



Zika Virus & Dengue Fever

Kosrae State, Federated States of Micronesia

Report date: Feb 07, 2017
Situation Report #23 (2016 Week 6-52, 2017 Week 1-5)
Kosrae EpiNet Team



Zika and Dengue Outbreak Overview

On March 15, 2016 Kosrae State was notified of its first confirmed case of Zika. Kosrae subsequently implemented routine Zika/Dengue/Chikungunya testing of all pregnant women. On October 21st, routine testing of pregnant women identified a concurrent Dengue Fever outbreak in Kosrae. Medical records reviews and active surveillance have identified 284 Zika Virus and Dengue Fever symptomatic cases of Zika Virus disease in Kosrae since January 2016. Overall 23 Confirmed Zika Cases and 12 Confirmed Dengue Cases have been identified since beginning of 2016.

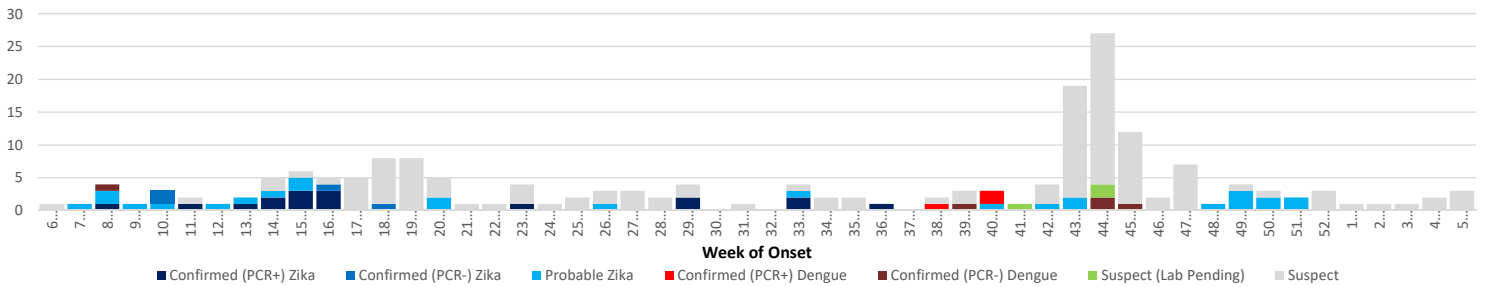
Case Definitions

Suspect Zika: Rash AND/OR Fever AND any: retro-orbital pain, arthritis, non-purulent conjunctivitis, red eyes, body aches, edema, headache or malaise

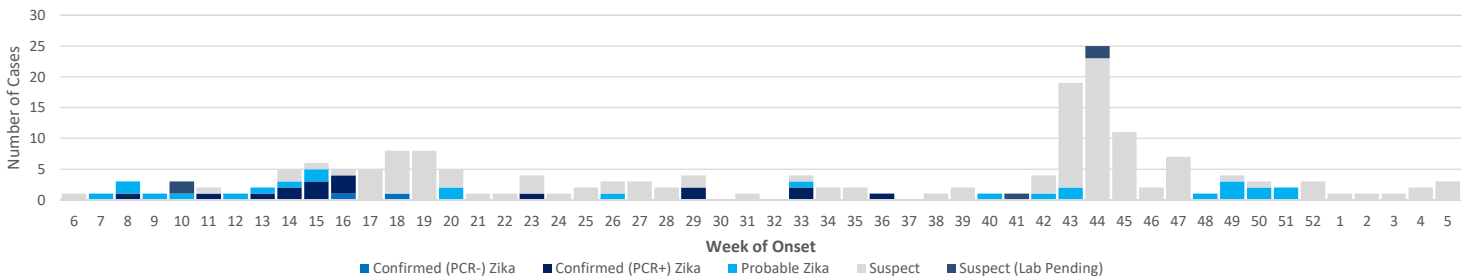
Suspect Dengue: Fever and two (2) of the following: anorexia and nausea, rash, aches and pains, warning signs, or Leukopenia (WBC<4000/mL). Warning signs: abdominal pain, vomiting, mucosal bleed/petechiae, lethargy, clinical fluid accumulation, enlarged liver

2016 and 2017 Symptomatic Zika and Dengue Cases by Week of Onset (n = 284)

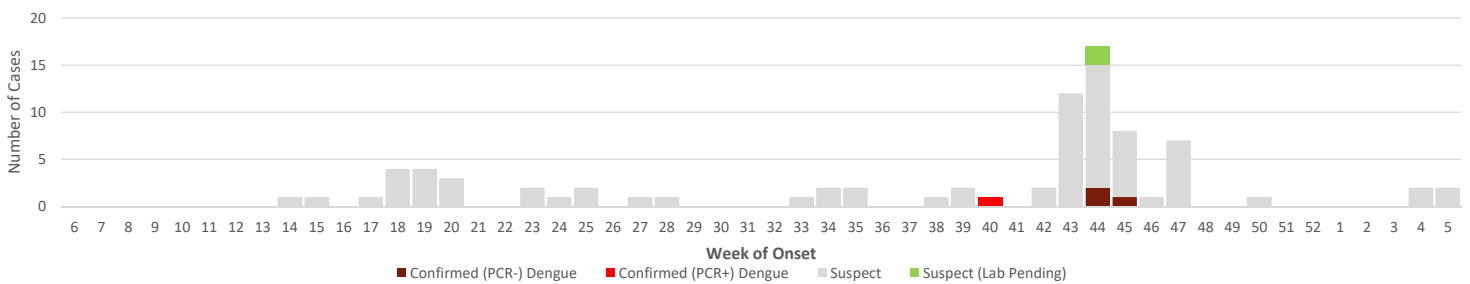
Epi Curve for Symptomatic Cases



Epi Curve for Zika Cases



Epi Curve for Dengue Cases



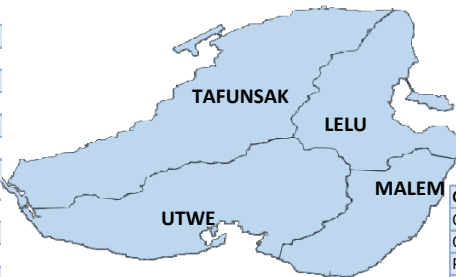
Zika/Dengue Cases by Municipality

Cases in Tafunsak: **104**

Confirmed (PCR+) Zika	11
Confirmed (PCR-) Zika	1
Probable Zika	9
Confirmed (PCR+) Dengue	1
Confirmed (PCR-) Dengue	2
Attack Rate	47.86

Cases in Utwe: **34**

Confirmed (PCR+) Zika	1
Confirmed (PCR-) Zika	0
Probable Zika	8
Confirmed (PCR+) Dengue	1
Confirmed (PCR-) Dengue	0
Attack Rate	34.59



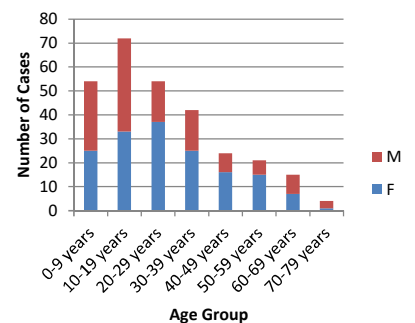
Cases in Lelu: **96**

Confirmed (PCR+) Zika	3
Confirmed (PCR-) Zika	1
Probable Zika	6
Confirmed (PCR+) Dengue	1
Confirmed (PCR-) Dengue	1
Attack Rate	44.44

Cases in Malem: **50**

Confirmed (PCR+) Zika	2
Confirmed (PCR-) Zika	0
Probable Zika	4
Confirmed (PCR+) Dengue	0
Confirmed (PCR-) Dengue	2
Attack Rate	38.46

All Symptomatic Cases by Age and Sex



Zika Virus Testing		
Symptomatic	Case Count	Latest Onset Date
Confirmed (PCR+) Zika	17	9/6/2016
Confirmed (PCR-) Zika*	2	5/3/2016
Probable Zika***	27	12/19/2016
Asymptomatic	Case Count	Latest Date of Visit (asym)
Confirmed (PCR+) Zika	4	9/20/2016
Confirmed (PCR-) Zika*	0	
Probable Zika***	4	1/5/2017
Testing pending	10	1/17/2017
Testing negative	33	1/10/2017
Testing status unk	9	1/24/2017
Dengue Virus Testing		
Symptomatic	Case Count	Latest Onset Date
Confirmed (PCR+) Dengue	3	10/5/2016
Confirmed (PCR-) Dengue**	5	11/9/2016
Asymptomatic	Case Count	Latest Date of Visit (asym)
Confirmed (PCR+) Dengue	3	10/4/2016
Confirmed (PCR-) Dengue**	1	9/27/2016
Suspect Cases (Zika or Dengue)		
Symptomatic (untested/specimen status unk)	Case Count	Latest Onset Date
Symptomatic (untested/specimen status unk)	131	1/31/2017
Symptomatic (tests pending)	5	10/31/2016
Symptomatic Negative	94	1/20/2017

*Positive ZIKV IgM with positive PRNT against ZIKV and negative PRNT against dengue virus

**Positive PRNT against Dengue with negative PRNT against ZIKV or Positive Dengue NS1

***Positive ZIKV IgM with positive PRNT against ZIKV and dengue virus OR positive ZIKV IgM with negative dengue virus IgM and no PRNT performed yet

Response Measures (Week 5)

- All communities on the island were sprayed within the last 3 weeks. Now, the vector control team will shift back to just spraying areas with evidence of recent transmission.