

# Dengue 3 Outbreak, Palau, December 2018 – March 2019

Report Date: March 5, 2019



## Outbreak Overview

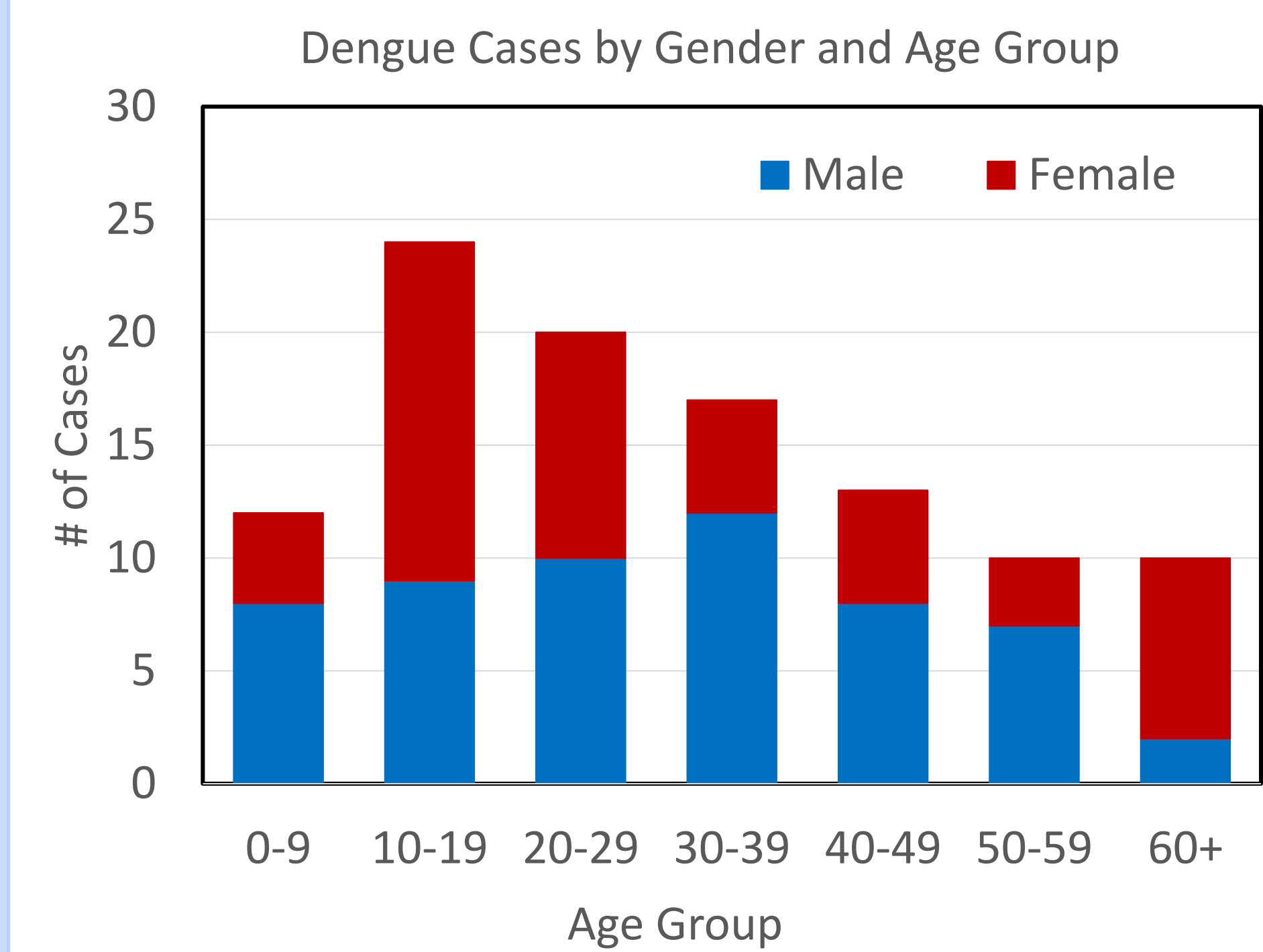
On Friday, December 7, 2018, the Palau Ministry of Health alerted the public of an outbreak of dengue fever following the first ever laboratory confirmation of two cases with dengue serotype-3. This poses a significant concern for public health as the whole population is potentially vulnerable to infection.

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.

Between February 25 – March 3, 2019, there were 11 new lab-confirmed cases reported. This brings the total from December 1, 2018 to March 3, 2019 to 106 cases.

There have been no deaths attributed to dengue infection during this outbreak.

## Demographics

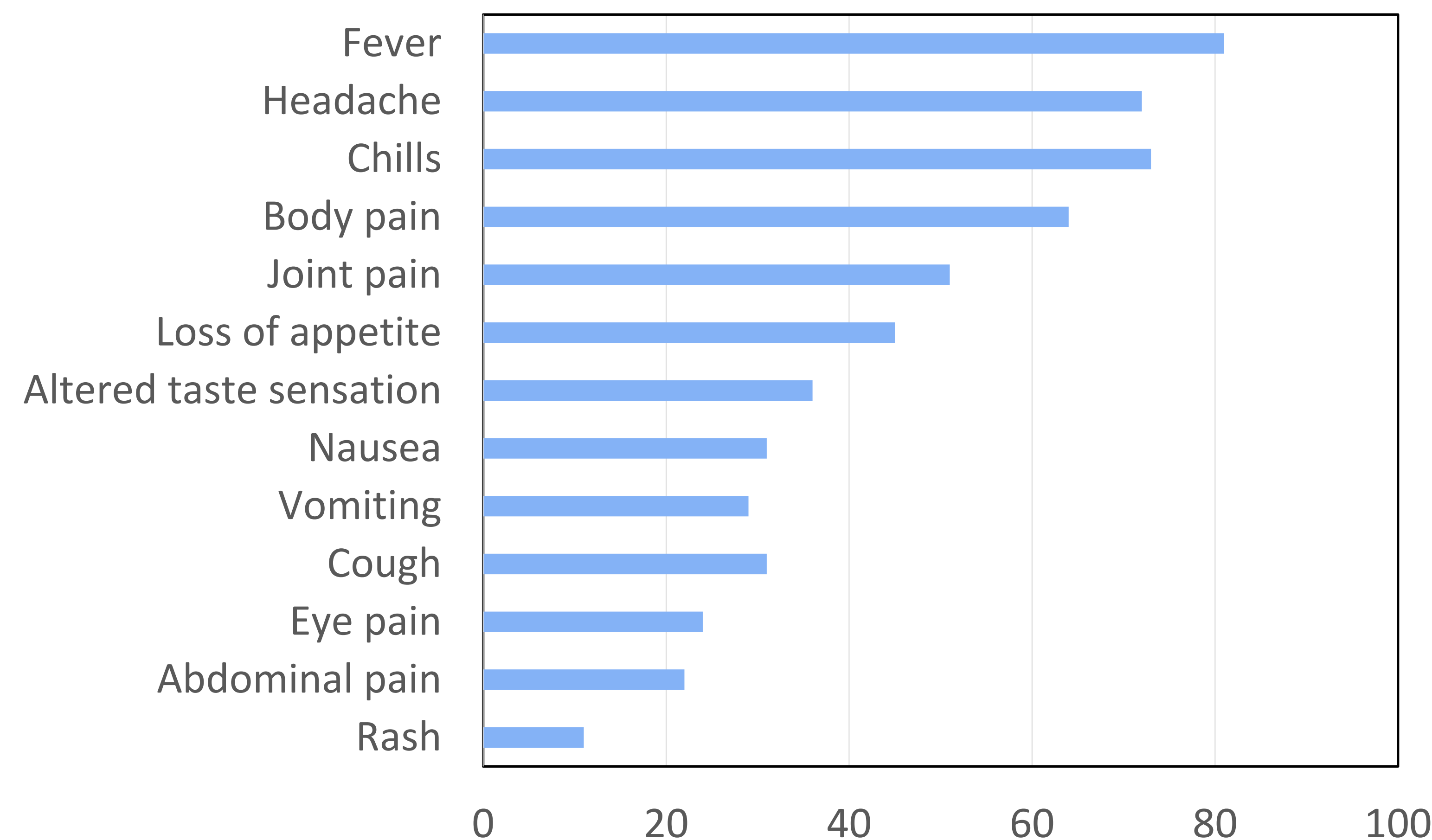


Age Range = 3 – 88 years  
 Mean age = 31 years  
 Median age = 27 years  
 Male:Female ratio= 121  
 The majority of cases during this outbreak have been Palauan.

| Ethnicity    | Count      | %   |
|--------------|------------|-----|
| Palauan      | 85         | 80% |
| Bangladeshi  | 10         | 9%  |
| Chinese      | 5          | 5%  |
| Filipino     | 3          | 3%  |
| Other Asian  | 3          | 3%  |
| <b>TOTAL</b> | <b>106</b> |     |

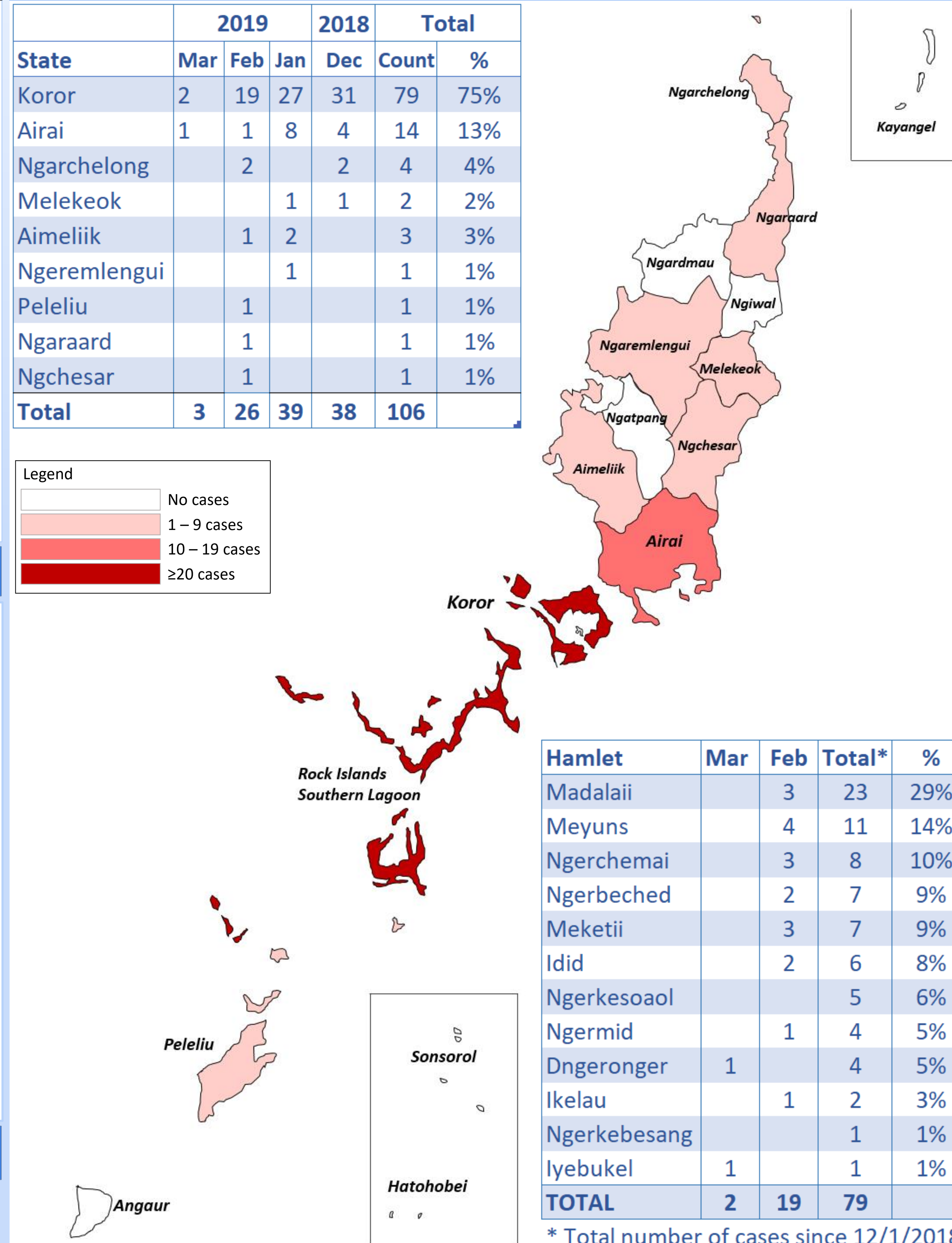
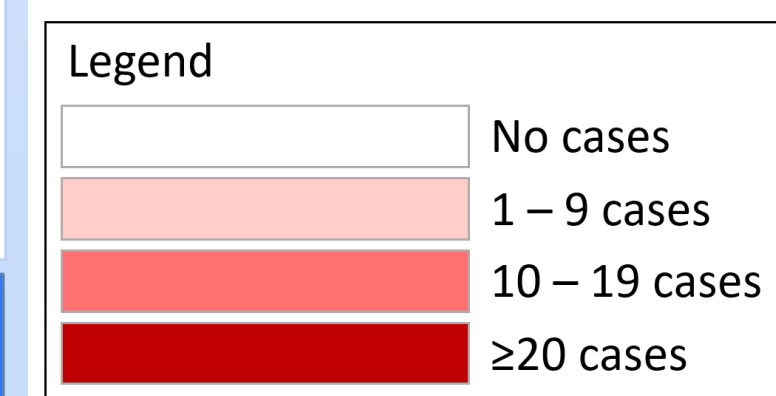
## Symptom Profile of Cases

# of Cases with Each Symptom (Cases with available data = 96)



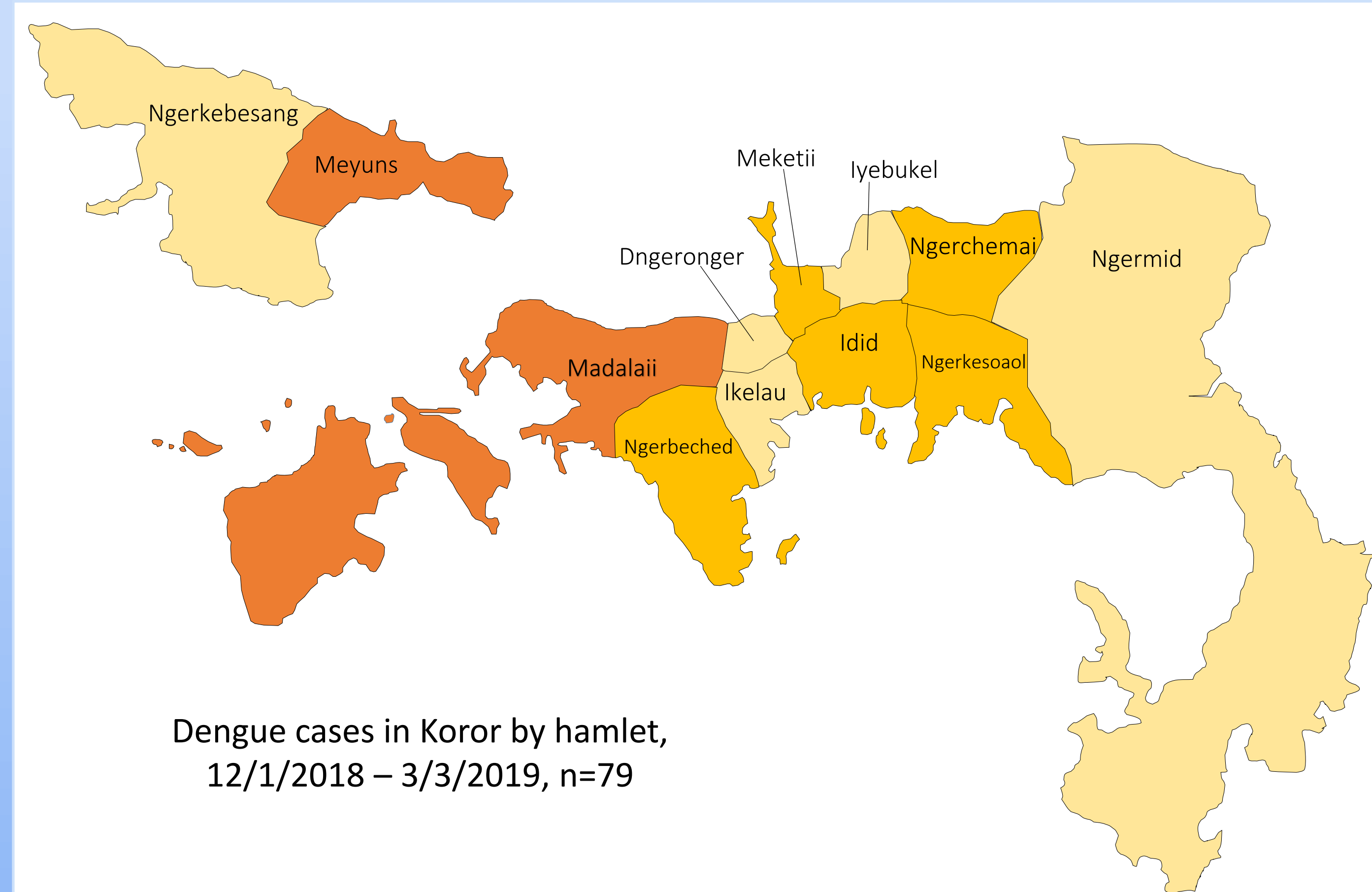
## Cases by State and Koror Hamlets

| State        | 2019     |           |           |           | 2018       |     |
|--------------|----------|-----------|-----------|-----------|------------|-----|
|              | Mar      | Feb       | Jan       | Dec       | Count      | %   |
| Koror        | 2        | 19        | 27        | 31        | 79         | 75% |
| Airai        | 1        | 1         | 8         | 4         | 14         | 13% |
| Ngarchelong  |          | 2         |           | 2         | 4          | 4%  |
| Melekeok     |          |           | 1         | 1         | 2          | 2%  |
| Aimeliik     |          | 1         | 2         |           | 3          | 3%  |
| Ngeremlengui |          |           | 1         |           | 1          | 1%  |
| Peleliu      |          | 1         |           |           | 1          | 1%  |
| Ngaraard     |          |           | 1         |           | 1          | 1%  |
| Ngchesar     |          | 1         |           |           | 1          | 1%  |
| <b>Total</b> | <b>3</b> | <b>26</b> | <b>39</b> | <b>38</b> | <b>106</b> |     |



| Hamlet       | Mar      | Feb       | Total*    | %   |
|--------------|----------|-----------|-----------|-----|
| Madalalai    |          | 3         | 23        | 29% |
| Meyuns       |          | 4         | 11        | 14% |
| Ngerchemai   |          | 3         | 8         | 10% |
| Ngerbeched   |          | 2         | 7         | 9%  |
| Meketii      |          | 3         | 7         | 9%  |
| Idid         |          | 2         | 6         | 8%  |
| Ngerkesoal   |          |           | 5         | 6%  |
| Ngermid      |          | 1         | 4         | 5%  |
| Dngeronger   | 1        |           | 4         | 5%  |
| Ikelau       |          | 1         | 2         | 3%  |
| Ngerkebesang |          |           | 1         | 1%  |
| Iyebukel     | 1        |           | 1         | 1%  |
| <b>TOTAL</b> | <b>2</b> | <b>19</b> | <b>79</b> |     |

\* Total number of cases since 12/1/2018.

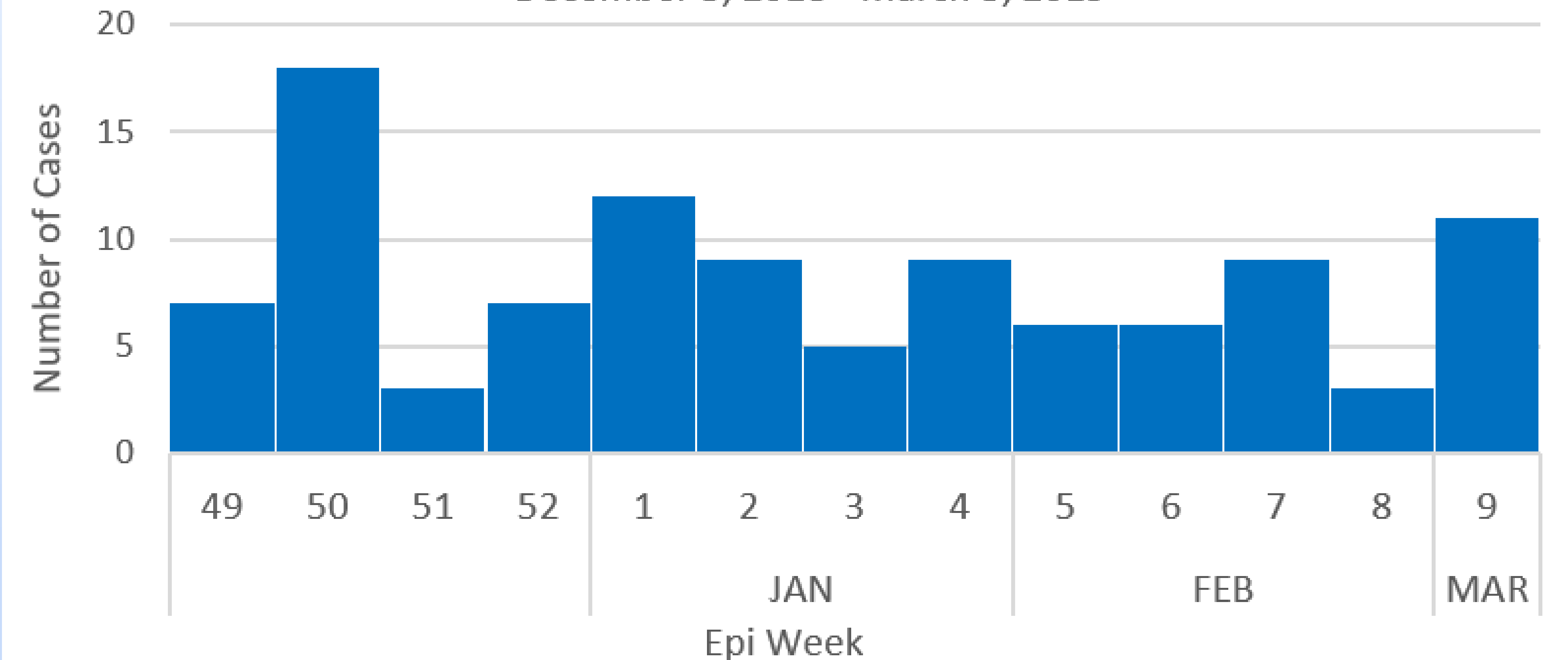


Dengue cases in Koror by hamlet, 12/1/2018 – 3/3/2019, n=79

## Epi Curve

### Dengue Cases by Week of Diagnosis

December 3, 2018 - March 3, 2019



## Lab Testing

- The Belau National Hospital (BNH) Laboratory and 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 (HSL) for confirmation and serotyping.
- 18 specimens were sent to HSL on Wednesday, February 27, 2019.
- Since the beginning of the outbreak, there have been 53 serotyped cases of DENV-3. The last recorded cases of DENV-2 were in November of 2018.

## Response Measures

The dengue outbreak response team is continuing efforts to increase community awareness on the dengue outbreak and prevention measures through:

- Weekly radio talk shows at the national radio station
- Dissemination of print material about dengue prevention to the community
- Development of dengue prevention videos for public consumption that target young adults
- Utilizing public forums to spread the prevention message.
- The Ministry of Health Management team will continue to attend presidential state visits to spread the dengue prevention message.
- The Ministry of Health team will also continue to attend parent-teacher association meetings to share the dengue prevention message with parents and educators.
- The Ministry of Health is partnering with the Ministry of Education to host a dengue prevention contest for students to promote dengue awareness and the Year of Innovative Learning and Excellence.

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

The Ministry of Health's community dengue prevention 3S message:

- 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 will be released on Tuesday, March 12, 2019.