

Current major event

Diphtheria in Yemen

A significant increase in suspected diphtheria cases has recently been reported in Yemen between epidemiological week no 33 and 44. A total number of 118 suspected cases including 10 deaths (CFR: 8.5%), were reported in 10 governorates of the country. Majority of these cases—about 103—were reported from Ibb governorate, including 9 associated deaths (CFR: 8.7%).

Editorial note

Diphtheria is an infectious disease caused by *Corynebacterium diphtheria*. It is transmitted from person to person through respiratory droplets or fomites. Generally, the disease is fatal with a mortality rate that may reach up to 5 to 10%.

Diphtheria is endemic in Yemen. Last year, in 2016, 27 sporadic cases were reported across the country. An average of 50 suspected cases of diphtheria are reported annually in Yemen since the year 2000. The last known outbreak of diphtheria in Yemen occurred in the Hodeidah governorate in 1981-82 that resulted in a total of 149 cases with no death.

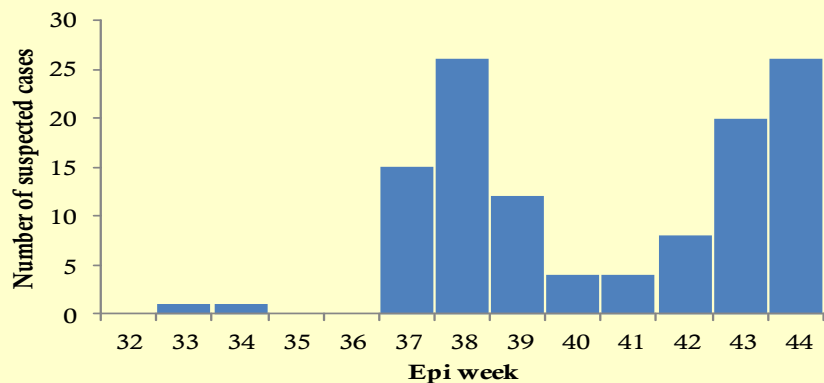
Starting from 14 August up to 8 November 2017, a total of 118 suspected cases of diphtheria including 10 associated deaths were reported from 10 governorates in the country. According to the geographical distribution of cases, Ibb governorate has been worst affected with 87% of suspected cases reported from this governorate. Information related to the laboratory confirmation of these cases and the application of an epidemiological case definition to detect and recognize clinically diagnosed cases from other parts of the country is still wanting.

Data available from the Electronic Disease Early Warning System (eDEWS) in Yemen, shows that sporadic cases of diphtheria were reported in different parts of the country since January 2017 until the recent surge was observed in August 2017.

The immunization records of the suspected cases show that 15 cases received 2 doses of diphtheria vaccine (DPT), 8 cases received one dose of the vaccine, and the rest of the cases did not have any vaccination history.

Treatment for diphtheria in an outbreak situation involves administering diphthe-

Suspected Diphtheria cases reported in Yemen, Epi week 33 - 44, 2017



DIPHThERIA CASES REPORTED BY GOVERNORATE IN YEMEN, WEEK 33 - 44/ 2017

| Governorate | Cases | Deaths |
|--------------|------------|-----------|
| Ibb | 103 | 9 |
| Dhamar | 3 | 0 |
| Taiz | 2 | 0 |
| Ameran | 2 | 0 |
| Aden | 2 | 0 |
| Hajjah | 2 | 0 |
| Abyan | 1 | 0 |
| Mareb | 1 | 0 |
| Sadaah | 1 | 0 |
| Aljawf | 1 | 1 |
| Total | 118 | 10 |

ria anti-toxin to neutralize the toxin and antibiotics to kill the bacteria.

Yemen is using only the primary schedule for immunization. Therefore, the occurrence of diphtheria cases in the country is expected in combination with some other factors including the failure of the national immunization programme, overcrowding among internally displaced population due to the current conflict, and the onset of winter season. These factors increase the likelihood of further spread of the disease to other parts of the country.

During the current situation, standard case management for diphtheria cases should be implemented using relevant protocols. Vaccination campaigns should be implemented in the affected areas. Spread of the current upsurge of cases of diphtheria in Yemen can be controlled through improvement of the routine immunization system. Adequate quantities of antibiotics and diphtheria antitoxin should be provided. The antitoxin is life-saving, especially among severe cases.

Data quality gaps and laboratory confirmation should be urgently addressed.

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 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 [1,564 (612), 39.1%]

Chikungunya: 2016-2017

Pakistan [8,261 (0)]

Cholera: 2016-2017

Somalia [78,349 (1,159), 1.5%]

Yemen [945,362 (2,211), 0.23%]

Plague: 2017

Madagascar [2,267 (195), 9%]

Dengue fever: 2017

Pakistan [118,648 (69), 0.1%]

MERS: 2012-2017

Saudi Arabia [1,741 (679), 39%]

Wild poliovirus: 2014-2017

Pakistan [5 (0)]

Afghanistan [10 (0)]

Zika virus infection: 2015-2017

84 countries and territories have reported transmission so far.