Public Health Measures for Scaling up National Preparedness

Middle East Respiratory Syndrome (MERS)
Middle East Respiratory Syndrome (MERS) is an acute respiratory illness caused by the novel coronavirus called MERS coronavirus (MERS-CoV). MERS was first reported on 22 September 2012 in Saudi Arabia. Most of the reported cases worldwide remained associated with the Arabian Peninsula.

Approximately 35% of reported patients with MERS have died.

Humans have been infected with MERS coronavirus through contact with infected dromedary camels.

MERS symptoms include fever, cough, and shortness of breath.
Direct transmission
Droplets produced during coughing or sneezing

Indirect transmission
Touching surfaces contaminated with MERS-CoV, and then touching the mouth, nose or eyes

Close contact
Unprotected caring of infected patients

Zoonosis
Humans can be infected through direct or indirect contact with infected dromedary camels in particular, which are the major reservoir host for MERS-CoV.

Human-to-human
Human-to-human transmission is known to occur during unprotected contact with MERS patients, such as in homes or care facilities. Under other circumstances, MERS does not easily transmit between humans.

Public health preparedness for early detection and prevention of MERS should include a national response plan specific to MERS, and the following measures:

1. Enhance surveillance and contact management
2. Strengthen laboratory capacity
3. Reinforce infection control precautions in health care settings
4. Improve risk communications and community engagement
Public Health Measures for Early detection and prevention of transmission

Enhance surveillance and contact management

1. Enhance surveillance for acute respiratory infections where there has been exposure to dromedaries
2. Monitor and follow-up people returning from MERS-affected areas
3. Report any suspected MERS case to local health authorities immediately
4. Send clinical specimens from suspect cases to the reference laboratory for analysis
5. Establish a system to trace all contacts of suspected/confirmed MERS patients using WHO protocol
6. Educate health care providers on MERS, associated risks and infection prevention control
7. Carry out assessment of risk of transmission in affected health facilities/communities
8. Prepare to mobilize rapid response teams and multi-sectoral expert response teams
9. Strengthen capacity to carry out epidemiological investigations

Enhance surveillance and contact management
Strengthen laboratory capacity

- Collect upper and lower respiratory samples for patients with respiratory symptoms suspected of MERS
- Preform laboratory testing for MERS-CoV using molecular testing (PCR)
- Conduct virus characterization for any positive cases
- Report any confirmed cases promptly to the appropriate authorities
- Train staff on collection, storage and transportation of clinical samples from suspected cases
- Train staff on deactivation of specimens through appropriate bio-security measures
- Maintain stockpile of reagents and consumables needed for laboratory diagnostic services
- Disseminate laboratory protocols, standard operating procedures, etc. for MERS diagnosis
3 Reinforce infection prevention and control precautions in health care settings

- Establish appropriate isolation for patients with confirmed or suspected MERS
- Prevent overcrowding in waiting areas
- Limit the number of health care workers/family members/visitors in contact with a MERS patient
- Protect yourself from MERS infections; use personal protective equipment (PPE) when in close contact with a MERS patient
- Practice hand hygiene – clean hands with soap and water or alcohol-based hand rub
- Ensure health facility has adequate environmental cleaning, disinfection and ventilation
- Clean and disinfect medical care equipment after each patient use
- Ensure health care workers are aware of MERS case definition and case management
- Educate health care workers to report and seek prompt medical care for respiratory illnesses
4 Improve risk communications and community engagement

- Educate community health workers, community leaders and health partners on MERS and associated risks
- Conduct intensive awareness-raising campaigns on MERS among the general public
- Raise awareness of the risk of MERS for Hajj pilgrims through embassies and at borders

- Develop and distribute information products on MERS, with special regard for vulnerable populations - people having direct contact with dromedaries, the elderly and those with chronic illnesses
- Inform family members on how to maintain safe contact with MERS patients in the home
- Address stigmatization of MERS patients and how to maintain safe contact

- Use all available communications channels including TV, radio, web, print, community leaders, elders, etc
- Develop standard operation procedures for external communications on MERS for health authorities and health facilities
- Establish networks of community leaders and health partners for detection, reporting and community engagement activities
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