

WHO Policy Brief: Gatherings in the context of COVID-19

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Key points

- Gatherings of any size – from large public events to small family gatherings – can be associated with risk of amplification of SARS-CoV-2 transmission.
- Planning for gatherings should rely on a risk-based approach tailored to the size and type of event and its context, including the number of participants and the type of venue as well as local epidemiology and the state of the health system.
- COVID-19-related risk can be decreased by applying a package of tailored, event-specific precautionary measures.
- For mass gatherings, risk communication and community engagement (RCCE) approaches and interventions and an infodemic management strategy aimed at counteracting misinformation have proven crucial to holding safe, successful events.
- Attendees of gatherings should always be reminded to apply individual-level responsibility to their decisions and actions, with the aim of preserving their health, that of the people they interact with and ultimately, that of their community.

Introduction

Nearly three years since the first SARS-CoV-2 infections were reported, the COVID-19 pandemic remains an acute global emergency. At the present time, there continue to be millions of people infected each week and throughout 2022, more than one million people were reported to have died from COVID-19 ([see WHO COVID-19 Dashboard](#)). With access and appropriate use of life-saving tools that exist, COVID-19 can become a manageable disease with significantly reduced morbidity and mortality. However more work remains to achieve this globally. The World Health Organization (WHO) recognizes the challenges countries face for maintaining their COVID-19 response while addressing competing public health challenges, conflicts, climate change and economic crises and will continue to support countries in adjusting COVID-19 strategies to reflect the successes and leverage learnings of national responses.

To assist in national and global efforts to end COVID-19 emergency worldwide, WHO updated the COVID-19 [Global Preparedness, Readiness and Response plan](#) in 2022 and outlined two strategic objectives. First, reduce the circulation of SARS-CoV-2 by protecting individuals, especially vulnerable individuals at risk of severe disease or occupational exposure to the virus. This action will reduce pressure on the virus to evolve and the probability that future variants will emerge; it will also reduce burden on health systems. Second, prevent, diagnose and treat COVID-19 to reduce mortality, morbidity and long-term sequelae. WHO's plan further looks ahead to research, development and equitable access to effective countermeasures and essential supplies.

Recognizing that countries are in very different situations with regards to COVID-19 due to a number of factors including differences in population level immunity; public trust; access and use of COVID-19 diagnostics, therapeutics, vaccines, personal protective equipment, reliable information; and challenges from other health/non-health emergencies, WHO has produced a package of policy briefs aimed at helping countries update policies to focus on critical aspects needed to manage the acute and long-term threats of COVID-19 while strengthening the

foundation for a stronger public health infrastructure (see [Strengthening the Global Architecture for Health Emergency Preparedness, Response and Resilience](#)).

The series of COVID-19 policy briefs has been developed to outline essential actions decision makers need to adjust COVID-19 national and sub-national policies for the following: [COVID-19 testing](#), [clinical management of COVID-19](#), [reaching COVID-19 vaccination targets](#), [maintaining infection prevention and control measures for COVID-19 in health care facilities](#), [building trust through risk communication and community engagement \(RCCE\)](#) and managing the COVID-19 [infodemic](#). This policy brief focuses on gatherings in the context of COVID-19 ([link to the seven policy briefs](#)). An earlier policy brief, [Holding gatherings during the COVID-19 pandemic](#), was published in August 2021 and is replaced by the present one.

Purpose of this document

This and the other COVID-19 policy briefs are aimed at all national and sub-national policy makers in health and other ministries; and provides a brief overview of the key actions advised to Member States based on recommendations published in WHO COVID-19 technical guidance. It also articulates the need for sustained financing and a trained, protected and respected workforce to maintain these life-saving actions in the context of competing health and non-health emergencies. It additionally recognizes the need to strengthen the acute and longer-term response for COVID-19 in relation to other pressing public health issues.

Essential actions for Member States to consider in adjusting COVID-19 policies

Gatherings may be public or private, planned or spontaneous, recurrent or one-off and of varying size, type and duration, ranging from small family events to massive, high-visibility events such as the Olympics, Hajj and World Expo (1).

A systematic review of scientific literature found that gatherings of any size can be associated with the risk of amplification of transmission of SARS-CoV-2 (2). Whether people gather around the dinner table or at a large event in a stadium, their close proximity (within 1 metre or 3.3. feet) and prolonged interactions provide a conducive environment for transmission of the virus.

Risk of SARS-CoV-2 transmission in conjunction with gatherings of any size is associated with specific characteristics of the event such as:

- **Duration:** the risk grows with the duration of the event or with the duration of stay of attendees at the event, especially when it continues for multiple days
- **Location:** the risk is higher in indoor venues than in outdoor venues
- **Compliance with precautionary measures:** the risk is higher when measures are not applied, weakly implemented or not followed by attendees

Large events are often associated with international travel, multiple venues, prolonged duration and extensive media and social media interest and have significant reputational, political, economic and societal implications (1,2). Such mass gatherings are associated with additional risks, as the occurrence of large numbers of COVID-19 cases during or after their execution can strain the planning and response resources of the host country or community, and lead to disruptive impacts on health services (1,2).

Although there is no defined threshold qualifying a gathering as a mass gathering based on the number of attendees, the risk of disruption grows with that number (2). The potential for disruption associated with mass gatherings is also dependent on the following factors (3):

- **Epidemiological factors:** the current epidemiological situation of the COVID-19 pandemic in the host area
- **Health system factors:** public health and social measures (PHSM) that are currently in place or feasible in the host community, and the capacity of the local health system to respond to any upcoming need
- **Individual factors:** the geographical distribution and number of participants, and their individual risk profile dynamics
- **Venue factors:** the context of the mass gathering and the characteristics of its venue(s).

Implications of public health and social measures (PHSM) on gatherings

PHSM implemented by authorities to decrease health risks during the COVID-19 pandemic include personal protective measures, environmental measures, surveillance and response measures, physical distancing measures; and international travel-related measures (4). When PHSM are adjusted, communities should be fully consulted and engaged before changes are made (4,13). WHO recommends maintaining core PHSM such as hand hygiene and judicious mask wearing and physical distancing for all persons at all times (4).

For mass gatherings, as a first step, decisions on holding a gathering should consider whether the PHSM implemented in the hosting country and area allow for the event under consideration to occur or to be modified somehow (4,5).

Many countries are currently easing restrictions on gatherings of different sizes as part of scaling down the response to COVID-19 and moving out of the acute phase of the pandemic. Nevertheless, even where they are allowed to proceed, large gatherings should not take place unless a risk-based approach is applied to the event and basic precautionary measures to prevent and control infection are identified, applied and adhered to by all attendees and personnel.

Risk-based approach to gatherings

WHO recommends that the decision-making process related to holding, modifying, postponing or cancelling gatherings in the context of the COVID-19 pandemic should rely on a risk-based approach, whereby identification of required action is guided by the prevalent level of risk and the event is adjusted accordingly. The risk-based approach is flexible and adaptable to all SARS-CoV-2 transmission scenarios (4,5) and can be applied to gatherings of any size and type, whether they are large and high-visibility events or smaller ones, formal or informal, planned or spontaneous.

Mass gatherings

For mass gatherings, the risk assessment should be tailored to the characteristics of the event under consideration, be repeated at regular intervals throughout the planning phase and during the gathering and be discontinued only after the event has ended and local systems have returned to normal. This will enable a factual and dynamic appraisal of the overall risk associated with the event and its implications, and a timely adaptation of the response (2).

The risk-based approach to mass gatherings entails three steps (2,3):

- **risk evaluation:** identification and quantification of the baseline risk of transmission of SARS-CoV-2 and strain on the health system's capacity associated with the gathering before applying precautionary measures, based on the characteristics of the event and the context in which it takes place
- **risk mitigation:** application of a package of precautionary measures aimed at decreasing the baseline risk, through modification of the event (e.g. improvement of venues (8), stricter requirements for attendees, use of masks (4,9), regulation of the number and flow of people attending the gathering, maintaining physical distance and strengthening capacities of event staff); or through strengthening the preparedness and response capacities of the health system (e.g. deployment of emergency medical teams, improved surveillance and coordination with public health, law enforcement and public safety authorities)
- **risk communication:** proactive dissemination of information on the precautionary measures adopted, their rationale and purpose and on how the relevant decisions were taken with the aim of ensuring high compliance with rules and regulations among attendees (2,13,14).

No matter how low the associated risk is, the recommendation is always to consider implementation of precautionary measures, to further decrease residual risk and to develop an adequate risk communication and community engagement (RCCE) strategy for the event. To better manage misinformation and ensure equal access to the best health advice, effective mass gathering planning will also include an infodemic preparedness and response plan with a robust risk communication strategy that contributes to implementation of PHSM.

It should be noted that none of the precautionary measures, when implemented on their own, can guarantee protection from the spread of SARS-CoV-2 during a large event. Precautionary measures act in concert and should be applied simultaneously as a package of interventions. Their implementation in coordination with broader

PHSM such as testing (6,10), identification and isolation of cases, contact tracing, quarantine and follow-up (11) and vaccination (12) is critical to reduce transmission of SARS-CoV-2 (4,5).

The application of a risk-based approach can be facilitated by using a set of WHO Mass Gathering COVID-19 Risk Assessment tools developed for this purpose (7).

Smaller gatherings

Organizers and attendees of any gatherings should always exert caution, regardless of their size and type, and whether they are planned or spontaneous. This applies to private or community celebrations, grassroots sports matches and religious gatherings.

Anyone participating in gatherings should always be reminded to behave judiciously and apply a strong sense of civic responsibility to their decisions and actions, with the aim of preserving their health, that of the people they interact with and ultimately, that of their community. This is especially important for spontaneous or unplanned gatherings and side events related to larger gatherings, during which it is imperative that everyone is aware of the risk and exerts a strong sense of personal responsibility (2,13,14).

Decision-making process

For large public gatherings, WHO recommends that decisions should be taken by the relevant health authorities in consultation with the event organizers. The process should be inclusive, transparent and open to all relevant multisectoral stakeholders (2).

Decisions can be guided by a set of considerations including the current intensity of circulation of SARS-CoV-2 globally, regionally and locally; level of immunity in the community; the volume of international and domestic travel expected at the event and event transportation policies; community adherence to PHSM implemented in the hosting country or area; the occurrence of side events; the performance of the health system including surveillance capacity and the capacity of event organizers to implement, enforce and communicate precautionary measures applied to the gathering, and to respond appropriately to COVID-19 outbreaks or clusters associated with the event (2,4,15,16).

WHO is continuously monitoring country-level and event-level mass gatherings indicators to identify events with a potential to amplify the spread of SARS-CoV-2 and other emerging diseases. This process can facilitate mobilization of resources and the establishment of work relationships with national and regional stakeholders and authorities, with the aim of mitigating risks of infectious disease spread associated with gatherings.

For smaller, private events, the decision is likely to be made by the event organizers alone, within the framework of the regulations and PHSM applied in the hosting country and area. Nevertheless, WHO recommends that the risk-based approach should be applied to these gatherings as well.

Conclusions

The principles of the risk-based approach are valid for gatherings of all sizes, types and characteristics and for all organizers and participants. It is vital for gatherings to be well managed, regardless of their size, type and level of associated risk. Nonetheless, even when precautionary measures are properly applied, zero risk does not exist. The application of additional precautionary measures, postponing or cancelling events of any size should always be considered following a risk assessment whose conclusions indicate that associated risks outweigh the benefits of an event.

Plans for updating

WHO will continue to monitor the situation closely for any changes that may affect this policy brief. WHO will issue necessary updates as evidence becomes available and is reviewed.

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