

Current major event

Establishment of Emerging and Dangerous Pathogens Laboratory Network (EDPLN) in EMR

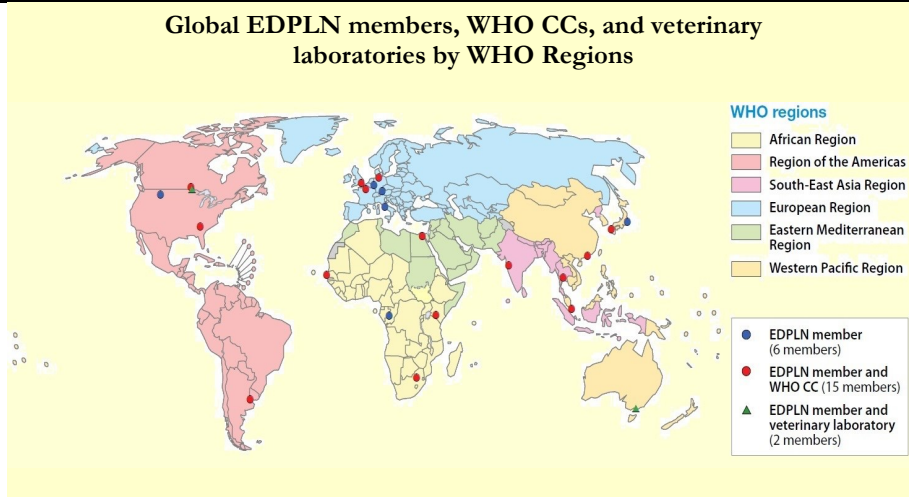
A plan to establish an Eastern Mediterranean Region (EMR) Emerging and Dangerous Pathogen Laboratory Network (EMR EDPLN) has been kicked off. The network would be made up of competent and well-equipped regional laboratories with strong linkage to surveillance and epidemiology components for Emerging and Dangerous Pathogens (EDPs) in order to ensure early detection and confirmation of EDPs outbreaks, as well as to enhance rapid and effective outbreak response.

Editorial note

A global WHO EDPLN, of high security laboratories, was established to assist WHO to enhance both readiness and response of countries for timely laboratory detection and management of outbreaks of novel, Emerging and Dangerous Pathogens (EDPs) as outlined in the International Health Regulations (IHR) 2005. Such network also helps to facilitate the transfer of safe and appropriate diagnostic technologies, practices and training to laboratories in the areas of emergence of these diseases (*Please see the map above*). Such network exists in the WHO AFRO Region since 2010. WHO is in the process of establishing a similar network in the Eastern Mediterranean Region.

During the last few years, countries in the Eastern Mediterranean Region face repeated outbreaks with Risk Groups 3 and 4 pathogens (<https://www.cdc.gov/biosafety/publications/bmbl5/bmbl.pdf>) caused by several viruses including: Yellow fever, Middle East respiratory syndrome (MERS), avian influenza A (H5N1), dengue fever, Crimean–Congo haemorrhagic fever (CCHF), etc. The situation of circulation of other bacterial emerging and dangerous pathogens like Tularemia, Legionellosis, Borreliosis, Melioidosis and Leptospirosis is not well known in the Region.

In the EMR, no laboratory/institutions have the expertise or the infrastructure to provide a rapid diagnosis and charac-



terization of all Emerging and Dangerous Pathogens (EDPs) and unfortunately the region doesn't include any WHO Collaborative Center (WHO-CC) on EDPs.

In addition, the EMR Member States are confronted with several gaps in their laboratory based surveillance system including sample collection, specimen transport, specimen processing, quality management systems, biosafety and biosecurity (specimen storage), staff, infrastructure, cold chains, reporting, and networking with peripheral, central or regional reference laboratories. Therefore, an efficient regional network of laboratories with a wide variety of regional expertise (Health, veterinary, university, Army Labs) would be beneficial to fulfil this gap and need.

The EDPLN will be an interactive network comprising of national reference laboratories that will serve as reference laboratories for confirmation of EDP cases. Few selected laboratories, linked to specialized international laboratories, will serve as reference laboratories for EMR. The EDPLN will communicate and disseminate information on real time basis to allow rapid detection and characterization of any EDP; It will also provide: diagnostic test services, training including development of regional and national capacity for deployment of mobile laboratories, reagent production and distribution, proficiency testing and specimen shipping. It is expected that the network would effectively serve the outbreak response operations in the Region in a timely manner.

Update on outbreaks in the Eastern Mediterranean Region

MERS-CoV in Saudi Arabia; **Cholera** in Somalia; **Cholera** in Yemen; **Chikungunya** in Pakistan.

Current public health events of international concern [cumulative N° of cases (deaths), CFR %]

Avian Influenza: 2006-2017

Egypt (A/H5N1)	[358 (122), 34.08%]
Egypt (A/H9N2)	[3 (0)]

Chikungunya: 2016-2017

Pakistan	[960 (0)]
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MERS-CoV: 2012-2017

Saudi Arabia	[1,579 (639), 40.5%]
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Cholera: 2016-2017

Somalia	[33,330 (965), 3%]
Yemen	[23,506 (108), 0.5%]

Rift Valley Fever: 2016-2017

Niger	[266 (32), 12%]
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Avian Influenza A (H7N9): 2013-2017

China	[1,320 (492), 37.3%]
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Yellow fever

Brazil	[1,336 (215), 16%]
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Wild poliovirus: 2014-2017

Pakistan	[382 (0)]
Afghanistan	[63 (0)]

Zika Virus Infection: 2015-2017

84 countries and territories have reported transmission so far.