

Dengue 3 Outbreak, Palau, December 2018 – January 2020

2020 Epi Week 2: January 6 – 12, 2020



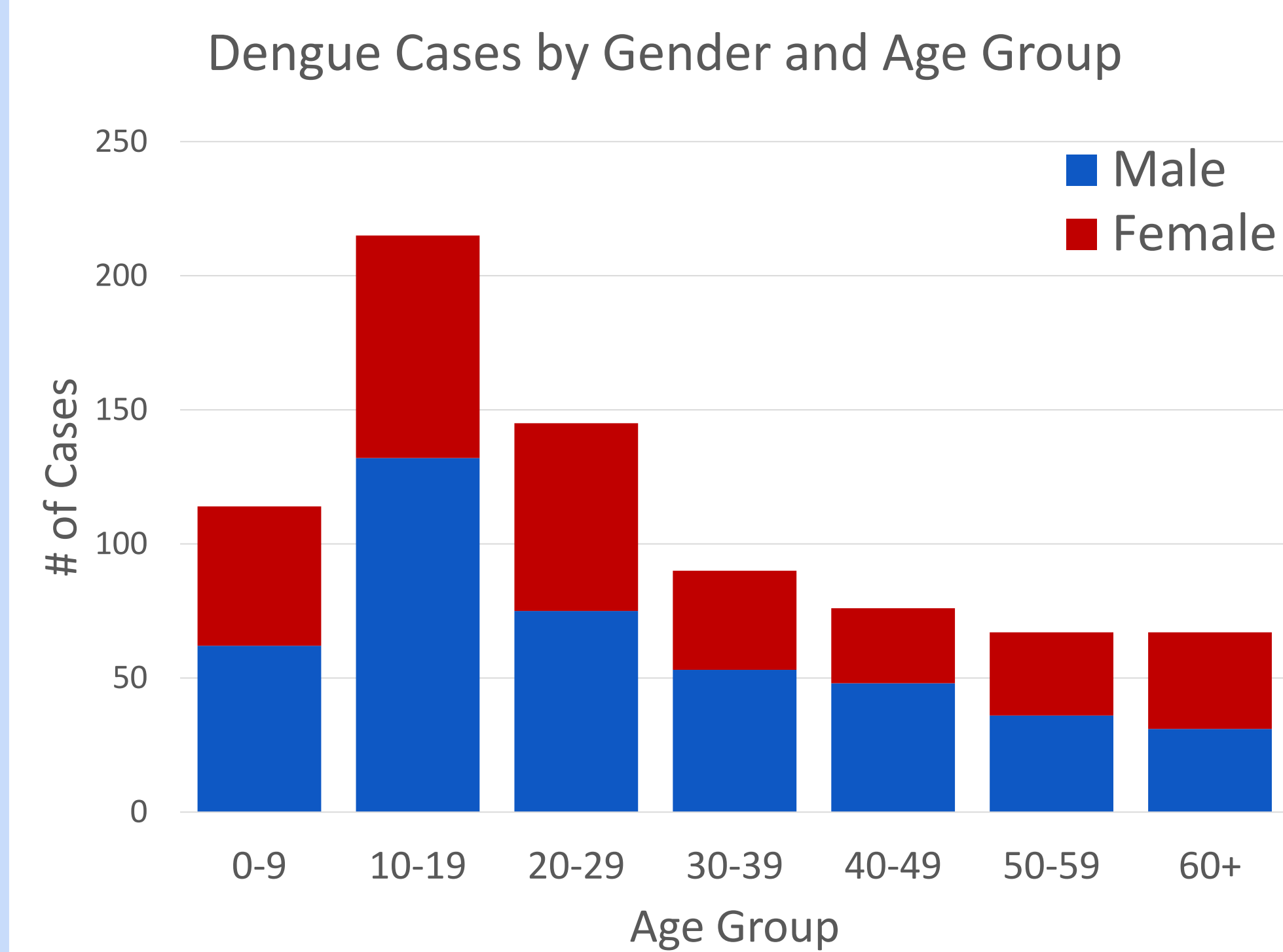
Outbreak Overview

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 (January 6 - 12, 2020) there were thirteen (13) new cases reported. This brings the total number of cases for the month of January 2020 to 20 and from December 1, 2018 – January 12, 2020 to 787 cases.

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

Demographics

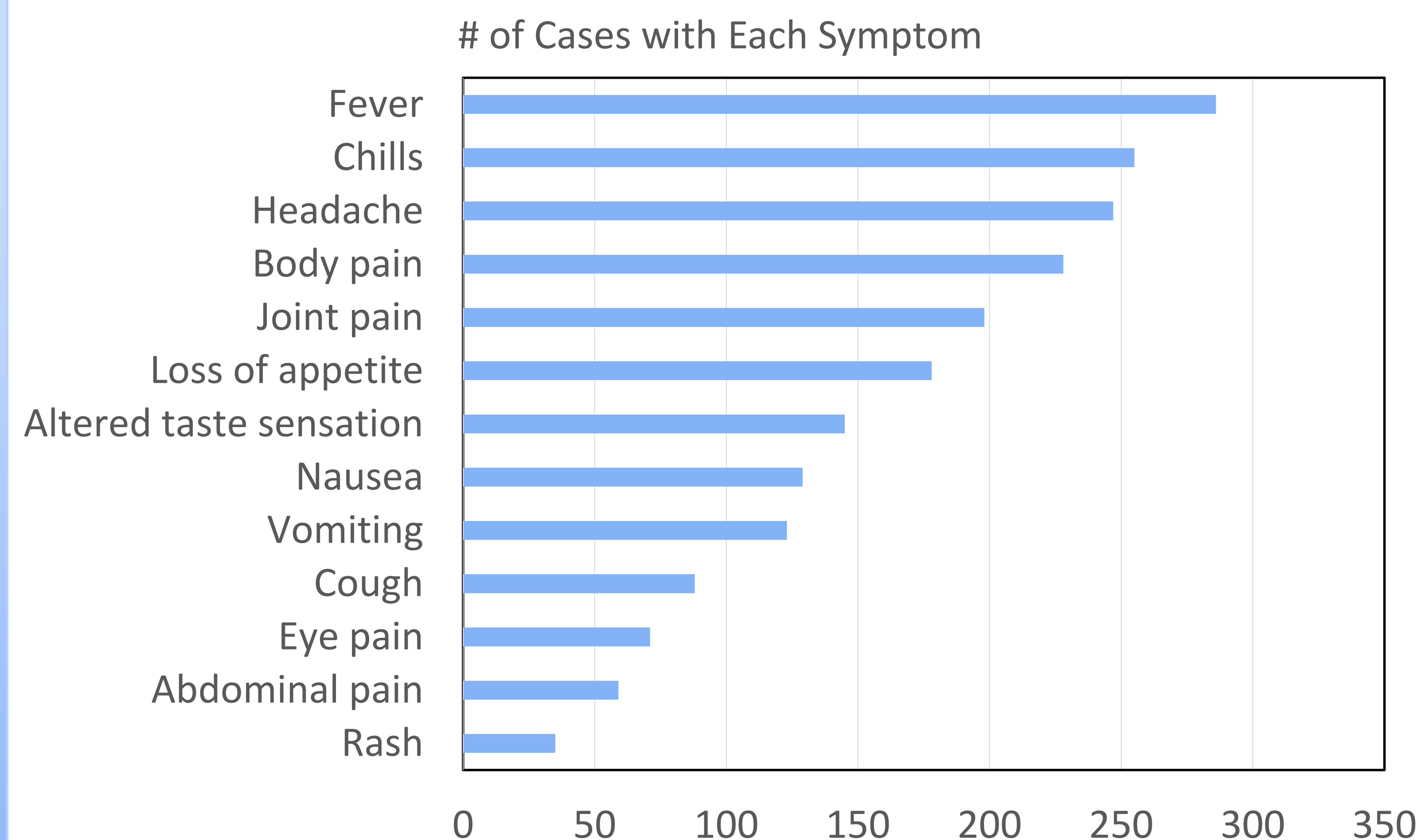


Age range = 0 – 88 years
Mean age = 29 years
Median age = 24 years

The majority of cases during this outbreak have been Palauan.

Ethnicity	Count	%
Palauan	664	84%
Bangladeshi	45	6%
Filipino	25	3%
Chinese	22	3%
Other	31	4%
TOTAL	787	

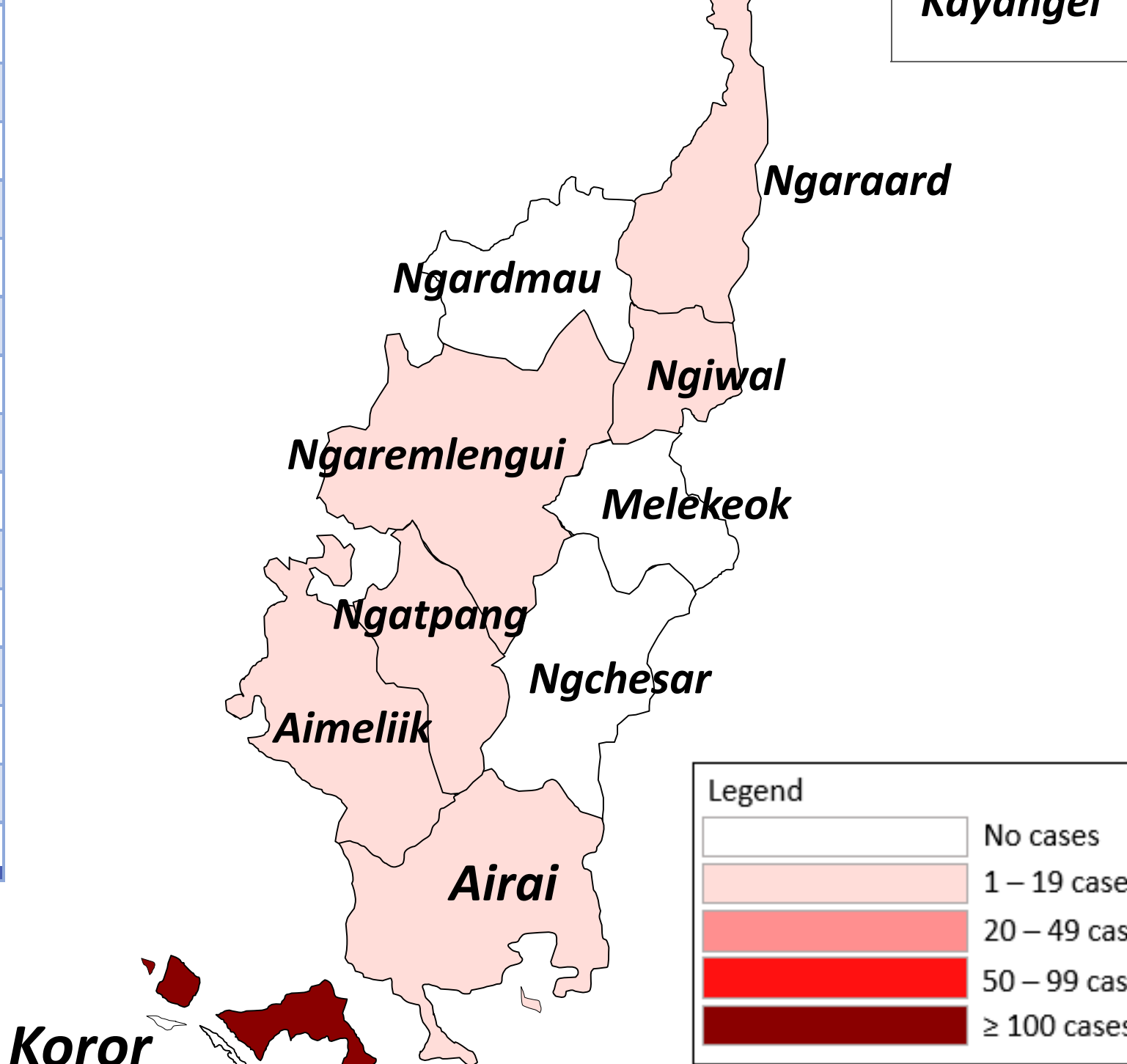
Symptom Profile of Cases



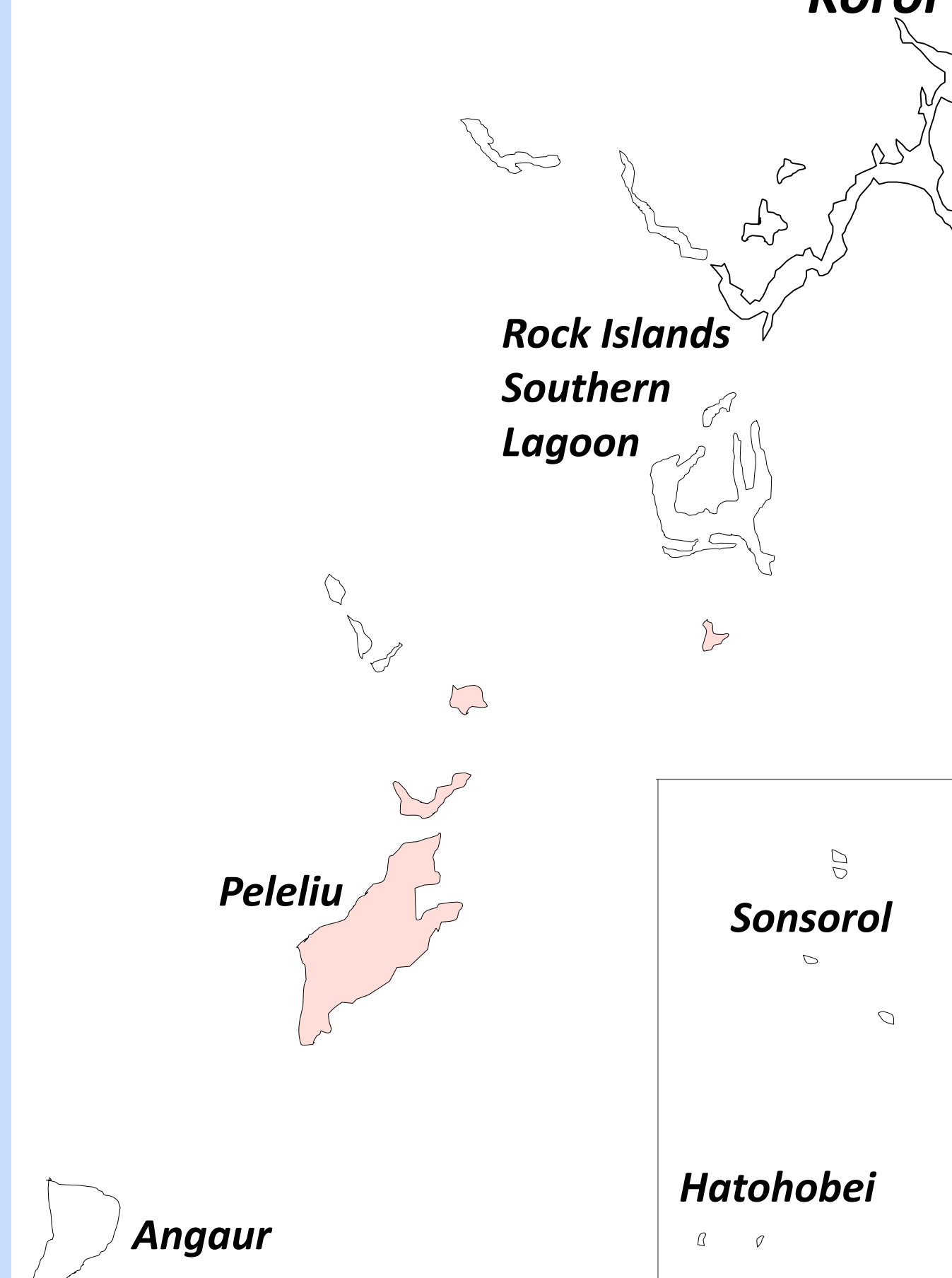
Case Summary State and Hamlet

State	2020				Oct - Dec 2019		Total since Dec 2018	
	Jan	Dec	Nov	Oct	#	%		
Koror	16	45	24	33	571	73%		
Airai	1	3	3	5	67	9%		
Aimeliik		2		1	33	4%		
Melekeok					21	3%		
Ngaremlengui			3		19	2%		
Ngatpang		1			13	2%		
Ngaraard	2	4		1	15	2%		
Ngiwal	1	1	3	1	12	2%		
Ngarchelong					8	1%		
Peleliu		1			6	1%		
Ngchesar					2	0%		
Ngardmau					2	0%		
Kayangel					1	0%		
Tourist		1	2	3	10	1%		
Pending			1		7	1%		
TOTAL	20	58	36	44	787			

Map of dengue cases by state between October 1, 2019 - January 12, 2020

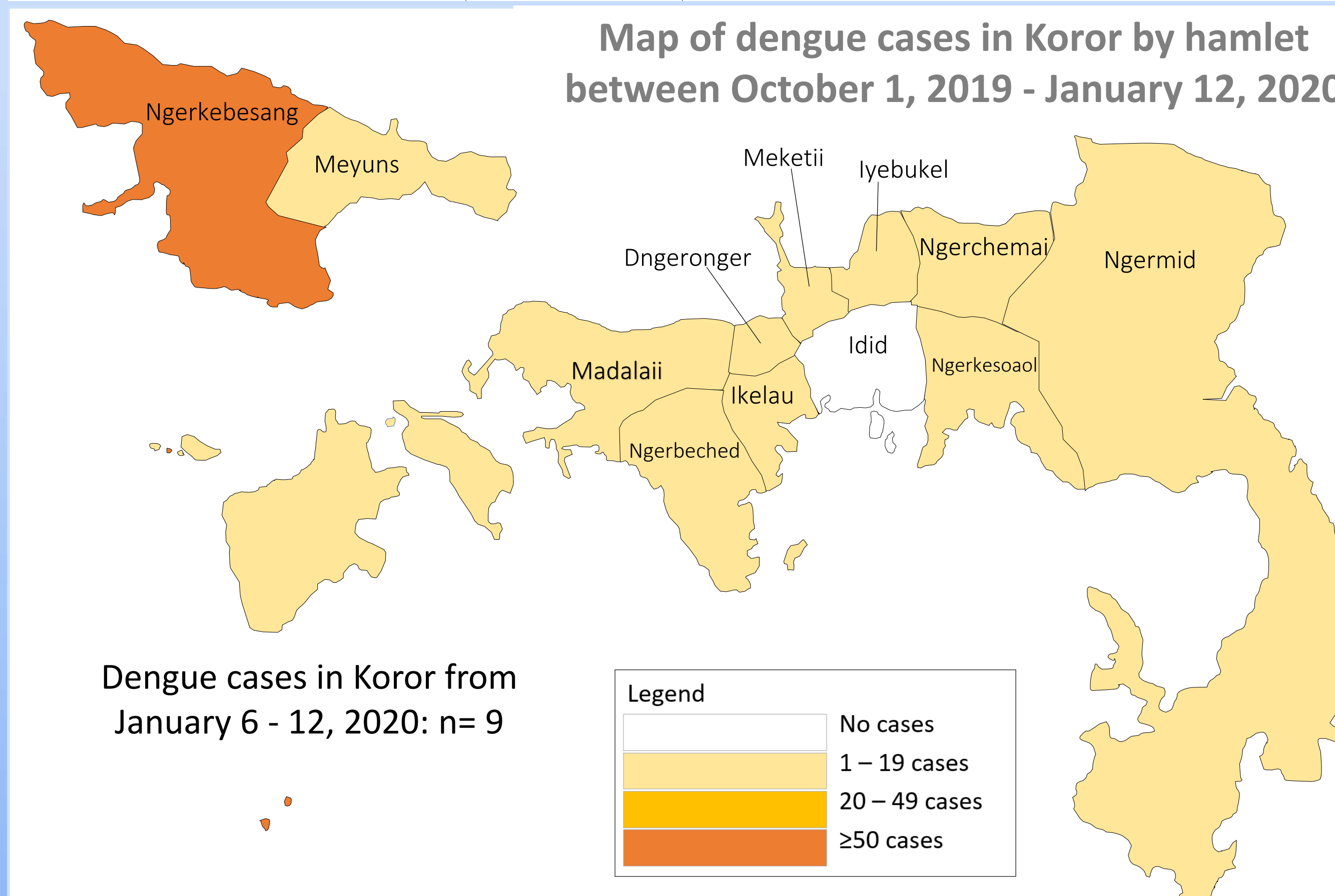


Dengue cases from January 6 - 12, 2020: n= 13



Hamlet	2020				Oct - Dec 2019		Total since Dec 2018	
	Jan	Dec	Nov	Oct	#	%		
Ngerchemai	3	4	6		104	18%		
Ngerkebesang	7	25	16	13	88	15%		
Ngermid	1	2		3	64	11%		
Ngerbeched	2	2	2	4	62	11%		
Madalaii	3			2	60	11%		
Ngerkesoal		2			44	8%		
Iyebukel	2	1			33	6%		
Idid					32	6%		
Meyuns	1	6		2	31	5%		
Meketii	2	1	1		25	4%		
Dngeronger		2			19	3%		
Ikelau				2	9	2%		
TOTAL	16	45	24	33	571			

Map of dengue cases in Koror by hamlet between October 1, 2019 - January 12, 2020

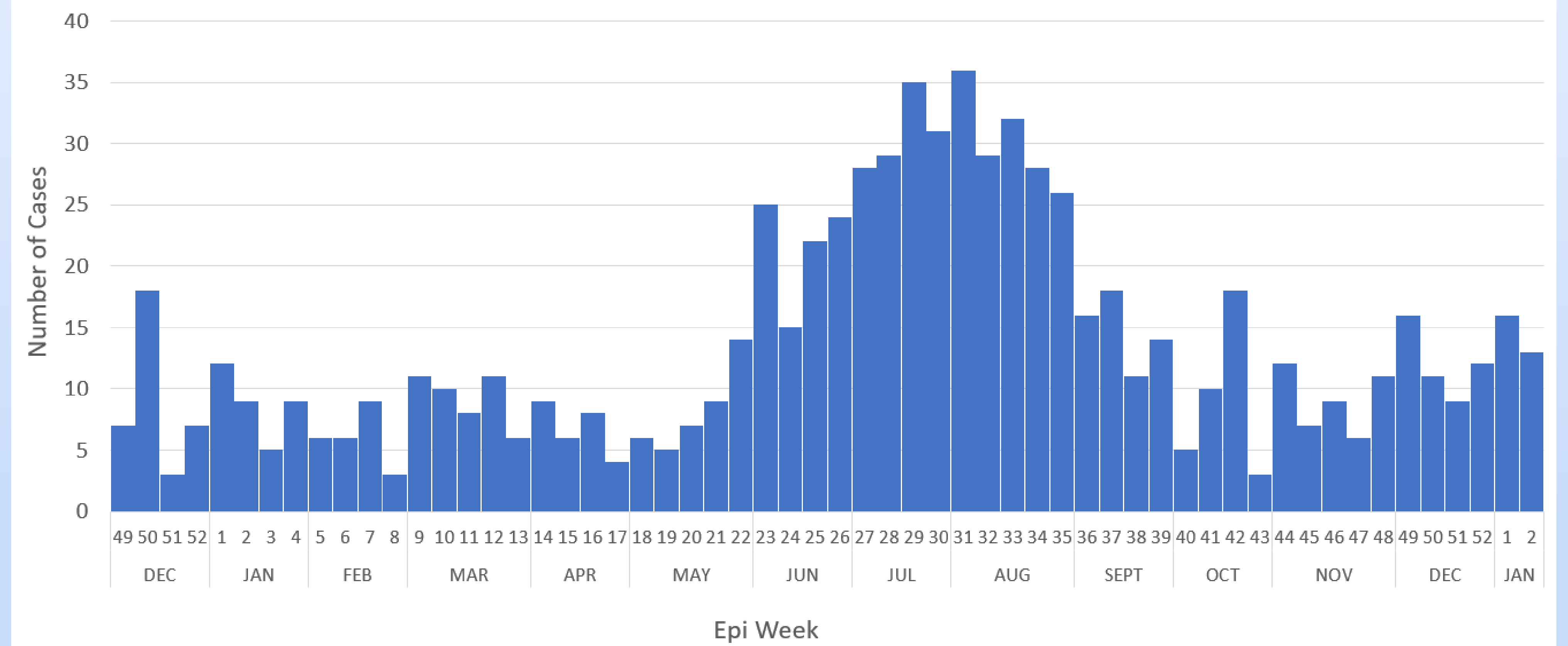


Dengue cases in Koror from January 6 - 12, 2020: n= 9

Epi Curve

Dengue Cases by Week of Diagnosis

December 3, 2018 - January 12, 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, SD 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

During the past week, there were a total of thirteen (13) reported cases of dengue. The majority of cases were Koror residents (9 cases) from the following hamlets: Ngerkebesang (2), Ngerbeched (2), Madalaii (2), Ngermid (1), Meyuns (1) and Meketii (1). Four (4) other cases are from Ngaraard (2), Airai (1) and Ngiwal (2) states.

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 that is suited for school-age children who continue to comprise the largest proportion of dengue cases. During the past week, Bureau of Public Health staff conducted a school outreach to Meyuns Elementary School. Students learned a short contemporary Palauan song and dance that reinforces the 3S message.

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 3S 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 3 will be released on Tuesday, January 21, 2020.