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**REGIONAL COMMITTEE FOR THE
EASTERN MEDITERRANEAN**

**Sixty-first Session
Tunis, Tunisia, 19-22 October 2014**

TECHNICAL MEETING

**PREPAREDNESS FOR DISEASE OUTBREAKS WITH SPECIAL EMPHASIS ON
EBOLA AND MERS-COV**

Objectives of the event

The objectives of the event are to highlight:

- the current threat posed to public health by Middle East respiratory syndrome coronavirus (MERS-CoV);
- the potential risk of introduction of Ebola virus disease in the Region;
- actions that can be taken by countries to scale up preparedness measures to protect population health against these two public health emergencies.

MERS-CoV

MERS-CoV emerged as a novel virus in the Region in 2012, causing severe acute respiratory disease in a handful of patients. Since then, hundreds of cases have been reported, and to date, 11 out of 22 countries have detected laboratory-confirmed cases. In 2014, four new countries reported laboratory detected cases. Since emergence of MERS, human infections, primarily acquired in the community, have continued to increase and a significant number of cases are also being reported as a result of secondary transmissions in health care settings that are associated with a breach in systematic and consistent application of infection control measures.

Despite an upsurge in the number of human infections WHO's risk assessment remains the same – epidemiological patterns of the infection caused by the virus have not changed and there is no sign that the transmissibility of the virus has changed with no evidence of sustained human-to-human transmission in communities. This was the assessment of the Emergency Committee of the International Health Regulations (IHR 2005), which met in October 2014.

Current assessment is that cases will continue to emerge and another upsurge can be expected in spring 2015 if current assumption of seasonality of the disease holds true. A number of critical gaps in knowledge of human and animal transmission have yet to be addressed. While evidence now suggests that dromedary camels found in the Middle East may be the source of this virus, what remains unknown is how this virus spills over from camels to humans and what type of human exposures result in infection from this virus.

Ebola virus disease

The current outbreak of Ebola virus disease in west Africa is by far the largest and most persistent outbreak of the disease reported in the 38-year history of the virus. It is also the first ever multi-country outbreak on record with four countries in western Africa affected – Guinea, Liberia, Sierra Leone and Nigeria. The outbreak continues to escalate in alarming ways, with widespread and intense transmission in the affected countries devastating families and communities, compromising essential civic and health services, further weakening economies, and isolating affected populations. In a recent report, a conservative projection has been suggested of close to 20 000 cases by early November 2014, an ominous sign that the epidemic is continuing to expand.

On 8 August 2014, the Director-General, further to the advice of the Emergency Committee convened under the IHR, declared the Ebola outbreak a Public Health Emergency of International Concern (PHEIC) and issued temporary recommendations to prevent further international spread. The recommendations emphasize that the travel of all Ebola cases and contacts should be restricted but there should be no general ban on international travel or trade. The recommendations also emphasize that all States should be prepared to detect, investigate and manage Ebola cases.

Ebola is not new to the Region; the first outbreak was in Sudan in 1976, simultaneously with Democratic Republic of Congo, and since then Sudan witnessed two further outbreaks in 1979 and 2004. It has been projected recently that as long as the transmission remains uncontrolled at the epicentre of the outbreak, Ebola can spread to beyond Africa. Based on air traffic connections between west African countries and countries in the Region, some modeling data have already projected that the risk of importation of countries of the Region is moderately high. In all likelihood, transmission of Ebola through international travel would be the most probable scenario for the introduction of the virus in countries of the Region. The risk of transmission by land or sea is also conceivable.

Given the threat of importation of Ebola into the Region, national efforts need to be urgently stepped up in order to early detect any possible introduction of the virus into any countries of the Region and to enhance readiness for prompt response. It will be important to strengthen the screening protocol for all incoming air passengers, rapidly detect and promptly isolate any suspected ill traveller, confirm by laboratory diagnosis quickly and undertake rapid containment measures. A high index of suspicion early on, proper isolation of a suspected patient, rapid laboratory confirmation, appropriate infection-control practices and epidemiological investigations are the only guarantee to quickly limit the spread of the virus should it be introduced in the Region. In all previous outbreaks, three core interventions were proved to have been effective in halting transmission – early diagnosis, surveillance and exhaustive contact tracing, and optimum patient care including isolation and effective infection control measures. A number of key public health actions need to be considered by the countries in line with WHO's recommended approach to accelerate national preparedness efforts at all levels of health systems, including at points of entry.

WHO's ongoing response efforts

WHO has been working closely with national authorities and a broad range of national and international partners in all affected countries to implement standard and – in the worst-affected countries – complementary Ebola virus disease control measures. WHO has

established a 4-level operational structure to coordinate this response, comprised of WHO's district-level field operations, country offices, the Regional Office for Africa, WHO headquarters. WHO has established an emergency operations coordination centre in Conakry, Guinea. UN common operational support platforms at national, regional and global levels are coordinating the receipt and allocation of strategic resourcing and in-kind contributions from governments and partners towards the implementation of mission critical response actions.

Experimental therapies and vaccines

Access to specific effective therapeutic and preventive medical interventions for Ebola remain an important component of WHO's Ebola response roadmap. Although a few candidate Ebola vaccines and therapies have shown promising results in laboratory and animal models, they have not yet undergone appropriate and rigorous clinical evaluation for safety and efficacy in humans, and are not licensed for use by national regulatory authorities. The escalating scale and mortality of the outbreak, and intense attention in recent public discourse, has reinforced the urgent demand for the accelerated development and availability these compounds to support, and potentially reorient, ongoing response efforts. Recent expert consultations convened by WHO examined these and other related considerations, and concluded that given the particular circumstances of this outbreak, the experimental nature of Ebola therapies and interventions should not preclude their use, in settings that would allow the evaluation of their safety and efficacy.

Ebola vaccines appear to offer the most promise in the near term, with the results of Phase 1 trials for safety and immunogenicity of two products potentially available by the end of 2014. Such products could potentially be used on an accelerated basis in 2015 for front-line responders, such as health care workers. Therapies using whole blood or sera from Ebola survivors have also been prioritized for further evaluation. There are limited prospects for large-scale use of new therapeutic drugs, including monoclonal antibodies, in the near term given the time required to scale up production. However, the safety and efficacy of selected products will continue to be evaluated through standardized protocols in treatment centres.

Way forward

In the face of these two acute health threats, countries need to step up their preparedness measures in the areas of surveillance, laboratory diagnostics, risk communication and infection control practices in health facilities. If the virus causing MERS becomes easily transmissible, if Ebola virus is introduced in the Region and local transmission from Ebola cannot be stopped or prevented following introduction, there could be wider political, economic and social disruptions. As this remains a collective and shared responsibility, the regional response to the current threats of MERS-CoV and Ebola needs to be effective and decisive. These health threats are not the first, nor will it be the last, to emerge and threaten public health in the Region. It remains a moral imperative for each and every country in the Region to have systems in place that can early identify, stop and prevent any threats to the health of their populations and their national security.

Outcomes of the event

Heightened awareness of Member States of the need to step up national preparedness measures in the areas of surveillance, laboratory diagnostics, risk communication and infection control practices in health facilities.