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## 1. POLIOMYELITIS

A total of 26 cases of Acute Flaccid Paralysis (AFP) was notified in the 2<sup>nd</sup> quarter of 2004 compared to 34 cases notified in the previous quarter.

The distribution of these 26 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 KANDY</b>	<b>7</b>
MOH Kadugannawa	1
MOH Galagedara	1
MOH Nawalapitiya	1
MOH Kundasale	1
MOH Akurana	1
MOH Poojapitiya	1
MOH Udunuwara	1

<b>DPDHS POLONNARUWA</b>	<b>1</b>
MOH Dimbulagala	1

<b>DPDHS GAMPAHA</b>	<b>5</b>
MOH Negombo	1
MOH Divulapitiya	1
MOH Katana	1
MOH Dompe	2

<b>DPDHS KALUTARA</b>	<b>2</b>
MOH Panadura	1
MOH Beruwala	1

<b>DPDHS NUWARA ELIYA</b>	<b>4</b>
MOH Thalawakele	2
MOH Rikillagaskada	2

<b>DPDHS ANURADHAPURA</b>	<b>2</b>
MOH Thambuttegama	1
MOH Rajanganaya	1

<b>DPDHS MONERAGALA</b>	<b>1</b>
MOH Bibile	1

<b>DPDHS KURUNEGALA</b>	<b>1</b>
MOH Mahawa	1

<b>DPDHS AMPARA</b>	<b>1</b>
MOH Uhana	1

<b>DPDHS TRINCOMALEE</b>	<b>1</b>
MOH Trincomalee	1

<b>DPDHS BADULLA</b>	<b>1</b>
MOH Kandeketiya	1

### Age and Sex Distribution

Table 1 shows the age and sex distribution of the 26 cases reported during the quarter.

Table 1.

#### AGE AND SEX DISTRIBUTION OF 26 AFP CASES – 2<sup>ND</sup> QUARTER 2004

Age Group	Sex		Total
	Male	Female	
Below 1 year	0	2	2
1 – 4 years	2	6	8
5 – 9 years	7	3	10
10 – 14 years	4	2	6
<b>Total</b>	<b>13</b>	<b>13</b>	<b>26</b>

## Surveillance

The distribution of these 26 cases of AFP according to notifications from hospitals is as follows:

Hospital	No. of cases
Lady Ridgeway Hospital (LRH)	09
National Hospital Sri Lanka (NHSL)	02
Teaching Hospital (T.H.) Ragama	02
T.H. Kandy	06
T.H. Peradeniya	03
General Hospital (G.H.) Anuradhapura	01
G.H. Trincomalee	01
G.H. Badulla	02

### 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)	25	100.0
(2) At least 1 stool sample collected within 14 days of onset of paralysis (and received by MRI, Colombo)	22	92.0
(3) Two stool samples collected within 14 days of onset of paralysis (and received by the MRI, Colombo)	22	92.0

MRI – Medical Research Institute

## 2. ENTERIC FEVER

In the 2<sup>nd</sup> quarter of 2004, 607 cases of enteric fever were reported to the Epidemiological Unit, compared to 774 cases in the previous quarter and 744 cases in the corresponding quarter of 2003. A large number of cases was reported from the following MOH areas.

MOH Area	No. of cases
Kolonna	25
Manipay	24
Point Pedro	23

The distribution of notification of data of Enteric Fever cases by DPDHS divisions is given in Table 2.

## 3. VIRAL HEPATITIS

In the 2<sup>nd</sup> quarter of 2004, 636 cases of viral hepatitis were reported to the Epidemiological Unit, compared to 954 cases in the previous quarter and 749 cases in the corresponding quarter of 2003.

## 4. BACILLARY DYSENTERY

A total of 2,478 bacillary dysentery cases was reported in the 2<sup>nd</sup> quarter of 2004, compared to 1,357 cases in the previous quarter of 2004 and 2,247 cases in the corresponding quarter of last year. The highest number of cases were reported from the following MOH areas.

MOH Area	No. of cases
Yatawatta	181
Girandurukotte	59
Kurunegala	53
Matugama	43
Panadura	41

The distribution of bacillary dysentery cases by DPDHS divisions is given in Table 2.

## 5. CHOLERA

In the 2<sup>nd</sup> quarter of 2004, no cases of cholera were reported to the Epidemiological Unit, Colombo.

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

## 6. TETANUS

In the 2<sup>nd</sup> quarter of 2004, 15 cases of tetanus were reported to the Epidemiological Unit compared to 15 cases in the previous

quarter and 11 cases in the 2<sup>nd</sup> quarter of 2003.

## 7. MEASLES

A total of 22 cases was reported during the 2<sup>nd</sup> quarter of 2004 compared to 20 cases in the previous quarter and 09 cases in the 2<sup>nd</sup> quarter of 2003. .

## 8. HUMAN RABIES

In the 2<sup>nd</sup> quarter of 2004, 25 human rabies cases were notified to the Epidemiological Unit, compared to 20 cases in the previous quarter and 22 cases in the 2<sup>nd</sup> quarter of 2003. .

The information on rabies control activities received from the Director, Public Health Veterinary Services is given below.

### Human Rabies

Twenty five (25) human rabies cases were reported in the 2<sup>nd</sup> quarter 2004 compared to 20 cases in the previous quarter and 22 cases in the corresponding quarter of last year.

Highest incidence of rabies was reported from Colombo district i.e. (3 cases) compared to 3 cases in the previous quarter and 1 case in the corresponding quarter of last year.

### Animal Rabies

One hundred and twenty two (122) dogs were reported positive for rabies compared to 154 positives in the previous quarter and 121 positives in the same period in the last year.

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

Cats – 09, Wild animals – 05,  
Domestic ruminants – 02

## Rabies Control Activities

**Dogs vaccinations** – A total of 201,847 dogs were immunized during the 2<sup>nd</sup> quarter 2004 compared to 211,749 in the previous quarter and 189,767 in the corresponding quarter of last year.

**Stray dogs elimination** – A total of 21,203 dogs were destroyed during the 2<sup>nd</sup> quarter 2004 compared to 23,943 in the previous quarter and 15,052 in the corresponding quarter of last year.

## 9. TUBERCULOSIS

A total of 2,127 tuberculosis patients were registered for the 2<sup>nd</sup> quarter.

Of this total, 1,777 suffered from pulmonary disease, while the balance 350 patients suffered from non pulmonary disease.

There are 1,170 bacteriologically confirmed cases and the bacteriological confirmation rate is 65.8%.

The distribution of tuberculosis patients registered for the 2<sup>nd</sup> quarter 2004 by health divisions is given in Table 3.

One thousand nine hundred and one (1901) tuberculosis patients were admitted to government hospitals for treatment.

### B.C.G. Vaccination

A total of 91,093 B.C.G. vaccinations was carried out during the 2<sup>nd</sup> quarter 2003.

Infants (under 1 year)	90,092
Pre-school children	387
School children	614
Total	91,093
	=====

Table 2. .

**NOTIFICATION OF DYSENTERY AND ENTERIC FEVER CASES TO THE  
EPIDEMIOLOGICAL UNIT IN THE 2<sup>ND</sup> QUARTER OF 2004  
BY DPDHS DIVISIONS**

<b>DPDHS Division</b>	<b>Dysentery</b>	<b>Enteric Fever</b>
Colombo	137	15
Gampaha	139	21
Kalutara	215	18
Kandy	170	35
Matale	283	14
Nuwara Eliya	95	41
Galle	81	4
Hambantota	91	8
Matara	88	31
Jaffna	20	66
Vavuniya	13	2
Mullativu	0	6
Ampara	26	4
Batticaloa	12	2
Trincomalee	137	23
Kurunegala	246	49
Puttalam	51	56
Anuradhapura	37	15
Polonnaruwa	23	6
Badulla	206	46
Moneragala	52	23
Kegalle	182	6
Ratnapura	129	84
Kilinochchi	0	0
Mannar	28	22
Kalmunai	17	10
<b>Total</b>	<b>2478</b>	<b>607</b>

Table 3.

**REGISTRATION OF TUBERCULOSIS PATIENTS BY DPDHS DIVISIONS  
2<sup>ND</sup> QUARTER 2004**

DPDHS Division	* P.T.B.	** O.T.B.	Total	Pulmonary TB Direct Smear Positive	
				No.	Percentage
Colombo	364	64	428	308	84.6
Gampaha	202	29	231	161	79.7
Kalutara	113	22	135	86	76.1
Kandy	128	36	164	66	51.5
Matale	50	08	58	23	46.0
Nuwara Eliya	23	16	39	10	43.4
Hambantota	27	04	31	19	70.3
Matara	30	10	40	20	66.6
Galle	81	15	96	72	88.8
Jaffna	26	13	39	22	84.6
Vavuniya	08	06	14	07	87.5
Mannar	14	-	14	05	35.7
Trincomalee	52	04	56	18	34.6
Ampara	25	09	34	13	52.0
Batticaloa	46	05	51	27	58.6
Puttalam	41	10	51	22	53.6
Kurunegala	162	15	177	57	35.1
Polonnaruwa	48	07	55	24	50.0
Anuradhapura	43	15	58	28	65.1
Badulla	43	24	67	32	74.4
Moneragala	16	05	21	13	81.2
Ratnapura	115	14	129	68	59.1
Kegalle	115	16	131	65	56.5
Kilinochchi	04	02	06	04	100.0
Mullativu	01	01	02	-	100.0
<b>TOTAL</b>	<b>1777</b>	<b>350</b>	<b>2127</b>	<b>1170</b>	<b>65.8</b>

\* PTB – Pulmonary Tuberculosis      \*\*OTB – Other Tuberculosis  
Source: Respiratory Disease Control Programme

Table 4.

**AGE AND SEX DISTRIBUTION OF TUBERCULOSIS PATIENTS  
2<sup>ND</sup> QUARTER 2004**

Age group in years	Male	Female	Total
Under 5	15	11	26
5 – 9	08	11	19
10 –14	15	18	33
15 –19	31	30	61
20 –24	101	98	199
25 –29	81	64	145
30 –34	107	66	173
35 –39	118	67	185
40 –44	168	40	208
45 –49	184	56	240
50 –54	193	58	251
55 –59	139	39	178
60 –64	107	33	140
65 –69	91	26	117
70 –74	69	32	101
75 +	31	20	51
<b>TOTAL</b>	<b>1458</b>	<b>669</b>	<b>2127</b>

## 10. MALARIA

	2 <sup>nd</sup> Quarter 2003	2 <sup>nd</sup> Quarter 2004
No. of blood smears examined	279,901	296,696
No. of positives	2,184	783
No. of <i>P. vivax</i>	1,660	620
No. of <i>P. falciparum</i>	515	148
No. of mixed infections	09	15
Slide Positivity Rate (S.P.R.)	0.8%	0.3%
P.v. : P.f. ratio	3 : 1	6.8:1
No. of infant positives	49	03
Percentage of infant positives	2.2%	0.4%

## 11. LEPROSY

A total of 382 cases of leprosy was registered during the quarter. Table 5 and 6 give the distribution of 382 cases of leprosy by districts, sex and type of patients.

Table 5.

**SEX DISTRIBUTION OF 382 NEW CASES OF LEPROSY  
2<sup>ND</sup> QUARTER 2004**

<b>RDHS Division</b>	<b>Male</b>	<b>Female</b>	<b>Total</b>
Colombo	32	29	61
Gampaha	28	26	54
Kalutara	19	20	39
Kandy	05	00	05
Matale	02	00	02
Nuwara Eliya	01	01	02
Galle	08	04	12
Hambantota	07	05	12
Matara	12	09	21
Jaffna	04	05	09
Kilinochchi	-	-	-
Mannar	02	03	05
Vavuniya	00	01	01
Mullativu	05	00	05
Ampara	07	02	09
Batticaloa	10	06	16
Trincomalee	06	02	08
Kurunegala	14	08	22
Puttalam	10	05	15
Anuradhapura	15	10	25
Polonnaruwa	05	08	13
Badulla	01	02	03
Moneragala	02	01	03
Kegalle	03	02	05
Ratnapura	16	11	27
Kalmunai	06	02	08
<b>TOTAL</b>	<b>382</b>	<b>220</b>	<b>162</b>

Source: Leprosy Campaign



Table 6.

**DISTRIBUTION OF 382 NEW CASES OF LEPROSY BY TYPE OF DISEASE AND DISTRICT – 2<sup>ND</sup> QUARTER 2004**

RDHS Division	Multi Bacillary (M.B.)		Pauci Bacillary (P.B.)		Total
	M.B. Adult	M.B. Children	P.B. Adult	P.B. Children	
Colombo	20	03	30	08	61
Gampaha	18	05	23	08	54
Kalutara	13	01	21	04	39
Kandy	02	00	03	00	05
Matale	00	00	02	00	02
Nuwara Eliya	02	00	00	00	02
Galle	06	00	05	01	12
Hambantota	06	00	06	00	12
Matara	11	00	07	33	51
Jaffna	00	00	08	01	09
Kilinochchi	-	-	-	-	-
Mannar	03	00	02	00	05
Vavuniya	01	00	00	00	01
Mullativu	04	00	00	01	05
Ampara	04	00	03	02	09
Batticaloa	09	01	05	01	16
Trincomalee	05	01	02	00	08
Kurunegala	09	00	11	02	22
Puttalam	09	00	06	00	15
Anuradhapura	14	00	09	02	25
Polonnaruwa	07	01	05	00	13
Badulla	01	00	02	00	03
Moneragala	00	00	02	01	03
Kegalle	01	00	04	00	05
Ratnapura	08	01	15	03	27
Kalmunai	01	00	07	00	08
<b>TOTAL</b>	<b>154</b>	<b>13</b>	<b>178</b>	<b>37</b>	<b>412</b>

Source: Leprosy Campaign

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

In the 2<sup>nd</sup> quarter of 2004, 21 cases of Japanese Encephalitis (clinical) and 04 deaths were notified to the Epidemiological Unit; this compares with 35 cases and 01 death in the previous quarter and 14 cases and no deaths in the corresponding quarter of last year.

The distribution of Japanese Encephalitis cases by DPDHS divisions is given in Table 9.

## **13. DENGUE FEVER (D.F.)/DENGUE HAEMORRHAGIC FEVER (D.H.F.)**

A total of 5711 cases of Dengue Fever (DF)/Dengue Haemorrhagic Fever (DHF)

and 44 deaths were reported during the 2<sup>nd</sup> quarter 2004. This compares with 199 suspected DF/DHF cases and 4 deaths in the corresponding quarter of last year. (Data from special surveillance system).

## **14. 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 6.

Table 7.

**NEW CASES OR NEW EPISODES OF STD/HIV/AIDS REPORTED OR TREATED AT STD CLINICS IN SRI LANKA\* - 2<sup>ND</sup> QUARTER 2004**

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>		8	5	13	10	9	19
AIDS		5	2	7	8	2	10
Syphilis	Early Syphilis <sup>2</sup>	13	14	27	30	27	57
	Late Syphilis <sup>3</sup>	67	80	147	129	171	300
	Congenital Syphilis <sup>4</sup>	1	1	2	2	2	4
Gonorrhoea <sup>5</sup>		292	105	397	598	189	787
Chlamydial Infection		25	14	39	54	34	88
Ophthalmia neonatorum <sup>6</sup>		2	3	5	9	4	13
Non specific cervicitis/urethritis		149	181	330	299	361	660
Genital Herpes		170	164	334	324	335	659
Genital Warts		133	60	193	225	114	339
Chancroid		0	0	0	0	0	0
Trichomoniasis		4	31	35	4	74	78
Candidiasis		181	257	438	361	500	861
Bacterial Vaginosis		0	177	177	0	358	358
Other sexually transmitted diseases <sup>7</sup>		73	31	104	130	50	180
Non-venerial <sup>8</sup>		663	487	1150	1305	917	2222

\* 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 presumed 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 E.

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

## 15. SURVEILLANCE OF AIR PORT

Surveillance of statistics relating to International Air Port Katunayake received from Medical Officers is given below.

### 1. Yellow Fever Surveillance

a. No. with valid certificate	-	10
b. No. without valid certificate and deported	-	Nil
c. No. without valid certificate and isolated	-	Nil

### 2. Granting Pratique to Aircrafts

a. No. issued	-	3229
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### 3. Passenger Arrival & Departure

a. No. of passengers arrived	-	468426
b. No. of passengers departed	-	446803

### 4. Release of human remains

a. No. of human remains released	-	90
b. No. referred to J.M.O. for postmortem	-	02

5. Surveillance of other infectious diseases	-	Nil
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### 6. Airport Sanitation

a. No. of sanitary inspections carried out including food establishments	-	08
b. No. of food samples taken under Food Act	-	Nil
c. No. found defective	-	Nil
d. No. of court cases/prosecuted	-	Nil

### 7. Other health activities

a. Night blood filming of staff	-	Nil
b. Health talks given to staff	-	Nil

### 8.

a. No. of food consignments inspected	-	206
b. No. released	-	206
c. No. rejected	-	Nil

### 9.

a. No. of water samples taken for bacteriological analysis	-	09
b. No. reported contaminated	-	01

## MEDICAL RESEARCH INSTITUTE

### 16. BACTERIOLOGY REPORT – 2<sup>ND</sup> QUARTER 2004

Table 8.

	April	May	June
(A) CHOLERA			
No. of stool spe. examined	-	-	-
No. of El. tor cholera	-	-	-
Ogawa	-	-	-
Inaba	-	-	-
Cholera 0139	-	-	-
(B) SALMONELLA			
Blood No. examined	46	100	87
S. typhi	03	-	02
S. paratyphi	-	-	-
Stools – No. examined	356	752	793
No. +Ve S. typhi	-	-	-
S. paratyphi A	-	-	-
Others	11	09	06
(C) SHIGELLA			
No. of spec. examined	356	752	793
No. +ve Sh. flexneri 1	-	01	06
Sh. flexneri 2	10	34	25
Sh. flexneri 3	-	-	-
Sh. flexneri 4	-	-	-
Sh. flexneri 5	-	-	-
Sh. flexneri 6	06	06	05
Sh. sonnei	31	152	200
Sh. others dysenteriae	-	-	-
(D) ENTEROPATHOGENIC			
E. coli			
No. of spec, examined	210	370	368
No. +ve Group A	10	25	18

## 17. LEPTOSPIROSIS SURVEILLANCE REPORT - 2003

The worst ever outbreak of leptospirosis in Sri Lanka was reported in year 2003. The number notified to the Epidemiology Unit was 2234 cases (11.6 per 100,000). During the last decade, there has been an increase in the number of leptospirosis cases reported in the country. (Figure 1) This increase may be due to the occurrence of outbreaks of leptospirosis in some districts and also due to the improved case detection. The actual incidence of Leptospirosis is likely to be more than the hospital admission figures, as a large number of patients with mild form of the disease do not seek treatment at all or are being treated by private practitioners, therefore not reported to the epidemiologists. A large number of undiagnosed patients treated at the OPD is not reported to the Epidemiologist, as OPD reporting is poor or due to misdiagnosis. However, it is noticed that there is a lack of notification from some institutions.

The highest number of 1018 (45.6.8%) was reported in Western Province. The highest incidence rate of 32.5/100,000 was reported from Kalutara DPDHS division (Table 17.1). The other DPDHS areas where high numbers of leptospirosis cases reported were; Colombo (335 cases, 14.6/100,000), Gampaha (330 cases, 15.4/100,000), Kegalle (184 cases, 23.3/100,000), Kurunegala (172 cases, 11.6/100,000), Matara (165 cases, 21.3/100,000) and Ratnapura (108 cases, 10.5/100,000). Zero cases were reported from Jaffna, Killinochchi and Mannar. The possibility of under reporting cases in some DPDHS divisions cannot be ruled out.

The disease occurrence was increased during March – May and September -November. (Figure 2) These seasonal trends are important to highlight, particularly in targeting prevention activities.

As in past years possible increased risk among working and physically activated groups was observed. Most of the affected cases were in the age group of 25-44 years (46%). Also a substantial number was

reported from the age groups of 15-24 years (20%) and 45-64 years (26%) too. (Table 17.2) Paddy cultivation takes place in most of these endemic areas and the peak incidence is associated with the paddy harvesting seasons. During this period, there is an increase in the rodent population in and around the fields.

The analysis of 987 investigated confirmed cases in 2003 of leptospirosis cases shows that the male to female sex ratio is 9:1. ( Table 17.3)

Leptospirosis is one of the notifiable diseases in Sri Lanka. The earliest available evidence of leptospirosis having been diagnosed in Sri Lanka was in 1953. Over 19 leptospiral serovars belonging to over 7 sero-groups have been isolated and incriminated as the causative agent for leptospirosis in man and/or animals in Sri Lanka.. It is an endemic disease in many parts of Sri Lanka, and occurs throughout the year. There is no national, ongoing prevention and control programmes for leptospirosis and only ad-hoc programs at the divisional level are carried out by the interested MOOH.

In November 2003, a review was done with the participation of, physicians, microbiologists, epidemiologists, and in high risk and affected areas regional epidemiologists and MOOH to identify specific activities to control and prevent leptospirosis. Sentinel site surveillance was identified as one of major activities to be started next year. It was also highlighted, that leptospirosis control and prevention programme should necessarily to be carried out with the active support and participation of other sectors, such as Agricultural, Livestock, and Irrigation etc at all levels. A media seminar was carried out in order to obtain the maximum support from both printed and electronic media personnel in identified activities to prevent and control leptospirosis. The epidemiology unit will continue the close surveillance of diseases in the country and will provide the technical support and guidance to control leptospirosis in Sri Lanka.

Table 17.1.

**REPORTED CASES OF LEPTOSPIROSIS BY DISTRICTS, 2003**

DPDHS Division	Number Reported	Rate/100,000
Colombo	335	14.6
Gampaha	330	15.4
Kalutara	353	32.5
Kandy	99	7.6
Matale	57	12.6
Nuwaraeliya	14	2.0
Galle	144	14.3
Hambantota	29	5.4
Matara	165	21.3
Jaffna	0	0.0
Kilinochchi	0	0.0
Mannar	0	0.0
Vavunia	1	0.7
Mullativu	2	1.9
Batticaloa	12	2.3
Ampara/Kalmunai	13	2.2
Trincomalee	13	3.6
Kurunegala	172	11.6
Puttalam	28	3.8
Anuradhapura	55	7.2
Polonnaruwa	82	22.1
Badulla	17	2.2
Moneragala	21	5.1
Ratnapura	108	10.5
Kegalle	184	23.3
Total	2234	11.6

Figure 1: Leptospirosis cases Reported 1991-2003

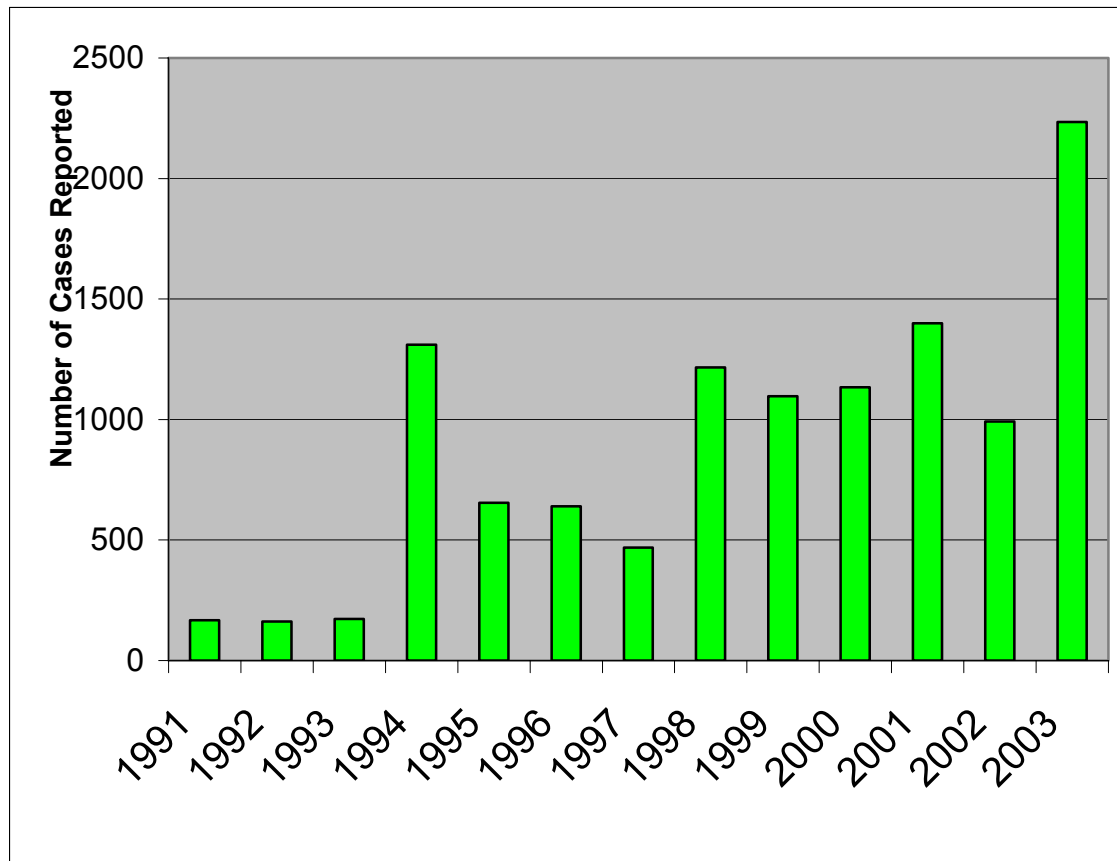




Figure 2: Leptospirosis cases by months 2000-2003

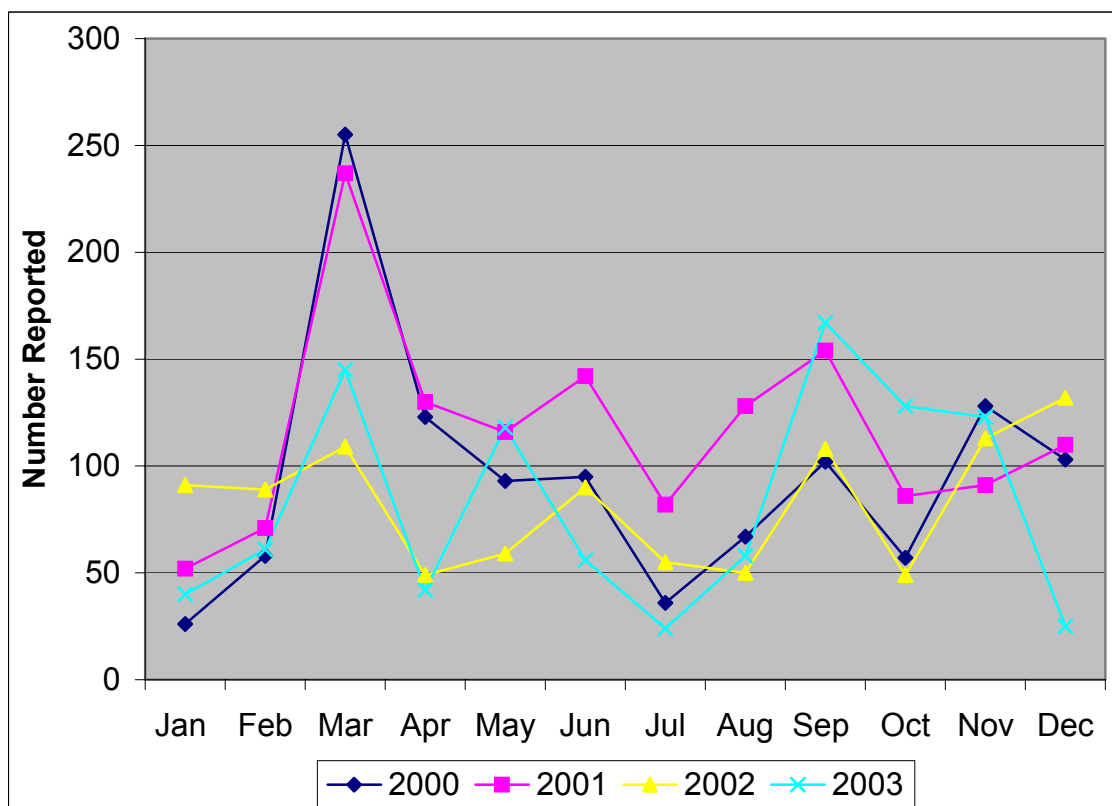


Table 17.2.

**LEPTOSPIROSIS CASES BY AGE**

Age Group (Years)	Number of Cases	%
Below 1	0	0
1 – 14	29	2.9
15 – 24	197	19.9
25 – 44	467	47.3
45 – 64	261	26.4
65 or above	33	3.5

Table 17.3.

**LEPTOSPIROSIS CASES BY SEX**

	Number of Cases	%
Male	892	90.4
Female	95	9.6

## 18. HUMAN RABIES SURVEILLANCE REPORT – 2003

Human rabies is still an important public health issue in Sri Lanka. The burden of human rabies shows the number of lives lost annually and the amount of financial allocations. The total number of cases notified to the Epidemiology Unit during the year 2003 was 86 and of which only 76 confirmed (0.39/100,000) as human rabies. (Table 18.1)

The distribution of notification of human rabies cases by Deputy PDHS is given in Table 18.2. In 2003, the highest number of 8 cases was notified in Kurunegala DPDHS division. The DPDHS divisions Galle, Gampaha and Jaffna also notified a higher number of cases; 7 cases from each district. The highest rate of 0.69/100,000 was reported from North-East Province, where as the lowest is Central province (0.13/100,000).

### Age and Sex Distribution

The age distribution of investigated/confirmed cases of rabies for the years 2003 is given in table 18.3. The highest percentage of cases (63%) occurred in the age group 20-59 years. The next highest percentage of 25% occurred in age group 5-19 years. Zero cases were reported in children less than 1 years of age. Similar pattern of age distribution was shown during 2000 – 2003, where the age group 20-59 years is mostly affected.

Reported male: female ratio of 3:1 highlights the increased susceptibility of males. This may probably be due to their occupational exposure and negligence.

### Exposure Information

Around 50% human rabies cases were due to the stray dogs. (Table 18.4) The dog (82.8%) is the main reservoir as well as the transmitter of rabies in the country. (Table 18.5)

Since the National Rabies Control Programme (NRCP) started in 1975, animal vaccination

and elimination activities are strengthened to a greater extent; dog vaccination and elimination have increased significantly from 1975 to 2003. (Table 18.6) Though the public support for the dog vaccination is remarkable, there is a growing public resistance for dog elimination, particularly from the animal lovers. In years 2002-2003 some local government authorities have completely stopped the dog elimination activities. Dog elimination declined to around 30% in 2003 compared to the year 2002. (Table 18.7) As a result of this decision, the stray dog population has increased in these areas posing an increased exposure risk to the public. In 2003, around 46% reported cases were due to stray animals. (Table 18.4) It is equally important to maintain the dog vaccination strategy as a control measure. Around 35% human rabies cases were due to household animals, which shows high susceptibility and poor vaccination practices among house hold animals. Routine dog vaccination is essential. It not only protects the animal, but also makes the public less susceptible. However, partial and non-scientific dog vaccination practice may even lead to an increase in the risk of rabies. Epidemiological investigation revealed that in some cases post exposure treatment (PET) was not taken or not given assuming the animal was immunized, but actually the animal was not vaccinated completely.

### Rabies Control Programme

Human rabies is a notifiable disease in Sri Lanka. The number of human rabies deaths declined from 377 in 1975 to 76 deaths in 2003. (Table 18.6) The NRCP is to control and prevent human and animal rabies in the country. The Epidemiology Unit is the national center for disease surveillance and carried out all surveillance activities related to human rabies in the country through its wide network at the regional and divisional levels. Strategies of rabies control in Sri Lanka are; surveillance of rabies, immunization of domestic, community and stray dogs against rabies, promotion of responsible dog ownership and birth control for dogs, destruction of stray dogs suspected of incubating the rabies virus, post-exposure treatment, training and health education, enforcement of rabies control

legislation and promotion of multi-sectoral co-operation and community participation.

Most of the lives would have been saved, if they had received the PET as recommended. Public awareness on PET should be strengthened. Also the rational post exposure treatment practices at the hospital should be reviewed regularly as a part of the clinical audit for PET. This is the single most expensive item among the Ministry drug allocations. Exposure opportunities are to be

minimized by integrated activities of control of dog population and vaccination. Periodical review of the efficacy of dog vaccination is another aspect for future research. Strengthening present regulations and creating community responsibility, particularly in dog ownership are equally important in rabies control activity in the country.

Table 18.1.

### MORTALITY AND NOTIFICATION OF HUMAN RABIES CASES – 1991- 2003

Year	Cases (Confirmed)▪		No. of suspected cases notified ▣
	Number	*Rate	
1991	136	0.79	133
1992	112	0.64	112
1993	98	0.55	104
1994	105	0.58	122
1995	124	0.68	178
1996	110	0.59	195
1997	135	0.72	150
1998	111	0.59	123
1999	110	0.58	194
2000	109	0.56	132
2001	83	0.43	105
2002	64	0.33	78
2003	76	0.39	86

Source – ▪Rabies Control Programme ▣ Epidemiology Unit (H399 & H411)

\* Rate per 100,000 population.

Table 18.2.

**NUMBER NOTIFICATION OF HUMAN RABIES CASES BY DPDHS AND PDHS  
DIVISIONS– 2003**

DPDHS / PDHS Division	Number notified		
	N	%	Rate ( per100,000)
Colombo	03	3.9%	0.1
Gampaha	07	9.2%	0.3
Kalutara	02	2.6%	0.2
<b>Western Province</b>	<b>12</b>	<b>15.8%</b>	<b>0.2</b>
Kandy	04	5.2%	0.3
Matale	02	2.6%	0.4
Nuwara Eliya	00	0	0
<b>Central Province</b>	<b>06</b>	<b>7.8%</b>	<b>0.13</b>
Galle	07	9.2%	0.7
Hambantota	01	1.3%	0.2
Matara	01	1.3%	0.1
<b>Southern Province</b>	<b>09</b>	<b>11.8%</b>	<b>0.38</b>
Jaffna	07	9.2%	1.2
Vavuniya	01	1.3%	0.7
Ampara	01	1.3%	0.2
Batticaloa	01	1.3%	0.2
Trincomalee	03	3.9%	0.8
Killinochchi	03	3.9%	1.9
Mannar	02	2.6%	2.0
<b>North-East</b>	<b>18</b>	<b>23.7%</b>	<b>0.69</b>
Kurunegala	08	10.5%	0.5
Puttalam	03	3.9%	0.4
<b>North-Western Province</b>	<b>11</b>	<b>14.5%</b>	<b>0.49</b>
Anuradhapura	02	2.6%	0.3
Polonnaruwa	04	5.2%	1.1
<b>North-Central Province</b>	<b>06</b>	<b>7.8%</b>	<b>0.52</b>
Badulla	02	2.6%	0.3
Moneragala	06	7.8%	1.5
<b>Uva Province</b>	<b>08</b>	<b>10.5%</b>	<b>0.66</b>
Kegalle	02	2.6%	0.3
Ratnapura	04	5.2%	0.4
<b>Sabaragamuwa Province</b>	<b>06</b>	<b>7.8%</b>	<b>0.32</b>
<b>TOTAL</b>	<b>76</b>	<b>100.00</b>	<b>0.39</b>

- Rate per 100,000

Source – Epidemiology Unit (H399 & H411)

Table 18.3.

**AGE AND SEX DISTRIBUTION OF CONFIRMED HUMAN RABIES CASES, 2003**

Age group	2003			
	Male	Female	Total	%
Under 1 year	0	0	0	0
1 – 4 years.	03	03	06	7.9
5 – 19 years	12	07	19	25.0
20 – 59 years	41	07	48	63.2
60 & over	02	01	03	3.9
<b>TOTAL</b>	<b>58</b>	<b>18</b>	<b>76</b>	<b>100</b>

Source – Epidemiology Unit (H411 &amp; EPID/HR/2002))

Table 18.4.

**DISTRIBUTION OF HUMAN RABIES CASES BY TYPE OF BITING ANIMAL – 2003**

Type of Biting Animal	N	%
Household pet	18	23.6
Neighbours pet	09	11.8
Stray	35	46.1
Unknown	14	18.5
<b>TOTAL</b>	<b>76</b>	<b>100.0</b>

Table 18.5.

**DISTRIBUTION OF HUMAN RABIES CASES BY TYPE OF BITING ANIMAL – 2003**

Type of Biting Animal	N	%
Dog	63	82.8
Cat	04	5.3
Others	04	5.3
Unknown	5	6.6
<b>TOTAL</b>	<b>76</b>	<b>100.0</b>

Table 18.6.

**RABIES CONTROL ACTIVITIES AND NUMBER OF HUMAN DEATHS FROM RABIES,  
1975 – 2003**

Year	Vaccination of dogs	Elimination of dogs	Heads examined at MRI		Human rabies deaths	
			Number	% Positive	Number	Rate
1975	42,252	1,610	456	64.7	377	2.7
1980	120,143	36,845	420	52.5	209	1.4
1985	268,561	58,238	344	55.5	113	0.7
1990	412,586	63,233	963	70.2	154	0.9
1995	452,828	106,862	1,217	69.7	124	0.7
2000	657,597	117,790	559	88.5	109	0.6
2001	770,375	119,761	NA	NA	83	0.4
2002	797,565	117,790	NA	NA	64	0.3
2003	664,493	84,350	NA	NA	76	0.4

Source: Rabies Control Programme

Table 18.7.

**ANIMAL CONTROL ACTIVITIES BY DISTRICTS 2002-2003**

DPDHS Area	Dog Vaccination		Dog Elimination	
	2002	2003	2002	2003
Colombo	86,445	65,630	9,844	7,417
Gampaha	128,009	75,149	4,311	3,278
Kalutara	56,381	35,967	325	1,399
Kandy	43,497	70,414	8,375	4,836
Matale	27,442	28,423	6,847	2,421
Nuwara Eliya	45,554	32,707	6,191	12,969
Galle	6,673	17,547	3,105	675
Matara	35,607	31,452	8,708	4,774
Hambantota	15,633	25,133	6,967	8,528
Jaffna	6,565	5,354	2,966	2,191
Vavuniya	4,950	1,536	0	146
Batticaloa	-	0	-	0
Ampara	425	0	491	0
Trincomalee	0	3,580	0	724
Killinochchi	492	0	0	93
Kurunegala	121,103	62,639	6,144	8,236
Puttalam	59,442	75,937	9,712	2,687
Anuradhapura	37,581	21,567	3,536	7,539
Polonnaruwa	14,048	11,766	4,043	1,803
Badulla	30,060	25,536	4,807	3,008
Moneragala	17,862	8,971	3,668	0
Ratnapura	24,801	21,885	2,748	9,537
Kegalle	34,995	42,300	2,700	2,359
<b>TOTAL</b>	<b>797,565</b>	<b>664,493</b>	<b>117,790</b>	<b>84,350</b>

Source: Rabies Control Programme

## 19. SUMMARY OF NOTIFIABLE DISEASES – 2<sup>ND</sup> QUARTER (APRIL – JUNE) 2004.

Table 9.

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	0	187	1408	1	25	30	7	48	1	4	5	2	37
Gampaha	0	5	171	1327	8	35	24	2	62	3	6	5	3	102
Kalutara	0	2	269	519	2	34	17	4	59	0	13	3	1	54
Kandy	0	7	304	1314	0	62	6	2	14	1	0	1	47	65
Matale	0	0	343	183	0	26	3	0	54	2	0	0	0	128
Nuwara Eliya	0	4	207	30	0	78	4	0	5	0	0	0	8	14
Galle	0	0	106	127	1	4	6	2	37	1	2	0	3	4
Hambantota	0	0	197	63	0	16	1	1	20	1	4	0	70	13
Matara	0	0	113	115	0	62	32	3	62	1	2	1	95	8
Jaffna	0	0	40	52	1	249	8	7	2	1	27	1	0	32
Kilinochchi	0	0	1	0	0	2	0	0	0	1	0	0	2	2
Mannar	0	0	41	2	1	52	14	0	0	0	0	0	0	17
Vavuniya	0	0	17	30	0	3	3	2	0	0	2	0	1	0
Mullativu	0	0	14	0	0	13	0	1	0	1	0	0	0	2
Batticaloa	0	0	33	92	0	27	0	2	2	0	0	0	0	61
Ampara	0	1	32	19	0	9	0	0	10	2	0	0	1	7
Trincomalee	0	1	238	157	0	70	11	3	3	3	9	2	3	205
Kurunegala	0	1	302	569	1	67	19	0	11	2	16	3	3	28
Puttalam	0	0	67	139	1	102	11	0	4	1	1	0	2	18
Anuradhapura	0	2	70	282	2	50	6	1	23	6	4	1	4	24
Polonnaruwa	0	1	35	87	0	10	2	1	39	0	0	1	0	7
Badulla	0	1	324	85	4	81	19	1	21	0	1	3	25	158
Moneragala	0	1	98	20	3	66	11	2	9	3	1	1	83	48
Ratnapura	0	0	228	242	30	105	3	1	52	5	0	0	4	56
Kegalle	0	0	229	271	2	14	14	1	43	7	1	1	13	47
Kalmunai	0	0	27	114	3	28	1	0	1	0	0	0	0	19
TOTAL	0	26	3693	7247	60	1290	247	43	581	42	93	28	370	1156

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