

Current major event

Dengue fever in Sudan

An upsurge of dengue fever cases has been reported from Sudan since epidemiological week 31, 2022. As of 24 December 2022, a total of 5197 suspected dengue fever cases with 827 laboratory-confirmed cases and 36 associated deaths (CFR 0.7%) have been reported from 70 localities across 11 States in Sudan.

Editorial note

Dengue is a mosquito-borne viral disease that has rapidly spread to all WHO Regions in recent years. Dengue is caused by a virus of the Flaviviridae family. There are four distinct, but closely related, serotypes of the virus that cause dengue (DENV-1, DENV-2, DENV-3 and DENV-4). Recovery from the infection is believed to provide lifelong immunity against that serotype. However, cross-immunity to other serotypes after recovery is only partial and temporary. Subsequent infections (secondary infection) by other serotypes increase the risk of developing severe dengue.

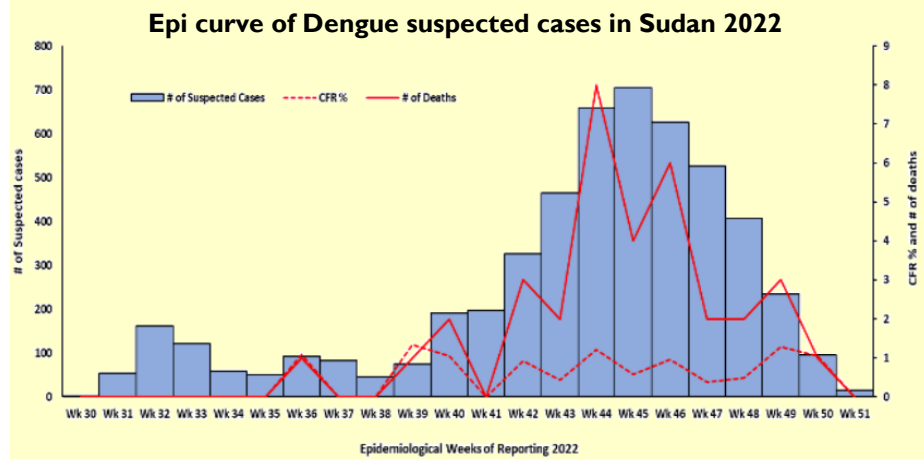
As of 24 December 2022, a total of 5197 suspected cases and 827 confirmed cases have been reported from 70 localities across 11 States with an attack rate of 3.9/10 000 population. The majority of suspected cases are being reported from North Kordofan State, followed by North Darfur, West Kordofan, White Nile, and Kassala. (See table)

A total of 36 deaths have been reported at a case-fatality ratio CFR of 0.7%. North Kordofan reported the majority of deaths, followed by Red Sea, West Kordofan and North Darfur. (See table)

During epidemiological week 31, 2022, suspected dengue fever cases gradually increased till reaching the peak in week 45. Most of the suspected cases were reported during epidemiological weeks 45 (705 cases, 14%) and 46 (626 cases, 12%). There has been an observed gradual decrease in the reported cases since epidemiological week 46. (See graph)

Males represented 43% of the total cases, with male to female ratio of 0.76. All age groups affected, with 23% of the cases were from 10–19 years old. 92% of the cases were presented with fever, followed by headache (81%), joint pain (78%), muscle pain (54%), backache and loss of appetite (47% each). While skin rash, bleeding and loss of consciousness were presented in less than 15% of the cases.

A total of 1913 samples were collected for testing. Out of those, 827 (43%) were positive. The highest positive results were from North Darfur State 632 (76.4%), followed by 56 (6.7%) from North Kordofan, 45 (5.4%) from West Kordofan, 28 (3.3%) from White Nile, 24 (2.9%) from Kassala, 22 (2.6%) from Red Sea, 6 (0.7%) from East Darfur. 5 samples (0.6% each) were from South Darfur and South Kordofan while 4 (0.4%) were positive from West Darfur State.



Geographical distribution of suspected dengue cases and deaths by state, Sudan, 2022

State:	No. suspected cases	%	Deaths	CFR%
North Kordofan	1427	27.4	13	0.9
North Darfur	1358	26.1	5	0.4
West Kordofan	1093	21.0	6	0.5
White Nile	696	13.3	0	0
Kassala	334	6.4	0	0
Red sea	96	1.8	8	8.3
South Kordofan	86	1.6	3	3.4
West Darfur	57	1	0	0
East Darfur	36	0.6	0	0
South Darfur	13	0.2	0	0
Central Darfur	1	0.01	1	100

Although Dengue Fever is endemic in Sudan, several outbreaks have been documented in the country in 2010, 2013, 2017 and 2019. However, information on the circulating dengue virus serotypes in Sudan is unavailable. In this regard, more investigation on the dengue virus needs to be conducted.

WHO is supporting the Sudanese Federal Ministry of Health to implement prevention and control measures, including surveillance strengthening, case management improvement, effective vector control measures and community engagement activities. In addition, the support has been extended to the State Ministry of Health to implement response activities across all strategic pillars of response, including activating public health emergency operating center to oversee and coordinate all response activities, conducting capacity-building sessions, strengthening surveillance, enhancing laboratory capacity and providing rapid diagnostic tests. Moreover, support is provided for early detection and confirmation, such as in implementing, integrated vector management, including prevention of mosquito breeding by applying appropriate insecticides and preventing mosquitos from accessing egg-laying habitats by environmental management and modification. Additionally, educating the community on the risks of mosquito-borne diseases and engaging with the community to improve participation and mobilization for sustained vector control is provided.

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): 2019-2022

Afghanistan	[207 412 (7846), 3.8%]
Bahrain	[696 614 (1536), 0.2%]
Djibouti	[15 690 (189), 1.2%]
Egypt	[515 514 (24 802), 4.8%]
Iran (Islamic Republic of)	[7 560 731 (144 673) 1.9%]
Iraq	[2 465 373 (25 374), 1%]
Jordan	[1 746 997 (14 122), 0.8%]
Kuwait	[662 858 (2570), 0.4%]
Lebanon	[1 222 126 (10 744), 0.9%]
Libya	[507 142 (6437), 1.3%]
Morocco	[1 271 244 (16 294), 1.3%]
occupied Palestinian territory (oPt)	[703 228 (5708), 0.8%]
Oman	[399 154 (4628), 1.2%]
Pakistan	[1 575 651 (30 635), 1.9%]
Qatar	[487 987 (685), 0.1%]
Saudi Arabia	[826 766 (9508) 1.2%]
Somalia	[27 300 (1361), 5%]
Sudan	[63 690 (4994), 7.8%]
Syrian Arab Republic	[57 423 (3163), 5.5%]
Tunisia	[1 147 571 (29 284), 2.6%]
United Arab Emirates	[1 046 549 (2348), 0.2%]
Yemen	[11 945 (2159), 18.1%]