

## Current major event

### Dengue in Pakistan

The dengue fever (DF) outbreak in Khyber Pakhtunkhwa (KPK) province of Pakistan, reported in weekly epidemiological monitor (*Volume-6, issue-37, dated 15 September 2013*), has subsided. This was one of the major outbreaks of dengue fever reported ever from this province in the country. As of November 2013, a total of 8,494 laboratory-confirmed cases of DF were reported from this province. As reported earlier, the district of Swat was the most affected area in the province.

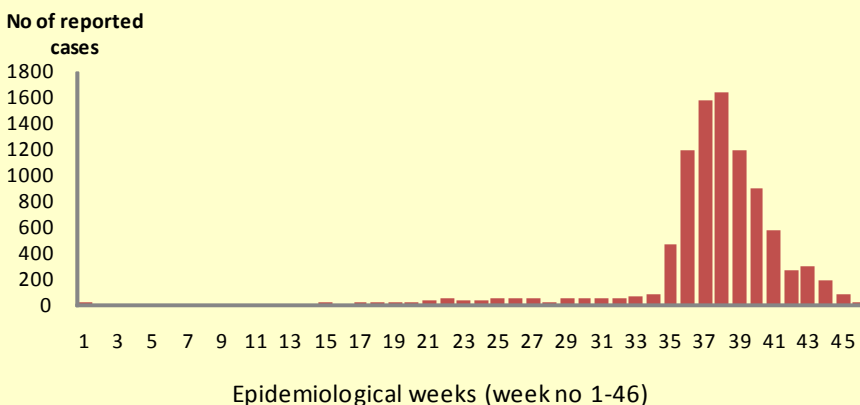
### Editorial note

Dengue fever (DF) is endemic in Pakistan with annual seasonal outbreaks observed every year (*Please see the table*). However, cases were reported this year from less endemic areas as well signifying a possible geographic expansion of the vector in the country. For example, the province of KPK doesn't lie in the traditional endemic belt of DF in the country, but the province witnessed a major outbreak of DF in 2014 specially in the district of Swat and its adjacent areas. Within the endemic belt for DF in the country, cases were reported from Karachi and Hyderabad in Sindh province and Lahore and Rawalpindi districts in Punjab province this year. The province of Balochistan, another area not known to be endemic for DF in the country also reported laboratory-confirmed cases this year. The laboratory tests, conducted at the National Institute of Health (NIH), Islamabad have detected both the DEN-1, DEN-2 and DEN-3 serotypes from these reported cases in the country.

The geographic expansion of the disease to non-endemic areas is probably due to the spread of competent mosquito vectors to this new geographic range. As a result, the recent trend of dengue fever disease in Pakistan is an ominous sign of vector expansion.

The outbreak of DF in the KPK province this year which has been the worst in its history has gradually subsided as

### Laboratory-confirmed cases of dengue fever reported from KPK province in Pakistan, 01 January-16 November 2013



### Dengue fever cases reported from Pakistan, 2006 to 2013\*

Year	Suspected cases	Lab-confirmed cases	Deaths
2006	4961	1931	41
2007	2304	1226	18
2008	2792	2469	17
2009	1940	1085	13
2010	15901	11024	40
2011	252935	21580	317
2013	#	16925	#

\*Source: WHO Country office in Pakistan  
# Data currently not available

can be inferred from the epidemic curve (*Please see the graph above*). The duration of the outbreak (almost 20 to 25 weeks) and the unusual high number of cases reported from this outbreak in the province can be explained by the large number of immunologically naïve populations living in the areas who were not previously exposed to dengue infection. The co-circulation of three serotypes of dengue could be another reason. This information needs to be analyzed more systematically as part of analysis of the health sectors' response to this outbreak. The reasons for occurrence of cases in non-endemic belt also need to be investigated as it is important for the country to learn important lessons for preventing transmission in non-endemic settings.

### Update on outbreaks

in the Eastern Mediterranean Region

Novel Coronavirus in Qatar, Kuwait and United Arab Emirates; Wild poliovirus in Syria; Yellow fever in Sudan

### Current public health events of international concern

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

#### Avian influenza

Egypt	[173 (63), 36.4%]
Indonesia	[192 (160), 83.3 %]
Viet Nam	[125 (62), 49.6%]
Cambodia	[31 (27), 87.1%]
Global total	[629 (375), 59.6%]

#### Hepatitis E

South Sudan	[12,718 (251), 1.9%]#
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#### Novel Coronavirus (MERS-CoV)

Saudi Arabia	[141 (57), 40%]
Kuwait	[2 (0)]
Qatar	[10 (2), 20%]
UAE	[10 (3), 30 %]

#### Yellow fever

Sudan	[49 (15), 32%]
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#### Crimen-Congo haemorrhagic fever

Pakistan	[89 (18), 20%]
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#### Wild poliovirus

Syria	[17 (0)]
Somalia	[180 (0)]
Cameroon	[2 (0)]

CFR=Case-Fatality Rate; # Suspected cases