

Current major event

Dengue cases upsurge, Punjab, Pakistan

Provincial Health Department of Punjab Province in Pakistan reported an upsurge of suspected dengue fever cases from different districts of the Province. The cases started reporting from the start of this year and till the date with a total of 48,439 suspected, 765 probable and 809 laboratory confirmed cases has been reported. The most affected district is Rawalpindi.

Editorial note

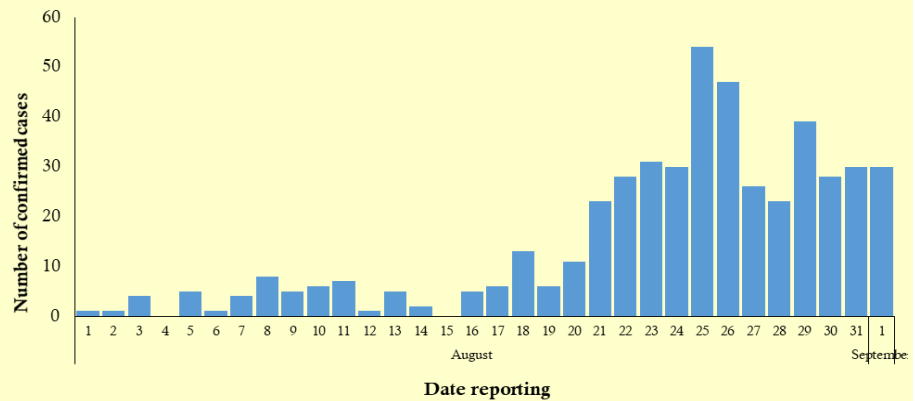
Dengue fever is an arboviral disease caused by the dengue virus (DENV) and transmitted to humans through the bites of infected female mosquitoes, *Aedes aegypti* and *Aedes albopictus*. These mosquitoes also transmit other acute undifferentiated febrile illnesses (UFIs) as well.

Dengue fever is endemic in most of the districts in Punjab Province. Rawalpindi is of the districts in Punjab where dengue fever is endemic, with recurring outbreaks reported in almost all the towns over the last few years, and the highest number of confirmed cases was reported in 2015 (See table). The current upsurge of suspected dengue fever cases started with the start of 2019, from different district of Punjab Province. Till the date a total of 48,439 suspected cases has been reported from the province with most affected district being Rawalpindi. Till the date a total of 480 laboratory confirmed cases reported from the Rawalpindi and the most affected area of the district is Potohar town. In addition to the reported cases no associated death has been reported so far. The upsurge in reported cases started from 18th of August and reached its peak on 25th August where 54 positive cases were reported from the town. (See graph).

The age group of the reported cases ranging from 4 years to 70 years and the most affected age group is between 15 to 34 years of age, and majority of cases are male (74%) as compared to females (26%).

As part of outbreak response measures, the Provincial Health Department has enhanced coordination and planning and that is on going efforts to involve all the relevant line departments for the appropriate response to control this upsurge of cases from one of the town of the Rawalpindi district. The multi-sectoral response teams are deployed in different areas to provide

Confirmed dengue fever case reported from Rawalpindi district, 2019



Year wise distribution of the reported confirmed dengue fever cases from Rawalpindi district

Years	Confirmed Cases
2013	904
2014	1211
2015	3303
2016	1160
2017	334
2018	421
2019 (till 1st September)	480

initial response to control the situation. Even though the vector for the disease is known to be present in the affected areas, other factors are believed to have played a part in this upsurge of dengue fever include start of monsoon season with heavy rains, which is favoring the breeding of the mosquito and amplifying the virus transmission. The factors which are contributing to the breeding sites are also poor water and sanitation conditions, water supply and storage (containers), and high population density areas that increase contacts between vectors and humans.

There is urgent need to scale up the multi-sectoral response measures to prevent geographic spread of the disease. Surveillance needs to be strengthened in all the districts of the Punjab province as well as in the neighboring Provinces. Surveillance data should be used to monitor the progression of the outbreak, and to map out cases to enhance targeted interventions for vector control. Entomological surveillance also needs to be scaled up in the affected areas to guide interventions and for early detection of any sign of outbreak spread such as increased population of *Aedes* mosquitoes.

Update on outbreaks

in the Eastern Mediterranean Region

MERS in Saudi Arabia; **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) [3 031 (2 031), 67.41%]

Cholera: 2017-2019

Somalia [8 651 (46), 0.53%]

Yemen [2 020 489 (3 705), 0.18%]

Diphtheria: 2018-2019

Yemen [3 906 (218), 5.58%]

Bangladesh [8 734 (45), 0.52%]

MERS: 2012-2019

Saudi Arabia [2 070 (772), 37.25%]

Multidrug-resistant typhoid fever: 2016-2019

Pakistan [10 365 (0)]