

Volume 51
January - March
2010



Epidemiological Bulletin

SRI LANKA

First Quarter
2010

Epidemiology Unit

Ministry of Health

<http://www.epid.gov.lk>

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1. POLIOMYELITIS

Twenty nine (29) Acute Flaccid Paralysis cases were notified to the Epidemiology Unit during the 1st quarter 2010. This contrasts with the 21 and 19 AFP cases each reported during the 1st quarter 2009 and 2008 respectively. This number comes close to the expected number of AFP cases per quarter to meet the WHO surveillance criteria which is 29.25 according to current population estimates. Such a number for a quarter or 117 AFP cases per year would make up a non-polio AFP rate of 2 per every 100,000 under 15 year old children which is the expected standard of the WHO. The non-polio AFP rate for the 1st quarter 2010 was 0.99 per 100,000.

Notification of AFP Cases from Hospitals

The main sentinel site for AFP, Lady Ridgeway Children's Hospital (LRH), Colombo which is a tertiary care center which receives referrals from other hospitals in the country has reported the highest number of cases (8 i.e.27%) for the quarter out of the 58 sentinel sites in the country. Teaching Hospital Kandy reported 6 cases (21%) in this quarter. General Hospital Polonnaruwa from the North Central Province of the country reported 4 AFP cases for the quarter. GH Matara and Colombo South Teaching Hospital reported 3 cases (10%) each while Sirimavo Bandaranayake Memorial Children's Hospital reported 2 cases. GH Nuwara Eliya, TH Kurunegala and TH North Colombo reported one case each during the current quarter.

Distribution of AFP Cases by Provinces, Districts & MOH Areas

The highest number of cases reported from a single district this quarter was 5 reported by both Kandy district of Central Province and Polonnaruwa of North Central Province (17%). The complete list of distribution of AFP cases by Province District and MOH area is shown in Table 1.

Seasonal Distribution of AFP Cases

Eleven cases (38%) were reported in March. The number reported for the months of January and February was 10 and 8 cases respectively.

Distribution of AFP Cases by Age and Sex

Almost half of all AFP cases (14 i.e. 48%) reported in the 1st quarter this year were between 5 - 9 years of age. A similar trend was seen during the corresponding quarter of 2009 where 43% of the cases were in this age group. Seven (24%) children belonged to 1-4 year age group and 8 children in the 10-14 year age group. There were no cases aged less than 1 year.

Just over half of all AFP cases (16 i.e.55%) reported in the 1st Quarter 2010 were males. This compares similarly with the same quarter in

Table 1

GEOGRAPHICAL DISTRIBUTION OF AFP CASES – 1ST QUARTER 2010

Province	District	MOH Area	Number of AFP cases	
West-ern	Colombo	Dehiwala	1	
		Maharagama	1	
		Moratuwa	1	
		Boralesgamuwa	1	
		Gampaha	Wattala	1
South-ern	Matara	Matugama	1	
		Akuressa	1	
		MC Matara	1	
Central	Kandy	Hambantota	1	
		Akurana	2	
Saba-ragamuva	Kegalle	Kundasale	1	
		Wattegama	1	
		MC Kandy	1	
		Nuwara Eliya	Kotmale	1
		Lindula	1	
Eastern	Ampara	Kegalle	1	
		Rambukkana	1	
North Central	Polonnaruwa	Padiyatalawa	1	
		Dehiat-takandiya	1	
		Batticaloa	Kathankudi	1
		Anuradhapura	Nuwaragam plalatha	1
		Mihintale	1	
Uva	Badulla	Thamankaduwa	2	
		Dimbulagala	1	
		Lankapura	2	
Eastern	Ampara	Passara	1	
		Dehiat-takandiya	1	
Northern	Vavuniya	Cheddikulam	1	
Total			29	

2009 where more males (14 i.e. 67%) than females were reported. Table 2 shows the age and sex distribution of AFP cases in 1st Quarter 2010.

Laboratory Surveillance of AFP Cases

Two stool samples collected within 14 days of onset of paralysis are required at the Medical Research Institute for polio virology. 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 complete to make the samples of 'good condition'.

All AFP cases (100%) reported in the 1st Quarter 2010 had at least one timely stool samples sent to MRI for polio virology. There were 3 cases with

late stool samples and one case with one stool sample collected. Two other cases had only one timely stool sample out of the 2 samples collected. The overall timely stool collection rate for the quarter was 79%. This compares with the timely stool collection rate of 86% achieved during 1st Quarter 2009.

Table 2

DISTRIBUTION OF AFP CASES BY AGE AND SEX – 1ST QUARTER 2010

Age Group	Sex		Total
	Male	Female	
<1 year old	0	0	0
1-4 year old	3	4	7
5-9 year old	9	5	14
10-15 year old	4	4	8
Total	16	13	29

2. CHOLERA

No confirmed cases of cholera were reported to the Epidemiology Unit during the 1st Quarter 2010. Last case of cholera was reported in the country in January 2003.

3. TETANUS

During the 1st Quarter 2010, 06 tetanus cases were notified to the Epidemiology Unit. This is in comparison to 09 cases reported during the previous quarter and 07 cases in the corresponding quarter of 2009.

Three cases were investigated and all were compatible with case definition of tetanus (Table 3). No cases of neonatal tetanus were reported during the quarter. One death due to tetanus (a male aged 54 years) was reported during the quarter.

4. MEASLES

During the 1st Quarter 2010, 28 cases of measles were notified to the Epidemiology Unit compared to 35 cases notified during the previous quarter and 36 cases in the corresponding quarter of last year.

Only fourteen (14) cases have been investigated during the current quarter which needs improvement since this data is used to monitor the progress of measles immunization programme in the country. Only 4 cases had symptoms compatible with the case definition of measles (Table 4).

5. LEPTOSPIROSIS

During the 1st Quarter 2010, 1081 cases and 21 deaths (CFR 1.94%) due to Leptospirosis were notified to the Epidemiology Unit compared to 1632 cases and 13 deaths in the previous quarter and 866 cases and 36 deaths during

corresponding quarter of 2009.

The special surveillance data were received for 660 cases (61% of the total) analysis of which reveals that 50% of the caseload (327) were reported during the month of March followed by 33.8% of the cases reported in February.

Majority (68%) were in the 25-54 years age group and male:female ratio is 4.6:1. When occupation of the patients is considered 18.5% were farmers and 22% were labourers. In 35% of the patients occupational history was not available.

Table 3

SELECTED CHARACTERISTICS OF CONFIRMED CASES OF TETANUS —1ST QUARTER 2009(N = 03)

Sex	Male	3
	Female	0
Age group	01-04	1*
	50-54	1
	>=60	1*
District	Kalpitiya	1
	Meegahakiula	1
	Valachchenai	1
Immunization status	Immunized	0
	Non immunized	2*
	Unknown	1

Table 4

SELECTED CHARACTERISTICS OF CONFIRMED CASES OF MEASLES – 1ST QUARTER 2009

N = 04		
Sex	Male	3
	Female	1
Age group	< 1 year	0
	1-15	1
	>15	3
District	Kegalle	1
	Nuwara-Eliya	2
	Polonnaruwa	1

6. HUMAN RABIES

Eleven (11) cases of human rabies were notified to the Epidemiology Unit in the 1st Quarter 2010, compared 22 cases in the previous quarter and 14 cases in the corresponding quarter of year 2009. Distribution of cases by district is given in Table 23.

Animal Rabies

During the quarter 189 dogs were reported positive for rabies compared to 194 in the previous quarter and 172 in the corresponding quarter of 2009. In addition the following animals were also reported positive;

Cats-17, Domestic Ruminants-05

Rabies Control Activities*

Dog vaccination - A total of 238110 dogs were immunized during the 1st Quarter 2010 when compared to 262171 in the previous quarter and 341540 in the corresponding quarter of last year.

Animal Birth Control

Chemical - 9469 female dogs were injected with birth control injections (Progesterone) during the quarter under review.

Surgical - 21182 female dogs were subjected to sterilization by surgical method during the quarter under review.

*Source – Director/PHVS

7. ENTERIC FEVER

In the 1st Quarter 2010, a total of 543 cases of enteric fever were notified to the Epidemiology Unit, compared to 566 cases in the previous quarter and 461 cases in the corresponding quarter of 2009. The district of Jaffna (270) reported the highest number of cases. (Table 23).

MOH areas MC Jaffna (59) and Point Pedro (57) notified the highest number of cases during the quarter under review.

8. VIRAL HEPATITIS

In the 1st Quarter 2010, 384 cases of viral hepatitis were reported to the Epidemiology Unit, compared to 884 cases in the previous quarter and 314 cases in the corresponding quarter of 2009.

Among the reported cases, 286 were investigated and confirmed as viral hepatitis. RDHS area Ratnapura notified the highest number of cases (38) accounting for 10.0% of the total case load. The MOH areas Eheliyagoda (15 cases) in the Ratnapura district and Buttala (15 cases) in the Moneragala district have reported the highest number of cases.

9. DYSENTERY

In the 1st Quarter 2010, 1018 cases of dysentery were notified to the Epidemiology Unit, compared to 1960 cases in the previous quarter and 1217 cases in the corresponding quarter of 2009. The Districts of Matale (170), Ratnapura (88) and Kandy(86) notified the highest number of cases. MOH area Matale reported 107 cases accounting for 10.5% of the total case load.

10. JAPANESE ENCEPHALITIS (J.E.)

During the 1st quarter in 2009, 43 cases of Encephalitis were reported to the Epidemiology Unit. Special investigation reports were received for 22 notifications and investigation rate was 46.8%.

During the quarter, 10 cases were found to be serologically confirmed as JE at the MRI. Of these, 9 confirmed cases of JE were reported through the special surveillance system. Among the confirmed cases 2 were under 10 years of age while 2 were in the age group of 31-40 years. Three cases were in the age category of over 50 years. The confirmed cases were from the districts of Puttalam (2), Kurunegala (1), Galle (2), Matara (1), Gampaha (1), Hambantota (1) and Batticaloa (1).

Two deaths were reported due to JE during the quarter. This is in comparison to 73 cases of encephalitis, 13 confirmed cases of JE and one death reported during the corresponding quarter of 2009.

11. MALARIA

The number of microscopically confirmed malaria cases detected during the 1st quarter of 2010 was higher than the number detected during the corresponding period of 2009 as seen in Table 5.

The number of *P.vivax* cases and mixed infections reported during the quarter shows an increase while the number of *P.falciparum*

Table 5 :

RESULTS OF BLOOD SMEAR EXAMINATION FOR MALARIA PARASITES—1ST QUARTER 2010

	1 st Quarter 2009	1 st Quarter 2010
No. of blood smears examined	240715	239251
No. of positives	108	232
No. of <i>P. vivax</i>	95	224
No. of <i>P. falciparum</i>	10	2
No. of mixed infections	3	6
No. of infant positives	0	0
Slide positivity rate (S.P.R.)	0.04%	0.1%
P.v. : P.f. ratio	9.5:1	112:1
Percentage of infant positives	0%	0%

Table 6

**DISTRIBUTION OF MALARIA CASES BY RMO
DIVISION - 1ST QUARTER 2009**

RMO	Blood smears	Positives	P.v.	P.f./ Mixed
Colombo	13020	3	2	1
0Gampaha	8013	1	1	0
Kalutara	2747	1	1	0
Kandy	9042	0	0	0
Matale	4702	0	0	0
Nuwara Eliya	326	0	0	0
Galle	4247	0	0	0
Matara	4312	0	0	0
Hambantota	7060	30	30	0
Jaffna	21706	2	2	0
Kilinochchi	4769	32	30	2
Mannar	3182	25	24	1
Vavuniya	13600	13	13	0
Mullaitivu	1914	21	20	1
Batticaloa	12739	0	0	0
Ampara	6335	8	8	0
Trincomalee	21562	0	0	0
Kurunegala	16896	1	1	0
Maho	6047	2	2	0
Puttalam	6868	3	3	0
Anuradhapura	21870	16	13	3
Polonnaruwa	17653	2	2	0
Badulla	5194	1	1	0
Moneragala	10177	70	70	0
Ratnapura	3434	1	1	0
Kegalle	2901	0	0	0
Kalmunai	8935	0	0	0
TOTAL	239251	232	224	08

P.v.- Plasmodium vivax

P.f.- Plasmodium falciparum

Table 7

**MORBIDITY AND MORTALITY DUE TO DF/DHF
- 1ST QUARTER 2010**

RDHS Division	Cases	Percentage	Deaths
Colombo	1393	12.0	15
Gampaha	1435	12.4	10
Kalutara	363	3.1	4
Kandy	469	4.0	5
Matale	286	2.5	3
Nuwara Eliya	54	0.5	0
Galle	190	1.6	2
Hambantota	262	2.3	1
Matara	120	1.2	1
Jaffna	1848	15.9	16
Kilinochchi	0	0	0
Mannar	63	0.5	0
Vavuniya	467	4.0	2
Mullaitivu	0	0	0
Batticaloa	786	6.8	9
Ampara	46	0.4	0
Trincomalee	660	5.7	5
Kurunegala	433	3.7	0
Puttalam	470	4.0	3
Anuradhapura	678	5.8	3
Polonnaruwa	109	0.9	0
Badulla	188	1.6	1
Moneragala	135	1.2	0
Ratnapura	461	4.0	1
Kegalle	302	2.6	0
Kalmunai	412	3.4	6
TOTAL	11630	100.0	88

12. DENGUE FEVER (D.F.)/ DEN- GUE HAEMORRHAGIC FEVER (D.H.F.)

During the 1st Quarter 2010, 11630 cases of DF/DHF and 88 deaths were reported (CFR 0.76%) when compared to 8009 cases and 81 deaths (CFR 1.01%) reported during the previous quarter. Of the total notified cases majority were reported in January (40.2%) followed by February (39.1%) and March (20.7%).

Table 7 shows the distribution of DF/DHF cases and deaths in the RDHS divisions during the quarter.

Special surveillance data on 2707 confirmed cases were received and analysed for the first quarter 2010. Age distribution of reported cases showed that 695 cases (24.8%) were below 15 years of age. The majority of the cases 1490 (53.3%) were between 15-39 years of age and

560 (20%) were aged 40 years and above.

According to the clinical findings, majority of the reported cases (76.3%) were classified as dengue fever. Twenty three percent were classified as DHF with 14%, 8%, and 1% falling into DHF I, DHF II, DHF III categories respectively.

Results of entomological surveillance carried out in the Western Province by the Department of Entomology, MRI during the current quarter is given in Table 8.

During the 1st Quarter 2010, 1816 blood samples were tested using 1gM capture ELISA test and haemagglutination inhibition test at the Department of Virology, MRI and 1357 samples were confirmed as positive (Table 9).

Table 8.

**RESULTS OF ENTOMOLOGICAL SURVEY CARRIED OUT BY DEPARTMENT OF ENTOMOLOGY, MRI
— 1ST QUARTER 2010**

Area	January			February			March		
	No. potential breeding sites per 100 premises	Breteau Index		No. potential breeding sites per 100 premises	Breteau Index		No. potential breeding sites per 100 premises	Breteau Index	
		Ae. aegypti	Ae. albopictus		Ae. aegypti	Ae. albopictus		Ae. aegypti	Ae. albopictus
Colombo									
CMC	13.6	0	1.6	50.5	0	0	-	-	-
Moratuwa	24.4	2.9	1.8	16	1	0.7	24.7	1.98	1.98
Piliyandala	34	0	8	36.1	1	6	26.4	0	8
Nugegoda	30	2.66	4	30.4	5.6	0.8	40	4	2.7
Kaduwela	58.9	0	4.57	2.9	0.6	2.3	45.5	0.5	7.5
Dehiwala	63	5	12	28.3	3.3	1.7	-	-	-
Maharagama	-	-	-	-	-	-	40.0	4.0	6.0
Gampaha									
Wattala	36.0	0	2.7	-	-	-	21.2	0.6	0.6
Kelaniya	67.0	5.0	10.0	39.0	0	0	33.8	1.1	4.0
Ragama	21.9	0.5	3.6	18.2	0	0	22.8	0.8	3.0
Ja Ela	48.6	2.0	8.7	25.3	1.3	4	25.5	1	5.0
Mahara	34.6	3.3	4.0	-	-	-	-	-	-
Biyagama	28.0	0	8.0	-	-	-	-	-	-
Negombo	39.0	1.0	5.0	-	-	-	-	-	-
Mirigama	41.2	0	11.4	-	-	-	42.0	0	10.0
Seeduwa	17.7	0.8	3.9	36.1	0	5.7	-		
Kalutara									
Bandaragama	-	-	-	-	-	-	51.5	0	13.0
Horana	-	-	-	-	-	-	104.0	1.0	14.0

Table 9

DHF STATISTICS FROM DEPARTMENT OF VIROLOGY, MRI - 1ST QUARTER 2010

Month	Clinically Suspected cases of DF	Serologically confirmed Cases of DF
January	747	597
February	728	544
March	341	216
Total	1816	1357

13. TUBERCULOSIS

A total of 1596 tuberculosis patients were registered for 1st Quarter 2010 by the National Programme for Tuberculosis Control and Chest Diseases. Of this total, 1203 suffered from pulmonary disease, and the balance 393 patients from non-pulmonary disease. Of these patients 802 were bacteriologically confirmed with a bacteriological confirmation rate of 66.7%. The distribution of tuberculosis patients by RDHS division is given in Table 10.

B.C.G. vaccination

A total of 82080 B.C.G. vaccinations were carried out during the quarter with 83.4% coverage.

Table 10.

TUBERCULOSIS PATIENTS BY RDHS DIVISIONS - 1ST QUARTER 2010

RDHS DIVISION	PTB	EPTB	Total	Pulmonary TB Direct Smear	
				No. +VE	%
Colombo	175	25	200	149	85.1
Gampaha	149	51	200	117	78.52
Kalutara	123	37	160	81	65.8
Kandy	107	38	145	54	50.5
Matale	37	09	46	16	43.2
Nuwara Eliya	30	14	44	18	60.0
Galle	67	20	87	42	62.7
Hambantota	18	11	29	09	50.0
Matara	45	12	57	28	62.2
Jaffna	60	06	66	15	25.0
Vavunia	07	01	08	06	85.7
Kilinochchi	01	00	01	01	100.0
Mannar	01	02	03	00	0.0
Mullativu	00	00	00	00	00
Ampara	38	12	50	22	57.9
Batticaloa	26	06	32	16	61.5
Trincomalee	10	00	10	05	50.0
Kurunegala	76	38	114	45	59.2
Puttalam	32	08	40	26	81.2
Anuradhapu-	32	06	38	24	75.0
Polonnaruwa	19	08	27	13	68.4
Badulla	27	13	40	23	85.2
Monaragala	04	08	12	04	100.0
Kegalle	47	18	65	33	70.2
Ratnapura	71	49	120	55	77.5
Kalmunai	01	01	02	00	0.0
Total	1203	393	1596	802	66.7

PTB-Pulmonary Tuberculosis

EPTB- Extra Pulmonary Tuberculosis

Data from Central TB Register

Source - National TB Register

14. SURVEILLANCE AT SEA PORT

Details of the vaccinations carried out by the Assistant Port Health Office during the 1st quarter 2010, is as follows;

	Total
a. Yellow fever	804
b. Meningococcal meningitis	47
C. Polio vaccination	05

15. SURVEILLANCE AT AIRPORT

Surveillance activities carried out at the International Airport, Katunayake during the 1st Quarter 2010 is given below.

1. Yellow Fever Surveillance

a. No. with valid certificate	-	01
b. No. without valid certificate & Departed	-	-
c. No. without valid certificate Isolated	-	-

2. Airport Sanitation

a. No. of sanitary inspections carried out including food establishments	-	36
b. No. of food samples taken under Food Act	-	03
c. No. found defective	-	00
d. No. of court cases/prosecuted/warned	-	02
e. No. of water samples tested	-	06
f. No. reported contaminated	-	00

3. Release of human remains

a. No. of human remains released	-	124
b. No. referred to JMO for post-mortem	-	06
c. No. alleged suicide	-	06

4. Other Health Activities

a. Polio Vaccination No. of doses given	-	0
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16. LEPROSY

QUARTERLY RETURN OF LEPROSY STATISTICS - 1ST QUARTER 2010

Table 11.

1. National

	At the end of the quarter			Cumulative for end of the quarter		
	1st Quarter 2010	1st quarter 2009	Diff. (%)	2010	2009	Diff. (%)
New patients detected	454	394	15.2	454	394	15.2
Children	41	25	64.0	41	25	64.0
Grade 2 Deformities	32	40	-20.0	32	40	-20.0
Multi-Bacillary	214	179	19.5	214	179	19.5
Females	191	175	9.1	191	175	9.1

2. Districts

District	New patients	Deformities	Child	MB	Females
Colombo	95	8	14	42	52
Gampaha	56	1	6	18	24
Kalutara	60	3	9	23	30
Western	211	12	29	83	106
Galle	9	2	0	5	1
Matara	24	1	0	13	7
Hambantota	21	1	1	13	4
Southern	54	4	1	31	12
Kandy	11	0	1	8	4
Matale	1	0	1	1	1
Nuwara Eliya	2	0	0	1	0
Central	14	0	2	10	5
Anuradhapura	16	0	0	6	7
Polonnaruwa	2	0	0	1	1
North Central	18	0	0	7	8
Kurunegala	26	0	2	15	10
Puttalam	5	0	0	3	3
North Western	31	0	2	18	13
Kegalle	13	1	1	9	4
Ratnapura	28	2	1	11	12
Sabaragamuwa	41	3	2	20	16
Badulla	9	3	0	5	1
Moneragala	11	2	0	6	2
Uva	20	5	0	11	3
Trincomalee	11	1	2	6	5
Batticaloa	26	2	3	14	14
Ampara	15	4	0	8	4
Kalmunai	10	1	0	4	4
Eastern	62	8	5	32	27
Jaffna	3	0	1	2	1
Vavuniya	-	-	-	-	-
Mannar	-	-	-	-	-
Mullativu	-	-	-	-	-
Kilinochchi	-	-	-	-	-
Northern	3	0	1	2	1
Sri Lanka	454	32	41	214	191

Source : Anti Leprosy Campaign

17. SURVEILLANCE REPORT ON AEFI– 2010

Surveillance of Adverse Events Following Immunization (AEFI) has effectively continued in the first quarter 2010 (Table 12). Completeness of reports has reached 91% while 40% reports were received in time at the Epidemiology Unit indicating good compliance for the system by the MOOH. Almost 63% 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.

Gampaha, Kalutara, Ampara, Anuradhapura and Polonnaruwa have been able to send all reports. Compared to the zero reports during the previous year, Kilinochchi and Mullaitivu districts have sent 17% and 7% of the reports respectively indicating that the surveillance system has been improved.

However, the average for completeness for the entire country is 91%. Best timeliness was reported from Kegalle (66%) followed by Matara district (63%).

Table 12.

Highest percentage of nil reports were received from Kilinochchi and Mullaitivu districts (100%) followed by Kalmune district (79%) which is much higher than the Sri Lanka average (36%). The lowest percentage (13%) of such returns was received from the Hambantota district followed by Puttalam district (15%).

Highest rate (216 per 100,000 immunizations) of AEFI was reported from Jaffna district with the number of 87 AEFI. Highest number (221) was reported from the Kurunegala district with the rate of 195 per 100,000 immunizations which is higher than the 1st quarter 2009 (93 AEFIs and rate 77 per 100,000 immunizations).

The number and rates of reported different AEFI against different vaccines are given in Table 13. The highest number (1017) and rate of AEFI (502 per 100,000 immunizations) were reported against DPT vaccine. When compared with the 1st quarter 2009, a considerable reduction has been observed in the rate of AEFI reported for DPT since less number of doses were administered due to introduction of Pentavalent vaccine in February 2010.

COMPLETENESS AND TIMELINESS OF MONTHLY REPORTING AND RECEIPT OF “NIL” REPORTS OF AEFI BY RDHS DIVISIONS - 1ST QUARTER 2010

RDHS Division	(%) Completeness	(%) Timeliness	(%) “Nil” Returns	Reported AEFI	
				Number	Rate
Colombo	95.2	40.0	17.5	122	88.1
Gampaha	100.0	40.0	17.8	123	92.2
Kalutara	100.0	25.0	33.3	87	79.4
Kandy	93.1	40.3	31.3	95	106.6
Matale	94.4	41.2	41.2	60	173.1
Nuwara Eliya	94.9	35.1	37.8	30	59.5
Galle	93.0	56.6	54.7	52	75.0
Hambantota	90.9	43.3	13.3	83	198.5
Matara	96.1	63.3	61.2	28	53.7
Jaffna	87.9	34.5	41.4	87	216.3
Kilinochchi	16.7	0	100.0	0	0
Mannar	40.0	0	50.0	7	112.1
Vavuniya	91.7	36.4	72.7	10	45.6
Mullaitivu	6.7	0	100.0	0	0
Batticaloa	81.0	20.6	44.1	49	114.0
Ampara	100.0	19	57.1	25	114.0
Trincomalee	93.3	39.3	64.3	26	79.0
Kurunegala	98.3	30.5	16.9	221	195.3
Puttalam	96.3	46.2	15.4	69	115
Anuradhapura	100.0	38.6	15.8	137	192.4
Polonnaruwa	100.0	61.9	19.0	50	174.4
Badulla	88.9	40.0	35.0	42	77.8
Moneragala	93.9	38.7	51.6	34	99.4
Ratnapura	92.6	36.0	32.0	81	107.8
Kegalle	97.0	65.6	15.6	88	173.7
Kalmunai	97.4	28.9	78.9	17	44.5
Sri Lanka	91.4	39.9	36.3	1623	114.8

* Rate Per 100,000 immunizations

A case of paralysis following DPT/OPV was reported in Trincomalee district and the child had recovered subsequently. Investigation of the case revealed that it was Guillen Barre Syndrome.

Two cases of meningitis were reported against DPT vaccine from MOH areas Thamankaduwa and Piliyandala. The seven month old infant from Thamankaduwa had developed meningitis the day following immunization and investigation revealed it to be bacterial meningitis. The case reported from Piliyandala MOH area was hospitalized for 2 weeks from the day following immunization. Both these cases were late reports since the events had taken place during the 4th

quarter in 2009.

A death of a 2 month old baby following pentavalent vaccine was reported in February from Menikhinna in Kandy district. She had severe congenital cardiac abnormalities including hypoplastic tricuspid valve, hypoplastic right ventricle and pulmonary valve atresia.

Fourteen adverse events following Vitamin A were reported during the quarter which included raised intracranial pressure and excessive vomiting. Twelve cases of bulging fontanelle and a case of excessive crying were among these cases which could be due to overdose of Vitamin A.

Table 13

NUMBER AND RATE OF SELECTED AEFI REPORTED BY VACCINE AND BY TYPE OF AEFI

Vaccine	Seizure	Allergic reaction	Abscess	Severe Local reactions	High Fever	Lymphadenitis	Encephalitis	Paralysis of body	Meningitis	Anaphylactic Shock	Nodule	GBS	Arthralgia	Encephalopathy	Persistent screening	Injection Reaction	**Others	*HHE	Death	Total	Rate/ 100,000 dosed
BCG	1	1	3	2	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	9	11.1
DPT	63	169	126	94	307	0	0	0	1	0	137	0	5	0	18	0	95	2	0	1017	502.3
Penta	8	34	5	8	94	0	0	0	1	0	9	0	2	0	9	0	58	5	1	234	166.8
OPV	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0.5
Measles	3	28	0	0	10	0	0	0	0	0	2	0	1	0	0	0	7	0	0	51	58.8
DT	3	20	3	4	5	0	0	0	0	0	5	0	0	0	0	0	6	3	0	49	59.8
TT	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	8	10.1
Rubella	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JE	6	48	0	2	17	0	0	0	0	0	0	0	0	0	1	0	7	0	0	81	84.7
aTd	0	4	0	0	0	0	0	0	0	1	0	0	0	0	0	0	26	0	0	31	123.2
MR	3	90	0	2	10	0	0	0	0	0	0	0	1	0	0	0	13	0	0	119	140.1
Hep	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	3.6
Others	1	0	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	
Total	88	403	139	114	445	0	0	0	2	2	153	0	9	0	29	0	215	10	1	1608	114.7

*Characterizes hypo responsiveness, hypotonia & change of skin colour.

** Weakness of the body & injection reaction which includes headache, vomiting faintish ness etc due to anxiety reaction.

18. SEXUALLY TRANSMITTED DISEASES

Table 14.

NEW EPISODES OF STD/HIV/AIDS REPORTED OR TREATED AT STD CLINICS IN SRI LANKA* - 1ST QUARTER 2010

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	18	9	27	18	9	27	
AIDS	2	2	4	2	2	4	
Syphilis	Early Syphilis ²	55	16	71	55	16	71
	Late Syphilis ³	81	66	147	81	66	147
	Congenital Syphilis ⁴	1	0	1	1	0	1
Gonorrhoea ⁵	54	23	77	54	23	77	
Ophthalmia neonatorum ⁶	3	0	3	3	0	3	
Non specific cervicitis/urethritis	128	275	403	128	275	403	
Chlamydial Infection	0	0	0	0	0	0	
Genital Herpes	288	333	621	288	333	621	
Genital Warts	192	156	348	192	156	348	
Chancroid	0	1	1	0	1	1	
Trichomoniasis	3	17	20	3	17	20	
Candidiasis	208	387	595	208	387	595	
Bacterial Vaginosis		256	256		256	256	
Other sexually transmitted diseases ⁷	148	59	207	148	59	207	
Non-venerial ⁸	853	535	1388	853	535	1388	

* - 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 Lympho granuloma venerium, Granuloma inguinalae, Molluscum contagiosum, Scabies, Tinea, Hepatitis B etc.

⁸ - number of STD clinic attendees who were not having sexually transmitted diseases.

19. BACTERIOLOGY REPORT— 1ST QUARTER 2010— MEDICAL RE-SEARCH INSTITUTE

Table 15.

	Jan	Feb	Mar
(A) CHOLERA			
No. of stool specimens Examined	21	100	161
El Tor Cholera	00	00	00
Ogawa	00	00	00
Inaba	00	00	00
Cholera 0139	00	00	00
(B) SALMONELLA			
Blood— No. Examined	41	34	120
S.typhi	00	00	00
S.paratyphi	00	00	00
Stools—No. examined	68	164	204
S.typhi	00	00	00
S.paratyphi	00	00	00
Others	00	02	03
(C) SHIGELLA			
No. Examined	68	164	204
Sh.flexner 1	00	00	00
Sh.flexner 2	00	00	00
Sh.flexner 3	00	00	00
Sh.flexner 4	00	00	00
Sh.flexner 5	00	00	00
Sh.flexner 6	00	00	00
Sh. sonnei	01	03	05
Sh. Others	00	00	00
(D) ENTEROPATHOGENIC E.COLI			
No.Examined	12	10	12
No.+ve Group A	00	00	00
(E) CAMPYLOBACTER			
No.Examined	47	70	43
No. Positive	00	02	00

20. SURVEILLANCE REPORT ON INVASIVE BACTERIAL DISEASES – 1ST QUARTER 2010

Surveillance of Invasive Bacterial Disease (IBD) was carried out by the Epidemiology Unit and the Microbiology laboratory of the LRH in collaboration with the SEAR office of the World Health Organization. Surveillance was conducted among children aged 2-59 months of age admitted to LRH for invasive bacterial infection (IBI). The total admissions in the wards where surveillance is carried out during the 1st quarter of 2010 was 8594. Total admissions in the surveillance age group (2-59 months) were 6062 (71%). Total number of IBI (pneumonia, Meningitis, sepsis) was 548 (9%). Of these 548 patients, 322 patients (59%) were enrolled for the IBD surveillance.

No of blood cultures performed among enrolled patients was 150. Three *S.pneumoniae* isolates (2%) and 4 (2.7%) *Haemophilus influenzae* were isolated from blood cultures during the surveillance period. Number of CSF samples eligible for surveillance was 43. Neither *pneumococcus* nor *Haemophilus influenzae* were isolated from CSF cultures. Number of LATEX tests performed among patients enrolled was 255. None was tested positive for *S.pneumoniae* while 04 (1.6%) were positive for *Haemophilus influenzae b*. Three (1.2 %) were positive for group B streptococcus.

Among 322 patients with IBI, the number of children positive for *S. pneumoniae* was 03 (0.9%). Eight (2.5%) children had IBD of *Haemophilus influenzae* aetiology. Typing had not been done for *Haemophilus influenzae* isolates obtained during the quarter .However 4 (1.3%) patients tested positive for Hib during Latex testing.

TABLE 16: RESULTS OF SURVEILLANCE OF INVASIVE BACTERIAL INFECTIONS - 1ST QUARTER 2010

Month	Blood cultures			Cerebro spinal fluid (Cultures)			Cerebro spinal fluid (Latex test)			No of children				
	No of blood cultures	Positive for S. Pneumoniae	Positive for Haemophilus influenza	Total CSF samples	Positive for S. Pneumoniae	Positive for Haemophilus influenza	No tested with Latex antigen	Positive for S. Pneumoniae	Positive for Haemophilus influenza b	Positive for Gr. B Streptococci	No enrolled	Positive for S. Pneumoniae	Positive for Haemophilus influenza	Positive for Haemophilus influenza b
January	38	00	01 (2.6%)	17	0	0	65	0	0	0	88	0	01 (1.1%)	0*
February	48	01 (2.1%)	03 (6.2%)	11	0	0	85	0	0	0	62	01 (1.6%)	03 (4.8%)	0*
March	64	02 (3.1%)	0	25	0	0	105	0	04 (3.8%)	03 (2.9%)	172	02 (1.2%)	04 (2.3%)	0*
Total	150	03 (3.1%)	04 (2.7%)	43	0	0	255	0	04 (1.6%)	03 (1.2%)	322	03 (0.9%)	08 (2.5%)	04* (1.3%)

* *H. influenzae* type b patients include those tested positive for Hib in LATEX only. *Haemophilus influenzae* isolates were not typed. Total number of patients positive for Hi include 04 Hib patients included in the last column

21. SURVEILLANCE REPORT ON JAPANESE ENCEPHALITIS—2009

Japanese Encephalitis (JE) is an acute infection in the central nervous system caused by an arthropod-borne virus. It is the most common documented cause of viral encephalitis in Asia. Japanese Encephalitis virus was first isolated in Ceylon in 1968 at the Medical Research Institute, Colombo. Since then JE cases have been identified from various parts of the country.

The first recorded major outbreak of Japanese encephalitis (JE) in Sri Lanka occurred in 1985-86 with 385 cases and 64 deaths in Anuradhapura and Puttalam districts. Outbreaks occurred in 1986-87 and 1987-88, the latter being the largest with 812 cases and 192 deaths in two adjoining districts (Kurunegala and Polonnaruwa). Cases occurred in rice cultivating areas with a network of irrigation canals supported by seasonal, moderate to heavy rainfall. Children aged 5-9 and young adults aged 20-24 years were predominantly affected.

JE was also spreading to new areas with previously low transmission. To cope with this emerging challenge, Epidemiology Unit of the Ministry of Health initiated phased JE immunization in 1988. Children aged 1-10 years were

offered three primary doses and a booster of inactivated vaccine in the inter-pandemic period through a campaign approach. Over the years, JE incidence decreased as immunisation coverage increased. However, cases and occasional outbreaks were reported in other districts where immunization was not carried out, and the programme was ultimately expanded to 18 districts.

Epidemiology Unit conducts syndromic surveillance of Acute Encephalitis Cases (AES) with a view to capturing Japanese encephalitis cases. Two hundred and fifteen cases of AES were reported through the routine disease notification system (H 399). Only 83 (42%) case based investigations had been performed by the MOOH for reported acute encephalitis cases. Case based investigation of these AES cases by Medical Officers of Health (MOH) revealed that in year 2009, there were 81 suspected cases of JE and out of which 34 were serologically confirmed. There were 4 JE specific deaths and the case fatality rate was found to be 11.8%(Table 17).

The districts of Gampaha (8 i.e 23.5%), Kalutara (5 i.e. 14.7%) and Kegalle (4 i.e.11.8%) reported the highest number of confirmed JE cases and 4 deaths had occurred throughout the year due to disease (Table 18).

Table 17

CASES, DEATHS AND CASE FATALITY RATE (CFR) OF JAPANESE ENCEPHALITIS 1990 – 2009

Year	Japanese Encephalitis			
	Cases		Deaths	CFR %
	No.	Rate		
1990	387	2.3	43	11.1
1991	325	1.9	25	7.7
1992	291	1.7	27	9.3
1993	289	1.6	52	18
1994	230	1.3	41	17.6
1995	173	1	32	18.5
1996	307	1.7	44	14.4
1997	164	0.9	19	11.9
1998	122	0.7	3	2.5
1999	102	0.5	3	2.9
2000	83	0.5	2	2.4
2001	66	0.4	9	13.6
2002	113	0.6	15	13.2
2003	133	0.7	20	15
2004	129	0.66	9	6.9
2005	65	0.33	6	9.2
2006	26	0.13	1	3.8
2007	39	0.19	0	0
2008	31	0.15	6	19.4
2009	34	0.16	4	11.8

Table 19

DISTRIBUTION OF SUSPECTED JE CASES AND DEATHS BY AGE GROUPS –2009

Month	Suspected cases	Confirmed cases	Deaths
2008	NR	4	0
January	20	8	1
February	2	3	0
March	15	1	0
April	10	3	0
May	9	3	2
June	5	4	1
July	7	0	0
August	2	2	0
September	0	0	0
October	5	0	0
November	5	3	0
December	1	2	0
Unknown	0	1	0
Total	81	34	4

Table 18

DISTRIBUTION OF SUSPECTED JE CASES AND DEATHS BY DISTRICTS- 2009

District	Suspected cases	Confirmed cases	Deaths
Colombo	3	3	1
Gampaha	9	8	0
Kalutara	6	5	1
Kandy	7	1	1
Galle	7	1	0
Hambantota	4	0	0
Matara	2	0	0
Jaffna	3	0	0
Kurunegala	6	0	0
Trincomalee	2	2	0
Anuradhapura	1	0	0
Polonnaruwa	1	0	0
Ratnapura	7	2	1
Kegalle	4	4	0
Badulla	2	0	0
Batticaloa	10	1	0
Kalmunei	1	2	0
Puttalam	3	1	0
Mannar	1	0	0
Nuwareliya	2	1	0
Unknown	0	3	0
Total	81	34	4

Table 20

DISTRIBUTION OF SUSPECTED JE CASES AND DEATHS BY AGE GROUP— 2009

Age group	Suspected cases	Confirmed cases	Deaths
<1	2	2	0
1-4	16	4	0
5-9	10	2	0
9-14	13	2	1
15-19	3	2	0
20-24	13	6	0
25-29	6	3	0
30-34	1	3	0
35-39	3	0	0
40-44	3	1	0
45-49	3	3	0
50-54	1	1	0
55-59	2	1	1
>60	5	2	1
Unknown	0	2	1
Total	81	34	4

Confirmed cases of JE occurred throughout the year but 23.5 % of the case load (8) occurred in January 2009. Four confirmed cases (11.8%) with the onset of the disease in the latter part of 2008 had also been reported through the routine surveillance system during the year 2009 (Table 19).

It should be noted that due to under reporting of laboratory confirmed cases through the routine disease surveillance system, confirmed cases have exceeded the suspected cases in February and among unknown category of cases.

Almost all age groups were affected by the disease. However, it is worth paying attention to the fact that 29.4% (10) of confirmed cases occurred in children under 15 years of age. The proportion of confirmed cases was high (18%, 6 cases) in the age category of 20-24 years. (Table 20).

The proportion of females and males who were laboratory confirmed as having JE was 53% (n=18) and 47% (n=16) respectively.

The status of immunization against JE among confirmed JE cases is given in the Table 21. Among confirmed JE cases, 20 (59%) patients had not been exposed to JE immunization. However, the immunization status was unknown for 14 (41%) due to many reasons such as inability to trace patients and non performance of case based investigation by the MOOH. Since the immunization against JE commenced in 1989, those who were above 21 years of age could not have been exposed to JE vaccination in Sri Lanka. On the basis of this assumption, among JE cases with an unknown immunization status, 7 patients (50%) are expected to have been non immunized against JE.

Table 21

JE Immunization status of confirmed JE cases in 2009

Age group (years)	Immunized	Non immunized	unknown	Total
<10	0	4	4	8
11-20	0	3	3	6
21-30	0	5	4	9
31-40	0	2	1	3
41-50	0	0	0	0
>50	0	6	2	8
Total	0	20	14	34

22. AFP SURVEILLANCE REPORT – 2009

Poliomyelitis was made a notifiable disease in Sri Lanka in 1944. Immunization with OPV was initiated island wide in 1964. The largest outbreak in the country was reported in 1962 and every 6 years thereafter however with decreased severity. The last case of confirmed polio from the country was reported in 1993, in a female child aged 2 years from Kataragama in the DPDHS Division of Moneragala. Polio virus (P1 wild) was isolated and it was found that the child had been immunized with only 2 doses of OPV.

In 1990 Acute Flaccid Paralysis (AFP) was gazetted as a notifiable disease and individual case based surveillance of AFP was commenced in 1991. The case definition of an AFP case cited such a case as any child under 15 years of age presenting with acute onset flaccid paralysis or a person of any age highly suspected of poliomyelitis.

Epidemiology Unit is the central co-ordinating agency for the National AFP Surveillance programme under the Poliomyelitis Eradication Initiative, receiving information about AFP cases from Medical officers in curative institutions where the patients seek treatment and also from Medical Officers of Health (MOOH).

In addition to the routine surveillance, active surveillance is carried out in the premier Children's Hospital in Colombo (Lady Ridgeway Hospital). An Epidemiologist from the Central Epidemiological Unit visits the hospital at least once a week and checks the wards for cases of AFP. In addition, 58 sentinel surveillance sites have been set up since 1996 in major hospitals in every RDHS Division where Consultant Paediatricians are in place. Regional Epidemiologists are expected to visit their respective sentinel sites in the regions at least once a week. A monthly report of cases of AFP including a nil report is received from the Regional Epidemiologists at the Epidemiology Unit in Colombo.

Weekly reports of AFP cases including zero or nil reports from the 58 sentinel sites in the entire country are being monitored at the Central Epidemiology Unit. Infection Control Nurses (ICN) of each sentinel site are responsible for sending this weekly return.

As a measure to counteract the threat posed from the neighbouring countries that report polio cases, MOOH in every district in northern provinces, Puttalam district and Nuwara Eliya district, carry out immunization of children less than 15 years of age who return to Sri Lanka from South India with an extra dose of OPV. A register of these South Indian returnees is maintained and updated regularly in each such MOH office. A monthly return summarizing the number of children under 15 years of age among the returnees, their OPV immunization coverage etc is sent to

the relevant Regional Epidemiologist who sends a consolidated district report to the Epidemiological Unit monthly.

Also, since November 2007 all pilgrims departing for pilgrimages to India and especially to Buddhagaya should receive a dose of OPV at least 2 weeks prior to their travel date. This immunization activity is being carried out at all MOH offices and also at the Port Health Office in Colombo.

All children under 15 years of age among the Internally Displaced Persons (IDP) in the North are being immunized with 2 doses of OPV 4-6 weeks apart irrespective of their immunization status. This is to cover any under immunized pockets among these victims of conflict. In this post conflict period much attention is being given to strengthening capacity and infrastructure building with regard to EPI and OPV immunization in the resettlement areas.

A total of 78 AFP cases were reported for the year 2009 (Fig.1). This yielded a non polio AFP rate of 1.3 per 100,000 under 15 year old population. This is according to the population estimates for 2009 in the country. The highest number of cases, 9 (11%) was reported from Colombo RDHS Division. Eight and 7 cases were reported from Puttalam and Gampaha RDHS Divisions respectively. Highly populated Western province accounted for 22 (28%). All

Provinces and most RDHS divisions had reported AFP cases during the year. There were 4 cases from the Northern Province and 7 from the Eastern Province. Kilinochchi and Mannar districts did not report any cases for the year.

Eighteen districts had the required number of cases and had achieved a non polio AFP rate above 1 per 100,000 under 15 year old population. Districts that did not achieve this target for 2009 were Gampaha, Galle, Matale, Kegalle, Kurunegala, Trincomalee, Anuradhapura and Jaffna.

Seasonal Distribution of AFP Cases 2009

April recorded the highest number of cases for the year. The number reported was 10 (13%). Nine cases were reported in March. Lowest number of cases (4) was seen in June and August. As in previous years there was no trend observed in this distribution. The figure II below shows the distribution of AFP cases for the years 2008 and 2009 (Fig. II).

FIGURE 01. GEOGRAPHICAL DISTRIBUTION OF AFP CASES 2009

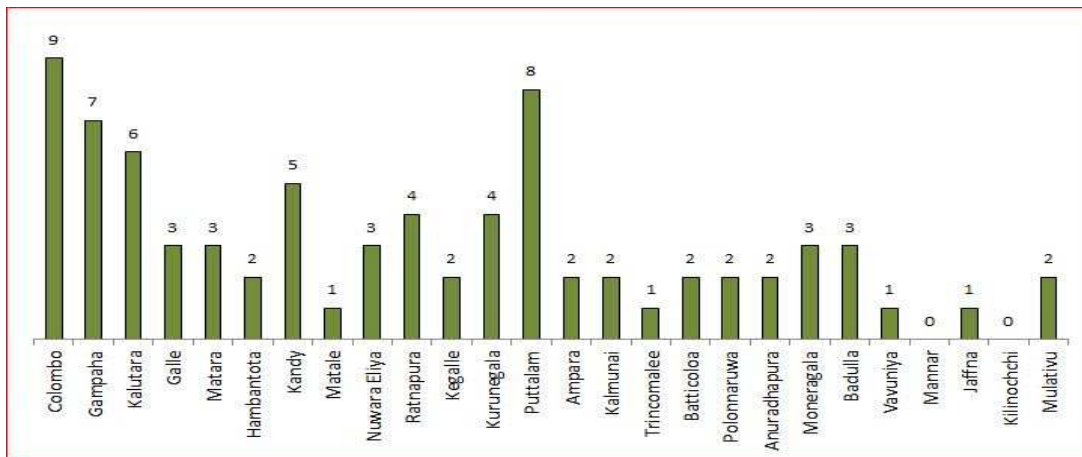
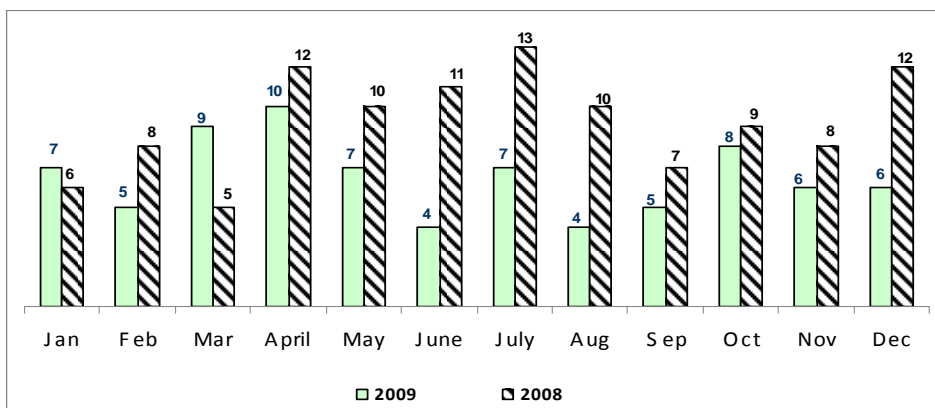


FIGURE 02. DISTRIBUTION OF AFP CASES ACCORDING TO MONTH 2008 & 2009



AFP Surveillance Performance by Hospitals 2009

The main sentinel site for AFP out of the 58 sentinel sites in the country, Lady Ridgeway Children’s Hospital (LRH), Colombo which is a tertiary paediatric care center receiving referrals from other hospitals all over the country had reported well over one third of the total case load (37%) this year. Twenty nine cases had been reported from LRH in 2009. Teaching Hospital Kandy, another referral centre which drains a vast area in the country has reported 8 cases (10%) during the year.

Teaching Hospital Jaffna from the Northern Province of the country reported 1 AFP case. In the Eastern Province, TH Batticaloa reported 2 cases while GH Trincomalee and GH Ampara reported one case each during 2009.

All cases of AFP reported should have two stool samples collected within 14 days of onset of the paralysis. This is one of the main responsibilities of the sentinel hospitals in the AFP surveillance programme. Eighty percent of cases should have two such timely stool samples to fulfill the criteria stipulated by the WHO. In 2009, 2 samples of stools were collected for virology within 14 days of the onset of paralysis from only 61 cases (78%) of the 78 cases reported.

The figure III shows the distribution of AFP cases notified from hospitals with their performance in collection of stools for the year 2009 (Fig. III).

Age and Sex Distribution of AFP Cases 2009

The majority of AFP number of cases reported in the year was males. Out of the total of 78 AFP cases, 47 (60%) were males and 31 (40%) were female children. This is similar to the trend observed last year where there were more male (61) than female cases (45) reported.

In 2009, this male predominance was observed in the 1-4 year, 5-9 year and 10 - 14 year age groups. A vast majority (73%) of the cases (57) were between 1 – 9 years of age. A similar trend was seen in 2008. Out of the cases reported in 2009, 19 children (24%) were between 10 – 14 years of age and only 2 children were less than 1 year of age (Fig.IV).

.Immunization Status of AFP Cases Reported in 2009

Ninety nine percent of AFP cases (99%) reported during the year 2009 were age appropriately immunized with OPV. Data supporting the immunization status of the children had been obtained from the Child Health Development Record (CHDR) by the medical officers treating the patients or by the Medical Officer of Health (MOH) team through the relevant surveillance forms. Data for 1 case was not available.

FIGURE 03. PERFORMANCE OF SENTINEL HOSPITALS 2009

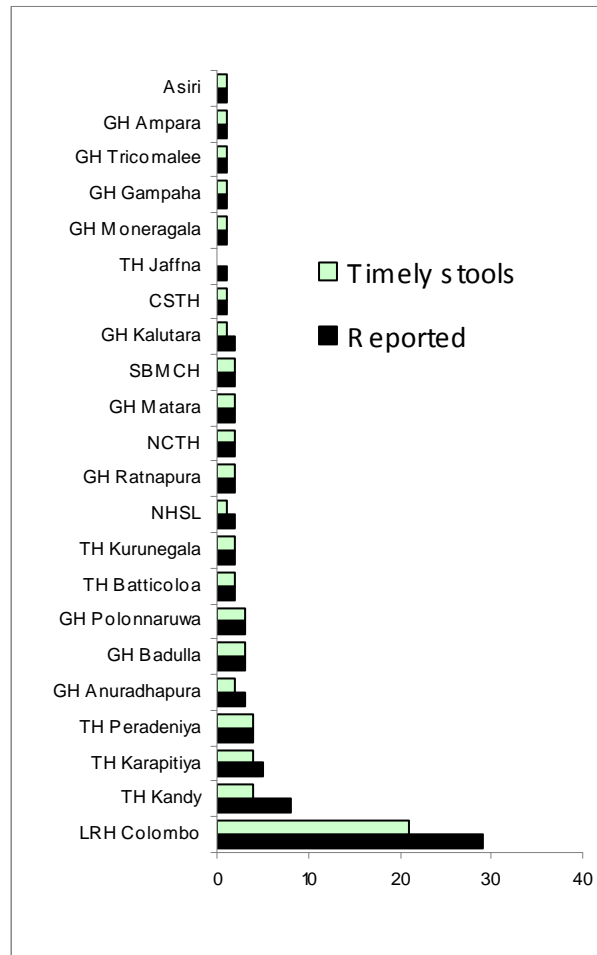
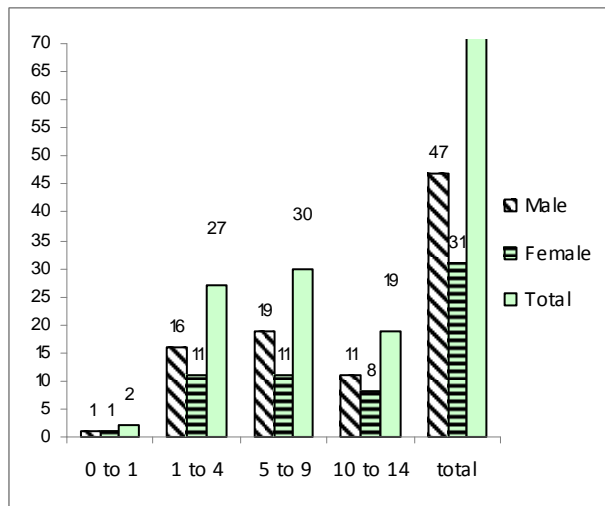


FIGURE 04. AGE AND SEX DISTRIBUTION OF AFP CASES 2009



Final Classification of AFP Cases 2009

In 2009 all 78 cases reported were assigned a final classification. A majority of the cases (60) were classified as Guillan Barre syndrome (GBS) by the respective clinicians who reported these cases. This amounted to 77% of the total caseload in the year. This trend has been observed in the surveillance programme of the country throughout the years.

There were 3 cases of Transverse Myelitis (4%) and 2 cases (3%) each of Meningoencephalitis, Miller Fisher Syndrome and Post Viral Cerebellitis. Table 1 below shows the final classification of the AFP cases for the year.

TABLE 22. DISTRIBUTION OF FINAL CLASSIFICATION OF AFP CASES 2009

Diagnosis	Number of AFP Cases (%)
Guillan Barre Syndrome	60 (77%)
Transverse Myelitis	3 (4%)
Post Viral Cerebellitis	2 (3%)
Miller Fisher Syndrome	2 (3%)
Meningo Encephalitis	2 (3%)
Post Viral Myalgia	1 (1%)
Encephalo myelitis	1(1%)
Ewings Sarcoma	1(1%)
AV Malformation	1(1%)
Acute Myelitis	1(1%)
Axillary Nerve Leision	1(1%)
Post Viral Arthritis	1(1%)
Septic Arthritis	1 (1%)
Viral Lumbosacral Radiculopathy	1(1%)
Total	78

Feedback Information on AFP Cases

Feed back information on AFP cases reported from institutions is sent to the respective clinicians once the cases are discarded with a final classification. This has proved to be an effective method of obtaining their cooperation for the surveillance programme. Copies of these feedback forms are sent to the respective Regional Epidemiologists.

Apart from this case based individual feedback, information is sent routinely to all the Regional Directors of Health Services (RDHS), Regional Epidemiologists (RE), MOH, Heads of Health Institutions and all the clinicians through the Weekly Epidemiological Report (WER). The Epidemiological Unit has been publishing the WER since 1973 with the objective of providing a quick feedback in the form of a weekly statement on the notifiable diseases reported on the Weekly Return on Communicable Diseases from the Medical Officer of Health (MOH) areas.

In addition to the feedback sent through these two methods, Quarterly Epidemiological Bulletin published by the Epidemiological Unit provides summary information on AFP surveillance activi-

ties for each quarter and year.

Indicators of AFP Surveillance and Laboratory performance 2009

Performance of an AFP surveillance programme is considered to be of adequate standard if a number of performance criteria were achieved. These criteria are stipulated by the Global Polio-myelitis Eradication Initiative of the World Health Organization. Firstly the system should detect at least one case of non-polio AFP for every 100,000 population of children aged less than 15 years. Secondly two adequate diagnostic stool specimens (2 stools specimens collected at least 24 – 48 hours apart within 14 days of onset of paralysis and received in good condition at the laboratory) should be collected from at least 80% of AFP cases reported. The other criteria are based on the performance of the laboratory processing the specimens, monitoring mechanisms in place to streamline the reporting system and the clinical investigation procedures involved.

1. Non polio AFP rate in children < 15 yrs. of age (Target $\geq 1/100,000$)

Sri Lanka achieved a non-polio AFP rate (Number reported/number expected) of 1.3 during the year 2009. This exceeds the expected rate of 1 per 100,000 population of under 15 year old children. This rate is lower than the non-polio AFP rate of 1.9/100,000 under 15 year old population reported in 2008 since the total number reported for the entire year was comparatively less. In the year 2009 all except 2 districts in the country have reported the expected number or more AFP cases. The AFP rate is routinely monitored for each district and surveillance is strengthened in those districts where the AFP rate has been low during the previous year.

2. Completeness of reporting

2.1 Weekly reporting of Notifiable Diseases

All Medical Officers of Health (MOOH) send a weekly return of notifiable diseases to the Epidemiological Unit. Completeness (number received/number expected) of these returns and their timeliness are monitored by the Epidemiological Unit. The returns are expected to be received within a week to be timely.

In the previous year the completeness of weekly notifiable disease reporting was satisfactory at 94%.

2.2 Weekly reporting of AFP cases from institutions

Fifty eight hospitals around the country have been identified as sentinel sites (compared to 50 sites in 2004) which routinely report on AFP cases from the respective institutions. These weekly returns are monitored centrally for their completeness and the timeliness.

In 2009 the completeness of weekly reporting of AFP cases from those institutions was lower than the previous year and was 69%.

2.3. Monthly reporting of AFP cases by Regional Epidemiologists (REE) (Target >90%)

Regional Epidemiologists in all 26 districts send a monthly return on AFP to the Epidemiological Unit. Completeness and timeliness of these returns are monitored centrally. In the previous year the completeness of monthly reporting was lower than 2008 and was 75%.

3. Timeliness of reporting

3.1 Weekly reporting of Notifiable Diseases

The weekly reports from MOH on notifiable diseases received within a week from the due date are considered as timely. During the year 2007 the timeliness of reporting was 74%.

3.2 Weekly reporting of AFP cases from institutions

During the year 2009 the timeliness of weekly reporting of AFP was unsatisfactory at 42%. This had not improved since 2007 where this figure stood at 45%. Steps have been taken to educate the infection control nurses who are responsible for this activity in sentinel sites with repeated supervisions by the central as well as the regional level authorities.

3.3 Monthly reporting of AFP cases by REE (Target > 80%)

Monthly reports received from REE before the 20th of the following month are considered as timely. Timeliness of monthly reporting in the previous year showed a large improvement from 2008 (15%) and was 53%.

4. Reported AFP cases investigated within 48 hrs of reporting (Target \geq 80%)

All AFP cases notified should be examined and investigated by an epidemiologist (at central or regional level) within 48 hrs of notification. In the year 2009, 100% of the AFP cases reported were investigated by an epidemiologist within 48 hours of notification.

5. Reported AFP cases with 2 stools specimens collected within 14 days of onset of paralysis (Target > 80%)

All cases of AFP reported should have two stool samples collected within 14 days of onset of the paralysis. Over eighty percent of cases should have two such timely stool samples to fulfill the criteria stipulated by the WHO.

In 2009, 2 samples of stools were collected for virology within 14 days of the onset of paralysis from 60 cases (77%) of the 78 cases reported. Any Samples of stools were not collected from two AFP cases during 2009.

Stool samples from contacts

Following notification, stools samples are collected from 3 to 5 contacts of all AFP cases during the outbreak response activities carried out by the respective MOH. The contact stool sampling was satisfactory during the previous year and samples of stools were collected from contacts of 66 (85%) AFP cases reported in 2009.

6. Reported AFP cases with a follow-up examination at 60 days after onset of paralysis to verify the presence of residual paralysis or weakness (Target \geq 80%)

All the reported AFP cases should be followed up at 60 days of onset of paralysis by an epidemiologist at central or regional level for presence of residual paralysis. In 2009, all 78 cases reported have been followed up after 60 days of onset of paralysis. It therefore achieved a 100% follow up rate.

7. Specimens of stools arriving at National Laboratory (MRI) within 03 days of being collected (Target > 80%)

In the year 2009, 25 samples out of the total of 152 samples collected from cases, have been received after 3 days of being collected. This amounts to a 84% of the samples of stools being received timely.

8. Specimens of stools arriving at the National Laboratory in good condition (Target >80%)

In 2009, out of the 152 samples of stools collected from 78 AFP cases, 151 samples were in 'good' condition (99%) on arrival at the laboratory.

Good condition means that upon arrival:

- There is ice in the container
- Specimen volume is adequate
- There is no evidence of leakage or desiccation
- Appropriate documentation is complete

9. Specimens of stools with a turn around time <28 days (Target >80%)

In the previous year out of the 152 samples of stools collected and sent, results of all 152 specimens of stools were reported within 28 days. This achieved the target with a percentage of 100%.

10. Stool specimens from which non-polio enterovirus was isolated (Target > 10%).

Non polio enterovirus was isolated from samples of stools of 8 cases out of the total 78 cases (10.2%). This is just above the expected target of 10%. Wild poliovirus was not isolated at the MRI during 2009.

National Polio Expert Committee Meetings 2009

The National Polio Expert Committee consists of experts from fields of paediatrics, virology, epidemiology, clinical neurology and neurophysiology. The expert committee meets once every quarter to discuss AFP cases that could not be discarded on laboratory results. In 2009, five such AFP cases were presented to the committee for deliberations. All these cases had stools samples collected late and had residual paralysis at 60 days of onset of paralysis. All of them were reviewed and discarded by the Expert committee as non Polio AFP cases.

Table 23.

24. SUMMARY OF NOTIFIABLE DISEASES – 1ST QUARTER 2010

Health Region	Cholera	Acute Flaccid Paralysis (AFP)	Dysentery	Dengue Haemorrhagic Fever	Encephalitis	Enteric Fever	Food Poisoning	Human Rabies	Leptospirosis	Measles	Simple Contd. Fever	Tetanus	Typhus Fever	Viral Hepatitis
Colombo	0	04	41	1393	05	16	05	01	174	01	01	00	03	20
Gampaha	0	01	09	1435	07	12	08	00	134	00	01	00	01	27
Kalutara	0	01	39	363	04	05	20	01	106	00	00	00	00	14
Kandy	0	05	86	469	00	07	01	00	21	02	05	01	51	21
Matale	0	00	170	286	00	07	57	00	26	03	01	00	00	14
Nuwara Eliya	0	02	33	54	00	38	03	00	08	03	01	00	27	12
Galle	0	00	55	190	02	00	06	02	18	00	06	00	02	05
Hambantota	0	01	11	262	02	01	03	00	20	00	03	00	39	03
Matara	0	02	31	120	01	01	35	00	99	00	02	00	62	09
Jaffna	0	00	45	1848	01	270	05	01	00	08	01	00	93	25
Kilinochchi	0	00	00	00	00	01	00	00	00	00	00	00	00	00
Mannar	0	00	13	63	00	21	02	00	00	00	00	00	00	08
Vavuniya	0	01	13	467	01	23	07	00	00	00	01	00	00	06
Mullaitivu	0	00	00	00	00	00	00	00	00	00	00	00	00	00
Batticaloa	0	00	32	786	01	10	09	00	01	00	02	01	01	00
Ampara	0	01	20	46	01	04	06	00	16	01	03	00	00	06
Trincomalee	0	00	44	660	04	03	07	00	08	01	11	01	04	09
Kurunegala	0	00	60	433	02	09	05	01	126	03	03	00	19	36
Puttalam	0	00	21	470	03	29	120	00	50	00	00	01	00	03
Anuradhapura	0	02	19	678	00	03	21	03	18	01	02	00	14	19
Polonnaruwa	0	05	19	109	01	01	02	00	31	01	01	00	00	14
Badulla	0	02	48	188	00	31	10	00	18	00	01	01	21	22
Moneragala	0	00	57	135	00	17	03	00	13	00	01	00	18	32
Ratnapura	0	00	88	461	04	07	08	01	120	03	15	00	27	38
Kegalle	0	02	17	302	04	23	15	00	74	01	00	01	05	34
Kalmunai	0	00	47	412	00	04	00	01	00	00	00	00	00	07
TOTAL	0	29	1018	11630	43	543	358	11	1081	28	61	06	387	384

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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