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Epidemiology Unit
Ministry of Health

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1. POLIOMYELITIS

A total of 34 cases of Acute Flaccid Paralysis (AFP) were notified during the 4th quarter of 2005 compared to 16 cases notified in the previous quarter.

The distribution of these 34 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:

DPDHS COLOMBO	<u>2</u>
MOH Colombo MC	1
MOH Moratuwa	1
DPDHS KALUTARA	<u>3</u>
MOH Matugama	1
MOH Panadura	1
MOH Horana	1
DPDHS KANDY	<u>3</u>
MOH Wattegama	1
MOH Gampola	1
MOH Doluwa	1
DPDHS NUWARA ELIYA	<u>1</u>
MOH Thalawakele	1
DPDHS GALLE	<u>3</u>
MOH Habaraduwa	1
MOH Karadeniya	1
MOH Ambalangoda	1
DPDHS MATARA	<u>2</u>
MOH Akuressa	1
MOH Thihagoda	1
DPDHS MANNAR	<u>1</u>
MOH Mannar	1

DPDHS MONERAGALA	<u>2</u>
MOH Bibile	1
MOH Moneragala	1
DPDHS POLONNARUWA	<u>1</u>
MOH Lankapura	1
DPDHS BATTICALOA	<u>1</u>
MOH Vuvunativu	1
DPDHS PUTTALAM	<u>1</u>
MOH Chilaw	1
DPDHS BADULLA	<u>1</u>
MOH Hali-ela	1
DPDHS KEGALLE	<u>1</u>
MOH Warakapola	1
DPDHS ANURADHAPURA	<u>4</u>
MOH Galenbindunuwewa	2
MOH Anuradhapura	1
MOH Ipalogama	1
DPDHS GAMPAHA	<u>3</u>
MOH Ja-ela	2
MOH Gampaha	1
DPDHS RATNAPURA	<u>5</u>
MOH Elapatha	1
MOH Ratnapura	1
MOH Kahawatta	1
MOH Balangoda	1
MOH Opanayake	1

Age and Sex Distribution

Table 1 shows the age and sex distribution of the 34 cases reported during the quarter.

Table 1.

AGE AND SEX DISTRIBUTION OF 34 AFP CASES – 4TH QUARTER 2005

Age Group	Sex		Total
	Male	Female	
<1 year	0	1	1
1 – 4 years	4	7	11
5 – 9 years	6	3	9
10 – 15 years	6	7	13
Total	16	18	34

Surveillance

The distribution of these 34 cases of AFP according to notifications from hospitals is as follows:

Hospital	No. of cases
Lady Ridgeway Hospital (LRH)	05
T.H. Kandy	02

T.H. Peradeniya	06
T.H. Colombo South (Kalubowila)	01
T.H. Karapitiya	03
T.H. Ratnapura	05
T.H. Batticaloa	01
T.H. Ragama	01
G.H. Badulla	02
G.H. Anuradhapura	04
G.H. Matara	01
G.H. Sri Jayawardenapura	01
B.H. Chilaw	01
B.H. Dambulla	01
Asha Central Hospital	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)	33	97.0
(2) At least 1 stool sample collected within 14 days of onset of paralysis (and received by MRI, Colombo)	32	94.0
(3) Two stool samples collected within 14 days of onset of paralysis (and received by the MRI, Colombo)	31	91.0

MRI – Medical Research Institute

2. ENTERIC FEVER

In the 4th quarter of 2005, a total of 506 cases of enteric fever was notified to the Epidemiological Unit, compared to 571 cases in the previous quarter and 774 cases in the corresponding quarter of 2004.

The following MOH areas notified a large number of cases.

MOH Area	No. of cases
Moneragala	33
Manipay	30
Kothmale	26

The distribution of notification of data of enteric fever by DPDHS divisions is given in Table 22.

3. VIRAL HEPATITIS

In the 4th quarter of 2005, 691 cases of viral hepatitis were reported to the Epidemiological Unit, compared to 509 cases in the previous quarter (3rd quarter 2005) and 434 cases in the corresponding quarter of 2004. Among the reported cases, 482 were investigated and confirmed as viral hepatitis. DPDHS area Kalmune recorded the highest number of cases (148) accounting for 21% of the case load and the following MOH areas recorded the highest number of cases.

MOH area	No. of cases
Addalachchenai	62
Samanthurai	40
Akkaraipattu	29
Muththur	25

4. DYSENTERY

In the 4th quarter of 2005, a total number of 3064 cases of dysentery was notified to the Epidemiological Unit, compared to 1777 cases in the previous quarter and 3866 cases in the corresponding quarter of the previous year.

The following MOH areas notified a large number of cases.

MOH Area	No. of cases
Anamaduwa	131
Nikaweratiya	96
Rattota	96
Karuwalagaswewa	81

The distribution of notification of data of dysentery by DPDHS divisions is given in Table 22.

5. CHOLERA

In the 4th quarter of 2005, no confirmed cases of cholera was reported to the Epidemiological Unit.

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

6. TETANUS

During the 4th quarter of 2005, 11 cases of tetanus were notified to the Epidemiological Unit. Out of these cases, 8 were investigated and 7 cases were confirmed as shown in Table 3.

Table 3.

**DISTRIBUTION OF TETANUS CASES BY
DPDHS DIVISIONS – 4TH QUARTER 2005**

DPDHS Division	No. notified	No. confirmed
Colombo	01	01
Anuradhapura	01	01
Kandy	01	01
Hambantota	01	01
Kurunegala	02	02
Badulla	01	01
Matara	02	-
Jaffna	01	-
Kalmunai	01	-
Total	11	07

Out of the 7 confirmed cases of tetanus none had been fatal. No cases of neo-natal tetanus were reported during this period.

7. MEASLES

During the 4th quarter of 2005, 11 cases of measles were notified to the Epidemiological Unit when compared to 2 cases notified during the previous quarter and 21 cases notified in the corresponding quarter of last year.

During the 4th quarter 2005, 13 cases were investigated and 11 cases were confirmed as measles (Table 4).

Table 4.

**SELECTED CHARACTERISTICS OF
CONFIRMED CASES OF MEASLES – 4TH
QUARTER 2005.**

(N = 11)

Sex	Male	5
	Female	6
Age group	<1*	7
	1-5	0
	>5	4
District	Kilinochchi	02
	Matale	03
	Anuradhapura	01
	Batticaloa	01
	Ratnapura	01
	Nuwara Eliya	01
	Kandy	01
	Kegalle	01
Immunization status	Immunized**	1
	Non immunized	10

*5 babies under 9/12 of age

** 10/12 old baby

8. LEPTOSPIROSIS

In the 4th quarter of 2005, 414 leptospirosis cases were notified to the Epidemiological Unit compared to 385 cases in the previous quarter (3rd quarter 2005) and 593 cases during the corresponding quarter of the previous year. Among the reported cases 304 were confirmed as leptospirosis.

Out of the total cases reported during this quarter, majority were from the districts of Kegalle (21.0%) and Colombo (15%). 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 4th quarter of 2005, 16 human rabies cases were notified to the Epidemiological Unit, compared to 12 cases in the previous quarter (3rd quarter 2005) and 23 cases in the corresponding quarter of the last year.

Highest incidence of rabies was reported from Kurunegala district (03 cases) while Colombo, Ratnapura and Jaffna districts have reported 02 cases each.

Animal Rabies*

One hundred and five (105) dogs were reported positive for rabies compared to 133 positives in the previous quarter and 162 positives in the same period in the last year.

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

Cats – 08, Wild animals – 07, Domestic ruminants – 00

Rabies Control Activities*

Dog vaccination – A total of 153,071 dogs were immunized during the 4th quarter 2005 compared to 247,896 in the previous quarter and 241,500 in the corresponding quarter of last year.

Stray dog elimination – A total of 8,470 dogs were destroyed during the 4th quarter 2005 compared to 12,366 in the previous quarter and 17,098 in the corresponding quarter of last year.

- Source – Director/PHVS

10. TUBERCULOSIS

A total of 2073 tuberculosis patients were registered for the 4th quarter by the National Programme for Tuberculosis Control and Chest Diseases.

Of this total, 1691 suffered from pulmonary tuberculosis, while the balance patients suffered from non pulmonary tuberculosis and 1155 of these patients were bacteriologically confirmed.

The bacteriological confirmation rate was 68.30%.

The distribution of tuberculosis patients registered for the 4th quarter 2005 by age, sex and DPDHS divisions is given in Table 5 and 6 respectively.

One thousand one hundred and ninety nine (1199) Tuberculosis patients and 1038 other patients were hospitalized during the quarter.

Central Laboratory – 1635 cultures were done during the period.

B.C.G. Vaccination

A total of 94615 B.C.G. vaccinations were carried out during the 4th quarter 2005 with 115% coverage.

Table 5.

AGE AND SEX DISTRIBUTION OF TUBERCULOSIS PATIENTS 4TH QUARTER 2005

Age group in years	Male		Female		Total	
	No.	%	No.	%	No.	%
Under 5	11	0.8	14	2.0	25	1.2
5 – 9	13	0.9	11	1.5	24	1.2
10 –14	12	0.8	21	3.0	33	1.6
15 –19	33	2.4	54	7.4	87	4.1
20 –24	98	7.2	85	11.8	183	8.8
25 –29	118	8.7	66	9.2	184	8.8
30 –34	94	7.0	52	7.3	146	7.0
35 –39	107	7.8	50	7.0	157	7.5
40 –44	135	9.9	49	6.9	184	8.8
45 –49	131	9.6	68	9.4	199	9.6
50 –54	150	11.0	62	8.6	212	10.2
55 –59	128	9.4	52	7.3	180	8.8
60 –64	112	8.5	40	5.6	152	7.5
65 –69	103	7.5	43	6.0	146	7.0
70 –74	59	4.3	28	4.0	87	4.1
75 +	54	4.0	20	2.9	74	3.5
TOTAL	1358	100.0	715	100.0	2073	100.0

Source: National Programme for Tuberculosis Control and Chest Diseases.

Table 6.

**REGISTRATION OF TUBERCULOSIS PATIENTS BY DPDHS DIVISIONS
4TH QUARTER 2005**

DPDHS Division	* P.T.B.	** O.T.B.	Total	Pulmonary TB Direct Smear Positive	
				No.	%
Colombo	324	80	404	262	80.9
Gampaha	151	27	178	115	76.2
Kalutara	119	31	150	106	89.1
Kandy	184	38	222	78	42.4
Matale	37	14	5	19	51.4
Nuwara Eliya	50	10	60	28	56.0
Hambantota	30	7	37	20	66.7
Matara	57	13	70	47	82.5
Galle	76	13	89	61	80.3
Jaffna	61	28	89	35	57.4
Vavuniya	11	1	12	7	63.6
Mannar	10	0	10	8	80.0
Trincomalee	8	6	14	6	75.0
Ampara	50	3	53	24	48.0
Batticaloa	30	7	37	23	76.7
Puttalam	28	6	34	21	75.0
Kurunegala	145	27	172	66	45.5
Polonnaruwa	25	1	26	16	64.0
Anuradhapura	29	2	31	24	82.8
Badulla	52	17	69	38	73.1
Moneragala	4	0	4	3	75.0
Ratnapura	105	41	146	76	72.4
Kegalle	99	10	109	70	70.7
Kilinochchi	5	0	5	2	40.0
Mullativu	1	0	1	0	0.0
TOTAL	1691	382	2073	1155	68.3

* PTB – Pulmonary Tuberculosis **OTB – Other Tuberculosis

Source: National Programme for Tuberculosis Control and Chest Diseases.

11. MALARIA

Table 7.

EPIDEMIOLOGICAL REPORT – 4TH QUARTER 2005

District	B.F.	Positives	P.v.	P.f./ Mixed	P. ovale
Colombo	10,530	1		0	1
Gampaha	9,022	13	11	2	0
Kalutara	2,182	0	0	0	0
Kandy	6,613	0	0	0	0
Matale	3,222	3	3	0	0
Nuwara Eliya	20	0	0	0	0
Galle	403	0	0	0	0
Matara	2,071	1	1	0	0
Hambantota	7,611	2	2	0	0
Jaffna	24,445	2	2	0	0
Kilinochchi	7,998	0	0	0	0
Vavuniya	7,559	21	21	0	0
Mannar	8,472	0	0	0	0
Mullativu	6,328	1	1	0	0
Batticaloa	24,711	5	5	0	0
Ampara	4,979	4	4	0	0
Kalmunai	8,030	12	9	3	0
Trincomalee	7,662	58	57	1	0
Kurunegala	28,025	92	91	1	0
Puttalam	5,900	12	12	0	0
Anuradhapura	33,464	85	77	8	0
Polonnaruwa	11,503	5	5	0	0
Badulla	4,965	2	2	0	0
Moneragala	13,877	3	3	0	0
Ratnapura	4,949	3	2	1	0
Kegalle	1,079	1	1	0	0
Total	245,620	326	309	16	1

During the 4th 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 8.

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, Kurunegala and Trincomalee..

Table 8.

**RESULTS OF BLOOD SMEAR EXAMINATION FOR MALARIA PARASITES
4TH QUARTER 2004/2005**

	4 th Quarter 2004	4 th Quarter 2005
No. of blood smears examined	315,148	246,620
No. of positives	844	326
No. of <i>P. vivax</i>	768	309
No. of <i>P. falciparum</i>	65	4
No. of <i>P. ovale</i>	-	1
No. of mixed infections	11	12
No. of infant positives	4	5
Slide Positivity Rate (S.P.R.)	0.27%	0.13%
<i>P.v.</i> : <i>P.f.</i> ratio	12 : 1	77 : 1
Percentage of infant positives	0.01%	1.53%

The 4th quarter figures for the year 2005 show a reduction of all indices in comparison to the same period of year 2004.

12. LEPROSY

Table 9.

**QUARTERLY RETURN OF LEPROSY STATISTICS
4TH QUARTER 2005****1. National**

	At the end of the quarter			Cumulative for end of the quarter		
	4 th Quarter 2005	4 th Quarter 2004	Diff. (%)	2005	2004	Diff. (%)
New patients detected	411	455	- 9.6	1935	2021	- 4.2
Children	41	48	- 14.5	201	222	- 9.4
Grade 2 Deformities	22	24	- 8.3	106	134	- 20.8
Multi-Bacillary	171	199	- 14.0	802	839	- 4.4
Females	181	187	- 3.2	812	834	- 2.6

2. District

District	New patients	Deformities	Child	MB	Females
Colombo	95	1	14	30	49
Gampaha	40	1	8	14	16
Kalutara	50	4	4	17	18
Western	185	6	26	61	83
Galle	23	0	1	10	9
Matara	16	1	2	10	8
Hambantota	11	0	1	5	5
Southern	50	1	4	25	22
Kandy	6	1	2	2	3
Matale	6	0	0	3	2
Nuwara Eliya	0	0	0	0	0
Central	12	1	2	5	5
Anuradhapura	13	0	0	7	3
Polonnaruwa	9	0	0	7	4
North Central	22	0	0	14	7
Kurunegala	31	1	3	15	16
Puttalam	24	3	1	12	12
North Western	55	4	4	27	28
Kegalle	5	1	0	4	2
Ratnapura	16	1	2	6	7
Sabaragamuwa	21	2	2	10	9
Badulla	2	0	0	1	0
Moneragala	6	1	0	2	4
Uva	8	1	0	3	4
Trincomalee	7	0	0	3	3
Batticaloa	16	3	1	12	6
Ampara	11	0	1	4	6
Kalmunai	13	2	1	2	9
Eastern	47	5	3	21	24
Jaffna	5	1	0	2	2
Vavuniya	2	1	0	1	0
Mannar	3	0	0	2	0
Mulativu	0	0	0	0	0
Kilinochchi	1	0	0	0	0
Northern	11	2	0	5	2
Sri Lanka	411	22	41	171	181

Source: Leprosy Campaign

13. JAPANESE ENCEPHALITIS (J.E.)

During the 4th quarter of 2005, 19 cases of Encephalitis were reported to the Epidemiological Unit.

Among the reported cases, 15 were investigated and 06 were found to be clinically confirmed as JE. Out of which 02 cases were fatal (CFR 10.5%).

This is in comparison to 15 cases and 2 deaths reported during the previous quarter (CFR 28.5%) and 31 cases and 1 death in the corresponding quarter of the last year (CFR 7.1%).

Table 10.

DISTRIBUTION OF ENCEPHALITIS CASES AND DEATHS BY DPDHS DIVISIONS – 4TH QUARTER 2005

DPDHS Division	Cases	Deaths
Colombo	04	0
Gampaha	01	0
Kandy	01	0
Matale	01	01
Vavuniya	01	0
Kurunegala	03	0
Ratnapura	03	01
Kegalle	01	0
Total	15	02

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

The total number of DF/DHF cases and deaths reported during the fourth quarter 2005 were 1933 and 04 respectively (CFR 0.21%). This compares with 1485 cases and 09 deaths (CFR 0.6%) reported during the corresponding quarter of last year, and 2275 cases and 09 deaths (CFR 0.4%) during the previous quarter of 2005.

Table 11 shows the distribution of DF/DHF cases and deaths in the DPDHS divisions during the 4th quarter 2005.

Table 11.

MORBIDITY AND MORTALITY DUE TO DF/DHF - 4TH QUARTER 2005

DPDHS Division	Cases	Deaths
Colombo	533	01
Gampaha	298	01
Kalutara	220	01
Kandy	265	-
Matale	36	-
Nuwara Eliya	11	-
Galle	32	-
Hambantota	16	-
Matara	80	-
Jaffna	04	-
Kilinochchi	02	-
Mannar	0	-
Vavuniya	01	-
Mullativu	0	-
Batticaloa	04	-
Ampara	0	-
Trincomalee	03	-
Kurunegala	71	01
Puttalam	25	-
Anuradhapura	97	-
Polonnaruwa	19	-
Badulla	46	-
Moneragala	01	-
Ratnapura	129	-
Kegalle	39	-
Kalmunai	01	-
TOTAL	1933	04

Table 12.

DHF STATISTICS FROM DEPARTMENT OF VIROLOGY, MRI - 4TH QUARTER 2005

Month	Clinically Suspected	Serologically Confirmed
October	07	03
November	11	09
December	18	10
TOTAL	36	22

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 4th 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 13.

AEDES LARVAL DENSITIES (BRETEAU INDEX) IN COLOMBO AND GAMPAHA DISTRICTS – 4TH QUARTER 2005

Area	October		November		December	
	(A)	(B)	(A)	(B)	(A)	(B)
CMC Area	8.8	5.4	13.8	6.5	11.7	5.8
Maharagama	7.6	10.8	2.0	15.2	9.6	17.6
Moratuwa	8.55	7.5	14.0	5.2	6.23	7.4
Kaduwela	4.36	8.73	5.09	8.0	1.5	16.5
Nugegoda	11.1	14.6	6.5	9.8	4.8	12.8
Kelaniya	11.6	16.0	8.9	10.78	9.0	14.0
Ragama	1.09	8.36	2.59	17.4	8.0	11.6
Ja-Ela	5.5	20.5	12.4	22.9	16.9	24.0

(A) = *Aedes aegypti*

(B) = *Aedes albopictus*

Number of premises examined per area = 300

16. SURVEILLANCE AT SEA PORT

Surveillance activities carried out by the Port Health Office at Colombo Harbour during the 4th quarter 2005 is given below.

1. Yellow Fever Vaccination

Total number vaccinated - 78

2. Granting Pratique to Vessels

No. issued - 963

3. Deratting Certification

No. issued - 61

Vaccinations carried out by the Assistant Port Health Office, Colombo 8, during the 4th quarter 2005 is given below.

	Total
a. Yellow fever	369
b. Meningococcal Meningitis	868
c. TAB	211

17. SURVEILLANCE AT AIRPORT

Surveillance activities carried out at the International Airport, Katunayake during the 4th quarter 2005 is given below.

1. Granting Pratique to Aircrafts

a. No. issued - 3575

2. Airport Sanitation

a. No. of sanitary inspections carried out including food establishments - 15

b. No. of food samples taken under Food Act - Nil

c. No. found defective - Nil

d. No. of court cases/prosecuted - Nil

3. Food consignments

a. No. of food consignments inspected - Nil

b.. No. released - Nil

c. No. rejected - Nil

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 14.

Table 14.

**NEW EPISODES OF STD/HIV/AIDS REPORTED OR TREATED AT STD CLINICS IN SRI LANKA* -
4TH 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 ¹	15	16	31	69	60	129
AIDS	2	5	7	16	12	28
Early Syphilis ²	35	13	48	111	51	162
Syphilis	84	77	161	318	354	672
Late Syphilis ³						
Congenital Syphilis ⁴	0	3	3	7	6	13
Gonorrhoea ⁵	230	53	283	1013	273	1286
Ophthalmia neonatorum ⁶	0	0	0	13	17	30
Non specific cervicitis/urethritis	135	273	408	617	1106	1723
Chlamydial Infection	0	1	1	15	11	26
Genital Herpes	196	209	405	769	765	1534
Genital Warts	146	80	226	604	345	949
Chancroid	0	0	0	4	1	5
Trichomoniasis	6	37	43	17	138	155
Candidiasis	221	288	509	893	1128	2021
Bacterial Vaginosis	1	210	211	6	935	941
Other sexually transmitted diseases ⁷	118	67	185	431	205	636
Non-venerial ⁸	815	478	1293	3508	2145	5653

* 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 inguinale, Molluscum contagiosum, Scabies, Tinea, Hepatitis B etc.

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

MEDICAL RESEARCH INSTITUTE

19. BACTERIOLOGY REPORT – 4TH QUARTER 2005

Table 15.

	October	November	December
(A) CHOLERA			
No. of stool spe. examined	-	-	-
No. of El. tor cholera	-	-	-
Ogawa	-	-	-
Inaba	-	-	-
Cholera 0139	-	-	-
(B) SALMONELLA			
Blood No. examined	51	42	49
S. typhi	01	-	01
S. paratyphi	-	01	-
Stools – No. examined	129	170	158
No. +ve S. typhi	-	-	-
S. paratyphi A	-	-	-
Others	-	05	02
(C) SHIGELLA			
No. of spec. examined	129	170	158
No. +ve Sh. flexneri 1	-	01	01
Sh. flexneri 2	01	18	06
Sh. flexneri 3	--	-	-
Sh. flexneri 4	-	-	-
Sh. flexneri 5	-	-	-
Sh. flexneri 6	02	03	03
Sh. sonnei	07	14	10
Sh. others	-	-	-
(D) ENTEROPATHOGENIC			
E. coli			
No. of spec, examined	65	67	80
No. +ve Group A	-	03	02
(E) CAMPYLOBACTOR SPECIES			
	02	06	04

20. SURVEILLANCE REPORT OF VIRAL HEPATITIS – 2004

Viral Hepatitis is an endemic diseases in all parts of Sri Lanka particularly where the sanitation is poor and occurs throughout the year. The average annual admission rate to government hospitals in Sri Lanka for viral hepatitis declined from 57 per 100,000 in 1991 to 11.5 per 100,000 during 2004. The actual incidence of viral hepatitis is likely to be more than the hospital admission figures, as a large number of patients do not seek treatment at all or are being treated by private practitioners and, practitioners of traditional medicine, and therefore, not reported to the epidemiologists. A large number of patients treated at the OPD is not reported to the Epidemiologist, as OPD reporting is poor. The hospital mortality rates are about 0.4% to 0.5%.

Viral hepatitis is a notifiable disease in Sri Lanka.

Outbreaks are experienced in every 5-6 years, but with lesser magnitude. (Table 16) In the year 2004, 2237 cases (11.5 per 100,000) of viral hepatitis were notified as, reported to the Epidemiology Unit (Table 17). The highest number of 373 was reported from Trincomalee DPDHS division recording a very high incidence of 101.6 per 100,000. The other DPDHS areas where high numbers of viral hepatitis cases reported were; Gampaha (196), Kalutara (92), Kandy (128), Matale (171), Badulla (275), Batticaloa (120), Ratnapura (113), Kegalle (108), and Monaragala (119). The lowest numbers of cases were reported from Vavunia (06 cases), Killinochchi (08 cases), Galle (07 cases) and Mullativu (08 cases). The possibility of under reporting of cases in some DPDHS divisions cannot be ruled out. It is important to note that the disease has been more prevalent in Trioncomalee and Batticaloa during the last two years. Nuwara Eliya, where the viral hepatitis was endemic for the last few years has reported only 43 cases. It is necessary to

clarify whether this is a true decline or an incidence of under reporting.

Confirmed cases

Despite the 2237 cases of viral hepatitis reported from the government health institutions in 2004, only 765 cases were confirmed by field investigations. Some cases were not investigated and some were unable to be traced due to incorrect or incomplete addresses. Table 18 gives the confirmed cases of viral hepatitis received by the Epidemiology Unit from DPDHS divisions from 2000 -2004. The highest number of 190 (24.8%) confirmed cases was reported by DPDHS Trincomalee.

Seasonal Distribution

The distribution of Viral Hepatitis cases in 2001 and 2004 by months is given in Figure 1 and 2. There is no marked seasonality observed.

Age and Sex Distribution

The age distribution of investigated / confirmed cases of viral Hepatitis for the years 2000 - 2004 is given in table 19. The highest percentage of around 50% occurred in the age group 1- 14 years in 2004. It was observed that the corresponding age group had the highest percentages all the time, during the past years. This is an important epidemiological finding that viral hepatitis is a problem among the age group of 1- 14 years and there is a subsequent decline of cases in the advanced age groups. Therefore priority regarding the prevention and control activities should be given to this age group.

The reported cases of viral hepatitis in 2004 gives a male to female sex ratio of 4 : 3 (439 males and 326 females).

Control and prevention

In addition to the routine investigation carried out using of H399 and H411a, special investigation is carried out for each suspected or confirmed case of viral hepatitis reported from the MOOH and medical institutions. Objective of introduction of special investigation form in year 2000 was to obtain necessary epidemiological information to carry out early prevention and control activities, particularly at the district and divisional levels. However, the Epidemiological Unit has observed that this system of special investigation of viral hepatitis is not satisfactory; since its coverage is less than 50%. A substantial proportion of those investigation forms are incomplete and received late at the Epidemiological Unit.

Following the review of benefits and constraints in this practice, it has been decided to carry out special investigations only in selected DPDHS divisions, where the incidence is high; DPDHS Colombo, Gampaha, Kalutara, Kandy, Matale, Nuwara-Eliya, Ratnapura, Kegalle, Kurunegala, Badulla, Trincomalee, Batticaloa and Jaffna.

However, in other DPDHS divisions, if there is any clustering (3 or more cases per week or 10 or more cases per month) of viral hepatitis reported in a DDHS/MOH division, special investigation should be carried out by the respective DDHS/MOH.

It is the responsibility of Regional Epidemiologists to monitor and evaluate this activity at the divisional and district levels. It is also the responsibility of Regional Epidemiologists to ensure that special investigation forms are available at all the DDHS/MOH offices all the time. This will minimize delay in investigation and avoid duplication of field work for routine investigation (H399, H411 & H411a) and special investigations.

DDHS/MOH are advised to send these investigated special investigation forms to the Regional Epidemiologist, but not to the Epidemiology Unit directly. The purpose of sending special investigation of viral hepatitis to the Regional Epidemiologist is to provide an opportunity to use this information for the disease surveillance at the district level. Regional Epidemiologists should send these special investigation forms to the Epidemiology Unit monthly with a consolidated report. This new practice was commenced in March 2004 (Table 20).

In Sri Lanka, prevalence of hepatitis B and C ranges from 0.27% to 2.5% and 0.56% to 0.97% respectively. There was no large-scale hepatitis B vaccination programmes in Sri Lanka until year 2003 and only people at higher risk are immunized against hepatitis B. The Ministry of Health introduced routine infant hepatitis B vaccination into the EPI from year 2003 in a phased manner with assistance from the Global Alliance for Vaccine and Immunization (GAVI). Western, Southern and North-western provinces were covered in 2003 and another three provinces Central, Sabaragamuwa and North Central in 2004. By 2005, this programme will cover the entire country. The reported coverage of Hepatitis B in Phase I and II area was over 95%.

Table 16.

**REPORTED AND CONFIRMED VH CASES
1990- 2004**

Year	Cases Reported	Cases Confirmed
1990	2768	805
1991	3949	1333
1992	6895	2216
1993	1153	1283
1994	2926	1012
1995	3385	954
1996	3690	1458
1997	3830	1394
1998	2814	426
1999	1617	596
2000	1486	373
2001	2034	611
2002	2931	1049
2003	2984	1194
2004	2237	765

Table 17.

**DISTRIBUTION OF NOTIFIED VIRAL
HEPATITIS CASES BY DPDHS DIVISIONS-
2004**

DPDHS	No. Notified	%	Rate per 100,000
Colombo	90	4.0	3.9
Gampaha	196	8.8	9.2
Kaluthara	92	4.1	8.4
Kandy	128	5.7	9.7
Matale	171	7.6	37.2
Nuwara Eliya	34	1.5	4.7
Galle	7	0.3	0.7
Hambantota	21	0.9	3.9
Matara	19	0.8	2.4
Jaffna	82	3.7	15.0
Kilinochchi	8	0.4	5.1
Mannar	21	0.9	20.8
Vavuniya	6	0.3	4.0
Mulativu	8	0.4	4.8
Batticaloa	120	5.4	22.4
Ampara	69	3.1	11.3
Trincomalee	373	16.7	101.6
Kurunegala	70	3.1	4.7
Puttalam	41	1.8	5.6
A' pura	46	2.1	5.9
Polonnaruwa	21	0.9	5.6
Badulla	275	12.3	34.0
Moneragala	119	5.3	29.0
Ratnapura	113	5.0	10.8
Kegalle	108	4.8	13.4
SRI LANKA	2237	100	11.5

Table 18.

DISTRIBUTION OF CONFIRMED CASES OF VIRAL HEPATITIS BY DISTRICT 2000-2004

District	2000		2001		2002		2003		2004	
	No.	%	No.	%	No.	%	No	%	No	%
Colombo	31	8.3	7	8.3	49	4.7	55	4.6	38	4.9
Gampaha	46	12.3	17	20.2	116	11.1	180	15.1	104	13.6
Kalutara	28	7.5	2	2.4	12	1.1	64	5.4	31	4.1
Kandy	14	3.8	19	22.6	113	10.8	160	13.4	69	9.0
Matale	9	2.4	0	0.0	45	4.3	157	13.1	20	2.6
Nuwara-Eliya	8	2.1	0	0.0	99	9.4	26	2.2	9	1.2
Galle	10	2.7	3	3.6	12	1.1	21	1.8	3	0.4
Hambantota	2	0.5	1	1.2	8	0.8	10	0.8	3	0.4
Matara	6	1.6	2	2.4	8	0.8	5	0.4	6	0.8
Jaffna	4	1.1	3	3.6	14	1.3	18	1.5	31	4.1
Vavuniya	18	4.8	2	2.4	0	0	0	0	2	0.3
Ampara	12	3.2	0	0.0	6	0.6	7	0.6	4	0.5
Batticaloa	2	0.5	0	0.0	37	3.5	77	6.5	55	7.2
Trincomalee	9	2.4	0	0.0	36	3.4	38	3.2	190	24.8
Kurunegala	15	4.0	5	6.0	21	2.0	38	3.2	18	2.4
Puttalam	47	12.6	5	6.0	16	1.5	11	0.9	11	1.4
Anuradhapura	22	5.9	0	0.0	35	3.3	29	2.4	14	1.8
Polonnaruwa	11	2.9	1	1.2	23	2.2	25	2.1	8	1.0
Badulla	3	0.8	0	0.0	39	3.7	36	3.0	20	2.6
Monaragala	2	0.5	0	0.0	1	0.1	23	1.9	28	3.7
Kegalle	52	13.9	12	14.3	330	31.5	229	19.2	71	9.3
Ratnapura	22	5.9	5	6.0	24	2.3	12	1.0	9	1.2
Kilinochchi	0	0.0	0	0.0	0	0	0	0	0	0
Mullativu									1	0.1
Mannar									17	2.2
Kalmunai									3	0.4
Total	373	100	84	100	1048	100	1194	100	756	100

Table 19.

DISTRIBUTION OF CONFIRMED CASES OF VIRAL HEPATITIS BY AGE GROUP 2000-2004

Age Group	2000		2001		2002		2003		2004	
	N	%	N	%	N	%	N	%	N	%
<1 yrs	1	0.3	1	0.1	0	0	3	0.25	0	0
1 – 14 yrs	163	43.7	281	45.9	442	42.3	474	39.7	383	50.7
15-24 yrs	92	24.7	153	25.1	348	33.3	388	32.5	190	25.1
25-44 yrs	86	23.1	123	20.1	191	18.3	269	22.5	135	17.9
45-64 yrs	27	7.2	34	5.6	47	4.5	55	4.6	36	4.8
> 65 yrs	4	1.1	19	3.1	18	1.7	5	0.4	12	1.5
Total	373	100	611	100	1046	100	1194	100	765	100

Table 20.

DISTRIBUTION OF CONFIRMED CASES OF VIRAL HEPATITIS BY SEX 2000-2004

Year	2000		2001		2002		2003		2004	
	N	%	N	%	N	%	N	%	N	%
Male	226	60.6	352	57.6	620	59.3	892	74.7	439	57.4
Female	147	39.4	259	42.4	429	40.7	302	25.3	326	42.6
Total	373	100	611	100	1046	100	1194	100	765	100

Figure 1:

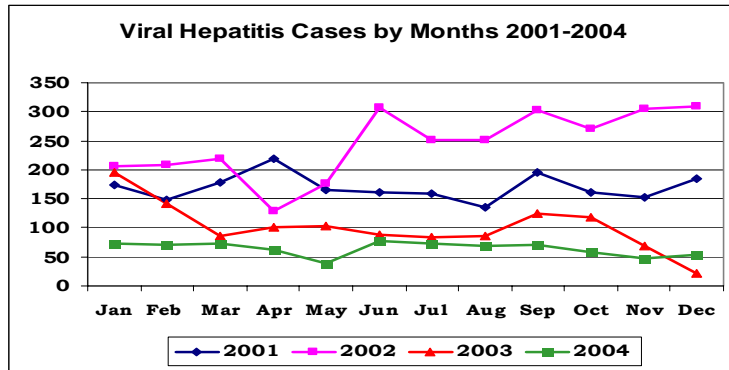


Figure 2:

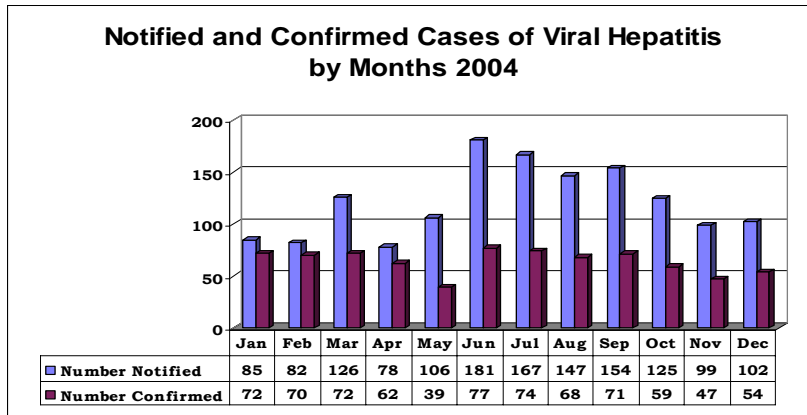


Table 21.

REGIONAL EPIDEMIOLOGIST'S MONTHLY REPORTING OF VIRAL HEPATITIS - 2004

Regional Epidemiologist	Total number of monthly returns received (1)	% (n=10*)	Timeliness (2)	Timeliness as a % (2/1)
Colombo	9	90%	9	100%
CMC	9	90%	3	33%
Gampaha	9	90%	9	100%
Kalutara	10	100%	5	50%
NIHS	4	40%	3	75%
Kandy	1	100%	1	100%
Matale	5	50%	3	60%
Nuwaraeliya	0	0%	0	0%
Jaffna	8	80%	8	100%
Batticaloa	10	100%	9	90%
Trincomalee	9	90%	6	66%
Kurunegala	10	100%	6	60%
Badulla	3	30%	0	0%
Ratnapura	8	80%	5	63%
Kegalle	10	10%	10	100%

* Note: Regional Epidemiologists monthly reporting system was commenced in March 2004. Therefore only 10 months (Mar-Dec) were considered.

21. CDD SURVEILLANCE REPORT - 2004

Dysentery Surveillance

A total of 10201 cases of Dysentery were notified to the Epidemiological Unit for the year 2004.

Badulla district notified the highest number with 1313 notifications. Matale and Kurunegala districts too notified a high number of cases of 849 and 804 respectively.

The following MOH areas notified a high number of cases during 2004.

MOH Area	Number
1. Girandurukotte	367
2. Rideemaliyadda	306
3. Yatawatta	244
4. Vavuniya	164
5. Mutur	157

The notification of cases of dysentery by districts for year 2004 is given in the table 22.

Notification of cases of Dysentery by districts – 2004

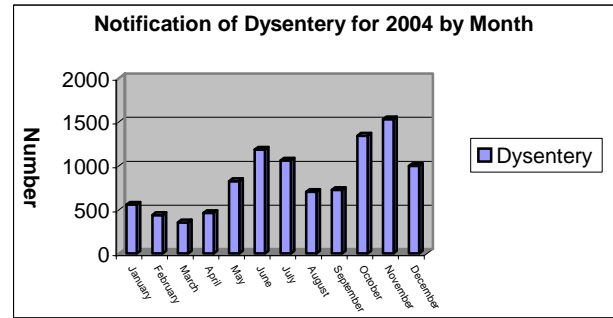
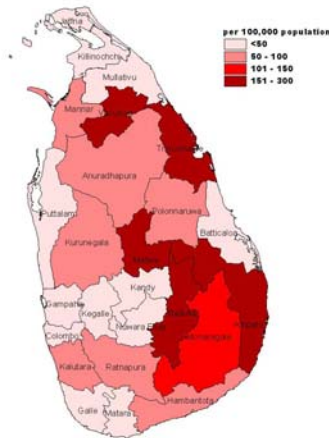


Table 22.

NOTIFICATION OF CASES OF DYSENTERY BY DISTRICTS – 2004

District	No.	Rate*
Colombo	302	12.99
Gampaha	351	16.47
Kalutara	571	52.05
Kandy	500	37.82
Matale	849	184.57
Nuwara Eliya	343	47.31
Galle	263	25.63
Hambantota	478	88.03
Matara	219	27.72
Jaffna	147	26.92
Kilinochchi	64	40.51
Mannar	98	97.03
Vavuniya	233	155.33
Batticaloa	71	13.25
Ampara	350	168.27
Trincomalee	617	168.12
Kurunegala	804	53.64
Puttalam	281	68.36
Anuradhapura	484	38.39
Polonnaruwa	259	62.53
Badulla	1313	69.62
Moneragala	459	162.5
Ratnapura	715	111.68
Kegalle	356	44.22
Kalmunai	51	15.18
Mullativu	23	13.69
TOTAL	10201	52.30

Monthly distribution of dysentery notification for year 2004

The month of November had the highest number of notification with 1531. October too had a total of 1344 cases notified. Notification of Dysentery from the entire country for the year 2004 by month is given below.

Enteric Fever Surveillance

A total of 3029 cases were notified to the Epidemiological Unit for the year 2004.

Highest number of notification was from Jaffna district with 775 cases, accounting to more than 25% of the total notification. Ratnapura and the Nuwara Eliya districts too notified 275 and 242 cases respectively.

The following MOH areas notified a high number of cases during 2004.

MOH Area	Number
1. Kayts	202
2. Point Pedro	197
3. Manipay	143
4. Telippalai	107

The notification of cases of enteric fever by districts for year 2004 is given in the table 21.

Notification of cases of Enteric Fever by district - 2004

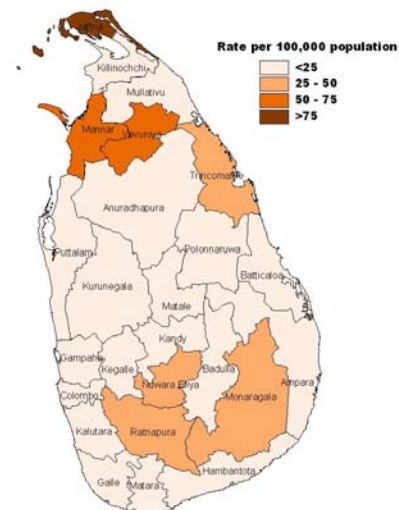


Table 23.
NOTIFICATION OF CASES OF ENTERIC FEVER BY DISTRICTS – 2004

District	No.	Rate*
Colombo	48	2.06
Gampaha	75	3.52
Kalutara	88	8.02
Kandy	149	11.27
Matale	43	9.35
Nuwara Eliya	242	33.38
Galle	9	0.88
Hambantota	24	4.42
Matara	106	13.42
Jaffna	775	141.94
Kilinochchi	14	8.86
Mannar	74	73.26
Vavuniya	111	74.00
Batticaloa	35	6.53
Ampara	19	9.13
Trincomalee	126	34.33
Kurunegala	112	7.47
Puttalam	182	24.86
Anuradhapura	83	10.72
Polonnaruwa	59	15.86
Badulla	135	16.71
Moneragala	107	26.03
Ratnapura	275	26.29
Kegalle	28	3.48
Kalmunai	86	25.60
Mullativu	24	14.29
TOTAL	3029	15.53

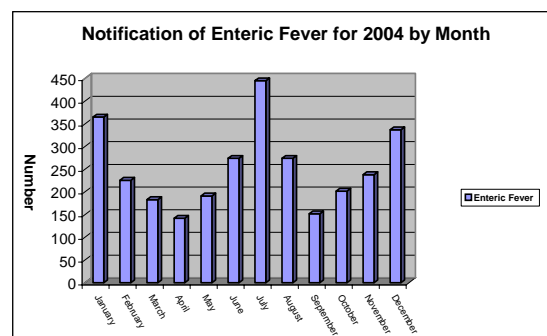
Monthly distribution of enteric fever notification for year 2004.

The month of July had the highest number of cases reported with 445. In January there were 365 cases reported.

Notification of Enteric Fever from the entire country for the year 2004 by month is given below.

Cholera Surveillance

No confirmed cases of cholera were reported to the Epidemiological Unit in the year 2004. This is in comparison to one case reported in the previous year.



Teaching/Training conducted in 2004

Two training programmes were conducted in 2004 at central level to nursing staff carrying out surveillance activities in the NHSL, Teaching Hospitals, General Hospitals and Base Hospitals in entire country on diarrhoeal disease surveillance and notification procedure.

In addition, two MOH level training programmes were carried out in Yatawatta MOH area of the Matale district and the Rideemaliyadda MOH area of the Badulla district for the field staff including outbreak investigation of dysentery and enteric fever. These two MOH areas were selected due to the increased notification of dysentery.

Special projects in 2004

A UNICEF sponsored project to reduce diarrhoeal disease in conflict affected areas was initiated in 2004. This included a consultative meeting where a decision was taken to carry out this project in MOH Kinnia area in the Trincomalee district and MOH Kahatagasdigiliya area in the Anuradhapura district.

Activities to be carried out were finalized and a baseline pre-intervention survey was conducted in these two MOH areas in the latter part of 2004.

This project is sponsored by the UNICEF and co-ordinated by the central Epidemiological Unit and implemented at district level by the respective DPDHS.

It is scheduled to commence in early 2005.

22. SUMMARY OF NOTIFIABLE DISEASES – 4TH QUARTER (OCTOBER - DECEMBER) 2005

Table 24.

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	82	533	2	23	10	2	64	0	6	1	1	18
Gampaha	0	0	145	298	1	23	9	0	43	0	2	0	3	33
Kalutara	0	0	93	220	3	14	4	1	28	0	5	0	1	7
Kandy	0	0	140	268	3	49	26	0	36	1	7	1	17	28
Matale	0	0	277	36	1	5	8	1	5	2	0	0	0	5
Nuwara Eliya	0	0	51	11	0	50	0	0	4	1	3	0	5	13
Galle	0	0	47	32	0	8	25	0	18	0	0	0	0	3
Hambantota	0	0	57	16	1	5	6	0	5	0	2	1	17	2
Matara	0	0	54	80	1	9	2	0	22	0	0	2	29	2
Jaffna	0	0	89	4	1	66	13	2	0	0	2	1	10	43
Kilinochchi	0	0	36	2	0	5	0	0	0	2	0	0	0	1
Mannar	0	0	26	0	0	15	0	0	0	0	0	0	0	3
Vavuniya	0	0	108	1	0	17	5	1	2	0	0	0	0	5
Mullativu	0	0	7	0	0	13	0	0	0	0	1	0	0	11
Batticaloa	0	0	10	4	0	2	1	0	0	1	0	0	0	62
Ampara	0	0	45	0	0	1	1	0	4	0	0	0	1	29
Trincomalee	0	0	137	3	0	7	1	2	1	0	0	0	2	84
Kurunegala	0	0	503	71	1	19	11	3	22	0	2	2	2	12
Puttalam	0	0	327	25	1	23	3	0	7	0	0	0	1	28
Anuradhapura	0	0	135	97	0	11	0	0	10	2	1	1	4	12
Polonnaruwa	0	0	41	19	0	1	6	0	3	1	0	0	1	8
Badulla	0	0	238	46	0	46	18	1	9	0	0	1	34	48
Moneragala	0	0	110	1	0	45	4	0	11	0	2	0	29	30
Ratnapura	0	0	182	129	4	27	6	2	34	1	6	0	9	33
Kegalle	0	0	80	39	0	10	5	1	86	0	1	0	20	23
Kalmunai	0	0	44	1	0	12	0	0	0	0	0	1	0	148
TOTAL	0	0	3064	1936	19	506	164	16	414	11	40	11	186	691

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

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- Figures given may be subjected to revision
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Such reports should be addressed to:

The Editor

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