Dengue-1 Outbreak, Tuvalu: Situational Report 25th March to 10 August 2019 (Week 32, 4-10 August)


Case Definition

- **Suspected case definition**: An acute febrile illness for more than 2 days with two or more of the following: nausea, aches, rash, low white blood cell, joint pain, warning signs

- **Confirmed case definition**: Isolation of dengue virus or detection of antigen NS 1 Ag or IgM antibody or IgM and IgG antibodies in blood

Outbreak Overview

- Dengue1 outbreak declared on the 27th of March 2019
- 517 dengue like illness (DLI) cases, were reported in Funafuti from March 25 to August 10 and 214 of them were confirmed.
- **Eight (8) DLI cases** were reported in week 32 in Funafuti and **Two (2) of them** were confirmed.
- **Six (6) of the new DLI cases**, including the two confirmed, have travel history to Vaitupu in Central Islands group.

Demographics

- Age range: 0-65 years
- Female: Male ratio: 1:1.2
- Median age: 9yrs
- Majority of cases are children (5-9yrs)
- 83% of cases are up to 19 years

Laboratory

- All suspected cases are tested with RDT (SD Dengue Duo), at Princess Margaret Hospital in Funafuti laboratory to detect presumptive dengue virus infection
- Dry Blood Spot samples were sent to IPNC (Institute Pasteur in New Caledonia), for serotyping on 1st July and 5 out of 11 to were confirmed as DENV-1 serotype.
- Two DLI cases were tested positive; NS 1 Ag and IgM in week 32.

Outbreak Response

- Since mid June 210 locations (schools, hospital and case houses and surrounds), were surveyed and controlled for larval breeding in Funafuti and 8 locations were surveyed in the Outer Islands.
- Of the containers positive for larvae (249) 88% were positive for Ae. aegypti and 36% for Ae. polynesiensis.
- Buckets and household items surrounding properties remain the key vector production sites (each positive for Ae. aegypti 37% of the time when larvae are found.
- During 4-10 Aug there was an average collection rate of 1.2 female Ae. aegypti per trap night.
- Environmental survey and control activities for the Pacific Islands Forum Secretariat meeting started on 24th July and an enhanced syndromic surveillance during PIFS is in place.
- Public awareness and community education activities started in March 24. Up to date distribution of pamphlets (3,740), targeted the general population in the Outer Islands, in shops, public places, case houses and surroundings and in locations of ‘contacts of cases’ in Funafuti.
- Posters (84) and banners (3) were placed in Funafuti (port and airport included), and the OIs and leaflets of dengue fever alerts (in English) targeted 240 visitors in Funafuti.
- Media were used to disseminated disease prevention messages through radio programs (18), radio spots (3) and talkback shows (2).
- Other outreach activities include a notification to community faith-based leaders at the early stage of the outbreak, 11 school visits targeting preschool, primary and secondary school children, and sensitising meeting with the Outer Islands leaders.
- A tracking survey was implemented to assess effectiveness and coverage of the risk communication campaigns.