West Nile fever in Tunisia: update

As of 30 November 2018, the Ministry of Health of Tunisia reported 377 suspected cases of West Nile fever (WNF). Out of these, 65 cases are probable and 49 cases are laboratory confirmed. Two related deaths have also been reported.

Editorial note

West Nile Virus (WNV) is a member of the flavivirus genus and belongs to the Japanese encephalitis antigenic complex of the family Flaviviridae. WNV infection is a non-contagious disease, primarily transmitted by the bite of infected mosquitoes of the genus Culex.

WNV is endemic in Tunisia. Since 1997 till 2012 three major upsurge of WNV cases were reported in the country. From the beginning of 2018 till last week of November, a total of 377 suspected cases of West Nile fever were reported of which 49 were confirmed by RT-PCR with two related death.

In comparison with the previous years, the number of suspected and confirmed cases reported in 2018 already exceeded previous year’s number (Please see table). This increased number of reported, suspected and confirmed cases compared to previous years, confirms the intensified circulation of WNV in the country.

This upsurge of the cases can also be explained by the risk factors including increased temperatures and early and heavy rainfall during the summer and autumn of 2018, that provided favorable conditions to the amplification of the vector and as well as the intensification of WNV circulation in the country.

The current trend shows a decline in the number of reported cases. The epidemic peak has been observed during the first week of October, but confirmed cases continue to be recorded till the week of reporting of the current year. (Please see graph).

Owing to the fact that, climatically changed environment favour the establishment of the vector in the country which also facilitates the circulation of the virus leading to the concern that the outbreak may also spread to other areas. The key public health measures that should be rapidly scaled up to contain the current surge and stop the transmission include aggressive vector control such as emptying and cleaning water reservoirs (breading sites), targeted indoor spraying, ensuring the use of bed nets and repellents and risk communication to reduce the risk of infection at the source. At the same time, surveillance system should be enhanced ensuring early detection of the spread of the infection to other areas.