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# **Epidemiological Bulletin**

## **SRI LANKA**

***Third Quarter***  
***2005***

**Epidemiology Unit**  
**Ministry of Health**

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

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## 1. POLIOMYELITIS

A total of 16 cases of Acute Flaccid Paralysis (AFP) were notified during the 3<sup>rd</sup> quarter of 2005 compared to 26 cases notified in the previous quarter.

The distribution of these 16 cases of AFP according to the Deputy Provincial Directors of Health Services (DPDHS) divisions and Medical Officers of Health/Divisional Directors of Health Services (MOOH/DDDHS) areas is as follows:

<b>DPDHS COLOMBO</b>	<u>1</u>
MOH Kaduwela	1
<b>DPDHS KALUTARA</b>	<u>1</u>
MOH Matugama	1
<b>DPDHS KANDY</b>	<u>3</u>
MOH Udunuwara	1
MOH Nawalapitiya	1
MOH Kurunduwatta	1
<b>DPDHS NUWARAELIYA</b>	<u>2</u>
MOH Kothmale	1
MOH Ginigathhena	1
<b>DPDHS GALLE</b>	<u>1</u>
MOH Balapitiya	1

<b>DPDHS MATARA</b>	<u>1</u>
MOH Kamburupitiya	1

<b>DPDHS JAFFNA</b>	<u>1</u>
MOH Point Pedro	1
<b>DPDHS AMPARA</b>	<u>1</u>
MOH Mahaoya	1
<b>DPDHS TRINCOMALEE</b>	<u>1</u>
MOH Padavisiripura	1
<b>DPDHS KURUNEGALA</b>	<u>1</u>
MOH Kuliypitiya	1
<b>DPDHS PUTTALAM</b>	<u>1</u>
MOH Dankotuwa	1
<b>DPDHS BADULLA</b>	<u>1</u>
MOH Uvaparaganagama	1
<b>DPDHS KEGALLE</b>	<u>1</u>
MOH Rambukana	1

### Age and Sex Distribution

Table 1 shows the age and sex distribution of the 16 cases reported during the quarter.

Table 1.

#### AGE AND SEX DISTRIBUTION OF 34 AFP CASES – 3<sup>rd</sup> QUARTER 2005

Age Group	Sex		Total
	Male	Female	
Below 1 year	0	0	0
1 – 4 years	1	7	8
5 – 9 years	0	3	3
10 – 14 years	2	3	5
Over 15 years	0	0	0
<b>Total</b>	<b>3</b>	<b>13</b>	<b>16</b>

## Surveillance

The distribution of these 16 cases of AFP according to notifications from hospitals is as follows:

Hospital	No. of cases
Lady Ridgeway Hospital (LRH)	03
T.H. Kandy	01
T.H. Peradeniya	02
T.H. Nawalapitiya	02
T.H. Karapitiya	02
T.H. Jaffna	01
T.H. Kurunegala	01
G.H. Badulla	01
G.H. Kegalle	01
B.H. Anuradhapura	01
B.H. Ampara	01

T.H. - Teaching Hospital

G.H. - General Hospital

B.H. - Base Hospital

Table 2.

## LABORATORY SURVEILLANCE OF STOOL SAMPLES FOR POLIO VIROLOGY

	No.	%
No. of AFP cases from whom -		
(1) At least 1 stool sample collected (the lab data was reviewed at the Epidemiological Unit with the Virologist/MRI)	16	100.0
(2) At least 1 stool sample collected within 14 days of onset of paralysis (and received by MRI, Colombo)	13	81.0
(3) Two stool samples collected within 14 days of onset of paralysis (and received by the MRI, Colombo)	13	81.0

MRI – Medical Research Institute

## 2. ENTERIC FEVER

During the 3<sup>rd</sup> quarter of 2005, 571 cases of enteric fever were reported to the Epidemiological Unit, compared to 602 cases in the previous quarter and 871 cases in the corresponding quarter of 2004.

DPDHS divisions of Nuwara Eliya (69 cases), Jaffna (63 cases), Badulla (60 cases) and

Ratnapura (57 cases) reported the highest number of cases accounting for 44% of the total case load.

The following MOH areas recorded the highest number of cases.

MOH Area	No. of cases
Kothmale	30
Manipay	18
Point Pedro	18

## 3. VIRAL HEPATITIS

In the 3<sup>rd</sup> quarter of 2005, 666 cases of viral hepatitis were reported to the Epidemiological Unit, compared to 509 cases in the previous quarter (2<sup>nd</sup> quarter 2005) and 622 cases in the corresponding quarter of 2004. Among the reported cases, 193 were investigated and confirmed as viral hepatitis. DPDHS area Kalmune recorded the highest number of cases (139) accounting for 21% of the case load and the following MOH areas recorded the highest number of cases.

MOH area	No. of cases
Thirukkivil	48
Addalachchenai	39
Batticaloa	34

## 4. DYSENTERY

A total of 1777 dysentery cases were reported in the 3<sup>rd</sup> quarter of 2005, compared to 1632 cases in the previous quarter and 2493 cases in the corresponding quarter of last year.

DPDHS areas Ratnapura (179), Badulla (154) Hambantota (134) and Kalutara (122) and recorded the highest number of cases accounting for 33% of the total case load.

The highest number of cases was reported from the following MOH areas.

MOH Area	No. of cases
Beruwala	36
Walasmulla	36
Ratnapura	35

## 5. CHOLERA

In the 3<sup>rd</sup> quarter of 2005, no confirmed cases of cholera were reported to the Epidemiological Unit.

No confirmed cases of cholera were reported in the previous quarter or the corresponding quarter of last year.

## 6. TETANUS

During the 3<sup>rd</sup> quarter of 2005, 6 cases of tetanus were notified to the Epidemiological Unit. Out of these cases, 4 cases were investigated and confirmed as shown in Table 3. Two of these were not traceable.

Table 3.

### DISTRIBUTION OF TETANUS CASES BY DPDHS DIVISIONS – 3<sup>rd</sup> QUARTER 2005

DPDHS Division	No. notified	No. confirmed
Kalutara/NIHS area	01	-
Nuwara Eliya	01	-
Ratnaura	01	01
Matale	01	01
Trincomalee	01	01
Anuradhapura	01	01
<b>Total</b>	<b>06</b>	<b>04</b>

Out of the 4 confirmed cases of tetanus three had been fatal. No cases of neo-natal tetanus were reported during this period.

## 7. MEASLES

A total of 2 cases of measles were reported during the 3<sup>rd</sup> quarter 2005, when compared to 15 cases notified in the 2<sup>nd</sup> quarter 2005

and 23 cases notified in the corresponding quarter of 2004.

During the 3<sup>rd</sup> quarter 2005, two cases of suspected measles were investigated, out of which none were confirmed as measles.

## 8. LEPTOSPIROSIS

In the 3<sup>rd</sup> quarter of 2005, 385 leptospirosis cases were notified to the Epidemiological Unit compared to 349 cases in the previous quarter (2<sup>nd</sup> quarter 2005) and 259 cases during the corresponding quarter of the previous year. Among the reported cases 169 were confirmed as leptospirosis.

Out of the total cases reported during this quarter, majority were from the districts of Gampaha (25.5%) and Kegalle (13%). Sixteen cases (4.2%) were reported from the MOH area Wattala while the MOH areas Ragama (15 cases) and Kegalle (12 cases) contributed to 7% of the total case load.

## 9. HUMAN RABIES

In the 3<sup>rd</sup> quarter of 2005, 11 human rabies cases were notified to the Epidemiological Unit, compared to 15 cases in the previous quarter (2<sup>nd</sup> quarter 2005) and 29 cases in the corresponding quarter of the last year.

Highest incidence of rabies was reported from Trincomalee district (02 cases) compared to no cases reported in the previous quarter and 01 case in the corresponding quarter of last year

### Animal Rabies\*

One hundred and thirty three (133) dogs were reported positive for rabies compared to 106 positives in the previous quarter and 126 positives in the same period in the last year.

In addition the following animals were also reported positive for rabies.

Cats – 20, Wild animals – 01,  
Domestic ruminants – 03

### Rabies Control Activities\*

**Dog vaccination** – A total of 247896 dogs were immunized during the 3<sup>rd</sup> quarter 2005 compared to 190765 in the previous quarter

and 186467 in the corresponding quarter of last year.

**Stray dog elimination** – A total of 12366 dogs were destroyed during the 3<sup>rd</sup> quarter 2005 compared to 15418 in the previous quarter and 25686 in the corresponding quarter of last year.

- Source – Director/PHVS

## 10. TUBERCULOSIS

A total of 1635 tuberculosis patients were registered for the 3<sup>rd</sup> quarter by the National Programme for Tuberculosis Control and Chest Diseases.

Of this total, 1353 suffered from pulmonary tuberculosis, while the balance 266 patients suffered from non pulmonary tuberculosis.

There were 898 bacteriologically confirmed cases and the bacteriological confirmation rate was 66.4%.

The distribution of tuberculosis patients registered for the 3<sup>rd</sup> quarter 2005 by age, sex and DPDHS divisions is given in Table 4 and 5 respectively.

Two hundred and ninety three (293) Tuberculosis patients and 166 other patients were hospitalized during the quarter.

Central Laboratory – 1805 cultures were done during the period.

### B.C.G. Vaccination

A total of 83215 B.C.G. vaccinations were carried out during the 3<sup>rd</sup> quarter 2005 with 101% coverage.

Table 4.

### AGE AND SEX DISTRIBUTION OF TUBERCULOSIS PATIENTS 3<sup>rd</sup> QUARTER 2005

Age group in years	Male		Female		Total	
	No.	%	No.	%	No.	%
Under 5	13	56	10	44	23	1.4
5 – 9	22	66	11	34	33	2.0
10 –14	13	62	8	38	21	1.2
15 –19	35	54	29	46	64	3.9
20 –24	63	44	79	56	142	8.6
25 –29	78	61	49	39	127	7.7
30 –34	82	79	22	21	104	6.3
35 –39	95	74	34	26	129	7.8
40 –44	110	83	23	17	133	8.1
45 –49	129	71	53	29	182	11.1
50 –54	141	74	50	26	191	11.6
55 –59	121	80	30	20	151	9.2
60 –64	87	77	26	23	113	6.5
65 –69	54	71	22	29	76	4.6
70 –74	59	72	23	28	82	5.0
75 +	49	76	15	24	64	4.0
<b>TOTAL</b>	<b>1151</b>	<b>100</b>	<b>484</b>	<b>100</b>	<b>1635</b>	<b>100</b>

Source: National Programme for Tuberculosis Control and Chest Diseases.

Table 5.

**REGISTRATION OF TUBERCULOSIS PATIENTS BY DPDHS DIVISIONS**  
**3<sup>rd</sup> QUARTER 2005**

DPDHS Division	* P.T.B.	** O.T.B.	Total	Pulmonary TB Direct Smear Positive	
				No.	%
Colombo	326	65	391	257	78.83
Gampaha	63	4	67	54	85.71
Kalutara	106	38	144	90	84.91
Kandy	220	28	248	81	36.82
Matale	69	12	81	35	50.72
Nuwara Eliya	43	7	50	23	53.49
Hambantota	0	0	0	0	0
Matara	66	19	85	54	81.82
Galle	56	13	69	48	85.71
Jaffna	1	0	1	0	0
Vavuniya	0	1	1	0	0
Mannar	0	0	0	0	0
Trincomalee	21	9	30	14	66.67
Ampara	4	0	4	1	25.00
Batticaloa	21	7	28	10	47.62
Puttalam	0	0	0	0	0
Kurunegala	113	20	133	56	49.56
Polonnaruwa	32	1	33	20	62.50
Anuradhapura	81	20	101	59	72.84
Badulla	31	24	55	23	74.19
Moneragala	0	0	0	0	0
Ratnapura	1	1	2	1	100.0
Kegalle	99	13	112	72	72.73
Kilinochchi	0	0	0	0	0
Mullativu	0	0	0	0	0
<b>TOTAL</b>	<b>1353</b>	<b>282</b>	<b>1635</b>	<b>898</b>	<b>66.37</b>

\* PTB – Pulmonary Tuberculosis      \*\*OTB – Other Tuberculosis

**Source:** National Programme for Tuberculosis Control and Chest Diseases.

## 11. MALARIA

Table 6.

### EPIDEMIOLOGICAL REPORT – 3<sup>rd</sup> QUARTER 2005

District	B.F.	Positives	P.v.	P.f./ Mixed
Colombo	11412	4	4	0
Gampaha	8975	21	21	0
Kalutara	2264	3	2	1
Kandy	6528	2	2	0
Matale	2393	3	2	1
Nuwara Eliya	36	0	0	0
Galle	159	0	0	0
Matara	2325	1	1	0
Hambantota	9134	2	2	0
Jaffna	17156	5	3	2
Kilinochchi	7024	0	0	0
Vavuniya	7693	27	27	0
Mannar	4395	2	2	0
Mullativu	6713	0	0	0
Batticaloa	24161	23	22	1
Ampara	5094	5	3	2
Kalmunai	9506	10	10	0
Trincomalee	8515	48	47	1
Kurunegala	27856	61	58	3
Puttalam	6528	23	21	2
Anuradhapura	31020	51	50	1
Polonnaruwa	11694	9	8	1
Badulla	5346	0	0	0
Moneragala	15128	7	7	0
Ratnapura	3825	2	2	0
Kegalle	885	1	1	0
<b>Total</b>	<b>235,765</b>	<b>310</b>	<b>295</b>	<b>15</b>

5

During the 3<sup>rd</sup> quarter of 2005, there was a significant reduction in the incidence of malaria in comparison with the same period of 2004 as seen in table 7.

However an increase in the microscopically confirmed malaria cases was observed during this quarter when compared to the previous quarter of 2005 especially in the districts of Anuradhapura and Kurunegala.

Table 7.

**RESULTS OF BLOOD SMEAR EXAMINATION FOR MALARIA PARASITES  
3<sup>RD</sup> QUARTER 2004/2005**

	3 <sup>rd</sup> Quarter 2004	3 <sup>rd</sup> Quarter 2005
No. of blood smears examined	297,025	235,765
No. of positives	738	310
No. of <i>P. vivax</i>	602	295
No. of <i>P. falciparum</i>	124	9
No. of mixed infections	12	6
Slide Positivity Rate (S.P.R.)	0.2%	0.13%
<i>P.v.</i> : <i>P.f.</i> ratio	4:1	20:1
No. of infant positives	3	0
Percentage of infant positives	0.4%	0%

The 3<sup>rd</sup> quarter figures for the year 2005 show a significant reduction of all indices in comparison to the same period of year 2004.

## 12. JAPANESE ENCEPHALITIS (J.E.)

In the 3<sup>rd</sup> quarter of 2005, 13 cases of Encephalitis were reported to the Epidemiological Unit.

Among the reported cases, 4 cases from the DPDHS areas of Galle, Kegalle, Anuradhapura and Vavuniya were investigated in detail and clinically confirmed as JE. No deaths were reported during this quarter.

This is in comparison to 7 cases and 2 death reported during the previous quarter (CFR 28.6%) and 19 cases and 3 deaths in the corresponding quarter of the last year (CFR 15.8%).



**13. LEPROSY**

Table 8.

**QUARTERLY RETURN OF LEPROSY STATISTICS  
3<sup>rd</sup> QUARTER 2005****1. National**

	At the end of the quarter			Cumulative for end of the quarter		
	3rd Quarter 2005	3rd Quarter 2004	Diff. (%)	2005	2004	Diff. (%)
New patients detected	368	590	-37.6	1355	1566	-13.5
Children	37	64	-4.2	140	174	-19.6
Grade 2 Deformities	21	37	-43.2	76	110	-30.9
Multi-Bacillary	165	229	-27.9	569	640	-11.0
Females	143	244	-41.4	660	647	2.0

**2. District**

District	New patients	Deformities	Child	MB	Females
Colombo	107	6	11	34	52
Gampaha	43	1	2	21	17
Kalutara	31	1	5	7	13
<b>Western</b>	<b>181(49.2%)</b>	<b>8</b>	<b>18</b>	<b>62</b>	<b>82</b>
Galle	3	0	1	0	0
Matara	17	1	2	6	2
Hambantota	10	1	0	5	4
<b>Southern</b>	<b>30(8.2%)</b>	<b>2</b>	<b>3</b>	<b>11</b>	<b>6</b>
Kandy	5	1	0	2	1
Matale	2	1	0	2	1
Nuwara Eliya	1	0	0	0	0
<b>Central</b>	<b>8(2.2%)</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>2</b>
Anuradhapura	18	0	1	10	8
Polonnaruwa	10	0	2	9	1
<b>North Central</b>	<b>28(7.6%)</b>	<b>0</b>	<b>3</b>	<b>19</b>	<b>9</b>
Kurunegala	31	4	0	25	11
Puttalam	15	0	1	5	7
<b>North Western</b>	<b>46(12.5%)</b>	<b>4</b>	<b>1</b>	<b>30</b>	<b>18</b>
Kegalle	1	0	0	1	0
Ratnapura	22	1	3	9	10
<b>Sabaragamuwa</b>	<b>23(6.3%)</b>	<b>1</b>	<b>3</b>	<b>10</b>	<b>10</b>
Badulla	1	0	0	0	0
Moneragala	0	0	0	0	0
<b>Uva</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Trincomalee	11	1	1	7	4
Batticaloa	15	0	4	8	6
Ampara	8	0	2	5	3
Kalmunai	7	1	1	4	1
<b>Eastern</b>	<b>41(11.1%)</b>	<b>2</b>	<b>8</b>	<b>24</b>	<b>14</b>
Jaffna	7	2	1	5	1
Vavuniya	2	0	0	0	1
Mannar	1	0	0	0	0
Mulativu	0	0	0	0	0
Kilinochchi	0	0	0	0	0
<b>Northern</b>	<b>10(2.7%)</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>2</b>
<b>Sri Lanka</b>	<b>368</b>	<b>21(5.7%)</b>	<b>37(10.1%)</b>	<b>165(48.8%)</b>	<b>143(38.9%)</b>

Source: Leprosy Campaign

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

The total number of DF/DHF cases and deaths reported during the third quarter 2005 were 2275 and 9 respectively (CFR 0.4%). This compares with 891 cases and 11 deaths during the previous quarter (CFR 1.23%) and 5948 cases and 18 deaths (CFR 0.3%) in the corresponding quarter of last year..

Table 9 shows the distribution of DF/DHF cases and deaths in the DPDHS divisions during the 3<sup>rd</sup> quarter 2005.

Table 9.

#### MORBIDITY AND MORTALITY DUE TO DF/DHF - 3<sup>rd</sup> QUARTER 2005

DPDHS Division	Cases	Deaths
Colombo	814	1
Gampaha	593	6
Kalutara	120	-
Kandy	197	-
Matale	20	-
Nuwara Eliya	9	-
Galle	45	-
Hambantota	22	-
Matara	58	-
Jaffna	4	-
Kilinochchi	2	-
Mannar	0	-
Vavuniya	2	-
Mullativu	0	-
Batticaloa	2	-
Ampara	4	-
Trincomalee	5	-
Kurunegala	28	-
Puttalam	26	-
Anuradhapura	26	-

Polonnaruwa	24	-
Badulla	13	-
Moneragala	9	1
Ratnapura	195	-
Kegalle	61	1
Kalmunai	0	-
<b>TOTAL</b>	<b>2279</b>	<b>9</b>

Colombo District reported the highest number of cases (35%) followed by Gampaha (26%), Kandy (8.6%) and Ratnapura Districts (8.6%).

Table 10.

#### DHF STATISTICS FROM DEPARTMENT OF VIROLOGY, MRI - 3<sup>rd</sup> QUARTER 2005

Month	Clinically Suspected	Serologically Confirmed
July	22	13
August	34	21
September	10	03
<b>TOTAL</b>	<b>66</b>	<b>37</b>

#### 15. ENTOMOLOGICAL SURVEILLANCE OF DENGUE VECTORS

Results of the entomological surveillance carried out by the Medical Research Institute, in selected MOH areas of Colombo and Gampaha districts, for the 3<sup>rd</sup> quarter 2005 are given in Table 13.

Surveillance activities were carried out in locations identified as 'high-risk' by the respective MOOH and action has been taken to eliminate the breeding sites detected.

Breteau Index

$$= \frac{\text{No. of Positive containers}}{\text{No. of premises inspected}} \times 100$$

Table 11.

**AEDES LARVAL DENSITIES  
(BRETEAU INDEX) IN COLOMBO AND  
GAMPAHA DISTRICTS  
– 3<sup>rd</sup> QUARTER 2005**

Area	April		May		June	
	(A)	(B)	(A)	(B)	(A)	(B)
Colombo MC	3.46	1.8	4.89	3.4	7.2	4.05
Maharagama	5.28	13.82	2.91	7.27	1.82	12.73
Moratuwa	7.55	7.55	3.2	0.8	7.6	3.2
Kaduwela	5.2	10.8	4.9	7.56	4.73	7.64
Kelaniya	6.66	14.66	4.66	6.33	8.5	13
Ragama	2.18	20.3	0	7.0	1.44	10.47
Ja-Ela	5.45	9.1	7.0	12.67	8.36	15.64

(A) = *Aedes aegypti*

(B) = *Aedes albopictus*

Number of premises examined per area =  
300

## 17. SURVEILLANCE AT SEA PORT

Surveillance activities carried out by the Port Health Office at Colombo Harbour during the 3<sup>rd</sup> quarter 2005 is given below.

### 1. Yellow Fever Vaccination

Total number vaccinated - 38

### 2. Granting Pratique to Vessels

No. issued - 1079

### 3. Deratting Certification

No. issued - 77

Vaccinations carried out by the Assistant Port Health Office, Colombo 8, during the 3<sup>rd</sup> quarter 2005 is given below.

	Total
a. Yellow fever	295
b. Meningococcal Meningitis	246
c. TAB	172

## 18. SEXUALLY TRANSMITTED DISEASES QUARTERLY SUMMARY

Statistics relating to sexually transmitted diseases including HIV/AIDS received from the National STD/AIDS Control Programme are given in Table 12.

Table 12.

**NEW EPISODES OF STD/HIV/AIDS REPORTED OR TREATED AT STD CLINICS IN SRI LANKA\* - 3<sup>rd</sup> QUARTER 2005**

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 <sup>1</sup>	15	23	38	54	44	98
AIDS	3	3	6	14	7	21
Early Syphilis <sup>2</sup>	29	19	48	76	38	114
Syphilis Late Syphilis <sup>3</sup>	94	108	202	234	277	511
Congenital Syphilis <sup>4</sup>	0	1	1	7	3	10
Gonorrhoea <sup>5</sup>	256	68	324	783	220	1003
Ophthalmia neonatorum <sup>6</sup>	5	13	18	13	17	30
Non specific cervicitis/urethritis	173	267	440	482	833	1315
Chlamydial Infection	11	7	18	15	10	25
Genital Herpes	178	199	377	573	556	1129
Genital Warts	171	91	262	458	265	723
Chancroid	1	0	1	4	1	5
Trichomoniasis	5	42	47	11	101	112
Candidiasis	247	316	563	672	840	1512
Bacterial Vaginosis	1	243	244	5	725	730
Other sexually transmitted diseases <sup>7</sup>	111	54	165	313	138	451
Non-venerial <sup>8</sup>	993	581	1574	2693	1667	4360

\* Central STD clinic Colombo and peripheral STD clinics of National STD/AIDS Control Programme of Sri Lanka

\*\* - includes adjustments for revised diagnosis, reporting delays or any other amendments

<sup>1</sup> - includes AIDS cases

<sup>2</sup> - Diagnosed within 2 years of infection and considered to be infectious

<sup>3</sup> - Diagnosed after 2 years of infection and considered to be non-infectious

<sup>4</sup> - includes both early and late cases

<sup>5</sup> - includes presumptive gonorrhoea

<sup>6</sup> - includes both gonococcal and chlamydial conjunctivitis in neonatal period

<sup>7</sup> -includes Lympho granuloma venerium, Granuloma inguinalae, Molluscum contagiosum, Scabies, Tinea, Hepatitis B etc.

<sup>8</sup> - Number of STD clinic attendees who were not having sexually transmitted diseases.

**MEDICAL RESEARCH INSTITUTE**

**19. BACTERIOLOGY REPORT – 3<sup>RD</sup> QUARTER 2005**

Table 13.

	July	August	September
<b>(A) CHOLERA</b>			
No. of stool spe. examined	-	-	01
No. of <i>El. tor</i> cholera	-	-	-
Ogawa	-	-	-
Inaba	-	-	-
Cholera 0139	-	-	-
<b>(B) SALMONELLA</b>			
Blood No. examined	79	81	49
<i>S. typhi</i>	-	-	-
<i>S. paratyphi</i>	-	-	-
Stools – No. examined	187	134	126
No. +ve <i>S. typhi</i>	01	-	-
<i>S. paratyphi</i> A	-	-	-
Others	02	02	-
<b>(C) SHIGELLA</b>			
No. of spec. examined	187	134	126
No. +ve <i>Sh. flexneri</i> 1	01	-	-
<i>Sh. flexneri</i> 2	05	01	02
<i>Sh. flexneri</i> 3	-	-	-
<i>Sh. flexneri</i> 4	-	-	-
<i>Sh. flexneri</i> 5	-	-	-
<i>Sh. flexneri</i> 6	02	01	02
<i>Sh. sonnei</i>	10	10	06
<i>Sh. others</i>	-	01	-
<b>(D) ENTEROPATHOGENIC</b>			
<i>E. coli</i>			
No. of spec, examined	99	73	58
No. +ve Group A	01	02	05
<b>(E) CAMPYLOBACTOR SPECIES</b>			
	07	02	08

## Surveillance of Acute Flaccid Paralysis 2003-2004

In 1944 Poliomyelitis was made a notifiable disease in Sri Lanka. In 1988 as a strategy for polio eradication a standard case definition of a suspected case of Poliomyelitis was circulated among the medical profession as a case of Acute Flaccid Paralysis occurring in a child under 15 years age. The last case of confirmed polio was reported in a female child aged 2 years resident in Kataragama in the DPDHS Division of Moneragala. Polio virus P1 wild was isolated and the child has had only 2 doses of OPV.

The Epidemiological Unit is the central co-ordinating agency for the programme, receiving information about AFP cases from Medical Officers of Health (MOOH) as well as from Medical officers in curative institutions where the patients seek treatment.

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 three days a week and checks the wards for cases of AFP. In addition, sentinel surveillance sites have been set up in every DPDHS Division since 1996 where a Regional Epidemiologist (RE) is in place. A monthly report of cases of AFP including a nil report is received from the REs at the Epidemiological Unit in Colombo.

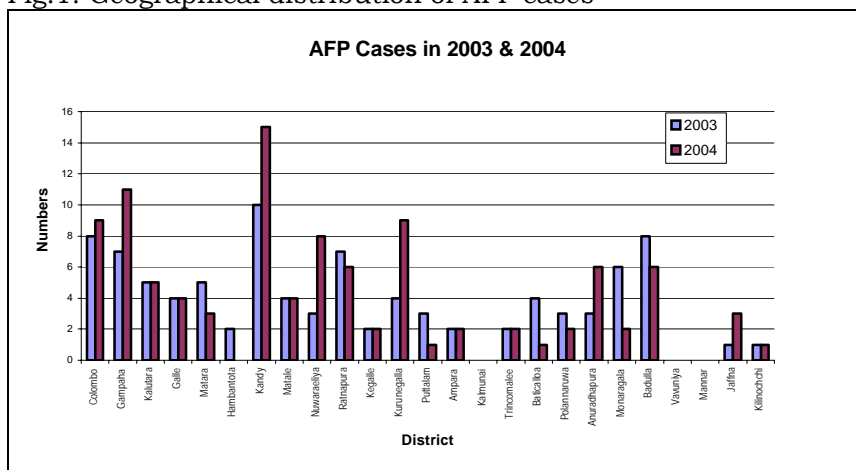
In addition weekly reports of AFP cases including zero or nil reports from 50 large hospitals in the entire country are being monitored at the Central Epidemiological Unit.

### Geographical Distribution of AFP cases 2003 - 2004

A total number of 102 cases of AFP were reported in the year 2004 (Fig.1). The highest number, 15 was reported from Kandy DPDHS Division. Eleven cases were reported from Gampaha DPDHS Division and 9 cases each were reported from Colombo and Kurunegala DPDHS Divisions. Eight cases of AFP were reported from Nuwara Eliya DPDHS Division. Six cases each were reported from Ratnapura, Anuradhapura and Badulla DPDHS Divisions. Hambantota and Vavunia/Mannar DPDHS divisions reported no AFP cases for year 2004. (Fig.1)

A total of 94 AFP cases were reported for the year 2003 (Fig.1). The highest number of cases, 10 was reported from Kandy DPDHS Division. Eight cases each were reported from DPDHS Divisions Colombo and Badulla. Seven cases each were reported from Kalutara and Ratnapura DPDHS Divisions while 6 cases were reported from Moneragala. Five cases were reported from Matara DPDHS Division. Four cases each were reported from Galle, Matale, Kurunegala and Batticaloa DPDHS division. All the DPDHS divisions had reported expected number or more cases of AFP (Fig.1)

Fig.1. Geographical distribution of AFP cases



### Seasonal Distribution of AFP Cases 2003– 2004

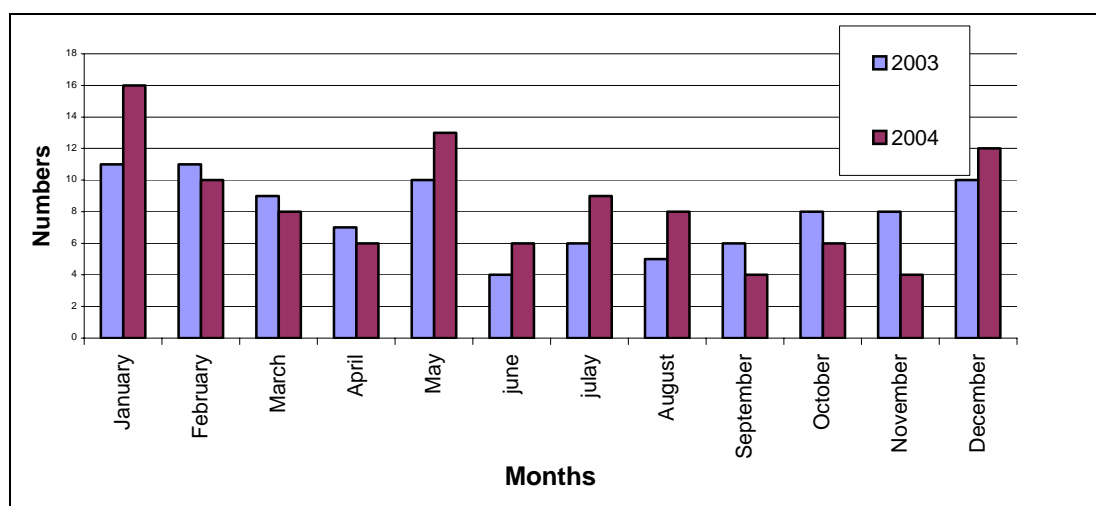
In the year 2004, the highest number (16) of cases was reported in the month of January. Thirteen cases were reported in the month May and 12 cases were reported in December. The number of cases reported in February was 10, and 8 cases each were reported in March and August. Six cases each were reported in the months of April, June and October. Six cases each were reported in the months of January, May and August. The lowest number (04) of cases each were reported in September and November 2004.

In 2003 the highest number of cases (11) was reported in the months of January and February.

Ten cases each were reported in the months of May and December. There were 9 cases in the month of March and 8 cases each in October and November. The lowest number (04) of cases was reported in the month of June.

(Fig. II)

### Distribution of AFP Cases 2003 and 2004



### Age and Sex Distribution of AFP Cases 2003- 2004

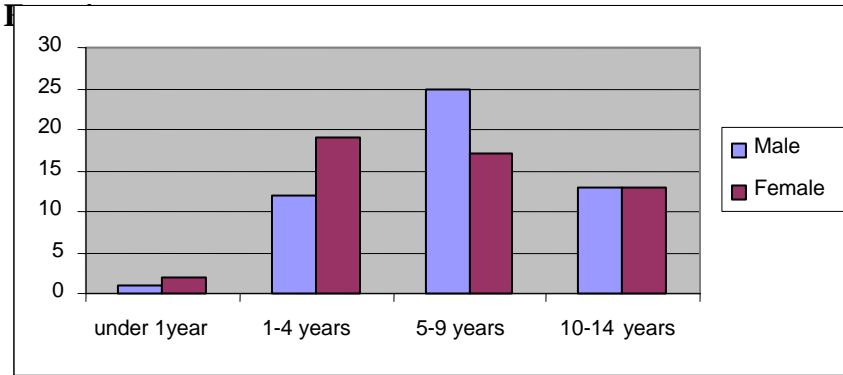
In the year 2004, out of the 102 cases, half of the children (51) were males and the other half was females. There were 3 (3%) cases under 1 year of age, 31 (30%) cases between 1 – 4 years of age and 42 cases (41%) between 5 –

9 years of age. There were 26 cases (25%) between 10-14 age category.

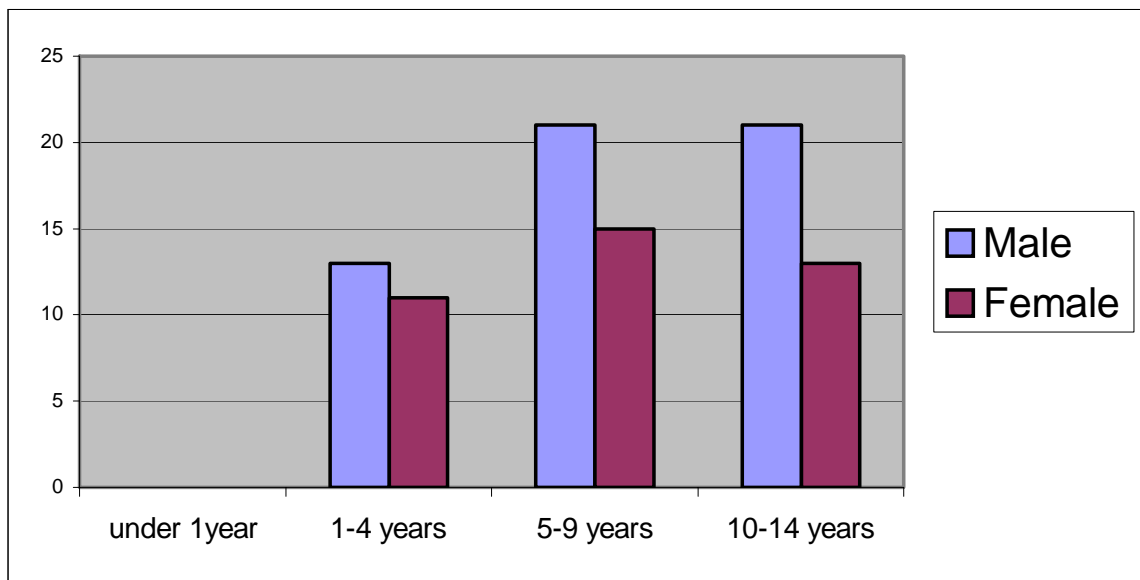
In 2003 out of the total of 94 AFP cases, 55 were males and 39 were female children. There were 24 (25%) cases under 5 years of age and 36 (38%) cases between 5 – 9 years of age. Thirty four (36%) cases between 10 – 14 years of age. (Fig.III).

**(Fig.IV)**

Age and Sex Distribution of AFP Cases 2004



Age and Sex Distribution of AFP Cases 2003





## Immunization Status of AFP Cases 2003 - 2004

All AFP cases reported during the year 2004 and 2003 were immunized appropriately to their age.

### Final Diagnosis of AFP Cases 2003 and 2004

In 2003 all 94 cases reported were assigned a final diagnosis. Eighty-five cases (90%) were Guillan Barre syndrome (GBS). Two (02) cases were Transverse Myelitis (3%) . There was one case each of Bells palsy, Glioma, Viral Myositis, Hemiplegia, Astrocytoma, Transient sinuvitis and Cerebellitis.

In the year 2004 all 102 cases reported were assigned a final diagnosis. Eighty seven (85%) cases were diagnosed as Guillain-Barre Syndrome (GBS). One (01 case was diagnosed as Transverse myelitis (1%),

**Table 14. Distribution of final diagnosis of AFP cases 2003-2004**

Disease	2004	2003
Guillan Barre Syndrome	87	85
Transverse Myelitis	01	02
Encephalomyelitis	01	-
Viral myositis/myalgia	01	01
Inflammatory myopathy	01	-
Craniopharyngioma	01	-
Root lesion	01	-
Cerebellar ataxia	01	-
Periodic paralysis	04	-
Hemiplegia	01	-
Others	03	06
Total	102	94

Feed back of AFP cases reported from each DPDHS area with the specific MOH areas is sent to all the DPDHSs, REs, MOOH, all the Heads of the Institutions and all the clinicians weekly through the Weekly Epidemiological Report. In addition to the feed back sent through the weekly epidemiological report a

case based feed back is sent to the Paediatricians, Regional Epidemiologists, MOH of the area and to the Infection Control Nursing Officer or the PHI of the relevant Institution, for each case notified after a final diagnosis is reached.

### Indicators of Disease Surveillance and Laboratory performance 2003 and 2004

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

In Sri Lanka during the year 2004 non polio AFP rate (Number reported/number expected) was 1.9/100,000 population under 5 years of age.

In the year 2003, 94 cases of AFP were reported to the Epidemiological Unit giving an AFP rate of 1.77/100,000 population under 15 years.

In 2004 there were three DPDHS areas which reported no AFP cases.

In the year 2003 all the DPDHS areas in the country have reported the expected number or

more cases of AFP. The AFP rate is monitored for each DPDHS Division and surveillance is strengthened in those districts where the AFP rate is 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 all notifiable diseases to the Epidemiological Unit.

In year 2004 the completeness of weekly reporting is 81%.

For the year 2003 the average weekly reporting of notifiable disease was 85%.

### 2.2 Weekly reporting of AFP cases from institutions.

In 2004 there were 50 sentinel sites and the completeness of reporting from those institutions, was 86%.

During 2003, same 50 hospitals were identified as weekly reporting sites. The completeness of weekly reporting of AFP cases in 2003 was 87%. Weekly reporting from the hospitals in these two years was satisfactory.

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

Since year 2001, 24 institutions were identified as monthly reporting sites and the completeness of monthly reporting from those 24 sites was 82% during the year 2004.

During the year 2003 the completeness of monthly reporting was 93%. Monthly reporting of cases were poor compared to the previous year because of the vacant Regional Epidemiologist posts.

## 3. Timeliness of reporting.

### 3.1. Weekly reporting of Notifiable Diseases

The weekly reports received within a week from the due date are considered as timely. During the year 2004 the timeliness of reporting was 60%. In 2003 the timeliness of reporting was 50%.

### 3.2. Weekly reporting of AFP cases from institutions.

During the year 2003 the timeliness of reporting was 70%. In 2002 it was 40%. Timeliness of the returns from institutions in year 2003 was good compared to the previous years and this is due to the strengthened surveillance activities and the repeated supervisions done by the central as well as the regional level.

### 3.3. Monthly reporting of AFP cases by REE / MOOH. (Target > 80%)

The monthly reports received before the 20<sup>th</sup> of the following month are considered as timely. Timeliness of monthly reporting was 55% in the year 2004 and 39% in 2003.

## 4. Reported AFP cases investigated within 48 hrs. of report (Target >= 80%)

In the year 2004 100% of the AFP cases were investigated within 48 hours of notification.

In 2003 also all the cases reported (100%) 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%)

In 2003, 2 samples of stools were collected, within 14 days of the onset of paralysis for virology from 87 (93%) cases of the 94 cases reported. Any samples of stools were sent from 93 (99%) cases.

In 2004, two samples within 14 days of onset of paralysis were collected and sent for virology from 86 cases (84%) of the 102 cases reported. Any sample of stool was sent from all 99 (97%) cases.

The target (80%) for the above indicator has been achieved for both years 2003 and 2004.

Stool samples from contacts.

Stools samples are collected from 3 to 5 contacts of AFP cases. The contact stool sampling was satisfactory during 2004 and in 2003. In 2004, samples of stools were collected from contacts of 86 (84%) AFP cases and in 2003 samples of stools were collected from contacts of 79 AFP cases (84%).

## 6. Reported AFP cases with a follow-up examination at least 60 days after onset of

**paralysis to verify the presence of residual paralysis or weakness (Target  $\geq 80\%$ )**

All the reported cases were followed up after 60 days of onset of paralysis by Regional Epidemiologists/ Assistant Epidemiologists for residual paralysis. In cases where the presence of residual paralysis was doubtful, an Assistant Epidemiologist assessed them in the field. In 2004, all the cases (100%) reported were followed up after 60 days of onset of paralysis.

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

In the year 2003, 99% of the samples of stools had been received within 03 days of being collected. In 2004 samples of stools had been received within 03 days of being collected from 92% of the samples sent.

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

In 2003 143 samples of stools were collected from 94 AFP cases and 136 samples were in good condition (95%)

In the year 2004, 224 samples of stools were collected from the 102 AFP cases. Out of these, 218 (97%) specimens of stools were received at MRI in 'good' condition.

Good condition means that upon arrival:

- a) There is ice in the container
- b) Specimen volume is adequate
- c) There is no evidence of leakage or desiccation
- d) Appropriate documentation is complete

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

In 2003, out of the total samples of stools collected and sent, results of all specimens of stools were reported within 28 days and in 2004 results of all 102 (100%) samples of stool were reported within 28 days.

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

Non polio enterovirus was isolated from 18 samples of stools out of the total number 143 collected for the year (13%) 2003. In 2004, 8.25% of the samples were positive for

non-polio enteroviruses, out of the total number collected. Wild poliovirus was not isolated at the MRI during 2003 & 2004.

**Polio Expert Committee Meetings 2003 & 2004**

The Expert Committee consists of a paediatrician, a virologist, an epidemiologist, a neurologist and a consultant clinical neurophysiologist. The expert committee met once every quarter in 2003 and 2004 and discussed the doubtful cases of AFP which were 6 in number for 2003 and 5 for 2004. All were reviewed and discarded by the Expert committee as non Polio cases.

## 21. SUMMARY OF NOTIFIABLE DISEASES – 3<sup>RD</sup> QUARTER (JULY - SEPTEMBER) 2005

Table 15.

Health Region	Cholera	* Acute Flaccid Paralysis (AFP)	Dysentery	Dengue Haemorrhagic Fever	Encephalitis	Enteric Fever	Food Poisoning	Human Rabies	Leptospirosis	Measles	Simple Comtd. Fever	Tetanus	Typhus Fever	Viral Hepatitis
Colombo	0		94	814	0	15	12	0	39	0	13	0	0	31
Gampaha	0		81	593	0	22	23	1	98	0	5	0	2	50
Kalutara	0		122	120	0	14	21	1	26	0	7	1	2	10
Kandy	0		105	197	1	39	4	1	16	0	2	0	22	36
Matale	0		73	20	0	4	15	0	3	0	0	1	0	7
Nuwara Eliya	0		51	9	0	69	1	0	3	0	3	1	4	7
Galle	0		46	45	3	4	0	0	37	0	1	0	3	3
Hambantota	0		134	22	0	2	6	0	4	0	1	0	28	4
Matara	0		35	58	0	9	3	0	33	0	2	0	49	6
Jaffna	0		78	4	0	63	7	0	0	0	1	0	5	17
Kilinochchi	0		27	2	0	6	25	0	0	0	0	0	0	3
Mannar	0		10	0	0	16	0	0	0	0	0	0	0	9
Vavuniya	0		45	2	2	25	15	1	0	0	0	0	0	2
Mullativu	0		8	0	0	13	1	0	0	0	0	0	0	4
Batticaloa	0		13	2	1	5	1	0	0	0	0	0	0	84
Ampara	0		46	4	0	3	4	0	3	0	0	0	0	21
Trincomalee	0		88	5	0	10	12	2	0	0	0	1	0	36
Kurunegala	0		116	28	1	26	1	1	5	0	4	0	4	17
Puttalam	0		30	26	0	52	0	0	11	0	0	0	0	10
Anuradhapura	0		51	26	1	3	79	1	12	0	0	1	0	7
Polonnaruwa	0		18	24	0	13	0	0	1	0	0	0	0	2
Badulla	0		154	13	0	60	8	1	13	0	0	0	37	54
Moneragala	0		57	9	0	22	12	1	8	0	4	0	48	30
Ratnapura	0		179	195	2	57	4	1	23	0	4	1	1	46
Kegalle	0		78	61	2	10	2	0	50	2	2	0	19	31
Kalmunai	0		38	0	0	9	1	0	0	0	0	0	3	139
<b>TOTAL</b>	<b>0</b>		<b>1777</b>	<b>2279</b>	<b>13</b>	<b>571</b>	<b>257</b>	<b>11</b>	<b>385</b>	<b>2</b>	<b>49</b>	<b>6</b>	<b>227</b>	<b>666</b>

\* No polio cases. (from AFP surveillance system).

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