Dengue 3 Outbreak, Palau, December 2018 – January 2020

2020 Epi Week 1: December 30 – January 5, 2020

Outbreak Overview

On Friday, December 7, 2018, the Palau Ministry of Health alerted the public of an outbreak of dengue fever following the first ever laboratory confirmation of two cases with dengue serotype-3. A year after the declaration, the Ministry of Health continues to urge the public to practice prevention to control the spread of DENV-3. Over 700 cases of dengue have been recorded between December 3, 2018 and December 17, 2019, including 266 serotyped cases of DENV-3. No cases of other serotypes have been identified since the start of the current outbreak.

During the past week (December 30, 2019 – January 5, 2020) there were 16 new cases reported. This brings the total number of cases for the month of December 2019 to 58 and from December 1, 2019 – January 5, 2020 to 774 cases.

There have been two deaths officially attributed to dengue infection during this outbreak.

Demographics

Age range = 0 – 88 years
Mean age = 29 years
Median age = 24 years

The majority of cases during this outbreak have been Palauan.

Symptom Profile of Cases

# of Cases with Each Symptom (Cases with available data = 370 )

- Fever
- Chills
- Headache
- Body pain
- Joint pain
- Loss of appetite
- Altered taste sensation
- Nausea
- Vomiting
- Cough
- Eye pain
- Abdominal pain
- Rash

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Case Summary State and Hamlet

Dengue cases from December 30, 2019 – January 5, 2020: n= 16

Epi Curve

Dengue Cases by Week of Diagnosis

December 3, 2018 – January 5, 2020

Lab Testing

- The Belau National Hospital (BNH) Laboratory and laboratories at three private clinics in Koror have the capacity to test symptomatic patients for dengue via a rapid diagnostic test kit, SDC Bioline Dengue Duo (Dengue NS1 Ag + IgG/IgM) by Abbott.
- Confirmatory testing and serotyping is done by the Hawaii State Laboratory (HSL). There have been 266 serotyped cases of DENV-3. The last recorded cases of DENV-2 in Palau were from November of 2018.
- During week 37, two imported cases of dengue were identified with travel history to Bangkok, Thailand. Specimens were referred to Guam Public Health Laboratory (GPHL) for serotyping, which confirmed infection with DENV-1. No additional cases of dengue serotype 1 have been identified since.
- Phylogenetic analysis of serum specimens sent to CDC Dengue Branch in Puerto Rico found that the circulating DENV-3 strains group into two lineages that originate in the Philippines and Singapore.

Response

There were a total of 58 cases of dengue reported during the month of December 2019, a 61% increase from the previous month. During the first week of the new year, there were a total of sixteen (16) reported cases of dengue. All cases were Koror residents from the following hamlets: Ngerkesoaol (10), Meyuns (2), Melekeok (1) and Ngerkesoaot (1).

The Ministry of Health Dengue Response Team continues to promote efforts to increase community involvement in mosquito source reduction activities through partnership with state governments and community partners. Targeted interventions are being planned for areas with high burden of disease during the current operational period. These include a dengue prevention and awareness campaign being developed that is suited for school-age children who continue to comprise the largest proportion of dengue cases.

The Team continues to provide updates on the dengue outbreak to the public through a weekly radio spot at the national radio station and dissemination of print material about dengue prevention to the greater community.

The Communicable Disease Unit and the DEH Vector Control Program continue to investigate all reported cases of dengue fever and implement vector control measures.

The Palau Ministry of Health promotes the dengue 35 messages:

- Search and eliminate mosquito breeding sites.
- Self-protect by wearing insect repellent and ensuring a mosquito-free environment.
- Seek early consultation if you show severe signs or symptoms of dengue.

The next report for epi week 2 will be released on Tuesday, January 14, 2020.