# Considerations for mass gathering events and Middle East respiratory syndrome coronavirus (MERS-CoV)

Interim guidance Updated May 2018

WHO/MERS/MG/15.1 Rev.1



#### **Purpose**

This document presents organizers and hosts of international mass gatherings with proposed steps to improve public health preparedness to prevent, contain, and mitigate the impact of Middle East respiratory syndrome coronavirus (MERS-CoV). This document is based on current evidence generated among scientific disciplines, operational research, and academic networks related to mass gatherings.

This document has been reviewed in light of the latest information available on MERS-CoV. The original guidance was dated 3 June 2014 and updated in August 2015. The latest review concluded that minor changes are required to the recommendations contained in the previous guidance, dated 5 August 2015.

Updates for travelers are available on the WHO International Travel and Health website at <a href="http://www.who.int/ith/en/">http://www.who.int/ith/en/</a>. More information on MERS-CoV can be found at <a href="http://www.who.int/emergencies/mers-cov/en/">http://www.who.int/emergencies/mers-cov/en/</a>.

#### Introduction

Mass gatherings are characterized by the concentration of people at a specific location for a specific purpose over a set period of time, and which has the potential to cause strain on the local health system should a public health event occur.

Public health authorities planning for mass gatherings should develop surge capacity plans for local health facilities and systems. Surveillance and detection systems, laboratory capacity, and treatment facilities may all be impacted by a potential increase in the number of people entering the health system during the mass gathering event. However, maintaining surge capacity for an extended period of time puts additional strain on public health systems and should be carefully considered.

Public health authorities in host countries preparing for mass gatherings should ensure that all recommendations and guidance issued by WHO with respect to MERS-CoV have been appropriately adopted into plans and made accessible to all concerned officials. Implementation and improvement of International Health Regulations (IHR) 2005<sup>1</sup> core capacities remains a priority.

This document proposes elements of planning to be considered to prevent, contain and mitigate MERS-CoV infections during mass gathering events in the following areas: 1) Enhanced surveillance; 2) Command and control arrangements that link actions across agencies; 3) Travel health planning; 4) Clinical management of confirmed MERS-CoV cases; 5) Infection prevention and control; and 6) Risk communication.

Further WHO guidance on mass gatherings can be found at <a href="http://www.who.int/ihr/publications/WHO">http://www.who.int/ihr/publications/WHO</a> HSE GCR 2015.5/en/

#### Risk assessment

The decision to proceed with, restrict, modify, postpone, or cancel a mass gathering should be based on a thorough risk assessment of the mass gathering event overall and a rapid risk assessment to assess the situation- processes which are specific, documented and transparent. Risk assessments should be undertaken in partnership with local, national, and international authorities as well as mass gatherings experts.

Risk assessments should take into account:

- Latest information on the epidemiology of MERS-CoV infection;
- Characteristics of the mass gathering that may impact the likelihood or consequences of potential MERS-CoV infection (location(s), size, country of origin of participants, climate, season, etc.)
- 3. Strengths and vulnerabilities of current systems, capacities and plans put in place for the mass gathering.

See Annex 1 'Characteristics of a mass gathering and potential impacts/consequences of MERS-CoV' for further information to inform the health risk assessment.

### Planning considerations for mass gatherings

In order to prevent, or if necessary manage, MERS-CoV infections during a mass gathering, public health authorities may consider the following planning elements:

#### 1. Enhanced surveillance

The ability to rapidly detect MERS-CoV infection during a mass gathering is a public health imperative. With a greater volume of people arriving for the mass gathering, additional capacities for MERS-CoV diagnosis (clinical and laboratory) should be considered. Health staff in contact with mass gathering participants (including at points of entry) should also need to be sensitized to the relevant signs and symptoms.

For the duration of the event, syndromic surveillance may alert public authorities to increased respiratory illness among mass gathering participants. Indicator based surveillance and event-based surveillance of national and international media for MERS-CoV or clusters of unknown respiratory disease, particularly in countries from which mass gathering participants are expected, may alert organizers of possible importation risks.

## 2. Command and control arrangements that link actions across agencies

Command and control structures should be put in place to collect and compile information, to make decisions and to communicate with relevant stakeholders. It will often require coordination with different agencies and departments with overlapping responsibilities and at different levels of government.

If a MERS-CoV infection is detected during the mass gathering, a rapid risk assessment – taking into account the likelihood of the impact and possibility for onward transmission – should lead to a cooperative risk management strategy. The role of public health authorities in the decision-making process for different countries varies; therefore, the risk assessment should be clearly documented and transparent in order to allow decision-makers to understand the public health risks and how to best manage them.

Public health authorities should consider the use of scenariobased exercises to test the command and control structure during preparations for the mass gathering. Possible scenarios might include variable such as the risk of MERS-CoV exposure, route of importation and spread.

#### 3. Travel health planning

If the risk assessment identifies a significant threat of exposure to MERS-CoV for participants in the mass gathering, public health authorities should:

- Educate all participants on the risk of transmission and symptoms of MERS-CoV infection.
- Collaborate with travel and tourism sectors to place educational materials at strategic locations (e.g. airports, public transport stations, travel agent offices).
  Alternative media can also be used such as signage at international points of entry and announcements on planes, ships and public radio. Travel advice should include current information on MERS-CoV and how to avoid illness while travelling.
- Advise participants that persons with pre-existing medical conditions (e.g. chronic diseases such as diabetes, chronic lung disease, immunodeficiency) are more likely to develop severe infection.

All participants should be advised to consult a health-care provider before travelling in order to review their risk and to assess whether traveling is advisable. Organizers should ensure that participants are aware of the general health system structure and how to access health care services.

#### 4. Clinical management of confirmed MERS-CoV cases

If the mass gathering risk assessment identifies a significant risk of individuals presenting for care with MERS-CoV infection, medical facilities should be adequately prepared according to WHO guidelines. This includes:

- Infection prevention and control practices in hospitals and clinics in both triage, care areas and isolation<sup>2</sup>;
- Review of clinical management guidelines, including the training of clinical staff in identification of cases and their clinical management<sup>3</sup>;
- Preparations for the possibility of severely ill patients;
- Identification and maintenance of surge capacity.

#### 5. Infection prevention and control

Routine infection prevention and control (IPC) measures are important tools in reducing the transmission of MERS-CoV. Suboptimal infection prevention and control in health care settings have been observed to contribute to large numbers of secondary cases. Plans for ensuring and maintaining adequate IPC activities during the mass gathering should be developed. A robust IPC strategy includes communicating the following to mass gathering participants:

- Regularly perform hand hygiene and respiratory hygiene practices e.g. covering mouth and nose when coughing or sneezing; washing hands after contact with respiratory secretions; performing frequent hand hygiene with alcohol-based hand rubs; and keeping a distance of one metre from other persons when ill.
- Adhere to good food safety practices such as: avoiding raw meat, dairy and animal products; avoiding undercooked meat or food prepared under unsanitary conditions; properly washing fruits and vegetables before eating them; and performing hand hygiene before eating. For mass gathering events held in the Middle East, where dromedary camels are considered to be the main source of MERS-CoV, people should also avoid drinking raw camel milk or camel urine.
- People with diabetes, renal failure, chronic lung disease, and immunocompromised persons are considered to be at high risk of severe disease from MERS-CoV infection. Therefore, for mass gathering events held in the Middle East, these people should avoid close contact with animals, particularly dromedaries, when visiting farms or markets, in areas where the virus is known to be potentially circulating. General hygiene measures, such as regular hand washing before and after touching animals and avoiding contact with sick animals, should be adhered to.

Public health authorities should ensure that sufficient handhygiene stations (with soap and running water or alcoholbased hand rubs) are available to mass gathering participants and food handlers. Public health authorities should also work with food safety authorities to ensure safe food preparation processes and adequate training of food handlers.

#### 6. Risk communication

Mass gatherings by their very nature draw a great deal of attention and political pressure. Organizers should consider additional measures to ensure clear and proactive messaging around public health advice.

Public communications related to MERS-CoV and mass gatherings should be led by the Ministry of Health (or equivalent) in order to avoid confusion and contradictory messaging. The Ministry of Health may consider preparing messages prior to the mass gathering and sharing these messages with organizers to facilitate clear and rapid communication in the event that MERS-CoV is detected. The Ministry of Health may also consider coordination and collaboration with the media – building this relationship should start as early as possible. WHO risk communication guidance (<a href="http://www.who.int/ihr/risk communications/en/">http://www.who.int/ihr/risk communications/en/</a>) and Disease Outbreak News

(http://www.who.int/csr/don/archive/disease/coronavirus infections/en/) may also assist ministries in messaging.

Public health authorities should ensure that recommendations and guidance issued by WHO with respect to MERS-CoV have been provided to the participants prior to the entry in the country.

If MERS-CoV is suspected among a participant of a mass gathering event, mass gathering hosts should inform the participant's country of residence to ensure appropriate patient follow-up, testing, clinical care, and risk management in the host country and upon return to the participant's home country.

Public health authorities should advise returning participants on the symptoms of MERS-CoV infection, as well as protective measures. Returning participants should be informed that if they develop acute respiratory illness with a fever and cough (severe enough to interfere with usual daily activities) during the two weeks after their return, they should:

- seek immediate medical attention and inform health care workers of their recent travel;
- practise respiratory hygiene when coughing or sneezing (see section 5);
- minimize contact with others to prevent the spread of infection.

Public health authorities in countries with returning participants of mass gatherings should make this guidance available to local health practitioners and facilities. Early communication with WHO when MERS-CoV is suspected is strongly recommended.

#### References

- International Health Regulations (2005), 3rd edition. Geneva: World Health Organization; 2007 (<a href="http://apps.who.int/iris/handle/10665/246107">http://apps.who.int/iris/handle/10665/246107</a>, accessed 10 May 2018).
- Infection prevention and control during health care for probable or confirmed cases of Middle East respiratory syndrome coronavirus (MERS-CoV) infection: interim guidance. Updated 4 June 2015. Geneva: World Health Organization; 2015 (WHO/MERS/IPC/15.1; <a href="http://www.who.int/iris/handle/10665/174652">http://www.who.int/iris/handle/10665/174652</a>, accessed 10 May 2018).
- 3. Clinical management of severe acute respiratory infections when Middle East respiratory syndrome coronavirus (MERS-CoV) infection is suspected: interim guidance. Updated 2 July 2015. Geneva: World Health Organization; 2015 (WHO/MERS/Clinical/15.1; <a href="http://www.who.int/iris/handle/10665/178529">http://www.who.int/iris/handle/10665/178529</a>, accessed 10 May 2018).

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