# January March **EPIDEMIOLOGICAL BULLETIN**

# **SRI LANKA**

Volume 54

# First Quarter 2013

# **EPIDEMIOLOGY UNIT**

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#### 1. POLIOMYELITIS

Sixteen (16) Acute Flaccid Paralysis (AFP) cases were notified to the Epidemiology Unit during the 1<sup>st</sup> quarter 2013. This is lower than the reported AFP cases during the during 1<sup>st</sup> quarter 2012 which is 23.Reported number for the quarter is less than the expected number of AFP cases per quarter to meet the annual surveillance target of 2:100,000 under 15 year age population. Which is 24 according to the current census survey population. The non-polio AFP rate for the first quarter of 2013 was 1.3:100,000.

#### **Notification of AFP Cases from Hospitals**

Currently 69 hospitals are functioning as sentinel sites for AFP surveillance and sentinel sites for AFP are defined as hospitals with availability of Consultant Pediatricians' services. Three cases were reported from Sirinavo Bandaranayake Specialized Chidren's Hospital (SBSCH) and two each T.H.Peradeniya, G.H.Kandy, TH Karapitiya. Table 01 shows notification of AFP cases from sentinel Hospitals.

#### Distribution of AFP Cases according to Provinces, Districts & MOH Areas

Three cases were reported from Nuwara Eliya district.District of Galle, Kandy, Kurunegala and Kalmunei reported 2 cases each and Ampara, Anuradhapura and Kilinochchi reported 01 case each for the given quarter. District and MOH areas are given in table 02.

#### Age and Sex Distribution of AFP Cases

Majority of AFP cases (75%) were males, in the 1<sup>st</sup> Quarter 2013. During the 1<sup>st</sup> quarter 2012 the number was more or less equal from both sexes.

Majority of AFP cases (75%) were between 1-9 years and the age sex distribution of reported cases are given in table 03.

#### Table 01

Notification of AFP cases by sentinel hospitals 1st Quarter 2013

No: of cases reported
3
2
2
2
1
1
1
1
1
1
1
16

### Table 02 Distribution of AFP cases by district & MOH area - 1st quarter 2013

Province	District	MOH Area	Number of AFP cases
Central	Nuwara Eliya	Nuwara Eliya	1
		Kotapola	1
		Thalawakale	
	Kandy	Kandy Akurana	
		Ganga Ihala	1
Southern	Galle	Hikkaduwa	1
		Galle /MC	1
Western	Colombo Maharagama		1
Sabaragamuwa	Kegalle	Aranayake	1
North Western	Kurunegala	Alawwa	1
		Galgamuwa	1
Eastern	Kalumunai	kalmunai	1
		Akkaraipaththu	1
	Ampara	Dehiattakandiya	1
North Central	Anuradhapura	Medawachchiya	1
Northen	kilinochchi	poonakari	1
Total			16

#### Seasonal Distribution of AFP Cases

Majority of cases were reported during the month of January (9 cases, 56%). No significant seasonal variation observed during the period.

1st Quarter

#### January - March

Table 03. Distribution of AFP cases by Age &Sex, 1st Quarter 2013

Age Group	s	ex	Total
	Male	Female	
<1 Year old	0	1	1
1-4 year old	5	2	7
5-9 year old	5	0	5
10-15 year old	2	1	3
Total	12	4	16

#### Laboratory Surveillance of AFP Cases

Two stool samples collected within 14 days of onset of paralysis are required at the Virology laboratory (Medical Research Institute, WHO regional reference laboratory these samples should be of " good condition" as well as timely. Being of correct quantity (8-10g), being sent in a leak proof container with no evidence of spillage or leakage and presence of ice in the container on receipt are the criteria to be completed to make the samples of 'good condition'. All 16 AFP cases reported (100%) had both stool samples collected timely and sent to MRI for polio virology.

#### 2. MEASLES

Hundred and fifty nine (159) measles cases were reported during the 1<sup>st</sup> quarter 2013 with possible outbreak in the country. Hundred (100) of them were clinically confirmed as measles as compatible with clinical surveillance case definition of " fever and maculopapular rash with one of the signs of cough, coryza or conjunctivitis".

This number is in contrast to 18 suspected cases and 13 clinically confirmed cases respectively in the compatible quarter, in the previous year. These clinical cases were field investigated by the respective MOH of the patients' residential areas. Thirty three (33%) patients of the confirmed measles cases were below the age of 1 year and higher proportion (73%, 24 patients) of the below 1 year were within 6-12 months. Western province reported highest proportion (64%) (Colombo 45, Kalutara 11, Gampaha 8) Southern province (11%) reported next highest with 9% of them reported from in Hambantota. Out of all clinically confirmed cases, 84% were among unvaccinated category. Measles cases among children due for age appropriate vaccination with measles vaccine were minimum.

Laboratory investigations of 165 fever and maculopapular rash patients suspected of Measles or Rubella were carried out in the WHO accredited virology Laboratory at the Medical Research Institute (MRI) and identified 150 cases were serology positive for Measles IgM

#### 3. LEPTOSPIROSIS

During the 1st Quarter 2013, 1238 cases and 33 deaths (CFR 2.67%) due to Leptospirosis were notified to the Epidemiology Unit compared to 750 cases and 20 deaths in the previous quarter and 730 cases and 14 deaths during corresponding quarter of 2012.

Age and sex distribution of patients, revealed by the special surveillance data is given in Table 04

# Table 04: SELECTED CHARACTERISTICS OF LEP-TOSPIROSIS PATIENTS (%) 1ST QURTER 2013

Age Group	5	Sex
Age Group	Male	Female
< 9 years	0.3	0.1
10-19 years	5.8	0.6
20-29 years	14.7	1.7
30-39 years	18.7	5.1
40-49 years	18.8	5.7
50-59 years	11.4	6.2
<60years	8.2	2.8
Total	77.9	22.2

#### 4. HUMAN RABIES

Six cases of Human Rabies were notified to the Epidemiology Unit in the 1st quarter 2013 compared to 07 cases in the previous quarter and 11 cases in the corresponding quarter of year 2012.

All the notified cases (06) were investigated and confirmed as Human Rabies, 04 (66.67%) were females and 02 (33.33%) were males.

#### **Animal Rabies**

During this quarter 180 dogs were reported positive for rabies, compared to 147 in the previous quarter and 162 positive in the same period in the last year. In addition, the following animals were also reported positive:

Cats-27, Wild animals-02, Domestic Ruminants-04 (Cow-03, Goat-01)

#### **Rabies Control Activities**

**Dog vaccination** - A total of 185525 dogs were immunized during the Quarter under review when compared to 355046 in the previous quarter and 240084 in corresponding Quarter of the last year.

#### **Animal Birth control**

**Chemical**- A total of 7472 female dogs were injected with birth control injections (Progesterone) during the quarter under review.

**Surgical**– 15451 female dogs were subjected to sterilization by surgical method during the quarter under review.

#### **5. VIRAL HEPATITIS**

In the 1st Quarter 2013, a total of 573 cases of Viral Hepatitis were reported to the Epidemiology Unit. This was in comparison to the 410 cases in the previous quarter and 552 cases in the corresponding quarter of 2012. Rathnapura (90 cases) reported the highest number of cases followed by Kegalle District (87).

#### **6. ENTERIC FEVER**

In the 1st Quarter 2013, a total of 362 cases of Enteric fever were reported to the Epidemiology Unit, compared to 357 cases in the previous quarter and 455 cases in the corresponding quarter of 2012. The district of Jaffna reported the highest number of cases (150), followed by Mannar (40) and Colombo (38).

#### 7. DYSENTERY

In the 1st Quarter 2013, a total of 860 cases of Dysentery were reported to the Epidemiology Unit, in comparison to 1524 cases in the previous quarter and 746 cases in the corresponding quarter of 2012. Rathnapura (132) and Kurunegala (66) reported the highest number of cases.

#### 8. MALARIA

There were no indigenous malaria cases reported during the 1st quarter of 2013 compared to the malaria cases detected during the same period of 2012. (Table 06 & 07)

#### 9.JAPANESE ENCEPHALITIS (JE)

During the 1<sup>st</sup> quarter of 2013, 178 cases of clinically suspected Encephalitis were reported to the Epidemiology Unit through the routine disease notification system. Out of this, 127 cases were clinically confirmed. During the 1<sup>st</sup> quarter of 2013, MRI has reported 57 lab conformed JE cases. Out of these 57 confirmed JE cases, 47 cases (82%) were investigated by the MOH. Among them 25 (44%) were over 50 years of age, another 15 (26%) were between 21 -50 years, another 3 (5%) were 11-20 years. another 3 were 1-10 years while 2 were less than one year.

The highest number of confirmed JE cases were (23) reported from Ratnapura district followed by 16 cases from Colombo district. In the majority of confirmed JE cases, immunization status was unknown.

#### Table 05

### SELECTED CHARACTERISTICS OF CONFIRMED CASES OF JE – 1ST QUARTER 2013

Sex	Male	30 (53%)
UCX	Female	27 (47%)
Age group	1 <y< td=""><td>2 (4%)</td></y<>	2 (4%)
	1-10Y	3 (5)
	11-20Y	3 (5%)
	21-50Y	15 (26%)
	. 50Y	25 (44%)
	No Data	9 (16%)
District	Colombo	16 (28%)
	Galle	03 (5%)
	Batticaloa	01 (2%)
	Kurunegala	07 (12%)
	Ratnapura	23 (40%)
	Badulla	01 (2%)
	Jaffna	02 (4%)
	Kandy	04 (7%)

#### Table 06

## Results of Blood smear examination for malaria parasites - 1st Quarter 2013

	1st quarter 2012	1st quarter 2013
No. of blood smears examined	258,113	227,450
No. of positives	14	0
No. of <i>P. vivax</i>	13	0
No. of P. falciparum	1	0
No. of mixed infections	0	0
No. of infant positives	0	0
Slide positivity rate (S.P.R.)	0.01%	0
P.v. : P.f. ratio	13:1	0
Percentage of infant positives	0	0

#### Table 07

DISTRIBUTION OF MALARIA CASES BY RMO-1ST QUARTER 2013

Т

RMO	Blood smears	Posi- tives	P.v.	P.f.	Mixe d
Colombo	20587	0	0	0	0
Gampaha	11407	0	0	0	0
Kalutara	3041	0	0	0	0
Kandy	10814	0	0	0	0
Matale	5435	0	0	0	0
Nuwara Eliya	547	0	0	0	0
Galle	4058	0	0	0	0
Matara	5832	0	0	0	0
Hambantota	6327	0	0	0	0
Jaffna	11707	0	0	0	0
Kilinochchi	8902	0	0	0	0
Vavuniya	7480	0	0	0	0
Mannar	7678	0	0	0	0
Mullaitivu	4845	0	0	0	0
Batticaloa	18064	0	0	0	0
Ampara	6380	0	0	0	0
Kalmunei	12954	0	0	0	0
Trincomalie	10064	0	0	0	0
Kurunegala	14490	0	0	0	0
Maho	4179	0	0	0	0
Puttalam	5866	0	0	0	0
Anuradhapura	17317	0	0	0	0
Pollonnaruwa	9126	0	0	0	0
Badulla	5435	0	0	0	0
Monaragala	5941	0	0	0	0
Rathnapura	6439	0	0	0	0
Kegalle	2535	0	0	0	0
TOTAL	227450	0	0	0	0

P.v.– Plasmodium vivax

P.f.- Plasmodium falciparum

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#### Table 08

MORBIDITY AND MORTALITY DUE TO DF/DHF -1ST QUARTER 2013

RDHS Division	Cases	Percentage (%)	Deaths
Colombo	2393	24.63%	7
Gampaha	1073	11.05%	4
Kalutara	480	4.94%	0
Kandy	542	5.58%	1
Matale	144	1.48%	1
N' Eliya	79	0.81%	0
Galle	209	2.15%	0
Hambantota	107	1.10%	1
Matara	188	1.94%	2
Jaffna	261	2.69%	0
Kilinochchi	18	0.19%	0
Mannar	40	0.41%	0
Vavuniya	31	0.32%	1
Mullaitivu	36	0.37%	0
Batticaloa	219	2.25%	1
Ampara	51	0.53%	0
Trincomalee	101	1.04%	0
Kurunegala	1505	15.49%	4
Puttalam	443	4.56%	1
A'pura	245	2.52%	0
Polonnaruwa	121	1.25%	0
Badulla	136	1.40%	0
Moneragala	80	0.82%	0
Ratnapura	499	5.14%	2
Kegalle	339	3.49%	0
Kalmunai	374	3.85%	1
Total	9714	100.00%	26

#### 10. DENGUE FEVER (D.F.)/ DENGUE HAEMORRHAGIC FEVER (D.H.F.)

During the 1<sup>st</sup> quarter 2013, 9716 cases of DF/DHF and 26 deaths were reported (0.26% CFR) when compared to 10853 cases of DF/DHF and 31 deaths (0.28% CFR) reported during the 4<sup>th</sup> quarter 2012. Proportion of cases notified in January, February, March was 35.63%, 33.51%, and 30.83% respectively Table 08 shows the distribution of DF/DHF cases and deaths in the RDHS divisions during the 1<sup>st</sup> quarter.

Special surveillance data on 2127 confirmed cases were received and analyzed for the 1<sup>st</sup> quarter 2013.Age distribution of reported cases were <4 years of age in 315 (14.80%), 5 - 9 years of age in 513

(24.11%), 10 - 14 years of age in 316 (14.85%) 15 -19 years of age in 167 (7.85%), 20 - 24 years of age in 169 (7.94%),25 - 29 years of age in 144 (6.77%), 30 - 34 years of age in 139 (6.53%), 35 - 39 years of age in 86 (4.04%), 40 - 44 years of age in 82 (3.85%), 45 - 49 years of age in 49 (2.30%), 50 - 54 years of age in 43 (2.02%), 55 - 59 years of age in 43 (2.02%) and >60 years of age in 55(2.58%).

According to the clinical findings, majority of the reported cases (90.31%) were classified as dengue fever ,9.68% were classified as DHF with 6.58%, 2.58%, 0.51%, 0% falling into DHF I, DHF II, DHF III, DHF IV categories respectively.

During the 1<sup>st</sup> quarter 2013, 1297 blood samples were tested using IgM capture ELISA test at the Department of Virology, MRI. From the total, 516 (39.78%) samples were confirmed as positive

#### 1st Quarter

#### January - March

### 11. RUBELLA AND CONGENITAL RUBELLA SYNDROME

During the whole quarter, only 6 suspected Rubella disease cases were reported and 5 of them were compatible with surveillance case definition [fever and maculopapuler rash, with arthralgia/ arthritis, lymphadenopathy (suboccipital, post auricular and cervical) or conjunctivitis] during field investigations carried out by the Medical Officer of Health (MOOH) in the respective residences of each reported patient.

There were no outbreaks during the quarter. These reported cases for the quarter were lower than the reported cases during the compatible quarter (46) in 2012 which included one outbreak with 40 cases.

The field level investigation identified 2 of them as adult males above 30 years. Laboratory investigations of patients with fever and rash suspected of Measles or Rubella (27) were carried out in the WHO accredited Virology Laboratory in the Medical Research Institute (MRI) and 3 cases were identified as serology Positive for Rubella IgM antibodies. All three were 18-19 year old males.

#### 12. CHOLERA

No confirmed cases of cholera were reported to the Epidemiology Unit during the 1st Quarter 2013. Last case of cholera was reported in the country in January 2003.

#### **13. TETANUS**

Six (6) cases were reported in 1st quarter. Out of which , 6 (100%) got clinically confirmed, majority was males (83.3%) and the age above 50 years (66.6%). Deaths were not reported. Kurunegala was the highest district reported (4). No out breaks were reported.

#### 14. SURVEILLANCE REPORT ON AEFI

Surveillance of Adverse Events Following Immunization (AEFI) effectively continued in the 1<sup>st</sup> Quarter of 2013 has reached 96% of completeness of reports, while 47.4% reports were received in time at the Epidemiology Unit indicating good compliance to the system by the MOOH. Almost 70.5% districts in the country have found at least one adverse event during a month probably due to good awareness and enthusiasm for surveillance by the health staff in MOH areas. Hambantota, Jaffna, Mannar, Vavuniya, Batticaloa, Puttalam, Polonnaruwa, and Kegalle were able to send all reports, for Sri Lanka it was 96%. The best timeliness was reported from the Jaffna district (86.1%) followed by Vavuniya(83.3%) and Kegalle (75.8%)(Table09).

The highest percentage of nil reports were received from Ampara (73.7%) followed by Kalmunai district (58.3%), Nuwara Eliya district (55.6) and Batticaloa district (52.4%) which is much higher than the Sri Lanka average (29.5%) indicating the need for more attention for surveillance. Jaffna district was not reported as a nil return, followed by Polonnaruwa (4.8) and Kegalle districts (6.1%). The highest rate (639.7 per 100,000 immunizations) of AEFI was reported from Jaffna district with the number of 262 AEFI.

For the 1<sup>st</sup> quarter, the highest number of AEFI (n=930) was reported against Pentavalent vaccine, whereas the highest rate of AEFI (683.6/100,000 doses administered) was reported against DTP vaccine. The rate of AEFI for Pentavalent (01<sup>st</sup>, 02<sup>nd</sup> & 03<sup>rd</sup> doses) is 345.5 per 100,000 doses administered. High Fever (795), Allergic Reaction (680), Nodule (277) are the leading AEFI reported. Highest numbers of fever cases reported were following Pentavalent (403 cases: 149.7 per 100,000 doses administered) and DPT (264 cases: 292 per 100,000 doses administered) vaccines. For Allergic reactions, it was largely due to LJE (343 cases: 182.2 per 100,000 doses administered) and PVV (110 cases: 40.9 per 100,000 doses administered).

Table 09

COMPLETENESS AND TIMELINESS OF MONTHLY REPORTING AND RECEIPT OF "NIL" REPORTS OF AEFI BY RDHS DIVI-

	%	%	%	No. of	AEFI Rate
DPDHS	completeness	Timely returns	Nil Returns	AEFI	(100,000 vaccine doses)
Colombo	97.6	43.9	12.2	237	185.5
Gampaha	95.6	51.2	9.3	117	87.1
Kalutara	97.4	21.1	47.4	58	74.9
Kandy	94.4	41.2	35.3	126	120.8
Matale	89.7	60.0	40.0	60	156.7
Nuwara Eliya	92.3	19.4	55.6	46	77.5
Galle	98.2	64.3	33.9	63	93.3
Hambantota	100.0	66.7	11.1	97	211.0
Matara	94.1	70.8	18.8	106	181.2
Jaffna	100.0	86.1	0.0	262	639.7
Kilinochchi	91.7	27.3	27.3	30	285.8
Mannar	100.0	33.3	40.0	35	420.9
Vavuniya	100.0	83.3	25.0	43	333.2
Mullativu	83.3	40.0	50.0	19	203.4
Batticaloa	100.0	42.9	52.4	47	106.0
Ampara	90.5	10.5	73.7	12	68.5
Trincomalee	93.9	48.4	35.5	45	137.5
Kurunegala	97.4	39.5	9.2	355	284.0
Puttalam	100.0	30.3	42.4	57	89.8
Anuradhapura	94.7	33.3	40.7	76	109.4
Polonnaruwa	100.0	42.9	4.8	105	352.3
Badulla	97.9	70.2	29.8	83	140.5
Moneragala	97.0	56.3	21.9	49	137.4
Ratnapura	92.6	36.0	28.0	195	149.8
Kegalle	100.0	75.8	6.1	110	205.0
Kalmunai	92.3	22.2	58.3	23	66.1
Sri Lanka	96.0	47.4	29.5	2456	164.7

 Table 10: Number of Selected Adverse Events by Vaccines – 1<sup>st</sup> Quarter 2013

					••••					
	BC G	OPV	PVV	DPT	MM R	LJE	DT	тт	aTd	Total number of AEFI reported
Total Number of AEFI Reported	3	6	930 345.	618 683.	232 135.	472 250.	91 103.	24 28	75	2456
AEFI reporting rate/1,000,000 dos- es administered	3.6	1.3	5	6	4	8	8	.4	108	
High Fever (>39°C)		3	403 149.	264	52	47	16 18.	2 2.	6	795
Reporting rate/1,000,000 doses administered		0.7	7	292	30.3	25	3	4	8.7	
Allergic reactions			110	89	83	343 182.	19 21.	8 9.	24	680
Reporting rate/1,000,000 doses administered			40.9	98.5	48.4	2	7	5	34.7	
Severe local reactions			27	29	4	7	9 10.		1	77
Reporting rate/1,000,000 doses administered			10	32.1	2.3	3.7	3		1.4	
Seizure (Febrile/Afebrile)			15 5.6	29 32.1	8 4.7	2 1.1	2 2.3			56
Reporting rate/1,000,000 doses										
Nodules			176	83	3	3	9 10.	2 2.	1	277
Reporting rate/1,000,000 doses administered			65.4	91.8	1.8	1.6	3	4	1.4	
Injection site abscess			39	17		2	2	3 3.		63
Reporting rate/1,000,000 doses administered			14.5	18.8		1.1	2.3	5		
HHE			3 1.1	1 1.1			1 1.1			5
Reporting rate/1,000,000 doses										

#### 15. TUBERCULOSIS

A total of 1682 Tuberculosis patients were registered for 1st Quarter 2013 by the National Programme for Tuberculosis Control and Chest Diseases. Of this total 1600 patients had pulmonary TB and 579 patients were with extra pulmonary TB. Of these patients, 1155 were smear positive. There was one HIV/TB positive patients found in the quarter. The distribution of tuberculosis patients by RDHS division is given in Table 11.

#### Table 11

### TUBERCULOSIS PATIENTS BY RDHS DIVISIONS - 1st Quarter 2013

RDHS		Nev		Retreat- ment &	Total	
DIVISION	PTB sp+ve	PTB sp-ve	ЕРТВ	Total	other	Total
Colombo	292	98	152	542	46	588
Gampaha	145	38	64	247	18	265
Kalutara	94	17	51	162	7	169
Kandy	50	53	47	150	13	163
Matale	21	12	9	42	2	44
Nuwara Eliya	31	15	10	56	8	64
Galle	73	25	37	135	5	140
Matara	15	8	11	34	5	39
Hambantota	15	10	13	38	3	41
Jaffna	23	19	14	56	6	62
Vavuniya	15	0	3	18	1	19
Batticaloa	39	6	11	56	4	60
Ampara	3	3	7	13	0	13
Kalmunai	18	10	6	34	5	39
Trincomalee	21	1	10	32	1	33
Kurunegala	43	34	20	97	32	129
Puttalam	25	5	12	42	1	43
Anuradhapura	50	9	15	74	5	79
Polonnaruwa	17	10	8	35	3	38
Badulla	36	7	18	61	2	63
Monaragala	20	1	5	26	0	26
Rathnapura	62	32	27	121	6	127
Kegalle	37	18	21	76	2	78
Mannar	3	11	4	18	0	18
Mulathivu	1	1	1	3	2	5
Kilinochchi	6	2	3	11	1	12
Total	1155	445	579	2179	178	2357

PTB-Pulmonary Tuberculosis

EPTB– Extra Pulmonary Tuberculosis SP + ve - Sputum Positive

- SP ve Sputum Negative
- Data from Central TB Register

Source - National TB Register

#### **16. SURVEILLANCE AT SEA PORT**

Details of the vaccinations carried out by the Assistant Port Health Office during the 1st quarter 2013, is as follows;

		Total
Α.	Yellow fever	966
В.	Meningococcal meningitis	88
C.	Oral polio	41

#### **17. SURVEILLANCE AT AIRPORT**

Surveillance activities carried out at the Inter national Airport, Katunayake during the 1st Quarter 2013 is given below.

#### 1. Yellow Fever Surveillance

a. No. with valid certificate	-	11
b. No. without valid certificate & Deported	-	00
c. No. without valid certificate & Isolat- ed	-	00
2. Disinfection of Aircrafts		
a No. of flights arrived	-	5795
b No. of flights has to be disinfected	-	5059
c No. of flights disinfected	-	4719
3. Surveillance of other Infectious diseases	-	Nil
4. Airport Sanitation		
a. No. of sanitary inspections carried out including food establishments	-	29
b. No. of food sample taken under food act	-	00
c. No. found defective	-	00
d. No. of court cases/prosecuted/ warned	-	00
5 Release of Human Remains		
a No. of Human Remains released	-	104
b No .of released to J.M.O. for post mortem	_	06
c No. of alleged suicide	-	02
6 Other Health activities		
<sup>a</sup> Polio Vaccination: No of doses giv- en	-	00
b Health talk given to staff	-	21

#### 18. LEPROSY

#### QUARTERLY RETURN OF LEPROSY STATISTICS - 1ST QUARTER 2013

#### Table 12

1. National

	At the	end of the qua	rter	Cumulative for end of the quarter			
	1st QTR,2013	1st QTR,2012	Diff (%)	2013	2012	Diff (%)	
New patients detected	494	524	-5.72	494	524	-5.72	
Children	49	43	13.95	49	43	13.95	
Grade 2 Deformities	39	30	30.00	39	30	30.00	
Multi-Bacillary	233	245	-4.89	233	245	-4.89	
Females	199	227	-12.33	199	227	-12.33	

#### 2. Districts

District	New patients	G2-Deformity	Children	MB	Females
Central	23	1	2	13	5
Kandy	11	1	2	8	3
Matale	10	0	0	4	1
NuwaraEliya	2	0	0	1	1
Eastern	64	8	5	34	28
Ampara	13	2	0	9	6
Batticaloa	26	4	3	12	11
Kalmunai	16	1	1	8	7
Trincomalee	9	1	1	5	4
Northern	23	1	6	6	9
Jaffna	16	1	6	2	7
Vavuniya	3	0	0	3	0
Mannar	3	0	0	1	2
Killinochchi	0	0	0	0	0
Mulathivu	1	0	0	0	0
North Central	33	3	3	18	13
Anuradhapura	23	3	3	12	11
Pollonnaruwa	10	0	0	6	2
North Western	44	4	3	22	18
Kurunegala	31	4	3	15	14
Puttalam	13	0	0	7	4
Sabaragamuwa	15	1	0	9	7
Kegalle	7	0	0	4	4
Rathnapura	8	1	0	5	3
Southern	53	2	3	35	22
Galle	18	1	1	15	7
Hambanthota	16	0	0	9	6
Matara	19	1	2	11	9
Uva	16	1	1	7	4
Baddulla	5	1	1	2	1
Monaragala	11	0	0	5	3
Western	223	18	26	89	93
Colombo	101	7	15	39	45
Gampaha	72	6	4	34	24
Kalutara	50	5	7	16	24
Sri Lanka	494	39	49	233	199

Source : Anti Leprosy Campaign

#### **19. SEXUALLY TRANSMITTED DISEASES**

#### Table 13

#### NEW EPISODES OF STD/HIV/AIDS REPORTED OR TREATED AT STD CLINICS IN SRI LANKA

#### **1ST QUARTER 2013**

Disease		New cases or new disease epi- sodes during the quarter			Total new cases or new episodes for the calendar year up to end of the quar- ter **		
		Male	Female	Total	Male	Female	Total
HIV positive	es <sup>1</sup>	29	15	44	29	15	44
AIDS		12	2	14	12	2	14
	Early Syphilis <sup>2</sup>	51	23	74	51	23	74
Syphilis	Late Syphilis <sup>3</sup>	132	71	204	132	71	203
	Congenital Syphilis <sup>4</sup>	2	2	4	2	2	4
Gonorrhoea	1 <sup>5</sup>	97	27	124	97	27	124
Ophthalmia	Neonatorum <sup>6</sup>	0	1	1	0	1	1
Non specific	c cervicitis/urethritis	178	334	512	178	334	512
Chlamydial	infection	3	0	3	3	0	3
Genital Her	pes	262	360	622	262	360	622
Genital War	ts	256	160	416	256	160	416
Chancroid		0	0	0	0	0	0
Trichomonia	asis	4	30	34	4	30	34
Candidiasis	Candidiasis		334	559	225	334	559
Bacterial Vaginosis		0	306	306	0	306	306
Other sexua	ally transmitted diseases <sup>7</sup>	93	34	127	93	34	127
Non venera	I	804	404	1208	804	404	1208

Source: NSACP

(Includes cases diagnosed and reported to the Central STD clinic Colombo and Peripheral STD clinics of National STD/AIDS Control Programme of Sri Lanka)

- \*\* Includes adjustments for revised diagnosis, reporting delays or any other amendments
- <sup>1</sup> Includes AIDS cases
- <sup>2</sup> Diagnosed within 2 years of infection and considered to be infectious
- <sup>3</sup> Diagnosed after 2 years of infection and considered to be non-infectious
- <sup>4</sup> Includes both early and late cases
- <sup>5</sup> Includes presumptive Gonorrhoea
- <sup>6</sup> Includes both gonococcal and chlamydial conjunctivitis in neonatal period
- Includes Lymphogranuloma venerium, Granuloma inguinalae, Molluscum contagiosum, Scabies, Tinea, Hepatitis B etc.
- 8 Number of STD clinic attendees who were not having sexually transmitted diseases.

#### 1st Quarter

#### 20. BACTERIOLOGY REPORT, MEDICAL RESEARCH INSTITUTE 1st QUARTER 2013

Table 14

	JAN	FEB	MAR
(A) CHOLERA			
No. of stool specimens Exam- ined	33	0	50
No. of positives	0	-	-
(B) SALMONELLA			
Blood– No. Examined	39	36	30
S.typhi	0	1	0
S.paratyphi A	0	0	0
Stools—No. examined	115	21	76
S.typhi	0	0	0
S.paratyphi A	0	0	0
Others	2	0	2
(C) SHIGELLA			
No. Examined	115	21	70
Sh.flexneri 1	-	-	-
Sh.flexneri 2	-	-	-
Sh.flexneri 3	-	-	-
Sh.flexneri 4	-	-	-
Sh.flexneri 5	-	-	-
Sh.flexneri 6	-	-	-
Sh. sonnei	-	1	1
(D) ENTEROPATHOGENIC E.COLI			
No.Examined	1	2	7
No.+ve	-	-	1
(E) CAMPYLOBACTER			
No.Examined	10	9	20
No. Positive	0	0	0
(F) ISOLATES			
Clinical	7	4	11
S. Typhi	1	0	1
S. Paratyphi A	0	0	1
Other Salmonella	5	2	4
Shigella spp	0	1	0

#### 21. SURVEILLANCE OF MENINGITIS-

#### 1st quarter 2013

Meningitis is a notifiable disease condition in Sri Lanka since year 2005. During the 1<sup>st</sup> quarter 2013, 278 suspected meningitis cases were reported to the Epidemiology Unit through the routine disease notification system.

Out of this 211 cases were clinically confirmed by the Public Health Inspectors during their field investigations. Highest number of meningitis cases were notified from the Kurunagala district (34), followed by Anuradhapura (32) Rathnapura (28), Kalutara (26) and Gampaha (24) districts.

Twenty four percent of the clinically confirmed meningitis cases belonged to the age group less than one year, another 17% belonged to the age group 1-5 years and 14% belonged to age group 6 - 10 years. 55% of the clinically confirmed cases were males and 45% were females.

#### Table 15

# Summary findings for special investigations carried out for clinically confirmed cases of Meningitis up to30th March 2013

CSF Culture Report		
CSF Culture	Number	(%)
CSF results available	35	31%
No Growth	(32)	
Grouup B streptococci	(02)	
Coliform	(01)	
Culture results not known	73	65%
Not done	04	04%
Total	112	100%
Final outcome of the patient		
Outcome	Number	(%)
Cured	106	94%
Died	01	0.9%
Information not available	05	05%
Total	112	100%
Final Diagnosis (based on clinical an	d lab findings)	
Diagnosis	Number	(%)
Culture confirmed	03	03%
Probable bacterial meningitis	12	11%
Probable viral meningitis	11	10%
Suspected Meningitis	86	76%
Total	112	1 <b>00</b> %

#### 1st Quarter

#### January - March

#### 22 INFLUENZA SURVEILLANCE

Human Influenza surveillance comprises of 2 components; Influenza like illness (ILI) surveillance and Severe Acute Respiratory tract Infections (SARI) surveillance.

#### Human Influenza surveillance

#### ILI Surveillance – Laboratory Component

Under ILI laboratory surveillance a total of 839 samples were received from sentinel hospitals for the said quarter. There were 279 samples in January, 297 in February and 263 in March. Lady Ridgeway Children's Hospital (LRH) (100) sent in the highest number of samples with Infectious Diseases Hospital (IDH) sending in 81 samples and Teaching Hospital (TH) Kurunegala, 79 samples. All sentinel hospitals except General Hospital (GH) Vavuniya and GH Ampara had sent in samples within the quarter. There were 3 samples from TH Jaffna.

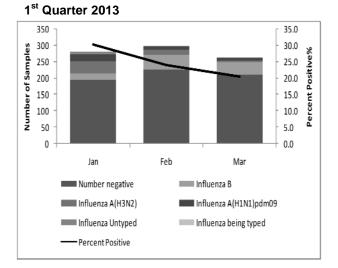
Table 16 shows the performance of sentinel hospitals in the laboratory component of the ILI surveillance programme for this quarter.

Table 17 shows the subtypes of influenza viruses isolated from samples tested within the laboratory component by month in first quarter 2013.

In contrast to the previous quarter Influenza B had emerged as the predominant influenza viral strain circulating during the quarter with strong presence of both Influenza A (H3N2) and A (H1N1pdm) 2009 as the other common circulating viral strains. This local circulating viral pattern with presence of all 3 viruses; Influenza B , Influenza A (H3N2) and Influenza A (H1N1pdm), 2009 were being observed as seasonal influenza viral strains globally during this time.

These results show that 30% of ILI samples tested within this quarter had an influenza viral strain. This is higher than the previous quarter of the year where 22% of the ILI samples tested became positive for any influenza. Within the quarter, the proportion of influenza yield can be observed to be gradually decreasing from a high 30% in January to a lower 21% by March. This indicates the tail end of year-end high peak of influenza activity. Figure 1 below shows the seasonal changes in the circulating influenza viral strains and influenza percent positivity among tested samples within the laboratory component in ILI surveillance during the quarter.

#### Figure 1: Seasonal Patterns in Influenza Positivity within the ILI laboratory component



#### ILI Surveillance – Epidemiological Component

A total of 21,524 ILI visits had been recorded for the quarter. This is out of a total of 1,049,856 OPD visits in these hospitals. In January. there were 6139 ILI cases visiting OPD of sentinel hospitals and 7692 in February and 7693 in March. TH Jaffna and GH Vavuniya remained the hospitals that did not comply with the activity. According to these numbers, contribution of ILI to OPD visits during the quarter is 2% which seems highly underestimated as in the previous quarter (1.8%).Hospitals in the laboratory component of the SARI surveillance for this quarter.

Table 19 shows the results yielded for SARI samples in the 01<sup>st</sup> quarter 2013 at NIC.

Similar to ILI lab findings this quarter, Influenza B featured as the predominantly seen viral strain among inward SARI patient with strong presence of both influenza A (H3N2) and Influenza A (H1N1pdm) 2009.This is in contrast to the pattern seen in SARI surveillance in first quarter in 2012, where Influenza A (H3N2) was the predominant strain.

#### January - March

The results show that 21% of SARI patients tested within this quarter as having an influenza viral strain. This is much less than that recorded for the previous quarter (32%). This lower proportion is expected with the tail end of the year end flu' peak being observed at this time of year.

However accurate conclusions on trends of influenza yield among inward SARI patients over the months of the quarter could not be drawn due to incompleteness of data.

#### SARI Surveillance –

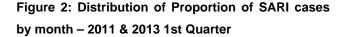
#### Epidemiological surveillance

There were a total of 628 patients treated inward for severe respiratory tract infections within the 1<sup>st</sup> quarter 2013. As in laboratory surveillance, only LRH contributed to this SARI total for the first 2 months of the quarter. By march NCTH was added as an additional SARI surveillance site to rectify this issue. Table 20 shows the distribution of SARI patients in the 3 hospitals by month in the 1st quarter 2013. SARI had contributed to 4.2% of total admissions in these hospitals within this quarter. Although there were incomplete data, this proportion is higher than that of the previous quarter (3.8%). Table 18 shows performance of 3 SARI sentinel hospitals in the laboratory component for SARI surveillance.

#### Animal Influenza Surveillance

In the 1<sup>st</sup> quarter 2013 there were 798 pooled samples and 1113 serum samples collected and tested at the VRI for HPAI. None of the samples had yielded HPAI.

The table 21 shows the number of samples collected by month and the districts they were collected from.



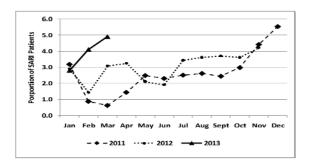


Table 16 Performance of sentinel hospitals in thelaboratory component of the ILI surveillanceprogramme - 1st Quarter 2013

	Jan	Feb	March	Total
LRH	37	33	30	100
NHSL	16	10	10	36
СЅТН	0	6	13	19
IDH	19	38	24	81
NCTH	14	14	14	42
TH Peradeniya	23	19	17	59
GH Nuwara Eliya	13	6	12	31
TH Karapitiya	16	16	17	49
GH Matara	11	9	11	31
TH Jaffna	0	0	3	3
GH Vavuniya	0	0	0	0
GH Ampara	0	0	0	0
TH Batticaloa	10	28	16	54
TH Kurunegala	27	30	22	79
GH Chilaw	15	22	16	53
TH Anuradha- pura	21	14	16	51
GH Pol- onnaruwa	15	25	14	54
GH Badulla	15	12	8	35
GH Ratnapura	27	15	20	62
Total	279	297	263	839

Table 17 : Types of Respiratory Viruses Isolated in ILI samples – 1st Quarter 2013

MONTH	TOTAL	INFLU B	A(H1N1pdm) 2009	A(H3N2)	A UNTYPED	Influenza yield
Jan	279	17	24	37	6	30%
Feb	297	45	11	14	1	24%
March	263	39	7	5	3	21%
Total	839	101	42	56	10	30%

Table 18: Performance of sentinel hospitals in the<br/>laboratory component of the SARI surveillance-1st Quarter 2013-

Institution	Jan	feb	Mar	Total
LRH	31	42	65	138
GH Matara	0	0	16	16
TH Peradeniya	2	0	4	6
NCTH	-	-	4	4
Total	33	42	89	164

1st Quarter

#### January - March

Table 19: Types of Respiratory Viruses Isolated inSARI Samples - 1st Quarter 2013

Month	Total	Influenza B	A (H3N2)	(H1N1pdm) 2009	A untyped	Influenza yield
Jan	33	1	3	2	0	18%
Feb	42	6	7	2	0	36%
Mar	89	8	0	5	0	15%
Total	164	15	10	9	0	21%

Table 20: Distribution of SARI patients by month – 1st Quarter 2013

Institution	Jan	Feb	Mar	To- tal
LRH	87	153	202	442
GH Matara	0	0	128	128
TH Peradeniya	-	-	-	-
NCTH	-	-	58	58
Total	87	153	388	628

#### Table 21:

Animal samples collected by month and district – 1st Quarter 2013

Month	No. of sa Pooled	amples Seru M	Districts samples were collected from
Jan	174	147	Routine quarantine sam- ples
Feb	260	470	Colombo, Kurunegala, Puttalam, Badulla, kandy, Jaffna
Mar	364	496	Colombo, Kurunegala, matale, nuwara Eliya, Hambantota, Jaffna, Vavuniya
Total	798	1113	

#### 23. Special Report Avian Influenza Report 2012

Pandemic/Avian Influenza preparedness activities began in the country in 2005 along the guidelines of the global Avian/ Pandemic preparedness programme which aimed at preparing each country for a optimum response against a then possible Avian Influenza pandemic. As part of these activities, influenza surveillance in animals and humans were initiated in Sri Lanka by the Department of Animal Production and Health (DAPH) of Ministry of Livestock Development and Epidemiology Unit of Ministry of Health respectively. National Technical Committee for Avian/Pandemic Influenza Preparedness was formed with participation from the programme's varied stakeholders as the supervisory body of the programme. Influenza surveillance is one of the main activities of the national preparedness programme with the objectives of detecting early warning of a possible pandemic by routinely monitoring the circulating influenza viral patterns and assessing the disease burden in the country. Human Influenza surveillance comprises of 2 components; Influenza like illness (ILI) surveillance and Severe Acute Respiratory tract Infections (SARI) surveillance. ILI surveillance has been initiated in 20 sentinel hospitals although only 19 is presently functioning. These institutions have been selected considering their importance in geographical location and also in being a 'hot spot' for bird migration.

Infection Control Nursing Officer (ICNO) is the responsible officer for sending samples to the National Influenza Centre (NIC)/Medical Research Institute (MRI). SARI surveillance has been established in 3 hospitals in the country. Details of each SARI patient identified are collected and an individual case investigation form is completed. Animal influenza surveillance component is carried out by the DAPH of the Ministry of Livestock Development. Under routine animal influenza surveillance, pooled and serum samples are collected randomly from backyard farms, industrial farms and hot spots for migratory birds. These also include identified special targets such as wet markets, processing plants, parent stocks, pet birds and ducks. Any unusual bird deaths or disease outbreaks are also investigated. Sampling is mainly carried out by the Veterinary Investigation Officers (VIO). These samples are tested for Highly Pathogenic Avian Influenza (HPAI) viral strains at, Veterinary Research Laboratory (VRI).

#### Human Influenza surveillance

#### ILI Surveillance – Laboratory Component

Table 23 shows the performance of sentinel hospitals in the laboratory component of the ILI surveillance programme in 2012.

These samples were processed in the Medical Research Institute (MRI) which is the National Influenza Centre (NIC) for the country. Influenza B remained as the predominant influenza viral strain for most parts of the year with Influenza A (H3N2) emerging stronger towards the end of the year.

1st Quarter

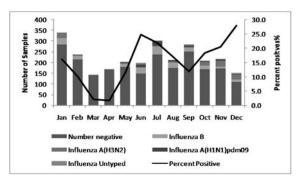
#### January - March

These Influenza A (H1N1) was also isolated after May. Table 22 shows the subtypes of influenza isolated from samples tested within the ILI laboratory component by month in 2012. Laboratory surveillance findings shows that 15.5% of ILI samples tested within the year had an influenza viral strain. This is slightly higher than the influenza positivity proportion in 2011 which was 12%. Figure 3 shows the seasonal changes in the influenza positivity within the laboratory component of the surveillance programme in 2012.

Table 22: Types of Respiratory viruses Isolated in ILI samples –2012

	Total Tested	Infl B	Infl A (H3N2)	Infl A (H1N1pdm)	Infl A Un- typed	RSV	Para influen- za	Adeno virus
Jan	341	27	27	0	0	0	0	0
Feb	238	16	7	0	0	0	1	0
Mar	143	3	0	0	0	0	0	0
Apr	171	3	0	0	0	1	0	0
Мау	204	15	1	5	2	0	1	0
Jun	199	26	2	14	7	0	0	1
Jul	304	38	1	24	3	0	0	0
Aug	212	24	5	7	0	0	0	0
Sep	286	19	1	8	6	1	0	0
Oct	208	16	15	5	2	1	0	0
Nov	216	9	25	9	1	2	0	0
Dec	151	12	21	4	5	0	0	0
Total	2673	208	105	76	26	5	2	1

Figure 3: Seasonal Patterns in Influenza Positivity within the laboratory component of Influenza surveillance 2012



This positivity rate shows two prominent peaks as expected. The higher peak is in the colder months towards the end of the year and the other peak is during May-July. Flu activity is higher during these two periods and that coincides with high influenza positivity.

#### ILI Surveillance – Epidemiological Component

In year 2012 there were 80,660 ILI cases visiting OPD of sentinel hospitals out of 43,55,386 total OPD visits. Table 25 shows the performance of sentinel hospitals in the epidemiological component of the surveillance programme in 2012.

Figure 4 shows the monthly distribution of the proportion of ILI in sentinel hospitals for the years 2009 to 2012.

(Source: NIC/MRI)

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Table 23 : Performance of sentinel hospitals in laboratory component of ILI surveillance - 2012
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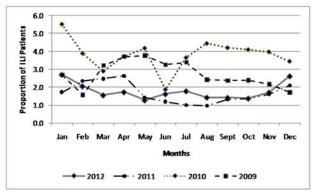
											_	-		코	GH	Ρd	ຼຸດ	GH	G	H
	LRH	NHSL	CSTH	IDH	NCTH	TH Peradeniya	GH Nuwara Eliya	TH Karapitiya	GH Matara	TH Jaffna	GH Vavuniya	GH Gampaha	TH Batticaloa	H Kurunegala	H Chilaw	TH Anuradha- pura	GH Pol- onnaruwa	H Badulla	GH Rathnapura	Total
Jan	29	26	32	3	27	30	12	62	6	1	16	0	16	8	0	20	16	12	25	341
Feb	24	21	20	1	0	17	12	21	11	0	7	0	3	22	15	19	8	17	20	238
Mar	17	22	23	0	0	16	6	1	6	0	0	0	4	3	16	10	1	3	15	143
Apr	14	38	28	0	10	14	6	1	5	0	6	0	7	0	6	10	4	7	15	171
Мау	15	21	32	0	10	12	12	7	7	0	0	0	12	0	16	20	14	6	20	204
Jun	17	23	22	8	14	6	5	7	6	0	6	0	15	10	16	10	6	8	20	199
Jul	25	21	32	10	23	30	12	28	10	0	8	0	13	17	9	20	14	5	19	304
Aug	15	28	23	27	8	7	12	6	7	0	9	8	11	18	0	7	12	8	14	212
Sep	20	19	17	26	15	30	6	22	5	0	17	0	19	23	6	30	5	11	15	286
Oct	19	20	10	12	18	15	6	6	7	4	8	0	16	14	5	14	6	8	20	208
Nov	23	12	0	17	13	11	0	14	16	0	0	0	11	19	15	14	17	8	26	216
Dec	25	22	0	10	7	0	13	8	1	0	0	0	2	16	0	21	13	1	12	151
Total	243	273	239	114	145	188	102	183	87	5 16	77	8	129	150	104	195	116	94	221	2673

(Source: NIC/MRI)

1st Quarter

#### January - March

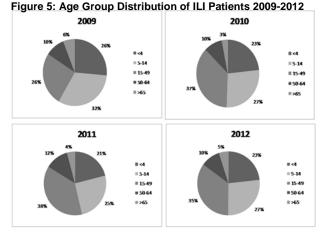
Figure 4: Distribution of Proportion of OPD ILI visits by month - 2009 - 2012



In 2009 the country suffered from the Influenza A H1N1 pandemic and in 2010 its second wave was reported which ended by the beginning of 2011. Pandemic disrupted routine ILI surveillance activities resulted in marked changes in healthcare seeking behaviours. Therefore seasonal trends cannot be detected with these years' data. Years 2011 and 2012 were non-pandemic years and evidence of an influenza peak can be seen at the end of the year in both years and a small mid-year peak in 2012. In 2011, during which the tail end of the second wave of the pandemic was observed early in the year, the trend shows an early peak.

#### Age Group Distribution of ILI Patients

The following graphs depict the age group distribution of ILI patients over the years.



These graphs show that under 4 year olds had contributed to over one fifth to a quarter of all ILI cases during each of these 4 years. However, LRH - the premier pediatric hospital in the country being a consistently better performing ILI site may also be a reason for the higher proportion of children among ILI patients.

#### Severe Acute Respiratory Infections (SARI) Surveillance

#### Laboratory Component

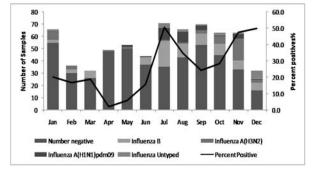
There were a total of 648 samples from SARI patients in above 3 hospitals received by the NIC/MRI for the year. LRH had sent in the highest number of samples (293). Table 24 shows the performance of 3 SARI sentinel hospitals in the laboratory component of the SARI surveillance for 2012. Results of these SARI samples tested in 2012 are shown in Table 26 .Similar to the pattern seen in ILI results, Influenza B was the predominant virus subtype observed in 2012 with Influenza A (H3N2) emerging strongly towards the end of the year. Presence of Influenza A(H1N1pdm)2009 was also seen from mid year. Figure 6 shows the seasonal changes in the influenza positivity within the laboratory component of the SARI surveillance in 2012.

Table 24: performance of sentinel hospitals in the laboratory component of the SARI surveillance - 2012

	LRH	GH Matara	TH Perad- eniya	Total
Jan	38	14	17	69
Feb	21	8	7	36
Mar	18	14	0	32
Apr	25	23	1	49
Мау	19	31	3	53
Jun	20	22	2	44
Jul	20	23	28	71
Aug	32	28	6	66
Sep	19	22	29	70
Oct	31	16	16	63
Nov	24	14	25	63
Dec	26	6	0	32
Total	293	221	134	648

#### (Source: NIC/MRI)

Figure 6: Seasonal Patterns in Influenza Positivity within the laboratory component of SARI surveillance 2012



Volume 54	1st Quarter	January - March
Table 25: Performance of sen	tinel hospitals in the Epidemiological component of the	e II I surveillance – 2012

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
LRH	446	474	696	456	478	718	533	692	459	407	551	485	6395
NHSL	26	14	23	18	32	13	21	28	19	24	0	0	218
CSTH	182	447	188	177	77	40	375	123	51	10	25	36	1731
IDH	128	0	25	0	0	0	151	263	218	291	244	186	1512
NCTH	231	126	73	47	45	78	20	24	32	14	28	0	718
TH Peradeniya	179	281	267	171	160	206	147	361	493	590	508	459	3822
GH Nuwara Eliya	435	569	350	109	0	79	467	481	319	265	681	0	3755
TH Karapitiya	40	56	63	23	28	39	96	28	9	9	133	1555	2079
GH Matara	151	84	92	95	148	81	138	55	2	0	20	0	866
TH Jaffna	0	1	0	0	0	0	0	0	0	0	0	0	1
GH Vavuniya	498	0	0	0	0	139	329	375	144	58	404	0	1947
GH Ampara	4828	2297	986	324	749	1451	748	842	913	898	1024	1223	16283
TH Batticoloa	65	22	13	27	26	31	36	6	17	20	15	1	279
TH Kurunegala	410	588	303	94	0	139	526	341	342	277	166	226	3412
GH Chilaw	812	614	599	125	420	248	574	377	280	226	168	141	4584
TH Anuradhapura	396	352	437	357	339	431	417	749	669	687	1004	681	6519
GH Polonnaruwa	130	158	207	140	147	190	124	77	98	137	33	0	1441
GH Badulla	331	347	162	174	147	266	133	132	112	154	120	111	2189
GH Ratnapura	1977	1918	2308	3027	1342	3788	2767	1269	1091	1046	1099	1277	22909
Total	11265	8348	6792	5364	4138	7937	7602	6229	5268	5113	6223	6381	80660

 Table 26: Types of Respiratory Viruses Isolated in

 SARI samples – 2012

	Total Tested	Infl B	Infl A (H3N2)	Infl A (H1N1pdm)	Infl A Un- typed	RSV	Para infl	Adeno virus
Jan	69	2	8	0	1	0	0	0
Feb	36	3	3	0	0	0	0	0
Mar	32	3	0	0	0	0	0	0
Apr	49	3	1	0	0	2	2	0
Мау	53	0	1	2	0	3	0	0
Jun	44	6	0	2	0	0	0	0
Jul	71	8	0	5	3	0	0	0
Aug	66	8	1	6	2	0	0	0
Sep	70	6	4	4	0	5	0	0
Oct	63	9	6	1	2	4	0	0
Nov	63	6	15	3	1	1	0	0
Dec	32	3	0	0	5	0	0	0
Total	648	57	39	23	14	15	2	0

(Source: NIC/MRI)

#### **Epidemiological Component**

A total of 2580 patients treated inward for severe respiratory tract infections in the 3 hospitals were reported within 2012. The highest numbers (980) were reported from LRH. High numbers were reported towards the latter part of the year. Table 27 shows the distribution of SARI patients in the 3 hospitals by month in 2012.In year 2012 there had been 84687 total admissions to these units from which SARI cases are selected. Table 27: Distribution of SARI patients by month -



	LRH	GH Matara	TH Perad- eniya	Total
Jan	110	0	71	181
Feb	17	0	66	83
Mar	96	0	104	200
Apr	90	0	103	193
Мау	80	0	85	165
Jun	82	0	91	173
Jul	83	114	70	267
Aug	80	182	52	314
Sep	73	135	51	259
Oct	79	153	69	301
Nov	113	185	69	367
Dec	77	-	-	77
Total	980	769	831	2580

Therefore SARI had contributed to 3.1% of total admissions in these units in 2012.

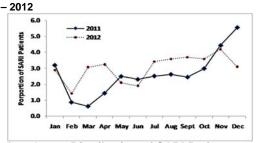
Figure 7 shows the monthly distribution of the proportion of SARI in sentinel hospitals for the years 2011 & 2012.

An increasing trend of disease activity towards the end of the year with a mid-year peak and a larger year end peak can be clearly observed this year. However the sharp drop towards the end of the year is due to non reporting from 2 of the 3 sentinel sites.

1st Quarter

#### January - March

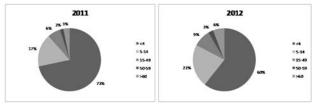
Figure 7: Distribution of Proportion of SARI cases by month



Age Group Distribution of SARI Patients

Analysis of SARI patients by age group is ineffective since the main children's hospital LRH is one of 3 SARI surveillance sites which contributed 38% of the SARI patient load in 2012. However the figure 8 shows the trends in patient distribution by age group over the 2 previous years.

### Figure 8: Distribution of SARI Patients by Age Group 2011 & 2012



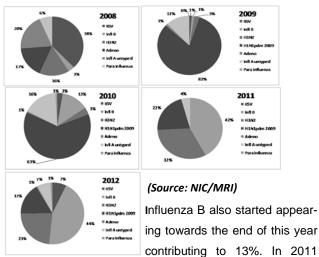
**Circulating Influenza Viral Patterns** 

One of the main objectives of the influenza surveillance programme is to track the circulating influenza viral pattern in the country in order to detect emergence of any novel virus subtypes early.

#### Animal Influenza Surveillance

Following graphs in figure 9 show the changing patterns of the circulating influenza viruses annually from year 2008 to 2012.

Figure 9: Circulating Influenza Viral Patterns in Sri Lanka 2008-2012



saw the strong emergence of Influenza B as the predominant influenza virus subtype (42%) and solid presence of Influenza A (H3N2) which accounted for around one third of the profile (32%). Influenza A(H1N1) virus contributed for just over one fifth (22%) of the annual viral profile. Year 2012 was again a non pandemic year with strong presence of the same 3 virus subtypes as in 2011 in the same hierarchy; Influenza B (44%), Influenza A (H3N2) (23%) and Influenza A(H1N1) (17%). This year also saw a reemergence of RSV (7%).

In 2012 there were 3180 pooled samples and 8719 serum samples collected and tested at the VRI for HPAI. None of the samples had yielded HPAI. The following table 28 shows the number of samples collected by month and the districts the were collected from.

		•	-
Month	No. of sam	nples	Districts samples were collected from
	Pooled	Serum	
January	137	163	Gampaha, Colombo, Puttalam, Badulla, Mulativu, Kurunegala
February	216	257	Gampaha, Colombo, Jaffna, Puttalam, Kurunegala, Kandy, Hambantota, Badulla
March	106	432	Gampaha, Colombo, Matale, Polonnaruva, Anuradhapura, Ampara, Kegalle, Kandy
April	72	115	Gampaha, Colombo, Polonnaruwa, Puttalam, Mannar
May	160	661	Gampaha, Colombo, Puttalam, Polonnaruwa, Matale, Anuradhapura
June	175	620	Gampaha, Colombo, Polonnaruva, Kandy, Hambantota, Ampara
July	176	529	Gampaha, Colombo, Ratnapura, Anuradhapura, Kandy, Badulla, Trincomalee, Matale, Nuwara Eliya, Ampara
August	304	1435	Gampaha, Colombo, Puttalam, Kurunegala, Polonnaruwa, Ratnapura, Kandy, Badulla, Trincomalee, Matale, Matara, Ampara
September	295	1420	Gampaha, Colombo, Puttalam, Hambantota, Nuwara Eliya, Jaffna, Anuradhapura, Polonnaruwa, Ratnapura, Kandy, Badulla, Trincomalee, Matale, Kegalle
October	471	1038	Gampaha, Colombo, Puttalam, Hambantota, Anuradhapura, Ratnapura, Badulla, Trincomalee, Kegalle
November	532	1164	Gampaha, Colombo, Puttalam, Hambantota, Jaffna, Polonnaruwa, Ratnapura, Ampara, Vavuniya, Kurunegala, Matale, Kegalle
December	536	885	Colombo, Puttalam, Hambantota, Jaffna, Polonnaruwa, Ratnapura, Ampara, Vavuniya, Trincomalee
Total	3180	8719	

Table 28: Animal samples collected by month and district—2012

1st Quarter

Table 29

#### 24. SUMMARY OF NOTIFIABLE DISEASES - 1ST QUARTER 2013

	Dysentery	Encephalitis	Enteric Fever	Food Poisoning	Human Rabies	Leptospirosis	Measles	Simple Con. Fever	Tetanus	Typhus Fever	Viral Hepatitis	Whooping Cough	Dengue Fever /DHF	Tuberculosis	Chickenpox	Mumps	Meningitis	Leishmaniasis
Colombo	45	9	38	9	0	77	65	0	0	3	28	3	2393	194	155	32	17	0
Gampaha	29	7	13	6	0	93	11	0	0	7	76	0	1073	143	59	15	24	2
Kalutara	43	10	24	7	0	142	19	5	1	1	5	0	480	85	87	18	26	0
Kandy	25	5	6	1	0	23	9	0	0	37	41	1	542	127	39	6	1	0
Matale	31	1	2	0	0	16	0	1	0	1	13	1	144	45	15	6	8	1
Nuwara-Eliya	33	2	3	2	0	9	6	1	0	22	2	0	79	44	34	7	1	0
Galle	31	7	1	4	0	59	2	5	0	15	4	1	209	134	85	13	14	0
Hambantota	17	2	5	9	0	95	7	6	0	26	52	0	107	34	45	6	7	96
Matara	18	7	4	4	1	65	2	13	0	30	73	2	188	49	99	14	16	27
Jaffna	57	3	150	5	0	0	2	85	0	222	6	0	261	64	59	32	9	0
Kilinochchi	10	0	5	1	0	5	0	0	0	8	0	0	18	14	2	1	3	1
Mannar	14	1	40	11	0	6	0	0	0	7	0	0	40	15	5	1	2	1
Vavuniya	19	9	4	4	0	21	2	2	0	1	0	0	31	19	9	2	11	3
Mullaitivu	3	1	3	2	2	9	1	0	0	3	0	0	36	3	0	1	2	4
Batticaloa	45	2	0	2	0	8	1	0	0	2	6	0	219	60	5	3	1	0
Ampara	33	0	3	0	0	5	0	2	0	0	1	1	51	15	33	82	6	1
Trincomalee	18	1	0	0	1	43	1	1	1	3	2	0	101	32	10	7	1	4
Kurunegala	66	14	20	3	1	102	5	2	4	12	19	2	1508	134	120	26	34	19
Puttalam	21	3	6	1	0	9	2	0	0	7	1	0	443	32	35	13	7	3
Anuradhapura	24	11	1	1	0	137	11	1	0	12	9	3	244	65	48	30	32	109
Polonnaruwa	35	0	5	0	0	75	1	1	0	2	14	0	121	33	43	32	4	36
Badulla	37	0	5	1	0	11	0	2	0	22	12	0	136	59	26	15	6	0
Moneragala	28	3	6	17	0	65	3	1	0	19	27	0	80	39	16	19	8	4
Ratnapura	132	69	13	12	1	126	2	1	0	16	91	3	499	107	46	17	28	8
Kegalle	17	10	5	3	0	33	5	0	0	26	87	0	339	100	125	40	9	0
Kalmunai	29	1	0	12	0	4	2	0	0	2	4	3	374	36	34	5	1	1
Total	860	178	362	117	6	1238	159	129	6	506	573	20	9716	1682	1234	443	278	320

No polio cases. (from AFP surveillance system).

The Bulletin is compiled and distributed by the:

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This document is available on the internet www.epid.gov.lk.

Figures given may be subject to revision.

The editor welcomes accounts of interesting cases, outbreaks or other public health problems of current interest to health officials.

Such reports should be addressed to:

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