

## AGENDA

# Understanding **MERS-CoV** at the **animal-human interface**

*Technical Meeting*

Rome, Italy • 21-22 January 2016



Food and Agriculture Organization  
of the United Nations

21 January

# Thursday

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- 08:30-09:00** Morning coffee and registration
- 09:00-09:30** Welcome, introductions and expectations
- 09:30-10:15** Scientific overview presentations:
- Epidemiology and risk factors (15 min.)
  - Laboratory diagnosis (15 min.)
  - Supply chains and behavioral studies (15 min.)
- 10:15-10:45** Coffee break
- 10:45-11:15** Plenary discussion
- 11:15-12:35** Break up into groups to discuss knowledge gaps, by thematic area as follows:
- Epidemiology and risk factors
  - Laboratory diagnosis
  - Supply chains and behavioral studies
- 12:35-13:45** Lunch
- 13:45-14:00** Collect results from group discussion
- 14:00-14:30** Plenary debriefing from group discussions (15 min. each)
- 14:30-15:00** Q&A, wrap up of knowledge gaps, plenary discussion, agreement on final statements
- 15:00-15:20** Mapping of ongoing and planned activities of participating institutions
- 15:20-15:30** Plenary session
- 15:30-16:00** Coffee, networking + review/completion of mapping exercise
- 16:20-17:20** Q&A and open discussion on opportunities for collaboration:
- Field surveillance
  - Behavioural studies
  - Capacity building, training
  - Test development and validation
  - Laboratory research
  - Other
- 17:20-18:00** Wrap-up
- 18:30-20:00** Poster session and aperitivo

- 09:00-09:15**      **Recap of activities from day 1 and moving forward**
- 09:15-10:45**      Presentation of One Health implementation approach under Emerging Pandemic Threats Programme Phase 2 (EPT-2), by thematic area as follows:
- Surveillance and risk factors  
*(20 min. ppt + 10 min. discussion)*
  - Laboratory diagnosis  
*(20 min. ppt + 10 min. discussion)*
  - Supply chains and behavioral studies  
*(20 min. ppt + 10 min. discussion)*
- 10:45-11:15**      **Coffee Break**
- 11:15-12:15**      Facilitated discussion on cross-cutting collaboration:
- Stakeholder participation
  - Information sharing
  - Communication: awareness raising, disseminating information, and risk communication
  - Capacity development
- 12:15-12:45**      Implementation approach wrap-up
- 12:45-13:45**      **Lunch**
- 13:45-14:30**      **Coffee over topic discussions**
- 14:30-16:00**      Collaboration building and way forward (3 pillars: surveillance and risk factors, laboratory diagnosis, supply chains and behavioral studies):
- Technical
  - Institutional
  - Stakeholder Level
- 16:00-16:00**      **Coffee Break**
- 16:30-17:00**      Recommendations
- 17:00**              **Closure**



# Concept note

## INTRODUCTION

Middle East respiratory syndrome coronavirus (MERS-CoV) is considered an emerging threat for public health globally and causes severe viral pneumonia in humans. As of 6 November 2015, the WHO has been notified of 1 611 laboratory-confirmed human cases, including 575 fatalities, since the disease was first detected in Saudi Arabia in 2012. MERS-CoV has also been isolated from dromedary camels in several countries in the Middle East and East Africa and antibodies to MERS-CoV or a similar virus have also been identified in a number of countries across the northern part of Africa and in the Middle East.

It has been suggested that primary human cases are being exposed to the virus through contact with an animal host or contaminated food or fomites, and several studies have suggested dromedary camels or camel products as the proximate source of human infections. Although neither detection of MERS-CoV in bats nor direct contact of human MERS patients with bats have been reported, a role for bats in human infection cannot be excluded. Molecular similarities between  $\beta$ -CoVs identified in bats and MERS-CoV isolated from human patients point to the possibility of a bat reservoir. Therefore, critical gaps remain in our knowledge of routes of transmission to humans, other potential animal host species, as well as the scope and distribution of virus circulation, epidemiology, and possible pathogenesis of the disease in animals. Addressing these gaps is crucial for defining rational strategies aimed at improved disease control and prevention at the human-animal-environment interface.

A number of research groups are currently working on various biological aspects of MERS-CoV with significant scientific information published during the past three years. FAO has been closely monitoring the MERS-CoV situation worldwide and is now embarking on a field programme to better understand the disease dynamics at the interface between animals and humans and identify factors that potentiate the emergence, transmission and spread of this virus. In this regard, FAO is convening a technical meeting to determine the current status of the scientific knowledge on MERS-CoV and identify the major gaps that require further studies for the development of practical and realistic approaches to better control and minimize the impacts of this virus.

## OBJECTIVES OF THE MEETING

1. Share information on ongoing studies on the role of livestock and wildlife in the epidemiology of MERS-CoV.
2. Identify and prioritize knowledge gaps in disease dynamics at the human-animal interface.
3. Peer review scientific and technical approaches that aim at better understanding MERS-CoV at the human animal interface, including the dynamics of viral emergence and evolution, surveillance design, diagnostics, and risk factors along animal value chains.
4. Analyse complementarities and synergies between programmes and projects implemented by various partners and explore opportunities for collaboration and partnerships.



## PROCESS

### STEP 1: PREPARATORY PHASE - INDIVIDUAL INTRODUCTIONS WITH PARTICIPATING INSTITUTIONS VIA TELECONFERENCE

1. Participants will be asked to share information on ongoing and planned research activities and field projects on different aspects of MERS-CoV at the human animal interface, research gaps, existing collaborative networks and potential areas for collaboration.
2. FAO will compile and analyse the above information for discussion and further analysis during the face-to-face meeting (step 2).

### STEP 2: FACE-TO-FACE MEETING AT FAO HEADQUARTERS

The meeting will be structured as follows:

1. Present the compilation of ongoing and future research activities and field projects along with approaches (as compiled in Step 1).
2. Critically discuss knowledge gaps and technical approaches.
3. Identify possible collaborations and partnerships and make recommendations on the way forward.

### Expected outcomes of the meeting

1. Mapping of ongoing and future research activities and field projects by various partners
2. An inventory of knowledge gaps and corresponding research activities
3. Validation of research and technical approaches, especially on the dynamics of viral emergence and evolution, surveillance design, diagnosis, risk factors and value chain studies
4. A framework for potential collaboration and partnerships on MERS-CoV at the human-animal interface

### PARTICIPATION AND VENUE

- Approx. 45 participants (from both FAO and external institutions)
- Suggested meeting date: 21-22 January 2016
- Meeting venue: Casa San Bernardo, Via Laurentina 289, 00142 Rome, Italy (ph: +39 06 540 7651)



