

Date of report: **08/04/2014 (Monday)** for cases presenting on: **08/01/2014 (Friday)**

Summary

Key findings

- 8 (72%) sites provided reports for Friday 1st August (some reports not available due to POC weekend or Monday closure)
- Of the 8 reporting sentinel sites, 3 (27%) reported syndrome cases.
- 10 (3.4%) of the total 291 encounters were reported as syndrome cases.
- 4 (50%) of the 8 syndromes were reported.
- 3 (37%) of the 8 syndromes reached their threshold:
 - 3 case AFR (median age 41y; range 32 to 53), 1 male and 2 females. All resident of Pohnpei State.
 - 3 cases watery diarrhea (median age 53y; range 34 to 60y), all male. All resident of Pohnpei State.
 - 4 cases of non-watery diarrhea (median age 26y; range 2y–28y), all male. All are residents of Pohnpei State.
- No additional unusual occurrence reported from the sentinel sites.

Conclusion and recommendations

- AFR, Watery and Non-watery diarrhea, syndromes have reached their daily threshold. Case investigation is ongoing.

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. A rapid mass vaccination programme was implemented that covered 96% of the population under 49 years
- Additionally it is confirmed at least one Measles case in Chuuk State. Introduction from Pohnpei by a person visiting relatives – now returned. Investigation into the both the Pohnpei and Chuuk cases commencing
- 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, 8 points of care (surveillance sentinel sites) submitted reports.

Overview analysis

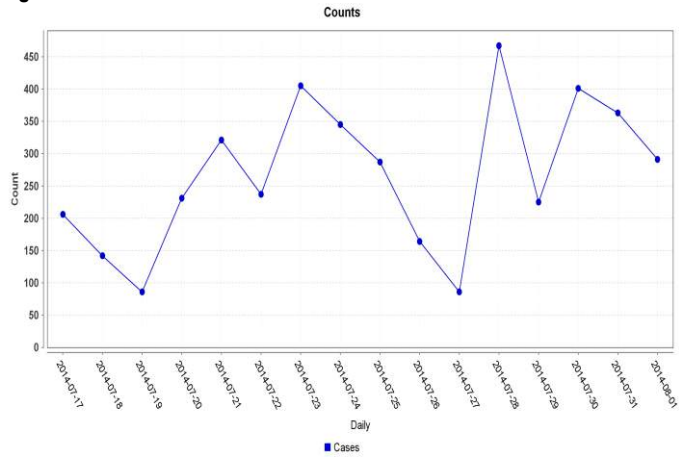
Number of cases observed for the date above										
Point of care	Number Encounter cases*	Number Syndrome cases#	Acute fever and rash	Watery diarrhea	Non-watery diarrhea	Influenza-like illness	Prolonged fever	Fever and jaundice	Heat related illness	Food-borne disease syndrome
Berysin CHC	1	0	0	0	0	0	0	0	0	0
COM Dispensary	4	1	0	0	1	0	0	0	0	0
Genesis Hospital	55	0	0	0	0	0	0	0	0	0
Lukop Dispensary	4	0	0	0	0	0	0	0	0	0
Medpharm HC	8	0	0	0	0	0	0	0	0	0
PICS High School										
Pohnlangas Dispensary										
Pohnpei CHC	70	2	0	0	2	0	0	0	0	0
Pohnpei State Hospital	139	7	3	3	1	1	0	0	0	0
Sokehs Dispensary										
Wone Dispensary	10	0	0	0	0	0	0	0	0	0
TOTAL	291	10	3	3	4	1	0	0	0	0
DAILY STATE THRESHOLD	N/a	N/a	1	1	3	4	1	1	2	2
Legend/key:	Red shading indicates an increase compared to the previous day's report		Green shading indicates a decrease compared to the previous day's report		Grey shading indicates POC closed on report or data collection day		A cell shaded in white indicates no change compared to the previous day's report			
Interpretation:	Reports were collected from 8 sites during the weekend and Monday 4 th . Three (27%) of the 11 sentinel sites reported syndromes. AFR, Watery and Non-watery diarrhea, syndromes have reached their daily state-wide threshold.									

*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

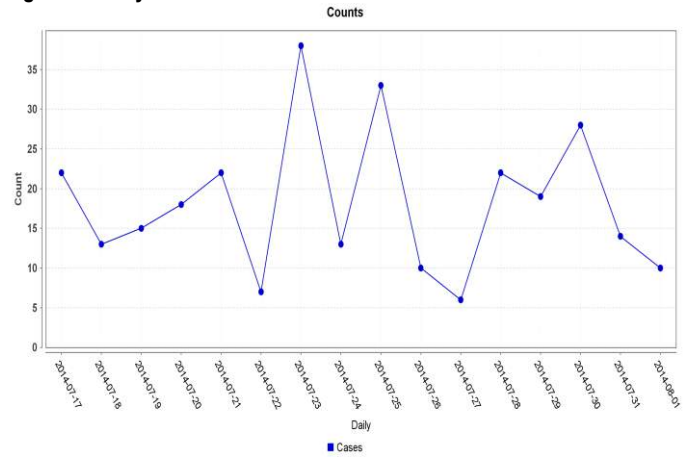
EpiCurves of the number of cases by visit date for Wednesday, August 1.

Figure 1: All encounter cases



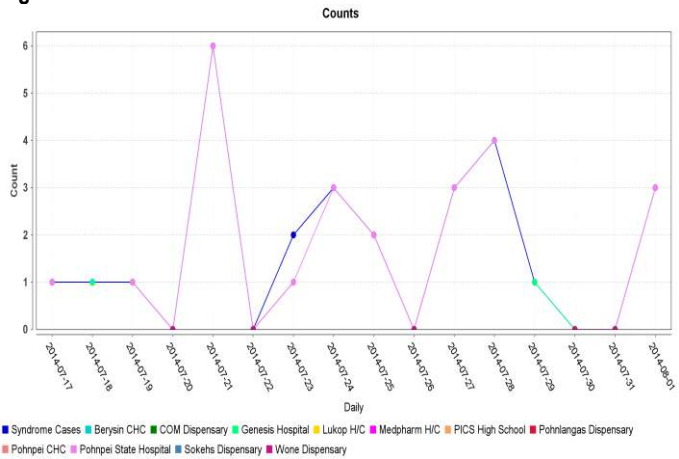
Interpretation: 6 of 11 sites reporting. A decrease from previous day from 363 encounter cases to 291 (of which 139 at Pohnpei State Hospital).

Figure 2: All syndrome cases



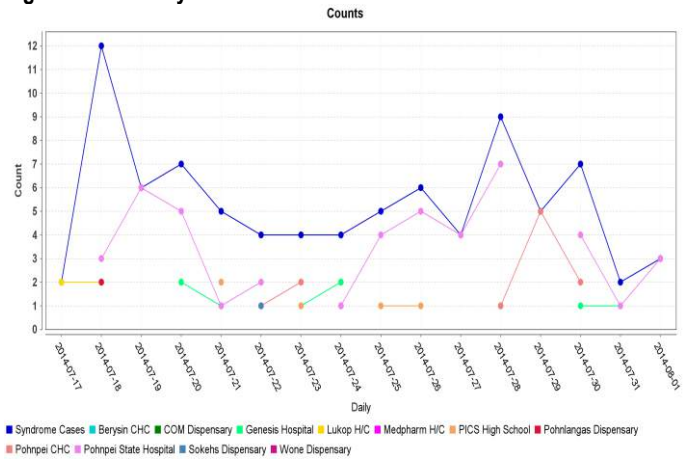
Interpretation: 6 of 11 sites reporting. A decrease from previous day from 14 syndromes cases to 10. Even though the games have finished the number of syndromes remains similar to during the mass gathering.

Figure 3: All acute fever and rash cases



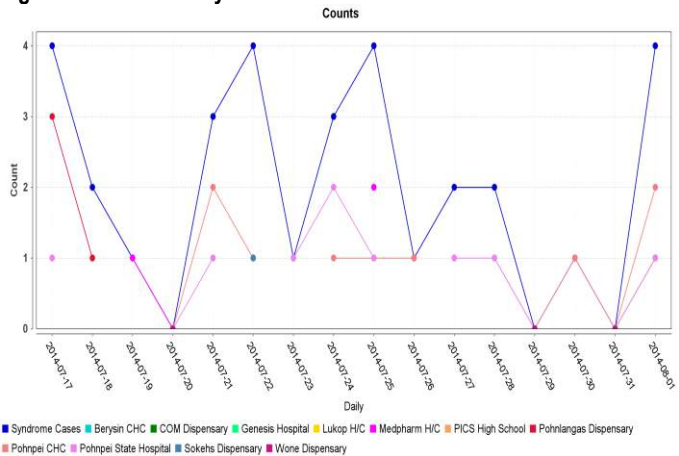
Interpretation: An increase from 0 cases to 3 cases (all at Pohnpei State Hospital). Cases are under investigation (see detailed analysis section).

Figure 4: All watery diarrhea cases



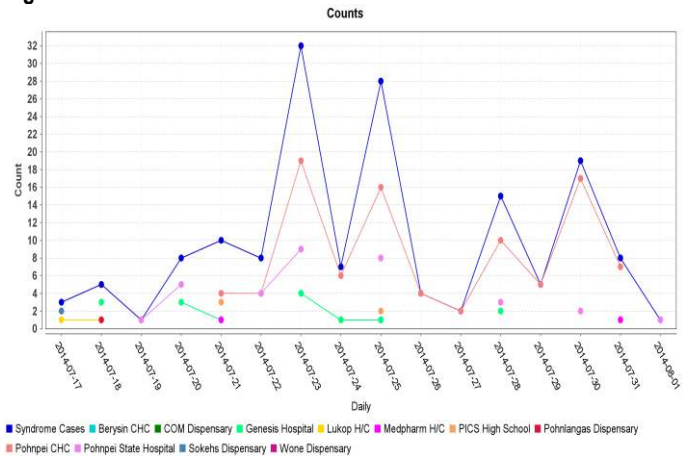
Interpretation: An increase from 2 to 3 cases (all of these presented to Pohnpei State Hospital).

Figure 5: All non-watery diarrhea cases



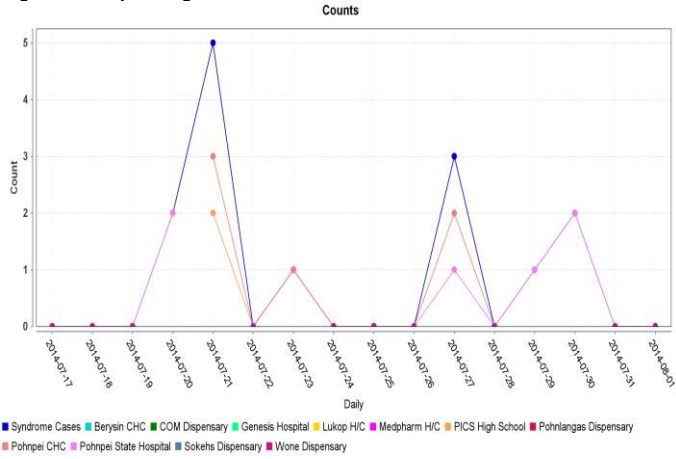
Interpretation: An increase from 0 cases to 4 cases (Graph shows overall decline in the past 5 days from peak of 4 cases).

Figure 6: All influenza-like illness cases



Interpretation: A decrease from previous day (8 cases to 1 case).

Figure 7: All prolonged fever cases



Interpretation: No increase from previous day, still zero cases.

Figure 9: All heat-related illness cases

[Only two cases (July 23 and July 28) since commencing Games]

Interpretation:

Figure 8: All fever and jaundice cases

[Only one case (25 July) since commencing Games]

Interpretation:

Figure 10: All food-borne disease outbreak cases

[Zero cases since commencing Games]

Interpretation:

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

Syndrome	Acute fever and rash
Point of care (number of cases since July 22)	Pohnpei State Hospital (11 cases) and Pohnlangas Dispensary (1 case), Genesis Hospital (1 case)
Dates of investigation	July 23 – ongoing
Description of investigation undertaken	All cases of acute fever and rash reported from the Pohnpei State Hospital and Genesis Hospital on July 29 are still being further investigated by the public health team assigned to investigate measles. Throat swabs and serums are to be collected for further testing for measles. Specimens for measles testing will be sent to the Hawaii Public Health Laboratory for confirmation. Specimens from cases with possible vaccine reaction will be sent to CDC, Atlanta for further testing. Further testing for dengue fever, chikungunya and zika virus has been advised and specimen will be sent to Institut Louis Malardie, French Polynesia.
Findings of investigation:	
• Number of cases (since July 22)	13 (3 cases on August 1 st)
• Diagnostic methods, number of samples collected, number of samples tested, laboratory involved	Throat swabs and serum are being collected from cases for measles 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 is a confirmed measles outbreak in the Solomon Islands. There are also outbreaks of dengue, zika, and chikungunya in the region.
• Time/Place/Person/clinical features	
Measures taken or considered:	
• 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. MMR vaccination campaign for outer islands will commence on 6 August 2014.

Syndrome	Watery diarrhea
Point of care (number of cases since July 17)	Pohnpei State Hospital (40 cases), Genesis Hospital (10 cases), Pohnpei CHC (13 cases), PICS high school (5 cases), Lukop dispensary (4 cases), COM dispensary (1 case), Pohnlangas Dispensary (1 case), Berysin CHC (1 case)
Dates of investigation	July 18 – ongoing
Description of investigation undertaken	All watery diarrhea cases reported from Pohnpei State Hospital, Pohnpei CHC and Genesis Hospital are being further investigated by the public health response team. All stool specimens received at 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 will be reported as they become available.
Findings of investigation:	
• Number of cases (since July 17)	72 (3 cases on August 1 st)
• Diagnostic methods, number of samples collected, number of samples tested, laboratory involved	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.
• Time/Place/Person/clinical features	7 cases of watery diarrhea (median age: 7 y; range 2y–50 y). Five (71.4%) cases are females. All are residents of Pohnpei State.
Measures taken or considered:	
• 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. The ICS is working closely with EPA for further environmental assessment and remedial action in response to findings of the public health investigation team.

Syndrome	Influenza like illness
Point of care (number of cases since July 17)	Pohnpei CHC (91 cases), Pohnpei State Hospital (34 cases), Genesis Hospital (15 cases), Pohnlangas dispensary (2 cases), Sokehs dispensary (2 cases), PICS High School (2 cases), Lukop dispensary (1 case), Medpharm HC (2 case), Berysin CHC (1 case)
Dates of investigation	July 24 – ongoing
Description of investigation undertaken	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.
Findings of investigation:	
• Number of cases (since July 17)	159 (1 case on Friday 1 st August)
• Diagnostic methods, number of samples collected, number of samples tested, laboratory involved	All specimens collected have been shipped to the reference laboratory at the Hawaii State Laboratory on Wednesday, July 30. The rapid diagnostic test for influenza will be made available at the Pohnpei CHC laboratory.
• Time/Place/Person/Clinical Features	20 cases of ILI (median age: 6.5y; range 1y–51y). Eleven (55.0%) cases are males. All are residents of Pohnpei State.
Measures taken or considered:	
• Public health measures (e.g. immunisation strategy, patient and contact management, vector control, water and food safety)	Awareness on good hygiene techniques, including hand washing and cough etiquette, is ongoing through posters and flyers.

Syndrome	Prolonged Fever
Point of care (number of cases since July 20)	Pohnpei CHC (6 cases), Pohnpei State Hospital (5 cases)
Dates of investigation	July 24 – ongoing
Description of investigation undertaken	Two cases of prolonged fever reported from the Pohnpei State Hospital had watery diarrhea syndrome as well and are being further investigated by the public health investigation team. A case report form to investigate dengue fever (and other arboviral infections) has been created for investigation of prolonged fever cases.
Findings of investigation:	
• Number of cases (since July 20)	11 (0 cases on Friday 1 st August)
• 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.
• Time/Place/Person/Clinical features	2 cases of prolonged fever aged 7y and 14y. All cases are females (100.0%). All are residents of Pohnpei State.
Measures taken or considered:	
• Public health measures (e.g. immunisation strategy, patient and contact management, vector control,	A public health advisory on dengue fever and leptospirosis was created and made available through posters and flyers. Travel advisory and prevention messages for

water and food safety)	dengue fever and leptospirosis are displayed on a monitor at the port of entry at the Pohnpei International Airport.
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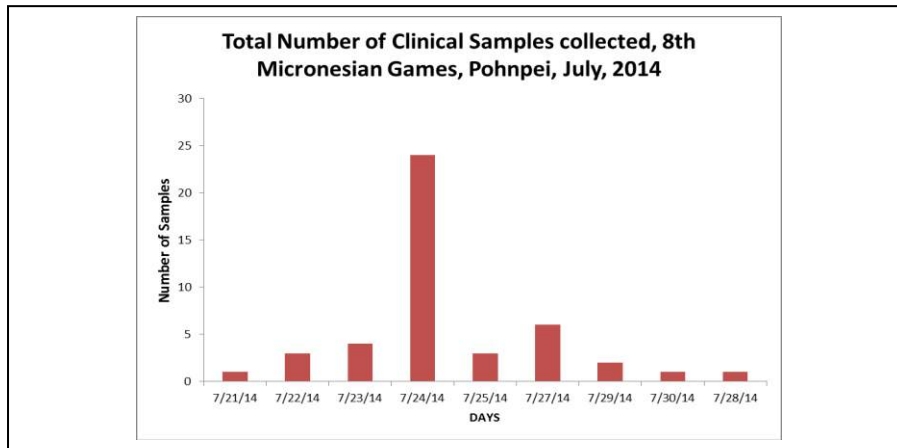
Syndrome	Non-watery diarrhea
Point of care (number of cases since July 20)	Pohnpei CHC (10 cases), Pohnpei State Hospital (11 cases), Lukop Dispensary (2 case), Pohnlangas dispensary (5 cases), Medpharm (2 cases), COM Dispensary (1 case) and Sokehs Dispensary (2 cases)
Dates of investigation	July 24 – ongoing
Description of investigation undertaken	Case investigation form for shigella and salmonella with food recall history are used to investigate non-watery diarrhea cases.
Findings of investigation:	
<ul style="list-style-type: none"> Number of cases (since July 20) 	34 (4 cases on Friday 1 st August)
<ul style="list-style-type: none"> Diagnostic methods, number of samples collected, number of samples tested, laboratory involved 	The case reported on July 30 did not reach the threshold for further investigation.
Measures taken or considered:	
<ul style="list-style-type: none"> 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.

Syndrome	Fever and jaundice
Point of care (numbers of cases since July 25)	Pohnpei State Hospital (2 cases)
Date of investigation	July 25- ongoing
Description of investigation undertaken	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.
Findings of investigation	
<ul style="list-style-type: none"> Number of cases (since July 25) Diagnostic methods, number of samples collected, number of samples tested, laboratory involved 	2 (0 case on Friday 1 st August) 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. A convalescent sample will also be taken for further testing.
Measures taken or considered	
<ul style="list-style-type: none"> 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

Appendix 1 – Charts illustrating Laboratory Activity to 30th July 2014

The games ran from 9th to 29th July



Peak sample collection occurred on 24th July 5 days before the end of the games, a second much smaller peak of sample collection occurred on 27th July two days before the end of the games.

