COVID-19, GLOBAL

Date and version of current assessment: 04 August 2026, v10

Date(s) and version(s) of previous assessment(s): 2 February 2026,v.9 05 September 2025, v8; 31 December 2024, v7.

Overall global risk and confidence

Overall risk
Global
Moderate

Confidence in available information
Global
Low

Overall risk statement

As of 30 July 2026, the global public health risk from COVID-19 remains ***moderate*** following an assessment of data and information reported between 1 January and 30 July 2026. While the direct public health impact of COVID-19 has declined compared with the early phases of the pandemic (the COVID-19 Public Health Emergency of International Concern - PHEIC, was lifted on 5 May 2023), the SARS-CoV-2 virus continues to circulate globally, maintaining its capacity to cause severe disease and fatalities, particularly among high-risk populations, including older and immunocompromised adults and people living with comorbidities. As of 28 June 2026, over 779 million confirmed cases and over seven million confirmed deaths have been reported globally to WHO since the event was confirmed to WHO in 2020, while seroprevalence estimates suggest that there are orders of magnitude more infections and reinfections that remain unreported. Uncertainties persist regarding the long-term consequences for the health of individuals suffering repeated infections and/or affected by post-COVID-19 condition (PCC). Global estimates indicate that 6% of people with symptomatic COVID-19 infection develop PCC, with reduced risk in vaccinated individuals. Of these, approximately 15% have persistent symptoms even at 12 months.

Continued global circulation and ongoing virus evolution and diversification, including in established animal reservoirs, warrant constant monitoring and vigilance. While available vaccines remain effective against severe disease and death despite continued COVID-19 variants evolution, the global vaccine uptake was very low in 2025, even by those at high risk of developing severe disease. This further enables virus circulation and genetic evolution and increases health risks for vulnerable individuals. Decreased reporting, reduced genomic sequencing (and sharing of sequence information) have led to gaps in surveillance, especially from low- and middle-income countries, which affects the representativeness and completeness of available data. Consequently, the ability to accurately assess the public health risk from COVID-19 remains constrained, resulting in a low level of confidence in the current assessment.

As indicated by sentinel surveillance through WHO's Global Influenza Surveillance and Response System (GISRS) and wastewater surveillance, SARS-CoV-2 circulation continues at a low level globally, with test positivity remaining below 5% since December 2025. The virus is co-circulating with seasonal influenza and Respiratory Syncytial Virus (RSV). The previously observed decline in deaths and hospitalizations continued throughout this assessment period and can be explained by high population immunity, improved clinical management, and unchanged virulence of circulating variants. Most currently circulating SARS-CoV-2 variants belong to the JN.1 Omicron sublineages, which show immune escape but do not result in increased disease severity compared to other Omicron sublineages, reflected by the stability of severity indicators.

In December 2025, WHO published the Strategic Plan for Coronavirus Disease Threat Management (2025–2030) which recommends continued integration of COVID-19 into broader respiratory disease surveillance systems. In March 2026, WHO provided updated recommendations for routine COVID-19 vaccination with a continued focus on targeting populations at high risk of severe disease. WHO also regularly updates recommendations for vaccine composition, with the latest published in May 2026.

Risk questions

Risk question		Assessment		Risk	Rationale
		Likelihood	Consequences		
Potential risk for human health?	Global	Likely	Minor	Moderate	• Severely immunosuppressed individuals and those with multiple risk factors remain vulnerable to severe acute COVID-19. • Despite improved access, demand for and uptake of COVID-19 vaccines is currently very low. Very low proportions of those at highest risk of severe COVID-19 were reported to have received a dose in the last 6 months. This puts large numbers of people, including those most at risk, at continued risk for severe disease, hospitalization and death. • Post-acute and long-term manifestations: Studies estimate that 6% of symptomatic cases progress to develop post-COVID-19 condition (PCC), with 15% among them having persistent symptoms even at 12 months. The understanding of the

					condition remains limited. Other non-PCC, long-term sequelae affecting multiple organ systems contribute to additional morbidity and mortality, particularly cardiovascular and cerebrovascular disease. • There are/remain substantial variations among detection and response capacities, which are exacerbated in fragile and conflict-affected settings. Large population movements and increasing conflict are drivers for the propagation of respiratory illnesses, where capacities to respond remain inadequate. • There is evidence of decreased impact on global morbidity and mortality associated with COVID-19 since 2022, driven by a) increasing population-level immunity from infection and/or vaccination, b) unchanged levels of severity observed in the currently circulating Omicron SARS-CoV-2 descendant lineages, and c) improved clinical case management. • Available data from a limited number of countries show: ▪ The number of reported COVID-19-associated deaths per 1000 reported hospitalizations remained generally stable from mid-2022 to mid-2024, fluctuating between 30 and 100 following a decline from 246 in February 2021. It subsequently increased above 100 by early 2025 and remained at this level through early June 2026 before declining toward the end of the month. In 2026 so far, there has been an average of 24 countries reporting both on deaths and hospitalizations each month. • Estimated global seroprevalence rose to 90% in April 2022 (last robust estimate available), indicating high population-level humoral immunity due to vaccination and/or infection given the widespread continued global circulation of Omicron descendent lineages. • Data from a limited number of countries in 2023 also showed seroprevalence levels of 90% or greater, indicating that very high levels of immunity remain in the population.
Risk of event spreading?	Global	Highly likely	Moderate	High	• Efforts towards inclusion of SARS-CoV-2 into integrated sentinel respiratory disease surveillance systems continue. 61% of WHO Member States reported SARS-CoV-2 data to GISRS at least once so far in 2026, with varying completeness and timeliness. Achieving representative global coverage remains the long-term goal. In the meantime, analysis needs to be supported with data from complementary surveillance methods, such as wastewater surveillance - where feasible. • Results from integrated sentinel surveillance of SARS-CoV-2 within GISRS show its continued circulation globally, though at a low level (global test positivity rate <5%), without a predictable seasonal pattern to date. Circulation intensity varies globally. Some countries from both Southern and Northern Hemispheres observe multiple peaks of activity throughout the year, some peaks coincide with the Influenza season which increases stress on health-care facilities. • The continuing reduction in the number of RT-PCR-based tests conducted and reported as well as in the number of sequences submitted to publicly accessible databases, hampers WHO Technical Advisory Group on Virus Evolution (TAG-VE) efforts to detect, assess, and monitor the circulation and characteristics of current and emerging variants and the overall SARS-CoV-2 variants landscape. Based on available sequence data, NB.1.8.1 is currently the most prevalent SARS-CoV-2 variant globally, following a sustained increase in recent months, largely driven by high and increasing prevalence in the Western Pacific Region. PQ.16.1.1, a descendent lineage of NB.1.8.1, was recently designated as a Variant Under Monitoring or VUM. The recombinant XFG, which was previously the most prevalent variant globally, has shown an overall decline in proportion since late 2025, although it remains the dominant variant in parts of the Region of the Americas. Regional circulation patterns remain heterogeneous, with continued diversification of the SARS-CoV-2 variant landscape and different variants predominating in different geographic areas. Currently circulating variants are not associated with higher disease severity compared with previous variants of concern (VoCs), although some show evidence of increased transmissibility and/or immune escape. Continued monitoring remains warranted, as illustrated by the VUM BA.3.2, a descendant of an earlier Omicron BA.3 lineage with substantial antibody escape compared with earlier Omicron variants that has increased substantially in the European Region and has become one of the dominant circulating variants in some countries, while remaining at lower prevalence in other regions. However, available evidence suggests reduced infectivity, and BA.3.2 does not currently appear to pose a higher public health risk

					than other circulating variants. • Although WHO no longer systematically tracks the implementation of public health and social measures, its understanding, based on available information, is that most countries have lifted most, if not all, such measures, increasing opportunities for virus transmission. Should stricter measures become necessary, their widespread reintroduction is currently considered unlikely to be feasible or publicly acceptable.
Risk of insufficient control capacities with available resources	Global	Likely	Moderate	High	• The overall risk of severe outcomes associated with SARS-CoV-2 has declined globally since 2022, relieving the burden on health systems and improving their capacity to cope with COVID-19 and other health threats. • All WHO regions have made continuous efforts to enhance their capability to detect and manage COVID-19 in the context of other circulating respiratory pathogens, including influenza. Although most countries face challenges in maintaining and sustaining surveillance efforts, several have shown the capacity to rapidly scale up diagnostic testing in the event of a resurgence driven by emerging SARS-CoV-2 variants. • However, some countries have and may continue to experience stress on health systems due to co-circulation of SARS-CoV-2 with other respiratory and non-respiratory viruses such as influenza, RSV, dengue and Chikungunya. • A variant associated with high clinical severity could emerge in future and once again overwhelm health systems. Maintaining and enhancing infection prevention and control (IPC) measures in the event of a resurgence remains therefore critical, as does increasing workforce capacity in response.

Major actions recommended by the risk assessment team

	Action	Timeframe
☐	Refer the event for review by IHR Emergency Committee for consideration as a PHEIC by DG (Art 12, IHR)	Not applicable
☐	Immediate activation of ERF response mechanism (IMS) as urgent public health response is required	Not applicable
☐	Recommend setting up of grading call (funding can be accessed before grading completed)	Not applicable
☐	Immediate support to response, but within limit of CFE (no grading recommended at this point in time)	Not applicable
☐	Rapidly seek further information and repeat RRA (including field risk assessment)	Not applicable
☐	Support Member State to undertake preparedness measures	Not applicable
☒	Continue to closely monitor	Continuous
☐	No further risk assessment required for this event, return to routine activities	Not applicable

Global strategic objectives (Immediate actions)

The WHO Director-General issued Standing Recommendations to Member States (MS) to offer immediate, actionable guidance to countries to support the effective COVID-19 management. Released alongside the Director-General's decision that COVID-19 is an established and ongoing health issue which no longer constitutes a public health emergency of international concern (PHEIC), the Standing Recommendations remain in effect through 30 April 2027. The full set of Standing Recommendations is available on the WHO website.

The Strategic Plan for Coronavirus Disease Threat Management (2025–2030) was published on 2 December 2025. This plan sets out the global framework for the sustained, integrated, and evidence-based management of coronavirus disease threats, including COVID-19, MERS, and potential novel coronavirus diseases of public health importance, covering the 2025-2030 period. Building on the experience of the past six years of COVID-19 response and ongoing work on MERS and other respiratory viruses, the Strategic plan:

- **Establishes a long-term approach to coronavirus disease threat management** within broader respiratory and other infectious disease control programmes;
- **Articulates high-level strategic directions to support Member States** in the management of coronavirus disease threats, sustaining advances made while closing remaining gaps; and
- **Consolidates relevant, existing WHO guidance** across the key pillars of WHO's HEPR framework: surveillance, community protection, safe and scalable care, access to and delivery of medical countermeasures, and coordination.

To support MS in implementing the Standing Recommendations and the Strategic Plan, WHO maintains a series of COVID-19 policy briefs. These policy briefs summarize and distil the latest WHO guidance into key steps for MS and provide links to further information.

Supporting information

Hazard assessment

Virus origins

While available information is insufficient to definitively conclude the origins of SARS-CoV-2, the independent assessment of SARS-CoV-2 origins report (June 2025) published by the Scientific Advisory Group for the Origins of Novel Pathogens (SAGO) reviewed all available evidence for the main hypotheses. It concluded that a zoonotic origin with spillover from animals to humans is currently considered the best supported hypothesis by the available scientific data. WHO and SAGO will continue to evaluate any new data provided and revise its assessment as needed.

Virus evolution and variants

Omicron, the last designated variant of concern (VOC), has accounted for 97% of all submitted sequences since January 2022. Omicron has diversified considerably, giving rise to more than 3700 descendent lineages. All Omicron descendent lineages share similar phenotypic characteristics, namely higher transmissibility due to immune escape properties and lower apparent disease severity as compared to pre-Omicron variants.

WHO continuously updates its tracking system and definitions for variants of SARS-CoV-2 to reflect the current global variant landscape. At present, WHO is monitoring one designated variant of interest (VOI), JN.1, and four designated variants under monitoring (VUMs): BA.3.2, NB.1.8.1, PQ.16.1.1, and XFG. All VUMs are descendent lineages of JN.1 except for BA.3.2 which is a descendent lineage of an earlier Omicron BA.3. Between epidemiological weeks ending on 7 June 2026 and 28 June 2026, the VOI JN.1 remained stable at 14%. The VUM XFG showed a consistent decrease from 29.2% to 26.0%, NB.1.8.1 remained stable between 23%-24%, and BA.3.2 also remained stable between 14%-15%. PQ.16.1.1, a recently designated VUM and a descendent lineage of NB.1.8.1, increased substantially from 12.8% to 18.2%.

KP.3.1.1 was de-classified as a VUM having met the prevalence threshold of <1% both at the global and regional levels over eight consecutive weeks of circulation.

Risk evaluations on the current VOI and VUMs indicate they do not pose additional public health risks as compared to other currently circulating SARS-CoV-2 lineages.

Despite advances in sequencing capacity made during the pandemic, low, unrepresentative levels of genomic sequencing and/or sharing of sequence information pose significant challenges to the assessment of the SARS-CoV-2 variant landscape. Between January and June 2026, a total of 33 929 sequences were shared globally by 71 countries. This marks a decline compared to 114 112 sequences shared by 103 countries between July and December 2025. While a decline in SARS-CoV-2 genomic sequencing is expected compared to the early pandemic years, the current low volume of sequences also reflects limited geographic representation, with submissions primarily from high income countries, and significant delays in sequencing and data sharing from the time of sample collection. Representative levels of genomic sequencing and sharing of sequence information in a timely manner are essential for adequate, robust monitoring of existing SARS-CoV-2 variants and early detection as well as rapid assessment of emerging ones. WHO urges countries to maintain public reporting and publishing of genetic sequences with relevant meta-data.

The Technical Advisory Group on Virus Evolution (TAG-VE) continues to meet as needed to assess available evidence on circulating SARS-CoV-2 variants. Previously specific to SARS-CoV-2, TAG-VE has broadened its terms of reference to include other priority viruses with epidemic and pandemic potential, such as monkeypox virus (MPXV), Middle East respiratory syndrome coronavirus (MERS-CoV), dengue virus, oropouche virus, Rift Valley fever virus (RVFV), and Ebola virus. Complementing the work of TAG-VE, the Technical Advisory Group on COVID-19 Vaccine Composition (TAG-CO-VAC) also continues meeting twice per year to assess the impact of circulating SARS-CoV-2 variants on COVID-19 vaccine antigen composition, as further described in below vaccine-related sections. Based on these evaluations, WHO advises vaccine manufacturers and regulatory authorities twice a year on the implications for future updates to COVID-19 vaccine antigen composition in the face of continued virus evolution and diversification.

Human-animal interface

In addition to humans, SARS-CoV-2 can infect several domesticated animals as well as a wide range of wild animal species (1). SARS-CoV-2 surveillance in susceptible animal populations, including whole genome sequencing of virus isolated from animals and traceback investigations, remains fragmented due to limited formal surveillance in wildlife at global level; most positive findings to date are the result of research activities. The largest outbreaks detected and investigated in animals to date have been in European farmed mink (2) and in North American white-tailed deer (3), the latter including vertical transmission to their offspring. While some species have developed severe illness from SARS-CoV-2 infection, including mink (4) and hamsters (5) most species exhibit mild or no symptoms.

Regarding farmed animals such as poultry, swine, and cattle, laboratory infection studies have concluded that they are resistant to infection and do not shed virus. Studies have revealed varying percentages of SARS-CoV-2 infections in companion animals of infected owners. However, that they do not significantly contribute to further transmission.

Animal-to-human transmission has been rarely documented: from mink (6), Syrian hamsters (7), a cat (8), and white-tailed deer (9) after close contact. Significant concerns remain regarding ongoing SARS-CoV-2 circulation in animals and the establishment of animal reservoirs, potentially leading to accelerated virus evolution, adaptation of the virus to novel hosts and ecological impacts (10). The persistent circulation of other variants (11) alongside with Omicron sublineages could also lead to recombination events in animal reservoirs or human hosts following a spillback. Both present the risk of the introduction of novel variants back into the human population. In addition to this risk to human health, viral evolution could lead to changes in animal susceptibility, virus transmissibility among animals (intra- and inter-species), including disease severity in susceptible animals.

Infection and transmission

SARS-CoV-2 continues to spread mainly through infectious respiratory particles (IRPs) that can transmit through the air from an infected person to an uninfected person and be inhaled or deposited on a surface. This occurs primarily among those in close contact with each other within conversational distance or within closed rooms in poorly ventilated indoor areas. In these situations, the virus can travel from an infected person's mouth or nose as IRPs when they cough, sneeze, speak, sing, or breathe. An uninfected person can then contract the virus when these IRPs are inhaled (airborne transmission/inhalation) or if they are directly deposited on the mucous membranes of the eyes, nose, or mouth (direct deposition, or droplet transmission using earlier terminology). The virus can spread more easily in poorly ventilated and/or crowded indoor settings where people spend long periods of time. In these situations, IRPs can remain suspended in the air for longer or travel further than between individuals at conversational distance (airborne transmission/inhalation). Individuals may also become infected by touching their eyes, nose, or mouth after caring for or shaking hands with a person with SARS-CoV-2 infection (direct contact transmission) or after touching surfaces or objects that have been contaminated by the virus (indirect contact transmission).

WHO, in collaboration with partners, continues to monitor modalities of SARS-CoV-2 transmission, published a Global technical consultation report on proposed terminology for pathogens that transmit through the air and developed several tools to support measuring and assessing SARS-CoV-2 transmission. Among them, the Indoor Airborne Risk Assessment in the context of SARS-CoV-2 (ARIA) tool, designed in collaboration with the European Organization for Nuclear Research (CERN), supports the assessment of SARS-CoV-2 airborne transmission risk in indoor spaces of residential, public, and healthcare settings. Through this tool, users can calculate their risk of airborne transmission of SARS-CoV-2 in indoor settings and take appropriate mitigation steps. The tool uses evidence-based variables to inform preventive measures to significantly reduce the risk of transmission.

Clinical spectrum of disease

SARS-CoV-2 infection causes widely varying disease, from asymptomatic and mild to severe disease and death. Most individuals experience mild to moderate symptoms, with many others asymptomatically infected. Disease severity as judged from absolute numbers of reported deaths and hospital admissions has reduced significantly over time due to the high level of immunity achieved through vaccination and/or infection (12). The predominant symptoms have remained broadly similar throughout the pandemic. However, the limited testing and sequencing makes it difficult to obtain a comprehensive understanding of clinical symptoms and severity across more recent descendent lineages. Existing laboratory and epidemiological studies (13-16) on current SARS-CoV-2 VOI JN.1, which is also the parent lineage of most currently circulating VUMs (with the exception of BA.3.2), have not identified increased disease severity (17).

Evidence-based clinical and therapeutic guidelines are available from WHO (WHO Living Guidelines on Therapeutics for COVID-19 and WHO Living Guidelines on Clinical Management of COVID-19), and were both updated since June 2025. These guidelines continue to recommend the use of therapeutics to reduce hospitalization amongst those at highest risk of severe infection and to reduce mortality in hospitalized patients. Access to recommended medications, including nirmatrelvir, IL-6 receptor blockers and baricitinib, remains limited in some countries. Systemic corticosteroids are strongly recommended in severe disease. New advice for severe disease includes strong recommendations against the routine use of SGLT-2 inhibitors (the "gliflozins") and statins. The optimal use for heparin has also been clarified with a conditional recommendation for prophylactic use.

Children and infants

Children exhibit similar clinical manifestations of COVID-19 as adults, though typically with milder and less frequent symptoms, and with significantly lower rates of severe disease. A WHO analysis incorporating multinational data from 50 351 children from January 2020 to December 2022, found that disease severity decreases with increasing age within paediatric groups, with infants having the highest mortality risk, comparable to that of adults aged 20-45 years. Fever was the most frequently reported symptom in the paediatric population, observed in 55.3% (6612/11 965) of cases. The presence of underlying conditions, including HIV, chronic cardiac disease, diabetes, and pulmonary disease, increased the risk of presenting with severe disease at hospital admission. Infants may also have feeding difficulties and fever without an obvious source.

Meta-analysis of wider impact of COVID-19 on children aged 0 to 12 noted reduced psychological well-being and social-emotional skills which deteriorated mostly in the early pandemic (18). These findings corroborate other evidence of symptoms

of mental health problems, mediated directly through disease or related to the broader environment. A birth cohort examining developmental screening scores at age 2 years suggests reduction in communication, personal-social and fine motor skills domains amongst those born during the pandemic (19).

The multisystem inflammatory syndrome in children (MIS-C) is a rare, life-threatening complication associated with immune reactions, targeting the body's own proteins (20), triggered by acute COVID-19 infection. MIS-C has become less frequent since the start of the pandemic with a 95% reported reduction in cases during the Omicron variant period and after widespread vaccination (21).

Pregnant women

Pregnant women* are at increased risk of severe COVID-19 outcomes compared with non-pregnant women of reproductive age. These outcomes include hospitalization, ICU admission, need for mechanical ventilation, and adverse pregnancy outcomes such as preterm birth. Data gathered by WHO between March 2020 and March 2023 from 165,761 pregnant women in fifty-seven countries through the WHO Global Clinical Platform (Clinical characteristics of pregnant and nonpregnant women hospitalized with suspected or confirmed COVID-19) identified advanced age and pre-existing comorbidities like diabetes and hypertension as risk factors for severe disease, consistent with those risk factors observed in the general population. A review of 14 studies conducted when Omicron has been circulating (2023–2025) suggests that while Omicron infections during pregnancy carry lower maternal risk than Delta and earlier VOCs , infection still increases the risk of adverse outcomes compared with pregnancies without SARS-CoV-2 infection (22). Across multiple studies conducted during the Omicron era, SARS-CoV-2 infection during pregnancy was linked to a 64% (95% CI 31 – 107) increased risk of maternal ICU admission; and a 26% (95% CI 14 – 38) increased risk of preterm birth. Maternal morbidity included pregnancy complications (vaginal bleeding, pregnancy-induced hypertension, pre-eclampsia, eclampsia, and HELLP syndrome), preterm birth, infection requiring antibiotics, ICU admission, referral to higher-level care, or maternal death (23). Vaccination prior to and during pregnancy was associated with lower risk of maternal hospitalization and ICU admission and adverse pregnancy outcomes (preterm birth) in both Delta and Omicron variant periods (24). Among infected pregnant women, vaccination before or during pregnancy was associated with a 36% reduction in the risk of maternal morbidity or mortality compared with no vaccination (95% CI: 12–65).

Post-acute and long-term health effects of SARS-CoV-2 infection, including Post COVID-19 Condition (PCC)

Post-COVID-19 condition (PCC) is characterized by persistence of symptoms ≥3 months after SARS-CoV-2 infection and may affect individuals even with mild initial disease. WHO clinical case definitions are available for PCC in adults and children. Long COVID-19 (LC) is a less strictly defined but more commonly used description.

PCC pathogenesis is incompletely understood but involves diverse molecular and cellular mechanisms which vary between individuals (25). Symptoms are similarly diverse, with the most frequent symptom clusters being shortness of breath, fatigue, and cognitive problems (26). Most PCC cases occur following mild acute illness, and females are more frequently affected than males (OR 1.56; 95% CI: 1.41–1.73). However, the risk of developing PCC is higher among individuals who experience severe acute disease and those hospitalized (27). Reinfection with SARS-CoV-2 has been associated with increasing the risk of PCC (28).

Estimates of the risk and prevalence of PCC vary considerably due to differences in study design, cased definitions used, time period, and follow up duration. In this context, pooled estimates across large meta-analyses range widely, but central estimates of long-COVID symptoms prevalence are 28%–36% (29-30). Evidence suggests that the incidence of PCC has declined although continued SARS-CoV-2 transmission means that even at lower incidence rates, the absolute numbers of PCC cases is large (31). PCC remains an important and ongoing public health concern. COVID-19 vaccination may reduce the risk of PCC primarily through prevention of severe disease.

There is currently no treatment suitable for all patients with PCC, and given the wide variety of mechanisms, future treatments will likely be tailored to the causes in that individual. The search for reliable biomarkers of mechanisms and response continues. People experiencing persistent limitations in daily functioning, or a protracted course of PCC will require person-centred, comprehensive and multidisciplinary rehabilitation services delivered in collaboration with primary care practitioners and several medical specialties. There are many ways that PCC can manifest. Using treatments from similar conditions can be effective. For example, for fatigue and post-exertional dyspnoea, for dizziness related to blood pressure regulation (postural orthostatic tachycardia syndrome, POTS), and for hypersensitivity (mast cell disorder). General approaches to rehabilitation can also be very useful (see WHO Living Guidelines on Clinical Management of COVID-19).

* All uses of the terms "pregnant women" in this document are intended to be inclusive of all those who are pregnant or give birth, including cisgender women or adolescent girls, transgender men and other gender diverse people.

Other post-acute sequelae have been described following acute COVID-19 illness. These include, but are not limited to, cardiovascular and neurological events, and kidney and lung impairments. Subsequent reinfections with SARS-CoV-2 are associated with higher hazards and excess burden of these conditions (32-34).

Given the wide variety of PCC mechanisms, current and future PCC treatments are tailored to the underlying causes in each individual. People experiencing persistent limitations in daily functioning, or a protracted course of PCC will require person-centred, comprehensive and multidisciplinary rehabilitation services delivered in collaboration with primary care practitioners and several medical specialties (35).

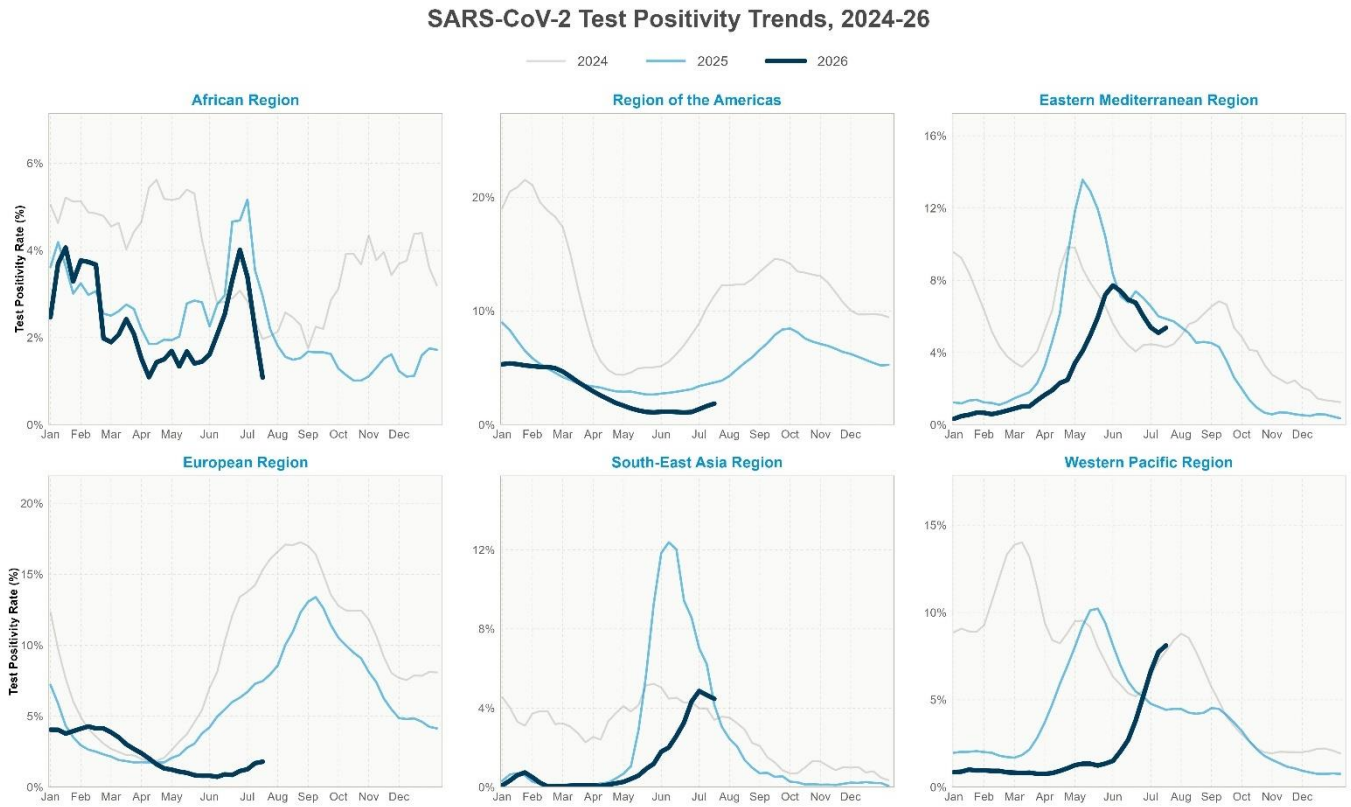
Exposure assessment

Circulation

Many countries have transitioned from testing every individual case to more sustainable surveillance strategies, such as integrating SARS-CoV-2 / COVID-19 into existing disease surveillance systems like the Global Influenza Surveillance and Response System (GISRS) or Integrated Disease Surveillance and Response (IDSR) systems. As a result, test positivity rates from sentinel or other systematic testing sites and SARS-CoV-2 RNA concentrations in wastewater have become more reliable indicators of circulation than incidence rates. In 2026, as of 1 July 2026, more than 5.3 million specimens have been tested for SARS-CoV-2 and reported to the global GISRS platform (RespiMart) from both sentinel and non-sentinel sources. Overall, 74% of MS (n = 144 out of 194) have reported SARS-CoV-2 data. This represents a stable trend in number of countries reporting SARS-CoV-2 data to e-GISRS globally as compared 2024 (75%).

The integration of SARS-CoV-2 into existing respiratory diseases surveillance systems like GISRS is proceeding at different rates across regions. However, the proportion of countries reporting SARS-CoV-2 specimen counts regardless of surveillance type information at least once ranges between 51% in the African Region (AFR) to 92% in the European Region (EUR) for 2026 thus far. The integration of severity and impact surveillance which requires disaggregation of data by case definitions is even more limited. From 1 January 2026 through June 2026, 31% of MS (n = 61) provided Severe Acute Respiratory Illness (SARI) due to SARS-CoV-2. This represents a stable trend compared to 2024 when 34% (66 MS) reported. The 61-reporting MS are concentrated in just four regions: 28 out of 53 in the European Region, 17 out of 35 in the Americas region (AMR), 14 out of 21 in Eastern Mediterranean region (EMR), and 2 out of 27 in WPR.

Figure 1: Weekly SARS-CoV-2 specimen test positivity trends from systematic surveillance reported to GISRS across the six WHO regions, 2024–2026, through the week ending 19 July 2026 (Data source: GISRS – RespiMART)



Note: Y-axis scales vary across panels to reflect regional data ranges. Visual trends are not directly comparable between regions.

In the first half of 2026, SARS-CoV-2 continued to circulate widely alongside other respiratory pathogens but has yet to establish clear periodicity. Global SARS-CoV-2 test positivity, as measured through systematic surveillance under GISRS, declined to a record low of 1.2% in May 2026 before increasing to 4% in the week ending 19 July 2026. At the regional level, overall SARS-CoV-2 circulation remained lower than during the previous two years, despite elevated levels of circulation in

some countries. From May through June, systematic surveillance showed increased positivity in parts of the Africa, Eastern Mediterranean, South-East Asia, and Western Pacific regions. Unlike the previous two years, Europe did not experience the mid-April increase in SARS-CoV-2 circulation observed in 2024 and 2025.

Wastewater and environmental surveillance

An increasing number of countries are now monitoring SARS-CoV-2 concentrations and circulating variants in wastewater as part of their surveillance approaches. This approach helps to understand the intensity of virus circulation and identify variants present in the community as countries shift to less broad, more targeted testing strategies. Wastewater surveillance can serve as an additional tool for detecting a potential upsurge in hospitalizations given the lag between infection and hospitalization. According to estimates obtained from viral loads in wastewater surveillance, clinical detection of cases may underestimate the real burden by as much as 2 to 33 times (36-38).

As of June 2026, around 30 Member States across five WHO regions have made routine wastewater surveillance information publicly available. The list of these countries and access to their dashboards or reports can be found on the wastewater section of the WHO Global COVID-19 dashboard. For the weeks between April – May 2026, 22 countries updated their data at national or sub-national levels. While no country reported high concentration levels, two reported moderate levels, and 18 reported low levels. Most of these countries showed stable trends (12 out of 18) – primarily in Europe. There were also some countries which reported identifying variants in wastewater. Several of these countries have either ceased submitting genomic surveillance data from clinical samples entirely or continue to submit only a minimal number of sequences with considerable delays. Consequently, wastewater surveillance has become a complementary means of monitoring the circulating SARS-CoV-2 variants in these countries but reporting needs to be standardized and countries encouraged to keep up surveillance.

Detailed, case-based surveillance

WHO continues to monitor COVID-19 cases, hospitalisations, ICU admissions, and other surveillance indicators. Following the end of the PHEIC in May 2023, WHO released an addendum to the Public Health Surveillance of COVID-19 interim guidance outlining the minimum set of COVID-19 indicators that Member States (MS) should share with WHO. As Member State surveillance strategies continue to evolve, however, reductions in laboratory testing and increased use of unreported self-testing for mild cases limit representativeness. As a result, to complement information from test positivity and wastewater surveillance described above, understanding COVID-19-related hospitalizations has become key. WHO continues updating its COVID-19 surveillance platform weekly, even though only a limited number of MS continue submitting data.

Since the event was confirmed to WHO in 2020 and as of 28 June 2026, over 779 million confirmed cases have been reported globally to WHO, while seroprevalence estimates suggest that there are orders of magnitude more infections and reinfections that remain unreported. From January to end of June 2026, around 200 000 cases and 6 900 deaths have been reported to WHO, with 86 countries reporting at least one case and 26 countries reporting at least one death during this period. In comparison, in the first half of 2025, more than one million cases and 16 800 deaths were reported, from 106 countries for cases and 43 countries for deaths. While the number of reported cases is decreasing since mid-2022, with concurrent decline in both global testing rates and the number of countries reporting these data, sentinel site test positivity rates and wastewater concentrations suggest that SARS-CoV-2 continued to circulate widely in communities alongside other respiratory pathogens in all WHO regions throughout the first half of 2026. While WHO continues to operate its established pandemic surveillance systems, cumulative case numbers no longer provide an accurate reflection of the current epidemiological situation due to changes in national surveillance and reporting strategies. Despite limitations at the global level, this data remains valuable for assessments at national level. When combined with hospitalization and genomic surveillance data, it supports risk evaluation of emerging variants and informs decisions on their classification (e.g., VOI or VUM). Mortality data also contributes to severity assessments, such as deaths per 1000 hospitalizations.

Monitoring more targeted indicators, such as morbidity metrics (e.g., new hospitalizations and ICU admissions) continues to be important in COVID-19 surveillance and risk assessment. Despite a specific request by WHO to report hospitalization and ICU data, the number of MS reporting such information remained low in 2023, with only 44% (86 MS) reporting at least one new hospitalization and less than 29% (57 MS) reporting ICU admissions. This low reporting trend persisted in subsequent years. In the first half of 2026, the proportion of MS reporting at least one new hospitalization decreased to 15% (29 MS). Similarly, ICU admission reporting remained limited, with only 11% (22 countries) submitting at least one ICU admission in the first half of 2026.

As an indicator of severity, data collected from countries reporting both hospitalizations and ICU admissions show an overall decreasing trend in number of patients requiring ICU admission per 1000 hospitalizations since July 2021, when the rate was 234 ICU admissions per 1000 hospitalizations which dropped below 60 in October 2022 and to 50 by September 2023. In 2024, the global ICU admission rate among hospitalized COVID-19 cases peaked at 194 per 1000 hospitalizations in March before declining to approximately 50 per 1000 by mid-2025. During the first half of 2026, the rate increased to 170 per 1000 hospitalizations before declining to 89 per 1000 in the week ending 28 June. The causes for these changes cannot directly be deducted from the data but likely include a combination of a decreasing number of countries reporting hospitalization

and ICU admission data, increases in infection- and/or vaccine-derived immunity, improvements in early diagnosis and clinical care, reduced strain on health systems, change in surveillance systems in place and other factors. It should be noted that it is not possible to infer a decreased (or increased) intrinsic virulence amongst newer SARS-CoV-2 variants from such data.

In the updated policy brief on COVID-19 surveillance, WHO advises MS to sustain surveillance for COVID-19 to meet key strategic public health objectives such as maintaining a minimum level of testing and sequencing, with a focus on long-term monitoring of respiratory pathogens within integrated systems (such as GISRS and IDSR). Additionally, the brief emphasizes the importance of community sentinel sampling, targeted monitoring of high-risk groups, tracking hospital and intensive care admissions and deaths, and effectively detecting and characterizing new variants.

Mortality

As of 28 June 2026, over seven million confirmed deaths had been reported globally to WHO. The number of weekly reported COVID-19-related deaths has been steadily declining, now consistently below 500 in 2026. This is a significant decrease compared to previous periods, such as the 6000 average deaths reported per week in 2023 and the over 24 000 in 2022. Similar to case reporting, the weekly average number of countries (including areas and territories) reporting at least one death has declined from 131 in 2022 to 18 and 12 in 2025 and 2026, respectively.

In 2026 (as of 28 June), 6914 deaths were reported from 27 countries, averaging 266 deaths per week. Since the beginning of 2024, global reporting of COVID-19 deaths has been predominantly driven by countries in the Region of the Americas and the European Region. It is important to note that absence of official reporting to WHO does not imply that COVID-19 related deaths are not occurring in non-reporting countries. The overall decline in reported deaths coincides with a reduction in the number of countries reporting, limiting the interpretation of global trends due to decreased geographic and income level representativeness. As a result, it is difficult to determine with certainty whether the observed decline reflects a true decrease at global level. However, data from mainly high-income countries that have maintained consistent surveillance and reporting indicate a continued downward trend in deaths, likely reflecting increased population-level immunity due to infections and vaccination.

As an indicator of severity, data collected from countries reporting both hospitalizations and deaths showed a decreasing trend in deaths per 1000 hospitalizations, from 246 in February 2021 to fewer than 30 in May 2024. The rate then gradually increased to above 100 deaths per 1000 hospitalizations by early 2025, remained relatively stable at around 110–125 between April and early June 2026, before declining sharply to 67 in the week ending 28 June 2026. The causes for these changes cannot directly be deducted from the data but likely include a combination of a decreasing number of countries reporting hospitalization and mortality data, increases in infection- and/or vaccine-derived immunity, improvements in early diagnosis and clinical care, reduced strain on health systems, change in surveillance systems in place and other factors. It should be noted that it is not possible to infer a decreased (or increased) intrinsic virulence amongst newer SARS-CoV-2 variants from such data.

Nevertheless, the reported figures are an underestimate of the true death toll, which has been estimated by several groups, including WHO (39). It is worth highlighting that most countries do not differentiate COVID-19 deaths and hospitalizations between those directly caused by SARS-CoV-2 and those testing positive for the virus incidentally. The population aged 65 years and over, and those who are not vaccinated, continue to be most at risk of severe disease and death.

In 2026 (as of 28 June), 25 countries from the Region of the Americas and the European Region reported deaths with age information which represents a decrease from 37 countries across the Region of the Americas, European Region, African Region, and Western Pacific Region in 2025. Information on age was available for 6 559 deaths, representing 95% of the total 6 914 reported deaths in 2026 from January to the end of May. The population 65 years and over constituted 88% of all deaths within the first five months of 2026. While similar to the figure reported in 2025, it nevertheless represents the highest proportion of deaths attributed to a single age group since the beginning of the pandemic. Those aged 15 to 64 years constituted 11.1% of all deaths, presenting a decrease from 12.1% compared to 2025. These data were consistently provided by the Region of the Americas and the European Region. When compared, the proportion of deaths among those aged 15 to 64 were higher in the Region of the Americas (12.2%) than the European Region (6.5%). In the first half of 2026, less than 1% (n=58) of reported deaths occurred among children under 15 years of age – a consistent trend since the emergence of SARS-CoV-2. However, a more detailed look reveals that 32 out of 58 (72%) deaths occurred in children under five years old, indicating that this age group remains the most vulnerable compared to older children.

Relative mortality risk for COVID-19 in the context of co-circulation with other viruses

COVID-19 and seasonal influenza represent a substantial burden of respiratory illness among hospitalized patients. As COVID-19 is integrated into broader respiratory virus surveillance systems, understanding its mortality risk in comparison to other respiratory viruses, such as influenza, is important.

There are now published estimates of in-hospital mortality risk for COVID-19 and seasonal influenza. Using data from a nationwide hospital-based surveillance system in Germany, Dickow J. et al (40) reported that in-hospital mortality declined from 16.8% among patients with pre-Omicron COVID-19 to 8.4% among those with Omicron COVID-19. The adjusted odds

ratio (aOR) for in-hospital mortality compared to seasonal influenza also fell significantly from 3.5 (95% CI: 3.0–4.1) for pre-Omicron variants to 1.6 (95% CI: 1.3–1.8) during the Omicron period. Similarly, Kojima N. et al. (41) using a population-based hospitalization surveillance system in the United States, assessed COVID-19 mortality risk among hospitalized patients from 1 October 2021 to 30 September 2022. This study showed a decline in in-hospital fatality ratios from 14.6% for the Delta variant to 7.9% for Omicron BA.1, 6.0% for BA.2, and 4.6% for BA.5, compared to a seasonal influenza in-hospital fatality ratio of 2.6% during the same period.

These results would suggest that over the course of the pandemic, the comparative mortality risk between COVID-19 and seasonal influenza among hospitalized patients has decreased. This is likely explained by a combination of multiple factors, including the continuous evolution of SARS-CoV-2, with the emergence and circulation of SARS-CoV-2 variants with greater intrinsic transmissibility and properties of immune evasion, but lower inherent virulence, as well as the increased vaccine- and infection-derived protection against severe disease and death, and improvements in clinical management. However, both studies are limited to hospitalized patients and in-hospital deaths, and as such do not estimate absolute mortality burden from either infection, as deaths occurring outside healthcare facilities are not captured. Further, the comparison of relative mortality risk of COVID-19 and influenza among hospitalized patient also cannot be extrapolated to mortality burden at the population level, which depends not only on the severity of infections, but also on the number of infections and hospitalizations of COVID-19 and influenza occurring within a population over time. In addition, the selection of hospitalized patients does not capture the full spectrum of disease severity, particularly mild or asymptomatic cases. Further analyses of the comparative mortality risk for COVID-19 and seasonal influenza among hospitalized patients are needed.

Population immunity, including vaccination coverage and seroprevalence

WHO collects annual data on COVID-19 vaccination use and coverage through the WHO-UNICEF Joint Reporting Form on Immunization on annual basis. Both the reporting on COVID-19 vaccination use and the coverage rates decreased in 2025. In 2025, 131 WHO Member States reported targeting at least one population group for primary or re-vaccination with COVID-19 vaccines. Primary vaccination most commonly targeted older adults (66%), followed by older adults with chronic conditions (58%), health and care workers (53%), and pregnant women (49%). COVID-19 re-vaccination showed a similar pattern.

As of 26 June 2026, 41 countries (21% of WHO MS) reported COVID-19 coverage data for the 2025 calendar year, compared to 109 countries (56% of WHO MS) provided COVID-19 vaccination uptake data in at least one population group in 2024. Data from 2025 shows that the COVID-19 vaccine uptake was very low in most settings (42). In 2025, the median coverage ranged from nearly 13% for people with chronic conditions (11 countries reporting) to less than 3% for pregnant women (14 countries reporting). In 2025, 30 countries provided COVID-19 vaccination coverage for older adults with a median coverage of 4%. WHO has published a manual to support countries in monitoring and reporting COVID-19 vaccination coverage data: Manual for respiratory virus vaccination coverage: monitoring and reporting seasonal influenza, COVID-19, and respiratory syncytial virus immunization

Beyond vaccination data, up-to-date, globally comprehensive meta-analyses on seroprevalence data have not been available since April 2022, due to a sharp decline in the number of serosurveys published. The most recent globally comprehensive meta-analysis, under the WHO Unity Studies, estimated that the global percentage of seropositive individuals was 90% in April 2022, up from 22% in January 2021. In January 2024 WHO conducted a literature search which identified a limited number of studies in eight countries that had since been published, with sampling conducted in 2023 or later. Results from these studies have shown seroprevalence levels of 90% or greater, indicating very high potential levels of population immunity. It is important to note, however, that these data are heterogeneous and are not necessarily generalizable to the global population, nor were they formally meta-analysed. It is likely that additional studies have since been published sampling in 2023 or later but were not captured in a formal search.

WHO continues to encourage investigators to undertake seroprevalence studies and to publish the results on public platforms. Such studies have been crucial in estimating susceptibility to SARS-CoV-2 in high-priority groups, looking beyond the insights offered by vaccination data alone.

Hybrid immunity provides more robust protection against Omicron infection and severe disease compared to previous SARS-CoV-2 infection without vaccination or vaccination alone. The interim statement on hybrid immunity and increasing population seroprevalence rates, published by WHO in June 2022, defined hybrid immunity as 'the immune protection in individuals who have had one or more doses of a COVID-19 vaccine and experienced at least one SARS-CoV-2 infection before or after the initiation of vaccination'. The protection from hybrid immunity wanes within months.VE against severe disease waned more rapidly than in the early Omicron period, with little to no vaccine protection remaining by 6 months after vaccination, among high-risk persons, including older adults, immunocompromised or with comorbidities.

Situation summary

Six and a half years since the emergence of SARS-CoV-2, current evidence remains most consistent with the base-case scenario, although continued immune escape and declining vaccine uptake reflect features previously considered under more pessimistic planning assumptions. (see Table 2). This includes the continued emergence of highly transmissible variants against which existing vaccines are less effective and the waning of immunity against severe disease and death. New

variants have not yet, however, been observed to be more virulent. The current situation requires on-going monitoring of virus circulation and evolution as well as review and adaptation of vaccine composition to ensure optimal effectiveness. TAG-VE and TAG-CO-VAC remain active in analysing available data on emerging variants, even if data are increasingly limited.

Table 2. Base case, best case, and worst-case planning scenarios (adapted from SPRP 2022)

Scenario	Description
Base case	The virus continues to evolve. However, severity is significantly reduced over time due to sustained and sufficient immunity against severe disease and death, with a further decoupling between the incidence of cases and severe disease leading to progressively milder outbreaks. Periodic spikes in transmission may occur as a result of an increasing proportion of susceptible individuals over time if waning immunity is significant, which may require periodic boosting at least for high-priority populations; a seasonal pattern of peaks in transmission in temperate zones may emerge.
Best case	Future variants that emerge are significantly less severe, protection against severe disease is maintained without the need for periodic boosting or significant alterations to current vaccines.
Worst case	A more virulent and highly transmissible variant emerges against which vaccines are less effective, and/or immunity against severe disease and death wanes rapidly, especially in the most vulnerable groups. This would require significant alterations to current vaccines and full redeployment and/or broader boosting of all high-priority groups.
Reset case	An entirely new SARS-CoV-2 virus emerges from either a pre-existing or newly established animal reservoir, or through a recombination event in a co-infected patient that produces a virus sharing genetic traits of both parent lineages. This scenario effectively resets population immunity and existing countermeasures, necessitating the development of new vaccines, treatments, and public health strategies.

Context assessment

As countries transition to sustained COVID-19 management, maintaining core public health capacities remains important. Diagnostic testing, genomic sequencing, and environmental surveillance—including wastewater monitoring—continue to support early detection and variant tracking. Integration of SARS-CoV-2 surveillance into systems like e-GISRS has enhanced global monitoring, though implementation varies across regions. Public health and social measures (PHSM), while largely phased out, remain relevant for risk-based response planning. WHO encourages their continued integration into national strategies, supported by available frameworks and tools. Vaccination efforts must focus on high-risk groups, with simplified dosing and integration into routine immunization programme services to ensure sustainability. Risk communication and community engagement (RCCE-IM) play a vital role in maintaining public trust and promoting protective behaviours. Despite reduced activity in many countries, WHO highlights the value of these approaches in preparedness planning. Infection prevention and control (IPC) remains essential in healthcare settings, supported by updated WHO guidance and training resources. Essential health services have largely resumed, though recovery is uneven. Particular attention is needed for older populations and mental health, where service disruptions have had lasting impacts. WHO continues to support MS in strengthening integrated care models and leveraging lessons learned to build more inclusive and resilient health systems.

Capacities	Vulnerabilities
Laboratory and diagnostics The reference tests for SARS-CoV-2 testing are nucleic acid amplification tests (NAAT), such as RT-PCR. Antigen-detecting rapid diagnostic tests (Ag-RDTs) are also widely available and have high sensitivity and very high specificity in symptomatic individuals. Self-testing using Ag-RDTs is also available in most countries. Serological tests (such as ELISA and antibody-detecting rapid diagnostic tests, or Ab-RDT) are not recommended for the diagnosis of COVID-19 but can be used to assess antibody levels in individuals who had a past infection and/or were vaccinated. SARS-CoV-2 continuously evolve, resulting in genetic variation in the population of circulating variants, also called lineages, that can affect certain SARS-CoV-2 diagnostic tests. These mutations can potentially affect both rapid antigen tests and PCR tests. However, PCR tests still retain higher accuracy due to the use of multiple gene targets, including conserved regions of the genome. In the updated policy brief on COVID-19 testing, WHO advises MS to continue to offer testing for COVID-19 in line with three main objectives as part of COVID-19 management and control: (i) reduce morbidity and mortality through linkage to prompt care and treatment, (ii) monitor the evolution of the SARS-CoV-2 and (iii) reduce the risk of emergence and spread of new SARS-CoV-2 variants that could cause upsurges of cases. Early testing of suspected	**Reduced SARS-CoV-2 testing in health facilities** Testing for SARS-CoV-2 has significantly reduced especially in resource limited countries since the PHEIC was lifted making it difficult to accurately estimate the burden of the disease globally. **Genomic Surveillance** The ongoing evolution of SARS-CoV-2 necessitates continuous genomic surveillance to assess the impact of emerging variants on diagnostic accuracy, vaccine effectiveness, and

Capacities	Vulnerabilities
COVID-19 cases, particularly among individuals at higher risk for hospitalization or severe illness, is essential to ensure timely access to supportive care and COVID-19 therapeutics. Testing of clinical and environmental samples continues to play a critical role in monitoring the evolution of SARS-CoV-2 by contributing data from sentinel, wastewater, and animal surveillance systems. COVID-19 testing and reporting strategies should be integrated with genomic surveillance and phenotypic assessment. As countries transition to comprehensive, long-term COVID-19 management within broader disease prevention and control programs, they must remain prepared to rapidly scale up testing in response to surges caused by new SARS-CoV-2 variants that could overwhelm health system capacities. Consolidated guidance for SARS-CoV-2 testing, exploring the value of testing in different sub-population and appropriate testing strategies across different transmission contexts is currently under development and is expected to be completed by mid-2026. **WHO Coronavirus Network (CoViNet)** The CoViNet aims to bring together surveillance programs and reference laboratories to support enhanced epidemiological monitoring and laboratory (phenotypic and genotypic) assessment of SARS-CoV-2, MERS-CoV and novel coronaviruses of public health importance including capacity building of laboratories in low- and middle-income countries. Currently, the network comprises 58 laboratories across 35 countries (this includes 6 animal and 4 environment laboratories), after addition of 21 laboratories following the second expression of interest call in July 2025. To support TAG-CO-VAC deliberations, CoViNet contributed to the generation of antigenic characterization data across its reference laboratories. Nine labs contributed under four main categories: post-vaccination sera (including post-XBB.1.5 and, where possible, post-JN.1/KP.2), community sera, sera from individuals with known infection histories (including JN.1), and animal sera. Variants tested included KP.3, LB.1, KP.3.1.1, and XEC, though specific variants varied by lab. The coordinated findings were presented to TAG-CO-VAC on 10 December 2024. Additionally in 2024, CoViNet advanced SARS-CoV-2 antigenic characterization for timely risk assessment through the WHO BioHub, supported the development of neutralization assay capacity in Ghana and Pakistan, and enhanced sequencing efforts in Uganda, South Sudan, and Senegal. In 2025 and 2026, the network continues to strengthen coronavirus surveillance by sharing harmonized RT-PCR protocols for pan-CoV detection, guiding countries on optimal sequencing volume and turnaround times, and distributing external quality assessment (EQA) panels for zoonotic coronaviruses to over 30 reference laboratories as well as SARS-CoV-2 EQA panels via GISRS to all National Influenza Centres (NICs).	therapeutic efficacy. However, as a result of reduced testing, levels of genomic sequencing and genetic sequence data sharing have significantly decreased over time and vary widely across countries and regions posing significant challenges to the assessment of the SARS-CoV-2 variant landscape.
Use of the Global Influenza Surveillance and Response System (GISRS) for COVID-19 surveillance GISRS continues to serve as a platform for integrated surveillance of influenza viruses, SARS-CoV-2 and other respiratory viruses, and to provide training, technical, and logistical support to resource-limited countries to conduct testing using multiplex RT-PCR assays and genomic sequencing of positive specimens. Since 2021, the WHO Collaborating Centre for the Surveillance, Epidemiology and Control of Influenza at the United States Centers for Disease Control and Prevention has distributed thousands of multiplex RT-PCR kits for influenza A, influenza B, and SARS-CoV-2, to national influenza centres and national influenza laboratories in countries through the International Reagents Resource. The WHO GISRS External Quality Assessment Programme coordinated by the Global Influenza Programme has continued to support laboratory quality assurance for the molecular detection of influenza viruses, SARS-CoV-2, respiratory syncytial virus (RSV) and other respiratory viruses. In Panel 24 (2025), samples were dispatched to 194 laboratories across 163 countries, areas and territories. Since January 2022, WHO has also supported Member States in adapting and implementing regional frameworks for integrated surveillance of respiratory viruses of epidemic and pandemic potential, including the “Mosaic” respiratory surveillance framework designed to establish coordinated and effective surveillance approaches to address key priorities related to respiratory pathogens, such as influenza, SARS-CoV-2, Middle East respiratory syndrome coronavirus (MERS-CoV) and RSV. It remains critical for countries to continue implementing integrated sentinel surveillance to monitor the co-circulation and viral evolution of influenza viruses and SARS-CoV-2, assess risks and prepare for resurgences of either or both viruses. To this end, WHO has published “Implementing the integrated sentinel surveillance of influenza and other respiratory viruses	**Integrated surveillance** Integration of SARS-CoV-2 into existing respiratory surveillance systems such as GISRS varies across regions. In 2026, as of 1 July, 5.3 million specimens had been tested for SARS-CoV-2 and reported to the global GISRS platform, RespiMart. Reporting rates ranged from 51% in the African Region to 92% in the European Region. The integration of severity and impact surveillance, which requires the disaggregation of data by case definitions, was more limited.

Capacities	Vulnerabilities
of epi…". These standards recommend year-round surveillance for acute respiratory infections, including testing and characterization for influenza viruses and SARS-CoV-2, and weekly reporting of surveillance data to WHO.	
Environmental surveillance Globally, an increasing number of jurisdictions are including wastewater sampling in their surveillance of SARS- CoV-2. Environmental Surveillance (ES), including wastewater surveillance, can provide early warning signals of emergence, re-emergence, or surges of SARS-CoV-2, including VOCs and VOIs, at least one week prior to the detection of clinical cases. By detecting hotspot areas and performing targeted surveillance of circulation of the virus in high-risk settings or vulnerable communities, ES can also provide a cost-effective tool for public health surveillance. As COVID-19 control measures and public interest in diagnostic testing decline, the role of ES becomes even more important to detect population-level trends. However, many ES programmes are also scaling back in large part due to limited funding to support public health authorities, wastewater utilities, and ES laboratories for such activities. The guidance on environmental surveillance for SARS-CoV-2 to complement public health surveillance was updated in September 2023. The updated guidance includes demonstrated public health use cases for ES, the minimum requirements for planning and coordinating environmental surveillance in different resource settings, and best practice for sampling and analysis. Global efforts are evolving rapidly towards multi-pathogen and agnostic ES, building on longstanding experience and capacity for polio ES and more recent application for SARS-CoV-2. Multi-pathogen approaches for communities and sentinel sites (e.g., airports), which are still in feasibility testing phase, anticipate efficiencies in combining ES for two or more targets and greater integration with clinical surveillance for all targets. Agnostic environmental surveillance, particularly through wastewater and air sampling combined with metagenomic sequencing, combines insights across human, animal, and environmental health (One Health) and provides a powerful tool for the early detection and monitoring of SARS-CoV-2 and other emerging or novel respiratory viruses without the need for prior knowledge of the specific pathogen. This approach supports risk assessment by capturing signals from asymptomatic or undiagnosed infections at the population level, enabling timely public health responses. WHO is developing guidance and building capacity for wastewater environmental surveillance (WES) on one or more pathogens as part of a collaborative surveillance approach. The focus is on supporting countries to prioritize WES activities where it can generate actionable public health insights, is technically and operationally feasible, ethically and legally acceptable, and can be effectively integrated with other surveillance systems. The pilot version of WES for SARS-CoV-2 summary document is open for feedback throughout 2025 and should be used together with the accompanying pathogen agnostic WES Guidance.	**Environmental surveillance** Although more countries are known to be using environmental surveillance as an additional approach for monitoring SARS-CoV-2, the number of countries making this information available to inform the public is limited. While there is an absence of consensus on defining the core indicators and data standards, monitoring wastewater surveillance trends is an important factor to increase visibility on both virus circulation, variant distribution and potential surges in health care system. Currently, there are around 30 countries listed with publicly available information products in the WHO Global COVID-19 dashboard. However, most of these are HIC with already maintained core surveillance activities. Adopting environmental surveillance in more countries with limited public health surveillance would fill an important gap.
Public health and social measures (PHSM) Most, if not all, countries have phased out public health and social measures (PHSM) for COVID-19 due to changes in disease burden and epidemiological trends, as well as socioeconomic requirements to reopen communities. Monitoring of COVID-19 PHSM policies by WHO and other external groups stopped when most countries had lifted PHSM measures. WHO continues to recommend that countries integrate PHSM and the deployment of medical countermeasures as part of a robust strategy for long-term, sustainable COVID-19 management in the context of overall disease control and prevention programmes. PHSM should be applied in a layered and proportionate manner, based on identified public health risks and evidence of their effectiveness. Mitigation measures, such as social protection policies and community-based interventions should be integrated into PHSM implementation to reduce the impact of unintended negative consequences of PHSM implementation, including unemployment, food insecurity, interrupted education, domestic violence, and slowed economic productivity. PHSM policies should be monitored routinely at the national, subnational and local levels to facilitate transparency and enable evaluation of PHSM effectiveness. Based on routine PHSM policy and disease situation monitoring, PHSM should be adapted to ensure that they remain relevant, proportional, and effective in the face of evolving contextual factors. Decisions to adjust PHSM may be based on set schedules or thresholds in response to shifts in epidemiological trends, healthcare system capacity, availability and distribution of medical countermeasures, and population immunity, among others.	**Public health and social measures (PHSM)** Few countries have adequate plans and strategies to re-introduce, scale-up and adjust PHSM in the event of a resurgence of COVID-19 or another respiratory pathogen. This is a critical concern as insufficient PHSM planning and preparedness can result not only in increased cases of and deaths from COVID-19, leading to increased burden on health systems, but also requires the implementation of more stringent PHSM down the line. This can increase the number of unintended negative consequences coming from PHSM. Being able to rapidly re-introduce and scale PHSM

Capacities	Vulnerabilities
WHO has published a number of resources to support MS in developing risk-based, evidence-informed PHSM measures for COVID-19 in an equitable and context-specific manner. In particular, WHO has recently published the PHSM Decision Navigator, a first-of-its-kind framework designed to support governments in navigating complex decisions on PHSM during health emergencies. The Navigator is threat-agnostic and provides a step-by-step, risk-based and evidence-informed approach to support governments to design, balance, prioritize and adapt PHSM within the context of overall response strategies. WHO has also prepared the PHSM Conceptual Framework to harmonize the understanding and language used to describe how PHSM work during health emergencies. Further, the PHSM Knowledge Hub serves a publicly accessible gateway to research and resources on PHSM. It has four interconnected tools: 1) the ***PHSM Bibliographic Library,*** a repository of multilingual and multidisciplinary research articles on PHSM, providing access to almost 500,000 research articles for 23 priority diseases; 2) **Living Reviews** which enables users to automate and accelerate the review process with **AI-assisted screening and streamlined selection and reporting** to provide tamely insights from research; 3) **Research Atlas** mapping research to the WHO global research agenda and Conceptual Framework; and 4) the Decision Toolbox which includes the list of social protection policies and the **WHO Recommendation Finder**, a comprehensive and searchable repository of PHSM-related WHO recommendations, technical specifications and enabling functions. Additional resources are available via the WHO Public Health and Social Measures Initiative. Considerable research was conducted on PHSM during the COVID-19 pandemic, yielding important insights for the development and deployment of PHSM in health emergencies. In 2024, under the WHO PHSM Initiative, an umbrella review of the effectiveness and unintended consequences of PHSM in the context of the COVID-19 pandemic was published (43). This review is considered the most comprehensive and current landscape analysis of the existing research available, including experimental and observational studies. The review further highlighted that the current research base is of predominantly low- to very-low certainty, emphasizing the critical importance of strengthening and harmonizing the research methodologies to measure PHSM effectiveness and consequences. It also underscored the need to increase coordination and alignment of research efforts with the priorities of policymakers and stakeholders. Readiness and response for future health emergencies requires expanding research efforts for PHSM beyond COVID-19 and adopting an all-hazard approach. Furthermore, WHO published a comprehensive scoping review on the role and effectiveness of the social protection policies aimed at mitigating the socioeconomic impact of PHSM implementation during the COVID-19 pandemic. Additionally, a systematic review and meta-analysis are underway to examine the determinants of adherence to PHSM, including knowledge, self-efficacy and risk perception and trust in government. <u>International travel</u> Following the transition from the PHEIC response to integration within broader disease prevention and control programmes. WHO recommends that national authorities adhere to the Standing Recommendations on COVID-19 issued by the WHO Director General, as well as WHO's policy and technical considerations for implementing a risk-based approach to international travel in the context of COVID-19. In line with these recommendations and considering the current COVID-19 epidemiological situation, countries should refrain from any unilateral travel-related restrictions and health measures, including requirements for testing or vaccination, and lift any such remaining measures to avoid unnecessary interference with international traffic and trade. Countries are recommended to initiate, support and collaborate on research to generate evidence that informs optimal use of travel-related measures as well as the impact of misinformation and disinformation on compliance with such measures; countries should also develop and maintain capacities for applying a risk-based and evidence-informed approach for decision making on travel-related strategies and measures to reduce SARS-CoV-2 transmission, in close collaboration with all relevant stakeholders . Countries may further refer to WHO's evidence review on syndromic entry and exit screening for epidemic prone diseases at ground crossings , which summarizes the latest evidence on health measures conducted at ground crossings during recent decades for epidemic-prone diseases, including for SARS-CoV-2. <u>Mass gatherings</u> Countries are encouraged to apply a generic All-hazards Risk Assessment Tool for Mass Gathering Events developed by WHO to identify priority hazards related to the event, assess and quantify overall level of risks, identify and account for precautionary measures to reduce risks. This includes planning for SARS-CoV-2, which should continue to follow a risk-based approach built on three key components: risk evaluation, risk mitigation, and risk	as needed is an essential capacity required for the long-term control of COVID-19 and other infectious diseases.

Capacities	Vulnerabilities
communication. This approach should be tailored to the size and type of event, and its context (including local and global SARS-CoV-2 transmission intensity and local health system capacity), with both the process and outcomes aptly communicated. A web application of the tool is also available for application. Planning considerations should extend beyond the event itself to include the broader social context in which the event takes place (e.g., informal side gatherings). Organizers should apply a holistic approach, paying close attention to venues, transportation, accommodations, and individual behaviours that might lead to unplanned congregation in public spaces, and relevant PHSM proportional to the risk. WHO has also published Mass Gathering practical guide for simulation exercises and after action reviews, which provides practical tools and structured methodologies for conducting SimEx and AAR to strengthen MG preparedness and legacy building, including for COVID-19. Although the COVID-19 situation has transited from the PHEIC response to its management within a country's broader disease prevention and control programme, individuals should still make informed decisions when planning or attending public gatherings. The WHO Q&A on small public gatherings considering COVID-19 remains applicable and can be consulted to ensure people planning to meet and attend important events and gatherings can do so safely.	
Vaccination Vaccination policy The current epidemiology, extensive COVID-19 vaccine safety and effectiveness record, and available cost-effectiveness evidence supports routine COVID-19 vaccination, particularly for groups at higher risk of severe COVID-19 outcomes. Until more data are available, COVID-19-related severe disease and deaths remain the outcomes of interest that should be driving the decision-making on COVID-19 vaccination while those vaccinated may benefit from the moderate VE against PCC. Routine, periodic COVID-19 vaccination helps sustain protection, as immunity acquired through wanes over time, with limited protection beyond six months following the most recent vaccine dose. WHO recommends that countries consider routine COVID-19 vaccination based on local COVID-19 epidemiology, population characteristics (including the prevalence of groups at higher risk of severe COVID-19 disease), access to COVID-19 vaccines, cost-effectiveness, acceptability, and programmatic feasibility. Countries should consider routine COVID-19 vaccination to those groups at highest risk of severe COVID-19 disease, whether previously vaccinated (last dose more than 6 months ago) or unvaccinated. These groups include: • Oldest adults (age threshold should be determined by countries; suggested at 75 or 80 years of age) • Older adults (age threshold should be determined by countries; suggested at 60 years of age) with significant comorbidities or severe obesity (threshold should be determined by countries). Significant comorbidities include chronic cardiovascular disease, diabetes mellitus, chronic respiratory disease, chronic kidney disease, chronic liver disease, and neurological conditions. • Residents in care homes for older adults (age threshold should be determined by countries; suggested at 60 years of age) and long-term care facilities. • Moderately or severely immunocompromised individuals from 6 months of age, including those with active cancer, transplant recipients, immunodeficiencies, and those being treated with immunosuppressives. Also included are people living with HIV with a CD4 T-cell count of <350 cells µl, or with evidence of an opportunistic infection, or not on HIV treatment, or with a detectable viral load. Countries may consider routine COVID-19 vaccination of additional groups, whether previously vaccinated (last dose more than 6 months ago) or unvaccinated, on the basis of local context, cost-effectiveness, and programmatic feasibility. These groups include: • Older adults (age threshold should be determined by countries; suggested at 60 years of age) without significant comorbidities or without severe obesity. • Adults (not included in the older adult category), adolescents, and children with significant comorbidities or severe obesity. • Pregnant adolescents and adults. Vaccination during pregnancy aims to protect against maternal severe COVID-19, prevent adverse pregnancy COVID-19 associated outcomes, and protect the infant during the first months of life through maternal antibody transfer. • Health workers and other care providers, who have direct contact with persons at high risk of severe COVID-19, such as staff of public and private health and social care	**Vaccination** While effective COVID-19 vaccines remain available, there has been a significant decrease in vaccine demand, and uptake. Global uptake of doses among high-risk populations has plateaued since early 2023, with particularly low coverage observed in 2025. Insufficient national prioritization due to competing priorities, funding constraints, and waning risk perception among populations contribute to these trends. The emergence of new variants with immune escape potential raises concerns about the adequacy of protection among unvaccinated groups. These could lead to increased morbidity and mortality should more virulent variants emerge. Sustained commitment to periodic re-vaccination and enhanced risk communication are critical to addressing these vulnerabilities.

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establishments, and co-habitants or caregivers of persons who are at highest risk of severe COVID-19 disease. • Previously unvaccinated healthy children (from 6 months to 23 months of age) only in countries with documented significant burden in this age group. Based on age and vaccine availability, either an mRNA variant-adapted (for those 6 months of age and older) or protein subunit variant-adapted COVID-19 vaccine (for those 12 years of age and older) can be used in unvaccinated or previously vaccinated individuals who do not have contraindications to the vaccine. WHO recommends that countries determine the optimal timing for offering COVID-19 vaccination based on local COVID-19 epidemiology and the feasibility of vaccine delivery. While currently no consistent seasonal pattern has been established for COVID-19, co-administration (injected in separate sites) of the COVID-19 vaccine with seasonal influenza vaccine (where applicable) or with other vaccines targeting the same population groups may improve uptake. This approach can enhance convenience and therefore access, reduce the number of vaccination visits, and reduce programmatic costs. WHO recommends that the minimum interval between COVID-19 vaccine doses is 6 months. For individuals who have had test-confirmed SARS-CoV-2 infection, a minimum interval of 6 months from infection can be considered if the person is due for a recommended COVID-19 vaccination. For groups at highest risk of severe COVID-19 disease, WHO recommends at least one COVID-19 vaccine dose per year, preferably two, about six months apart, due to the relatively rapid waning of immunity and limited protection beyond six months after the last dose. Country decisions on the number of doses per year (one or two) for those at highest risk and for additional groups should take into consideration cost-effectiveness and programmatic feasibility. For pregnant adolescents and adults, WHO recommends one COVID-19 vaccine dose in each pregnancy, at any stage, ideally during the second trimester. The aim is to optimize protection against maternal severe COVID-19, prevent adverse pregnancy outcomes, and protect the infant during the first months of life. For previously unvaccinated children aged 6–23 months, the number of doses required for primary COVID-19 vaccination depends on the vaccine product used and is typically two or three doses. Revaccination is not routinely recommended for this group. <u>Vaccine antigen composition</u> Given the continuous and substantial evolution of SARS-CoV-2 since the beginning of the COVID-19 pandemic, the WHO Technical Advisory Group on COVID-19 Vaccine Composition (TAG-CO-VAC) continues to closely monitor the genetic and antigenic evolution of SARS-CoV-2 variants, immune responses to SARS-CoV-2 infection and COVID-19 vaccination, and the performance of COVID-19 vaccines against circulating variants. This includes twice-yearly decision-making meetings, following which WHO advises vaccine manufacturers and regulatory authorities to maintain COVID-19 vaccine antigen composition or to consider updates. In May 2026, the TAG-CO-VAC advised that monovalent LP.8.1 is the recommended COVID-19 vaccine antigen. Other antigens (e.g. XFG, NB.1.8.1) or other approaches that demonstrate broad and robust neutralizing antibody responses or efficacy against currently circulating SARS-CoV-2 variants could also be used. The TAG-CO-VAC will continue to convene decision-making meetings on vaccine antigen composition twice a year. These meetings are timed to balance the availability of the latest epidemiological, immunological and virological data, with the kinetics of vaccine-induced protection and the lead time manufacturers need to update the antigen composition of authorized COVID-19 vaccines. As all COVID-19 vaccines with WHO prequalification (PQ) / Emergency Use Listing (EUL) recommendation continue to provide protection against severe disease and death, any COVID-19 vaccine with WHO PQ / EUL listing can still be. In accordance with WHO SAGE policy, vaccination should not be delayed in anticipation of access to Omicron variant-containing vaccines as there is a greater benefit in ensuring that persons at high risk of	

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developing severe COVID-19 receive a dose of any available vaccine as compared to delayed vaccination. Vaccine effectiveness (VE) Real-world evidence on VE from millions of vaccinated individuals confirms the ability of vaccines to reduce COVID-19-associated severe disease and death. Effectiveness was highest in the pre-Omicron period (>80% after the primary series). The more recent studies from 2024-25 assess up-to-date or relative VE comparing individuals recently vaccinated with variant-adapted vaccines to those who have not received these vaccines, usually including individuals who have previously received older vaccines. Including previously vaccinated individuals in the comparator group has the effect of lowering the VE estimates because they assess the added protection above existing immunologic protection instead of compared to no vaccine-related protection as in earlier studies. The evidence from a recent systematic review that evaluated up-to-date or relative VE in observational studies during periods when JN.1 or later Omicron subvariants were predominant (≥50%), between January 2024 and December 2025 showed that VE remained substantial during Omicron with clear added benefit from boosters in protection against severe disease and death. A systematic review and meta-analysis assessed the effectiveness of COVID-19 vaccination against PCC as the primary outcome and LC as a secondary outcome. The review included 89 studies published between 1 January 2020 and 1 August 2024. Overall, receipt of at least one vaccine dose prior to SARS-CoV-2 infection was associated with a pooled VE of 41.0% (95% CI: 28.8–51.1; 22 studies) against PCC compared with no vaccination. The analysis also found that protection increased with the number of vaccine doses received before infection. In the environment of JN.1 and related subvariants when almost everyone had some protection either through previous vaccination or prior infection, additional vaccine doses improved protection in the months after vaccination. However, VE against severe disease waned more rapidly than in the early Omicron period, with little to no vaccine protection remaining by 6 months after vaccination, among high-risk persons, including older adults, immunocompromised or with comorbidities. Vaccine safety More than five years of accumulated COVID-19 vaccine safety data from clinical trials, post-marketing pharmacovigilance systems, and international regulatory reviews have showed a favourable safety profile for COVID-19 vaccines. The WHO Global Advisory Committee on Vaccine Safety (GACVS) has consistently reaffirmed that the benefits of vaccination outweigh the risks across all groups, particularly in preventing severe disease, hospitalization, and death among populations at elevated risk of severe COVID-19 disease(44). Serious adverse events remain extremely rare relative to the more than 13 billion doses administered globally. Most reactions reported are mild or moderate and transient, resolving within a few days. They typically involve local pain, redness and swelling at the injection site; fatigue; muscle and joint pain; or low-grade fever. Vaccine product regulation During the PHEIC, WHO assessed and recommended 13 vaccines through the EUL procedure and one vaccine was directly prequalified post-PHEIC. With the ending of the PHEIC in 2023, WHO informed vaccine manufacturers that they would need to confirm their interest to transition to PQ. Inactivated and viral-vector vaccines that were no longer manufactured were delisted once all potentially available lots had expired. To date, of these 13 vaccines, four have transitioned to prequalification and one vaccine is transitioning from EUL to PQ. All of the vaccines with or transitioning to PQ feature XBB.1.5, JN.1 and/or LP.8.1 formulations with mRNA and protein subunit platforms. Monovalent JN.1, KP.2 and/or LP.8.1 vaccines have been approved and authorized for use in Canada, the European Union, Japan, Switzerland, the United Kingdom, and the United States of America. In May 2026, the US FDA recommended XFG as the COVID-19 vaccine antigen for the 2026-2027 season in the US (45). The European Medicines Agency also issued a preferential recommendation for XFG; LP.8.1 could also be considered (46).These recommendations align with the latest recommendation of the WHO TAG-CO-VAC. Vaccine supply Demand for the COVID-19 vaccine has been falling at a high rate since its peak in 2021 (11.3 billion doses). Indicatively, the number of COVID-19 vaccine doses purchased globally dropped from approximately 700 million in 2024 to approximately 200 million in 2025, a 3.5-fold decline.	

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Dedicated support from Gavi for COVID-19 vaccination concluded in December 2025, which is anticipated to have a substantial impact on low-income countries' use of COVID-19 vaccines in 2026 and beyond. Vaccine use and monitoring In 2025, 131 Member States reported having COVID-19 vaccination recommendations for at least one population group. Primary vaccination most commonly targeted older adults (66%), followed by older adults with chronic conditions (58%), health and care workers (53%), and pregnant women (49%). COVID-19 re-vaccination showed a similar pattern (47). COVID-19 vaccine coverage reporting and vaccine uptake have decreased significantly, with median coverage per target group ranging from ~13% for people with chronic conditions to ~3% for pregnant women (48). To improve global monitoring and reporting of COVID-19 and other respiratory vaccination coverage data, WHO published the Manual for respiratory virus vaccination coverage: monitoring and reporting seasonal influenza, COVID-19, and respiratory syncytial virus immunization in June 2026. This resource provides practical approaches, indicators, data systems, and tools to support the generation of accurate, timely, and comparable coverage estimates. Vaccine confidence and demand Demand for COVID-19 vaccination continues to decrease. WHO recommends that countries use evidence-based and behaviourally informed strategies to increase confidence in and demand for COVID-19 vaccination, particularly in the aforementioned groups. This includes the gathering and use of local data on behavioural and social drivers of vaccination to assess root causes of low uptake and to design and evaluate tailored interventions. Interventions to increase trust and uptake can include: (i) targeted information campaigns via trusted information sources, (ii) partnering with local and community actors to increase community engagement, and (iii) trainings with health and care workers to increase their confidence in recommending COVID-19 vaccination and responding to any questions or concerns, and (iv) improvements to delivery strategies to increase the ease of access to vaccination, among others. Interventions should be co-designed and well-tailored to meet the needs of the identified priority populations for vaccination, accounting for specific barriers or drivers.	
Risk communication, community engagement and infodemic management (RCCE-IM) RCCE-IM programmes played a key role in the COVID-19 response by helping communities understand the virus, adopt protective behaviours and build trust in recommended health measures. However, most countries have now phased out planned and comprehensive RCCE-IM COVID-19 interventions due to changes in disease burden, epidemiological trends, and resource availability. This includes the discontinuation of rapid research and polling to assess population-level knowledge, attitudes, perceptions and behaviours associated with COVID-19- making it more difficult to measure these variables and associated risks meaningfully. As coordinated interventions have slowed or stopped, there is some evidence that this has contributed to a decline in adherence to protective behaviours such as mask wearing, regular hand washing, testing in case of exposure or symptoms, and staying up to date with COVID-19 vaccines. Similar declines are seen in measures such as staying at home when unwell, and sustaining these protective behaviours requires not only individual effort but also clear guidance from authorities and workplace. Limited social-behavioural data still being collected show that risk perception and demand for COVID-19 related information are now relatively low. For example, findings from a survey conducted in the WHO European Region in August 2024 indicate that most respondents were not concerned about COVID-19. However, the same survey found that 65% felt they had enough information and that 83% knew where to get tested if they became ill. Given ongoing COVID-19 circulation, thousands of people continue to be infected, re-infected and experiencing post COVID-19 condition, WHO recommends that tailored and participatory RCCE-IM approaches remain vital for communicating evolving risks and co-developing appropriate, actionable solutions, especially with high-risk groups. Listening to and engaging with communities remains critical for understanding needs, addressing emerging concerns and ensuring interventions remain relevant across different contexts. RCCE-IM efforts are essential for sustaining protective behaviours, monitoring and addressing mis- and disinformation around the virus, its long-term effects and the protective measures, like vaccination, building trust in public health measures and promoting cooperation and inclusion.	**RCCE-IM** While there is strong evidence demonstrating the value of tailored RCCE-IM approaches in delivering more equitable and effective responses, few countries have continued to invest, maintain or integrate these capacities into respiratory illnesses responses, broader health emergency and pandemic preparedness strategies. Despite their proven impact, RCCE-IM resources remain underdeveloped and underutilized in long term planning and response systems. This is also demonstrated by SPAR scoring where RCCE is one of the lowest capacities across many countries.

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WHO continues to recommend several priority actions for countries, including integrating RCCE-IM resources and capacities into national pandemic preparedness plans and governance structures. These actions include establishing community listening and two-way communication systems (e.g. hotlines and community feedback loops), monitoring people's questions as well as mis- and disinformation trends on appropriate platforms and addressing them by promoting targeted guidance through trusted sources, and co-developing solutions with high-risk and community trusted groups. Building, maintaining and monitoring trust remains essential objectives of RCCE-IM strategies. The updated WHO COVID-19 policy brief on RCCE-IM provides an overview of the recommended actions for MS. A substantial body of knowledge on RCCE-IM was generated during the COVID-19 pandemic and these insights should be leveraged to strengthen RCCE-IM capacities and systems in all countries. Key lessons include the critical role of trust in local health authorities and community organizations, the need for accurate and timely information during uncertainty, and the value of placing communities at the centre of response efforts. Continued investment in these areas can lead to more effective, inclusive and sustainable health emergency programmes.	
Infection Prevention and Control (IPC) and Water, Sanitation and Hygiene (WASH) Health-care facilities remain a high-risk setting for SARS-CoV-2 transmission. WHO's Infection prevention and control in the context of COVID-19 guideline consolidates technical guidance developed and published during the COVID-19 pandemic into evidence-based recommendations for IPC. Published in December 2023, the document takes into consideration the transition from critical emergency-response activities to longer-term, sustained COVID-19 disease prevention, control, and management, including an emphasis on integrating IPC activities into routine systems and practices. The guideline emphasises the importance of operational IPC programmes at facility level and describes core elements of IPC principles and practices for implementation in health-care facilities, including engineering and administrative controls, environmental cleaning, and personal protective equipment, and respective elements for the adoption of IPC measures of PHSM in community settings. An article summarizing the recommendations from the guideline is also available (49). WHO recommends that countries ensure IPC measures are implemented for suspected and confirmed COVID-19 cases in clinical settings and that health and care workers receive adequate training on and access to PPE. Countries are encouraged to continue delivering optimal clinical care for patients with COVID-19, including maintaining measures to protect patients and health workers from health care-associated infections. National and sub-national level authorities should maintain readiness to respond to the possibility of future surges of COVID-19 that could overwhelm health systems. WHO recommends MS focus on the following three key objectives for COVID-19 management and control: elevate the importance of IPC programmes; maintain outbreak readiness and response capacities; and establish and maintain appropriate infrastructure needed for safe health service delivery and a resilient health workforce. Updated training courses aligned with the latest recommendations are available via OpenWHO. The trainings include an overview of the recommendations and best practice statements contained in WHO's IPC in the context of COVID-19 guideline, as well as advice for practical implementation of IPC measures in healthcare and community settings.	
Essential health services, including mental health While COVID-19 put tremendous pressure on health systems globally during the peak of the crisis, the burden is now substantially lower even if it still puts pressure on health systems around the world. As a result, essential health services returned to normal, pre-pandemic levels of operation. Routine immunization coverage, for example, have returned to pre-pandemic levels, as evidenced by the latest estimates of immunization coverage (50). Recovery has been heterogeneous, however, with some countries faring more poorly than others. The COVID-19 pandemic exposed multiple, substantial barriers faced by certain populations, however, notably older persons. It is thus important while returning to normality to apply the lessons learned. This implies reorienting the systems to provide more inclusive and meaningful solutions to older persons, representing a growing and highly vulnerable population (51). In this context, the need to bridge health and social care services to deliver a continuum of integrated care to older persons has been repeatedly advocated. The focus of programming to protect essential health services has shifted to preparing health systems to shoulder possible future waves of COVID-19 and other health emergencies. It is	

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noteworthy how integrated care services might enhance the readiness of systems to react in case of new events. It is important to consider new standards of care for older persons across settings, especially those hosting the most vulnerable individuals (52). A broader use of technologies might ensure the continuum of integrated care for older people, avoiding disruptions, supporting monitoring processes, and promoting more timely preventive strategies at different levels. Systematic reviews and lessons learned were documented for maintaining essential maternal, newborn, child and adolescent health services in the face of pandemics and other disruptions to services. It will be important to include these in preparedness plans for future health emergencies responses. A webpage was finalized in 2024 with all relevant reviews, and documentation form countries. A review published in 2024 shows that only 13% of 110 plans reviewed included a planned activity for monitoring or mitigating the impact on maternal, newborn, and child health (MNCH) and less than 5% included relevant indicators, costing or integration of services in the incident management system (53). The learnings gathered from maintaining MNCH services will be applicable to services as they also prepare to reduce the risk of climate change hazards and related events. A scoping review (54) on interventions to maintain essential MNCH services was updated and published in 2024 and identified an important and growing body of evidence of evaluated interventions to maintain essential services for MNCH during COVID-19 in LMICs. To improve preparedness and responsiveness for future disruptions, managers for decision-makers in LMICs could benefit from global efforts to maintain up-to-date inventories describing implemented interventions and evaluations to facilitate evidence-based implementation of strategies, as well as tools for conducting optimal quality operational and implementation research during disruptions (e.g. rapid ethical approvals, access to routine data). On mental health, WHO recommends that MS strengthen capacities to address the mental health and psychosocial impacts of COVID-19 and other public health emergencies. WHO is supporting MS by implementing World Health Assembly Resolution 77.3 on "Strengthening mental health and psychosocial support before, during and after armed conflicts, natural and human-caused disasters and health and other emergencies". WHO continues to support global, and country-level multisectoral field-based simulation exercises focused on mental health and psychosocial support capacity strengthening. Further, WHO is implementing the Special Initiative for Mental Health, which was launched in 2019 and scaled up during the pandemic. This program now provides over 52 million people in nine countries—Argentina, Bangladesh, Ghana, Jordan, Nepal, the Philippines, Paraguay, Ukraine, and Zimbabwe —with new or improved mental health services integrated into primary and secondary care.	
Vulnerable populations in humanitarian emergencies The fragility and vulnerability of populations in humanitarian settings have been slightly decreased, with an estimated 314 million people in need of humanitarian assistance in 2024 compared to 368 million in 2023 (55). Conflict, violations of international humanitarian law and international human rights law will continue to be the most significant drivers of humanitarian need in the near future, causing waves of displacement and impacting livelihoods. Forced displacement persists due to violent conflicts and war, large-scale global food crises, and climate change, which drive people into poverty and heighten vulnerability and humanitarian needs. Countries facing conflict or humanitarian emergencies often have weak or fragmented health systems. These circumstances, which precede the pandemic, severely limit affected countries' abilities to test, isolate, and treat COVID-19 patients. Furthermore, basic requirements for implementing PHSM in humanitarian settings are limited, and their strict enforcement in some settings has led to severe disruption of essential healthcare services and loss of livelihoods. Periods of acute emergency and heightened conflict allow for increased transmission as people are displaced and overcrowding occurs. Affected populations may also lack the financial resources to access care, causing circulation to go undetected due to low testing and reporting rates. People affected by humanitarian emergencies are also at higher risk of severe COVID-19 outcomes due to challenges in obtaining and administering therapeutics early, managing co-morbidities, and receiving healthcare for complications.	
Operations support and logistics (OSL) Global markets for the tools needed to respond to COVID-19 have stabilized, and countries have returned to routine access channels for needed supplies. In light of this, WHO closed its COVID-19 Supply Portal in December 2022.	

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Partner coordination, funding, and external relations In 2026, most aspects of the COVID-19 work have been integrated into WHE's core functions. Dedicated emergency funding for COVID-19 has largely ended, with the disease now fully integrated into WHO's routine emergency preparedness, surveillance and response functions under the Health Emergencies Programme. As a result, financing for COVID-19-related activities increasingly depends on flexible and base funding that supports WHO's core emergency capacities, rather than as part of emergency response financing through WHO's Health Emergency Appeal. At the same time, shrinking official development assistance (ODA) budgets and reductions in major donor health funding continue to place additional pressure on WHO's ability to sustain these capacities and respond to protracted and emerging health threats.	**Partner coordination, funding, and external relations** The overall financial outlook for 2026 remains severely constrained, as shrinking official development assistance (ODA) budgets and cuts in major donor health funding further reduce financing for protracted emergencies.

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All WHO publications are cited in the text as hyperlinks. Additional selected references are below. Please note that this is not a comprehensive listing of all relevant COVID-19 reference materials.

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Acronyms and abbreviations

Term	Description
AFR	African region
Ag-RDT	Antigen-detecting rapid diagnostic test
AMR	Region of the Americas
ARIA	Indoor Airborne Risk Assessment in the context of SARS-CoV-2
CERN	European Organization for Nuclear Research
COVAX	COVID-19 Vaccines Global Access
CoViNet	WHO Coronavirus Network
ES	Environmental surveillance
EUL	Emergency Use Listing
EMR	Eastern mediterranean region
EUL	Emergency Use Listing Procedure
EUR	European region
FAO	Food and Agriculture Organization of the United Nations
FDA	United States Food and Drug Administration
GISRS	Global Influenza and Surveillance system
HEPR	Health Emergency Preparedness, Response, and Resilience Framework
HIC	High-income country
ICU	Intensive care unit
IDSR	Integrated Disease Surveillance and Response
IPC	Infection prevention and control
IRP	Infectious respiratory particles
LIC	Low-income country
LMIC	Lower middle-income country
MERS-CoV	Middle East respiratory syndrome coronavirus
MIS-C	Multisystem inflammatory syndrome in children and adolescents from COVID-19
MNCH	Maternal, newborn, and child health
MPXV	Monkeypox virus
MS	Member States
NCD	Non-communicable diseases
ODA	Official development assistance
OSL	Operations support and logistics
PCC	Post COVID-19 condition
PHEIC	Public Health Emergency of International Concern
PHSM	Public health and social measures
PQ	Prequalification
PRET	Preparedness and Resilience for Emerging Threats
RCCE-IM	Risk communication, community engagement, and infodemic management
RNA	Ribonucleic acid
RSV	Respiratory syncytial virus
RT-PCR	Realtime polymerase chain reaction
SAGE	Strategic Advisory Group of Experts on Immunization
SAGO	Strategic Advisory Group for the Origins of Novel Pathogens
SARS-CoV-2	Severe acute respiratory syndrome coronavirus 2
SARI	Severe acute respiratory illness
SEAR	South-East Asia Region
SPRP	Strategic Preparedness and Response Plan
TAG-CO-VAC	Technical Advisory Group on COVID-19 Vaccine Composition
TAG-VE	Technical Advisory Group on Virus Evolution
UMIC	Upper middle income country
UNICEF	United Nations Children's Fund
US CDC	United States Centers for Disease Control and Prevention
VE	Vaccine effectiveness
VIS	Vaccine Investment Strategy
VOC	Variant of concern
VOI	Variant of interest
VUM	Variant under monitoring
WAHIS	World Animal Health Information System
WASH	Water, sanitation, and hygiene
WOAH	World Organization for Animal Health
WHO	World Health Organization

WPR	Western Pacific region