JULY 30th 2012 (reporting on cases for Friday July 27th)

General comments on reported syndromes:

A/ Evolution of raw number of cases for the 8 selected syndromes, starting one week before the beginning of the FOPA (June 25th) – see attached Charts

Graphs for All sites (all participating clinics in Honiara):

-**Acute Fever & Rash**: 4 cases reported on Friday. The overall decline in raw numbers over the past month suggests the rubella outbreak in Honiara is getting under control. However, ***as there is potential for dengue fever, blood samples are highly recommended for all cases fitting the dengue case definition as per the National dengue preparedness and response plan*** *(see section E. "Conclusions/recommendations" below)*

-**Watery Diarrhoea**: one case reported on Friday in Mbokonavera; however, no sample was taken. A single reported case of this syndrome should trigger (i) a follow-up by the surveillance and response teams (observance of case definition) and (ii) further laboratory and epidemiological investigations when clinical presentation is confirmed by the nurse practitioner.

-**Non-Watery Diarrhoea**: 10 cases reported on Friday mainly in White River (4) and Mataniko (5). The collections of stool samples are highly recommended.

-**Influenza-like-Illness:** 14 cases reported on Friday. Reports from regional and global surveillance confirm that a new A(H3N2) virus has replaced the A(H1N1)2009 pandemic strain in Australia, New Zealand and possibly in other places of the Southern hemisphere. These reports stress that such a new virus could easily be spreading among the non-immunized population at the occasion of the mass-gathering happening during the Festival. Nasopharyngeal swabs are recommended. ***As there is potential for dengue fever, blood samples are highly recommended for all cases fitting the dengue case definition as per the National dengue preparedness and response plan*** *(see section E "Conclusions/recommendations" below)*.

-**Prolonged Fever:** 16 cases reported on Friday. ***As there is potential for dengue fever, blood samples are highly recommended for all cases fitting the dengue case definition as per the National dengue preparedness and response plan*** *(see section E "Conclusions/recommendations" below)*.

-**Acute Fever & Neurological symptoms:** no case reported since June 29.
A single reported case of this syndrome should trigger (i) a follow-up by the surveillance and response teams (observance of case definition) and (ii) further laboratory and epidemiological investigations when clinical presentation is confirmed by the nurse practitioner (and malaria test is negative).

-**Fever & Jaundice:** No case reported on Friday. A single reported case of either of these should trigger (i) a follow-up by the surveillance and response teams (observance of case definition) and (ii) further laboratory and epidemiological investigations when clinical presentation is confirmed by the nurse practitioner.

-**Heat-related-Illness:** No case reported since July 4th.

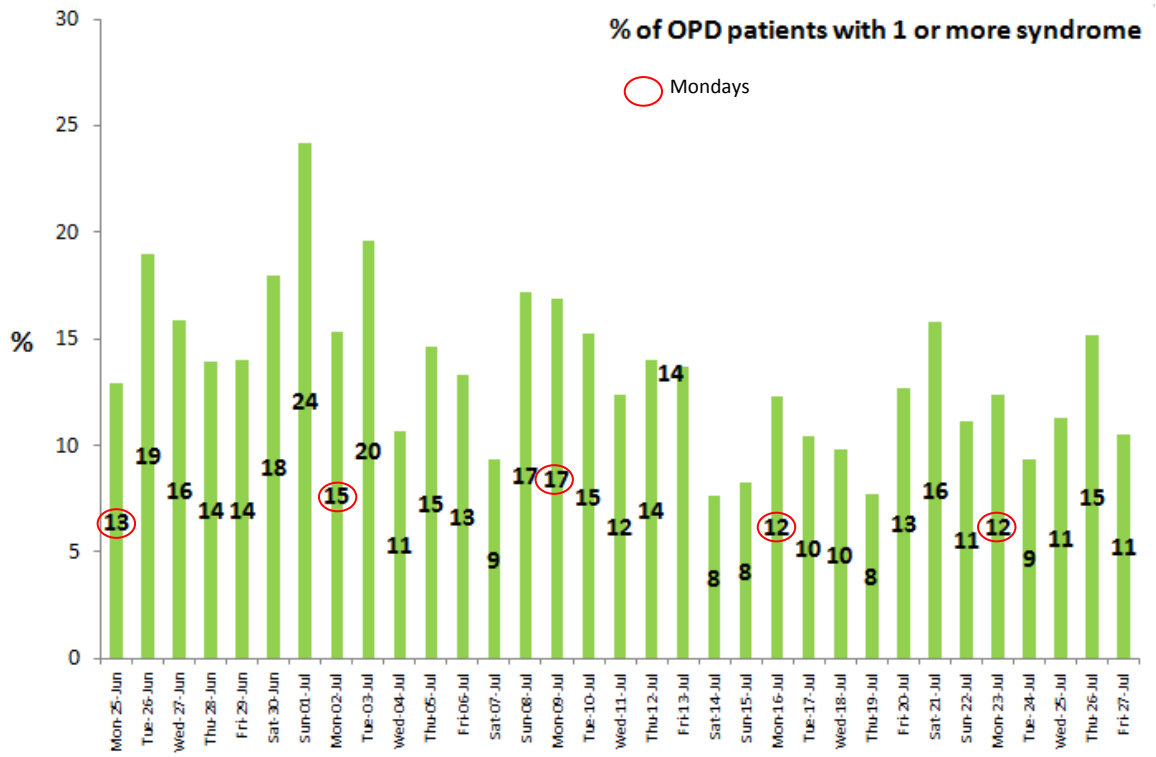
B/ Number of cases by syndrome and by site for **July 27th –** see attached Charts

-Eight sites (amongst 10 participating sites) ran OPD clinics on Friday: all provided data (including one zero cases report).

LAB UPDATES:

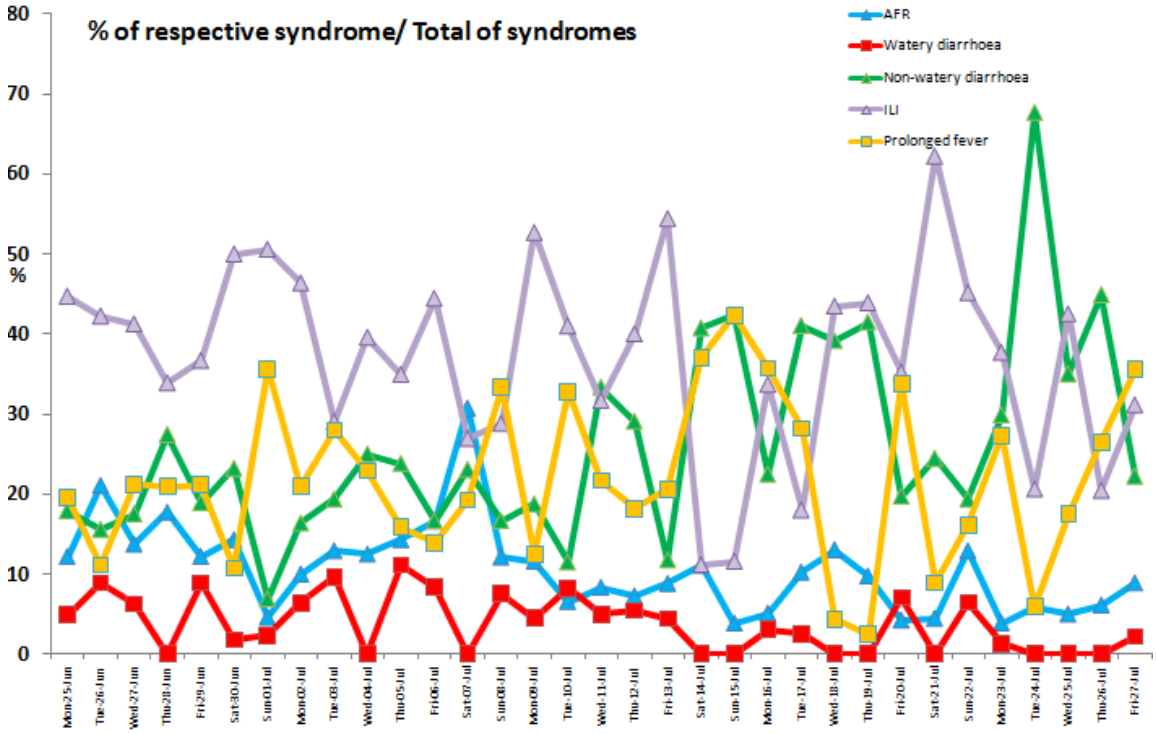
- Results from the reference laboratory in Melbourne for the 2 Niue suspected imported dengue cases indicate that both are in fact confirmed imported cases of dengue. *(see section E "Conclusions/recommendations" below)*.
- 1 case of non-watery diarrhoea from Pikinini clinic: stool examination showed no growth of *V.cholerae*, *Salmonella* or *Shigella* species.
- 2 cases of watery diarrhoea from Naha Clinic & another clinic not specified: stool examination showed no growth of *V. cholerae*, *Salmonella* or *Shigellosis* species.

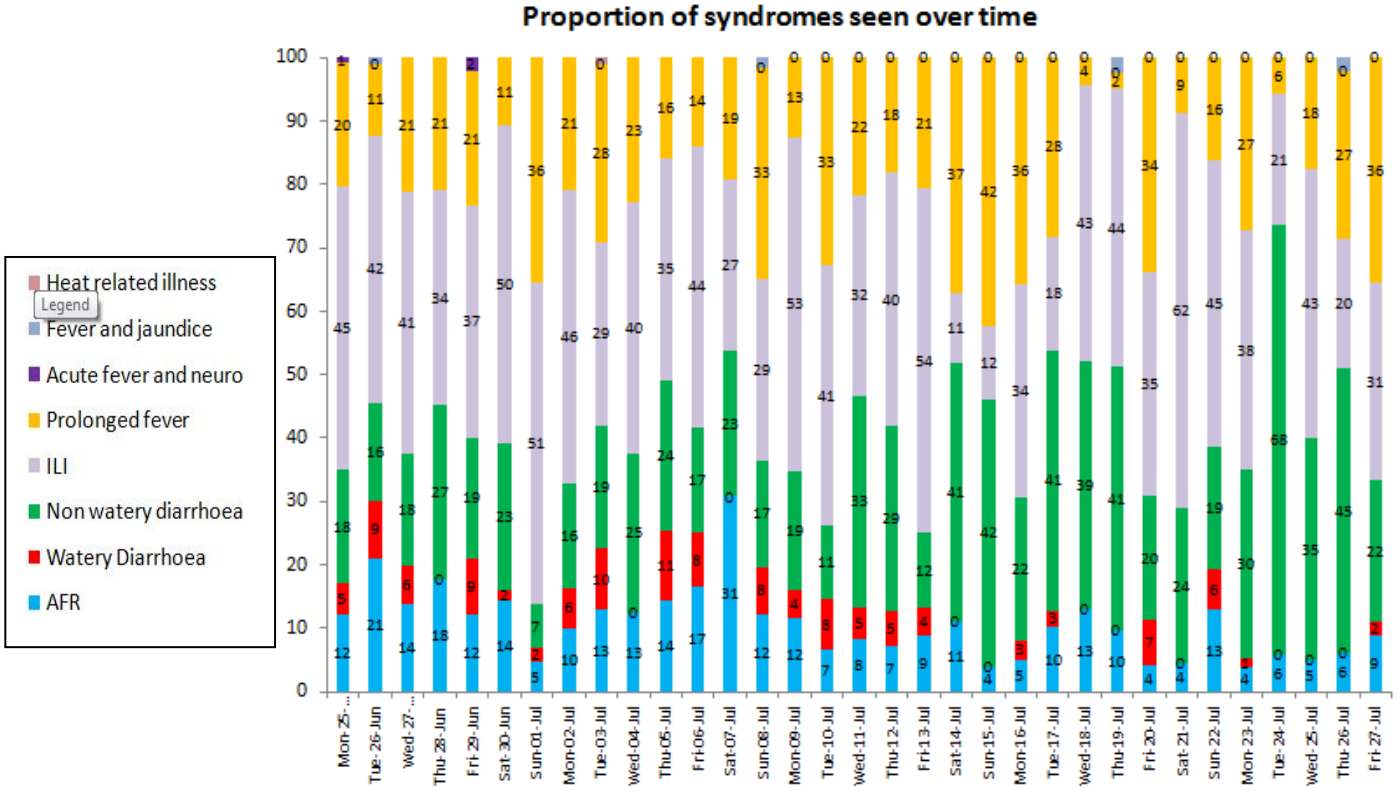
C/ % of OPD patients with at least one of the 8 selected syndromes, starting one week before the beginning of the FOPA (June 25th)



D/ % of each syndrome by the total of all syndromes

This indicator provides us with a proxy of specific morbidity. Of the eight syndromes under surveillance, it shows us the percentage that each syndrome contributes.

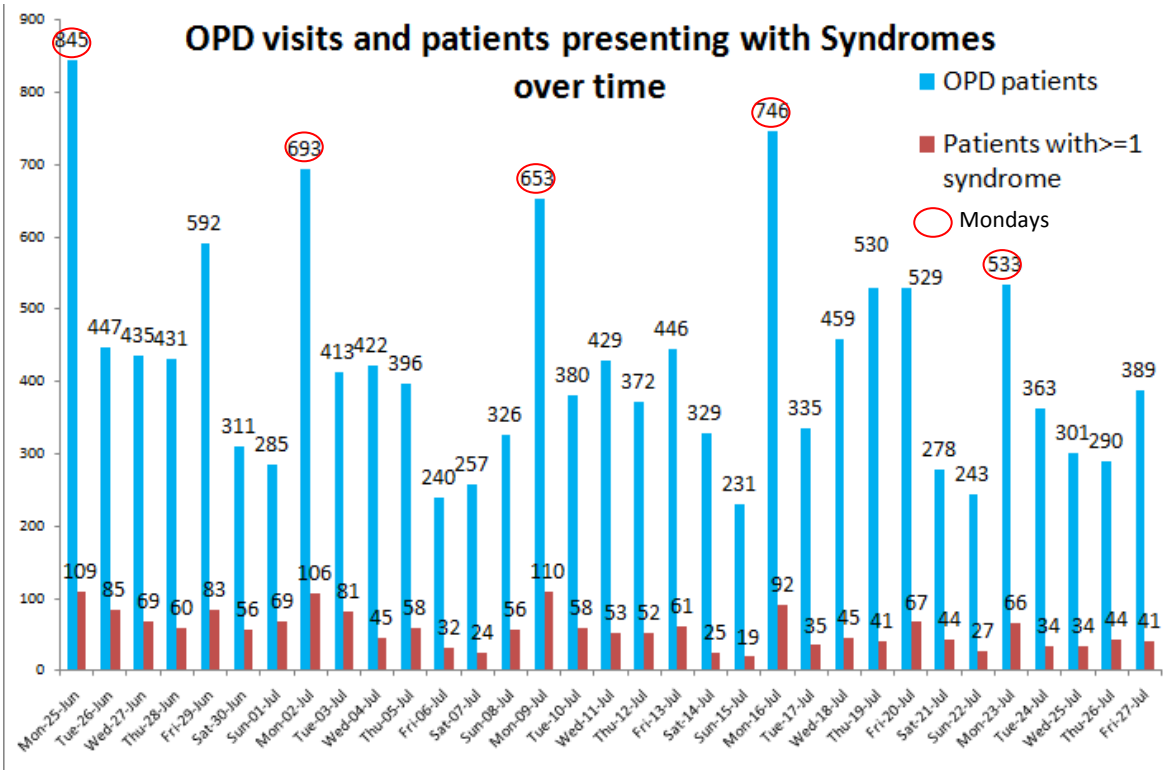




What was expected in the surveillance figures and public health response:

- That ILI and Prolonged fever would contribute the highest percentage due to circulating flu virus and malaria being endemic to the Solomon Islands. Having said that, close attention should be paid to occurring cases of ILI, Prolonged fever as well as acute fever and rash (crude numbers and trends over time) to detect any possible dengue cases.
- Given that there was a recent rubella outbreak we also expect that AFR percentage to be fairly constant, but its contribution should decrease over time as measures have been taken to control the outbreak. However, to ascertain the cause of any further cases of AFR, blood samples should be taken from selected patients and screened by the laboratory for rubella, measles and dengue.
- Small percentage due to heat related illness
- Extremely low percentage contributed by Fever and jaundice, acute fever and neurological syndromes. A single reported case of either of these should trigger (i) a follow-up by the surveillance and response teams (observance of case definition) and (ii) further laboratory and epidemiological investigations when clinical presentation is confirmed by the nurse practitioner (and malaria test is negative).
- Small percentage contributed due to watery diarrhoea and non-watery diarrhoea. However, a sharp or steady increase in either of these should trigger (i) a follow-up by the surveillance and response teams (observance of case definition) and (ii) further laboratory and epidemiological investigations when clinical presentation is confirmed by the nurse practitioner.

E/ OPD visits and patients presenting with Syndromes overtime (starting one week before the beginning of the FOPA)



Conclusions/recommendations:

All overseas and provincial delegations have departed. This is the final daily feedback report of the FOPA syndromic surveillance activity. A more detailed report on this mass gathering surveillance will be produced in the coming weeks and a thorough evaluation will be conducted before the end of the year. The following summarises the activity from Monday June 25 to Friday 27 July:

Overall

1. In total, there were 13,929 patients seen in the participating health facilities. Of these, 1890 cases (14%) were diagnosed with one or more of the syndromes. Of the people with one or more syndromes, 920 (49%) were female, and 970 (51%) were male. 261 (14%) cases were less than one year of age, and 907 (48%) were less than five years of age. The mean age of cases with a syndrome(s) was 13.8 years.

2. The impact of the Festival on the outpatient general attendance was minimal, though detailed analysis is ongoing. Of note, while there was a peak in attendance to the sentinel clinics by general outpatients every Monday (see graph under section E), the same trend did not apply to the proportion of patients presenting to these same clinics with one or more of the syndromes under surveillance (see graph under section C).

3. 1846 cases (98%) were from the Solomon Islands, 13 were from Australia, 11 from Papua New Guinea, 8 from Nauru, four from Vanuatu, 3 from Fiji, 1 from French Polynesia, 1 from India, 1 from Malaysia, 1 from New Zealand, and 1 from Niue — a second patient from Niue was directly admitted to the NRH as a suspected case of dengue without attending one of the sentinel clinics; this latter case has therefore not been counted in the FOPA syndromic surveillance system.

4. The average daily number of cases seen with one or more syndromes was 57. This number decreased from 68 in the first half of the period to 45 in the last half of the period.

5. Of the 1890 cases with one or more syndromes, there were a total of 804 notifications of Influenza-Like Illness, 482 notifications of non-watery diarrhoea, 462 notifications of Prolonged Fever, 218 notifications of Acute Fever and Rash, 93 notifications of watery diarrhoea, 4 notifications of Fever and Jaundice, 3 notifications of Acute Fever & Neurological Symptoms, and 1 notification of Heat-related-Illness.

6. At the beginning of the implementation of the syndromic surveillance system some of the Primary Health Care nurses were not familiar with the case definition provided for each of the eight syndromes. As a result some reported cases of Watery diarrhoea, Heat-related illness and Fever and neurological symptoms may have been wrongly notified. Also, during this initial period, epidemiological and laboratory investigations of notified cases of selected syndromes were not systematically undertaken. Hence, the validity of notification of potentially misreported cases of specific syndromes was unable to be assessed. From the 1st of July, which was the start of the Festival, these operational problems were addressed by way of refresher courses for PHC nurses and systematic review of notified cases of Watery diarrhoea, Fever and Jaundice and Fever and neurological symptoms, for which one single case was the threshold for field investigation.

7. In general, there is a need to reinforce the importance of taking lab samples when appropriate, and to **improve the turnaround time in communicating the lab results within the public health surveillance and response Team**. In addition, there is a need to feedback all lab results to the sentinel clinics and, where relevant, to the authorities.

Dengue alert

As mentioned several times in these daily feedback reports, 2 women from the Niue delegation presenting as suspected imported cases of dengue had been previously detected by the surveillance system, and were followed up for aetiological confirmation especially in light of the recent dengue outbreak in Niue. The first-line Rapid diagnostic tests (RDT) performed at the NRH Central laboratory were inconclusive.

While waiting for confirmation from the reference laboratory in Australia, **(i) vector control measures have been taken within 10 days of case notification** — larvicide at community level, plus adulticide perifocal spraying around the compound where the Niue's delegation was accommodated — and **(ii)** a **National dengue preparedness and response plan was developed**.

Over last weekend both patients have been confirmed positive for dengue and classified as **confirmed imported dengue cases** in Solomon Islands. **The National dengue plan has been activated**. As yet, no locally-acquired cases of Dengue have been confirmed.

However, an 11 year-old child from Honiara presenting with AFR on the 23/07 has tested "weak reactive" for the NS1 protein detection by RDT at NRH Central Laboratory. Given the very high specificity of this test **the level of suspicion for a locally-acquired case of dengue fever is high**. This case is therefore classified as a **suspected autochthonous dengue cases.** A follow-up confirmation is now required from the L3 PPHSN/LabNet reference laboratory in Australia.

Given the risk of dengue transmission in Honiara towards the end of the Festival, countries of the region should remain alert to the possible introduction of the dengue virus on their territory. Follow-up detailed information will be provided through PacNet.

Syndromes

Table-1: *Morbidity indicators for the syndromes under surveillance, and respective overall trend for the period 25/06 to 27/07 2012, 11th FOPA surveillance, Honiara, Solomon Islands*

	Average		Overall
	Daily no. cases	% over all syndromes	trend*
ILI	24	37%	→
NWD	15	26%	↗
PF	14	22%	→ or ↗
AFR	7	11%	↘
WD	3	4%	↘
F&J	-	-	-
AF&NS	-	-	-
HRI	-	-	-

- **Influenza-Like Illness:** The average daily number of cases with ILI was 24. This number decreased from 30 in the first half of the period to 18 in the last half of the period. Of all syndromes, the average daily proportion attributable to ILI was 37%. This decreased from 40% in the first half of the period to 34% in the last half of the period. The number of cases and proportion of syndromes attributable to ILI is likely to remain high due to the circulating flu virus and malaria being endemic to the Solomon Islands. Having said that, ***close attention should be paid to these cases as well as Acute fever and rash and cases of Prolonged fever, to detect any possible dengue cases***.

- **Non-watery diarrhoea:** The average daily number of cases with NWD was 15. This number increased from 14 in the first half of the period to 16 in the last half of the period. Of all syndromes, the average daily proportion attributable to NWD was 26%. This increased from 20% in the first half of the period to 33% in the last half of the period. ***This should be monitored closely.***

  It must be highlighted that the review of "historical" data for Honiara sentinel clinics, in preparation for the Festival's surveillance, clearly showed that ***an increase in the number of diarrhoea cases already existed since early June 2012, at the latest, especially among children.***

  Collection of a stool sample is highly recommended for all admitted cases; clinic staff should promote hygiene to all patients and their families; ***identification of NWD clusters or a steady increase in NWD cases should activate an investigation from the outbreak response authorities.*** Meanwhile PHC nurses and clinicians are encouraged to align the treatment of appropriate patients with the diagnoses of parasitic infestation (amoebas, whip worm) and Shigellosis as provided earlier in the course of the surveillance.

- **Acute Fever and Rash:** The average daily number of cases with AFR was 7. This number decreased from 9 in the first half of the period to 4 in the last half of the period. Of all syndromes, the average daily proportion attributable to AFR was 11%. This decreased from 14% in the first half of the period to 8% in the last half of the period. Six (6) cases of acute rubella have been confirmed during the course of the Festival's surveillance.

One case of AFR was a woman from Niue also presenting with ILI and PF syndromes. She was considered as a suspected case of dengue fever and admitted at NRH (see above *Dengue alert* for specific information). The number of cases and proportion of syndromes attributable to AFR has risen over the past three days. ***This should be monitored closely in light of the potential for dengue. In addition, the clinical case definition as per the National dengue preparedness and response plan should now be utilized.***

- **Prolonged Fever:** The average daily number of cases with PF was 14. This number decreased from 16 in the first half of the period to 12 in the last half of the period. Of all syndromes, the average daily proportion attributable to PFI was 22%. This increased from 21% in the first half of the period to 23% in the last half of the period. More recently, the number of cases and proportion of syndromes attributable to PF has risen over the past three days***. This should be monitored closely in light of the potential for dengue, using the clinical case definition as per the National dengue preparedness and response plan.***

- **Watery diarrhoea:** The average daily number of cases with WD was 3. This number decreased from 4 in the first half of the period to 1 in the last half of the period. Of all syndromes, the average daily proportion attributable to WD was 4%. This decreased from 6% in the first half of the period to 2% in the last half of the period. ***No case of cholera has been diagnosed***.

- **Fever and Jaundice:** Of the four cases of Fever and Jaundice, two occurred in the first half of the period — one was not investigated and the other was classified as a case of pneumonia due to *Streptococcus pneumoniae* — and two in the second half. Of these latter, the one notified on 26 July from Naha clinic should be investigated.

- **Acute Fever & Neurological Symptoms:** Of the three cases of Acute Fever & Neurological Symptoms, all occurred in the first week of the surveillance period (see overall comment no. 5).

- **Heat-related-Illness:** The one case of Heat-Related Illness occurred in the first half of the period.

Next steps for syndromic surveillance

The Festival's dedicated syndromic surveillance system will be continued routinely in Solomon Islands in order to reinforce the previously implemented syndromic surveillance system. The network of PHC sentinel sites will be maintained throughout Honiara. Reports will be compiled on a weekly basis, and the number of syndromes will be reduced from eight back to four (AFR, PF, ILI, and diarrhoea). A formal evaluation of the system and its sustainability has commenced and will be completed over the coming months. A detailed report will result from this.