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Kyasanur forest disease surveillance system evaluation, Shivamogga, Karnataka and Sindhudurg, Maharashtra, India – 2016-2017

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Background: Kyasanur forest disease (KFD), transmitted by ticks or contact with infected monkeys, can cause hemorrhagic fever and death. In India, KFD was first reported from Shivamogga district, Karnataka but recently spread to neighboring states: Kerala, Goa and Maharashtra. In 2016, there were 411 cases and 11 deaths. We evaluated KFD surveillance through in Shivamogga, Karnataka and Sindhudurgh, Maharashtra to identify strengths, weaknesses and make recommendations to prevent spread.

Methods: We interviewed district health officers and stakeholders from veterinary and forest departments at study sites. We analyzed April 2016-March 2017 data to evaluate simplicity, timeliness, data quality, representativeness, stability and flexibility.

Results: KFD is not notifiable but is reported as state-specific disease to the national 'integrated disease surveillance programme'. There were 38 KFD cases in Shivamogga and 150 in Sindhudurg during April 2016-March 2017. All 12 (100%) health officers interviewed in Shivamogga and 11/12 (92%) in Sindhudurg knew case definition. Similarly, 11/12 (92%) officers in Shivamogga and 10/12 (83%) in Sindhudurg said reporting was easy and simple. Among assessed facilities, only 5 (42%) in Shivamogga and 7 (58%) in Sindhudurg timely submitted weekly reports on Monday. Upon checking data quality; among KFD cases reported to district, 38/38 (100%) cases data matched health facilities records in Shivamogga and 12/150 (8%) cases data matched records in Sindhudurg. KFD cases were only reported and represented from government facilities. With respect to stability, in Shivamogga 11/12 (92%) health facilities had enough reporting forms compared with 9/12 (75%) in Sindhudurg. To achieve flexibility, three inter-department meetings in Shivamogga and six in Sindhudurg were held in 2016-17 with veterinary and forest departments.

Conclusions: KFD surveillance in both districts was simple, stable and flexible but needs improvement for timeliness, data quality and representativeness. We recommend KFD surveillance (human and animal) training for public and private health departments, forest and veterinary departments along with inter-department coordination.

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