjunctivitis, cough and cold. This event is noteworthy as raises the impacts of the COVID-19 pandemic across vaccine-preventable diseases and the potential for a global resurgence. Enhancing vaccination coverage and addressing immunity gaps is key to reducing the mortality rate and burden on the already overwhelmed healthcare system.

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Source: ProMed - https://promedmail.org/promed-post/?place=8701206,158

Hantavirus

Panama – A case of hantavirus has been confirmed in the district of Pese, in the central province of Herrera, Panama. The affected 58-year-old is currently receiving treatment in intensive care. Environmental epidemiological investigations are being carried out to ascertain the source of infection. Health authorities report that corn crops and fallen trees around the patient's house may have served as potential breeding sites for infected mice. With the start of the dry season, health authorities recommend residents wear a mask and keep doors and windows open to ensure proper ventilation when cleaning spaces where mice might reside.

Source: NewsMedia - https://www.siasat.com/measles-outbreak-kills-74-children-in-afghanistan-2270670/

Influenza

Europe - Week 4/2022 (24 - 30 January 2022)

- Estonia, Kazakhstan, Norway, Republic of Moldova, Serbia and Slovakia reported widespread influenza activity and/or medium influenza intensity.
- 5% of all sentinel primary care specimens from patients presenting with ILI or ARI symptoms tested positive for an influenza virus.
- Seven countries reported seasonal influenza activity at or above 10% positivity in sentinel primary care: Bulgaria (27%), Israel (25%), Armenia (20%), France (17%), Moldova (14%), Poland (12%) and Serbia (10%).
- Hospitalized cases with confirmed influenza virus infection were reported from intensive care units (4 type A viruses), other wards (7 type A viruses) and SARI surveillance (47 type A viruses)
- Both influenza type A and type B viruses were detected with A(H3) viruses being dominant across all monitoring systems. Source: https://flunewseurope.org/

Source: https://covid19.trackvaccines.org/ as of 20.01.2022

Summary of information on the individual national Corona restrictions

													i
NATO Member State (click on country for official COVID-19 information)		Approved	vaccines										I
		Comirnaty	Spikevax	Janssen	Vaxzevria	Nuvaxovid	Sputnik V	CoronaVac	Covishield	Convidecia	Covilo	Turkovac	
	<u>Albania</u>	x			x		х	x					
	Belgium	x	x	x	х	x							
	Bulgaria	x	x	x	x	х							
*	<u>Canada</u>	x	x	x	х				x				
**************************************	<u>Croatia</u>	x	x	x	x	x							
	Czech Republic	х	x	x	х	x							
	<u>Denmark</u>	x	x	x		x							
	<u>Estonia</u>	x	x	x	х	x							
	France	x	x	x	x	х							
	Germany	x	x	x	х	x							
	<u>Great Britain</u>	x	x	x	x								
	Greece	x	x	x	х	x							
	Hungary	х	x	X	x	х	x		X	х	X		
	<u>Italy</u>	х	х	х	x	x							
	<u>lceland</u>	x	x	x	x	x							

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

Source: https://covid19.trackvaccines.org/ as of 20.01.2022

Summary of information on the individual national Corona restrictions

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	
	<u>Latvia</u>	x	x	x	x	х							
	<u>Lithuania</u>	x	x	х	х	x							
	Luxembourg	x	x	x	х	x							
\	<u>Montenegro</u>				х		х				x		
	<u>Netherland</u>	x	x	x	x	x							
	North Macedonia	x			х		х				x		
	<u>Norway</u>	x	x	x		x							
	<u>Poland</u>	x	x	x	х	x							
۲	Portugal	x	x	x	х	х							
	<u>Romania</u>	x	x	x	х	x							
ŧ	<u>Slovakia</u>	x	x	x	х	x							
\$	<u>Slovenia</u>	x	x	x	х	x							
iiii	<u>Spain</u>	x	x	x	x	x							
C*	<u>Turkey</u>	х					х	x				x	
	<u>USA</u>	x	х	x									

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

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 <u>here</u> (US) and <u>here</u> (EU).
- Official IATA travel restrictions. You will find <u>here</u>.

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 <u>here</u>.

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 **<u>Re-open EU</u>**, 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.)
- <u>COVID-19 Vaccine tracker</u>
- <u>SARS-CoV-2 variants dashboard</u> 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 <u>"COVID-19 Vaccines within WHO</u> EUL/PQ evaluation process" and the "Draft landscape and tracker of <u>COVID-19 candidate vaccines</u>"
- Weekly Epidemiological and operational updates
- COVID-19 new variants: <u>Knowledge gaps and research</u>
- COVID-19 <u>Dashboard</u>
- Vaccines explained
- Tracking <u>SARS-CoV-2 variants</u>
- Science in 5: <u>WHO's series on science and COVID-19</u>
- Quick links

CDC:

- COVID Data Tracker and weekly review
- <u>What's new and Updated</u>
- Guidance for COVID-19

References:

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