American Samoa UHC Zika & Dengue Situation Report  
(April 2 - 20, 2018)

Activity Updates and Resource Needs

Epidemiology

Activities & General Updates

- Am. Samoa have not seen any ZIKV PCR positive cases since June 2016. After a period of 2 months without any positive PCR cases, we conducted enhanced surveillance from September to December 2016, and the end of the Zika outbreak was declared in February 2017. Am. Samoa continued its ZIKV surveillance by sending serum samples from 40 symptomatic patients weekly to Hawaii State Lab for Trioplex rt-RT PCR testing. Through this surveillance, a patient from the Solomon Islands traveling for work in November 2016, was confirmed to be infected with Dengue virus serotype 2. Unfortunately, this information came one week after this patient departed Am. Samoa on a fishing boat and proper investigation was not performed. Thereafter, from December 2016, more patients started to present at the LBJ Tropical Medical Center with symptoms consistent with an arbovirus infection. These patients tested positive NS1 antigen for Dengue virus via Rapid Dengue Test, and later confirmed PCR positive via Hawaii State Lab Trioplex testing. By March 2017, number of NS1 and PCR positive cases exceeded the threshold and an outbreak was declared in Am. Samoa. Weekly updates for the outbreak is provided at the Unified Health Command that was activated for the Zika outbreak. Am. Samoa continues to operate the Unified Health Command in response to the Dengue outbreak.

The outbreak started from the Sua Count and slowly made its way westward on the island of Tutuila (refer to map below). Currently, all counties of Tutuila island have had a laboratory confirmed Dengue case. There are no confirmed Dengue cases in the Manua District as surveillance is not conducted there because of its remote location.

At this point, we continue to see a decline in the ratio of samples tested PCR positive for Dengue versus number of samples sent for testing. (See Epi Curves below)

- Am. Samoa continuing with weekly Unified Health Command meeting to update key leaders and inter departmental/agency partners.
- Dengue awareness campaign still on going. PSA on all radio stations, discussing Dengue outbreak and vector control strategies, messages on electronic billboards.
- Outbreak has been going on for 1 year (March 2017 – Present), Hawaii State Lab was asked to conduct serotyping on randomly selected serum samples from November 2017 – February 2018, only Dengue 2 was detected.
- Surveillance personnel assisting FEMA field work in response to Tropical Storm Gita, causing a delay in updating Cumulative Shipped Line list weekly.
- Epidemiologist and ELC Program Director returned from ELC Programs meetings in Atlanta.

Next Steps

- Submit a request to CDC to have the Career Epidemiology Field Officer: USAPI, work in Am. Samoa for a 4-week period to assist with re-establishing syndromic and notifiable disease surveillance
- Re-establish relations with LBJ regarding infectious disease control.

Resource Needs/Requests of PHEP

- Assist with request letter to CDCs Field Services Branch, Division of State and Local Readiness.

Laboratory Testing

Activities & General Updates

- 114 Serum samples from symptomatic patients sent to Hawaii State Lab (HSL) for testing. (Selection criteria: Any two symptoms of fever, rash, arthralgia, myalgia, headache, conjunctivitis)
  - April 2, 2018: 40 samples
  - April 9, 2018: 34 samples
  - April 16, 2018: 40 samples
- April 4 – 18: Hawaii State Lab released results for 113 samples tested via Triplex PCR Assay (43 PCR Positive for Dengue 2 infection, 69 Negatives for ZIKV, DENV, CHKV infection, 1 sample not tested)
- April 10 – 13: Hawaii State Lab released results for 32 samples tested via DENV MAC-ELISA (7 IgM positive, 21 negative, 4 equivocal)
**From November 1, 2016 to April 20, 2018:**
- 763 Dengue PCR positives (HSL)
- 24 Dengue PRNT positives (CDC Lab, Ft. Collins)
- 53 Rapid Dengue Test kits: positive NS1 antigen (LBJ Lab)
- **Total: 840 Laboratory Confirmed cases document in the Cumulative Shipped List**

**Next Steps**
- N/A

**Resource Needs/Requests of PHEP**
- N/A

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**Clinical Support**

**Activities & General Updates**
- Public encouraged to utilize community health centers to ease the burden on LBJ Tropical Medical Center. LBJ has seen an increase in the number of patients coming in for Fever, Headaches, Body aches.

**Next Steps**
- N/A

**Resource Needs/Requests of PHEP**
- N/A

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**Health Communications**

**Activities & General Updates**
- Radio PSA reviewed and passed for broadcast at KSBS in English and Samoan. Add will run twice a day for three weeks.
- PHEP continues to broadcast ads on the electronic billboard.

**Next Steps**
- N/A

**Resource Needs/Requests of PHEP**
- N/A

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**Vector Control**

**Activities & General Updates**
- Residual indoor spraying in Manu'a completed. Vector control and Epi to discuss further plans for spraying.
- PSA and awareness messages broadcasted to the Public on source reduction and protection from mosquitoes.

**Next Steps**
- N/A

**Resource Needs/Requests of PHEP**
- N/A

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**Management/General Logistics**

**Activities & General Updates**
- All response activities are managed by the Public Health Emergency Preparedness Division of the Department of Health.
- Weekly Updates are provided by the local Epidemiologist

**Next Steps**
- N/A

**Resource Needs/Requests of PHEP**
- N/A
1. **Epidemic Curve**

Counts of Laboratory Confirmed Symptomatic Dengue patients per week from by week of symptom onset, November 2016 - April 2018, Am. Samoa Dengue Outbreak Response, April 20, 2018

Total Laboratory Confirmed cases: 840