

Table 1: Fiji National Notifiable Diseases system 2010 (NNDSS)

Syndrome	Month of onset			
	May	June	July	Cumulative total 2010
Diarrhoea <sup>1</sup>	1,352	830	119	7,373
Diarrhea with blood <sup>2</sup>	115	72	11	462
Influenza-like illness <sup>3</sup>	1,024	758	23	4,608
Acute respiratory Infections <sup>4</sup>	3,342	2,235	255	16,660
Acute Fever & Rash <sup>5</sup>	1	4	1	37
Acute flaccid paralysis <sup>6</sup>	0	0	0	2

Notes:

- 1 Source: Fiji National Notifiable Diseases Surveillance System (NNDSS); reported as "acute gastroenteritis", "enteritis", "gastroenteritis", "infective diarrhoea", "mild gastroenteritis", or "infective enteritis".
- 2 Source: NNDSS; reported as "dysentery amoebic & bacillary"
- 3 Source: NNDSS; reported as "influenza", or "influenza-like illness".
- 4 Source: NNDSS; reported as "pneumonia + ARI", "acute respiratory infection", "acute respiratory illness", "upper respiratory tract infection",.
- 5 Source: Hospital Based Active Surveillance System (HBAS)
- indicates that no information was available at time of printing

### Epi notes

**ARI:** Ari numbers averaged >2000 cases from Jan-Jun peaking in May. Documented age group that were most affected was 1- 4yrs. Undocumented age group case counts are above 9,000

**Diarrhea:** The following health facilities reported > 400 cases each for the 3 month period: Makoi, CWMH, Nausori, Taveuni & Lami.

**B-Dysentery:** Notably centres reporting > 10 cases were: Vunidawa, Taveuni, CWMH, Ba Mission, Lautoka hospital, Lekutu, Wainikoro, Wainunu, Seaqaqa, Nabouwalu & Naduri.

**Other NNDSS highlights:**

Chicken pox: Over 500 cases have been reported. 51 cases were amongst 1-4yr olds.

Figure 1: Shigella by sending health facility Northern, Jan-July 2010

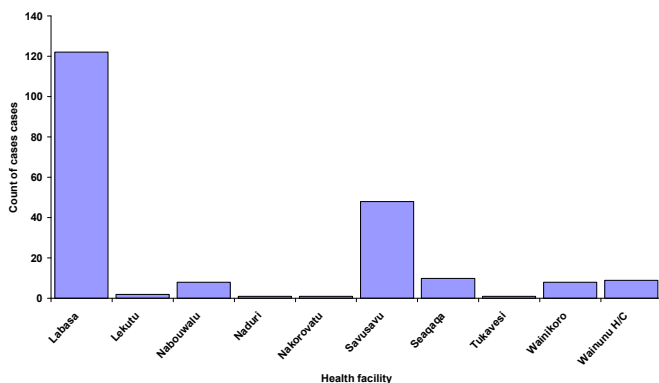
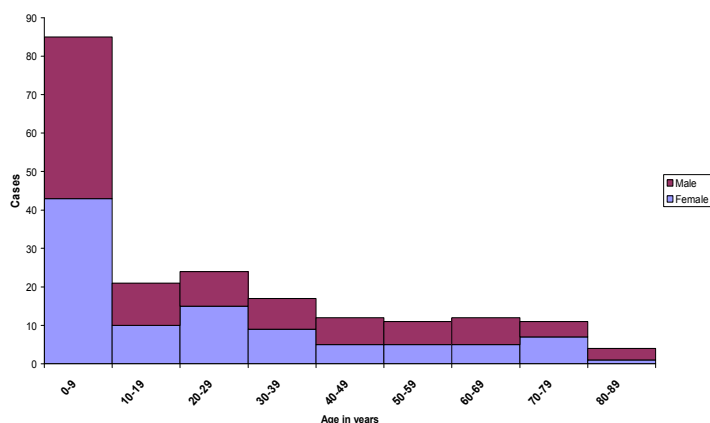


Figure 2: Shigella Northern division by age group Jan-19th July 2010



### Shigella coverage

The Northern division laboratory is currently the only laboratory reporting shigella cases. Most of the reported shigella cases in the North are from Labasa hospital—the main referral site for symptomatic shigella cases. Clinical presentations. The predominant serogroup is shigella flexneri. Laboratory results indicate that mainly Children under the age of 10 years were affected.

Shigella infection is typically via ingestion (fecal-oral contamination); depending on age and condition of the host as few as 100 bacterial cells can be enough to cause an infection. Shigella causes dysentery that results in the destruction of the epithelial cells of the intestinal mucosa in the cecum and rectum. Some strains produce enterotoxin and Shiga toxin, similar to the verotoxin of E-coli 0157: H7. Both Shiga toxin and verotoxin are associated with causing hemolytic uremic syndrome.

The most common species, *S. dysenteriae* and *S. flexneri*, are also the most virulent. In developed countries, sporadic common-source outbreaks, predominantly involving *S. sonnei*, are transmitted by uncooked food or contaminated water.

Shigella is not routinely reported through the laboratory surveillance system but in 2010 there are plans to introduce monthly reporting of shigella through the laboratory surveillance system.

## PACIFIC REGIONAL SYNDROMIC SURVEILLANCE

Following the introduction of syndromic surveillance in Auckland, a presentation was made to the Minister for Health & Directors meeting on our plans to implement the syndromic surveillance with our mobile phone surveillance system trial. The plan and proposal was endorsed at this meeting. The initial sites selected were national influenza sentinel surveillance sites established in 2008 but expanded to include health facilities that were main referral centers for major international ports of call and tourism areas. Its still very early in the system to determine thresholds for each reporting site so a national summary is described.

The graph shows aggregated data by week for the 4 common syndromes from all the reporting sites. The sites were visited during May, July and August.

Four essential syndromes with case definitions :

1. Acute fever & rash: sudden onset of fever wit acute non blistering rash
2. Diarrhoea: 3 or more loose or watery stoold in 24hours.
3. Influenza-like-illness: Sudden onset of fever with cough or sore throat
4. Prolonged fever: Any fever lasting 3 or more days

Reporting began at end of July with the notification presented below. Selected sentinel sites & sources of data are GOPD at the following health facilities: CWMH, Lautoka, Labasa, Rakiraki, Nadi, Sigatoka, Rotuma, Valelevu, Nuffield, Makoi, Savusavu, Levuka,

Figure 3:ILI, Diarrhoea & Prolonged fever July- wk 1 September 2010

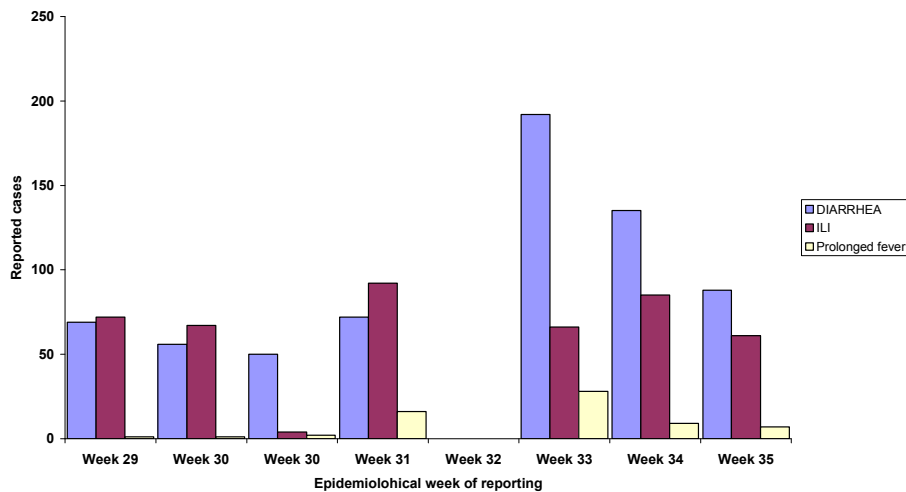
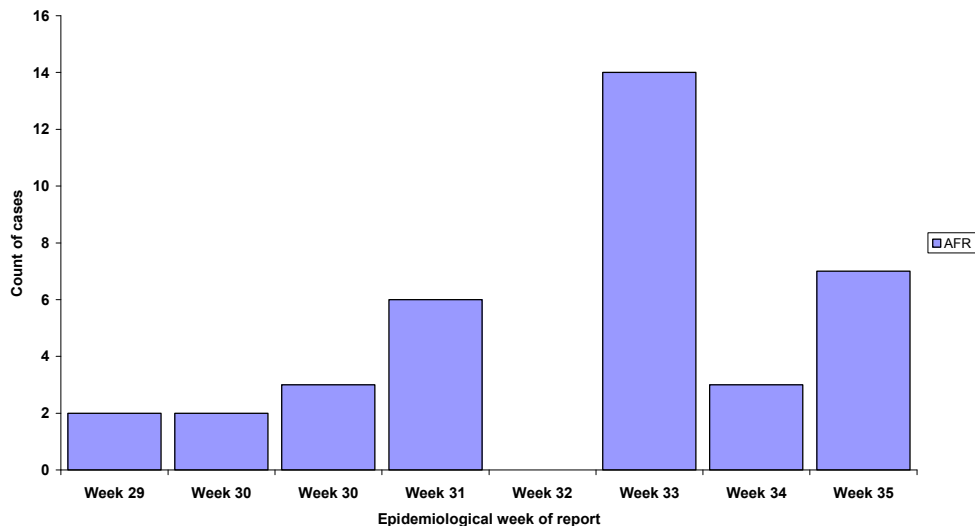


Figure 4: AFR cases July- Wk 1 September 2010



**Table 3: Laboratory confirmed new cases from Fiji Centre Communicable Disease Control (FCCDC) and divisional laboratories**

Table 3: Jan - 30th July 2010						
	June		July		2010	
Selected Diseases	Tests requested	Tests positive	Tests requested	Tests positive	Cumulative total tests requested	Positive cases cumulative
Measles <sup>1</sup>	5	0	3	0	37	0
Rubella <sup>1</sup>	5	0	3	0	37	0
Dengue Fever <sup>1</sup>	0	0	8	5	10	7
Influenza <sup>1</sup>	22	0	4	0	129	1
Leptospirosis <sup>1</sup>	11	11	5	5	67	69
HIV/AIDS <sup>1</sup>	26	-	13	-	150	18
Typhoid fever <sup>2</sup>	-	-	-	-	-	408
Cholera <sup>2</sup>	-	-	-	-	-	0

Legend :  
 - : Not available  
 Data Source :  
 1. 1 : FCCDC Laboratory (Mataika House)  
 2. 2: Divisional Laboratories CWMH, Labasa & Lautoka  
 3. HIV : Case count as at 2nd qtr NACA seating 2010

Confirmed Leptospirosis cases have increased from March 7 peaking in April.

41 cases were recorded in the Central division.

Overall most affected age group: 10-29yrs (51%) . Fijians make up 88% of these infections.

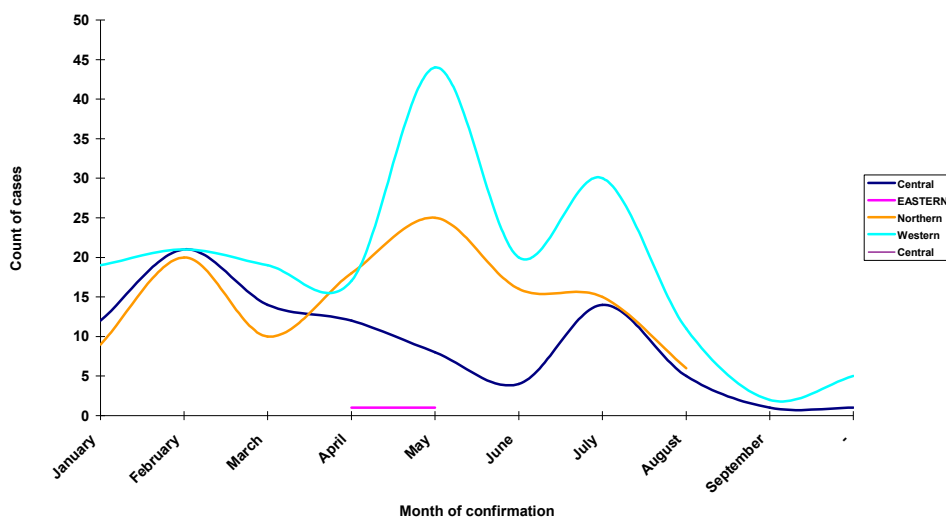
Influenza : As at 31st July one Pandemic H1N1 influenza case was confirmed at the Fiji NIC.

Typhoid: special section have been submitted for Typhoid news

### TYPHOID LAB- SURVEILLANCE

**Figure 5:** As at 1st week September there were just over 400 cases of Typhoid confirmed from the 3 divisional hospitals. To date (excluding outbreaks) Ra medical area recorded the 2nd highest number of cases to CWMH (refer next pg ). Figure 5 below left is the national log of cases for all divisions as confirmed by the divisional hospital laboratories. The national overall peak was in May & July coinciding with the Keiyasi outbreak. The rates below are based on the national aggregated data. Distribution within each division may vary. The proportion of cases by gender: Females: 44% & Male: 56% .Proportion by race: Fijians: 97% Indians: 2% Others: 1% .Cases disaggregated by division: Western: 47% ( 188 cases), Northern: 30% ( 119 cases), **Central** 23% (93 cases), Eastern: 1% (4 cases). Most number of cases were confirmed at the CWMH where a total 30 cases (44%) presented via the A&E department. Furthermore, 10 cases consulted via GOPD. The remaining cases were recorded at various medical wards of CWMH. A handful of cases were also detected at outlying health areas such as : Wainibokasi, Korovou & Mokani.

Figure 5: Lab confirmed Typhoid by division Jan-Week 1 Sept 2010



### Vaccination update.

Intense campaigns were carried for at various sites this year. An update as at Aug end is presented below in table 4

Table 4: TYPHOID VACCINATION AT PRIORITY AREAS		
Area	Target population	Vaccinated
Taveuni	14, 626	15,409
Cakaudrove	24,830	24,169
Ra	5,817	6,696
Jittu estate	-	93%
Keiyasi	-	93%

## Typhoid surveillance (cont'd)

**Figure 6 below** shows cases that were confirmed at various health facilities in each division. Graphs are presented thus to enable a more detailed focus on the medical areas that have notable Typhoid activities. Northern division data as at 2nd week of August. Labasa divisional hospital recorded the most number of cases (40), followed by Savusavu (33). Other health centres were Nabouwalu, Wainikoro, Seaqaqa & Lekutu. Western division data as at end of August. Sigatoka & Rakiraki make up a larger proportion of Typhoid cases.

### Ra (Western) subdivision

This special coverage focuses on Ra subdivision., another area that has consistently recorded Typhoid cases since 2007. The timeline below fig.7 (Nov 2009– end of June 2010). As at 1st week of August there were > 60 cases recorded for 2010 alone. Based on the Western population (2007 census) the incidence rate for the Western division is 3.84 per 10,000. This rate excludes the Sigatoka outbreak, a higher incidence than the Northern which was thought to be the "hotspot". The most cases documented were from the Ra villages of Navitilevu & Namuimada. The first peak to date was recorded in January 2010 (17 cases) and another 12 cases were confirmed in July. Gender specific: 56% Females and 44% males. Most affected age group lay 10-29yrs 66cases. We thank the SDMO Rakiraki for provision of Typhoid data.

Figure 6: Confirmed Typhoid by health facility Jan-week 1 Sept 2010

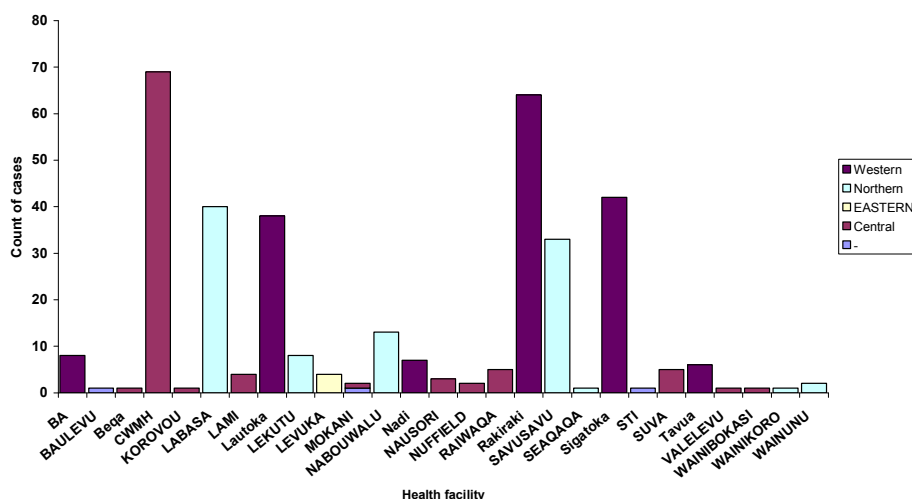
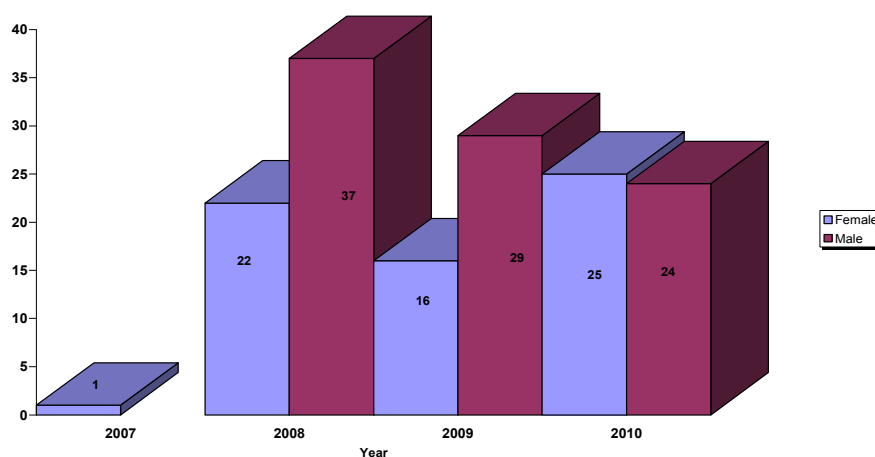


Figure 7: Typhoid cases in Ra area 2007-2010



### Other health news!

#### Cholera outbreak in Papua New Guinea remains an emergency Posted on 06 August, 2010.

[Radio New Zealand].

The cholera outbreak in Papua New Guinea remains a problem, a year after it began.

The head of the Cholera Taskforce in the National Capital District, Dr Tim Pyakalya, says people continue to be admitted to hospital with suspected cases of cholera, with eight more in Port Moresby this week. He says about 1200 people in the capital are still [have been?] affected by the disease and an upgrade of the water system is still essential.

"Biggest problem in the city is a lack of proper water and sanitation". And public facilities like public toilets in the markets where we don't have proper running water and the functioning toilets. So this is the major challenge that the city is facing." Dr Tim Pyakalya says at the same time the health sector is focusing on training staff to better deal with the cholera issue. The disease first surfaced in August last year in Morobe Province and has since spread to Lae, Madang, East Sepik and the capital, Port Moresby.

#### Pacnet comment by Dr. Tom, PPHSN, SPC.

Given the links Papua New Guinea (PNG) has with the rest of the Pacific Island region, and the frequent water and sanitation problems in many of the Pacific Island countries--vulnerability factors for water and food-borne dis-

**eases like cholera-it is important that clinicians and public health professionals remain aware of cholera progression in PNG and the existing potential--even limited--for cholera exportation.**

Acute watery diarrhoea (with or without vomiting) in patient aged five year or more, especially with severe dehydration, should be suspected of cholera: additionally to proper patient management (i.e. rehydration treatment) it should prompt appropriate infection control measures, as well case and laboratory investigation (to look for the possible source of infection and confirm the diagnosis).

#### Acknowledgements

We would like to thank the Lautoka, Labasa & CWMH divisional laboratories, the Statistics section at MoH as well as all physicians and nurses who report clinical data. In addition we also thank WHO for their technical and financial assistance in making this surveillance bulletin possible.

For bulletin inquiries and or suggestions please contact Aggie on telephone 3320066 at the centre