



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiological Unit,

Ministry of Healthcare & Nutrition

231, de Saram Place, Colombo 01000, Sri Lanka

Tele: (+94-011) 2695112, Fax: (+94,011) 2696583, E-Mail: epidunit@sltnet.lk

Epidemiologist: (+94-011) 2681548, E-mail: chepid@sltnet.lk

Vol. 34 No. 24

9th - 15th June 2007

Sentinel Surveillance of Leptospirosis

Leptospirosis is a notifiable disease in Sri Lanka. The earliest available evidence of Leptospirosis in Sri Lanka was in 1953. Over 19 Leptospiral serovars belonging to over 7 serogroups have been isolated and incriminated as the causative agent for the disease in man and/or animals in the country. It is an endemic disease in many parts of Sri Lanka which occurs throughout the year.

During the last decade, there has been an increase in the number of Leptospirosis cases reported in the country. In 2006, 1582 cases of Leptospirosis were notified to the Epidemiology Unit. Out of these, 1192 (75.4%) were confirmed by the Medical Officers of Health (MOOH). The actual incidence of Leptospirosis is likely to be more than this as many patients with mild form of the disease do not seek treatment at all or are being treated at the OPD or by private practitioners, resulting in the cases not being reported.

Sentinel site surveillance of Leptospirosis was started in 2004. The objective of sentinel surveillance was to introduce an effective and sustainable prevention and control programme for the country. Thirteen medical institutions were identified as sentinel sites, with the respective Infection Control Unit/Nurse acting as the focal point. The surveillance activities at these sentinel sites have improved remarkably over the last few years.

In 2006, 953 cases of Leptospirosis were reported from the sentinel sites, accounting for 60.2% of the total cases. Forty deaths have also

been reported from the sentinel sites during the same year. The highest number of deaths were reported from GH Matara (17) and TH Ragama (13).

The sentinel surveillance activities in the Gampaha district have been reviewed recently by the regional health authorities (selected details are given in table in page 2). It is the district with the second highest caseload and deaths due to Leptospirosis in the country.

The 2 sentinel surveillance sites in Gampaha are the GH Ragama and the BH Wathupitiwala. The caseload has increased significantly during the last 3 years in these 2 institutions. The GH Ragama accounted for nearly 75% of the 182 cases and all 13 deaths in 2006. Most of the cases have been reported from Attanagalla and Mahara MOH areas (27 cases accounting for 15% of the cases from each area).

The commonest symptoms that have been seen in these patients were fever, headache and myalgia. An obvious skin lesion, which facilitates the infection, has been seen in 80 (44%) of the cases.

In 2006, a quarter of the patients at these 2 sentinel sites in Gampaha were aged 20-29 years, and 84% were aged 20-59 years. In comparison, nearly three-quarters of the cases reported from the country in 2006 were aged 20-64 years. This shows the potential for economic implications if the increasing trends were to continue unabated.

Over the years, the disease has affected men significantly more than women. Eighty four

Contents

	Page
1. Leading Article - Sentinel Surveillance of Leptospirosis	1
2. Surveillance of vaccine preventable diseases & AFP (2 nd - 8 th June 2007)	3
3. Summary of diseases under special surveillance (2 nd - 8 th June 2007)	3
4. Summary of newly introduced notifiable diseases (2 nd - 8 th June 2007)	3
5. Laboratory surveillance of dengue fever (2 nd - 8 th June 2007)	3
6. Summary of selected notifiable diseases reported (2 nd - 8 th June 2007)	4

WEEKLY
Sri Lanka - 2007

Table.1 Details of Leptospirosis cases reported from sentinel sites in Gampaha District during 2004, 2005 & 2006

Sentinel site	2004		2005		2006	
	No	%	No	%	No	%
G.H. Ragama	52	91	158	90	136	75
B.H. Wathupitiwala	5	9	17	10	46	25
Age (years)						
< 1	0	0	0	0	0	0
1-9	1	2	0	0	1	1
10-19	3	5	26	15	18	10
20-29	15	26	38	22	46	25
30-39	10	18	37	21	35	19
40-49	17	29	42	24	37	20
50-59	6	11	20	11	33	19
60 +	5	9	12	7	8	4
Unknown	-	-	-	-	4	2
Sex						
Female	2	4	7	4	14	8
Male	55	96	168	96	168	92
Skin lesion						
Present	41	72	90	51	80	44
Absent	13	23	44	25	53	29
Unknown	2	3	31	18	18	10
No information	1	2	10	6	31	17
Outcome						
Cure	53	93	148	85	150	82
Death	4	7	7	4	14	8
Unknown	-	-	4	2	5	3
No information	-	-	16	9	13	7
Total	57	100	175	100	182	100

percent of the cases in the country and over 90% in Gampaha have been men. The evidence perhaps shows the vulnerability of men in the productive age groups, for the disease.

September has been the month that has seen the most cases at these sites in Gampaha during both 2005 and 2006 with nearly a quarter of the annual caseload. The disease occurrence had been high during March–June and towards the latter part of the year in the country during 2006. However in previous years, the seasonality has been more significant. The seasonal pattern in the incidence is particularly important for targeting preventive activities. Paddy cultivation is common in most of the endemic areas and the peak incidence is seen during the paddy harvesting seasons. There is an increase in the rodent population in and around paddy fields during this period. In fact, paddy fields (46%) and marshy/muddy lands (35%) have been identified as the commonest probable source of infection in Gampaha.

There is no ongoing national prevention and control programme for Leptospirosis, and prevention and control programmes at divisional level are carried out by the respective MOOH. However, Epidemiology Unit and Regional Epidemiologists in endemic areas have been developing districts plans for the control and prevention of the disease. These districts plans are focused on improving disease surveillance, raising public awareness and improving clinical management including laboratory surveillance and chemoprophylaxis. Increasing number of deaths due to Leptospirosis indicates the need for early detection of cases and probably an audit of the clinical management.

The Editor wishes to acknowledge Dr. Ananda Amerasinghe, Consultant Epidemiologist of the Epidemiology Unit, Dr. B. Mallawarachchi, Regional Epidemiologist (Gampaha) and regional health authorities of Gampaha District for the assistance provided in the preparation of this article.

Outbreak of Viral Hepatitis in Gampola: Current Situation

Figure: Viral hepatitis cases reported from Gampola during 2007 (as of 08.06.2007)

The incidence of cases so far during the outbreak of viral hepatitis reported during May, 2007 in Gampola is depicted in the figure. Control and preventive measures taken by the provincial health authorities to curb the outbreak are continuing.

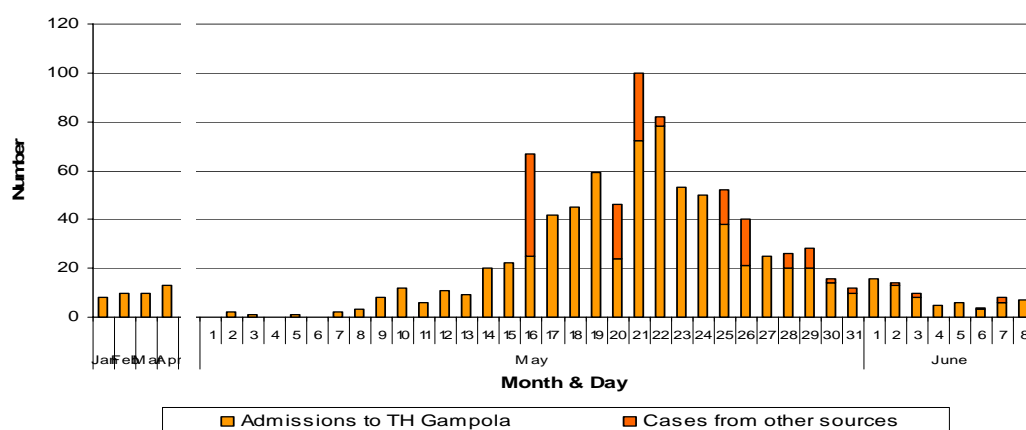


Table 1: Vaccine-preventable Diseases & AFP

2nd - 8th June 2007 (23rd Week)

Disease	No. of Cases by Province								Number of cases during current week in 2007	Number of cases during same week in 2006	Total number of cases to date in 2007	Total number of cases to date in 2006	Difference between the number of cases to date between 2007 & 2006
	W	C	S	NE	NW	NC	U	Sab					
Acute Flaccid Paralysis	00	01 KD=1	00	00	00	00	00	00	01	02	40	58	-31.0%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00.0%
Measles	00	01 ML=1	00	01 BT=1	00	00	00	00	02	01	34	14	+142.8%
Tetanus	00	00	00	00	01 PU=1	00	00	00	01	02	16	29	-44.8%
Whooping Cough	00	00	00	00	00	00	00	00	00	01	18	45	-60.0%
Tuberculosis	35	15	19	43	06	28	20	60	238	185	4544	4700	-3.3%

Table 2: Diseases under Special Surveillance

2nd - 8th June 2007 (23rd Week)

Disease	No. of Cases by Province								Number of cases during current week in 2007	Number of cases during same week in 2006	Total number of cases to date in 2007	Total number of cases to date in 2006	Difference between the number of cases to date between 2007 & 2006
	W	C	S	NE	NW	NC	U	Sab					
DF/DHF*	34	05	04	08	11	11	00	07	80	115	2060	4227	-51.3%
Encephalitis	00	00	01 GL=1	01 MU=1	00	00	00	00	02	01	102	61	+67.2%
Human Rabies	00	00	01 HB=1	01 BT=1	00	00	00	00	02	00	31	29	+6.9%

Table 3: Newly Introduced Notifiable Diseases

2nd - 8th June 2007 (23rd Week)

Disease	No. of Cases by Province								Number of cases during current week in 2007	Total number of cases to date in 2007	*DF / DHF refers to Dengue Fever / Dengue Haemorrhagic Fever. NA= Not Available. Sources: Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Whooping Cough, Human Rabies, Dengue Haemorrhagic Fever, Japanese Encephalitis, Chickenpox, Meningitis, Mumps. Special Surveillance: Acute Flaccid Paralysis. National Control Program for Tuberculosis and Chest Diseases: Tuberculosis. Details by districts are given in Table 5.
	W	C	S	NE	NW	NC	U	Sab			
Chickenpox	16	06	04	03	07	01	05	08	50	1671	
Meningitis	00	00	03 GL=1 HB=1 MT=1	00	03 KR=2 PU=1	00	02 BD=2	03 RP=3	11	62	
Mumps	19	02	06	05	02	04	02	05	45	640	

Provinces:

W=Western, C=Central, S=Southern, NE=North & East, NC=North Central, NW=North Western, U=Uva, Sab=Sabaragamuwa.

DPDHS Divisions:

CB=Colombo, GM=Gampaha, KL=Kalutara, KD=Kandy, ML=Matale, NE=Nuwara Eliya, GL=Galle, HB=Hambantota, MT=Matara, JF=Jaffna, KN=Killinochchi, MN=Mannar, VA=Vavuniya, MU=Mullaitivu, BT=Batticaloa, AM=Ampara, TR=Trincomalee, KM=Kalmunai, KR=Kurunegala, PU=Puttalam, AP=Anuradhapura, PO=Polonnaruwa, BD=Badulla, MO=Moneragala, RP=Ratnapura, KG=Kegalle.

Table 4: Laboratory Surveillance of Dengue Fever

2nd - 8th June 2007 (23rd Week)

Samples	Number tested	Number positive *	Serotypes				
			D ₁	D ₂	D ₃	D ₄	Negative
Number for current week	12	01	00	01	00	00	00
Total number to date in 2007	293	18	00	08	04	00	05

Source: Genetech Molecular Diagnostics & School of Gene Technology, Colombo.

* Not all positives are subjected to serotyping.

Table 5: Selected notifiable diseases reported by Medical Officers of Health
2nd - 8th June 2007 (23rd Week)

DPDHS Division	Dengue Fever / DHF*		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Returns Received Timely**
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	
Colombo	18	549	19	160	00	04	02	36	00	43	03	63	00	01	12	24	100
Gampaha	11	230	15	153	00	14	00	35	00	28	01	124	01	08	05	45	86
Kalutara	05	145	33	223	00	01	03	29	00	16	03	60	00	01	00	31	91
Kandy	04	218	11	138	00	03	03	33	01	07	02	38	02	39	109	910	77
Matale	01	56	03	97	00	04	00	08	00	03	00	19	00	03	01	77	75
Nuwara Eliya	00	26	11	134	00	01	06	62	00	366	00	08	00	24	10	155	71
Galle	00	49	02	74	01	07	00	08	00	03	00	30	00	18	02	11	88
Hambantota	00	26	03	34	00	05	00	15	00	09	02	30	03	23	00	08	91
Matara	04	76	13	140	00	05	01	23	00	10	05	105	06	117	01	14	100
Jaffna	00	15	00	69	00	02	00	280	00	02	00	00	00	79	00	14	00
Kilinochchi	00	01	00	00	00	00	00	03	00	00	00	00	00	02	00	02	00
Mannar	00	07	00	11	00	00	00	38	00	00	00	00	00	00	00	05	75
Vavuniya	00	10	00	23	00	04	01	10	00	13	00	02	00	00	01	03	100
Mullaitivu	00	03	00	09	01	06	01	14	00	00	00	00	00	00	00	00	60
Batticaloa	06	58	12	313	00	08	01	14	03	10	00	00	22	22	78	232	73
Ampara	00	01	00	49	00	00	00	03	00	00	00	00	00	00	00	14	43
Trincomalee	01	38	20	115	00	01	00	12	00	23	00	03	00	03	07	48	67
Kurunegala	08	174	19	211	00	01	02	34	00	12	02	14	01	25	01	23	89
Puttalam	03	72	06	50	00	09	01	36	00	00	00	14	01	03	02	55	89
Anuradhapura	10	48	04	47	00	07	01	17	01	11	00	14	00	17	01	26	89
Polonnaruwa	01	33	00	46	00	02	00	04	00	01	00	16	00	00	00	11	71
Badulla	00	18	29	291	00	00	04	48	00	08	00	23	06	70	04	118	73
Monaragala	00	10	07	149	00	02	06	27	00	10	02	30	01	31	00	14	70
Ratnapura	02	97	05	293	00	10	01	35	00	08	03	29	01	09	00	39	63
Kegalle	05	97	18	146	00	05	00	25	00	04	02	50	02	13	10	41	100
Kalmunai	01	03	01	82	00	01	00	06	00	00	00	00	00	02	01	78	85
SRI LANKA	80	2060	231	3057	02	102	33	855	05	587	25	672	46	510	245	2283	79

Source: Weekly Returns of Communicable Diseases (WRCD).

*Dengue Fever / DHF refers to Dengue Fever / Dengue Haemorrhagic Fever.

**Timely refers to returns received on or before 16 June 2007. Total number of reporting units = 290. Number of reporting units data provided for the current week: 229

A = Cases reported during the current week. B = Cumulative cases for the year.

PRINTING OF THIS PUBLICATION IS FUNDED BY THE UNITED NATIONS CHILDREN'S FUND (UNICEF).

Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to chepid@slt.net.lk.

ON STATE SERVICE

Dr. M. R. N. ABEYSINGHE
EPIDEMIOLOGIST
EPIDEMIOLOGICAL UNIT
231, DE SARAM PLACE
COLOMBO 10