Resurgence of Chikungunya in Sudan

In June 2019, Federal Ministry of Health (FMoH) in Sudan declared the transmission of chikungunya in Red Sea State. The current outbreak started on 18th of June. A total of 113 suspected cases have been cumulatively reported from Red Sea State and till this date no related death has been reported so far.

Editorial note

Chikungunya is one of the emerging and epidemic prone viral diseases which is transmitted to humans by infected mosquitoes including Aedes aegypti and Aedes albopictus. In recent years, a large scale outbreaks with high debilitating nature has been reported globally. Several outbreaks were reported from countries in Eastern Mediterranean region as well in recent years.

In Sudan, sporadic cases of Chikungunya were reported between years 2005 – 2011. However, the country has experienced the largest outbreak in 2018 which left the toll of more than 55,000 cases with no deaths. It started on 31st of May 2018 in Suakin locality, Red Sea State, then spread to other States; namely, Red Sea, Kassala, Gedarif, River Nile, South Darfur and West Darfur states. The last case was reported on 30th March 2019. Since then, after a nationwide zero reporting of cases for more than 13 weeks, chikungunya has again been reported from Jabait town of Sinkat locality of Red Sea State in June 2019.

The current outbreak was detected on 18th of June 2019. Till the date a total of 113 cases with no deaths have been reported from Sinkat (See graph). The attack rate was calculated 4.3 per 100,000 population. The average incubation period was 3 days before manifested symptoms. Most of the cases presented with fever, headache and joint pain. The initial reported suspected cases have no travel history to any other areas affected by chikungunya outbreak as well. During the initial investigation and response efforts, rapid response teams identified mosquito breeding sites in the affected communities. 12 blood samples have been collected by RRT and tested at Central Public Health Laboratory. All test results were positive for chikungunya by PCR. 5 of these samples were tested for Dengue by ELISA, but all were negative.

As reducing the number of natural and artificial breeding sites for mosquitoes has a significant impact on the prevention and control of chikungunya outbreaks, FMoH works closely with WHO to implement integrated vector control measures. A total of 531 houses were inspected by 12 teams in Tikrai settlement in Jabait were 51(10%) houses were found to have breeding sites of Aedes aegypti. Moreover, 1170 various water containers were inspected, and 63 (5.7%) of which were positive for Aedes aegypti. Indoor residual spraying and eliminating mosquito breeding sites through source reduction have been commenced. Fogging activities are being carried out everyday in the affected communities (See table).

Health promotion messages were distributed to hundreds of households in Jabait town to raise community awareness. Surveillance and case management activities were enhanced as well. In response to excessive rains and flooding in Sudan, preparedness and response activities have been intensified in high risk states. FMoH together with WHO and other partner have to vigilantly monitor the situation and promptly investigate and respond to any received alerts. Efforts should continue to build upon succeeded containment of chikungunya early this year.

Update on outbreaks in the Eastern Mediterranean Region

- **MERS** in Saudi Arabia; **MERS** in Oman; **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) [2 578 (1 737), 67.37%]
- **Cholera**: 2017-2019
  - Somalia [8 406 (46), 0.55%]
  - Yemen [1 908 418 (3 497), 0.18%]
- **Diphtheria**: 2018-2019
  - Yemen [3 846 (216), 5.62%]
  - Bangladesh [8 682 (45), 0.52%]
- **MERS**: 2012-2019
  - Saudi Arabia [2 066 (769), 37.22%]
- **Multidrug-resistant typhoid fever**: 2016-2019
  - Pakistan [9 176 (0)]