

Current major event

EWARN evaluation protocol rolled out

A protocol for evaluation of Early Warning Alert and Response Network (EWARN) in emergencies has recently been developed and rolled out in the Eastern Mediterranean Region (EMR).

Editorial note

Humanitarian emergencies often increase the risk of transmission of communicable diseases, resulting in increased morbidity and mortality, particularly from outbreak-prone diseases. To address this increased risk, the World Health Organization (WHO) and its partners established the early warning alert and response network (EWARN), a simplified disease surveillance and response system that focuses on early detection of and rapid response to outbreaks or unusual health events. The EWARN is implemented as an adjunct to the national surveillance system during the acute phase of an emergency, when existing communicable disease surveillance systems may be underperforming or disrupted.

Since its introduction in 1999, the EWARN has been implemented in response to emergencies in multiple countries in the EMR such as Sudan (1999, 2004), Pakistan (2005, 2009, 2010), Lebanon (2006), Somalia (2010), Syria (2013) and Iraq (2013). In the past, several evaluations of EWARN have been conducted, however no standardized methodology currently exists.

In order to address this gap, the WHO Eastern Mediterranean Regional Office has collaborated with Emergency Response and Recovery Branch (ERRB), Division of Global Health Protection, Center for Global Health at the Centers for Disease Control and Prevention (CDC) to develop an evaluation protocol after doing pilot evaluations in Iraq and Darfur, Sudan in January 2016 and further revised based on input from partners at a consultative meeting held in WHO Regional Office in Cairo in February 2016 prior to finalization.

The purpose of this guidance is to provide standardized methods to evaluate

Key EWARN Evaluation Parameters

- Diseases/syndromes covered by the system, case definitions and alert thresholds;
- Data flow, timeline, and reporting structure
 - Steps for reporting;
 - Time intervals for data transfer for both alert notification and weekly reporting;
 - Mode of outbreak detection (formal, informal);
 - Methods of feedback;
 - Types of outputs (e.g., case investigation reports, epidemiological bulletins);
- Data entry and analysis;
 - Position/levels responsible for entering, analyzing and interpreting data;
 - Software or data management program used;
 - Quality control procedures;
 - Analytic methods and indicators;
- Public health actions and responses taken;
- Feedback products and system outputs;
- Monitoring and supervision;
- Linkages to existing surveillance system
- Training requirements for staff and partners for all aspect of EWARN

Key monitoring indicators

- Percent of sites submitting reports on time (i.e. by the weekly deadline);
- Percent of reported alerts verified within 48 hours;
- Percent of outbreaks investigated within 72 hours;
- Percent difference in case counts between the patient register, reporting form and database;
- Percent of unreported alerts;
- Percent of sites receiving routine supervisory visits (specify frequency).

EWARN implemented in countries in the Eastern Mediterranean Region of WHO, based on lessons learned from previous EWARN implementation and evaluations.

Findings from previous EWARN evaluations consistently revealed these systems were primarily used for weekly reporting rather than early outbreak detection and response. They also demonstrated poor data quality and seldom resulted in public health action. Furthermore, implementation delays and lack of exit strategy hindered its effectiveness and utility in an emergency setting. For these reasons, this guidance emphasizes both process (e.g., implementation) and operational (e.g., public health action and data quality) procedures.

It is expected that the countries in crisis implementing the EWARN will be able to identify strengths and weaknesses of the system using this evaluation protocol and be able to use the findings of the evaluation not only to improve the system but also to enhance and sustain the early detection and response functions of the EWARN which is its main purpose.

Update on outbreaks

in the Eastern Mediterranean Region

MERS-CoV in Saudi Arabia;; Cholera in Somalia.

Current public health events of international concern

[cumulative N° of cases (deaths), CFR %]

Avian Influenza : 2006-2016

Egypt (A/H5N1)	[350 (117), 33.4%]
Egypt (A/H9N2)	[3 (0)]

MERS-CoV: 2012-2016

Saudi Arabia	[1414 (601), 42.5%]
Bahrain	[1 (1), 100%]

Cholera : 2016

Somalia	[8838 (433), 4.9%]
---------	--------------------

Yellow fever: 2015-2016

Angola	[3137 (345), 10.9%]
DRC	[1644 (71), 4.3%]

Lassa fever : 2015-2016

Nigeria	[273(149), 54.5%]
Benin	[54(28), 51.8%]

Avian Influenza A (H7N9) : 2013-2016

China	[775 (307), 39.6%]
-------	--------------------

Avian Influenza A (H5N6) : 2016

China	[4 (0)]
-------	----------

Wild poliovirus: 2014-2016

Pakistan	[371(0)]
Afghanistan	[54(0)]

Zika Virus Infection: 2007-2016

60 countries and territories have reported transmission so far