



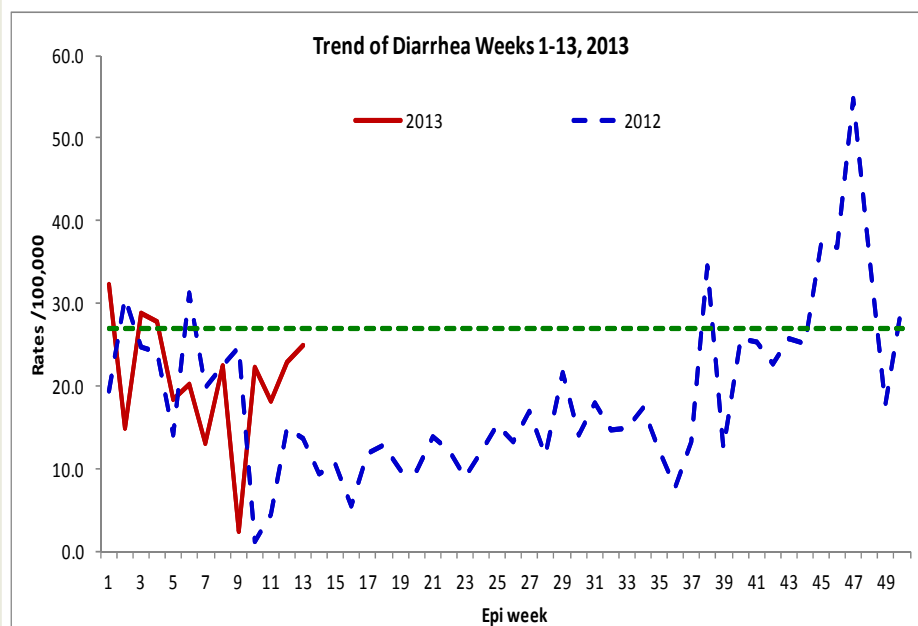
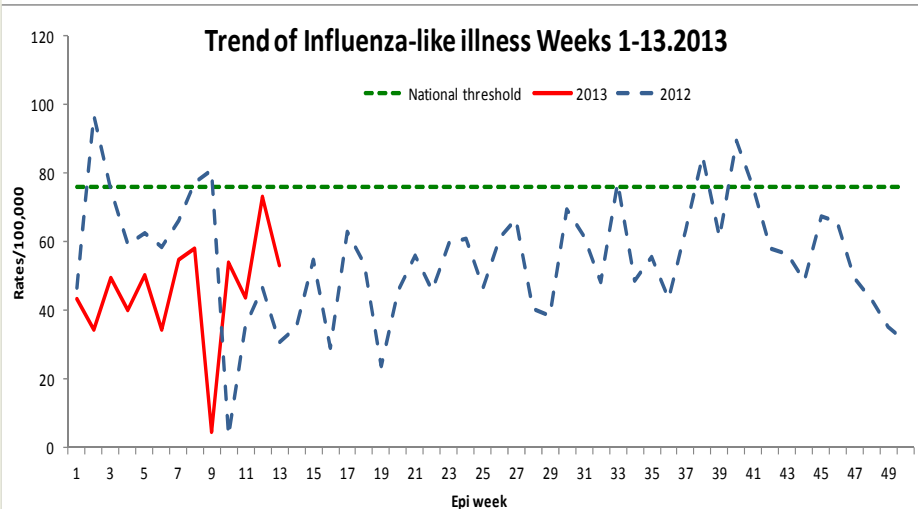
In this issue:

Fiji Early warning Syndromic surveillance	Pg.1
Fiji National Influenza Centre & Global Influenza Surveillance & Response	Pg.2
Vaccine Preventable Disease Project	Pg.3
Laboratory surveillance	Pg.4

Early warning Syndromic surveillance

This report comprises data from epidemiological weeks 1-13. In March notification rates dropped from the previous month (68% - 57%). Syndromic activity was below threshold levels. Active and localised Influenza-like illness (ILI) activity was documented in the Northern division (Macuata sub division) and Valelevu (Central division). Overall, a gradual increase of Diarrheal cases is observed with higher activity being recorded in the two above medical areas.

Rates of Acute fever & rash reported at 2.42 per 10,000 persons overall with Sigatoka hospital reporting the most cases. Prolonged fever cases increased slightly towards the end of March with more cases appearing in Sigatoka & Nadi medical areas. All sentinel sites are continually encouraged to increase sample uptake of suspected cases meeting case definitions for priority conditions: Dengue Fever, Leptospirosis, Typhoid, Influenza etc.



5th Syndrome added: A 5th syndrome has been added to Fiji's surveillance system. Dengue-like illness (DLI), case definition:

Fever for at least 2 days plus 2 or more of the following:

- Nausea or vomiting,
- muscle or joint pain
- severe headache or pain behind the eyes,
- rash
- spontaneous bleeding

Sentinel site visits have been initiated beginning with the Western & Eastern health divisions to scale up surveillance of DLI and ILI. This is in light of outbreak events in other Pacific Islands countries such as DENV-3 in the Solomon Islands.

Essential syndrome case definitions:

AFR: Sudden onset of fever with acute non blistering rash

Diarrhea: 3 or more watery stools in 24hrs

ILI: Sudden onset of fever with cough or sore throat.

Prolonged fever; Any fever lasting for 4 days

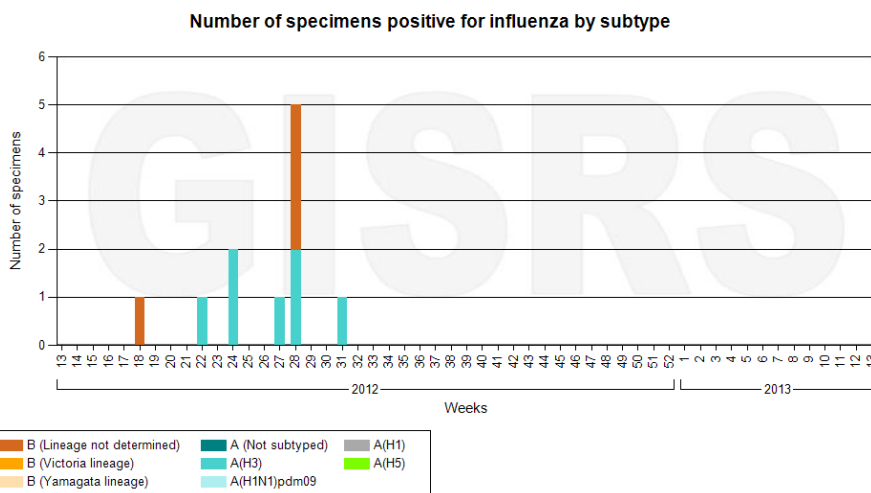
For sites requiring detailed reports and or inquiries please contact Aggie

Fiji National Influenza surveillance

Table 2: Fiji National Influenza Centre (Fiji NIC)

Month	Number of samples received for testing		Number tested positive Influenza 2013		
	2012	2013	A	B	C
January	14	3	-	-	-
February	6	0	-	-	-
March	12	8			
Total	67	11			

Testing of Influenza at the centre is currently underway following major renovations to the lab for the 1st two months. Results will be shared as soon as tests have been finalized. The graph beside right is sourced of the Global Influenza network which Fiji NIC contributes towards.



Global Influenza Surveillance & Response System (GISRS)

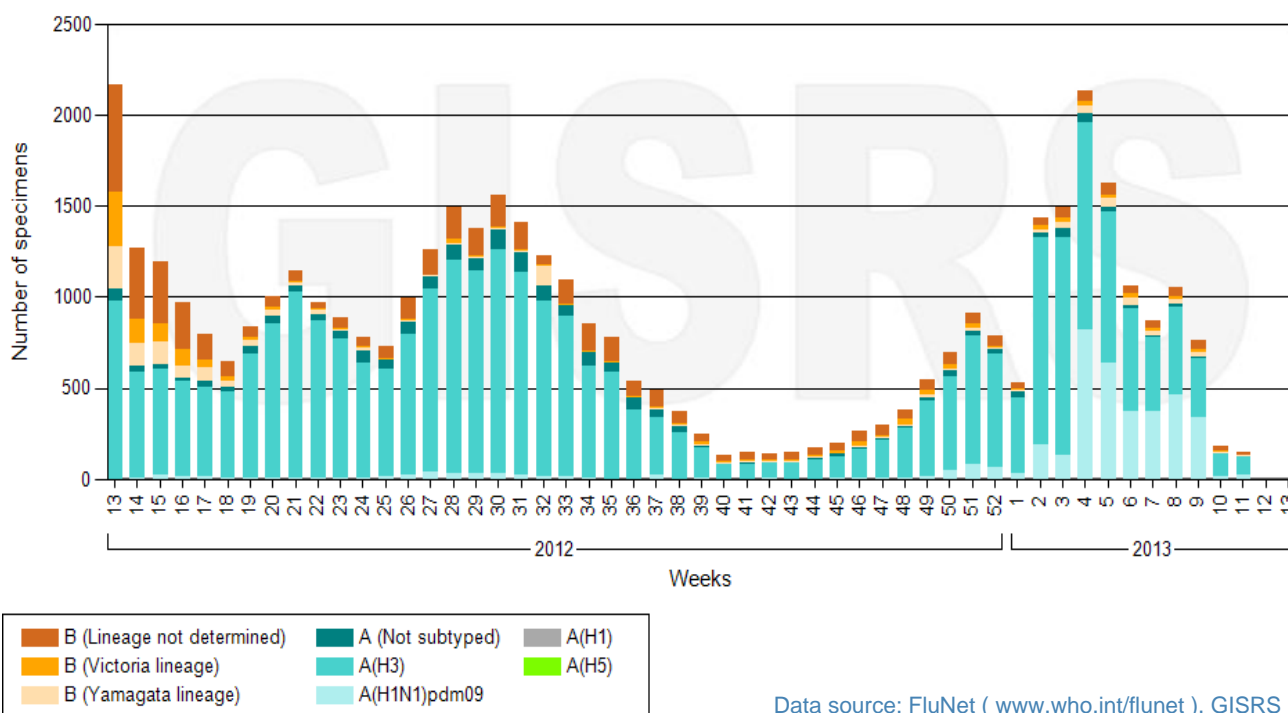
Influenza virus activity in the world. 1 March 2013 (Source: Laboratory confirmed data)

Based on FluNet reporting (as of 26 February 2013, 11:00 UTC), during weeks 6 to 7 (3 February 2013 to 16 February 2013), National Influenza Centres (NICs) and other national influenza laboratories from 82 countries, areas or territories reported data. The WHO GISRS laboratories tested more than 69 936 specimens. 20 972 were positive for influenza viruses, of which 14 140 (67.4%) were typed as influenza A and 6 832 (32.6%) as influenza B. Of the subtyped influenza A viruses, 5 982 (64.1%) were influenza A(H1N1)pdm09 and 3 344 (35.9%) were influenza A(H3N2). Of the characterized B viruses, 485 (91.5%) belong to the B-Yamagata lineage and 45 (8.5%) to the B-Victoria lineage.

During weeks 6 to 7, influenza activity remained high in the northern hemisphere and sporadic in the southern hemisphere. A(H1N1)pdm09 viruses predominated, followed by A(H3N2) and influenza B viruses. In **North America**, laboratory confirmed detections of influenza A viruses decreased while the number of influenza B viruses detected increased compared to previous weeks. A(H3N2) remained the predominant virus subtype. One case of A(H1N1)pdm09 virus with reduced susceptibility to Oseltamivir was reported in the United States of America, bringing the total number of cases reported since 1 October 2012 to two. Influenza activity across the **European region** remained variable. Increased influenza activity was reported in countries from eastern Europe, while activity continued to decrease in the northern and western European countries. A(H1N1)pdm09 viruses remained the predominant virus circulating throughout most of the region. A few countries reported influenza B as the predominantly circulating virus. In **Asia**, A(H1N1)pdm09 viruses were the predominant subtype and co-circulated with A(H3N2) in a number of countries. However, in some countries, A(H3N2) viruses were the predominant subtype and co-circulated with A(H1N1)pdm09 and influenza B viruses. Sporadic detections of A(H1N1)pdm09, A(H3N2) and influenza B viruses were reported from the **Caribbean, Central and South America**. In general, A(H3N2) viruses were the predominant virus reported in South America. In **Oceania**, Australia reported sporadic influenza activity of A(H1N1)pdm09, A(H3N2) and influenza B viruses. In **Africa** sporadic detections of A(H1N1)pdm09, A(H3N2) and influenza B viruses were reported. Increased detections of influenza B virus relative to A(H1N1)pdm09 were reported from northern

Influenza transmission zone: Western Pacific Region WHO

Number of specimens positive for influenza by subtype



Data source: FluNet (www.who.int/flu-net), GISRS

Vaccine preventable diseases project

Hospital based active surveillance (HBAS) : A Pacific region wide Hospital Based Active Surveillance (HBAS) system was established in 1997 by WHO under the PPHSN framework as part of the Global Polio Eradication Initiative. The objectives of the system were to prove that the Pacific was free of poliovirus and serve as the basis of certification as such; and to monitor the maintenance of polio free status. Also, the potential that an acute flaccid paralysis surveillance (AFP) system platform could play for integrated EPI surveillance was recognized, and the conditions of "suspected measles" and neonatal tetanus (NT) were included from the start. The HBAS system has since grown to incorporate 58 hospitals in 20 Pacific island countries and areas and over 200 paediatric clinicians. In 2001, surveillance was expanded from "Suspected Measles" to Acute Fever and Rash (AFR) to better identify cases of measles and also other diseases like rubella and dengue. The backbone of the HBAS system are the Pacific hospital based Paediatric Clinicians, who report monthly on a standard surveillance form to their HBAS Hospital Coordinator (HC) as to whether or not they have seen any cases of AFP, AFR or NT. This information is then forwarded by the Hospital Coordinator to the HBAS National Coordinator (NC), who collates reports from all HBAS reporting sites within the country. National reports are submitted to WHO on a monthly to quarterly basis. (Source: WHO Information folder 2005)

Fiji HBAS March 2013 In February 2013, a total of 6 reports were received from the 21 established sentinel sites (reporting rate 28%) The table below shows the summary of samples received for testing in 2013. Note that only <15yrs are reported whilst sampling is open to all ages.

Month	# of sample received	Sample Type		Measles		Rubella	
		Serum	DBS	+ve	-ve	+ve	-ve
January	4	4	0	0	4	1	3
February	2	2	0	0	2	0	2
March	7	7	0	0	7	0	1

HBAS Case Definitions:

Acute Fever & Rash: acute febrile illness with acute non-vesicular rash (>15 years old),

Acute Flaccid Paralysis: suspected poliomyelitis including Guillain-Barre Syndrome, >15 years old,

Neonatal Tetanus: any neonate with normal ability to suck or cry in the first two days of life and cannot suck or cry normally between 3 -28 days of age and become stiff and/or has convulsions



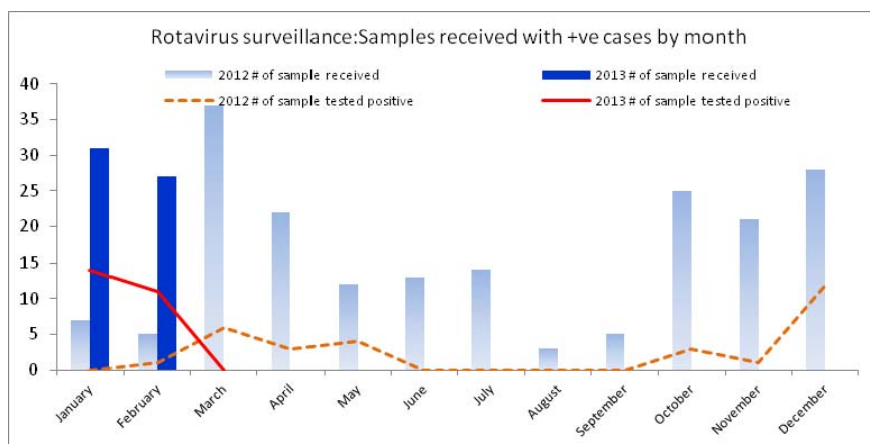
Quote of the month: *I brought children into this dark world because it needed the light that only a child can bring - Liz Armbruster, on robertbraut.com*

Rotavirus surveillance: Baseline research into the dynamics and prevalence of rotavirus in Fiji has been ongoing from the last 5 years. The baseline prevalence of the disease amongst the less than 5 years old age category in Fiji has been well established over the mentioned duration. Rotavirus is a public health concern in Fiji. The disease imposes significant morbidity amongst the less than 5 years old group. Although there have not been any reported deaths due to rotavirus amongst the mentioned age group, MOH authorities presume that deaths due to rotavirus is under-reported.

Towards the third quarter of 2011, the Ministry, through the Family Health Unit, approved the introduction and inclusion of the rotavirus vaccine to the Extended Program for Immunization. This initiative was undertaken by the Ministry given the findings from the baseline prevalence survey conducted by the Rotavirus project, a 5 years collaborative project between the Fiji Ministry of Health (CWMH Pediatrics Unit) and the University of Melbourne. With the introduction of the vaccine in November last year (2012), the Ministry has further recommended the establishment of a national surveillance system for rotavirus with the objective of monitor the strains of rotavirus in circulating in our population. This primarily has a bearing on the efficacy of the vaccine that the country will opt to use and also it will serve as an early detection system for the introduction of new strains of the virus that have the potential to cause outbreaks.

Currently, the rotavirus project mentioned above has established a monitoring system for rotavirus at the CWM Hospital and Savusavu Hospital. The Ministry now intends to formalize these sites as the sentinel sites for rotavirus and also enrolled Lautoka Hospital as the third sentinel site for rotavirus surveillance. Graph below depicts number of samples received in Jan & Feb. & compared to 2012. Of these, positive detection rates for rotavirus during the month of Feb. increased to 41%. In comparison the Jan. rate which was 16% .

Also note that this year a significant increase in sample yield has been documented. This may be attributed to improved surveillance and also



batching of samples. Note that samples tested in Jan were samples collected in last qtr . 2012 Acknowledgement to the following researchers in sharing the background piece provided above: Dr Fiona Russel, Dr Mike Kama, Dr Adam Jennings and dr Kimberly Fox.

Beside left: No samples received and tested on the month of March. Graph below shows the distribution of samples received at the centre with positive RV cases by month.

For inquiries regarding the VPD project please contact Isireli Rabukawaqa on :

telephone 3320066.

Laboratory surveillance—January-March 2013

Table 3: Confirmed cases from FCCDC & divisional laboratories Jan-March 2013

Selected diseases	Tests requested			2013		
	January	FEB	March	Cumulative tests requested	Current month positive	Cumulative positive cases
Measles ¹	4	2	7	13	0	0
Rubella ¹	4	2	7	13	1	1
Dengue Fever ¹	323	236	335	894	-	244
Influenza ¹	0	0	0	0	0	0
Leptospirosis ¹	221	228	-	449	-	85
HIV/AIDS ¹	13	-	-	13	-	-
Typhoid fever ²	-	-	-	-	34	138
Cholera ²	-	-	-	-	0	0

Legend:
 -: Not available
 Data Source:
 1. 1: FCCDC Laboratory (Mataika House)
 2. 2: Divisional Laboratories CWMH, Labasa & Lautoka
 3. HIV: Pending approval for release of data

Dengue fever: 2 peaks were recorded in weeks 4 & 10. However the trend declined towards the end of March. Macuata sub division recorded a gradual increase from week 2 –7. Age group most affected are 20-24 & 30-34 equally instituting 24% of cases overall. 52% of all cases were males.

Dengue samples tested at the Institute Louis Malarde in Papeete-Tahiti confirms the circulating DENV-1 serotype for Fiji this 1st qtr.

Leptospirosis:

Most affected medical sub divisions are: Central– Suva, Rewa & Tailevu. In the North Macuata sub division records the highest and in the West Lautoka/Yasawa in addition to Ba recorded high numbers in the first 2 months of 2013.

Age group most affected are 20-24 & 35-39 yrs. 67% of cases are males. test reports have been received yet for month March.

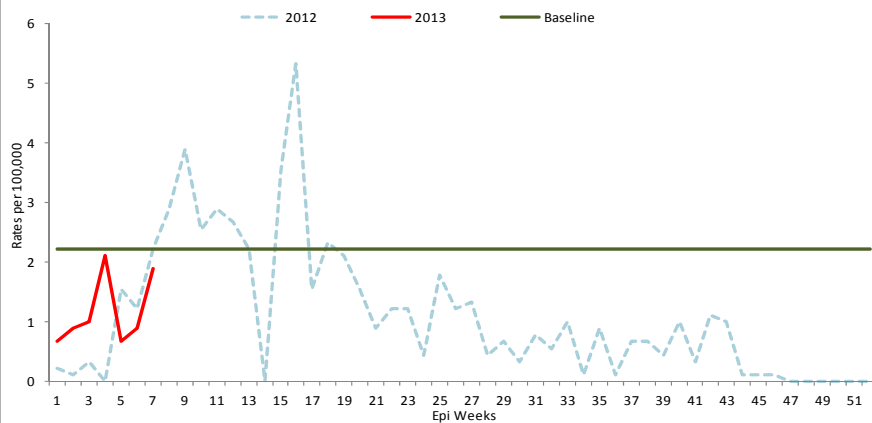
No Measles cases recorded for the 1st quarter of the year

Typhoid

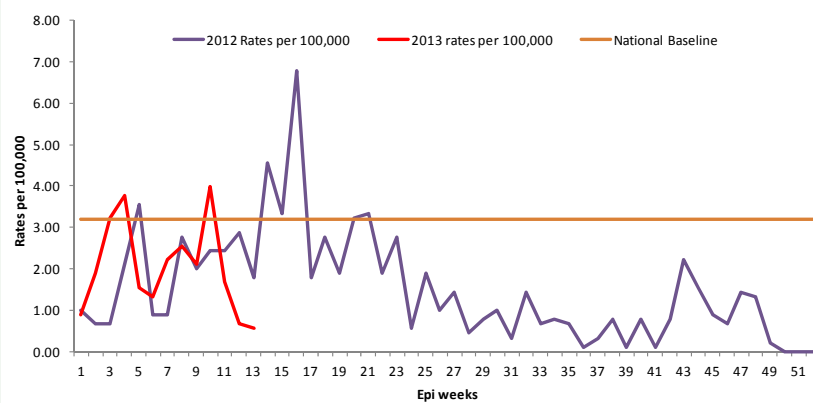
3 peaks were observed in the first quarter. Certain medical sub divisions have been highlighted namely: Lautoka /Yasawa, Nadroga/Navosa, Serua/Namosi and Suva. These medical areas have recorded high cases of Typhoid compared to other subdivisions. Age group most affected lie between 15-24 yrs. 54% of cases are males.

The I-Taukei make up 96% of total number of cases.

National trend of ELISA confirmed Leptospirosis Jan-Feb, 2013



Trend of Elisa confirmed Dengue Jan-March 2013



Typhoid cases by medical areas Jan-March 2013				
Medical sub division	January	February	March	Total
Ba	7	5	1	13
Bua	1	1	1	3
Cakaudrove	3	2	1	6
Lautoka/Yasawa	4	3	1	8
Lomaiviti	2	1		3
Macuata	3	2	3	8
Nadi	6	2	1	9
Nadroga/Navosa	6	7	7	20
Naitasiri			1	1
Ra	4	2	3	9
Rewa	1	3	4	8
Serua/Namosi	10	5	5	20
Suva	2	11	4	17
Tailevu	4	4		8
Taveuni		3	2	5
Total	53	51	34	138

Public health events of international concern

Ongoing Dengue outbreaks in the Solomon Islands As of the 22nd of March, 1345 cases of suspected dengue fever have been reported. Of these, 1235 (92%) cases were in Honiara, 45 (3.3%) cases in Western Province, 57 (4.2%) cases in Guadalcanal Province (GP) and 8 (0.6%) cases in Malaita Province. Of the 888 cases tested with Rapid Diagnostic Tests (RDTs), 359 were NSI and/or IgM positive. Laboratory testing is now confined to severe and newly suspected cases in other provinces. Ninety-seven cases have been hospitalised, and three deaths have been reported. As of the 26th of March, the suspected cases have risen to 1625. (Sourced PACNET posting by SPC March 26th).

3rd cases dies from Influenza A(H7N9) virus in China. Details can be obtained via http://www.who.int/csr/don/2013_04_03/en/index.html.

An update on **Severe Respiratory Illnesses associated with a Novel Coronavirus**. As at March 7th, 14 cases have been confirmed & reported to WHO with 8 related deaths. More details are available on the following weblink: <http://www.cdc.gov/mmwr/pdf/wk/mm6210.pdf>

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