

Current major events

Diphtheria in Pakistan ?

Over the last three weeks in Pakistan, 19 suspected cases of diphtheria, including 6 deaths were reported. Of these, 15 cases including 5 deaths were reported from seven districts in Khyber Pakhtunkhwa (KPK) province while 5 cases including 1 death were reported from one district in Sindh province. The age of cases ranged between 10 months to 10 years, half of the cases were over 6 years. The reported cases did not have any history of vaccination against DPT. No case has yet been laboratory-confirmed. Based on clinical diagnosis, appropriate public health measures like case management, contact tracing and prophylactic treatment of the close contacts have been initiated to contain the spread of the disease.

Editorial note

Diphtheria is a vaccine-preventable disease. Majority of cases can be prevented and deaths averted if all children are fully immunized before they reach 12 months of age.

This is not the first time ever that suspected cases of diphtheria were reported from Pakistan (*Please see the table*). This is despite the fact that Pakistan has achieved high vaccination coverage for DPT in recent time. In 2009, for example, data shows that Pakistan achieved 90% vaccination coverage for the 1st dose and 85% for the 3rd dose of DPT. Despite this, suspected cases from diphtheria continue to be reported meaning that challenges of reaching out to all susceptible children in relatively inaccessible areas still exist as of today. This has to be addressed in order to limit deaths from these preventable disease.

Although the coverage of infants with 3 doses of diphtheria toxoid reached significantly high in the 1990s in the EMR, diphtheria outbreaks continue to be reported in the Region. The main reasons for the return of diphtheria are generally decreasing immunization coverage among infants and children, waning immunity to diphtheria in adults, movements of the population, deteriorating

Map of Pakistan showing Sindh and KPK province



Facts on Diphtheria

- **Etiologic agent:** Toxin producing strains of *Corynebacterium diphtheriae*
- **Clinical features:** sore throat with low-grade fever and an adherent membrane of the tonsils, pharynx or nose.
- **Transmission:** Direct person-to-person
- **Risk groups:** Children in the pre-vaccine era but recently adults have primarily been affected in large epidemics;
- **Incidence and fatality:** Approximately 0.5-1 per 100,000 population. Sometimes more. Between 5% and 10% patients may die.
- **Incubation period:** 2 to 5 days

rating health infrastructure and an irregular supply of vaccines.

Diphtheria cases reported from Pakistan

Year	No of cases
2005	23
2006	42
2007	11
2008	32
2009	34

While laboratory-confirmation of cases could be difficult(still important), rapid clinical and public health responses are required to control diphtheria outbreaks. Prompt diagnosis and proper case management with diphtheria antitoxin can limit majority of deaths and complications. Availability of Anti-diphtheria serum (ADS) and antibiotics for prophylactic treatment of close contacts (to prevent secondary cases) are of paramount importance to prevent spread.

Update on outbreaks

in the Eastern Mediterranean Region

CCHF and Dengue fever in Pakistan; Dengue fever in Yemen; and Kala-azar in southern Sudan

Current public health events of international concern

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

Avian influenza

Egypt	[112 (36), 32.1%]
Indonesia	[170 (141), 82.9 %]
Viet Nam	[119(59), 49.6%
China	[39 (26), 66.6%]
Global total	[507(302), 59.5%]

CCHF

Pakistan	[26(3), 11.5%]
----------	----------------

AWD (Cholera)

Haiti	[6742 (442), 6.5%]
Chad	[2508 (111), 4.4%]
Nigeria	[29115(1191),4%]

Kala-Azar (Visceral Leishmaniasis)

S. Sudan	[6363(303). 4.7%]
----------	--------------------

Dengue fever

Pakistan	[2062(15), 0.7 %]#
Yemen	[1903(12), 0.6 %]#

Polio

Congo	[120(58), 48.3 %]
-------	-------------------

CFR=Case-Fatality Rate
Laboratory-confirmed cases only