



1st Middle East FMD Epidemiology and Laboratory Networks Meeting

26 – 28 November 2019

Cairo, Egypt



eofmd

Report

Background

Foot and Mouth Disease (FMD) severely affects the production of livestock, disrupting regional and international trade in animals and animal products. In order to reduce the FMD burden, the Food and Agriculture Organization of the United Nations (FAO) and the World Organisation for Animal Health (OIE) developed a 15-year Global FMD control Strategy in 2012 and encourage endemic countries to progressively control FMD using the progressive control pathway for FMD (PCP-FMD) approach at country level, with aligned coordination at regional level.

The Middle East Countries have participated in four Regional Roadmap meetings aiming to monitor their progress along the PCP. To enforce the regional efforts, share information, exchange expertise, and build the national capacity, the Regional Epidemiology and Laboratory networks for the control of FMD and other important transboundary animal disease such as peste des petits ruminants shall be established.

This first regional epi and lab networks meeting for the Middle-East was organized under the umbrella of the FAO/OIE Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs). This workshop was conducted in collaboration with the European Commission for Foot-and-Mouth Disease (EuFMD) and co-funded by the European Union and the Republic of Italy. The meeting was hosted by the Government of Egypt and it was held in Conrad Hotel, 1191 Corniche el Nile, Cairo, Egypt.

Participants

The voting members of the Regional Advisory Group (RAG), nominated national laboratory and epidemiology point of contacts (POCs) of Bahrain, Egypt, Jordan, Lebanon, Palestine, Libya, Saudi Arabia, United Arab Emirates, Yemen and Oman. These POCs are considered as standing members of the networks. Representatives of Gulf Cooperation Council (GCC) secretariat, FAO, OIE, EuFMD, World Reference Laboratory (WRL), ANSES, and epidemiology experts. Representatives from Iraq, Syria, Qatar, and Kuwait were invited but could not attend. Observers: Private industries and university experts.

Objectives

The main objectives of the meeting were to:

- Establish the regional epidemiology and laboratory networks with active engagement into activities in support to the implementation of the control strategies;
- Select and nominate the epi and lab network leaders;
- Develop agreeable workplan for the regional needs for 2020-21;
- Explore approaches for linking the laboratory and epidemiology networks for continuous support to the national and regional objectives for FMD control;

- Orient the participants with the training opportunity on self-assessment tool (SAT) for PCP, epi, surveillance, PVS and diagnostic tools for capacity assessments;
- Provide an overview of FMD vaccines, diagnostics, sample packaging and IATA regulations; and
- Support countries in preparing their pending risk-based strategic plans to advance to PCP stage 2.

Day 1

Opening Remarks:

Dr Neo Mapitse of OIE HQ, Mr Abdessalam Ould Ahmed, Assistant Director-General and Regional Representative at the FAO Regional Office for Near East and North Africa, and Dr Mahmoud Mohamed Ali Abdelhakim, Chief Veterinary Officer of Egypt, each welcomed the participants to the first Middle East FMD Epidemiology and Laboratory Networks Meeting. All emphasized on the importance of this meeting for maintaining reliable and systematic FMD control in the entire region. It was indicated that food sustainability required healthy livestock with less impact from diseases such as FMD. Dr Abdelhakim talked about some of the current combating efforts against FMD in Egypt and officially opened the meeting.

Dr Samia Metwally of FAO then introduced the agenda to the participants and requested a short introduction from each participant. Dr Metwally listed the expected objectives of the meeting with the expected outcomes at the end of the meeting. She emphasized that FMD can be considered as a model for other diseases in establishing reliable surveillance and control program in the entire region. The agenda was adopted with no change.

Session 1.

Dr Friederike Mayen from FAO Regional Office for Near East and North Africa in Cairo presented currently supported projects with components on FMD and TADs in the region, like in Sudan, Iraq, Syria, as well as a regional project which targets strengthening of surveillance and control capacities and disease information networks in ten countries of the region. Support to the development of the Risk Based Strategic Plan (RBSP) to control FMD was given to Sudan, Palestine and Jordan, while Egypt already finalized their RBSP. A workshop held in Tunis in September 2019 focused on surveillance and early detection of FMD in North Africa, specifically Algeria, Morocco and Tunisia.

Dr Metwally presented the updates on the implementation of recommendations from the 4th Regional FMD Middle East Roadmap Meeting that was held in Amman, Jordan in October 2017. Dr Metwally shared her thought about the FMD laboratory network with emphasis on the purpose of networks by listing all the function items of the laboratory. The terms of references for the leader of the epi and lab networks were presented by Drs Neo and Metwally. It was requested to suggest effective names for each of the two networks. Dr Metwally listed the selection criteria for regional leading labs as: Creditability and acceptance by countries of the region; commitment from the government to support and sustain lab functions as described in

the terms of reference; lab capacity and capability to perform diagnostics for FMD/PPR/other TADs; capability to handle exotic viruses from other countries in the region; certification to ship and receive international diagnostic samples; participated or willingness to take part in OIE twinning program; keen interest to be designated as a FAO/OIE reference center; established link with FMD reference laboratory; and maintain good performance on proficiency testing carried by a reference center.

Dr Valerie Mioulet of WRL, Pirbright presented a quick update of the regional situation and recent circulating strains with emphasis on the FMD reference laboratories. She highlighted the following points:

- Epidemiology of FMD is very dynamic;
- Impact upon selection and deployment of vaccines are essential elements in determining the efficacy of the vaccine strategy;
- Calibration of vaccine-matching results between reference laboratories is important;
- Sampling of field outbreaks is critical;
- Importance of an active FMD reference laboratory network to facilitate sample collection from FMD outbreaks in the field- to feed real-time lab data back to FMD control programs.

Session 2.

Dr Labib Bakkali of ANSES presented the principles of PCP and their relationship to the diagnosis of FMD from a laboratory perspective. He presented the various tests with their limitations and suitability. The following points were emphasized:

- The PCP-FMD requires countries to monitor the disease, to implement risk-based control strategy and to continuously monitor and evaluate impact of control measures;
- Laboratory diagnosis is an essential component of FMD control program and plays an important role in supporting the different activities conducted under the PCP-FMD;
- Laboratory is involved in confirming diagnosis of FMD in clinical or suspect cases; in active surveillance studies and measuring the prevalence of infection/exposure and monitoring the success of control measures;
- When vaccination is used, laboratory is essential for vaccine matching and post vaccination monitoring;
- National Reference Laboratory with sufficient capacity to perform accurate virological and serological FMD diagnosis is one of the key requirements for progression through the PCP-FMD;
- OIE/FAO Reference Laboratories can provide support for laboratory capacity building and for confirmation of diagnosis.

Two break-out groups were assembled during the first day of the meeting with the aim to establish a structure for the proposed two network teams of laboratory and epidemiology. Dr Metwally instructed the two groups to identify a leader or co-leaders for each of the network team. The participants were instructed to determine the needs through evaluation of the priority expected functions and operations of each of the team members of the two networks.

Laboratory session working group presentations:

- Dr Mapitse presented on PVS Sustainable Laboratories. He mentioned despite decades of assessments by external projects, there has been huge investments in laboratories as compared to veterinary services which were focused on infrastructure, equipment, consumables and training, but rarely on strategy or management. There were fewer overarching strategies but lacking mid or long-term vision, unsuitable and redundant structures etc. PVS is a strategic tool whose outcomes identify the real cost of the laboratory analyses, estimation of human, physical and financial resources needed for the implementation of the best and sustainable options. It also proposes options for organisation of the national veterinary laboratory network to make the laboratory function a more coherent investment. Better allocation or advocacy for sufficient resources to support accurate and timely diagnosis of priority animal diseases are also outcomes of the evaluation. It presents all the elements needed for a strategic decision making to the veterinary services. Finally, Dr Mapitse gave feedback on a survey of the 333 veterinary laboratories worldwide regarding a number of parameters and stated that the region was not performing well on laboratory equipment maintenance and calibration.
- Dr Cristian De Battisti of FAO introduced the topic “FAO Laboratory Mapping Tool (LMT)” developed for evaluation and assessment of veterinary laboratories. LMT allows the laboratory to be assessed and evaluated by an external assessor or through a self-assessment. The evaluation covers all the aspects of the laboratory: general laboratory profile, laboratory performance, biosafety/biosecurity and quality system, infrastructure, equipment, supply and laboratory collaboration and networking. The easy-to-use results of the assessments identify strengths and gaps leading the decision makers to address the gaps. LMT specific module for Biosafety/Biosecurity and AMR are also available.

Session 3.

Epidemiology team working group presentations:

- Dr Gael Lamielle of FAO presented the topic of “Surveillance evaluation tool: Assessment of animal/zoonotic disease surveillance systems in a country.” Dr Lamielle shared the background of the FAO initiative of Surveillance Evaluation Tool (SET) as a guidance to veterinary services and international partners for implementing surveillance capacity-building activities in countries. With its 90 indicators, SET can be used concurrently with the World Health Organization (WHO)’s Joint External Evaluations (JEE) or the OIE’s PVS to corroborate their findings leading to a deeper understanding of the strengths and weaknesses related to animal disease surveillance systems. He demonstrated its success through its application in more than 14 countries.
- Dr Lamielle followed his first presentation with a second one under the title “FAO’s Epidemiology Mapping Tool (EMT)”. The EMT is another tool that was developed by the FAO Regional Office for Asia and the Pacific (FAO-RAP) and was rolled out in several countries in Asia. Its latest iteration was used in Indonesia in August 2019 and the tool

was finalized thereafter. EMT focuses on assessing epidemiology capacities of the veterinary services, including how epidemiology informs decision-making. Both EMT and SET represent tools developed by FAO to assess specific capacities of the veterinary services. While there may be some overlap between them, countries should select assessment based on their needs.

- Dr Mapitse presented a topic showing the linkages between the PCP-FMD and the OIE PVS tool. He highlighted that the component 2 of the Global FMD Strategy was about strengthening veterinary services to build its capacity to control FMD and also to enable it to respond to other TADs. He stated that of the 45 PVS critical competencies, 35 were related to FMD and therefore the PVS has strong linkages with the PCP-FMD and that countries should use the PVS mission report outcomes to strengthen their FMD Risk Assessment Plan (RAP) or RBSP. These critical competencies have been embedded on the RAP and RBSP PCP-FMD templates. The Self-assessment tool also has a strong component of the veterinary services.

Drs Metwally and Mapitse presented the outlines and the steps that are required for reliable planning in utilizing the PCP. The critical competencies of PCP and its link to PVS were presented. The aims and the requirements for laboratory and epidemiology networks were detailed as they were used in other regions.

Dr Paolo Motta of EUFMD presented the PCP self-assessment tool (SAT) to assist countries to define their PCP-FMD Stage and progression over time. The SAT is user-friendly excel-based sheet enabling the assessments of specific competencies and capabilities based on the PCP guidelines and cross-referencing relevant critical competencies in the OIE-PVS evaluation in four core domains: livestock sector and stakeholders, surveillance and diagnosis, veterinary services and prevention, control and evaluation. The participants practised with a simple scenario the ability of the SAT's to provide a visual summary to assist veterinary services in the prioritization of tasks and functions, and inform communication with policymakers.

Day 2

Session 4.

Drs Metwally and Mapitse started the second day with introduction of the requirements of surveillance system for PCP and provided overview on how to prepare a RBSP as a requirement for advancing to PCP stage 2. There are currently eight countries in the Middle East region that are in the provisional PCP stage 2 and the RBSP is overdue to submit to the FAO Working Group for review and acceptance by the RAG. The requirement and responsibility of PCP support officer (PSO) were described which is aimed to assist countries in drafting their control plans.

Professor Salman of Colorado State University led dialogue with the participants under the topic of “Principles for designing a surveillance plan (PCP stages 1 and 2) & identifying hotspot”. He addressed the issues under this topic by listing nine questions that required responses from the participants with final responses presented through slides. The main aim of this dialogue was to establish solid ground for buy in of the establishments of the two networks as a main core of the operation of regional plan for PCP. He concluded that PCP has been designed and operated on the scientific principles of disease management but with serious considerations to nature of FMD, culture diversity, political issues, and trade implications. The added value in using PCP as a component of surveillance system was also emphasized.

Session 5.

The Epidemiology and Laboratory networks worked in groups to develop activities and tentative timeline to draft the workplan for next biennium. The Epidemiology network identified five key priority actions (i) mapping available surveillance and control national plans, and the evaluations of the veterinary services and of their specific capacities already conducted at national level; (ii) identify the most appropriate tool to assist a country to voluntarily assess specific capacities (EMT mission and PCP-SAT where mentioned as the most appropriate at this stage); (iii) receive training and acquire capacities to develop risk maps at national level as well as for defining better data collection strategies to inform the development and updating of risk maps; (iv) coordinate with the GF-TADs FMD WG a tailored assistance (PSO system) based on specific needs and on the outcomes of the assessments that will be conducted; (v) establish a sustainable communication and co-ordination mechanism internal and with laboratory network (e.g. mailing list, WhatsApp group, online meetings; annual reports).

The Laboratory network identified four key priority actions for the next biennium including (i) mapping the capacities of the National Reference Laboratories, and identifying gaps to perform accurate virological and serological FMD diagnosis (LMT was proposed but it was mentioned that a specific FMD sub-tool is underdevelopment and might be made available in 2020); (ii) developing a plan for capacity building in PVM at regional level to ensure countries are capable to implement studies; (iii) developing procedures at national level to ensure regular submission of samples to international Reference Laboratories; (iv) establishing a communication and sharing mechanism for National Reference Laboratories to coordinate online and jointly reviewing and implementing the workplan activities.

The epi and lab networks were established and the leader and assistant leader for each network were nominated by the countries:

Participating countries agreed on the name for the epi and lab networks as: [Epi MENET & Lab MENET](#)

Epi MENET leader and assistant leader:

Dr Rehab Abdelkader (Egypt) and Dr Ali Al Sahaf (Saudi Arabia)

Lab MENET leader and assistant leader:

Dr Amer Younes Ahmed Saleh (Jordan) and Dr Ahmed Refaat Habashi (Egypt)

The epi network agreed on the following workplan for 2020-2021:

- Assess countries' capacity and capabilities in epidemiology and surveillance using the FAO, OIE and EuFMD tools;
- Share knowledge, information and expertise across the region for benefits gained in advancing in FMD control through;
- Establishing a regional database for storing and analyzing data on virus circulation, surveillance and vaccine and vaccination ;
- Improve existing surveillance systems, through training on designing of risk map and risk based surveillance(Support of regional and International Organization);
- Engage stakeholder and gain political commitment to stand behind the activities of the network and support the implementation of the workplan;
- Improve disease surveillance in the region for better control and advancement along the FMD-PCP;
- Harmonize FMD vaccine and vaccination schemes across the region;
- Conduct animal mobility survey for the gulf and the rest of the Middle East;
- Train on how to develop RBSP for countries in provisional PCP stage 2 with the expectation that all countries in the region prepared their plan by end of 2020;
- Conduct socioeconomic impact studies to stimulate investment on FMD control by the government, private sectors and development partners.

The lab network agreed on the following workplan for 2020-2021:

- Assess the capacity/capability and performance of the national veterinary diagnostic labs using the FAO LMT tool and other tools. The network leader and assistant leader with support from the WRL and ANSES agreed to carry out such assessment in 2020. Upon countries' agreement the result of the assessment will be shared at the network level;
- Participate in proficiency test scheme (PTS). The first PTS will be coordinated by WRL/ANSES in 2021 with focus on the tests required for PCP stages 1 and 2;
- Train one staff member from each national laboratory (train the trainer approach) on diagnostics in the reference lab in the first quarter of 2021. Funding is required to cover the staff travels. With the aim that countries become more familiar with the FMD diagnostics for early stages of PCP to incorporate in their routine diagnostics;
- Countries are trained on the use of the epi and lab assessment tools and PCP-SAT;
- The network agreed on sharing experience, information and technical manuals and SOPs in order to improve lab capacities.

The lab and epi networks together agreed to:

- Identify training needs and prepare training plans based on the outcomes of the assessment;
- Share experience/consultation through What's app group, mail, online discussion and Visits;

- Prepare annual report on network activities, share across the networks. The reports to be submitted to the FMD working group; fao-fmd@fao.org and oie-fmd@oie.int by end of January starting in 2021;
- Countries, FAO, OIE and EuFMD to seek funding to support the network activities.

Dr Mioulet and Dr Bakkali presented on topics - Guidance on packaging and shipping samples (IATA), and Demonstration on use of penside tests respectively.

Dr Motta presented a qualitative risk mapping analysis for the optimization of monitoring systems on FMD and similar transboundary diseases. Examples of applications of this integrated and iterative framework for qualitative risk analysis and risk mapping jointly developed by EuFMD CIRAD were also provided and discussed. During this session was provided a preliminary update on initial training conducted by EuFMD and CIRAD on regional risk mapping conducted in the Middle East and the relevant upcoming planned activities.

The RAG gave a presentation on the timeline and implementation of the network workplan. This was followed by GCC's presentation on Contribution to the region for TADs control including FMD and Contribution to the sub region for TADs control.

Day 3

Session 6.

Dr Mapitse started the third day with presentation on “Vaccination in support of FMD prevention and control programmes: practical considerations”. He elaborated on the need for compliance with OIE Standards. He highlighted about members’ PCP-FMD and official FMD status or control programmes as of October 2019. Dr Mapitse stressed the objectives of vaccination in endemic countries as reducing clinical disease, elimination of FMD virus, maintaining or regaining FMD freedom. Practical considerations before launching a vaccination program, especially issues and challenges were also presented. He emphasized on countries to have a vaccination strategy with critical elements to be considered in their vaccination programme e.g. vaccine use, evaluation and monitoring of a vaccination programme, etc. Dr Mapitse also provided checklist for implementing vaccination programme, exit strategy towards cessation of vaccination as well as having contingency plans to apply vaccinations in the case of outbreaks in a FMD free country/zone that does not practice vaccination. The participants were informed of the availability of provisions of the OIE *Terrestrial Code* regarding FMD free status changes.

Dr Mioulet presented on how to interpret vaccine matching results. She demonstrated the workflow in vaccine matching, which measures the antigenic similarity between the field strains and vaccine strains by comparing the cross reactivity of a vaccinal (reference) serum against a field isolate and vaccine virus.

Dr Metwally presented the procedure for ordering vaccines with a focus on FMD vaccine, which included vaccine specifications and tendering process. She illustrated the steps for procurement of vaccines, selection of vaccine manufacturer as well as components of vaccine specifications. She recommended resource documents to assist in the selection of the vaccine strains OIE/FAO Foot-and-Mouth Disease reference laboratory network annual report 2018: <https://www.foot-and-mouth.org/publications/oiefao-fmd-laboratory-network-2018> and implementation of the PVM using the FAO-OIE FMD post-vaccination guidelines that is available in English, Arabic and French <http://www.fao.org/3/a-i5975e.pdf>.

Dr Mariam Magdy of Egypt presented the country's experience in FMD vaccination and its challenges. She explained Egypt's vaccination strategy, policy of vaccination and use of locally produced vaccines, the need for awareness for mass vaccination, and results obtained from FMD surveillance.

Dr Shija Jacob of FAO presented outcome of the vaccination survey which was completed by the participant countries in the middle-east region. The survey covered several questions on FMD in the region with focus on vaccination coverage and vaccine strains used in the region. The report indicated, in almost all countries vaccinations were carried out by vets, and the vaccination strategy was endorsed by the government. The majority of countries vaccinated twice yearly (Mar-Apr & Nov-Dec) with small ruminants more frequently than large ruminants and a vaccination coverage of over 75%. Areas of improvement included investment in sending samples for vaccine matching; proper selection of vaccine strains; investigating outbreaks; vaccination to focus on large ruminants and post-vaccination monitoring.

Session 7.

Dr Motta of EuFMD, Dr Mayen of FAO and Dr Mapitse of OIE presented Training opportunities to support epi and lab networks. Various capacity building trainings were available as e-course, face-to-face course, National/Regional Practical training workshops. Some of the upcoming trainings listed were:

- GF-TADs FMD/PPR meeting, March and Dec 2020;
- Inter-regional forum on zoning, April 2020;
- OIE platform for training of veterinary services including e-learning modules;
- Joint OIE/EuFMD workshops on implementation of standards ;
- In the Regional FAO-Technical Cooperation Programme (TCP) entitled Strengthening Regional Coordination and collaboration for the prevention and control of TADs with focus on FMD and PPR in Near East and North Africa (NENA) Region, Regional capacity training on TAD surveillance and reporting foreseen for Sudan, Egypt, Jordan, Lebanon, Libya, Mauritania, Tunisia, Morocco, Algeria and Iraq;
- EuFMD e-learning platform providing access to tutored and self-taught training modules ranging from general to in-depth epidemiology and laboratory topics (courses are available in multiple languages);
- Others to be confirmed with partners.

Conclusions and regional priorities:

- Considering the region's geographical position in relation to Europe, Africa and Asia and also trading patterns for FMD susceptible animals and their products, the participants agreed to develop a Regional FMD control strategy for the Middle East using the PCP-FMD as the preferred tool to progressively reduce FMD virus circulation and the incidence of the disease;
- Engage stakeholders and gain political commitment to the regional epidemiology and laboratory networks workplans and activities;
- The participants agreed to request for and use the FAO, OIE and EuFMD tools for assessment of laboratories capabilities to evaluate their strategic needs, the pertinence and sustainability of the national network of laboratories in the national context and national FMD control plans, and priorities including the capability of the laboratories in conducting FMD diagnostics and bio-risk management. Further training and demonstrations on these tools, however, are required;
- Improve FMD diagnostic capabilities of the central veterinary laboratories within the region through the technical support of the network of FAO/OIE Reference Laboratories for FMD including the participation in proficiency testing programmes. Promote the establishment of a regional leading FMD laboratory with the view to strengthen its capacity to support FMD diagnosis in the Middle East;
- Review the regional FMD situation and identify the gaps and needs of the two newly elected networks through the use of the Self-Assessment tool, PVS evaluations and the OIE and FAO tools for assessment of epidemiology, surveillance and laboratory. Outputs from these tools would be integrated into robust workplans for coordinated regional efforts and commitment from the countries towards implementation;
- Establish a regional information collection and exchange mechanism for the countries to share data on outbreaks and general disease situation to enhance FMD reporting and disease transparency;
- Countries consider requesting an OIE PVS evaluation or OIE PVS follow up mission (if the initial PVS evaluation was carried out more than 5 years ago) to have an updated understanding of their veterinary services capacity and build component 2 of their RBSP;
- The international organizations, donors, EuFMD and regional organizations assist in supporting regional workshops, networking and training through workshops, virtual conferencing and e-learning;
- Participants acknowledged the importance of receiving PSO assistance during the development of their RBSP;
- The need for a unified regional approach to vaccines and vaccination strategies to control FMD in endemic countries using international standards, appropriate vaccines and ensuring sustainability of programmes. Harmonization of programmes within the country and within the region will ensure a coordinated regional approach to control of FMD.

Plenary session: Epi and Lab Networks & training

0800 – 0900	Registration	
OPENING CEREMONY		
0900 – 0930	Welcome and Opening Remarks	<i>N. Mapitse (OIE) A. Ahmed (ADG, FAO) M. Abdelhakim (CVO, Egypt)</i>
0930 – 1000	Introduction of participants Meeting Objectives and adoption of the agenda	<i>S. Metwally (FAO)</i>
1000 – 1020	Group Photo and Coffee Break	
SESSION 1: Setting the stage for the networks		<i>Chair: R. Sayed (Egypt)</i>
1020 – 1100	<ul style="list-style-type: none"> • Updates on implementation of recommendations from the 4th roadmap meeting • Formulation of the epi and lab network • Terms of reference for epi and lab network leaders • Regional leading laboratories criteria 	<i>F. Mayen (FAO)/S. Metwally (FAO) S. Metwally (FAO)/N. Mapitse (OIE) S. Metwally (FAO)/N. Mapitse (OIE) S. Metwally (FAO)/N. Mapitse (OIE)</i>
	Questions and answers (5 minutes)	<i>(FAO and OIE)</i>
1100 – 1130	Regional situation and recent circulating strains	<i>V. Mioulet (WRL)</i>
SESSION 2: FMD diagnostics		<i>Chair: S. Abu Mallouh (Jordan)</i>
1130 – 1200	An overview of FMD diagnostic tests for PCP stages 1 and 2	<i>L. Bakkali (ANSES)</i>
1200 – 1300	Lunch	
1300 – 1315	Election of Epi and Lab Network Leaders and regional leading lab	<i>All participants</i>
SESSION 3: Epi and Lab Tools for Capacity Assessments (parallel sessions)		<i>Chair: F. Al Salloom (Bahrain)</i>
1315 – 1530	<p>Epidemiology session</p> <ul style="list-style-type: none"> ➤ OIE and FAO tools for assessment of epidemiology and surveillance <ul style="list-style-type: none"> • Surveillance evaluation tool (FAO) • Epidemiology Mapping tool (FAO) • PVS tool (critical competencies) <p>Laboratory session</p> <ul style="list-style-type: none"> ➤ FAO, OIE and EuFMD tools for assessment of laboratory capabilities <ul style="list-style-type: none"> • PVS pathway laboratory missions (sustainable national laboratory network) • Lab mapping tool and FMD diagnostics tool • Lab Mapping Exercise: Assessment of lab capacities for FAST diseases in North Africa and Middle East 	<i>G. Lamielle (FAO) G. Lamielle (FAO) N. Mapitse (OIE) N. Mapitse (OIE) C. DeBattisti (FAO) L. Bakkali (ANSES)</i>
1530 – 1545	Coffee / Tea break	
1545 – 1615	Training on self-assessment tool (PCP-SAT)	<i>P. Motta (EuFMD)</i>
1615 – 1700	Guidance on packaging and shipping samples (IATA) Demonstration on use of penside tests	<i>WRL and ANSES</i>
1800	DINNER	<i>Sponsored by Government of Egypt</i>

Epi and Lab network workplan

SESSION 4: Surveillance and control plan

Chair: A. Jaradat (Palestine)

0830 – 0915	Overview on how to prepare the Risk-based Strategic Plan and PSO support	<i>S. Metwally (FAO)/N. Mapitse (OIE)</i>
0915 – 1030	Principles for designing a surveillance plan (PCP stages 1 and 2) & identifying hotspot	<i>M. Salman (Colorado State University)</i>
1030 – 1045	Coffee Break	
1045 – 1130	Principles for designing a surveillance plan (continued)	<i>M. Salman (Colorado State University)</i>

SESSION 5: Epi and lab network workplan 2020-2021

Chair: H. AL-Ibrahim (GCC)

1130 – 1300	Two breakout groups <ul style="list-style-type: none"> • Lab network • Epi Network 	<i>All participants</i>
1300 – 1400	Lunch Break	
1400 – 1430	Presentation on workplan for epi and lab networks	<i>Epi and lab network leaders</i>
1430 – 1500	Round table discussion on reports from breakout groups, link between lab and epi networks	<i>All participants</i>
1500 – 1530	Qualitative risk mapping analysis, optimization of monitoring systems on FMD and similar transboundary diseases	<i>P. Motta (EuFMD)</i>
1530 – 1600	Coffee Break	
1600 – 1700	Timeline and implementation of the network workplan	<i>RAG</i>
1700 – 1730	Contribution to the region for TADs control including FMD Contribution to the sub region for TADs control	<i>GCC</i>
1800	DINNER	

-End of Day 2-

Vaccine and regional priorities

SESSION 6: FMD vaccine and vaccination		Chair: J. El Hage (Lebanon)
0900 – 0920	Vaccination in support of FMD prevention and control programmes: practical considerations	N. Mapitse (OIE)
0920 – 0950	How to interpret vaccine matching results	V. Mioulet (WRL)
1930 – 1045	How to order vaccines: vaccination specifications	S. Metwally (FAO)
	Country's experience - vaccination and post-vaccination monitoring	M. Magdy (Egypt)
1045 – 1100	Coffee Break	
1100– 1120	Review: outcome of vaccination survey	S. Jacob (FAO)
SESSION 7: Closure of meeting and way forward		Chair: A. Zahran (UAE)
1120 – 1150	Training opportunities to support epi and lab networks	F. Mayen (FAO)/N. Mapitse (OIE)/ P. Motta (EuFMD)
1150 - 1200	Roundtable discussion	All participants
1120 - 1200	Communique, regional priorities & investment	FAO/OIE/RAG
1230 - 1300	Feedback from countries and closing remarks from organizations	All participants RAG/ GCC/OIE/FAO/Egypt
1300 – 1400	Lunch and departures	

-End of Day 3-

List of Participants

EGYPT

Dr Abdelhakim Mahmoud Mohamed Ali

Chairman of General organization for Veterinary Services & CVO
Ministry of Agriculture and Land Reclamation

Dr Rehab Abdelkader Sayed

Head of Epidemiology department

Dr Ahmed Refaat Habashi

Animal Health Research Institute
(Virology Lab)

Dr Mariam Magdy

Central Administration for Preventive
Medicine

KINGDOM OF BAHRAIN

Dr Fajer Alsalloom

Chief of Pharmacy and Vet Laboratories
Ministry of Works, Municipalities Affairs &
Urban Planning

Dr Abbas al Haki

Chief of Veterinary Clinics and Disease
Control
Ministry of Works, Municipalities Affairs &
Urban Planning

IRAQ (Apologies)

Dr Thaer Sabri Hussein Alshukur

Director of Epidemiological Department
Veterinary Directorate

Dr Layth Mohammed Saliha Abdulrasool

Veterinarian
Central Veterinary Laboratoires

JORDAN

Dr Ibtihal Kreesha

Head of Animal Wealth
Department Ministry of Agriculture

Dr Amer Younes Ahmed Saleh

Acting Director of Animal Wealth
Laboratories
Ministry of Agriculture

Dr Sakher Abumalloh

Head of Veterinary Division
Ministry of Agriculture

LEBANON

Dr Youssef Saad

Head of the Department of Resources in
Nabatieh
Lebanese Ministry of Agriculture

Dr Jeanne El Hage

Head of Animal Health Laboratory
Lebanese Agricultural Research

PALESTINE

Dr Mohammad Issa

Director of Central Veterinary
Laboratories Ministry of Agriculture

Dr Ahmad Jaradat

Field and Epidemiology Veterinarian
Ministry of Agriculture

KINGDOM OF SAUDI ARABIA

Dr Hussain Al-Ghadeer

Virologist - Central Veterinary Diagnostic
Laboratory
Ministry of Environment, Water and
Agriculture

Dr Ali Abdrabalsol M Al Sahaf

Director of the Department of Animal
Disease and Vectors and Control
Ministry of Environment, Water and
Agriculture

Dr Faisal Altayb J Bayoumi

KUWAIT (Apologies)

Dr Yousef Alazemi

Head of Epidemiology and Zoonotic disease
section at the Animal Health Department
Public Authority of Agriculture Affairs and
Fish Resources

Dr Abdulrahman Alshaikh

General Veterinarian at the Animal
Production Department
Public Authority of Agriculture Affairs and
Fish Resources

SYRIA (Apologies)

Dr Mhd Al About

Deputy Director, Veterinarian
Ministry of Agriculture
Directorate of Animal Health

Dr Mazen Dib

Head of the Central Veterinary Laboratory
Directorate of Animal Health

UAE

Dr Mohamed Alhosani

Manager, Microbiology & Molecular Biology
Abu Dhabi Agriculture and Food Safety
Authority

Dr Meera Saeed Mohammed Ahmed Al Kalbani

Manager, Health Control and Follow-up
Section
Abu Dhabi Agriculture and Food Safety
Authority

Dr Ahmed Zahran

Ministry Of Climate Change and Environment

YEMEN

Dr Gala Saeed

Head of Veterinary Laboratory, Aden
Ministry of Agriculture & Irrigation
General Directorate of Animal Health

Dr Saleh Mahdi Salem Alhaddad

Quarantine Surveillance in Hadramaut
Ministry of Agriculture & Irrigation

OMAN

Dr Rashid Ali Al Sinaidi

Head of Animal Development Department
Ministry of Agriculture & Fisheries

Dr Amal Al Shaqsi

Veterinary Technologist
Ministry of Agriculture & Fisheries

QATAR (Apologies)

Mrs Zinab Alshammari

Laboratory Expert
Ministry of Municipality and Environment

LIBYA

Dr Ismail Ali

Member of the Administrative Committee,
EuFMD
National Center of Animal Health

Dr Elfurgani Kraim

Director of the Central Laboratory
National Center of Animal Health

SPEAKERS

Prof. Mo Salman

Professor of Veterinary Epidemiology
Animal Population Health Institute
Colorado State University

Dr Valérie Mioulet

Head of Virology
The Pirbright Institute

Dr Labib Bakkali Kassimi

Deputy Head of the Virology Unit / Head of
FMD Reference Laboratory
Agence nationale de sécurité sanitaire de
l'alimentation, de l'environnement et du
travail (ANSES)

ORGANIZATION

Dr Hussain Ali AL-Ibrahim

Director of the Agriculture and Food
Department
Gulf Cooperation Council – Riyadh

Dr Mohamad Ghazi Yehya

Regional Representative for the Middle East
World Organisation for Animal Health

Dr Neo Joel Mapitse

Head of the Status Department
World Organisation for Animal Health (HQ)

Dr Samia Metwally

Senior Animal Health Officer
Animal Health and Production Division
Food and Agriculture Organization of the
United Nations (HQ)

Dr Markos Tibbo

Senior Livestock Development Officer
The Food and Agriculture Organization of
the United Nations (FAOSNG)

Dr Friederike Mayen

Senior Livestock Development Officer
The Food and Agriculture Organization of
the United Nations (FAORNE)

Dr Shija Jacob

Animal Health Specialist
Animal Health and Production Division
Food and Agriculture Organization of the
United Nations (HQ)

Dr Gael Lamielle

Surveillance Expert (Zoonoses)
Animal Health and Production Division
Food and Agriculture Organization of the
United Nations (HQ)

Dr Cristian De Battisti

Coordinator
EMPRES Laboratory Unit
Food and Agriculture Organization of the
United Nations (HQ)

Dr Paolo Motta

Technical Specialist Risk Management, FMD
Animal Health and Production Division
The Food and Agriculture Organization of
the United Nations (EuFMD)

OBSERVERS

Dr Youssef Shaheen

United Dairy Farms Company
ARRIAH Agent

Dr Nicolas Denormandie

Veterinary Public Health Center
Boehringer Ingelheim Animal Health

Mr Victor Nikiforov

Head of Regionalization Unit of the
Information and Analysis Centre of
FGBI "ARRIAH"

Dr Momtaz Wasfy

ME-VAC

Dr Ahmed Elkady

ME-VAC

Dr Ahmed Kassem

BI

Dr Sonia Ahmed

VSURI

Dr Drawish Mahmoud

CLEVB

Dr Nashwa Salah EI-Din

GOVS

Dr Ammer Taha Mohammed

Animal Co, Egypt

Ibrahim Qasim

Nazih R.F Khwido

Palestine

Khaled Darwish

ARRIAH

Dr Adil Alsir Shaeikheddin Mohamad

Ahmad

United Dairy Farms Company
ARRIAH Agent

Prof. Emeritus Peter Windsor

Sydney School of Veterinary Science
The University of Sydney

Irina Vaselkina

Russia

Dr Magdy Elsayed

ME-VAC

Dr Rashad Baiomy

IFT

Dr Hiam Fakhry

VSURI

Dr Assem AboBakr

VSURI

Dr Eman Rateb Robil

GOVS

Dr Saied Bellassi

ARRIAH

Dr Sayed Salem

AOAD

Dr Bala Tirugnanasotkhi

Russia

Ragheeb Abadyak

Palestine