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# **EPIDEMIOLOGICAL BULLETIN**

# **SRI LANKA**

Third Quarter 2015

# **EPIDEMIOLOGY UNIT**

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## 1. POLIOMYELITIS

Seventeen (17) Acute Flaccid cases were notified to the Epidemiology Unit during the 3rd quarter 2015. This is almost similar to AFP cases of 18 during the 3rd quarter 2014. Reported number of AFP cases for the quarter is below the expected number of AFP cases per quarter of 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 third quarter of 2015 was 1.3:100,000 under 15 year age population.

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

All hospitals availability of Clinicians are considered as sentinel sites for AFP surveillance. A total of 79 sentinel sites are currently functioning and last updated in 2014. All sentinel sites are expected to report immediately on AFP case admissions to the Epidemiology Unit and to the Regional Epidemiologist of the respective area of patient's residence.

Majority of the cases (58.8%) were notified from the Lady Ridgeway Children's Hospital (LRH) and GH Badulla during the quarter. Number of AFP cases notified during the quarter are given in table 01.

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

The highest number of cases (4) were reported from Colombo district. The complete list of distribution of AFP cases according to the province, district and MOH area are given in table 02.

Table 01: Reported AFP cases by hospitals -3rd quarter 2015

Hospital	No: of cases reported
Lady Ridgeway Hospital	7
GH Badulla	3
TH Kandy	1
TH Peradeniya	1
TH Anuradhapura	1
Ashrof Memorial Hospital	1
DGH Monaragala	1
GH Trincomalee	1
Hemas Hospital	1
Total	17

Table 02 : Distribution of AFP cases by district & MOH area - 3rd Quarter 2015

Province	District	MOH Area	Number of AFP cases
Western	Colombo	Colombo MC	3
		Dehiwala	1
Southern	Galle	Elipitiya	1
		Neluwa	1
Central	Nuwara Eliya	Maskeliya	1
		Rikillagaskada	1
Sabaragamuwa	Ratnapura	Kuruwita	1
North Central	Anuradhapura	CNP-Anuradhapura	1
Uva	Badulla	Hali Ela	1
		Uva Panaragama	1
	Monaragala	Buttala	2
Eastern	Kalmunai	Karativu	1
	Trincomalee	Trincomalee	1
North Western	Puttalam	Arachchikattuwa	1
	Total		17

#### **Seasonal Distribution of AFP Cases**

Majority of cases were reported during the month of August (41%). There is no observable variation of case presentation by month compared to the comparable quarter in the previous year.

## Age and Sex Distribution of AFP cases

Sex distribution of the cases were different during the 3<sup>rd</sup> quarter 2015 and this was different compared to the trend reported during the 3<sup>rd</sup> quarter 2014 in which majority was (70.5%) of girls in the reported AFP cases.

Majority (82.3%) of cases were between 1-9 years during the 3<sup>rd</sup> quarter this year and the trend was higher compared to the compatible quarter in the previous year.

The table 03 shows the age distribution in the 3rd quarter 2015.

Table 03: Distribution of AFP cases by Age: 3rd quarter 2015

Age Group	Se	Total	
	Male Female		
<1 year old	0	0	0
1-4 year old	1	8	9
5-9 year old	3	2	5
10-15 year old	1	2	3
Total	5	12	17

## Final diagnoses of AFP cases

Majority (88.2%) of the reported AFP cases were finally diagnosed as Guillain Barre Syndrome (GBS). Final diagnoses of all 17 cases of AFP are given in table 04.

Table 04: Final diagnoses of AFP patients reported during –3rd quarter 2015.

Final Diagnoses	Frequency
GBS	15
Nephrotic Syndrome	1
Millar Fisher Syndrome	1
Total	17

### 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) for exclusion of polio virus. According to WHO criteria 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'.

Out of all AFP cases 13(76.4%) had both stool samples collected timely and sent to MRI for polio virology.

### 2. MEASLES

Seven hundred and seventeen (717) suspected measles patients were reported during the third quarter 2015 and reported number of cases was same as the cases for the compatible quarter in the previous year(714). Out of these clinical cases compatible with clinical surveillance case definition of "fever and maculopapular rash with one of the signs of cough, coryza or conjunctivitis" 494(69%) were laboratory tested and 388 were laboratory confirmed for measles. Laboratory testing rate which was expected to achieve >80% has not been achieved during the quarter and and non measles, non rubella rate was only 0.5/100,000 population, which was expected to achieve >2/100,000 population.

The outbreak situation started in 2013 was continuing and MMR vaccine schedule change has been decided based on sero survey findings of high susceptibility of infants due to possible early waning of maternal antibodies of immunized mothers. The first dose of MMR vaccination was brought down to 9 months of age while keeping the 2<sup>nd</sup> dose of MMR at 3 years. This change expected to bring down the observed high transmission of measles among infants.

Out of the reported cases (717) during the quarter, case based field investigations have been conducted by relevant Medical Officers of Health in respective areas of patient's residence and 637 (89%) of special investigation forms have been received at the Epidemiology Unit. Majority of cases were reported from the Western province and no much variation has been observed between male (54%) and female (46%).

Majority of affected were below 1 year (37%) and above 30 years (30%) indicating high transmission or the most susceptible in these age categories. But relatively high proportion of cases (30%) has been observed between 18-30 years among those who may should have had at least 1 dose of measles doses as measles has been added to National Immunization Programme in 1984 at the age of 9 months. On reviewing the total number of 142 cases of 18-30 years, 43 declared they have not received the measles vaccination and 58 were uncertain about measles vaccination. But of the tested cases for measles (60%) in this age category (15-30 years) only 45 were laboratory confirmed.

## 3. LEPTOSPIROSIS

During the 3rd Quarter 2015, 654 cases and 8 deaths (CFR 1.22%) due to Leptospirosis were notified to the Epidemiology Unit compared to 880 cases and 17 deaths in the previous quarter and 601 cases and 10 deaths during corresponding quarter of 2014.

Age and sex distribution of patients, revealed by the special surveillance data is given in Table 06.

Table 06: Selected Characteristics of Leptospirosis Patients (%)- 3rd quarter 2015.

	Sex			
Age Group	Male	Female		
0 - 9 years	0.5	0.0		
10 - 19 years	11.3	5.9		
20 - 29years	13.8	2.0		
30 - 39years	21.8	7.8		
40 - 49years	20.5	41.2		
50 - 59 years	21.6	31.4		
>60years	10.5	11.8		
Total	100.00	100.00		

#### 4. HUMAN RABIES

Five cases of Human Rabies were notified to the Epidemiology Unit in the 3rd quarter 2015 compared to 10 cases in the previous quarter and 4 cases in the corresponding quarter of year 2014.

### **Animal Rabies**

During this quarter, 111 dogs were reported positive for rabies, compared to 109 in the previous quarter and 162 positive in the same period in the last year at the MRI. In addition the following animals were also reported positive;

Cats-21, Squirrel-01, Cow-03

#### **Rabies Control Activities**

**Dog vaccination** - A total of 403986 dogs were immunized during the Quarter under review when compared to 341028 in the previous quarter and 384499 in corresponding Quarter of the last year.

#### **Animal Birth control**

**Chemical**- A total of 1585 female dogs were injected with birth control injections (Progesterone) during the quarter under review. **Surgical**– 33,735 female dogs were subjected to sterilization by surgical method during the quarter under review.

### 5. VIRAL HEPATITIS

In the 3rd Quarter 2015, a total of 550 cases of Viral Hepatitis were reported to the Epidemiology Unit. This was in comparison to the 291 cases in the previous quarter and 612 cases in the corresponding quarter of 2014. Monaragala (272 cases) reported the highest number of cases followed by Rathnapura District( 69 cases).

## 6. ENTERIC FEVER

In the 3rd Quarter 2015, a total of 201 cases of Enteric fever were reported to the Epidemiology Unit, compared to 187 cases in the previous quarter and 190 cases in the corresponding quarter of 2014. The district of Colombo (33) reported the highest number of cases, followed by Kegalle (21 cases).

#### 7. DYSENTERY

In the 3rd Quarter 2015, a total of 1080 cases of Dysentery were reported to the Epidemiology Unit, in comparison to 950 cases in the previous quarter and 976 cases in the corresponding quarter of 2014. Jaffna (345 cases ) and Batticaloa (115 cases) reported the highest number of cases.

### 8. MALARIA

There were no indigenous malaria cases reported during the 3rd quarter of 2015. The number of imported malaria cases detected during this period, shows a decrease when compared with the same period of year 2014.

## 9.JAPANESE ENCEPHALITIS (JE)

During the 3rd quarter of 2015, 32 cases of clinically suspected Encephalitis were reported to the Epidemiology Unit through the routine disease notification system. Out of this, 29 cases were clinically confirmed by the Public Health Inspectors during their field investigations. During the 3rd quarter of 2015, MRI has reported 01 lab confirmed JE cases. Reported JE case was (100%) investigated by the MOH. For the year 2015 from January to 30th of September MRI has reported 9 lab confirmed JE cases.

Among them 2 (22%) cases were over 50 years of age, another 4 cases were 20–50 years of age (45%), another 1 (11%) was 6 years old, another 1 was 9 years old (11%) and other 1 (11%) was 4 years old.

Districts of Colombo, Gampaha, Rathnapura, Mannar, Ampara, Polonnaruwa, Batticaloa and Badulla have

Table 08: Selected characteristics of Confirmed cases of JE - from January to 30th September 2015 (N=08)

_	Male	06 (67%)
Sex	Female	03 (33%)
Age group	< 1 y	00 (00%)
	1-10 y	03 (33%)
	11- 20	00 (00%)
	21-50Y	04 (44%)
	> 50 Y	02 (22%)
District	Colombo	01(11%)
	Gampaha	01(11%)
	Mannar	01(11%)
	Ratnapura	02(22%)
	Badulla	01(11%)
	Ampara	01(11%)
	Polonnaruwa	01(11%)
	Batticaloa	01(11%)

Table 07: Results of Blood smear examination for malaria parasites - 3rd quarter 2015

	3rd quarter 2014	3rd quarter 2015
No. of blood smears examined	278,726	292,095
No. of positives (indigenous)	0	0
No. of <i>P. vivax</i>	0	0
No. of <i>P. falciparum</i>	0	0
No. of mixed infections	0	0
No. of infant positives	0	0
Slide positivity rate (S.P.R.)	0.00	0.00
P.v. : P.f. ratio	0	0
Percentage of infant positives	0%	0%

Table 09 : Distribution of Number of Blood Smears Examined by District RMO - 3rd quarter 2015

Table 10: Morbidity and mortality due to DF/DHF – 3rd quarter 2015

RMO	July	August	Sept.	Total
Colombo	8047	7535	6449	22031
Gampaha	3321	3786	4484	11591
Kalutara	1430	1575	1172	4177
Kandy	4020	4826	4379	13225
Matale	2592	2579	2550	7721
Nuwara Eliya	292	291	266	849
Galle	1789	1811	1823	5423
Matara	1605	1761	1886	5252
Hambantota	3134	1508	1741	6383
Jaffna	6038	5789	6293	18120
Kilinochchi	5449	3971	3705	13125
Vavuniya	3771	3056	4294	11121
Mannar	3647	4381	3951	11079
Mullaitivu	3162	3028	1638	7828
Batticaloa	3715	3817	5311	12843
Ampara	2372	2264	2322	6958
Kalmunei	2849	3031	3248	9128
Trincomalie	2442	2690	2296	7428
Kurunegala	6835	6211	6761	19807
Maho	2248	2096	2320	6664
Puttalam	2590	2545	3131	8266
A'pura	7329	6669	6696	20694
Pollonnaruwa	4862	3873	4042	12777
Badulla	4254	4089	4029	12372
Monaragala	6864	3793	4213	14870
Rathnapura	3957	3992	4104	12053
Kegalle	3199	3627	3484	10310
TOTAL	101813	93694	96588	292095

RDHS Division	Cases	Percenta ge (%)	Deaths	CFR
Colombo	2019	41.82	05	0.1
Gampaha	736	15.24	00	0.0
Kalutara	274	5.68	00	0.0
Kandy	173	3.58	00	0.0
Matale	23	0.48	00	0.0
N' Eliya	26	0.54	00	0.0
Galle	201	4.16	00	0.0
Hambantota	70	1.45	00	0.0
Matara	69	1.43	00	0.0
Jaffna	165	3.42	00	0.0
Kilinochchi	23	0.48	00	0.0
Mannar	04	0.08	00	0.0
Vavuniya	20	0.41	00	0.0
Mulativu	22	0.46	00	0.0
Batticaloa	91	1.88	00	0.0
Ampara	15	0.31	00	0.0
Trincomalee	47	0.97	00	0.0
Kurunagale	179	3.71	00	0.0
Puttalam	91	1.88	00	0.0
A'pura	45	0.93	01	2.2
Polonnaruwa	38	0.79	00	0.0
Badulla	62	1.28	00	0.0
Moneragala	32	0.66	00	0.0
Ratnapura	225	4.66	00	0.0
Kegalle	135	2.80	00	0.0
Kalmunai	43	0.89	00	0.0
Total	4,828	100.00	06	0.12

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

During the 3rd Quarter 2015, 4828 cases of DF/DHF were reported from all districts (Table 10) while 6 deaths were reported (CFR 0.2%) when compared to 4395 cases of DF/DHF and 7 deaths (CFR 0.2%) reported during the 2nd Quarter of 2015. Proportion of cases notified in July, August, September were 44%, 33.2%, and 22.8% respectively.

Table 10 shows the distribution of DF/DHF cases and deaths in the 3rd quarter 2015.

Special surveillance data on 366 confirmed cases were received and analyzed for the 3rd quarter 2015. Age distribution of reported cases were 26 (7.1%) in <4 years age group, 49 (13.4%) 5 - 9 years of age group, 41(11.2%) in 10 - 14 years of age, 40(10.9%) in 15 – 19 years of age, 60(16.4%) in 20 - 24 years of age, 40 (10.9%) in 25 - 29 years of age, 27(7.4%) in 30 - 34 years of age, 27(7.4%) in 35 - 39 years of age, 11 (3.0%0 in 40 - 44 years of age, 9 (2.5%) in 45 - 49 years of age, 8 (2.2%) in 50 – 54 years of age, 13 (3.6%) 55 - 59 years of age and 10(2.7%) in >60 years of age.

According to the clinical findings majority of the reported cases 495 (92.9%) were classified as dengue fever while 37(6.9 %) were classified as Dengue fever without shock and 1 case (0.2%) was Dengue fever with shock.

# 11. RUBELLA DISEASE AND CONGENITAL RUBELLA SYNDROME (CRS)

There were no rubella or CRS cases reported during the quarter. Rubella IgM testing was carried out by the Virology Laboratory, MRI, for nearly 370 infants with any congenital abnormalities, maternal history of possible rubella or clinicians suspected of any maternal viral infection from samples sent for Rubella or TORCH screen and any positive Rubella IgM infants were traced. All were negative for rubella and no Congenital Rubella cases were detected.

### 12. CHOLERA

No confirmed cases of cholera were reported to the Epidemiology Unit during the 3rd Quarter 2015. Last case of cholera was reported in the country in January 2003.

## 13. TETANUS

Seven tetanus cases were reported during 3rd quarter 2015. Piliyandala, Wilgamuwa, Pasgoda, Kalavanchikdi, Vellavelly, Trincomalee, and Polpithigama were the MOH areas which reported Tetanus cases.

### 14. SURVEILLANCE REPORT ON AEFI

Surveillance of Adverse Events Following Immunization (AEFI) effectively continued in the 3<sup>rd</sup>Quarter of 2015 has reached 95.4% of completeness of reports, while only 55.9% reports were received in time at the Epidemiology Unit indicating need of more attention by the MOOH. Colombo, Gampaha, Hambantota, Mannar, Mullativu, Badulla, Moneragala and, Kegalle were able to send all reports. The best timeliness was reported from the Jaffna district (88.6%) followed by Mannar (80.0%), Kegalle (69.7%) and Kandy (69.0%). (Table 12)

The highest percentage of 'Nil reports' were received from Ampara(55.6%) followed by Puttalam (35.5%) and Batticaloa(35.0%) districts, whichmore thantwo fold of the Sri Lanka average (19.3%) indicating the need for more attention for surveillance. Jaffna district and Kegalle district had no 'Nil return', followed by Kalutara(5.3%),Moneragala (6.1%) and Colombo (7.8%) districts indicating the good surveillance system in place. The highest rate (885.7 per 100,000 immunizations) of AEFI was reported from Mullativu district, while Colombo reported the highest number of 302 AEFI cases in Third quarter 2015.

For the Third quarter, the highest number of AEFI (n=1643) was reported against Pentavalent vaccine, where as the highest rate of AEFI (931.6 /100,000 doses administered) reported against DTP vaccine. The rate of AEFI for Pentavalent (01st, 02nd 03rd dose) is 696.3 per 100,000 doses administered. High Fever (1034), Nodule (524), Allergic Reaction (386) are the leading AEFI reported. Highest numbers of fever cases reported were following Pentavalent (623 cases: 264.0 per 100,000 doses administered) and DTP (310 cases: 388.7 per 100,000 doses administered) vaccines. For Allergic reactions, it was largely due to PVV (131 cases: 55.5 per 100,000 doses administered), MMR (111 cases: 60.7 per 100,000 doses administered), DTP (88 cases: 110.3 per 100,000 doses administered)and LJE (26 cases: 31.0 per 100,000 doses administered).

Table 12: Completeness and Timeliness of Monthly Reporting and Receipt of "NIL" Reports of AEFI by RDHS Divisions – 3rd quarter 2015

DPDHS	% completeness	% Timely returns	% Nil Returns	No. of AEFI	AEFI Rate (100,000 vaccine doses)
Colombo	100.0	56.9	7.8	302	255.8
Gampaha	100.0	53.3	13.3	184	160.3
Kalutara	97.4	44.7	5.3	140	203.5
Kandy	98.6	69.0	18.3	216	226.4
Matale	97.4	68.4	23.7	63	195.9
Nuwara Eliya	92.3	47.2	16.7	77	155.9
Galle	95.0	59.6	29.8	121	188.3
Hambantota	100.0	55.6	11.1	137	309.5
Matara	88.2	57.8	13.3	108	226.3
Jaffna	97.2	88.6	0.0	180	640.3
Kilinochchi	83.3	60.0	30.0	20	298.6
Mannar	100.0	80.0	33.3	34	482.6
Vavuniya	91.7	54.5	27.3	34	298.4
Mullativu	100.0	46.7	13.3	61	885.7
Batticaloa	95.2	37.5	35.0	57	169.7
Ampara	85.7	61.1	55.6	14	80.8
Trincomalee	97.0	68.8	25.0	78	280.5
Kurunegala	93.8	60.5	22.4	169	172.6
Puttalam	86.1	41.9	35.5	67	145.0
A'pura	94.7	37.0	29.6	118	183.2
Polonnaruwa	90.5	15.8	21.1	61	215.3
Badulla	100.0	66.7	12.5	163	291.8
Moneragala	100.0	60.6	6.1	105	304.3
Ratnapura	92.6	50.0	22.0	139	209.5
Kegalle	100.0	69.7	0.0	145	310.0
Kalmunai	92.3	27.8	25.0	73	229.4
Sri Lanka	95.4	55.9	19.3	2866	230.0

Table 13: Number of Selected Adverse Events by Vaccines - 3rd quarter 2015

	BCG	OPV	PVV*	DPT	MMR	LJE	DT	тт	aTd	Total number of AEFI reporte d**
Total Number of AEFI Reported	13	9	1643	743	241	66	50	24	31	2820
AEFI reporting rate/100,000 doses administered	15.7	2.3	696.3	931.6	131.7	78.6	81.0	32.0	53.5	
High Fever (>39°C)	3	5	623	310	62	20	9		2	1034
Reporting rate/100,000 doses administered	3.6	1.3	264.0	388.7	33.9	23.8	14.6		3.5	
Allergic reactions	1		131	88	111	26	14	6	9	386
Reporting rate/100,000 doses administered	1.2		55.5	110.3	60.7	31.0	22.7	8.0	15.5	
Severe local reactions			47	32	4	2	4	1	1	91
Reporting rate/100,000 doses administered			19.9	40.1	2.2	2.4	6.5	1.3	1.7	
Seizure (Febrile/Afebrile)			24	49	5	5	1			84
Reporting rate/100,000 doses administered			10.2	61.4	2.7	6.0	1.6			
Nodules			424	88	3	1	4	1	2	523
Reporting rate/100,000 doses administered			179.7	110.3	1.6	1.2	6.5	1.3	3.5	
Injection site abscess	6		145	17	3				1	172
Reporting rate/100,000 doses administered	7.2		61.4	21.3	1.6				1.7	
HHE			3	1						4
Reporting rate/100,000 doses administered			1.3	1.3						

<sup>\*</sup>PentaValent Vaccine

### 15. TUBERCULOSIS

A total of 2378 Tuberculosis patients were notified to the NPTCCD by H816A (TB notification form) for the 3rd Quarter 2015, while 2366 patients were registered at chest clinics during the same quarter according to the Quarterly Report on Case finding (TB 08).

Out of the total, 2224 (94%) TB patients were new TB cases, 141 (6%) were pre treatment cases and 1 (0.04%) case belong to the previous treatment history unknown category .

Out of new TB cases, 1050 (47.2%) were bacteriology confirmed TB, 493 (22.2%) were clinically diagnosed (sputum negative) TB and 681 (30.6%) were new extra pulmonary TB cases.

Out of the new bacteriology confirmed TB, 1027 (97.8%) were sputum PTB sp+ve and 23 (2.2%) were sputum PTB sp-ve culture positive. None (0%) patients identified with WHO recommended Rapid Diagnostic tests.

Out of the re-treatment cases, 100(70.9%) patients were Relapse, 19(13.5%) patients were Treatment After Failure, 18(12.8%) patients were Treatment After Loss to Follow up and 04(2.8%) patients were other previously treated.

<sup>\*\*</sup>Total given only for nine vaccines listed in the table

A total of 1984 TB patients were screened for HIV, out of them 2 patients were detected +ve for HIV.

There were 5 patients with known +ve HIV status at the time of TB diagnosis. A total of 7 patients were with TB/HIV co infection.

Eight multi drug resistant TB patients were detected during this quarter.

Table 14: Tuberculosis Patients by RDHS Divisions - 3rd quarter 2015

RDHS		Ne	W		Retreat	Previous treatment		
DIVISION	PTB sp+ve	PTB sp-ve	ЕРТВ	Total	ment	history unknown	Total	
Colombo	268	93	150	511	41	0	552	
Gampaha	120	62	68	250	17	0	267	
Kalutara	104	22	37	163	5	0	168	
Kandy	40	64	49	153	6	0	159	
Matale	19	5	22	46	2	0	48	
Nuwara Eliya	28	10	31	69	9	0	78	
Galle	50	28	29	107	12	0	119	
Matara	21	15	11	47	5	0	52	
Hambantota	13	13	18	44	2	0	46	
Jaffna	30	13	23	66	3	0	69	
Vavuniya	11	10	7	28	2	0	30	
Batticaloa	15	0	12	27	7	0	34	
Ampara	4	15	6	25	1	0	26	
Kalmunai	20	23	7	50	4	0	54	
Trincomalee	13	10	11	34	2	0	36	
Kurunegala	61	27	31	119	2	1	122	
Puttalam	22	2	12	36	2	0	38	
Anuradhapur a	33	3	24	60	1	0	61	
Polonnaruwa	15	5	8	28	0	0	28	
Badulla	23	15	25	63	2	0	65	
Monaragala	3	9	7	19	2	0	21	
Rathnapura	77	21	54	152	4	0	156	
Kegalle	50	23	26	99	8	0	107	
Mannar	2	0	3	5	0	0	5	
Mulathivu	4	3	2	9	0	0	9	
Kilinochchi	4	2	8	14	2	0	16	
Total	1050	493	681	2224	141	1	2366	

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 3rd quarter 2015, is as follows;

		Total
A.	Yellow fever	1009
B.	Meningococcal meningitis	1333
C.	Oral polio Vaccine	375

## 17. SURVEILLANCE AT AIRPORT

Surveillance activities carried out at the Inter national Airport, Katunayake during the 3rd Quarter 2015 is given below.

#### 1. Yellow Fever Surveillance

a. No. with valid certificate	-	53
b. No. without valid certificate & Deported	-	00
c. No. without valid certificate & Isolated	-	00
2. Disinfection of Aircrafts		
a No. of flights arrived	-	6751
b No. of flights has to be disinfected	-	6282
c No. of flights disinfected	-	5693
3. Passenger Arrivals & departures	-	_
a No. Of passengers Arrived	-	1 136 395
b No.of Passengers Departures	-	_
4. Release of Human Remains		
a. No. of human Remains released	-	112
b.No. of released to J.M.O. For postmortern	-	09
c. No. Alleged suicide	-	02
5 Surveillance of other infectious diseases	-	_
6 Airport Sanitation		
a No of sanitary inspections carried out including Food establishment	-	41
b No. Of food samples taken under Food Act	-	00
c No. Found defective	-	00
d No. of court cases / prosecuted / Warned	-	00
7 Other Health Activities a Poloi Vaccination No - of doses given	-	00
b Health talk given to staff	-	40
8 a. No. of water samples taken for Bacteriological Analysis	-	10
b. No. Reported Contaminated	-	00

## 18. LEPROSY

Table 15: Quarterly Return of Leprosy Statistics - 1st quarter 2015

## 1. National

	At th	e end of the qua	arter	Cumulative for end of the quarter				
	3rd quarter 2015(a)	3rd quarter 2014 (b)	• • • • • • • • • • • • • • • • • • • •		2014(d)	Diff (%) (c/d*100%)		
New patients detected	348	558	62.3	1194	1732	68.9		
Children	32	53	60.3	119	164	72.5		
Grade 2 Deformities	43	36	119.4	117	136	86.0		
Multi-Bacillary	188	272	69.1	625	843	74.1		
Females	136	226	60.1	482	668	72.1		

## 2. Districts

District	New patients	G2-Deformity	Children	MB	Females
Central	3	2	0	1	0
Kandy	1	1	0	0	0
Matale	2	1	0	1	0
Eastern	26	3	5	14	10
Ampara	6	1	1	2	2
Batticaloa	10	1	2	6	5
Kalmunai	10	1	2	6	3
Northern	11	0	1	5	10
Jaffna	5	0	1	1	5
Kilinochchi	2	0	0	1	2
Mannar	1	0	0	1	0
Vavuniya	3	0	0	2	3
North Central	26	2	3	16	7
Anuradhapura	13	1	1	8	4
Pollonnaruwa	13	1	2	8	3
North Western	30	4	3	17	13
Kurunegala	21	2	3	10	11
Puttalam	9	2	0	7	2
Sabaragamuwa	29	3	1	14	9
Kegalle	6	0	1	2	1
Rathnapura	23	3	0	12	8
Southern	57	4	6	31	19
Galle	19	0	4	8	3
Hambanthota	16	1	1	10	8
Matara	22	3	1	13	8
Uva	14	1	0	11	6
Baddulla	6	0	0	5	3
Monaragala	8	1	0	6	3
Western	152	13	24	79	62
Colombo	77	5	16	41	26
Gampaha	47	6	4	25	25
Kalutara	28	2	4	13	11
Sri Lanka	348	32	43	188	136

Source : Anti Leprosy Campaign

## 19. SEXUALLY TRANSMITTED DISEASES

Table 16: New Episodes of STD/HIV/AIDS Reported or Treated at STD Clinics in Sri Lanka -3rd quarter 2015

Disease			ases or new es during the		Total new cases or new episodes for the calendar year up to end of the quarter **			
		Male	Female	Total	Male	Female	Total	
HIV positi	ives <sup>1</sup>	47	14	61	127	40	167	
AIDS		13	6	19	28	11	39	
	Early Syphilis <sup>2</sup>	28	12	40	98	43	141	
Syphilis	Late Syphilis <sup>3</sup>	147	88	235	468	268	736	
	Congenital Syphilis <sup>4</sup>	4	2	6	7	7	14	
Gonorrho	ea <sup>5</sup>	61	29	90	258	86	344	
Ophthalm	iia Neonatorum <sup>6</sup>	1	0	1	1	0	1	
Non spec	ific cervicitis/urethritis	136	452	588	416	1221	1637	
Chlamydi	al infection	29	22	51	33	24	57	
Genital H	erpes	353	474	827	917	1257	2174	
Genital W	/arts	289	228	517	849	828	1477	
Chancroid	b	0	0	0	4	4	8	
Trichomo	niasis	2	30	32	10	78	88	
Candidias	sis	252	421	673	724	1177	1901	
Bacterial	Vaginosis	0	413	413	0	1046	1046	
Other sex	cually transmitted diseases <sup>7</sup>	155	43	198	346	130	476	
Non vene	real	872	572	1444	2536	1498	4034	

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
- Includes AIDS cases
- Diagnosed within 2 years of infection and considered to be infectious
- Diagnosed after 2 years of infection and considered to be non-infectious
- 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.
- Number of STD clinic attendees who were not having sexually transmitted diseases.

## 20. BACTERIOLOGY REPORT, MEDICAL RESEARCH I NSTITUTE 3rd QUARTER 2015

Table 17: Bacteriological report, MRI 3rd quarter 2015.

	JUL	AUG	SEPT
(A) CHOLERA			
No. of stool specimens Examined	52	44	61
No. of positives	0	0	0
(B) SALMONELLA			
Blood- No. Examined	494	405	391
S.typhi	1	0	1
S.paratyphi A	0	0	0
Stools—No. examined	103	104	115
S.typhi	0	0	0
S.paratyphi A	0	0	0
Others	2	2	3
(C) SHIGELLA			
No. Examined	103	104	115
Sh. sonnei	0	0	0
Sh.flexneri 1	0	0	0
Sh.flexneri 2	0	0	0
Sh.flexneri 3	0	2	0
Sh.flexneri 4	0	0	0
Sh.flexneri 5	0	0	0
Sh.flexneri 6	0	0	1
(D) ENTEROPATHOGENIC E.COLI			
No.Examined	4	14	11
No.+ve	0	0	0
(E) CAMPYLOBACTER			
No.Examined	51	61	45
No. Positive	0	0	0
(F) ISOLATES			
Clinical	14	13	18
S. Typhi	0	0	0
S. Paratyphi A	0	1	1
Other Salmonella	6	4	5
Shigella spp	4	2	6

## 21. SURVEILLANCE OF MENINGITIS— 3rd quarter 2015

Meningitis is a notifiable disease condition in Sri Lanka since year 2005. During the 3rd quarter 2015, 210 suspected meningitis cases were reported to the Epidemiology Unit through the routine disease notification system.

Out of this 160 cases were clinically confirmed by the Public Health Inspectors during their field investigations. Highest number of meningitis cases were reported from the Badulla district (14) followed by Ratnapura(12), Matale (12), NuwaraEliya (11) and Kegalle (10) districts.

.Forty five percent of the clinically confirmed meningitis cases belonged to the age group less than one year, another 25% belonged to the age group 1-5 years and 13% belonged to age group 6-14 years. Fifty nine percent of the clinically confirmed cases were males and 41% were female.

CSF Culture Report		
CSF Culture	Number	(%)
CSF results available	160	56%
- No Growth	114	
- Grouup B streptococci	06	
- Haemophillus influenza	01	
-Streptococcus Pneumoniae	01	
<b>a</b> 1	440	440/
Culture results not known	116 08	41% 03%
Not done Total	284	100%
lotai	20 <del>4</del>	100 /6
Final outcome of the patien	t	
Outcome	Number	(%)
Cured	276	97%
Died	08	03%
Total	284	100%
Final Diagnosis (based on c	linical and lab	findings
Diagnosis	Number	(%)
Culture confirmed	08	03%
Probable bacterial	40	14%
meningitis		
Probable viral meningitis	14	05%
Suspected Meningitis	219	77%
Total	284	100%

## 22. INFLUENZA SURVEILLANCE-3rd quarter 2015

#### Human Influenza surveillance

Surveillance of human influenza is carried out under 2 main components; Influenza like illness (ILI) surveillance and Severe Acute Respiratory Infections (SARI) surveillance. As for the ILI surveillance, epidemiological data are collected from 19 sentinel hospitals throughout the country, out of which respiratory samples are collected from 13 sentinel hospitals. Under SARI surveillance more detailed epidemiological data and respiratory samples are collected from 4 sentinel hospitals. Respiratory samples are analyzed at the National Influenza Center (NIC), Medical Research Institute (MRI).

#### **Epidemiological Component**

#### **ILI Surveillance**

In the 3rd quarter of year 2015, fifteen hospitals out of nineteen have reported ILI data with a reporting rate of 73.6%. A total of 11372 ILI cases were reported, accounting for 1.36% of the all OPD visits (n=830529). The highest number of ILI cases were reported from Teaching Hospital Anuradhapura (n=2872,25.25%) and the majority of the patients were in the age group 15—49 years (n=3294,28.96%).

#### **SARI Surveillance**

A total of 1469 SARI cases were reported for the 3rd quarter of 2015 from all 4 sentinel hospitals (Teaching Hospital Ragama, General Hospital Matara, Teaching Hospital Peradeniya and Lady Ridgeway Hospital for children). Out of 25,628 all hospital admissions during the quarter, 5.7% were due to SARI. The highest number of SARI cases were reported from Teaching Hospital Matara (n=1078, 73.38%).

## **Laboratory Component**

## ILI Surveillance

The laboratory component of the surveillance was temporarily suspended in the 3 rd quarter due to the onset of the influenza outbreak.

#### **SARI Surveillance**

The laboratory component of the surveillance was temporarily suspended in July and august months due to the onset of the influenza outbreak. A total of 12 samples were sent to the MRI during the month of September.

## Bird Influenza Surveillance

Sri Lanka has been recognized as carrying a high risk for Avian Influenza (AI) making bird influenza surveillance an important component of the influenza surveillance system. This high risk is mainly due to its location in the South East Asian Region. The country's poultry industry with a

significant proportion of people engaged in backyard poultry and the commercial level poultry industry add to this risk. Also the country being a hotspot for migratory birds, attracting over two hundred species of migratory birds annually in two migratory seasons, is another risk factor that makes bird influenza surveillance necessary. Bird surveillance is conducted by the Department of Animal Production and Health (DAPH) with serum samples collected from poultry farms on a monthly basis and fecal samples collected from migratory bird hotspots during the two migratory seasons, where fifteen fecal samples are collected from each bird hotspot, pooled in bottles with five samples in each and analyzed at the virology laboratory at Polgolla.

Table 01: Animal samples collected by month and district for the 3rd quarter of the year 2015

Month	Number of Pooled fecal samples	Districts samples were collected from	Number of Serum samples	Districts samples were collected from
July	642	Colombo Gampaha Rathnapura Kandy Kegalle Jaffna Puttlam Matale	155	Colombo Gampaha Kandy Kegalle Puttlam
August	552	Colombo Gampaha Anuradhapur a Hambantota Kaluthara	368	Colombo  Gampaha  Matale  Kaluthara  Trincomalee  Vavuniya
Septemb er	1032	Colombo Gampaha Anuradhapur a Vavuniya Puttlam	461	Colombo Gampaha Anuradhapura Kegalle Badulla Puttlam
Total	2226		984	

## Leptospirosis Surveillance Report -2014

#### Introduction

Leptospirosis is a zoonotic disease found throughout the world, particularly in tropical and subtropical regions where environmental conditions favour the survival and transmission of leptospires, the causative bacteria which is found in animal hosts. The bacteria infects the humans by entering the body through mucous membranes or abraded skin when exposed to water that has been contaminated by urine from chronically infected animals, especially rodents. Each year approximately 3000 to 5000 cases are notified from the entire country.

The surveillance of leptospirosis is carried out by The Epidemiology Unit. In addition to routine notification, hospital (sentinel site) and field based special surveillance is carried out. Special surveillance gives a detailed description of leptospirosis patients.

## Geographical distribution of Leptospirosis cases 2014

A total of 3235 of cases were reported for the year 2014 (Table 1). The highest number of cases, (463 each) was reported from Gampaha and Ratnapura District, followed by Kalutara, Kegalle and Galle Districts.

#### Seasonal distribution of Leptospirosis cases

The trends of Leptospirosis notification in the year 2011 – 2014 followed a seasonal variation which was linked with paddy cultivation and harvesting.

Graph 1: Trends in Leptospirosis 2011 - 2014 Sri Lanka

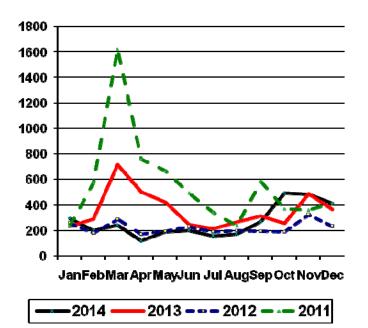


Table (1).Geographical distribution of Leptospirosis cases by district-2014

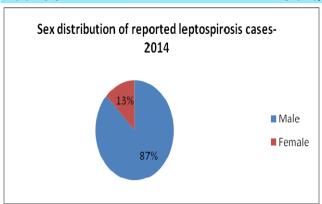
District	No. of cases
Colombo	225
Gampaha	463
Kalutara	375
Kandy	85
Matale	47
N'Eliya	37
Galle	246
Hambantota	96
Matara	128
Jaffna	17
Kilonochchi	1
Mannar	4
Vavuniya	10
Mulativu	13
Batticaloa	17
Ampara	24
Trincomalee	20
Kurunegala	161
Puttalam	65
Anuradhapura	177
Polonnaruwa	85
Badulla	56
Monaragala	107
Ratnapura	463
Kegalle	310
Kalmunai	3
Total	3235

## Age and sex distribution of Leptospirosis cases

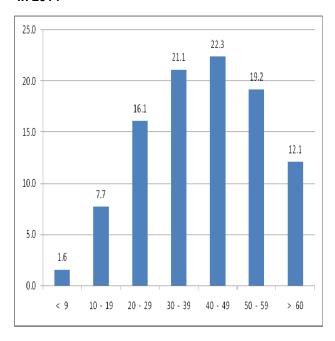
The majority of Leptospirosis cases reported during the year was males. Out of the total cases, 87% were males and 13% were females.

The age distribution of reported cases of Leptospirosis for the year 2014 is given in figure 2. The majority of patients were in the middle age group.

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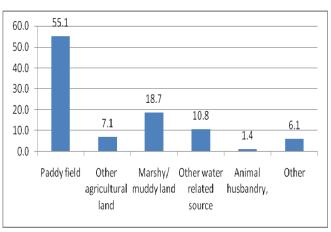
## Age distribution of reported leptospirosis cases (%) in 2014



## **Prevention and Control**

Epidemiology Unit carried out broad district/local level strategies to prevent and control the transmission of Leptospirosis. Surveillance activities were intensified mainly during paddy cultivation season with MOH, RE and central level involvement aimed at early detection of outbreaks. MOH and PHI level leptospirosis coordination committees were strengthened to conduct field level control activities. Mass media campaigns were carried out to complement field level awareness programmes during the paddy cultivation period. Doxycycline was used for chemoprophylaxis as a high risk strategy.

## Source of exposure (%) of leptospirosis patients in 2014



According to data reported through the special surveillance, majority of patients were exposed through paddy fields, followed by marshy/ muddy lands.

### 24. SUMMARY OF NOTIFIABLE DISEASES - 3rd Quarter 2015

Table 31

Health Region	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	38	5	33	43	0	72	158	0	1	3	7	3	2019	177	104	5	11	0
Gampaha	14	3	7	2	0	66	101	0	0	4	28	1	736	225	85	6	12	0
Kalutara	15	0	13	8	0	78	200	6	0	1	11	2	274	86	63	6	9	0
Kandy	32	0	8	15	0	31	27	0	0	18	16	1	173	175	41	3	12	4
Matale	4	1	1	0	0	12	8	0	0	1	5	0	23	46	11	1	14	5
Nuwara-Eliya	51	0	12	7	0	14	10	1	0	21	5	0	26	70	30	3	15	1
Galle	22	1	2	2	0	41	30	1	0	40	2	3	201	115	61	4	14	0
Hambantota	13	1	3	14	0	22	23	3	0	18	7	1	70	56	19	0	3	67
Matara	12	1	0	0	0	53	31	0	0	13	14	3	69	56	47	9	3	48
Jaffna	345	1	17	24	0	1	5	8	0	32	2	1	165	81	22	5	7	0
Kilinochchi	25	0	7	0	0	0	0	0	0	4	0	0	23	15	2	0	0	0
Mannar	6	0	0	1	0	0	1	0	0	5	0	0	4	7	0	0	0	1
Vavuniya	4	0	17	9	0	4	2	0	0	1	1	0	20	27	3	0	8	3
Mullaitivu	11	0	7	0	1	2	0	0	0	2	1	1	22	8	1	0	0	3
Batticaloa	115	1	12	57	0	3	20	1	1	2	2	3	91	41	24	2	1	0
Ampara	14	0	0	10	0	3	31	1	0	1	6	3	15	27	28	2	0	2
Trincomalee	46	0	14	1	0	2	8	1	1	8	14	2	47	35	24	1	5	3
Kurunegala	47	0	4	4	2	38	34	5	1	8	8	1	179	121	76	7	9	49
Puttalam	23	0	4	3	0	6	29	0	0	3	1	1	91	39	12	2	5	1
Anuradhapura	43	2	1	8	0	17	22	0	0	3	6	1	45	49	30	5	9	123
Polonnaruwa	9	0	2	9	0	7	11	0	0	0	3	4	38	28	22	4	4	33
Badulla	66	3	3	9	1	20	65	0	0	50	52	1	62	74	62	5	23	0
Moneragala	26	2	2	2	0	2	25	0	0	20	272	0	32	28	29	9	15	18
Ratnapura	64	10	11	4	1	90	106	2	0	16	69	3	225	100	64	6	15	12
Kegalle	16	3	21	7	0	56	24	0	0	15	16	0	135	93	53	6	14	0
Kalmunai	19	0	0	18	0	4	9	8	0	0	2	1	43	55	19	1	2	0
Total	1080	34	201	257	5	654	980	37	4	289	550	36	4828	1834	932	92	210	373

No polio cases. (from AFP surveillance system).

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Such reports should be addressed to:

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