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Epidemiology Unit
Ministry of Health



1. ACUTE FLACCID PARALYSIS SURVEILLANCE

Twenty (20) Acute Flaccid cases were notified to the Epidemiology Unit during the 2nd quarter 2015. This is lower compared to reported AFP cases of 22 during the 2nd quarter 2014. Reported number of AFP cases for the quarter is little lower than the expected number of AFP cases per quarter of the annual surveillance target of 2:100,000 under 15 year age population, which is 20 according to the current census survey population. The non-polio AFP rate for the second quarter of 2015 was 1.5 :100,000.

Notification of AFP Cases from Hospitals

All hospitals where Consultant Paediatricians are available are considered as sentinel sites for AFP surveillance. A total of 75 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 (25%) were notified from a sentinel hospital for AFP, the Sirimawo Bandaranayake

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

The highest number of cases were reported from district of Kandy with 4 cases. The complete list of distribution of AFP cases according to the province, district and MOH area is given in Table 02

Age and Sex Distribution of AFP Cases

Majority (11.55%) of the cases were males during the 2nd quarter 2015 and this was lower compared to the trend reported during the 2nd quarter 2014 which was 68% of girls in the reported AFP cases.

Majority (55%) of cases were between 1-9 years during the second quarter this year and the trend was lower compared to the compatible quarter in the previous year.

The Table 03 shows the age distribution in the 2nd quarter 2015.

Table 01: Notification of AFP cases by sentinel hospitals

Hospital	No: of cases reported
LRH	4
TH Karapitiya	1
TH Ragama	3
TH Kurunegala	2
TH Peradeniya	1
TH Batticaloa	1
SBSCCH	5
TH Anuradhapura	1
DGH Matara	1
PGH Ratnapura	1
Total	20

Table 02: Geographical distribution of AFP cases 2nd quarter 2015

Province	District	MOH Area	Number of AFP cases
Western	Colombo	Kolonnawa	1
	Gampaha	Biyagama	1
Southern	Matara	Weligama	1
	Hambantota	Tangalle	1
Central	Kandy	Bambaradeniya	2
		MC Kandy	1
		Doluwa	1
	Nuwara Eliya	Maskeliya	1
		Mathurata	1
North Western	Kurunegala	Mawathagama	1
		Maho	1
Eastern	Batticaloa	Batticaloa	1
	Ampara	Damana	1
North Central	Anuradhapura	Ipalogama	1
Uva	Monaragala	Bibile	1
	Badulla	Haputale	1
Nothern	Mannar	Nanathan	1
Sabaragamuwa	Rathnapura	Nivithigala	1
	Kegalle	Dehiowita	1
Total			20

Seasonal Distribution of AFP Cases

Majority of AFP cases were reported during June (65%). There is no observable variation of case presentation by month compared to the compatible quarter in the previous year.

Table 03: Distribution of AFP cases by Age -2nd quarter 2015

Age Group	Sex		Total
	Male	Female	
<1 year old	1	0	1
1-4 year old	0	3	3
5-9 year old	4	3	7
10-15 year old	6	3	9
Total	11	09	20

Final diagnoses of AFP cases

Majority (90%) of the reported AFP cases were finally diagnosed as Guillain Barre Syndrome (GBS). Final diagnoses of all 20 cases of AFP are given in Table 4.

Table 4: Final diagnoses of AFP patients reported during - 2nd quarter 2015

Final Diagnoses	Frequency
GBS	18
Transverse Myelitis	2
Total	20

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 20 AFP cases reported, 18 (90%) had both stool samples collected timely and sent to MRI for polio virology.

2. MEASLES

Seven hundred and sixty one (761) suspected measles patients were reported and only 578 cases were compatible with clinical case definition of "fever and maculopapular rash with one of the signs of cough, coryza or conjunctivitis". This number was little higher than the number reported during the previous quarter which was 539 suspected cases and 374 clinically confirmed cases. Measles incidence of 29/million population had been identified for clinically confirmed cases which were field investigated for special

Measles outbreak situation has started during the 1st quarter 2013 and continued after reduction of the peak with supplementary immunization activity conducted for 6-11 month old infants as an outbreak control measure since major proportion of affected belonged to 6-11 months. But transmission of measles in the country was continuing with varying intensity with overall trend of gradual reduction seen to date.

These clinical cases were field investigated by the respective medical officers of the patients' residential areas. Case based field level investigation rate was 69% and special investigation forms were received at the Epidemiology Unit.

Age categories according to vaccination status had been analysed, and relevant incomplete forms on vaccination status were returned to the respective Regional Epidemiologists for clarifications and completeness.

Table 05: Number of Measles cases by district - 2nd quarter 2015.

District	cases
Colombo	116
Gampaha	82
Kalutara	46
Kandy	23
Matale	18
Nuwara Eliya	1
Galle	10
Hambnatota	30
Matara	31
Jaffna	3
Vavuniya	1
Mannar	4
Batticaloa	12
Kalmunai	4
Ampara	1
Trincomalee	2
Kurunegala	60
Puttalam	15
Anuradhapura	25
Polonnaruwa	9
Badulla	18
Moneragala	4
Ratnapura	23
Kegalle	37

Western Province reported the highest number of measles cases (244) followed by North Western province.

Measles vaccination was introduced in 1984 in Sri Lanka at the age of 9 months and the 2nd dose of measles introduced as MR vaccine at the age of 3 years in 2001. With marked reduction of measles transmission in the country, MMR vaccine was introduced with advancing the 1st dose to the 1 year of age and 2nd dose at the age of 3 years in 2011. As with the outbreak of measles from 2013, a higher proportion of cases detected among 6-11 months aged infants. In 2014, this age category was investigated for measles serum antibody levels and detected lack of maternal antibodies for protection. This evidence leads to the decision of bringing down the age at 1st measles vaccination to 9 months of age from April 2015.

Of the total affected, nearly 60% were in age groups belonged to Measles vaccination has not been implemented through EPI who were below 1 year (34%) and above 29 years (27%). But a significant proportion (24%, 140 cases) was in 16-29 year age category among those who were due and would have been received at least one measles vaccination dose after 1984. But the deficiency identified was the insufficient attention for laboratory confirmation of all cases. All affected individuals were not tested at the laboratory and of the suspected measles cases laboratory testing rate was around 66% during the 2nd quarter which was little improved compared to the first quarter.

Laboratory investigations of 445 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) for Measles or Rubella IgM testing. Of the total tested 345 cases were positive for measles IgM (78%). Since there were no laboratory confirmed rubella cases were detected during the second quarter, non measles, nonrubella rate calculated for the quarter was <0.5/100,000 population and the expected target was

3. LEPTOSPIROSIS

During the 2nd quarter 2015, 880 cases and 15 deaths (CFR 1.7%) due to Leptospirosis were notified to the Epidemiology Unit compared to 1130 cases and 23 deaths in the previous quarter and 509 cases and 5 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 Leptopirosis Patients(%) - 2nd quarter 2015

Age Group	Sex	
	Male	Female
0 - 9 years	0	0
10 - 19 years	8.01	4.81
20 - 29 years	14.97	12.04
30 - 39 years	23.62	22.89
40 - 49 years	22.15	20.48
50 - 59 years	18.77	32.53
>60years	12.44	7.22
Total	100.00	100.00

4. HUMAN RABIES

Nine cases of Human Rabies were notified to the Epidemiology Unit in the 2nd quarter 2015 compared to 10 cases in the previous quarter and 12 cases in the corresponding quarter of year 2014.

Among the notified cases, 8 were investigated and confirmed as Human Rabies. The highest number of cases (2) were reported from Kurunegala district.

Animal Rabies

During this quarter, 109 dogs were reported positive for rabies, compared to 124 in the previous quarter and 122 positive in the same period in the last year. In addition the following animals were also reported positive;

Cats– 21 , Squirrel—04 , Domestic Ruminants-00

Rabies Control Activities

Dog vaccination - A total of 318209 dogs were immunized during the Quarter under review when compared to 365080 in the previous quarter and 297984 in corresponding Quarter of the last year.

Animal Birth control

Chemical- A total of 1771 female dogs were injected with birth control injections (Progesterone) during the quarter under review.

Surgical- 29349 female dogs were subjected to sterilization by surgical method during the quarter under

5. VIRAL HEPATITIS

In the 2nd Quarter 2015, a total of 291 cases of Viral Hepatitis were reported to the Epidemiology Unit. This was in comparison to the 473 cases in the previous quarter and 468 cases in the corresponding quarter of 2014. Badulla (72 cases) reported the highest number of cases followed by Kandy District(36 cases)

6. ENTERIC FEVER

In the 2nd Quarter 2015, a total of 187 cases of Enteric fever were reported to the Epidemiology Unit, compared to 319 cases in the previous quarter and 194 cases in the corresponding quarter of 2014. The district of Vavuniya (29) reported the highest number of cases, followed by Colombo (25 cases).

7. DYSENTERY

In the 2nd Quarter 2015, a total of 950 cases of Dysentery were reported to the Epidemiology Unit, in comparison to 1028 cases in the previous quarter and 863 cases in the corresponding quarter of 2014. Jaffna (171 cases) and Nuwara Eliya (135 cases) reported the highest number of cases

8. MALARIA

There were no indigenous malaria cases reported during the 2nd quarter of 2015 too. The number of imported malaria cases detected during this period shows a decline when compared same period of year 2014 (Table 06).

9.JAPANESE ENCEPHALITIS (JE)

During the 2nd quarter 2015, 32 cases of clinically suspected Encephalitis were reported to the Epidemiology Unit through the routine disease notification system. Out of this, 30 cases were clinically confirmed by the Public Health Inspectors during their field investigations. During the 2nd quarter of 2015, MRI has reported 2 lab confirmed JE cases. All reported JE cases were (100%) investigated by the MOH. For the year 2015 from January to 30th of June MRI has reported 8 lab confirmed JE cases.

Among them, 02 (25%) were over 50 years of age (38%), another 01 (12%) was 6 years old, another one was 9 years old (12%) and the other one (12%) was 4 years old.

Districts of Colombo, Rathnapura, Mannar, Ampara, Polonnaruwa, Batticaloa and Badulla have reported one JE case each during the second quarter 2015.

Table 08: Selected Characteristics of Confirmed Cases of JE -2nd quarter 2015 (N=08)

Sex	Male	05(63%)
	Female	03 (38%)
Age group	< 1 y	00 (00%)
	1-10 y	03 (38%)
	11- 20	00 (00%)
	21-50Y	03 (38%)
	> 50 Y	02 (25%)
District	Colombo	01(12%)
	Mannar	01(12%)
	Ratnapura	02(24%)
	Badulla	01(12%)
	Ampara	01(12%)
	Polonnaruwa	01(12%)
	Batticaloa	01(12%)

Table 07: Results of Blood smear examination for malaria parasites - 2nd quarter 2015

	2nd quarter 2014	2nd quarter 2015
No. of blood smears examined	257,677	272,025
No. of positives	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	0
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– 2nd quarter 2015

RMO	April	May	June	Total
Colombo	6253	8367	6932	21552
Gampaha	1932	2315	2711	6958
Kalutara	1316	1605	900	3821
Kandy	3412	3919	4248	11579
Matale	2144	2779	2662	7585
Nuwara Eliya	138	394	357	889
Galle	1274	1512	1836	4622
Matara	1536	1557	1237	4330
Hambantota	988	2686	2087	5761
Jaffna	4974	6288	6307	17569
Kilinochchi	2456	5224	5494	13174
Vavuniya	4024	4217	4662	12903
Mannar	2713	3028	3408	9149
Mullaitivu	3731	3176	3887	10794
Batticaloa	2997	4155	3983	11135
Ampara	1946	2155	2286	6387
Kalmunei	2742	2832	3081	8655
Trincomalie	2096	2100	1932	6128
Kurunegala	5173	6511	6756	18440
Maho	1616	2457	2822	6895
Puttalam	2224	3272	2545	8041
Anuradhapura	5586	7254	6918	19758
Pollonnaruwa	3076	4004	4332	11412
Badulla	3817	4843	4057	12717
Monaragala	3580	3892	3900	11372
Rathnapura	3269	3948	4135	11352
Kegalle	2480	3075	3492	9047
Total	77493	97565	96967	272025

Table 10: Morbidity and Mortality Due to DF/DHF - 2nd quarter 2015

RDHS Division	Cases	Percentage (%)	Deaths	Case Fatality Rate
Colombo	1347	30.65	2	0.1
Gampaha	682	15.52	1	0.1
Kalutara	236	5.37	0	0.0
Kandy	204	4.64	1	0.5
Matale	42	0.96	0	0.0
N' Eliya	21	0.48	0	0.0
Galle	81	1.84	0	0.0
Hambantota	41	0.93	0	0.0
Matara	65	1.48	0	0.0
Jaffna	177	4.03	0	0.0
Kilinochchi	6	0.14	0	0.0
Mannar	7	0.16	0	0.0
Vavuniya	28	0.64	0	0.0
Mulativu	36	0.82	0	0.0
Batticaloa	345	7.85	0	0.0
Ampara	14	0.32	1	7.1
Trincomalee	185	4.21	0	0.0
Kurunagale	196	4.46	0	0.0
Puttalam	94	2.14	0	0.0
A'pura	45	1.02	0	0.0
Polonnaruwa	30	0.68	0	0.0
Badulla	83	1.89	0	0.0
Moneragala	32	0.73	0	0.0
Ratnapura	197	4.48	1	0.5
Kegalle	132	3.00	1	0.8
Kalmunai	69	1.57	0	0.0
Total	4395	100.00	7	0.2

Table 11: DHF Statistics from Department of Virology , MRI—2nd quarter 2015

Month	Clinically suspected cases of DF/DHF	Serologically Confirmed Cases of DF/DHF
April	196	110 (56.1%)
May	144	33 (22.9%)
June	165	53 (32.1%)
Total	505	196 (38.8%)

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

During the 2nd quarter of 2015; 4,395 cases of DF/ DHF were reported from all districts (Table 10) while 7 deaths were reported (CFR 0.2%) when compared to 12,035 cases of DF/DHF and 27 deaths (CFR 0.22%) reported during the 1st quarter of 2015. Proportion of cases notified in April May, June were 29.4%, 36.9% and 33.6% respectively (Table 10).

Special surveillance data on 533 confirmed cases were received and analyzed for the 2nd quarter of 2015. Age distribution of reported cases were 51 (9.6%) in <4 years age group, 74 (13.9%) in 5– 9 years age group, 67 (12.6%) in 10-14 years of age, 51(9.6%) in 15-19 years of age, 67 (12.6%) in 20-24 years of age, 53 (9.9%) in 25-29 years of age, 46(8.6%) in 30-34 years of age, 31(5.8%) in 35-39 years of age, 21 (3.9%) in 40 -44 years of age, 23(4.3%) in 45-49 years of age, 13 (2.4%) in 50-54 years of age, 15(2.8%) in 55-59 years of age and 17 (3.2%) 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.

During the 2nd quarter 2015, 505 blood samples were tested using IgM capture ELISA test at the Department of Virology, MRI and 196 (38.8%) samples were confirmed as positive (Table 11).

11. RUBELLA AND CONGENITAL RUBELLA SYNDROME (CRS)

During the whole quarter only 2 possible clinical Rubella disease cases were reported who were compatible with surveillance case definition [fever, maculopapular rash with arthralgia/arthritis, lymphadenopathy (suboccipital, post auricular and cervical) or conjunctivitis]. However, none were laboratory confirmed by investigation of rubella IgM. This rubella free situation for the quarter was same as the compatible quarter in 2014.

None of the infants were reported from the laboratory for Rubella IgM positive out of the samples tested for TORCH screen and no suspected CRS cases during the quarter.

12. CHOLERA

No confirmed cases of cholera were reported to the Epidemiology Unit during the 2nd Quarter 2015. Last case of cholera was reported in the country in January 2003.

13. TETANUS

Five tetanus cases were reported during 2nd quarter 2015. Matale(2), Matara(1), Batticaloa(1), and Kegalle (1) were the MOH areas which reported tetanus cases

14. SURVEILLANCE AT SEA PORT

Details of the vaccinations carried out by the Assistant Port Health Officer during the 3rd quarter 2013, is as follows;

		Total
A.	Yellow fever	775
B.	Meningococcal meningitis	383
C.	Oral polio	737

15. SURVEILLANCE REPORT ON AEFI

Surveillance of Adverse Events Following Immunization (AEFI) effectively continued in the 2nd Quarter of 2015 has reached 96.1% of completeness of reports, while 48.8% reports were received in time at the Epidemiology Unit indicating good compliance for the system by the MOOH. Kandy, Matale, Galle, Jaffna, Mannar, Vavuniya, Batticaloa, Monaraga and Kegalle were able to send all reports. The best timeliness was reported from the Jaffna fdistrict (86.1%) followed by Kegalle (81.1%), Mullativu (78.6%) and Matara (75.0) Table 12).

The highest percentage of nil reports were received from Ampara(45.0%) followed by Batticaloa district (40.5%), which are more than two fold of the Sri Lanka average (22.1%) indicating the need for more attention for surveillance. Jaffna district has no 'Nil return' followed by Kegalle (6.1%) Kilinochchi(9.1%) and Monaragala (9.1%) districts indicating the good surveillance system in place. The highest rate (774.0 per 100,000 immunizations) of AEFI was reported from Jaffna district,while Colombo reported the highest number of 264 AEFI cases in the second quarter.

For the second quarter, the highest number of AEFI (n= 1402) was reported against Pentavalent vaccine, where as the highest rate of AEFI (804.7 /100,000 doses administered) reported against DTP vaccine. The rate of AEFI for Pentavalent (01st, 02nd & 03rd dose) is 611.6 per 100,000 doses administered. High Fever (947), Nodule (407),Allergic Reaction (401) are the leading AEFI reported. Highest numbers of fever cases reported were following Pentavalent (539 cases: 235.1 per 100,000 doses administered) and DPT (317 cases: 366.6 per 100,000 doses administered) vaccines. For Allergic reactions, it was largely due to MMR (119 cases: 68.5 per 100,000 doses administered), PVV (119 cases: 51.9 per 100,000 doses administered) and LJE (36 cases: 118.9 per 100,000 doses administered).

Table 12: Completeness and Timeliness of Monthly Reporting and Receipt of “NIL” Reports of AEFI by RDHS Divisions—2nd quarter 2015

DPPDHS	completeness %	Timely returns %	Nil Returns %	No. of AEFI	AEFI Rate (100,000 vaccine doses)
Colombo	96.1	55.1	12.2	264	335.7
Gampaha	97.8	68.2	18.2	127	108.7
Kalutara	97.4	44.7	10.5	122	173.9
Kandy	100.0	47.2	22.2	168	179.1
Matale	100.0	56.4	23.1	76	214.3
Nuwara Eliya	89.7	37.1	17.1	95	186.1
Galle	100.0	53.3	26.7	75	119.4
Hambantota	94.4	50.0	17.6	133	309.0
Matara	94.1	75.0	25.0	115	227.2
Jaffna	100.0	86.1	0.0	238	774.0
Kilinochchi	91.7	54.5	9.1	29	317.7
Mannar	100.0	60.0	13.3	37	468.1
Vavuniya	100.0	16.7	25.0	32	279.0
Mullativu	93.3	78.6	14.3	55	681.9
Batticaloa	100.0	21.4	40.5	64	167.3
Ampara	95.2	15.0	45.0	19	111.0
Trincomalee	97.0	31.3	31.3	49	163.9
Kurunegala	95.1	57.1	26.0	206	207.1
Puttalam	91.7	27.3	24.2	53	99.6
A'pura	94.7	29.6	27.8	142	229.4
Polonnaruwa	90.5	15.8	21.1	75	254.0
Badulla	97.9	63.8	25.5	100	170.8
Moneragala	100.0	63.6	9.1	73	212.1
Ratnapura	94.4	27.5	29.4	99	147.4
Kegalle	100.0	81.8	6.1	116	212.1
Kalmunai	94.9	21.6	32.4	63	208.2
Sri Lanka	96.1	48.8	22.1	2625	211.0

Table 13: Number of Selected Adverse Events by Vaccines – 2nd quarter 2015

	BCG	OPV	PVV	DPT	MMR	LJE	DT	TT	aTd	Total number of AEFI reported
Total Number of AEFI Reported	11	3	1402	778	697	276	55	72	18	2613
AEFI reporting rate/100,000 doses administered	14.9	0.8	611.6	838.5	804.7	159.0	181.6	87.0	23.5	
High Fever (>39°C)		1	539	317	64	21	6	20		947
Reporting rate/100,000 doses administered		0.3	235.1	366.0	36.9	14.2	19.8	24.2		
Allergic reactions	1		119	92	119	36	18	8	8	401
Reporting rate/100,000 doses administered	1.4		51.9	106.2	68.5	118.9	21.8	10.5	6.8	
Severe local reactions			46	33	3		1			83
Reporting rate/100,000 doses administered			20.1	38.1	1.7		1.2			
Seizure (Febrile/Afebrile)			23	47	20	1	2			93
Reporting rate/100,000 doses administered			10.0	54.3	11.5	3.3	2.4			
Nodules	3		317	69	8		6	2	2	407
Reporting rate/100,000 doses administered	4.1		138.3	79.7	4.6		7.3	2.6	2.1	
Injection site abscess	3		162	18	2		5	1	1	192
Reporting rate/100,000 doses administered	4.1		70.7	20.8	1.2		6.0	1.3	1.1	
HHE			1							1
Reporting rate/100,000 doses administered			0.4							

* PVV — PentaValent Vaccine ** Total given only from nine vaccines listed in the table

16. TUBERCULOSIS

A total of 2279 TB patients were notified to the NPTCCD by H 816 A (TB Notification Form) for the second quarter 2015, while 2371 patients were registered at chest clinics during the same quarter according to the Quarterly Report on Case finding (TB 08).

Out of this total, 2242 TB patients (94.6%) were New TB cases, 123 (5.2%) were Re-treatment Cases and 6(0.3%) cases belonged to the previous treatment history unknown category (Table 13).

Out of New TB Cases, 1092 (48.7%) were Bacteriologically Confirmed TB, 505(22.5%) were Clinically Diagnosed (sputum negative) TB and 645 (28.7%) were New Extra Pulmonary TB cases .Out of the New Bacteriologically Confirmed TB,1064 (97.4%) were Sputum PTB sp+ve and 27(14.06%) were Sputum PTB sp-ve culture positive. Only one (0.09%) patient was identified with WHO recommended Rapid Diagnostic Test.

Table 14: Tuberculosis Patients by RDHS Divisions

RDHS Divisions	New				Retreatment	Previous treatment history unknown	Total
	Bacteriologically confirmed	Clinically diagnosed	EPTB	Total			
Colombo	281	86	155	522	34	0	556
Gampaha	129	50	68	247	19	0	266
Kalutara	83	21	48	152	10	0	162
Kandy	57	57	65	179	6	0	185
Matale	14	11	18	43	2	0	45
Nuwara Eliya	21	13	0	34	2	0	36
Galle	51	19	21	91	5	0	96
Matara	23	11	18	52	5	0	57
Hambantota	13	7	14	34	2	0	36
Jaffna	26	15	20	61	2	4	67
Vavuniya	9	2	6	17	1	0	18
Batticaloa	16	15	17	48	3	0	51
Ampara	6	12	6	24	0	0	24
Kalmunai	19	35	9	63	3	0	66
Trincomalee	15	12	4	31	3	0	34
Kurunegala	63	33	34	130	3	0	133
Puttalam	25	9	15	49	2	2	53
A'pura	35	6	19	60	2	0	62
Polonnaruwa	20	11	6	37	0	0	37
Badulla	33	12	19	64	5	0	69
Monaragala	12	9	5	26	1	0	27
Rathnapura	77	27	41	145	8	0	153
Kegalle	56	19	27	102	4	0	106
Mannar	3	1	3	7	1	0	8
Mulathivu	1	3	4	8	0	0	8
Kilinochchi	4	9	3	16	0	0	16
Total	1092	505	645	2242	123	6	2371

Out of the Re-treatment cases, 64 (52.0%) patients were Relapse, 32 (26.0%) patients were Treatment after Failure, 17 (13.8%) patients were treatment after loss to follow up and 10 (8.1%) patients were Other Previously Treated. Out of these Re-treatment cases 104 were bacteriologically confirmed.

From this, 59 patients were relapse, 29 patients were treatment after failure, 16 patients were treatment after loss to follow up and none detected under other previously treated. A total of 2026 TB patients were screened for HIV, out of them one patient was detected positive for HIV. There were 04 patients with known positive HIV status at the time of TB diagnosis. A total of 5 patients were TB/HIV co infection. Two Multi Drug Resistant TB patients were detected during above

17. SURVEILLANCE AT AIRPORT

Details of surveillance activities carried out at the International Airport, Katunayake during the 2nd Quarter 2015 are given below.

1. Yellow Fever Surveillance

a. No. with valid certificate	-	172
b. No. without valid certificate & Departed	-	00
c. No. without valid certificate & Isolated	-	00

2. Disinfection of Aircrafts

a No. of flights arrived	-	6399
b No. of flights has to be disinfected	-	5635
c No. of flights disinfected	-	5106

3. Passenger Arrivals & departures

a No. Of passengers Arrived	-	1 011 058
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	-	05
c. No. Of Aalleged suicide	-	06

5 Surveillance of other infectious diseases

6 Airport Sanitation

a No of sanitary inspections carried out including Food establishments	-	41
b No. of food samples taken under Food Act	-	04
c No. Found defective	-	00
d No. of court cases / prosecuted / Warned	-	00

7 Other Health Activities

a Polio Vaccination No - of doses given	-	00
b Health talk given to staff	-	30

8 a. No. of water samples taken for Bacteriological Analysis	-	06
b. No. Reported Contaminated	-	00

18. LEPROSY

Table 15 : Quarterly Return of Leprosy Statistics - 2nd quarter 2015

1. National

	At the end of the quarter			Cumulative for end of the quarter		
	2nd QTR,2014	2nd QTR,2015	Diff (%)	2014	2015	Diff (%)
New patients detected	606	491	-18	1174	846	-27.9
Children	61	50	-18	111	87	-21.6
Grade 2 Deformities	47	40	-14.8	100	74	-26
Multi-Bacillary	291	278	-4.4	571	437	-23.4
Females	231	205	-11.2	442	346	-21.7

2. Districts

District	New patients	G2-Deformity	Children	MB	Females
Central	26	2	0	15	10
Kandy	14	1	0	7	6
Matale	11	1	0	7	4
NuwaraEliya	1	0	0	1	0
Eastern	53	4	5	32	27
Ampara	22	1	1	12	10
Batticaloa	20	2	3	15	11
Kalmunai	9	0	1	3	6
Trincomalee	2	1	0	2	0
Northern	16	0	4	12	5
Jaffna	9	0	2	6	3
Mulliativu	3	0	1	2	0
Mannar	2	0	0	2	1
Vavuniya	2	0	1	2	1
North Central	36	3	3	21	15
Anuradhapura	18	2	1	12	5
Pollonnaruwa	18	1	2	9	10
North Western	47	4	7	27	15
Kurunegala	14	1	0	9	5
Puttalam	33	3	7	18	10
Sabaragamuwa	26	3	2	20	12
Kegalle	5	1	1	3	2
Rathnapura	21	2	1	17	10
Southern	50	7	3	23	16
Galle	21	3	1	11	6
Hambanthota	23	4	2	9	8
Matara	6	0	0	3	2
Uva	18	0	0	11	3
Baddulla	4	0	0	2	2
Monaragala	14	0	0	9	1
Western	219	17	26	117	102
Colombo	108	10	17	57	55
Gampaha	64	5	8	39	32
Kalutara	47	2	1	21	15
Sri Lanka	491	40	50	278	205

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 - 2nd quarter 2015

Disease		New cases or new disease episodes during the quarter			Total new cases or new episodes for the calendar year up to end of the quarter **		
		Male	Female	Total	Male	Female	Total
HIV positives ¹		37	10	47	80	26	106
AIDS		8	3	11	15	5	20
	Early Syphilis ²	32	16	48	70	31	101
Syphilis	Late Syphilis ³	162	93	255	321	180	501
	Congenital Syphilis ⁴	3	3	6	3	5	8
Gonorrhoea ⁵		90	26	116	197	57	254
Ophthalmia Neonatorum ⁶		0	0	0	0	0	0
Non specific cervicitis/urethritis		142	358	500	280	769	1049
Chlamydial infection		2	1	3	4	2	6
Genital Herpes		269	389	658	564	783	1347
Genital Warts		299	210	509	560	400	960
Chancroid		2	1	3	4	4	8
Trichomoniasis		2	27	29	8	48	56
Candidiasis		227	362	589	472	756	1228
Bacterial Vaginosis		0	323	323	0	633	633
Other sexually transmitted diseases ⁷		110	44	154	191	87	278
Non STD/ Uncertain		832	488	1320	1664	926	2590

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

1 - Includes AIDS cases

2 - Diagnosed within 2 years of infection and considered to be infectious

3 - Diagnosed after 2 years of infection and considered to be non-infectious

4 - Includes both early and late cases

5 - Includes presumptive Gonorrhoea

6 - Includes both gonococcal and chlamydial conjunctivitis in neonatal period

7 - 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.

20: PATTERN OF ENTERIC PATHOGENS ISOLATED

Table 17:

	April	May	June
(A) CHOLERA			
No. of stool specimens Examined	32	50	100
No. of positives	0	0	0
(B) SALMONELLA			
Blood– No. Examined	282	356	484
S.typhi	0	0	0
S.paratyphi A	0	0	0
Stools—No. examined	52	108	122
S.typhi	0	0	0
S.paratyphi A	0	0	0
Others	2	3	4
(C) SHIGELLA			
No. Examined	52	107	122
Sh. Sonnei	0	0	0
Sh.flexneri 1	0	0	0
Sh.flexneri 2	0	0	0
Sh.flexneri 3	0	0	0
Sh.flexneri 4	0	0	0
Sh.flexneri 5	0	0	0
Sh.flexneri 6	0	0	0
(D) ENTEROPATHOGENIC E.COLI			
No.Examined	6	2	2
No.+ve	0	0	0
(E) CAMPYLOBACTER			
No.Examined	22	20	23
No. Positive	0	0	1
(F) ISOLATES			
Clinical	10	10	11
S. Typhi	2	0	0
S. Paratyphi A	1	0	0
Other Salmonella	3	4	4
Shigella spp	1	0	0

21. MENINGITIS

Meningitis is a notifiable disease condition in Sri Lanka since year 2005. During the 2nd quarter 2015, 224 cases of suspected meningitis cases were reported to the Epidemiology Unit through the routine disease notification system .

Out of this, 180 cases were clinically confirmed by the Public Health Inspectors during their field investigations. Highest number of meningitis cases were reported from the Badulla district (23) followed by Rathnapura (17) and Nuwara Eliya (12) and Galle (12) districts.

Thirty seven percent of the clinically confirmed meningitis cases belonged to the age group less than one year, another 27% belonged to the age group 1-5 years and 12% belonged to age group 6 – 14 years. Sixty t percent of the clinically confirmed cases were males and 40% were females.

Table 18: Summary findings for special investigations carried out for clinically confirmed cases of Meningitis from January 1st to 30th June 2015

CSF Culture Report		
CSF Culture	Number	(%)
CSF results available	115	53%
• No Growth	(89)	
• Group B streptococci	04	
• Haemophilus influenzae		
• Strept Pneumoniae	01	
Culture results not known	01	
Not done	98	45%
Total	05	02%
	218	100%
Final outcome of the patient		
Outcome	Number	(%)
Cured	211	97%
Died	07	03%
Total	218	100%
Final Diagnosis (based on clinical and lab findings)		
Diagnosis	Number	(%)
Culture confirmed	06	03%
Probable bacterial meningitis	26	12%
Probable viral meningitis	08	04%
Suspected Meningitis	178	81%
Total	218	100%

22. INFLUENZA SURVEILLANCE

Human Influenza Surveillance

Surveillance of human influenza is conducted under two components; **Influenza like illness (ILI) surveillance and Severe Acute Respiratory Infections (SARI) surveillance**. In components, epidemiological data and respiratory samples are collected. Epidemiological data are collected from 19 sentinel hospitals for ILI surveillance and 4 sentinel sites for SARI surveillance which are geographically representative of the country. Respiratory samples are collected from 13 sentinel hospitals for ILI and 4 sentinel hospitals for SARI and are analyzed at the Medical Research Institute (MRI).

Epidemiological Component

ILI Surveillance

In the 2nd quarter of year 2015, seventeen hospitals out of nineteen have reported with a reporting rate of 84.2%. Total number of ILI cases reported were 12918, out of a total of 1,154,268 all OPD visits which with an ILI rate of 1.12%. The highest number of ILI cases were reported from Teaching Hospital Anuradhapura (n=3230, 25.5%) and majority of the ILI patients were in the age group 15 – 49 years (n= 4439;-34.4%).

SARI Surveillance

A total of 2517 SARI cases were reported for the 2nd 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 37,917 all hospital admissions during the quarter, 6.6% were due to SARI. The highest number of SARI cases were reported from Teaching Hospital Matara (n=1616, 64.2%).

Laboratory Component

ILI Surveillance

Respiratory samples for ILI and SARI surveillance was performed only in the months of April and May in the 2nd quarter; the laboratory component of the surveillance was temporarily suspended in June due to the onset of the influenza outbreak. A total of 142 ILI respiratory samples were received by the MRI from sentinel hospitals during the April and May, 71 samples in each month. Provincial General Hospital Ratnapura and General Hospital Polonnaruwa had sent the highest number of samples (20 form each) followed by Teaching Hospital Kurunegala (n=19), General Hospital Nuwaraeliya (n=17)and the Infectious diseases hospital (n=16). All sentinel hospitals except General Hospital Chillaw and Teaching Hospital Jaffna had sent samples within the quarter (Table 19) Influenza A was the predominant circulating Influenza virus identified. (Table 21).

SARI Surveillance

A total of 55 respiratory samples were sent to the MRI during the months of April and May 2015, by all four SARI sentinel hospitals. General Hospital Matara had sent the highest number of samples (n=30)(Table 20). Influenza A was the predominant circulating Influenza virus identified (Table 22). In June 2015 MRI had received 2292 clinical respiratory samples of which 602 were Influenza A and 22 were Influenza B and 209 turned out to have no PCR.

Table 19: Monthly performance of sentinel hospitals in the laboratory component of the ILI surveillance for the 2nd quarter of the year 2015

	April	May	Total
NHSL	0	5	5
TH Kalubowila	2	1	3
IDH	10	6	16
GH Nuwaraeliya	5	12	17
TH Karapitiya	4	2	6
TH Jaffna	0	0	0
TH batticaloa	6	6	12
TH Kurunegala	9	10	19
GH Chillaw	0	0	0
TH Anuradhapura	10	5	15
GH Polonnaruwa	10	10	20
PGH Badulla	5	4	9
PGH Rathnapura	10	10	20
Total	71	71	142

Table 20: Monthly performance of sentinel hospitals in the laboratory component of the SARI surveillance for the 2nd quarter of the year 2015

	April	May	Total
TH Ragama	4	2	6
TH Peradeniya	6	3	9
GH Matara	5	25	30
LRH	5	5	10
Total	20	35	55

Table 21: Types of respiratory viruses isolated in ILI samples for the 2nd quarter of the year 2015

Month	Total	Influenza A	Influenza B
April	71	5	3
May	71	11	2
Total	142	16	5

Table 22: Types of respiratory viruses Isolated in SARI samples for the 2nd quarter of the year 2015

Month	Total	Influenza A	Influenza B
April	20	2	1
May	35	12	1
Total	55	14	2

Bird Influenza Surveillance

Sri Lanka is considered a country with a potential high risk for Avian Influenza due to its location in the South East Asian Region and also due to the country's poultry industry with a considerable proportion of its people engaged in backyard poultry. Sri Lanka being a tropical country attracts over two hundred species of migratory birds every year in two migratory seasons; another fact that makes bird influenza surveillance an important component in the influenza surveillance system. Bird influenza surveillance is conducted by the Department of Animal Production and Health (DAPH) where serum samples are collected from poultry farms on a monthly basis and foecal samples collected from migratory bird hotspots during the two migratory seasons. Fifteen foecal samples are collected from each bird hotspot, pooled in bottles with five samples in each and analyzed at the at the virology laboratory at Polgolla.

Table 23: Animal samples collected by month and district for the 2nd quarter of the year 2015

Month	Number of Pooled fecal samples for embryonated chicken egg passage	Districts -Samples were collected from	Number of Serum samples for ELISA	Districts -Samples were collected from
April	1390	Colombo, Gampaha, Vavuniya, Hambanthota, Puttalam, Jaffna, Anuradhapura	572	Colombo, Gampaha, Ratnapura, Baulla, Vavunia, Hambanthota, Trincomalee
May	845	Colombo, Gampaha, Puttalam, Vavunia, Anuradhapura	275	Colombo, Gampaha, Puttalam, Kalutara, Vavuniya, Matale, Polonnaruwa
June	531	Colombo, Gampaha, Kegalla, Anuradhapura, Ampara	666	Colombo, Gampaha, Ratnapura, Kalutara, Kegalle, Jaffna, Anuradhapura, Polonnaruwa Baulla, Kurunegala, Trincomalee, Matale, Kandy, Matara,
Total	2766		1513	

Source: DAPH

18. SPECIAL REPORT – LEISHMANIASIS

SURVEILLANCE IN SRI LANKA

Introduction

Leishmaniasis is one of the most neglected diseases in the world. Disease affects largely the poorest of the poor, mainly in developing countries. It has been estimated that 350 million people are at risk of contracting leishmaniasis, and some 2 million new cases occur annually (WHO 2010).

Human leishmaniasis is a vector-borne protozoan infection that clinically manifests in 3 main forms cutaneous (CL), muco-cutaneous (MCL) and visceral leishmaniasis (VL). The disease has resulted in a huge global burden and is listed as one of the eight major neglected tropical parasitic diseases.

Local transmission of leishmaniasis was first evident from southern Sri Lanka in 1992 (Athukorala et al 1992).

According to Karunaweera et al. (2003) *Leishmania donovani* zymodeme MON-37 was identified as the causative organism of cutaneous leishmaniasis in Sri Lanka.

Clinical manifestations of CL however, are diverse, ranging from acne-form papules to complete ulcers (WHO 2010)

L. donovani is transmitted by its natural vector *Phlebotomus argentipes*, which is generally known as the sand fly. Female sand fly takes blood meal for the maturation of the eggs.

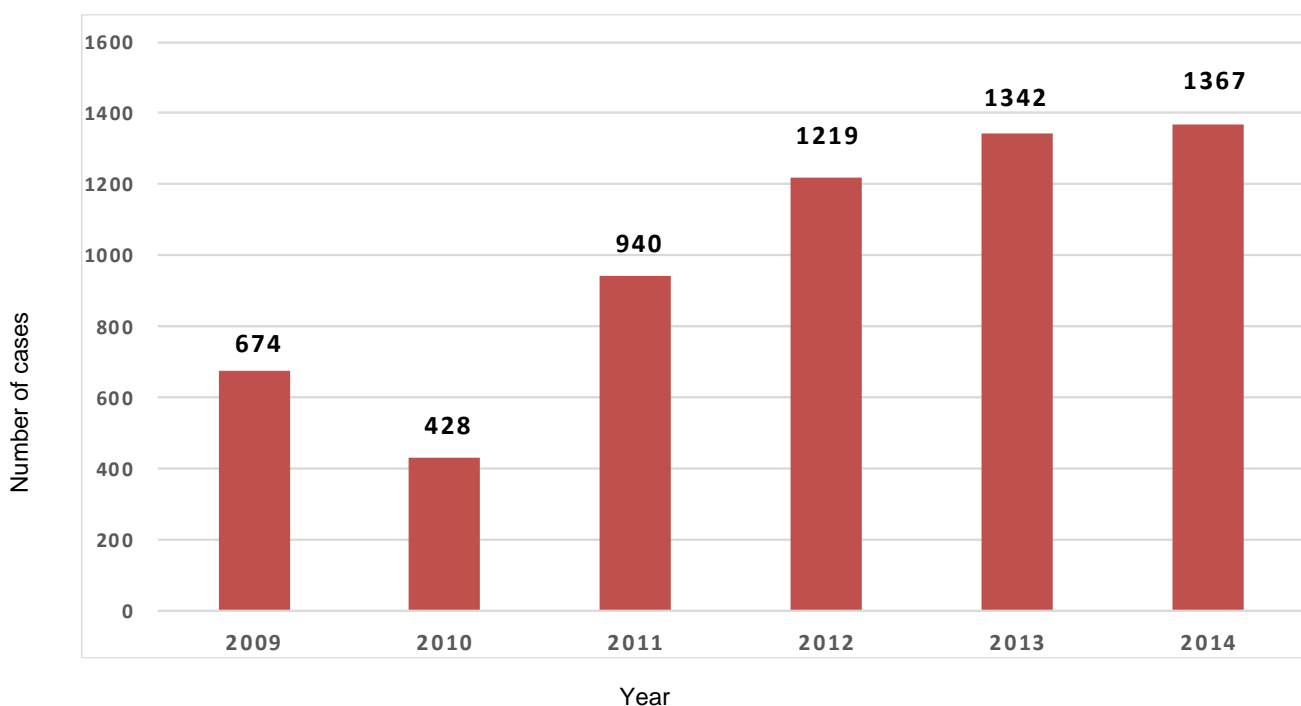
Leishmaniasis surveillance activities

Leishmaniasis has been made a notifiable disease since 2008 and a rising trend of incidence was observed since then. According to the routine surveillance data (H399) 1367 cases have been reported to the Epidemiology Unit during the year 2014.

The first locally acquired Visceral Leishmaniasis patient was presented from the North Central province in 2006 and altogether 3 visceral Leishmaniasis cases have been reported in Sri Lanka. There were no Visceral Leishmaniasis cases reported for the year 2014.

The trend of incidence since 2009 is given in figure 01.

Figure 1 : Notified cases of Cutaneous Leishmaniasis cases (2009-2014)



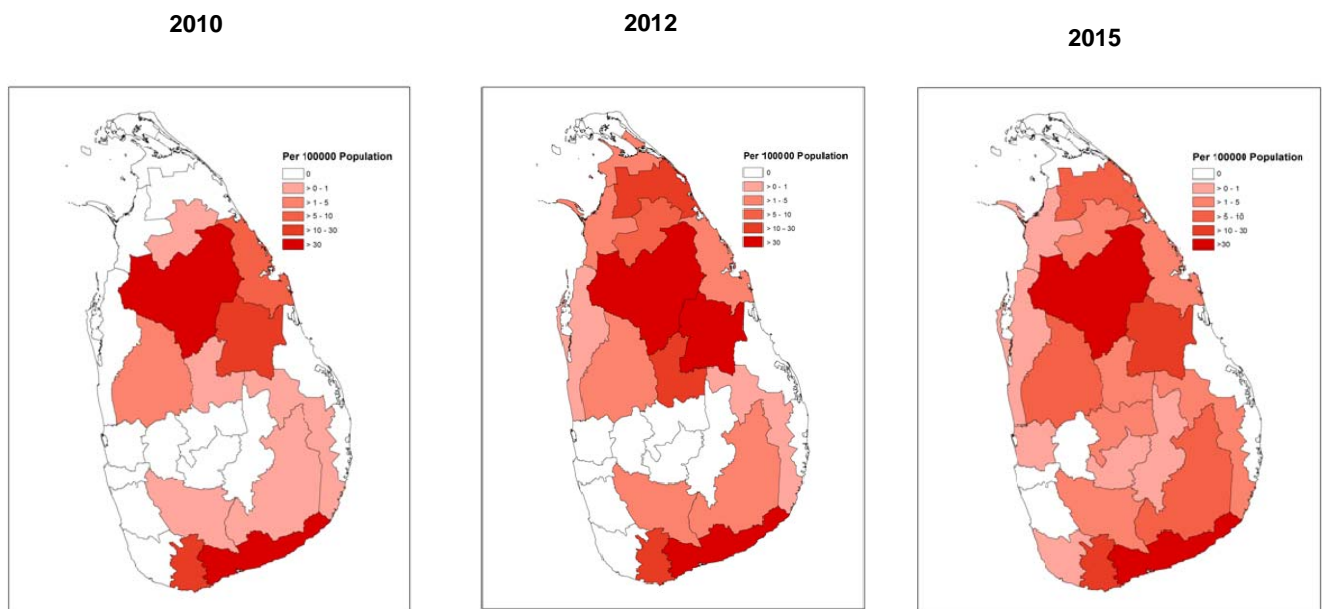
At the beginning, the disease was mainly concentrated in few districts only. With time it has been spread out to most other districts. By 2014 only few districts were spared of reporting the disease. Anuradhapura, Hambantota, Polonnaruwa, Kurunegara, and Matara were the districts which reported the highest number of cases in year 2014. Above five districts reported almost 90% of the total caseload in the year for 2014. Out of all notified cases 77% were clinically confirmed as Leishmaniasis.

Geospatial spread of the Cutaneous Leishmaniasis cases with time is given in figure 2.

Special surveillance activities.

According to the special surveillance data the mean age of patients was 36 years while affecting all age groups including infants and adults over 80 years. There is an obvious male preponderance. Out of the total number of cases 60% were males. Farmers (17%) was the mostly affected occupational category. Exposed body areas such as limbs (67.9%), face (16.7%) and chest (9.4%) were affected frequently than non exposed areas. The lesions were mainly nodular (36%) papular (34%), or ulcerative lesions (30%).

Figure 1 : Tread of Leishmaniasis incidence 2010-2015



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24. SUMMARY OF NOTIFIABLE DISEASES - 2nd quarter 2015

Table 24

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	52	1	25	24	0	73	147	3	0	4	8	3	1347	170	121	4	10	0
Gampaha	32	1	12	15	0	89	108	2	0	3	33	1	682	214	70	5	4	2
Kalutara	36	1	12	7	1	82	70	1	0	2	10	0	236	99	75	11	21	0
Kandy	22	3	8	23	0	43	27	0	0	15	36	1	204	239	60	4	4	7
Matale	12	0	4	2	0	22	21	0	2	3	7	0	42	41	6	1	7	8
Nuwara-Eliya	135	2	7	0	0	9	3	4	0	13	8	0	21	61	60	1	11	0
Galle	14	2	2	11	0	62	16	0	0	13	1	1	81	90	81	8	13	2
Hambantota	7	0	1	7	0	25	27	1	0	14	10	0	41	32	45	1	4	74
Matara	16	2	0	0	0	36	48	1	1	3	6	1	65	62	70	4	6	37
Jaffna	171	1	22	26	1	4	7	6	0	64	2	2	177	84	89	11	3	0
Kilinochchi	15	0	4	6	0	0	0	1	0	12	0	0	6	13	5	1	0	0
Mannar	3	1	1	1	0	0	1	0	0	2	0	0	7	9	7	0	0	0
Vavuniya	4	2	29	3	1	4	3	0	0	1	0	0	28	23	29	1	4	2
Mullaitivu	5	0	3	0	0	1	0	0	0	1	1	0	36	10	3	0	1	2
Batticaloa	77	2	8	123	1	7	11	2	1	2	9	0	344	42	15	2	5	0
Ampara	10	1	1	7	0	4	7	0	0	1	2	1	14	26	74	7	2	1
Trincomalee	24	0	3	10	1	6	2	0	0	12	3	0	185	34	35	3	1	1
Kurunegala	41	0	0	4	3	73	45	1	1	8	16	2	196	150	114	5	16	33
Puttalam	10	1	2	0	0	6	32	0	0	7	0	1	93	40	6	4	13	1
Anuradhapura	26	0	0	17	1	65	33	1	0	7	1	3	45	77	66	5	9	89
Polonnaruwa	5	1	2	3	0	10	12	0	0	0	1	0	20	30	38	1	5	21
Badulla	62	1	3	2	0	18	37	1	0	36	72	0	83	77	76	3	35	2
Moneragala	35	1	5	1	0	42	8	0	0	27	23	1	32	20	22	3	6	9
Ratnapura	84	3	17	3	0	67	35	0	0	18	19	0	197	108	36	5	20	0
Kegalle	15	4	16	4	0	116	49	1	1	16	22	1	132	122	67	12	17	0
Kalmunai	37	1	0	19	0	2	6	0	0	0	1	0	69	59	37	2	6	0
Total	950	31	187	318	9	866	755	25	6	284	291	18	4383	1932	1307	104	223	291

No polio cases. (from AFP surveillance system).

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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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