

## Current major event

### Estimate of Influenza Disease Burden in the Eastern Mediterranean Region

Seasonal influenza is a significant cause of illness and death that affects all countries. It can infect up to 20% of the population resulting in up to 650 000 influenza-associated respiratory deaths every year globally. WHO Regional Office for the Eastern Mediterranean (EMRO) is supporting countries of the Region to estimate burden of influenza disease across its spectrum of severity.

### Editorial note

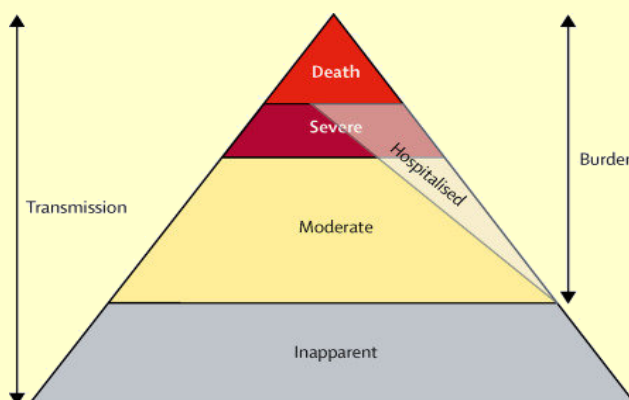
In the Eastern Mediterranean Region (EMR) 21 out of 22 countries have functioning influenza surveillance system. Of these countries with functioning influenza surveillance system, 9 countries have estimated the influenza burden of disease (BoD) in previous years, of which 7 have published their finding and recommendations in peer-reviewed journals.

Estimating disease burden constitutes one of the priority activities for the regional roadmap to enhance influenza vaccine uptake in the Region. In this direction, WHO EMRO in coordination with Global Influenza Program team at HQ conducted a 3 day sub-regional workshop in 2022, to provide technical support to Egypt, Lebanon, and the Kingdom of Saudi Arabia to use available historical data from their existing functional sentinel surveillance systems to estimate the burden of influenza disease across the spectrum of severity (i.e., mild/moderate, hospitalization and death).

During the 3-day workshop, participants were able to identify available sources of data and data gaps for Severe Acute Respiratory Infection (SARI) sentinel surveillance system for each country to; 1) assess the quality and suitability of their own data; 2) develop a country-specific protocol and analytical approach for the estimation of burden of influenza disease; 3) conduct preliminary data analysis with available data; and 4) interpret the results after taking into consideration the limitations in data and the methods used in estimating the disease burden.

Participants were introduced to different WHO tools to help them estimate influenza-associated SARI hospitalization incidence at SARI sentinel sites; extrapolate influenza

Conceptual diagram of the influenza and lower respiratory tract infection burden pyramid.



Source: GBD 2017 Influenza Collaborators. Mortality, morbidity, and hospitalizations due to influenza lower respiratory tract infections, 2017: an analysis for the Global Burden of Disease Study 2017. *Lancet Respir Med* 2019; 7(1): 69-89. 10.1016/s2213-2600(18)30496-x

-associated SARI hospitalization incidence from SARI sentinel sites to national level; and finally estimate the national influenza disease burden pyramid (i.e. mild/moderate illness, hospitalization and death) using the WHO pyramid webtool (above figure).

Moreover, during the 6th Meeting of the Eastern Mediterranean Acute Respiratory Infection Surveillance (EMARIS) Network held in Muscat, Oman on 13-15 March 2023, several capacity-building workshops were conducted, among which was a workshop on estimating influenza burden of disease. The target audience were Influenza/Pandemic Influenza Preparedness focal points, heads of epidemiological surveillance programs and heads of communicable disease control departments at Ministries of Health attending EMARIS. Participants were eager to learn more about influenza BoD and familiarize themselves with concepts and tools.

The technical support provided by WHO is intended to assist EM countries in gaining a thorough understanding of the burden of influenza, which can then be used to inform cost-burden studies and cost-effectiveness analyses, which will ultimately help decision-makers decide on the most effective public health interventions, such as the introduction or expansion of vaccination programs. As one of the top priorities on the regional roadmap for informing evidence-based policies to encourage the introduction of the vaccine or scale up vaccination rates to improve seasonal and pandemic influenza preparation, the IHP unit will continue to assist EMR nations in estimating the burden of influenza disease. So, a second sub-regional workshop with a focus on six EMR nations is scheduled for July in cooperation with WHO headquarters and CDC teams.

## Update on outbreaks

in the Eastern Mediterranean Region

### COVID-19 in 22 EMR countries

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

#### Coronavirus disease 2019 (COVID-19): 2019-2023

Afghanistan	[212 854 (7885), 3.7%]
Bahrain	[696 614 (1536), 0.2%]
Djibouti	[15 690 (189), 1.2%]
Egypt	[515 970 (24 826), 4.8%]
Iran (Islamic Republic of)	[7 603 091 (145 808) 1.9%]
Iraq	[2 465 545 (25 375), 1%]
Jordan	[1 746 997 (14 122), 0.8%]
Kuwait	[665 645 (2570), 0.4%]
Lebanon	[1 235 804 (10 885), 0.9%]
Libya	[507 250 (6437), 1.3%]
Morocco	[1 272 889 (16 296), 1.3%]
occupied Palestinian territory (oPt)	[703 228 (5708), 0.8%]
Oman	[399 449 (4628), 1.2%]
Pakistan	[1 580 414 (30 655), 1.9%]
Qatar	[504 852 (690), 0.1%]
Saudi Arabia	[838 375 (9638) 1.2%]
Somalia	[27 334 (1361), 5%]
Sudan	[63 993 (5046), 7.9%]
Syrian Arab Republic	[57 423 (3163), 5.5%]
Tunisia	[1 152 483 (29 378), 2.5%]
United Arab Emirates	[1 060 617 (2349), 0.2%]
Yemen	[11 945 (2159), 18.1%]