

Date of report: **07/30/2014 (Wednesday)** for cases presenting on: **07/29/2014 (Tuesday)**

### Summary

#### Key findings

- Ten (90.9%) sites reported on Tuesday, July 29. One sentinel site did not have the surveillance form completed for Tuesday, July 29 due to closure.
- Of the 10 reporting sentinel sites, 3 (30.0%) reported syndrome cases.
- 20 (8.9%) of the total 225 encounters were reported as syndrome cases.
- 5 (62.5.0%) of the 8 syndromes were reported.
- 4 (50.0%) of the 8 syndromes reached their threshold:
  - 4 cases of acute fever and rash (median age: 16y; range 6months-37y). Two (50.0%) cases were males. All are residents of Pohnpei State.
  - 8 cases of watery diarrhea (median age: 16y; range 6months-44 y). Four (50.0%) cases are males. All are residents of Pohnpei State.
  - 8 cases of ILI (median age: 3y; range 1y-57y). Five (62.5%) cases are females. All are residents of Pohnpei State.
  - 1 case of fever and jaundice; 37y who was a resident of Pohnpei State.
- No additional unusual occurrence reported from the sentinel sites.

#### Conclusion and recommendations

- Acute fever and rash, watery diarrhea, ILI and fever and jaundice syndromes have reached their daily threshold. Case investigation, including specimen collection and testing, has resumed today, Wednesday, July 30 and will continue.
- One case of acute fever and rash with jaundice and watery diarrhea was reported on Tuesday, July 29, got admitted at the Pohnpei State Hospital and later died today, Wednesday, July 30 with high suspicion of leptospirosis.

#### Current outbreaks or public health incidents of importance to the games that are occurring in the region and globally

- There are currently measles outbreaks in Kosrae and Pohnpei States, FSM. Please refer to PacNet posting on 25 July 2014 for an update of the outbreak in Pohnpei.
- Guam - a laboratory confirmed case of measles has been detected in a 10-month old child, who has been epidemiologically linked to visitors from Pohnpei, FSM. The case has no travel history.
- Nauru - dengue serotype-3 has been confirmed (RT-PCR) in 11 out of 26 samples sent to Institut Louis Malarde, French Polynesia. The dengue negative samples tested negative for zika virus and chikungunya. There were no new cases reported in Epi week 29.
- American Samoa – an outbreak of Chikungunya has been confirmed – so far more than 100 cases.

**Coverage:** 11 points of care are included in the enhanced syndromic surveillance system. For the date indicated above, 10 points of care submitted reports.

#### Overview analysis

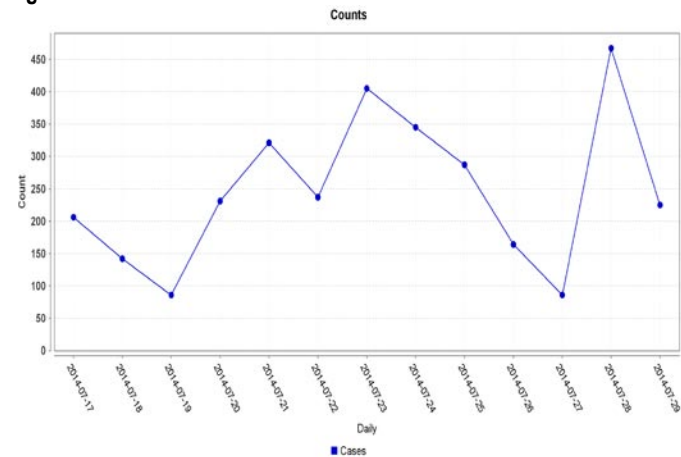
Number of cases observed for the date above										
Point of care	Number Encounter cases*	Number Syndrome cases#	Acute fever and rash	Watery diarrhea	Non-watery diarrhea	Influenza-like illness	Prolonged fever	Fever and jaundice	Heat related illness	Food-borne disease syndrome
Berysin CHC	7	0	0	0	0	0	0	0	0	0
COM Dispensary	5	0	0	0	0	0	0	0	0	0
Genesis Hospital	79	1	1	0	0	0	0	0	0	0
Lukop Dispensary	12	0	0	0	0	0	0	0	0	0
Medpharm HC	9	0	0	0	0	0	0	0	0	0
PICS High School	11	0	0	0	0	0	0	0	0	0
Pohnlangas Dispensary										
Pohnpei CHC	33	13	0	5	1	7	0	0	0	0
Pohnpei State Hospital	46	6	3	3	1	1	0	1	0	0
Sokehs Dispensary	2	0	0	0	0	0	0	0	0	0
Wone Dispensary	21	0	0	0	0	0	0	0	0	0
<b>TOTAL</b>	<b>225</b>	<b>20</b>	<b>4</b>	<b>8</b>	<b>2</b>	<b>8</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>
<b>DAILY STATE THRESHOLD</b>	<b>N/a</b>	<b>N/a</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>2</b>
<b>Legend/key:</b>	A cell shaded in red indicates an increase compared to the previous day's report		A cell shaded in green indicates a decrease compared to the previous day's report		A cell shaded in light grey indicates point of care closed		A cell shaded in white indicates no change compared to the previous day's report			
<b>Interpretation:</b>	Reports were collected from 10 sites. Three (30.0%) of the 10 sentinel sites reported syndromes. Acute fever and rash, watery diarrhea, ILI and fever and jaundice syndromes have reached their daily state-wide threshold. 3 cases reported more than one syndrome.									

\*Encounter cases represent all acute care cases visiting a clinic regardless of whether they have one or more of the eight syndromes e.g., a sprained ankle would be included in the 'encounter case' count

#Syndrome cases represent all acute care cases visiting a clinic who have one or more of the eight syndromes e.g., a sprained ankle would NOT be included in the 'syndrome case' count

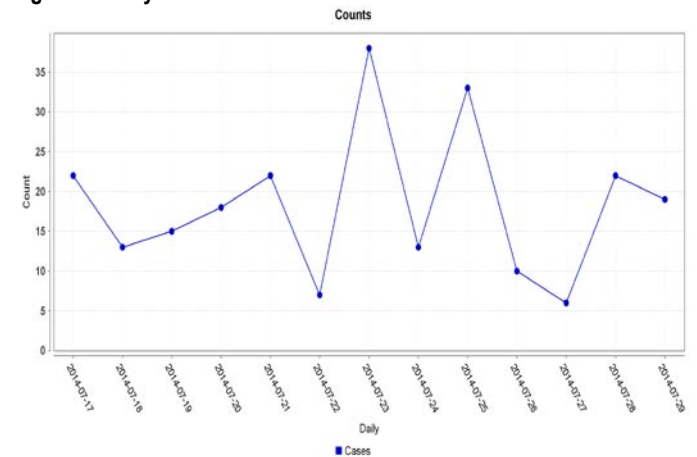
EpiCurves of the number of cases by visit date (Note: case numbers from Tuesday, July 29 could not be collected from 1 point of care due to closure).

Figure 1: All encounter cases



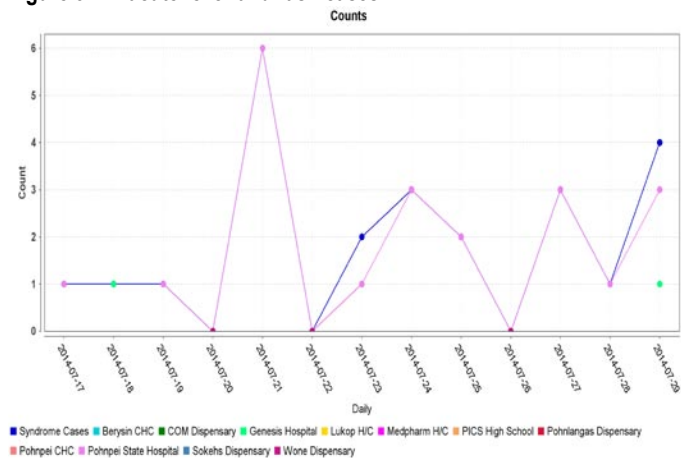
Interpretation: 10 of 11 sites reporting. A decrease from previous day.

Figure 2: All syndrome cases



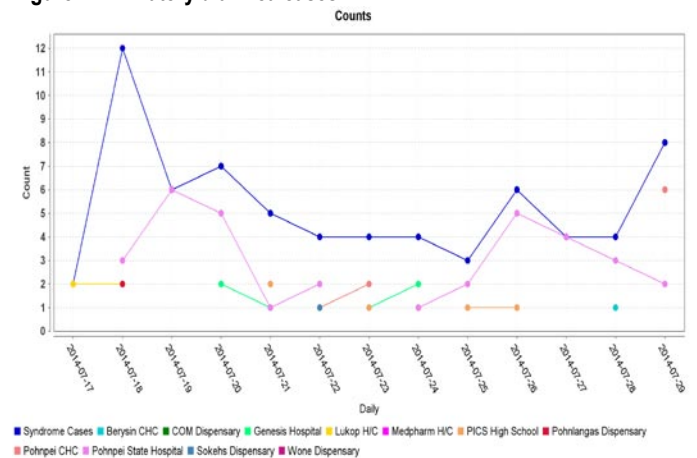
Interpretation: 10 of 11 sites reporting. A decrease from previous day..

Figure 3: All acute fever and rash cases



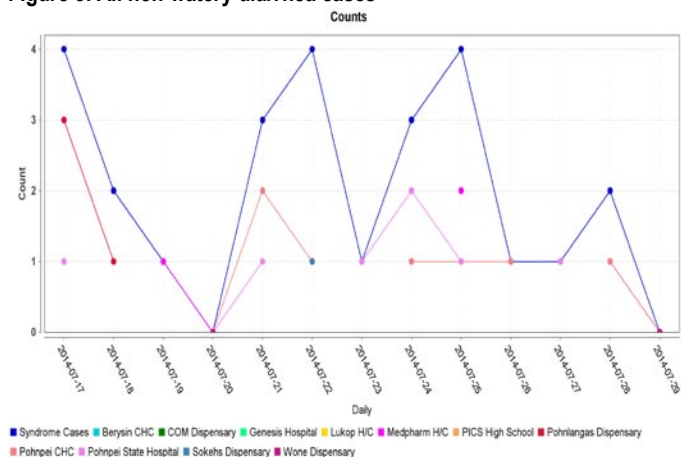
Interpretation: An increase from 1 to 4 cases since the previous day (3 cases reporting to Pohnpei State Hospital and 1 to Genesis Hospital). Cases are under investigation (see detailed analysis section).

Figure 4: All watery diarrhea cases



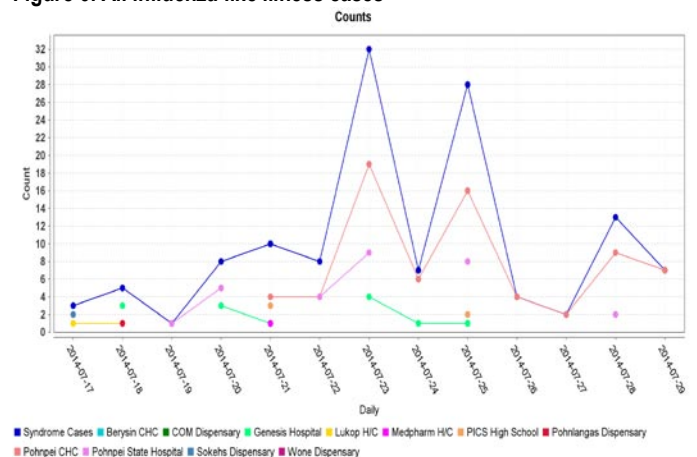
Interpretation: An overall increase of 4 cases from 4 to 8 (5 of these presented to Pohnpei CHC).

Figure 5: All non-watery diarrhea cases



Interpretation: A decrease from 2 to zero cases from previous day. Graph shows overall decline in the past 4 days from peak of 4 cases.

Figure 6: All influenza-like illness cases



Interpretation: A decrease from previous day (13 cases to 7 cases). All 7 cases reported to Pohnpei CHC.

<p><b>Figure 7: All prolonged fever cases</b></p> <p><b>Interpretation:</b> An increase from zero to 1 case, and has exceeded threshold for follow-up. Relevant to monitor for increases over the next few days.</p>	<p><b>Figure 8: All fever and jaundice cases</b></p> <p>[Zero cases since commencing Games]</p> <p><b>Interpretation:</b></p>
<p><b>Figure 9: All heat-related illness cases</b></p> <p>[Only one case (July 23) since commencing Games]</p> <p><b>Interpretation:</b></p>	<p><b>Figure 10: All food-borne disease outbreak cases</b></p> <p>[Zero cases since commencing Games]</p> <p><b>Interpretation:</b></p>

**Detailed analysis for ongoing investigations -** for any syndrome where the set state daily threshold is reached (or was reached in previous days) and, following confirmation of cases, it was decided to undertake an investigation

<b>Syndrome</b>	Acute fever and rash
<b>Point of care (number of cases since July 22)</b>	Pohnpei State Hospital (8 cases) and Pohnlangas Dispensary (1 case), Genesis Hospital (1 case)
<b>Dates of investigation</b>	July 23 – ongoing
<b>Description of investigation undertaken</b>	All 4 cases of acute fever and rash reported from the Pohnpei State Hospital and Genesis Hospital are being further investigated by the public health team assigned to investigate measles and arbo-viral infections. Throat swabs and serums are being collected for further testing for measles at the Hawaii Public Health Laboratory. Lab has also been advised to consider arboviral testing for AFR cases to exclude dengue fever, chikungunya and zika virus infections..
<b>Findings of investigation:</b>	
• Number of cases (since July 22)	10 (4 cases on July 29)
• Diagnostic methods, number of samples collected, number of samples tested, laboratory involved	Throat swabs and blood specimens are being collected from cases for measles and sent to the Hawaii Public Health Laboratory for testing.
• Prevailing epidemiological pattern: endemic or epidemic, recent epidemiological history	There are currently measles outbreaks in Kosrae and Pohnpei States, FSM. Please refer to PacNet posting on 25 July 2014 for an update of the outbreak in Pohnpei state. There are also outbreaks of dengue, zika, and chikungunya in the region.
• Time/Place/Person/clinical features	4 cases of acute fever and rash (median age: 18y; range 6months-37y). 2 (50.0%) cases were males. All are residents of Pohnpei State.
<b>Measures taken or considered:</b>	
• Public health measures (e.g. immunisation strategy, patient and contact management, vector control, water and food safety)	Please refer to PacNet posting on 25 July 2014 for an update of the Pohnpei situation. Due to the recent heavy rains, vector control activities will be enhanced (at the accommodation and games sites in particular).

<b>Syndrome</b>	Watery diarrhea
<b>Point of care (number of cases since July 17)</b>	Pohnpei State Hospital (32 cases), Genesis Hospital (8 cases), Pohnpei CHC (11 cases), PICS high school (5 cases), Lukop dispensary (2 cases), COM dispensary (1 case), Pohnlangas Dispensary (1 case), Berysin CHC (1case)
<b>Dates of investigation</b>	July 18 – ongoing
<b>Description of investigation undertaken</b>	All 8 cases of watery diarrhea that have been reported from Pohnpei CHC and Pohnpei State Hospital are currently being investigated by the public health

	<p>response team using the case investigation form adapted for investigating watery and non-watery diarrhea.</p> <p>At the Pohnpei State Hospital laboratory, an algorithm for testing stool specimens is operational. All stool specimens in the Pohnpei State Hospital laboratory are being tested to rule out possible enteropathogens such as <i>Vibrio cholerae</i>, <i>Salmonella typhimurium</i>, and <i>Shigella dysenteriae</i>. Also, tests for <i>Giardia lamblia</i> and <i>Entamoeba histolytica</i> are performed. Furthermore, rapid testing for rotavirus, adenovirus, and norovirus is ongoing and results should be available by early next week.</p>
<b>Findings of investigation:</b>	
<ul style="list-style-type: none"> <li>Number of cases (since July 17)</li> </ul>	61 (8 cases on July 29)
<ul style="list-style-type: none"> <li>Diagnostic methods, number of samples collected, number of samples tested, laboratory involved</li> </ul>	Stool samples taken on 28/7/14 showed <i>E.histolytica</i> cyst and trophozoites on microscopy. Stool samples taken on 29/7/14 showed <i>A.lumbricoides</i> ova, <i>E.histolytica</i> cyst and trophozoite. All stool samples tested since July 18 have reported negative for rotavirus, adenovirus and norovirus.
<ul style="list-style-type: none"> <li>Time/Place/Person/clinical features</li> </ul>	8 cases of watery diarrhea (median age: 16y; range 6months–44 y). Four (50.0%) cases are males. All are residents of Pohnpei State.
<b>Measures taken or considered:</b>	
<ul style="list-style-type: none"> <li>Public health measures (e.g. immunisation strategy, patient and contact management, vector control, water and food safety)</li> </ul>	A public health advisory on diarrhea was created and translated into the local language for dissemination through radio. In addition, awareness on good hygiene techniques, including hand washing, is ongoing through posters and flyers. An incident command system (ICS) is set-up to plan, prepare, and respond to any incidents. The incident command, section and unit chiefs meet daily to discuss progress and address any issues. The Pohnpei EPA is continuing daily environmental assessment, spot inspections, and is working closely with the Public Health Surveillance and Response Committee and the Organising Committee for any remedial action.

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<b>Syndrome</b>	Influenza like illness
<b>Point of care (number of cases since July 17)</b>	Pohnpei CHC (67 cases), Pohnpei State Hospital (30 cases), Genesis Hospital (15 cases), Pohnlangas dispensary (2 cases), Sokehs dispensary (2 cases), PICS High School (2 cases), Lukop dispensary (1 case), Medpharm HC (1 case), Berysin CHC (1 case)
<b>Dates of investigation</b>	July 24 – ongoing
<b>Description of investigation undertaken</b>	A line list of new cases of ILI is being collected from case investigation and will be presented in future reports. Further specimen collection is put on hold until pending results of specimens taken so far become available.
<b>Findings of investigation:</b>	
<ul style="list-style-type: none"> <li>Number of cases (since July 17)</li> </ul>	121 (8 cases on July 29)
<ul style="list-style-type: none"> <li>Diagnostic methods, number of samples of collected, number of samples collected and tested, laboratory involved</li> </ul>	6 nasopharyngeal swabs have been collected and these have been shipped to the Hawaii Public Health Laboratory for PCR testing. Rapid testing will be made available from the Pohnpei CHC laboratory.
<ul style="list-style-type: none"> <li>Time/Place/Person/clinical features</li> </ul>	8 cases of ILI (median age: 3y; range 1y–57y). Five (62.5%) cases are females. All are residents of Pohnpei State.
<b>Measures taken or considered:</b>	
<ul style="list-style-type: none"> <li>Public health measures (e.g. immunisation strategy, patient and contact management, vector control, water and food safety)</li> </ul>	Awareness on good hygiene techniques, including hand washing and cough etiquette, is ongoing through posters and flyers.

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<b>Syndrome</b>	Prolonged Fever
<b>Point of care (number of cases since July 20)</b>	Pohnpei CHC (6 cases), Pohnpei State Hospital (3 cases), Pohnlangas dispensary (1 case)**
<b>Dates of investigation</b>	July 24 – ongoing
<b>Description of investigation undertaken</b>	A case report form to investigate dengue fever (and other arboviral infections) has been created for investigation of prolonged fever cases. ** This case was misreported upon further investigation.

<b>Findings of investigation:</b>	
• Number of cases (since July 20)	9 (0 case on July 29)
• Diagnostic methods, number of samples collected, number of samples tested, laboratory involved	2 prolonged fever cases reported from Pohnpei CHC were treated for pneumonia-like illness.
<b>Measures taken or considered:</b>	
• Public health measures (e.g. immunisation strategy, patient and contact management, vector control, water and food safety)	A public health advisory on dengue fever and leptospirosis was created and made available through posters and flyers. Travel advisory and prevention messages for dengue fever and leptospirosis are displayed on a monitor at the port of entry at the Pohnpei International Airport.

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<b>Syndrome</b>	Non-watery diarrhea
<b>Point of care (number of cases since July 20)</b>	Pohnpei CHC (5 cases), Pohnpei State Hospital (7 cases), Lukop Dispensary (1 case), Pohnlangas dispensary (5 cases), Medpharm (2 cases), and Sokehs Dispensary (2 cases)
<b>Dates of investigation</b>	July 24 – ongoing
<b>Description of investigation undertaken</b>	Case investigation form for shigella and salmonella with food recall history are used to investigate non-watery diarrhea cases.
<b>Findings of investigation:</b>	
• Number of cases (since July 20)	25 (0 case on July 29)
• Diagnostic methods, number of samples collected, number of samples tested, laboratory involved	Stool specimens are collected and tested for <i>Vibrio cholerae</i> , <i>Salmonella typhimurium</i> , <i>Shigella dysenteriae</i> , <i>Giardia lamblia</i> , <i>Entamoeba histolytica</i> , rotavirus, adenovirus, and norovirus are ongoing using an algorithm.
<b>Measures taken or considered:</b>	
• Public health measures (e.g. immunisation strategy, patient and contact management, vector control, water and food safety)	A public health advisory on diarrhea was created and translated into the local language for dissemination through radio. In addition, awareness on good hygiene techniques, including hand washing, is ongoing through posters and flyers.

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<b>Syndrome</b>	Fever and jaundice
<b>Point of care (numbers of cases since July 25)</b>	Pohnpei State Hospital (2 cases)
<b>Date of investigation</b>	July 25- ongoing
<b>Description of investigation undertaken</b>	Case investigation form adapted from the Pacific Outbreak Manual has been used for investigation of the 2 cases of acute fever and jaundice. Investigation by the public health response team has commenced today, July 30 and report will become available tomorrow, July 31.
<b>Findings of investigation</b>	
• Number of cases (since July 25)	2 (1 case on July 29)
• Diagnostic methods, number of samples collected, number of samples tested, laboratory involved	Rapid testing was undertaken and tested negative for both cases. Dry blood spot (DBS) is being sent to Institut Louis Malarde, French Polynesia for confirmatory testing for leptospirosis for one of the cases. A convalescent sample will also be taken for further testing.
• Time/Place/Person/Clinical Features	1 case of fever and jaundice; 37y who was a resident of Pohnpei State.
<b>Measures taken or considered</b>	
• Public health measures (e.g. Immunization strategy, patient and contact management, vector control, water and food safety)	A public health advisory on dengue fever and leptospirosis was created and made available through posters and flyers. Prevention messages and risk communication for arboviral infections and vector-borne diseases such as leptospirosis will be intensified.

Note, the archive of daily reports can be found at: [http://www.spc.int/phs/PPHSN/Surveillance/Mass\\_gathering.htm](http://www.spc.int/phs/PPHSN/Surveillance/Mass_gathering.htm)