Current major event

EWARN in humanitarian emergencies

As many as seven countries– Afghanistan, Iraq, Libya, Somalia, Sudan and Syria in the WHO Eastern Mediterranean Region have established an early warning system for disease outbreaks with a view to early detecting and rapidly investigating any public health event of potential concern. Such a system, in the absence of a routine disease surveillance system, needs continuous monitoring and assessment using a set of performance benchmarks.

Editorial note

Implementation of Early Warning, Alert and Response Network (EWARN) ensuring that these systems operate optimally for timely outbreak detection and response in humanitarian emergencies remain one of the primary responsibilities of WHO. Through technical support from the WHO Eastern Mediterranean Regional Office, EWARN has been established in a number of countries facing either acute or protracted emergencies in the Region. Since the establishment of these system *(Please see the table)*, EWARN has grown from strength to strength.

One of the key indicators for monitoring the performance of a good and functioning EWARN system is look at its current coverage and other attributes that a good surveillance system should have. To this view in end, a landscape analysis of the existing EWARN system was conducted in the countries of Eastern Mediterranean Region (EMR) which has established the EWARN system as supplementary to their routine disease surveillance system. The landscape analysis *(Please see above)* shows that all these systems are functioning with optimal coverage and acceptable performance in terms of reporting timeliness and completeness-the two main attributes of a good surveillance system.

In addition, the imperative function of an EWARN system can only be realized if health workers who manage data and preform analysis are equipped with relevant skills and tools to perform high quality data analysis. Upon realizing the limited availability of any reference tool, the WHO Regional Office initiated the process of developing an easy to use epidemiological handbook that can easily be understood, followed and applied by EWARN staff in the field.

EWARN in humanitarian emergencies: coverage and performance in the EMR

Indicators	Afghanistan	Iraq	Libya	Somalia	Syrian	Sudan
Number of diseases under surveillance	16	18	19	14	9	14
Population under surveillance	31,364,210	6,316,657	4,005,000	14,930,959	19,414,810	1,405,415
Reporting timeliness	95%	84%	70%	60%	80%	75%
Reporting completeness	90%	100%	80%	70%	78%	75%
Alerts responded within 24-48 hours	95%	82%	87%	2%	23%	89%

Other important facts on EWARN in the EMR countries

Country	Year established	No of heath facilities reporting to EWARN
Afghanistan	2006	1 095
Iraq	2013	226
Libya	2016	146
Somalia	2010	798
Syria	2012	1 183
Sudan	2004	75

This handbook was rolled out in a recent workshop organized by WHO. The handbook addresses management and analytical approaches to three main types of data that are usually generated by the EWARN systems: a) Alerts of unusual health events and suspected outbreak of the immediate reporting component of EWARN; b) Weekly aggregated data of the weekly reporting component of the system; and c) Line listing data for specific diseases during confirmed disease outbreaks. Additionally, in recognition of the value of alert and epidemic thresholds to timely detection of disease outbreaks for effective response, the handbook also provides a ,easy to follow, step-by-step approach to generate alert and epidemic thresholds using cumulative sum method (CUSUM) for EWARN systems that have been in operation for at least 9 weeks following a humanitarian emergency or historical data method if EWARN system has been in operation continuously for at least 3 years, especially in settings of chronic complex emergencies. The landscape analysis and roll out of the handbook to standardize data collection and analysis would contribute to EWARN performance monitoring.

Update on outbreaks in the Eastern Mediterranean Region

MERS in Saudi Arabia; **cholera** in Somalia; **cholera** in Yemen; **Diphtheria** in Yemen.

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

Avian influenza: 2006-2017

Egypt (A/H5N1)	[359 (122), 34%]
Egypt (A/H9N2)	[4 (0)]

Ebola virus disease (EVD): 2018

Democratic Republic of Congo (DRC)	[216 (139), 64.4%]

Dengue fever : 2018

Yemen	[1 188 (7), 0.6%]

Rift Valley fever : 2018

Kenya	[95 (11), 11.6%]
Uganda	[23 (8), 34.8%]

Cholera: 2017-2018

Somalia	[6 446 (43), 0.7%]
Yemen	[1 243 801 (2 565), 0.2%]
Tanzania	[4 201 (81), 1.9%]

Diphtheria: 2018

Yemen	[2 597 (144), 5.5%]
Bangladesh	[8 231 (44), 0.5%]

MERS: 2012-2018

Saudi Arabia	[1 882 (729), 38.7%]

Yellow Fever: 2017-2018

Brazil	[1 266 (415), 32.7%]