

Current major event

Diphtheria vaccination campaign in Yemen

The WHO, national authorities and partners have recently completed a large-scale vaccination campaign in response to the ongoing diphtheria outbreak in Yemen. More than 6000 health workers were mobilized during the campaign.

Editorial note

This vaccination campaign was conducted from 10-15 March 2018. During this campaign, a total of 2.7 million children aged 6 weeks to 15 years in 11 governorates that have been worst affected by the diphtheria outbreak were vaccinated. Two types of vaccines were used in this campaign: Penta-3 was administered to children in the age group of 6 months to 7 years old, while children in the older age group of 8 to 15 years received DT.

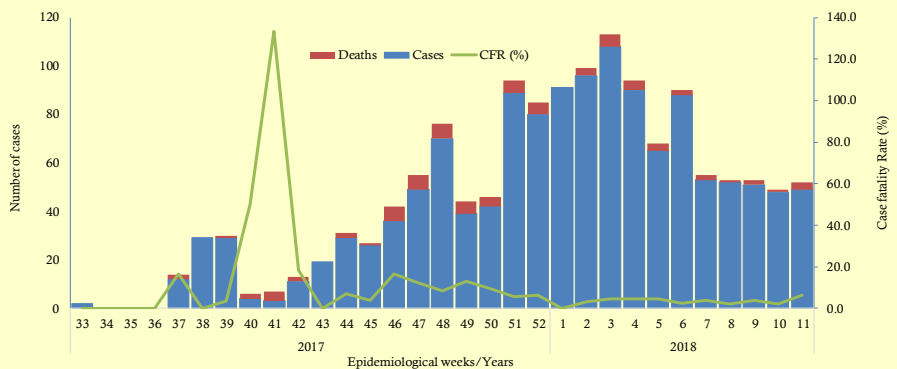
Since October 2017, Yemen has experienced an outbreak of Diphtheria that has spread to 176 districts in 20 governorates. As of 17 March 2018, a cumulative total of 1368 probable cases have been reported including 17 laboratory confirmed cases of diphtheria. Over the same period, a cumulative total of 76 associated deaths (CFR=5.6%) were reported. The most affected age group is 5-14 years which accounts for 48% of all reported cases.

Diphtheria is a highly contagious bacterial disease that primarily infects the throat and upper airways, and produces a toxin affecting other organs. The infection can lead to difficulty in breathing, heart failure, paralysis, and even death. Transmission occurs from person to person through close respiratory and physical fluid contact.

Yemen has experienced severe humanitarian crisis since ongoing conflict started in 2015. This has had a severe impact on the health infrastructures and access to health care including preventive immunization services. Further more, the affected population have been exposed to poor living conditions and limited access to optimal nutrition that significantly increases their vulnerability to infectious diseases including vaccine preventable diseases such as diphtheria.

While diphtheria is endemic in the country, and in the past, the country has reported up to 50 sporadic cases annually,

Suspected Diphtheria cases and case fatality rate reported in Yemen, Epi week 33- 2017 to 11-2018



Number of diphtheria cases, deaths and CFR per governorate

Governorates	Cases	Deaths	CFR%
Ibb	447	17	3.8
Al Hudaydah	158	12	7.59
Amran	89	5	5.62
Aden	65	2	3.08
Sana'a	142	5	3.52
Taizz	50	6	12
Dhamar	39	4	10.26
Amanat Al Asimah	74	1	1.35
Hajjah	49	4	8.16
Al Dhale'e	124	2	1.61
Al Mahwit	58	1	1.72
Sa'ada	14	4	28.57
Abyan	4	2	50
Lahj	10	2	20
Al Bayda	19	3	15.79
Raymah	6	2	33.33
Marib	10	1	10
Hadramaut	2	0	0
Shabwah	1	0	0
Al Jawf	7	3	42.86
Total	1368	76	5.56

the current outbreak has been particularly severe owing to the prevailing humanitarian crisis situation. The crisis has disrupted immunization of routine immunization services and resulting in a large pool of susceptible unvaccinated children. Further, high case fatality rates in excess of 5% has been observed due to destruction of health facilities and poor access to clinical care.

Effective control of the diphtheria outbreak Yemen will continue to require multipronged approach and the recently implemented vaccination campaigns is a critical component of the outbreak response strategy. Where available and amenable for mass vaccination campaign, vaccines have proven to be safe and effective public health intervention in large outbreaks of vaccine preventable diseases.

Update on outbreaks in the Eastern Mediterranean Region

MERS in Saudi Arabia; **cholera** in Somalia; **cholera** in Yemen; **dengue** in Sudan.

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)]

Avian influenza A (H7N9): 2013-2017

China [1,565 (612), 39.1%]

Chikungunya: 2016-2018

Pakistan [8,511 (0)]

Cholera: 2017-2018

Somalia [1,613 (9), 0.6%]
Yemen [1,081,420 (2267), 0.2%]

Diphtheria: 2018

Yemen [1,368 (76), 5.5%]
Bangladesh [6,132 (38), 0.6%]

Dengue fever: 2017-2018

Sudan [197 (3), 1.5%]

MERS: 2012-2018

Saudi Arabia [1,812 (707), 39.1%]

Wild poliovirus: 2018

Afghanistan [3 (0)]

Yellow Fever: 2017-2018

Brazil [723 (237)] 32.7 %