

## Current major event

### Diphtheria in Yemen

Since October 2017, Yemen is experiencing a diphtheria outbreak in 19 out of 23 governorates. From epi week 33 (2017) to week 2 (2018), a total of 713 clinically diagnosed cases and 52 associated deaths were reported (CFR: 7.29%). The most affected governorates are Ibb (46% of cases) and Al Hudeydah (12%).

### Editorial note

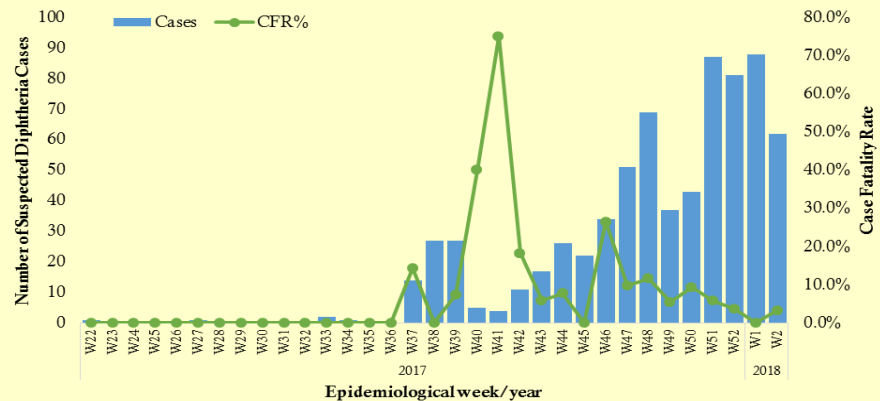
Diphtheria is a highly contagious bacterial disease that primarily infects the throat and upper airways, and produces a toxin affecting other organs. The infection can lead to difficulty in breathing, heart failure, paralysis, and even death. Transmission occurs from person to person through close respiratory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

Diphtheria is endemic in Yemen. On an average, 50 suspected cases are reported annually. Even though diphtheria is endemic in Yemen, incidence of the disease dropped significantly with improvement in immunization coverage. Available data shows that Yemen has consistently reported less than 50 cases annually. Last year, 27 sporadic cases were reported across the country. The complex emergency situation in Yemen has led to an uncontrolled displacement of highly vulnerable population (unvaccinated, malnourished). This, in addition to the fragile health system, has expedited the spread of the disease. This outbreak appears to be the most significant one the country had experienced since 1981-82, when 149 diphtheria cases were reported in Hodeidah governorate during August 1981 to January 1982.

Currently, a total of 713 clinically diagnosed and 52 associated deaths were reported across the 19 affected governorates (CFR: 7.29%). The governorates with the highest cumulative cases are Ibb (46%) and Al Hudeydah (12%). The most affected age group is 5-14 years which accounts for 48% of all reported cases.

The fact that majority of the reported suspected cases are in over 5 years age group (86% of the total cases are in the age group of 5 and above), the feature has been consistent with expected occurrence patterns of diphtheria in low incidence settings with failing immunization programmes typical of countries such as

### Suspected Diphtheria cases and case fatality rate reported in Yemen, Epi week 22-2, 2017-18



### Number of suspected diphtheria cases, deaths and CFR per governorate

Governorate	Cases	Death	CFR (%)
Ibb	339	13	5
Al Hudaydah	90	12	16
Amran	55	4	9
Aden	46	2	5
Sana'a	46	3	3
Taizz	24	4	24
Dhamar	23	2	10
Amanat Al Asimah	22	1	5
Hajjah	21	3	14
Al Dhale'e	13	0	0
Al Mahwit	10	1	13
Sa'ada	5	1	20
Abyan	4	2	50
Lahj	4	0	0
Al Bayda	4	2	0
Raymah	3	1	33
Marib	2	0	0
Hadramaut	1	0	0
Al Jawf	1	1	100
<b>Total</b>	<b>713</b>	<b>52</b>	<b>7.29</b>

Yemen as the country is using the primary schedule only. Potentially waning immunity after the primary series might have also contributed to this surge.

While appropriate case management, contact tracing and appropriate prophylactic treatment will save lives and limit transmission, targeted vaccination in the most affected districts will be the key to interrupting transmission. Moving forward, implementation of country wide mass vaccination campaigns to address immunity gaps in the general population will need to be considered. The return of an old disease like diphtheria shows a failure of public health programme which has resulted from this conflict. Now, it remains a collective responsibility to save lives from this old disease and restore the public health programmes that are critical to mitigate the threats from other vaccine-preventable disease.

### Update on outbreaks in the Eastern Mediterranean Region

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

### Current public health events of potential 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: 2016-2017

Pakistan [8,431 (0)]

#### Cholera: 2016-2017

Somalia [79172 (1,159), 1.46%]

Yemen [1035676 (2244), 0.21%]

#### Diphtheria 2017

Bangladesh [804 (15)], 1.86%

#### MERS: 2012-2017

Saudi Arabia [1,751 (682), 38.9%]

#### Wild poliovirus: 2014-2017

Pakistan [8 (0)]

Afghanistan [14 (0)]

#### Yellow Fever: 2017-2018

Brazil [34 (20)] 58.8%

Nigeria [341 (45)] 13.1%

#### Zika virus infection: 2015-2017

84 countries and territories have reported transmission so far.