Summary
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. This poses a significant concern for public health as the whole population is potentially vulnerable to infection. There is added concern over the risk of severe dengue in persons with subsequent infection with a different serotype of dengue. A large outbreak of dengue-2 concluded a year ago on December 8, 2017, however we have seen sporadic cases throughout the year.

The first two confirmed cases of dengue-3 were encountered at the Belau National Hospital on October 28 and November 11, however their serotype results did not become available until December 1, 2018. In response to the outbreak, the Ministry of Health activated its emergency response team on December 7, 2018. The team has been tasked with raising community awareness of the outbreak and dengue prevention measures, conducting disease surveillance and reporting, strengthening mosquito control measures, and ensuring adequate resources are available to combat the outbreak.

Updates
There were 13 cases of dengue fever identified during this reporting period. This brings the total from December 1, 2018 to January 3, 2019 to 44 cases.

Demographics
- A majority of cases (n=34) reside in the most populous state, Koror, in various hamlets. Seven (7) cases reside in Airai, two (2) cases reside in Ngarchelong, and one (1) in Melekeok.
- All but two hamlets in Koror have confirmed cases. Half of identified cases reside in Madalaii hamlet in Koror. Others reside in Meketii, Meyuns, Dngeronger, Idid, Ngerbeched, Ngerchemai, Ngerkebesang, Ngerkesoaol, and Ngermid hamlets.
- Most cases are within 20-29 years of age. Age range is 3 – 85 years of age; average: 30 years; median: 26 years. Nearly half of cases are between 10 and 29 years of age.

<table>
<thead>
<tr>
<th>State</th>
<th>Count</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Koror</td>
<td>34</td>
<td>77%</td>
</tr>
<tr>
<td>Airai</td>
<td>7</td>
<td>16%</td>
</tr>
<tr>
<td>Ngarchelong</td>
<td>2</td>
<td>5%</td>
</tr>
<tr>
<td>Melekeok</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>44</td>
<td></td>
</tr>
</tbody>
</table>
All cases are local residents, mostly Palauan (80%) with others including Bangladeshi, Filipino, Chinese and Taiwanese nationals.

**Symptoms/Hospitalization/Deaths**

- Most common symptoms reported include: chills (86%), fever (84%), headache (73%), body aches (71%), joint pain (64%), loss of appetite (57%). Other symptoms experienced by less than half of cases include: eye pain, nausea, abdominal pain, vomiting and conjunctivitis.
- As of January 3, 2019, there were 2 adults patients currently hospitalized for treatment of dengue fever at the Belau National Hospital.
- There have been no reported deaths attributed to dengue infection.

**Laboratory Testing Activities and Needs**

- The Belau National Hospital (BNH) Laboratory and laboratories at 3 private clinics on-island continue to screen symptomatic patients for dengue with a rapid diagnostic test kit.
- The BNH Lab continues to send serum specimens to Hawaii State Laboratory for confirmation and serotyping.

**Response activities and needs**

- The dengue outbreak response team is continuing efforts to increase community awareness of the dengue outbreak and prevention measures.
- The Communicable Disease Unit and the DEH Vector Control Program continue to respond to reported cases of dengue fever.