

Dengue 3 Outbreak, Palau, December 2018 – August 2019

Epi Week 33: August 12 - 18, 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 environmental control measures, and ensuring adequate resources are available to combat the outbreak.

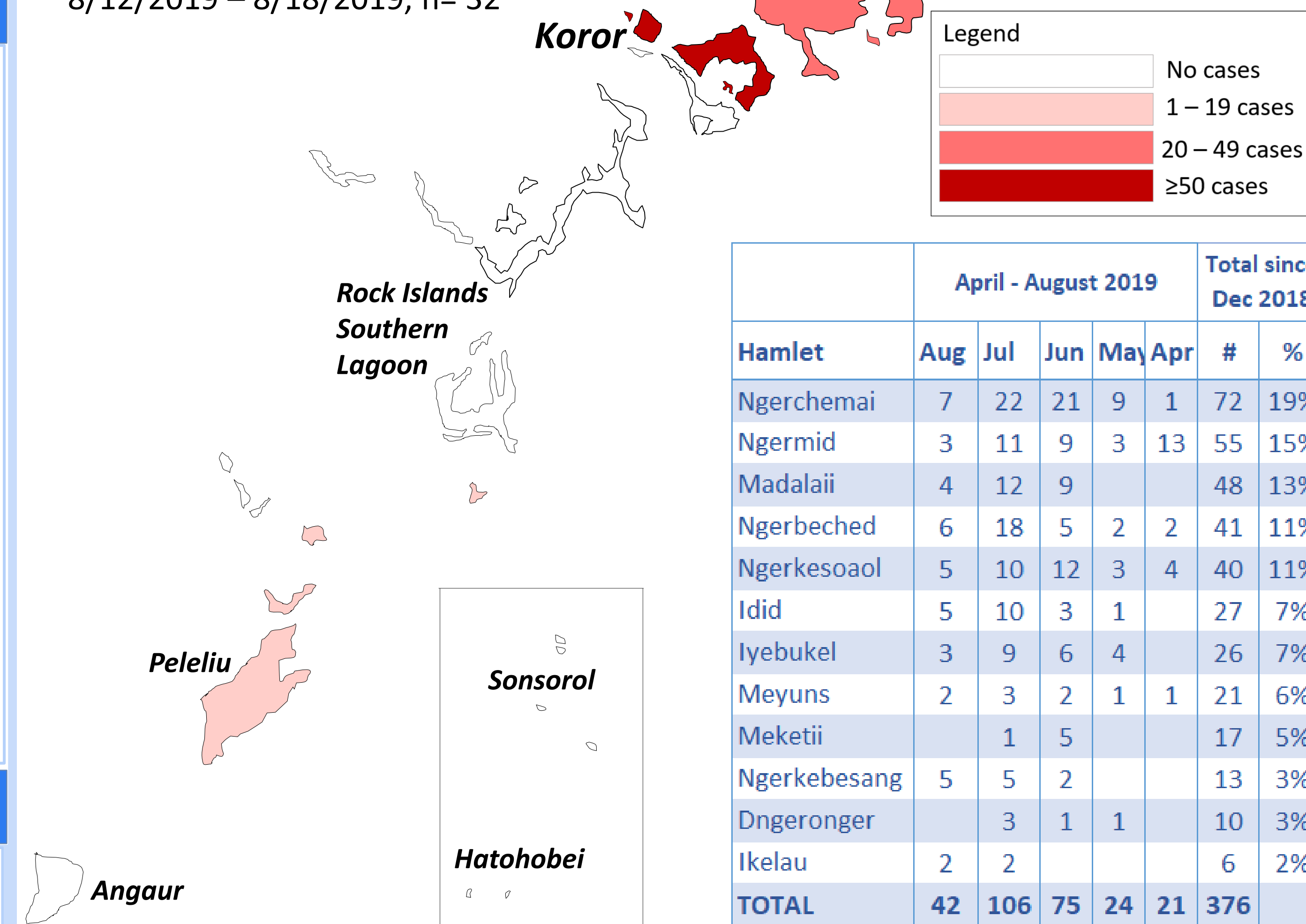
Between August 12-18, 2019, there were 32 new cases and. This brings the total from December 1, 2018 to August 11, 2019 to 516 cases.

There has been one death attributed to dengue infection during this outbreak.

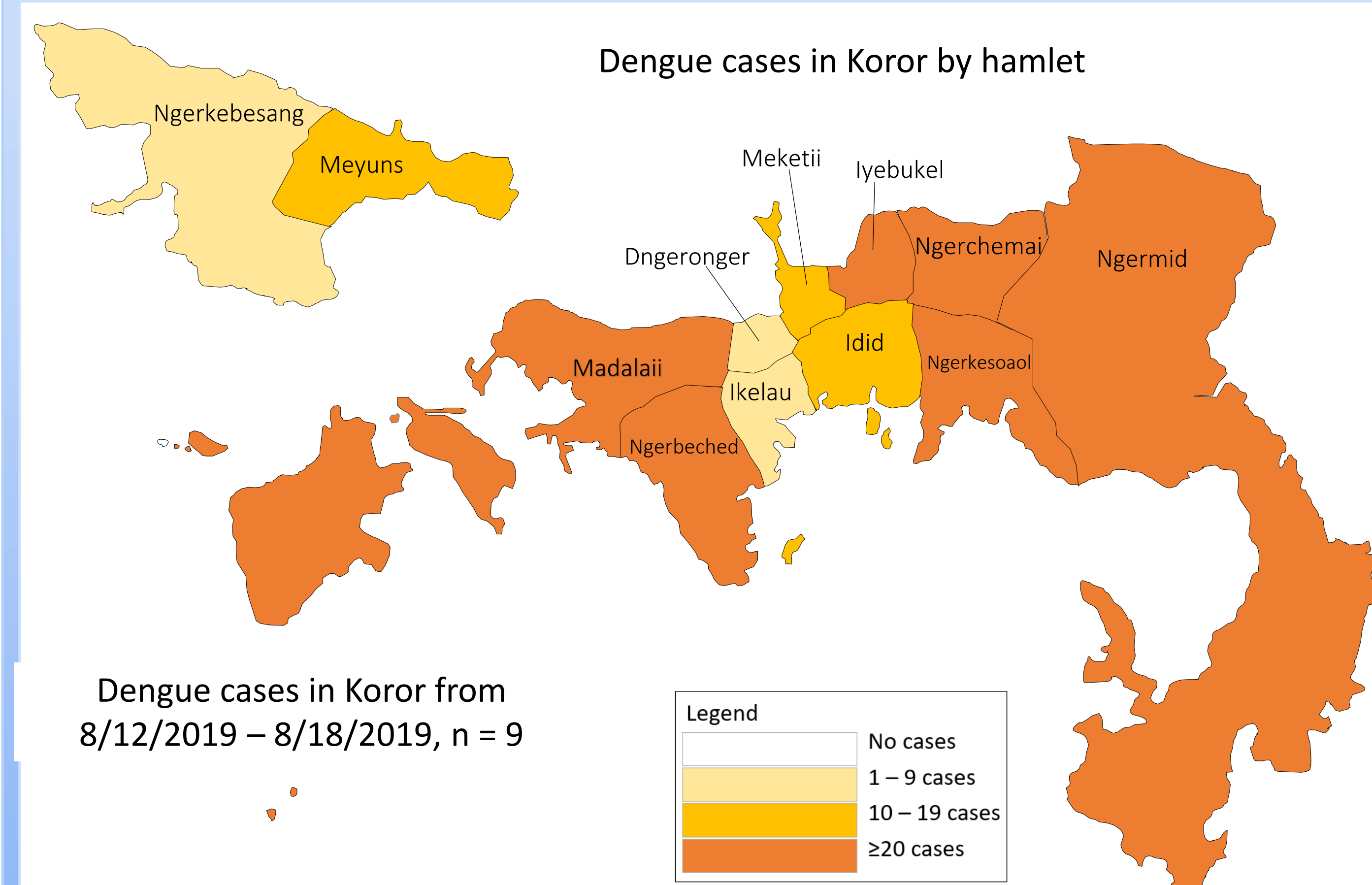
Cases by State and Koror Hamlets

State	April - August 2019					Total since Dec 2018	
	Aug	Jul	Jun	May	Apr	#	%
Koror	42	106	75	24	21	376	73%
Airai	7	8	4	6	1	41	8%
Aimeliik	1	4	9	5	3	28	5%
Melekeok	6	3	1	1		13	3%
Ngatpang	6	4				12	2%
Ngaremlengui	1	4		1	1	8	2%
Peleliu	1		1	1	2	5	1%
Ngarchelong						5	1%
Ngaraard	3	1				5	1%
Ngchesar						2	0%
Ngardmau			1			1	0%
Kayangel	1					1	0%
Tourist	1					1	0%
Pending	11	7				18	3%
Total	79	141	89	38	28	516	

Dengue cases from: 8/12/2019 – 8/18/2019, n= 32



Hamlet	April - August 2019					Total since Dec 2018	
	Aug	Jul	Jun	May	Apr	#	%
Ngerchemai	7	22	21	9	1	72	19%
Ngermid	3	11	9	3	13	55	15%
Madalaii	4	12	9	2	2	48	13%
Ngerbeched	6	18	5	2	2	41	11%
Ngerkesoal	5	10	12	3	4	40	11%
Idid	5	10	3	1		27	7%
Iyebukel	3	9	6	4		26	7%
Meyuns	2	3	2	1	1	21	6%
Meketii	1	5				17	5%
Ngerkebesang	5	5	2			13	3%
Dngeronger		3	1	1		10	3%
Ikellau	2	2				6	2%
TOTAL	42	106	75	24	21	376	

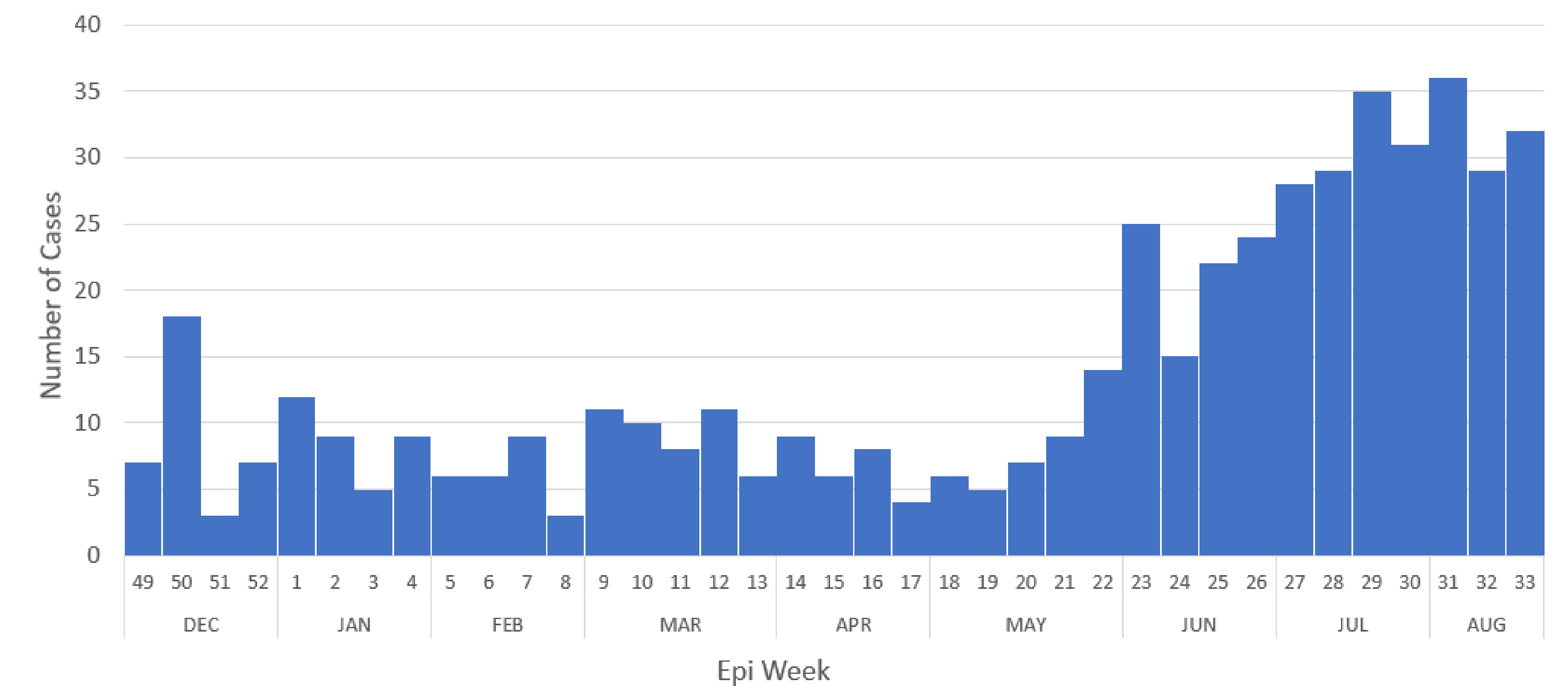


Dengue cases in Koror from 8/12/2019 – 8/18/2019, n = 9

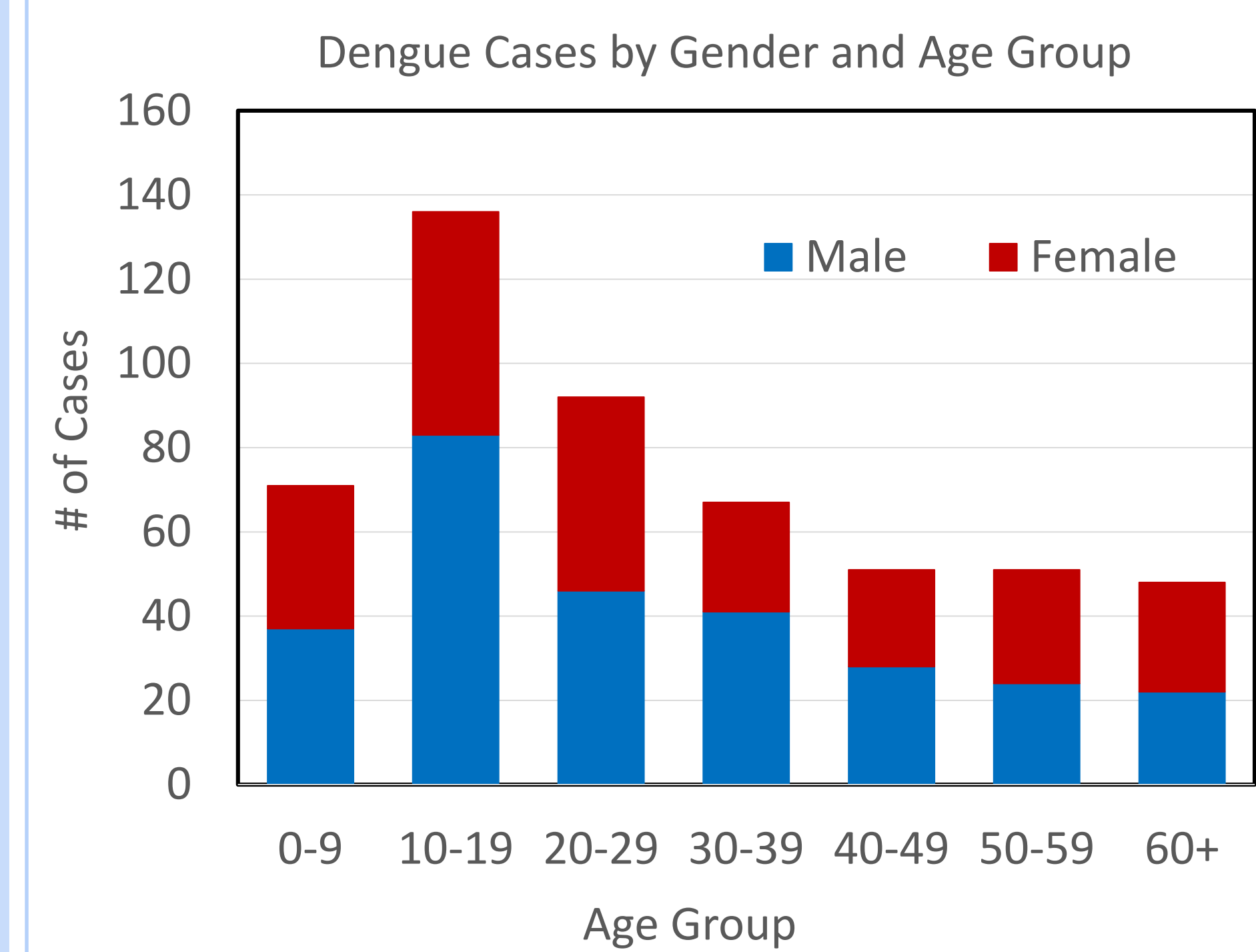
Epi Curve

Dengue Cases by Week of Diagnosis

December 3, 2018 - August 18, 2019



Demographics



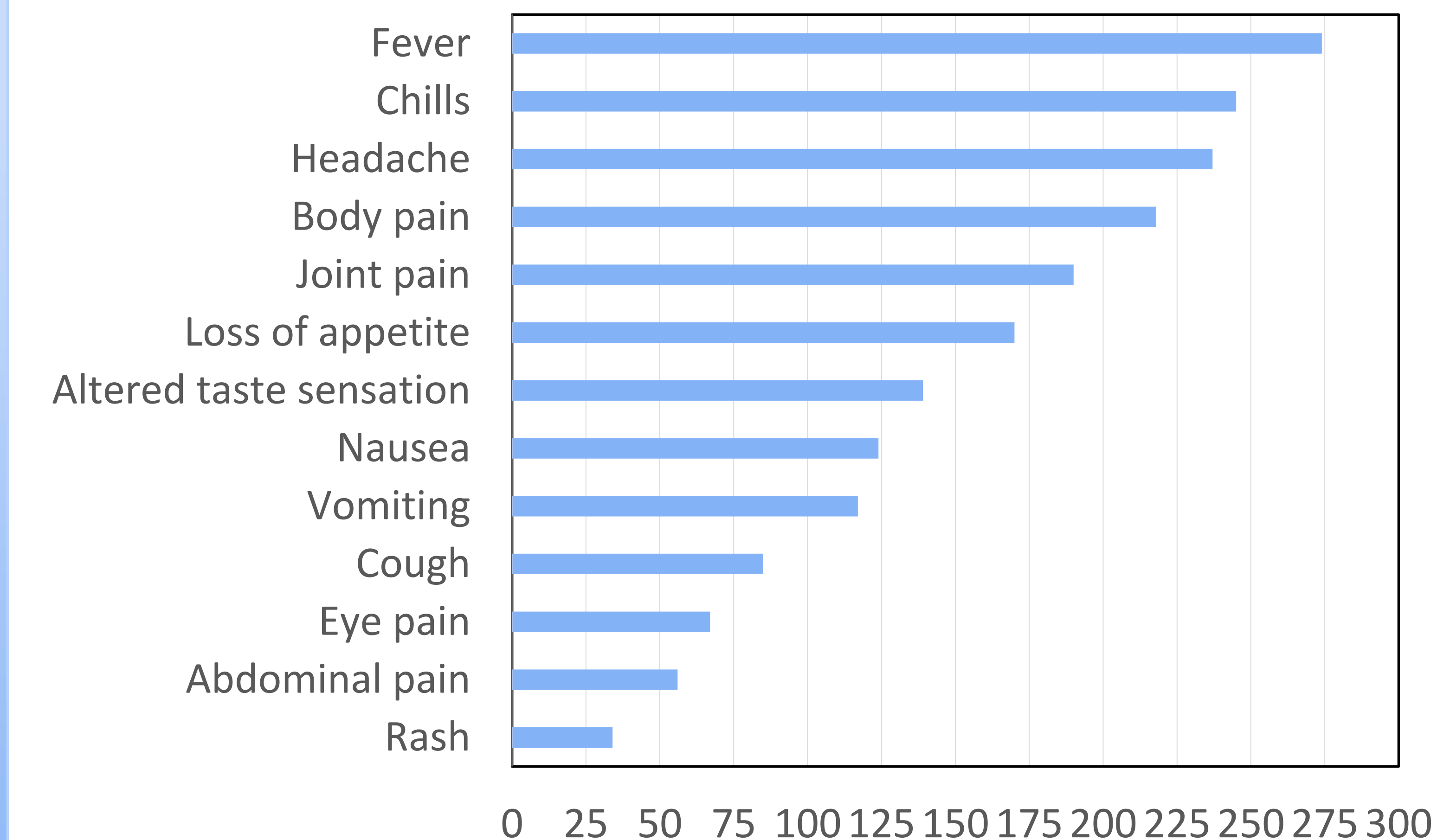
Age range = 0 – 88 years
Mean age = 29 years
Median age = 25 years

The majority of cases during this outbreak have been Palauan.

Ethnicity	Count	%
Palauan	439	85%
Bangladeshi	28	5%
Filipino	20	4%
Chinese	11	2%
Other	18	3%
TOTAL	516	

Symptom Profile of Cases

of Cases with Each Symptom (Cases with available data = 323)



Lab Testing

- The Belau National Hospital (BNH) Laboratory, four major community health centers throughout the island, and laboratories from three private clinics 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.
- The BNH Lab continues to send a sample of serum specimens to the Hawaii State Laboratory (HSL) for confirmation and serotyping for monitoring.
- There have been 160 serotyped cases of DENV-3. The last recorded cases of DENV-2 in Palau were from November of 2018.

Response Measures

The number of reported dengue cases nearly quadrupled from May to July 2019. The areas that were most affected include the most populated state of Koror and nearby states (Airai and Aimeliik), however there have been cases reported from 12 out of 16 states in Palau. One tourist was reported as having been infected with dengue while on holiday.

The Ministry of Health Dengue Response Team is focusing its efforts on increasing community participation in clean-up activities through partnership with state governments and other community organizations. The Koror State Government in collaboration with the Ministry of Health will hold dengue prevention town hall meetings and organize community clean-ups for all Koror state hamlets during the month of August.

The Team continues to provide updates on the dengue outbreak to the community through a weekly radio spot at the national radio station, dissemination of print material about dengue prevention to the community and development of dengue prevention materials aimed at young residents.

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'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 for epi week 34 will be released on Tuesday, August 27, 2019.