

Current major event

Diphtheria in Sudan

Federal Ministry of Health (FMOH) Sudan reported an outbreak of diphtheria, starting from epidemiologic week 33. Till the reporting date (week 49), a total of 63 suspected diphtheria cases with 11 associated deaths (CFR 17.46%) are reported from six states (See graph). Out of these, 57 cases with 9 deaths are reported from Al-Sunta locality of South Darfur state alone. 83% of the total (52) were not vaccinated against Diphtheria. One out of six samples collected was laboratory confirmed through PCR on November 28, 2019 .

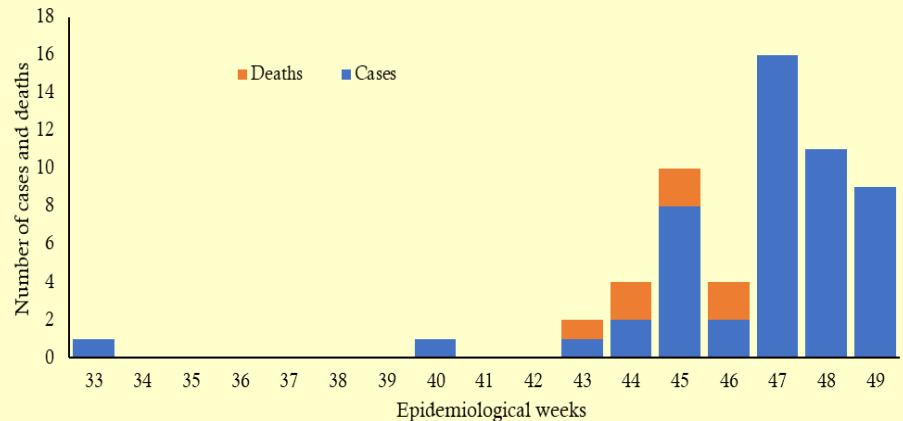
Editorial note

Diphtheria is a highly contagious bacterial disease that primarily infects the throat and upper airways, and produces a toxin affecting other organs. The disease has an acute onset and can result in low grade fever, difficulty in breathing, swollen glands in the neck and the toxin, in severe cases, may cause heart failure, paralysis, and even death. Transmission occurs from person to person through close respiratory and physical fluid contact. Diphtheria is fatal in 5-10% of the cases, with a high mortality rate in young children. Vaccinations are available and recommended for its prevention.

Sudan has a very high immunization coverage for DPT3 93% - 2018 (See table) and it has never reported such number of diphtheria cases in the past. But the reporting of cluster cases from Al-Sunta locality South Darfur (56 cases with 09 associated deaths) is an alarming sign as most of the cases from the locality were un-vaccinated, whereas the national average for DPT3 coverage is significantly high from last five years (>92%). Majority of the cases (97%) aged from <1 to 44 years of age and 77% cases were less than 15 years old and all deaths occurred in this age group. Most of the cases presented with low grade fever, difficulty in swallowing, neck swelling, lymph node enlargement and typical greyish membrane.

The Al-Sunta locality is one of the most underserved localities in South Darfur State, bordering South Sudan and there are around 44,455 children under 15 years of age who are at high risk for the disease. Currently, no physician posted in the locality and there are three family healthcare units being run by the nurses, community health workers and midwives only. Case diagnosis and management is poor due to lack of any physician in the locality and disease severity and mortality is also high in the state. Initially, the cases were diagnosed clinically, and immediate response measures were taken by FMOH

Diphtheria cases reported during week 33 to week 49-2019, Sudan



Sudan National DPT Immunization Coverage (2014-18)

Year	DPT1 (%)	DPT3 (%)
2014	98	94
2015	97	93
2016	97	93
2017	98	95
2018	97	93

and SMOH in coordination with WHO and UNICEF for creating community awareness about the disease and the timely seeking of care, training for proper diagnosis and case management and prevention through targeted immunization campaigns, and enhancing routine immunization programs. WHO has already provided the government authorities with the 200 diphtheria antitoxin (DAT) doses to treat the suspected cases. Further, antibiotics (penicillin, amoxicillin syrup) are also provided to the health workers to treat the suspected cases.

A vaccination campaign is already launched to vaccinate children 1-5 years old with Penta vaccine and 5-15 years old with DT vaccine in most affected locality. Special teams have been formed to target the children in nomadic families. But there are sporadic cases from 5 other states during 2019 and this requires an urgent action in strengthening the immunization campaign at national and local levels to curb such cases in future.

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 Sudan; **cholera** in Somalia; **cholera** in Yemen; **multidrug-resistant typhoid fever** in Pakistan.

Current public health events of concern

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

Avian influenza: 2006-2017

Egypt (A/H5N1) [359 (122), 33.98%]

Egypt (A/H9N2) [4 (0)]

Ebola virus disease (EVD): 2018-2019

Democratic Republic of Congo (DRC) [3 320 (2 209), 66.54%]

Cholera: 2017-2019

Somalia [9 258 (48) , 0.52%]

Yemen [2 188 503 (3 750), 0.17%]

Sudan [338 (11), 3.25%]

Diphtheria: 2018-2019

Yemen [4 788 (281), 5.87%]

Bangladesh [8 902 (45), 0.51%]

MERS: 2012-2019

Saudi Arabia [2 102 (780), 37.11%]

Multidrug-resistant typhoid fever: 2016-2019

Pakistan [14 176 (0)]