WHO-EM/CSR/057/E

Report on the

Meeting on establishing an outbreak alert and response network in the Eastern Mediterranean Region

Casablanca, Morocco
21–23 October 2012

World Health Organization
Regional Office for the Eastern Mediterranean

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CONTENTS

1. INTRODUCTION

WHO's Global Outbreak Alert and Response Network (GOARN) provides global expertise and technical resources for confirmation of and response to public health emergencies. The GOARN platform is used for the coordination of international public health operations with partners around the globe, and relies on outbreak logistics, strategic stockpiling, international deployment, medical clearance and security procedures and operational communications in order to support coordination and leadership.

In light of the increasing frequency of emerging infectious diseases occurring in the WHO Eastern Mediterranean Region, the WHO Regional Office for the Eastern Mediterranean seeks to strengthen the regional capacity for outbreak alert and response through expanding partnerships with collaborating centres, technical institutions, centres of expertise and excellence, academic and nongovernmental organizations in the Region. Accordingly, the Regional Office organized a meeting on establishing a regional outbreak alert and response network in Casablanca, Morocco on 21–23 October 2012. The objectives of the meeting were to:

- discuss the guiding principles and major tasks required for the establishment of a regional outbreak alert and response network;
- assess needs and identify challenges of country-level participation; and
- identify potential partners and centres of excellence in the Region.

The meeting participants included representatives of ministries of health in the Region, national focal points for the International Health Regulations (IHR) and experts from academic institutions, collaborating centres, reference laboratories and other centres of public health expertise from 11 countries in the Region. In addition, several established GOARN partners and organizations were represented.

The meeting was opened by Dr Mamunur Malik, Medical Officer, WHO Regional Office for the Eastern Mediterranean, who delivered opening remarks on behalf of Dr Alwa Alwan, WHO Regional Director for the Eastern Mediterranean. In his message, Dr Alwan emphasized the urgent need to increase partnerships in the Region in order to coordinate and manage the operational response to emerging public health threats.

Dr Rashid Wahabi delivered a welcome message on behalf of His Excellency Dr El Hossein El Ouardi, Minister of Health of Morocco.

Dr Malik reviewed the objectives of the meeting, noting that no network is currently in place in the Region, although both the Americas and Western Pacific regions do have such networks. The first tasks of the consultation would therefore be to assess the regional needs and priorities, develop a consensus on strengthened regional networking activities and begin identifying centres of excellence, institutions and stakeholders in the Region that could be partners in this initiative. After the establishment of a network, a formal invitation would go to institutions, which would then decide upon their roles and participation.

Dr Han Heijnen, WHO Temporary Adviser, was elected Chairperson of the meeting. The meeting programme and list of participants are presented in Annexes 1 and 2.

2. SITUATION IN THE EASTERN MEDITERRANEAN REGION

2.1 Outbreaks in the Eastern Mediterranean Region 2000–2012: an account of international response

Dr Mamunur Rahman Malik, WHO Regional Office for the Eastern Mediterranean

The number and variety of emerging infectious disease outbreaks in the Region from 2000–2012 has been unprecedented. These have ranged from vector-borne diseases such as Chikungunuya fever and all 4 serotypes of dengue (including travel-associated dengue in Egypt in 2010), to all types of viral haemorrhagic fevers, new subtypes of influenza, waterborne diseases, including repeated waves of cholera and hepatitis E, to meningococcal meningitis (persistence of strain W135), nodding disease and zoonotic diseases from anthrax to plague. The first two documented cases of a novel human coronavirus also occurred recently in the Region. Outbreaks of these diseases combine to form a large number of public health events of potential concern in the Region. During 2011, 2–3 events per months were identified which needed significant support and advice to Member States from the Regional Office and international partners.

The main risk factors for the emergence of these diseases include increased, unplanned urbanization; uncontrolled population growth; increases in travel and trade; and the effects of climate change. With complex emergencies and humanitarian crises comes massive population movement, with high numbers of internally displaced persons. The health systems of countries are under huge demand and increasing income gaps are adversely affecting capacity. Surveillance, early warning and response systems are inadequate to deal with the scope of these issues. In addition, the political situations in some countries constitute a barrier to transparency on outbreak information and reporting.

The Region has a weekly platform for information sharing, the Weekly Epidemiological Monitor. The publication, now in its fifth year, highlights all major public health events and is well received.

Because no single institution has the capacity to respond to all the events in the Region, bringing together partners is critical for tackling these problems.

2.2 Update on GOARN activities in the Eastern Mediterranean Region

Dr Martin Opoka, WHO Regional Office for the Eastern Mediterranean

Public health response in the Region is hampered by challenging humanitarian emergencies, chronic conflicts, new conflicts and natural disasters.

GOARN has conducted many operations in the Region in the past decade, the most recent of which were in response to the A/H1N1 influenza pandemic in 2009 and to dengue and cholera outbreaks in Pakistan in 2010.

The rationale for establishing a regional outbreak alert and response network includes the prevalence of frequent epidemics and humanitarian disasters; weak national infrastructures to cope with emergencies; a lack of response coordination; cultural and language barriers for international support and expert teams. The Eastern Mediterranean Region has many technical strengths and capacities, including untapped potential in public and private institutions, private health facilities and many national and international nongovernmental organizations. Further, local experts have a better understanding of the culture of the Region, and could deploy more quickly and efficiently in an emergency.

A consultation on a regional outbreak alert and response network was held in 2007, with the aim to establish a regional response team that could provide immediate support to countries facing an emergency. A second consultation was held in 2009 but plans were hampered by the H1N1 pandemic. A six-member committee was created at that time to guide the further develop of this work.

There are a number of constraints to such a network, including lack of understanding by regional institutions and experts, as well as inadequate financial support for networking activities. However, recognition of the established track-record in supporting Member States in the Region, advocacy for the network and active engagement of additional potential partners and stakeholders are expected to build on the current collaboration with centres in the Region.

3. GLOBAL OUTBREAK ALERT AND RESPONSE NETWORK (GOARN): INTRODUCTION AND OVERVIEW

Mr Pat Drury and Ms Sameera Suri, WHO headquarters

GOARN was built with the following elements:

- procedures for rapid deployment of experts and field teams;
- guiding principles for international outbreak alert and response;
- a steering committee;
- protocols for operational communications and a website;
- support systems for field response, including field logistics capacity;
- a training programme for outbreak response leaders and teams;
- field tools (the Field Information Management System);
- evaluation.

GOARN now has more than 300 technical partners around the world and has mobilized 1430 people on 123 missions since its inception. This number is an underestimation, as it includes primarily staff deployed through WHO, and does not reflect the true role and extend of the support partners provide in the field directly to help countries and communities affected by these outbreaks.

The IHR set specific requirements for the WHO Secretariat to have a transparent and uniform system across the whole Organization. A high degree is flexibility is, however, also built into the system. Reports are put through a verification and risk-assessment process with

countries. Information is disseminated through disease outbreak news and other regional publications. It was noted that the combination of disease outbreak news and the internet have created a revolution in the transformation of reports from Member States and translation of rumours into useful outbreak information, which is then followed up with countries.

The priorities for GOARN partners include:

- equitable participation in field missions;
- early alert and request for assistance;
- clear terms of reference for international missions;
- specific terms of reference for experts;
- rapid, transparent and consistent decision-making;
- professional administration and contracting;
- dependable field logistics and consistent operational support.

Procedures for rapid deployment can be fulfilled within 12–24 hours. Experts from any institution are all treated in the same contractual manner. Security training and clearance are required for personal and operational safety. In addition, medical examinations and advice ar provided in advance of any deployment. Clear communications and reporting lines and responsibilities are ensured.

The Guiding Principles for International Outbreak Alert and Response were originally agreed by partners for participation in the network, and to describe how the network would work. Partners also agreed to promote the highest professional standards, which are evaluated on a peer basis and reviewed by the Steering Committee.

The Steering Committee meets twice a year, to review field operations, and to provide strategic advice and direction. WHO is now beginning a selection process to bring in new members while maintaining a core of experienced representatives and institutional partners.

The Steering Committee set up working groups on specific topics as a way of ensuring a greater contribution by the members. There are currently four active working groups: strategic direction; “selection” process for a new Steering Committee; dengue outbreak response; and training development. All of these working groups report back at the each Steering Committee meeting. Evaluation of GOARN is carried out by the Steering Committee. The key findings of the 2009 independent evaluation of GOARN were shared with participants.

How information is shared with GOARN focal points was described, including the Sharepoint site.

Experience and lessons learned from similar regional networking initiatives and developments were discussed. An important lesson learned was to ensure that any initiative successfully identifies the appropriate institutions and available experts, and not simple a large number of institutions or a roster of experts that may be difficult to mobilize rapidly in a crisis.

Discussion

- Institutions' participation in GOARN is voluntary.
- Historically, partners have not wanted a certification programme. There is no legal mechanism governing the participations of institutions in the network.
- The network is open and inclusive, so that, for example, nongovernmental organizations and academic institutions can be involved.
- Compensation/payment/support issues are resolved on a case-by-case basis.
- Persons deployed by the network are officially short-term WHO consultants in the field; as such, they follow WHO codes of conduct, working under the authority of the WHO country representative and in support of the Ministry of Health.
- GOARN was developed by experts in infectious disease, and this remains its focus. Other areas of work—chemical, radiation, foodborne and humanitarian crises—must be explored in close consultation with institutions.
- Strategy took second place to immediate response as the network was being developed. Now the network recognizes that it requires a strategic view.
- Early detection remains the responsibility of countries. GOARN gets involved when country makes a request for assistance. Technical support is therefore based upon country request of what is needed, i.e. lacking in that country. Teams will take the opportunity to impart knowledge and training to people on the ground in an outbreak setting.
- One of the few sources of predictable funding for GOARN development has been the CDC cooperative agreement.
- The core budget of WHO makes almost no allowance for emergency or response activities. A main focus of the WHO reform programme is to change this and make emergency response a core function.
- Donors (and governments) are often more enthusiastic about putting resources into outbreaks than complex emergencies, since the former have a clear end.
- WHO is fairly successful in raising money for operations, e.g. using established mechanisms like the UN central emergency relief fund.
- GOARN is not a "whistleblowing" mechanism. The responsibility for reporting disease outbreak is set out under the the IHR.
- Sharing information for preparedness is one of the weaker aspects of the network at present. We could do better if we could engage technical partners on a regional level.
- Quality is generally assessed by speed of response. But we need more monitoring of performance and impact.
- All missions are triggered by a formal request from a country. WHO shares information with GOARN partners when the information comes through the recognized channels with Member States.

4. EXPERIENCE IN INTERNATIONAL OUTBREAK RESPONSE

4.1 Rift Valley fever in Sudan

Dr Osman Mohammed, Public Health Institute Sudan

Country experience with a Rift Valley fever outbreak in Sudan was reviewed. Gaps in the four main domains of standard operating procedures—preparation, alert, control and evaluation—for viral haemorrhagic fevers were discussed. The usefulness of international response was evaluated, as were the challenges of mobilization. This experience resulted in recommendations to increase advocacy, especially for the IHR; to widen the network, especially within the Region; and to focus on capacity-building.

4.2 Avian influenza in Egypt

Dr Nasr El Tantawy, WHO Egypt

Egypt has one of the highest reported cases of avian influenza in humans, along with thousands of outbreaks in poultry. Therefore, a complex cultural, social and economic problem exists. Thus far, there is no human to human transmission. The country received a joint UN mission on avian influenza, which provided recommendations for action at national and subnational levels.

Lessons learned included the need for high-level training; clarity on lines of communication between all levels of WHO and any other entity supporting the response; a more supportive role for WHO and partners in the verification process of suspected outbreaks; a clear systematic approach for coordination of international response; and advocacy to address the concerns of politicians and to invite their support and commitment.

4.3 GOARN and international cholera outbreak response

Dr Pradip Bardhan, International Centre for Diarrhoeal Disease Research

A partner's perspective on response to cholera outbreaks around the world was shared with the group. Objectives of their missions to cholera-affected countries since 1998 have included assessment of current case management processes; identification of training needs; recommendations for case management; and the development of capacity of health care professionals in case management.

Measures to improve preparedness include the following:

- identification and monitoring of potential outbreak areas;
- alerting local stakeholders;
- advance training for personnel;
- prepositioning of emergency and essential supplies;
- pooling of regional and cross-border resources.

Discussion

Participants noted that different situations require different responses. Intersectoral and intrasectoral collaboration is essential for all diseases, not just zoonotic ones. Fatigue in dealing with outbreaks is a consideration. Within the Region, lack of capacity on the animal expertise side is a serious limitation. Complex emergencies demonstrate why it is important to mount an international response.

4.4 GOARN and international dengue outbreak response

Dr Siripen Kalayanarooj, Queen Sirikit National Institute of Child Health

The speaker described her experience as a member of a team responding to a dengue outbreak in Pakistan in October 2011. Preparations for deployment had included both official (security training) and personal (basic information, clothes and food), as well as the management of cases. During outbreaks there is a special need for media training. All activities of this response were reviewed, including plans for preparedness, a review of which took place, in cooperation with ministries, when the response ended.

5. GROUP WORK

In anticipation of the establishment of a regional network, the participants were divided into groups and asked to respond to four key questions:

- What previous experience, if any, do you have in networking for outbreak response?
- What expectations do you have for this new network? Where does it add value?
- What would be your institutional motivation to participate in the network?
- What would be the challenges to participation in the proposed network?

Some examples of experience with networks included: event-driven experiences with intersectoral collaboration; the G5 (Islamic Republic of Iran, Iraq, Pakistan, Afghanistan, WHO) for tuberculosis, malaria, viral haemorrhagic fevers; EpiSouth in Morocco for information management; EMPHINET for rapid response and capacity-building; MECIDS (Middle East Consortium for Infectious Disease Surveillance); water and sanitation network, with health and humanitarian sectors; and many informal networks, moved through WHO.

Participants noted that their expectations for the network included:

- enhanced information sharing for early alert and detection
- identification and pooling of capacities
- optimization of local resources
- preparedness (information sharing, forecasting, surveillance, capacity building, supplies and logistics, experiences)
- response (technical support, supplies and logistics)
- laboratories and capacity building
- rapid response
- advocacy (identification of resources for better utilization).

Institutional motivations for participation in the network were listed as:

- professional recognition
- building further capacities
- find answers to local problems
- learning
- early warning capabilities
- mutual benefits
- pooling of resources
- collaboration and communication
- trained people
- better health security
- reducing costs.

Challenges to the construction of a network were named as:

- finances
- politics
- commitment, especially among decision-makers
- transparency
- demonstrating outcomes
- limited human resources
- visa issues.

6. LABORATORY SUPPORT IN INTERNATIONAL OUTBREAK RESPONSE OPERATIONS: CHALLENGES AND SUGGESTIONS

Dr Emad Mohareb, U.S. Naval Medical Research Unit No. 3

The U.S. Naval Medical Research Unit No. 3 (NAMRU-3) in Egypt is a reference laboratory, a training centre and a WHO collaborating centre for emerging and re-emerging diseases.

NAMRU-3 has mobile laboratories for deployment, including for molecular diagnosis, serologic diagnosis (ELISA equipment, for example) for a panel of 7–8 viruses. There are also teams for vector investigation, including field collection and identification, and reservoir investigation.

WHO and NAMRU-3 can deploy teams and laboratories within 24–28 hours for outbreak response. Recent missions related to outbreaks have included: Rift Valley fever (Egypt/Sudan/Yemen); enterohaemorrhagic *E. coli* (Egypt); hepatitis E (Sudan); diarrhoeal pathogens in water (Egypt); dengue fever (Saudi Arabia/Yemen/Djibouti); acute respiratory infections (Jordan); chikungunya fever (Yemen); and Crimean–Congo haemorrhagic fever (Iraq/Afghanistan/Pakistan). A number of missions have also taken place in response to outbreaks of avian influenza.

Operational challenges faced during missions include the need for a request from the host government, country clearance, visas, availability of transportation and customs clearance for laboratory and field samples.

Once in the field, transportation in remote and inaccessible places can be a challenge. Sample collection can be slow and cumbersome, performed in makeshift settings. Data collection requires sufficient information about clinical and epidemiological situation to make sense. Much of this is done by hand in the field, without access to computers.

Setting up a laboratory in the field is also challenging. Space for benches and other equipment is needed to enable the work to be carried out in safe conditions. One participant noted that it would be desirable to have 2 or 3 other laboratories with the same capacities, in view of the number of potential outbreaks.

Discussions took place about the possibility of setting up additional reference laboratories in the Region. It was noted that sometimes trained personnel are available but they do not have needed kits and reagents. A directory of laboratories around the world with their capacities exists but there are problems with keeping the information current. It is possible to provide a database of reference laboratories on the WHO website; again, there are difficulties with keeping the information current. There is also an Emerging/Dangerous Pathogens Laboratory Network, most of them BSL4; more information is available on the WHO website. A particular challenge is the possibility of overwhelming any one laboratory during an outbreak.

7. ROLES OF PARTNERS IN THE NETWORK

7.1 Key aspects for participation of institutions in the network

Mr Pat Drury and Ms Sameera Suri, WHO headquarters

This interactive session was introduced by noting that considerations for setting up a regional network are informed by similar work done by other regions.

Participants were asked to compile a list of priority diseases and public health risks. Their list included the following diseases and risks.

- waterborne and foodborne diseases, especially shigella and cholera
- haemorrhagic fevers
- influenza
- hepatitis
- vector-borne diseases
- zoonotic diseases, including rabies
- industrial and radiological accidents
- West Nile virus
- dengue and chikungunya

It was noted that for some of these diseases and conditions, country assistance is not needed. There is a need to prioritize diseases. A network needs to establish priorities.

The participants discussed whether there should be a key set of diseases or a scoring system to determine priorities. Participants were then asked to provide names of potential partners, both public and private, as a scoping exercise, and to elaborate on three aspects of collaboration:

- potential roles of partners
- communications and coordination
- institutional arrangements.

7.2 Contribution of partners in the development of GOARN and field missions

Dr Ray Arthur, Centers for Disease Control and Prevention

The US Centers for Disease Control and Prevention's Global Disease Detection Programme (GDD) is an example relevant to capacity-building and outbreak response. CDC has a direct liaison with GOARN through the GDD Operations Center and is also a WHO Collaborating Centre for Implementation of IHR National Surveillance and Response Capacity. GDD has regional centres that conduct capacity-building and training, among other activities, some of which are shown in the regional map below.

One of the lessons learned from the GDD experience is that active participation is needed by partners in networks.

7.3 Developing links between existing technical and training networks: introduction to EMPHINET

Dr Jawad Mofleh, Eastern Mediterranean Public Health Network

The Eastern Mediterranean Public Health Network (EMPHINET) was established in 2009, with four founding partners: Egypt, Jordan Pakistan and Saudi Arabia. It is an independent organization with multiple sources of funding. The Secretariat is based in Amman. In 2012 its membership has expanded. Objectives and activities (including networking, database of public health professionals, website for discussion and teaching, conferences, training sessions, and technical projects) were reviewed.

The rapid response team initiative was discussed in detail. It consists of field work and classroom work. The team has now been trained and is ready for deployment for investigations and disease outbreak response.

The network's plan is to deploy trained teams and to conduct further national and subnational training, among other activities.

7.4 Outbreak response logistics

Mr Jean Christophe Azé, WHO headquarters

The objectives of outbreaks logistics were reviewed, including the definition and function of logisticians. Logistics means having the right item in the right place at the right time at the right price. It is a support function to programmes and outbreak response operations.

Aspects of supply chain management were discussed, as were the roles and responsibilities of the health logistician. How-to details of team deployments were covered, as were field operation support actions. Other outbreak response logistics discussed included mobile laboratory deployment, sample collection and infection control. The importance of preparedness was emphasized: there is no efficient emergency response without it.

7.5 Information sharing between participating institutions in the network

Ms Sameera Suri, WHO headquarters

GOARN's status as a network of institutions, with voluntary participants, focuses on rapid identification, confirmation and response, for which information sharing is critical. Each institution in the network has focal points who act as contact persons during an emergency. Predictability of information sharing is key. Health and security of staff are paramount concerns.

The process of collecting information, confirming rumours and official reports, potentially resulting in assistance, employs a number of coordination tools. The Global Event Management System is a centralized web-based system, with functions as shown below.

How activation of an international response takes place was reviewed. The process of activation is driven by ministries of health and each response is unique, including specific elements related to the outbreak.

GOARN deployment is characterized by:

- arrival in country
- information management and communication
- epidemiology and surveillance
- case management
- field research
- laboratory services
- personnel management
- mission completion.

After mission completion, post-response activities include:

- end of mission report
- national and international capacity-building and preparedness, including training

- advocacy and fund-raising
- publications
- evaluation of international outbreak responses.

GOARN core values are always emphasized in information sharing: to be accurate, relevant and timely; to respect confidentiality; and to be transparent.

8. GOARN TRAINING COURSE: HOW TO BEGIN FOR THE REGION IN 2013 AND BEYOND

Mr Martin Opoka, WHO Regional Office for the Eastern Mediterranean

General objectives of the regional training workshops include: objectives and administrative procedures; team coordination and management; personal and operational security and logistics; health on mission; field epidemiology; case management and infection control; social mobilization and anthropology; and risk communication.

Since 2007, 28–40 participants from as many as 13 countries and 20 institutions have attended outbreak-related training sessions. The idea of a regional GOARN was raised during these sessions, but, as discussed above, progress was halted by the H1N1 pandemic.

9. CONCLUSIONS

There is relevant technical and operational experience available in the Region that can be shared. Donors have made investments across the whole Region, and there is a renewed push to fulfil IHR requirements by 2016. Countries in the Region still have gaps in the core capacities that must be filled. Many countries report that they are unprepared for chemical and radiological accidents, whereas there is more experience in infectious diseases.

Training courses need to emphasize international dimension of response while also identifying national experts. Training should be directed at people who already have experience with cholera, for example, to be trained in GOARN procedures, etc. Training is less helpful when it is theoretical. There should be two “tracks” for training, one for those with experience and one for those without.

Many tools are available. The Field Information Management System (FIMS) used in the Ebola outbreak in Uganda in English is used expressly for daily follow-up of contacts in a viral haemorrhagic fever outbreak. It has not been possible to do the same kind of training in a Francophone setting. Translating the system into Arabic would also be useful.

The participants were overwhelmingly in favour of the regional networking activities, and almost all were interested in supporting international missions. There was strong institutional interest and support for the initiative.

Three working groups were established.

- Working Group 1. Operational platform: Saudi Arabia, Oman, Morocco, Pakistan, Islamic Republic of Iran, with the Regional Office as Secretariat (timeframe: 6 weeks; product = clear terms of reference, objectives, scope, guiding principles, strategic direction for functioning of the network).
- Working group 2. Advocacy and resource mobilization: Egypt, Sudan and Jordan with the Regional Office as Secretariat (timeframe: 8 weeks; product = guidelines, policy mapping of potential donors and partners, concept note to cut across all 3 groups, strategic direction will be dependent on the output of working group.
- Working group 3. Training in outbreak response: Saudi Arabia, Morocco, Islamic Republic of Iran, Egypt, Lebanon, Oman, Pakistan, Sudan, Yemen, Tunisia, EMPHINET, with the Regional Office as Secretariat (timeframe: 8 weeks, product: programme that complements/augments the one outlined above).

It was agreed that all communication will take place electronically, through email, Sharepoint, WebEx and Skype.

Annex 1

PROGRAMME

Sunday, 21 October 2012

08:30 – 09:00	Registration	
09:00 – 09:30	Opening session Opening remarks Message from H.E. the Minister Health, Morocco Objectives of the Meeting Selection of Chairperson Introduction of participants	*Mamun Malik, WHO/EMRO*
09:30 – 10:00	Outbreaks in the Eastern Mediterranean Region, 2000–2012: an account of international response Summary of outbreaks, 2000–2012 Vulnerability of the Region to repeated outbreaks, implications and priority needs Need for rapid public health response and examples of cross –border collaboration	*Mamun Malik, WHO/EMRO*
10:30 –10:50	Update on activities in the Eastern Mediterranean Region recent missions in the Region (2007–2012) Current and past regional initiatives including networking Outcome of international outbreak response mission in the Region Lessons learnt and future opportunities	*Martin Opoka, WHO/EMRO*
10:50 – 11:20	Global Outbreak Alert and Response Network (GOARN): Introduction and overview Global perspectives and background Profile of institutions, field missions Achievements, lessons learnt and future directions	*Pat Drury, WHO/HQ*
11:20 – 11:30	Plenary discussion, question and answer	
11:30 – 12:30	Experience in international outbreak response Rift Valley fever in Sudan (15 minutes) Avian influenza in Egypt (15 minutes) GOARN and international cholera outbreak response	*Osman Mohammed, PHI, Sudan* *Naser El Tantawy, WHO-Egypt* *Pradip Bardhan, ICDDRB*
12:30 – 13:00	Plenary discussion	
14:00 – 15:00	Movie on GOARN Establishment of GOARN Guiding principlesfor participation Scope of operations Secretariat and steering committee and working groups and experience with regionalization	*Pat Drury, WHO/HQ* *Sameera Suri, WHO/HQ*

	Pleanry discussion	
15:15 – 15:45	Experience in international outbreak response GOARN and International dengue outbreak response	*Siripen Kalayanarooj WHO CC for Case management of Dengue/DHF/DSS, Queen Sirikit National Instituite of Child Health (QSNICH)*
15:45 – 16:30	Instituitional motivations, benefits and commitments of partners in field missions Group work Plenary discussion	*Sameera Suri, WHO/HQ*
16:30 – 17:00	Wrap up of proceedings	*Chairperson*

Monday, 22 October 2012

09:00 – 10:00	Key aspects for participation of instituitions in the network Targeting priority diseases and public health risk; Mapping of regional technical resources and capacities Potential roles of partners; Scope of activities; Communication, coordination and institutional arrangements	*Pat Drury, WHO/HQ* *Sameera Suri, WHO/HQ*
10:15 –10:45	Contribution of partners in the development of GOARN and field missions Presentation on the involvement of GDDRP/CDC in GOARN	*Dr Ray R. Arthur, CDC/USA*
10:45 – 11:00	General discussion	
11:00 – 12:00	Laboratory support in international outbreak response operations: Challenges and suggestions Plenary discussion	*Martin Opoka, WHO/EMRO* *Emad Mohareb, NAMRU-3*
12:00 – 13:00	Operational platform: WHO country office, Regional leadership and HQ roles Deployment procedures, preparaing for a mission, security and other operational issues during a field mission Plenary discussion	*Martin Opoka, WHO/EMRO* *Pat Drury, WHO/HQ*
14:00 – 14:30	Developing links between existing technical and training networks Introduction by EMPHINET Plenary discussion	*Dr Jawad Mofleh, EMPHINET*
14:30 – 15:30	Outbreak response logistics	*Jean Christophe Aze,*

	Procedures Challenges Operational issues	*WHO/HQ*
15:45 – 16:15	Advocacy and communication: strategy for attracting partners and institutions	*Sameera Suri, WHO/HQ* *Eng Han Heijnen WHO Temporary Adviser*
16:15 – 17:00	Plenary discussion	

Tuesday, 23 October 2012

09:00 – 09:45	Information sharing between the participating instituitions in the network Introduction by WHO Discussion	*Sameera Suri, WHO/HQ*
09:45 – 10:30	GOARN training course: how to begin for the Eastern Mediterranean Region in 2013 and beyond Introduction by WHO Discussion	*Martin Opoka, WHO/EMRO*
10:45 – 11:30	Networking for outbreak alert and response in the Eastern Mediterranean Region Finalization and timeline of operational and instituitional arrangements and follow up; Calendar and meeting of the network partners in the Region	*Mamun Malik, WHO/EMRO* *Pat Drury, WHO/HQ*
11:30 – 12:30	Advocacy and resource mobilization to support developing the network and priority activities	*Jean Christophe Aze, WHO/HQ* *Sameera Suri, WHO/HQ*
13:30 – 14:00	Conclusions and recommendations Next steps	*Mamun Malik, WHO/EMRO*
14:00	Closing session	

Annex 2

LIST OF PARTICIPANTS

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