

## Current major event

### Diphtheria upsurge in Pakistan

A significant increase in suspected diphtheria cases has recently been reported in Pakistan between epidemiological week 31 and 43, 2022. A total number of 292 diphtheria cases, including 37 associated deaths (CFR 12.7%), were reported from 4 provinces in the country. The majority of these cases (about 131) were reported from Khyber Pakhtunkhwa (KP) province, including 12 associated deaths (CFR 9.2%).

### Editorial note

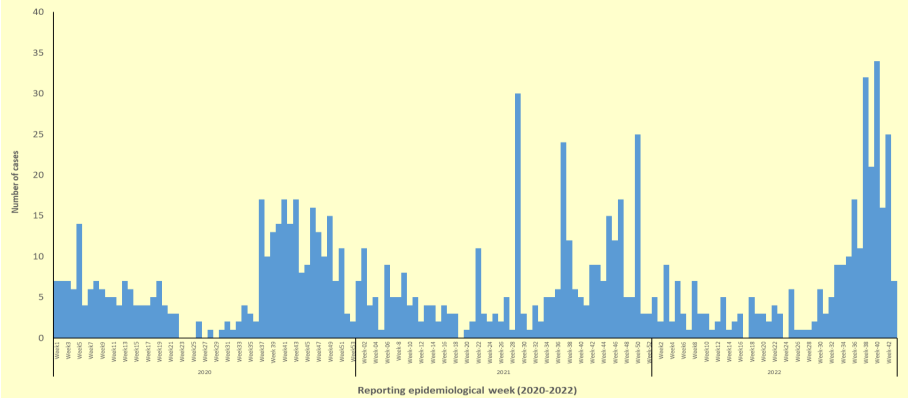
Diphtheria is an acute infectious disease caused by toxins from the bacterium *Corynebacterium diphtheriae*. The most common form of the disease affects the throat and the tonsils. Other forms can cause skin infections. The disease spreads mainly through droplet infection from person to person through the respiratory tract and can affect all age groups, particularly unimmunized children. Overcrowded living conditions contribute to the spread of the disease among family members and may lead to outbreaks. An infected patient, if not treated, can die following complications affecting the heart, central nervous system and respiratory system.

Diphtheria is endemic in Pakistan. The flood emergency situation in the country has led to an increased displacement of the highly vulnerable population that is unvaccinated and malnourished. An underperforming health system and other risk factors have also contributed to and expedited the recurrence and spread of diphtheria cases.

Since January 2020, Pakistan has been experiencing an upsurge in diphtheria cases, which has affected most of its provinces. From epidemiological week 1, 2020 to week 43, 2022, a total of 966 diphtheria cases and 77 associated deaths were reported (CFR 8%).

In 2022 and up to week 43, a total of 292 probable cases and 37 associated deaths (CFR 12.7%) were reported from 4 provinces. The most affected provinces are Khyber Pakhtunkhwa (131 cases and 12 associated deaths), followed by Sindh (81 cases and 23 associated deaths) and Punjab (79 cases and 2 associated deaths). The highest CFR was reported from Sindh province (CFR 28.4%) (*see table*).

### Trend of Diphtheria cases reported in Pakistan, 2020 to week 43, 2022



### Diphtheria cases reported from Pakistan, 2020-2022

Province / Areas	2020			2021			2022		
	Cases	Deaths	CFR%	Cases	Deaths	CFR%	Cases	Deaths	CFR%
Punjab	254	25	9.8	155	5	3.2	79	2	2.5
Sindh	29	7	24.1	33	3	9.1	81	23	28.4
KP	56	0	0	119	0	0	131	12	9.2
Balochistan	0	0	0	1	0	0	1	0	0
AJK	1	0	0	25	0	0	0	0	0
GB	0	0	0	0	0	0	0	0	0
Islamabad	1	0	0	0	0	0	0	0	0
<b>Pakistan</b>	<b>341</b>	<b>32</b>	<b>9.4</b>	<b>333</b>	<b>8</b>	<b>2.4</b>	<b>292</b>	<b>37</b>	<b>12.7</b>

Even though diphtheria is endemic in Pakistan, the incidence of the disease has peaked significantly in recent weeks due to the disruption in immunization services caused by the flood and the unstable conditions in the country (*See graph*).

The majority of diphtheria cases were found in children over 5 years old. This is consistent with the expected occurrence patterns of diphtheria in low-incidence settings with failing immunization programmes, which is typical in countries affected by emergencies and are only using the primary immunization schedule. In addition, potentially waning immunity after the primary series might have also contributed to this surge.

Appropriate case management, use of diphtheria antitoxin, contact tracing and appropriate prophylactic treatment are recommended to save lives and limit diphtheria transmission, while targeted vaccination campaigns in the most affected districts will be key to interrupt diphtheria transmission.

WHO recommends developing a long-term strategy to enhance immunization coverage in all areas of the country and to identify hotspots through surveillance.

### 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	[201 236 (7811), 3.9%]
Bahrain	[685 269 (1521), 0.2%]
Djibouti	[15 690 (189), 1.2%]
Egypt	[515 397 (24 798), 4.8%]
Iran (Islamic Republic of)	[7 554 006 (144 516) 1.9%]
Iraq	[2 461 049 (25 358), 1%]
Jordan	[1 746 997 (14 122), 0.8%]
Kuwait	[661 333 (2565), 0.4%]
Lebanon	[1 216 999 (10 688), 0.9%]
Libya	[507 024 (6437), 1.3%]
Morocco	[1 265 201 (16 278), 1.3%]
occupied Palestinian territory (oPt)	[703 014 (5708), 0.8%]
Oman	[398 689 (4628), 1.2%]
Pakistan	[1 573 319 (30 623), 1.9%]
Qatar	[461 398 (682), 0.1%]
Saudi Arabia	[818 698 (9380) 1.1%]
Somalia	[27 237 (1361), 5%]
Sudan	[63 409 (4963), 7.8%]
Syrian Arab Republic	[57 333 (3163), 5.5%]
Tunisia	[1 146 044 (29 257), 2.6%]
United Arab Emirates	[1 032 522 (2346), 0.2%]
Yemen	[11 939 (2158), 18.1%]