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1. POLIOMYELITIS

Nineteen (19) Acute Flaccid Paralysis cases were notified to the Epidemiology Unit during the 1st quarter 2008. In comparison during the 1st quarter of 2007 and 2006, 23 and 42 AFP cases were reported respectively. This number does not reach the expected number of AFP cases per quarter which is 28 according to WHO surveillance criteria. This number for the quarter or 112 AFP cases per year makes up a non-polio AFP rate of 2 per every 100,000 under 15 year olds. The non-polio AFP rate for the first quarter of 2007 was 1.4.

Notification of AFP Cases from Hospitals

Majority of the cases (8 i.e.42%) were notified from the main sentinel site for AFP, the Lady Ridgeway Children's Hospital (LRH), Colombo. LRH as a tertiary care center receives referrals from other hospitals in the country. Other hospitals that notified AFP cases in the 1st quarter are as follows:

Hospital	No. of cases
LRH	8
TH Anuradhapura	2
GH Ratnapura	1
NHSL	1
GH Badulla	1
TH Ragama	1
TH Batticaloa	1
TH Colombo South	1
TH Karapitiya	1
GH Hambantota	1
BH Mawanella	1

Distribution of AFP Cases by Provinces, Districts & MOH Areas

The highest number of cases reported from a single district during this quarter was 2. Colombo and Gampaha of the Western Province, Galle and Hambantota of Southern Province, Badulla of Uva Province and Ratnapura of Sabaragamuva province each had 2 AFP cases (10%) each. Jaffna district in the Northern Province reported 1 AFP case in the 1st quarter. The complete list of distribution of AFP cases according to the province, district MOH area is given in Table 1.

Seasonal Distribution of AFP Cases

During the 1st quarter 2008, the highest number of AFP cases were reported in the month of February (8 cases i.e.42%). In January, 6 (32%) cases were reported. March had 5 cases of AFP.

Table 1

GEOGRAPHICAL DISTRIBUTION OF AFP CASES 1ST QUARTER 2008

Province	District	MOH Area	Number of AFP cases
Western	Colombo	Moratuwa	1
		CMC	1
	Gampaha	Kelaniya	1
		Ragama	1
Southern	Galle	Hikkaduwa	1
		Balapitiya	1
	Matara	Thihagoda	1
	Hambantota	Ambalantota	1
Hambantota		1	
Central	Kandy	Gampola	1
	Matale	Dambulla	1
Sabaragamuva	Ratnapura	Ayagama	1
		Opanayaka	1
	Kegalle	Mawanella	1
North Western	Kurunegala	Rideegama	1
North Central	Anuradhapura	Mihintale	1
Uva	Badulla	Welimada	1
		Ridimaliyedda	1
Eastern	Batticaloa	Vakarai	1

Distribution of AFP Cases by Age and Sex

Majority of the AFP cases (9 i.e.47%) reported in the 1st quarter 2008 were aged between 1-4 years. In comparison the majority of the AFP cases reported in the 1st quarter 2007 were older and between 10-14 years of age. Six (32%) children belonged to 5-9 year age group. Two cases were aged between 10-14 years and another two were below 1 year of age.

Sixty two percent of the AFP cases in the 1st quarter 2008 (12) were boys. A similar trend was observed in 1st quarter 2007 where twelve of the 23 cases (52%) reported were males. However a similar trend was not evident within the individual age groups.

Table 2 shows the age and sex distribution in 1st quarter 2008.

Table 2

DISTRIBUTION OF AFP CASES BY AGE AND SEX 1ST QUARTER 2008

Age Group	Sex		Total
	Male	Female	
<1 year old	1	1	2
1-4 year old	6	3	9
5-9 year old	3	3	6
10-15 year old	2	0	2
Total	12	7	19

Laboratory Surveillance of AFP Cases

Two stool samples collected within 14 days of the onset of paralysis are required at the Medical Research Institute for polio virology. According to WHO criteria these samples should be of 'good condition' as well as timely, being of correct quantity (8-10g), being sent in a leak proof container with no evidence of spillage or leakage and presence of ice in the container on receipt are the criteria to make the samples of 'good condition'.

All 19 AFP cases (100%) had at least one stool sample sent to MRI for polio virology. Sixteen cases out of the 19 AFP cases (84%) reported in the 1st quarter had two timely stool samples sent to MRI for polio virology. This is similar to the timely collection rate (83%) achieved out of 23 AFP cases recorded in the respective quarter 2007.

2. CHOLERA

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

3. TETANUS

During the 1st quarter 2008, 11 tetanus cases were notified to the Epidemiology Unit. This is in comparison to 12 cases reported during the previous quarter and 9 cases in the corresponding quarter of 2007.

Six cases were investigated and confirmed as tetanus during the current quarter, out of which two cases above the age of 35 years had been fatal. No cases of neonatal tetanus were reported during the quarter.

Table 3

SELECTED CHARACTERISTICS OF CONFIRMED CASES OF TETANUS – 1ST QUARTER 2008

(N = 06)

Sex	Male	6
	Female	0
Age group	< 1	0
	1-5	0
	>5	6*
District	Batticaloa	2
	Gampaha	1
	Jaffna	1
	Kurunegala	2
Immunization status	Immunized	1
	Non immunized	
	Unknown	5

* Adults aged between 35 and 59 years

4. MEASLES

During the 1st quarter 2008, 31 cases of measles were notified to the Epidemiology Unit compared to 18 cases notified during the previous quarter and 17 cases in the corresponding quarter of last year.

Ten (10) cases were investigated and confirmed as measles during the 1st quarter 2008 (Table 4).

Table 4

SELECTED CHARACTERISTICS OF CONFIRMED CASES OF MEASLES – 1ST QUARTER 2008

(N = 10)

Sex	Male	7
	Female	3
Age group	< 1	1
	1-5	0
	>5	9
District	Jaffna	8
	Ratnapura	1
	Kegalle	1
Immunization status	Immunized	2
	Non immunized	4
	unknown	4

5. LEPTOSPIROSIS

In the 1st quarter 2008, 917 leptospirosis cases were notified to the Epidemiology Unit compared to 1099 cases in the previous quarter and 418 cases during the corresponding quarter of 2007.

Very high reporting and unusually high case fatality rate were some of the notable features for this quarter. A large number of cases were reported from the districts of Matale (159), Colombo (115), Kalutara (91), Matara (91), Galle (91) and Gampaha (86). Furthermore, districts like Ratnapura (45), Hambantota (32), Anuradhapura (24) and Moneragala (23) reported unusually large number of cases, while the sentinel districts like Kegalle (39), and Kurunegala (20) reported less cases compared to previous years.

Sentinel surveillance was carried out in 16 hospitals located in 9 districts. There were 492 admissions of suspected cases of leptospirosis. Out of these cases, for 477 cases (97%) notifications were made and for 418 cases (85%) special investigation forms were sent. Though the average figures appear fairly satisfactory, the rate of special investigation was very low in several hospitals like TH Kandy (0%), TH Peradeniya (50%), TH Kurunegala (40%) and TH Karapitiya (60%).

The sentinel hospital also reported 32 deaths due to leptospirosis during the quarter; however laboratory confirmation was available only for 3 cases and results were pending for 3 cases. Out of these 32 deaths, 21 deaths were investigated. According to which the sex ratio was M:F = 19.2, 16 patients were more than 40 years old and the youngest was 26 years old. Acute renal failure was the most common cause of death (14 cases), followed by multi-organ failure (4) and myocarditis (3). For majority of fatal cases (12), history of exposure at paddy fields was found.

6. HUMAN RABIES

Fifteen (15) cases of human rabies were notified to the Epidemiology Unit in the 1st quarter 2008, compared to 15 cases in the previous quarter and 16 cases in the corresponding quarter of year 2007. Highest incidence of Rabies was reported from Batticaloa district (4 cases). Distribution of cases by district is given in Table 21.

Animal Rabies

During the quarter 167 dogs were reported positive for rabies compared to 153 in the previous quarter and 183 in the corresponding quarter of 2007. In addition the following animals were also reported positive;

Cats-16, Wild animals-01, Domestic Ruminants-01

Rabies Control Activities*

Dog vaccination - A total of 207655 dogs were immunized during the 1st quarter 2008 when compared to 215046 in the previous quarter and 282882 in the corresponding quarter of last year.

Birth Control Activities - 33352 free roaming female dogs were injected with Progesterone and 5258 female dogs were sterilized by surgical method. In comparison Progesterone injection was administered to 27807 female dogs and 1523 sterilizations were carried out during the previous quarter .

*Source – Director/PHVS

7. ENTERIC FEVER

In the 1st quarter 2008, a total of 666 cases of enteric fever were notified to the Epidemiology Unit, compared to 506 cases in the previous quarter and 606 cases in the corresponding quarter of 2007. Jaffna district reported the highest number of cases (138 cases i.e. 21%) (Table 21).

The MOH areas Walapone (55), Mannar (54) and Jaffna Municipal council (54) notified a large number of cases during the quarter under review.

8. VIRAL HEPATITIS

In the 1st quarter 2008, 635 cases of viral hepatitis were reported to the Epidemiology Unit, compared to 868 cases in the previous quarter and 750 cases in the corresponding quarter of 2007.

Among the reported cases, 511 were investigated and confirmed as viral hepatitis. RDHS area Kegalle notified the highest number of cases (175) accounting for 28% of the total case load followed by Kandy (53 cases i.e.8%) , Nuwara Eliya (50 cases i.e. 8%), Badulla (50 cases i.e. 8%) and Batticaloa (47 cases i.e. 7%).The MOH areas Mawanella (96 cases i.e. 15%) and Aranayaka (43 cases i.e. 7%) in the

Kegalle district and Colombo Municipal Council (24 cases i.e. 4%) have reported the highest number of cases.

9. DYSENTERY

In the 1st quarter 2008, 1358 cases of dysentery were notified to the Epidemiology Unit, compared to 1905 cases in the previous quarter and 1267 cases in the corresponding quarter of 2007.

The MOH areas Rambukkana (47), Mawanella (42), Panadura (42) and Dehiattakandiya (35) notified the highest number of cases.

10. JAPANESE ENCEPHALITIS (J.E.)

During the 1st quarter 2008, 88 cases of Encephalitis were reported to the Epidemiology Unit. Among the reported cases, 17 (19%) were investigated and 7 were found to be clinically confirmed as JE. Among them two were under 10 years of age and other five cases were over the age of 21 years. One death was reported during the quarter (Table 5).

This is in comparison to 44 cases and one death reported during the previous quarter and 66 cases and one death reported in the corresponding quarter of 2007.

Table 5

DISTRIBUTION OF JAPANESE ENCEPHALITIS CASES BY RDHS/ MOH DIVISION - 1ST QUARTER 2008

RDHS	MOH Area	Cases	Deaths
Gampaha	Meerigama	1	1
Kalutara	Matugama	1	0
	Panadura	1	0
Kegalle	Warakapola	1	0
Ratnapura	Eheliyagoda	1	0
Puttalam	Mundel	1	0
Vavuniya	Vavuniya	1	0
Total		7	1

11. MALARIA

During the 1st quarter 2008, there was a significant reduction in the incidence of malaria in comparison to the same period of 2007 as seen in Table 6. Distribution of malaria cases by RMO division is shown in Table 7.

Source : Anti Malaria Campaign

Table 6

RESULTS OF BLOOD SMEAR EXAMINATION FOR MALARIA PARASITES - 1ST QUARTER 2007/2008

	1 st Quarter 2007	1 st Quarter 2008
No. of blood smears examined	275,473	267,591
No. of positives	61	12
No. of <i>P. vivax</i>	59	10
No. of <i>P. falciparum</i>	2	1
No. of mixed infections	0	1
No. of infant positives	0	0
Slide positivity rate (S.P.R.)	0.02%	0.004%
P.v. : P.f. ratio	29:1	10:1
Percentage of infant positives	0%	0%

Table 7

DISTRIBUTION OF MALARIA CASES BY RMO DIVISION - 1ST QUARTER 2008

RDHS Division	Blood smears	Positives	P.v.	P.f./ Mixed
Colombo	16592	0	0	0
Gampaha	11758	0	0	0
Kalutara	3267	0	0	0
Kandy	7061	1	0	1
Matale	2839	0	0	0
Nuwara Eliya	23	0	0	0
Galle	401	0	0	0
Matara	4708	0	0	0
Hambantota	9185	0	0	0
Jaffna	17798	0	0	0
Kilinochchi	5412	2	2	0
Mannar	4447	0	0	0
Vavuniya	14658	0	0	0
Mullativu	4929	0	0	0
Batticaloa	14449	0	0	0
Ampara	7249	0	0	0
Trincomalee	24394	7	6	1
Kurunegala	20628	1	1	0
Maho	8647	0	0	0
Puttalam	8222	0	0	0
Anuradhapura	33012	0	0	0
Polonnaruwa	16212	0	0	0
Badulla	5414	1	1	0
Moneragala	9126	0	0	0
Ratnapura	4139	0	0	0
Kegalle	1182	0	0	0
Kalmunai	11839	0	0	0
TOTAL	267591	12	10	2

P.v. - *Plasmodium vivax*P.f. - *Plasmodium falciparum*

Table 8

MORBIDITY AND MORTALITY DUE TO DF/DHF - 1ST QUARTER 2008

RDHS Division	Cases	Percentage	Deaths
Colombo	500	23.1	1
Gampaha	316	14.6	1
Kalutara	158	7.3	0
Kandy	68	3.1	0
Matale	32	1.5	0
Nuwara Eliya	6	0.3	0
Galle	36	1.7	0
Hambantota	39	1.8	0
Matara	75	3.5	0
Jaffna	32	1.5	0
Kilinochchi	0	0.0	0
Mannar	20	0.9	0
Vavuniya	10	0.5	0
Mullativu	0	0.0	0
Batticaloa	55	2.5	2
Ampara	7	0.3	0
Trincomalee	125	5.8	2
Kurunegala	159	7.3	0
Puttalam	170	7.9	1
Anuradhapura	84	3.9	0
Polonnaruwa	27	1.2	0
Badulla	21	1.0	0
Moneragala	24	1.1	0
Ratnapura	93	4.3	0
Kegalle	95	4.4	0
Kalmunai	12	0.6	0
TOTAL	2164	100	7

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

During the 1st quarter 2008, 2164 cases of DF/DHF and 7 deaths were reported (CFR 0.3%) when compared to 2974 cases and 6 deaths (CFR 0.2%) reported during the previous quarter and 1499 cases and 9 deaths (CFR 0.37%) reported during the corresponding quarter of last year.

Table 8 shows the distribution of DF/DHF cases and deaths in the RDHS divisions during the quarter.

During the 1st quarter 2008, 799 blood samples were tested using Ig M capture ELISA test and Haemagglutination Inhibition test at the Department of Virology, MRI and 324 samples were confirmed as positive (Table 9).

Table 9.

DHF STATISTICS FROM DEPARTMENT OF VIROLOGY, MRI - 1ST QUARTER 2008

Month	Clinically Suspected	Serologically confirmed
January	299	84
February	267	140
March	233	100
Total	799	324

12.1 ENTOMOLOGICAL SURVEILLANCE OF DENGUE VECTORS

Results of the entomological surveillance carried out by the Medical Research Institute and Entomological Unit, Western Province, in selected MOH areas of Colombo and Gampaha districts, for the 1st quarter 2008 are given in Table 10.

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

Breteau Index

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

Table 10

Aedes LARVAL DENSITIES (BRETEAU INDEX) IN COLOMBO AND GAMPAHA DISTRICTS - 1ST QUARTER 2008

MOH Area	January		February		March	
	A	B	A	B	A	B
Nugegoda	6.5	7.0	13.3	18.6	9.7	10.8
Maharagama	3.3	13.3	1.5	12.5	3.0	13
Moratuwa	4.5	1.7	8.42	6.3	6.5	3.5
Kaduwwela	9.2	10.4	1.0	11.0	5.1	30.0
Dehiwala	1.6	0.8	10.0	6.0	Not done	
Piliyandala	2.4	18.4	11.0	12.5	0	10.0
Panadura	3.2	12.0	3.5	6.0	3.0	9.0
Kelaniya	3.4	8.0	7	7	5.3	10.6
Ragama	2.0	4.4	1.64	7.7	4.6	17.4
Ja-Ela	1.6	10.4	2.5	7.7	4.8	15.2
Mirigama	3.0	8.3	0	14.5	0.52	28.5

(A) = *Aedes aegypti*
(B) = *Aedes albopictus*

Number of premises examined per area = 300

13. TUBERCULOSIS

A total of 1442 tuberculosis patients were registered for 1st quarter 2008 by the National Programme for Tuberculosis Control and Chest Diseases. Of this total, 1106 suffered from pulmonary disease, and the balance, 336 patients from non-pulmonary disease. During the quarter 2128 cultures were done in the central laboratory and, 759 of these patients were bacteriologically confirmed with a bacteriological confirmation rate of 68.63%. No TB patients and other patients were hospitalized during the quarter.

The distribution of tuberculosis patients by RDHS division is given in Table 11.

B.C.G. vaccination

A total of 81623 B.C.G. vaccinations were carried out during the quarter with 85.31% coverage.

Table 11.

TUBERCULOSIS PATIENTS BY RDHS DIVISIONS - 1ST QUARTER 2008

RDHS DIVISION	PTB	EPTB	Total	Pulmonary TB Direct Smear	
				No. +VE	%
Colombo	290	79	369	227	78.3
Gampaha	89	32	121	74	83.2
Kalutara	93	38	131	67	72.0
Kandy	22	13	35	16	72.7
Matale	38	5	43	19	50.0
Nuwara Eliya	31	5	36	21	67.7
Galle	13	1	14	8	61.5
Hambantota	21	7	28	12	57.1
Matara	42	12	54	29	69.1
Jaffna	83	17	100	25	30.1
Vavunia	21	5	26	16	76.2
Kilinochchi	2	-	2	2	100.0
Mannar	6	1	7	5	83.3
Mullativu	-	-	-	-	-
Ampara	10	12	22	8	80.0
Batticaloa	14	3	17	-	-
Trincomalee	13	-	13	7	53.9
Kurunegala	56	20	76	39	69.6
Puttalam	12	3	15	6	50.0
Anuradhapura	35	20	55	19	54.3
Polonnaruwa	37	3	40	27	73.0
Badulla	38	18	56	26	68.4
Monaragala	9	-	9	7	77.8
Kegalle	34	9	43	25	73.5
Ratnapura	69	27	96	57	82.6
Kalmunai	28	6	34	17	60.7
Total	1106	336	1442	759	68.6

PTB-Pulmonary Tuberculosis

EPTB- Extra Pulmonary Tuberculosis

Data from Central TB Register

14. LEPROSY

QUARTERLY RETURN OF LEPROSY STATISTICS - 1ST QUARTER 2008

Table 12.

1. National

	At the end of the quarter			Cumulative for end of the quarter		
	1 st quarter 2008	1 st quarter 2007	Diff. (%)	1 st quarter 2008	1 st quarter 2007	Diff. (%)
New patients detected	392	386	1.6	392	386	1.6
Children	50	41	21.9	50	41	21.9
Grade 2 Deformities	29	26	11.5	29	26	11.5
Multi-Bacillary	159	179	-11.1	159	179	-11.1
Females	147	165	-10.9	147	165	-10.9

2. Districts

District	New patients	Deformities	Child	MB	Females
Colombo	97	4	10	35	31
Gampaha	69	2	10	22	27
Kalutara	48	2	10	14	20
Western	214	8	30	71	78
Galle	6	0	1	1	4
Matara	22	0	3	8	7
Hambantota	4	0	0	1	1
Southern	32	0	4	10	12
Kandy	14	3	2	5	5
Matale	7	2	2	5	1
Nuwara Eliya	0	0	0	0	0
Central	21	5	4	10	6
Anuradhapura	10	0	0	2	2
Polonnaruwa	8	0	0	3	3
North Central	18	0	0	5	5
Kurunegala	32	8	3	26	13
Puttalam	9	2	2	5	6
North Western	41	10	5	31	19
Kegalla	6	1	0	4	3
Ratnapura	19	3	4	12	5
Sabaragamuwa	25	4	4	16	8
Badulla	4	1	0	2	2
Moneragala	4	0	0	0	1
Uva	8	1	0	2	3
Trincomalee	2	0	0	1	1
Batticaloa	15	0	2	5	7
Ampara	4	0	0	3	2
Kalmunai	7	0	0	2	4
Eastern	28	0	2	11	14
Jaffna	1	0	0	0	0
Vavuniya	2	0	1	1	1
Mannar	2	1	0	2	1
Mullativu	0	0	0	0	0
Kilinochchi	0	0	0	0	0
Northern	5	1	1	3	2
Sri Lanka	392	29	50	159	147

Source : Anti Leprosy Campaign

15. SURVEILLANCE AT SEA PORT

Surveillance activities carried out by the Port Health Office at Colombo Sea Port during the 1st quarter 2008, is given below.

1. Yellow Fever Vaccination	Total
Total number vaccinated	- 19
2. Granting Pratique to Vessels	
Number issued	- 1143
3. Deratting Certification	
Number issued	- 08

Details of the vaccinations carried out by the Assistant Port Health Office, Colombo 8, during the 1st quarter 2008, is given below.

	Total
a. Yellow fever	691
b. Meningococcal meningitis	186

16. SURVEILLANCE AT AIRPORT

Surveillance activities carried out at the International Airport, Katunayake during the 1st quarter 2008 is given below.

1. Yellow Fever Surveillance	
a. No. with valid certificate	- 10
b. No. without valid certificate & Deported	- -
c. No. without valid certificate Isolated	- -
2. Airport Sanitation	
a. No. of sanitary inspections carried out including food establishments	- 51
b. No. of food samples taken under Food Act	- 09
c. No. found defective	- 02
d. No. of court cases/prosecuted/warned	- 02
e. No. of water samples tested	- 05
f. No. reported contaminated	- 0
3. Release of human remains	
a. No. of human remains released	- 118
b. No. referred to JMO for post-mortem	- 05
c. No. alleged suicide	- 06
4. Other Health Activities	
a. Polio Vaccination No. of doses given	- 71

17. BACTERIOLOGY REPORT - 1ST QUARTER - 2008 - MEDICAL RESEARCH INSTITUTE

Total number of stool samples tested for the quarter—225

Number found positive—23

Table 13.

ANTIBIOTIC SENSITIVITY PATTERN OF ENTEROPATHOGENS

Sensitivity (%)	Organism isolated	No. positive	%	Ampicillin			Ciprofloxacin			Ceftriaxone			Cefotaxime			Furoxone			Mecillinam			Nalidixic Acid		
				S	I	R	S	I	R	S	I	R	S	I	R	S	I	R	S	I	R	S	I	R
	1. Shigella sonnei	8	34.8				100					100			100						100			
	2. Shigella flexneri	3	13				100					100		66	33								100	
	3. Salmonella typhi	4	17.4	100			100			100		100		66	33		100				25		75	
	4. Salmonella paratyphi A	2	8.7			100		100		100		100		100			100				50		50	
	5. Salmonella Group B	1	4.3			100	100			100		100			100		100				100			
	6. Salmonella Group C	1	4.3	100			100			100		100		100			100				100			
	7. Compylobacter jejuni	4	17.4			100	75		25			100		100			100				25		75	

S - Sensitive I - Intermediate Sensitivity R - Resistance

18. SEXUALLY TRANSMITTED DISEASES

Table 14.

NEW EPISODES OF STD/HIV/AIDS REPORTED OR TREATED AT STD CLINICS IN SRI LANKA* - 1ST QUARTER 2008

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	11	5	16	11	5	16
AIDS	1	1	2	1	1	2
Early Syphilis ²	18	8	26	18	8	26
Syphilis	69	61	130	69	61	130
Late Syphilis ³						
Congenital Syphilis ⁴	1	0	1	1	0	1
Gonorrhoea ⁵	93	39	132	93	39	132
Ophthalmia neonatorum ⁶	1	1	2	1	1	2
Non specific cervicitis/urethritis	127	271	398	127	271	398
Chlamydial Infection	15	16	31	15	16	31
Genital Herpes	226	279	505	226	279	505
Genital Warts	155	112	267	155	112	267
Chancroid	0	0	0	0	0	0
Trichomoniasis	7	39	46	7	39	46
Candidiasis	240	336	576	240	336	576
Bacterial Vaginosis	-	219	219	-	219	219
Other sexually transmitted diseases ⁷	86	33	119	86	33	119
Non-venerial ⁸	850	750	1600	850	750	1600

* - 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.

19. SURVEILLANCE REPORT ON AEFI – 1ST QUARTER 2008

Surveillance of Adverse Events Following Immunizations (AEFI) has continued to be improved during the 1st quarter of 2008. This improvement has been observed in all aspects including completeness, timeliness and number of reports received as well as the quality of reports received. As given in Table 15, completeness of receipt of monthly reports from Medical Officers of Health during the 1st quarter 2008, out of 912 monthly reports expected, a total of 875 reports have been received at the Epidemiological Unit giving overall completeness rates of 95.9 %. Except from the districts of Mannar, Trincomalee and Kalmunai, all other districts have reported over 90% completeness indicating good compliance for the system by the MOOH.

However, there was only a marginal improvement in overall timeliness when compared to the corresponding quarter last year from 32.2 % to 38.2 %. Best timeliness of 67.4 % has been reported from Badulla district and least timeliness (0 %) has been reported from the Jaffna, Mullativu and Killinochchi districts. This may have been mainly due to postal delay from Northern Province due to the current disturbed situation.

During the 1st Quarter 2007, 349 out of total 875 monthly returns received were "Nil" returns (39.9 %). This indicator, which measures the sensitiv-

ity of the detection of AEFI at field level also has improved marginally as shown by the reduction in the percentage of 'Nil' returns from 48.1 % in the corresponding quarter of last year to 39.9 % this quarter. Highest number of "Nil" returns (100 %) was received from the Killinochchi district and the lowest number of such returns (9.1 %) was from the Hambantota district.

Highest number (205) as well as highest rate (452.7 per 100,000 immunizations) of AEFI were reported from Hambantota district. This was a significant increase when compared to the corresponding figures (47 and 72.6) for the Hambantota district, during the same period last year. On inquiry it was revealed that several special interventions were commenced in 2008 to strengthen the detection and reporting AEFI in 2008 in the Hambantota district. Since, all reports received from Killinochchi district were 'Nil' returns, no AEFI was reported from that district. There was a marginal increase in the overall AEFI rate (98.5 per 100,000 immunizations) for the quarter when compared to the same quarter (84.4 per 100,000 immunizations) for 2007.

As given in Table 16 the highest number (1053) and rate of AEFI (197.3 per 100,000 immunizations) were reported against DPT vaccine. When compared with the 1st quarter 2007 for same, there was a considerable increase in the rate of AEFI reported for DPT in 2008. Hib containing Pentavalent vaccine was introduced to the national immunization programme during the quarter under review.

Table 15.

COMPLETENESS AND TIMELINESS OF MONTHLY REPORTING AND RECEIPT OF "NIL" REPORTS OF AEFI BY RDHS DIVISIONS - 1ST QUARTER 2008

RDHS Division	(%) Completeness	(%) Timeliness	(%) "Nil" Returns	Reported AEFI	
				Number	Rate
Colombo	97.6	39.0	9.8	109	70.1
Gampaha	95.2	35.0	10.0	127	79.7
Kalutara	100.0	27.8	25.0	99	92.4
Kandy	95.8	42.0	14.5	174	167.4
Matale	97.2	20.0	71.4	18	48.4
Nuwara Eliya	100.0	33.3	38.5	49	79.6
Galle	90.2	32.6	63.0	25	32.2
Hambantota	100.0	30.3	9.1	205	452.7
Matara	96.1	55.1	55.1	35	52.3
Jaffna	100.0	0.0	61.9	50	136.3
Kilinochchi	100.0	0.0	100.0	0	0.0
Mannar	66.7	25.0	87.5	1	16.3
Vavuniya	91.7	27.3	72.7	7	62.9
Mullativu	100.0	0.0	80.0	1	6.0
Batticaloa	100.0	33.3	48.5	61	145.5
Ampara	100.0	9.5	33.3	37	169.8
Trincomalee	86.7	46.2	80.8	10	26.1
Kurunegala	98.1	47.2	26.4	106	76.9
Puttalam	100.0	33.3	37.0	47	66.8
Anuradhapura	91.2	38.5	55.8	35	47.9
Polonnaruwa	100.0	38.1	33.3	23	77.9
Badulla	95.6	67.4	30.2	120	182.3
Moneragala	100.0	57.6	21.2	78	208.1
Ratnapura	97.9	40.4	44.7	68	89.8
Kegalle	97.0	59.4	9.4	74	132.7
Kalmunai	89.7	42.9	74.3	14	31.9
Sri Lanka	95.9	38.2	39.9	1573	98.5

* Rate Per 100,000 immunizations

Due to the sensitivity of our AEFI surveillance system, it detected 10 episodes of Hypotonic Hyporesponsive Episodes (HHE) like cases against newly introduced Pentavalent vaccine. Further a few deaths reported temporally related to this vaccine in addition to the reported HHE cases, led to temporary withdrawal of Hib containing Pentavalent vaccine from the immunization programme, pending investigation.

Table 17 compares the reported AEFI against Pentavalent vaccine with the AEFI against DPT Table 16.

vaccine during the 1st quarters of 2007 and 2008. Its noteworthy feature is the comparatively low rate of injection site abscesses and severe local reactions related to Pentavalent vaccine when compared to DPT vaccine. Comparatively high rate of AEFI to DPT vaccine in 2008 may be due to improved reporting and proportionately less number of DPT 1 and DPT 2 immunizations conducted in 2008 when compared to 2007 due to its replacement by Pentavalent vaccine.

NUMBER AND RATE OF AEFI REPORTED BY VACCINE AND BY TYPE OF AEFI – 1ST QUARTER 2008

Vaccine	Seizure	Allergic Reactions	Abscess	Severe Local Reactions	High Fever	Lymphadenitis	Hypotonic Hyporesponsive Episodes	Meningitis	Nodule	Arthralgia	Death	Anaphylactic Shock	Persistent Screaming	Others	Total	Rate 100,000 doses
BCG	0	0	8	1	1	2	0	0	0	0	0	0	0	0	12	14.7
Penta	11	44	4	20	97	0	10	0	15	8	3	1	31	2	246	197.3
DPT	75	145	161	108	407	0	0	3	100	5	2	0	18	29	1053	452.6
OPV	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0.4
Measles	1	25	2	1	8	0	0	0	0	0	0	0	0	1	38	41.7
DT	5	13	5	9	16	0	0	0	1	0	0	0	0	5	54	53.8
TT	0	13	0	6	0	0	0	0	1	0	0	0	0	1	21	24.2
Rubella	0	47	0	4	0	0	0	0	0	0	0	0	0	3	54	57.9
JE	2	13	0	0	6	0	0	0	0	0	0	0	2	3	26	83.7
aTd	0	1	1	2	0	0	0	0	0	0	0	0	0	0	4	5.3
Hep	0	2	0	1	1	0	0	0	1	0	0	0	1	0	6	4.2
MR	2	28	1	3	12	0	0	0	0	0	0	0	1	4	51	64.2
Others	1	1	2	1	0	0	0	0	1	0	0	0	0	0	6	-
Total	97	332	184	156	548	2	10	3	119	13	5	1	53	50	1573	98.5

Table 17.

COMPARISON OF REPORTED AEFI AGAINST PENTAVELANT VACCINE IN 1ST QUARTER 2008 WITH AEFI AGAINST DPT VACCINE DURING 1ST QUARTERS OF 2007 & 2008

Type of AEFI reported	DPT				Pentavalent	
	1 st quarter 2007		1 st quarter 2008		1 st quarter 2008	
	No.	Rate	No.	Rate	No.	Rate
Injection site abscess	203	55.6	161	69.5	4	3.2
Severe Local Reaction	174	47.7	108	46.6	20	16.0
Hypotonic Hyporesponsive Episodes	0	0.0	0	0.0	10	8.0
High Fever	295	80.8	407	175.8	97	77.8
Allergic Reaction	143	39.2	145	62.6	44	35.3
Nodule	59	16.2	100	43.2	15	12.0
Seizures	67	18.4	75	32.4	11	8.8
Arthralgia	3	0.8	5	2.2	8	6.4
Excessive Screaming	31	8.5	18	7.8	31	24.9
Encephalopathy	1	0.3	0	0.0	0	0.0
Others	230	63	29	12.5	2	1.6
Sri Lanka	1206	330.5	1048	452.6	243	194.9

* Rate per 100,000 immunizations

20. SURVEILLANCE REPORT ON AFP 2007

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

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

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

In addition to the routine surveillance, active surveillance is carried out in the premier Children's Hospital in Colombo (Lady Ridgeway Hospital). An Epidemiologist from the Central Epidemiological Unit visits the hospital at least three days a week and checks the wards for cases of AFP. In addition, 55 sentinel surveillance sites have been set up since 1996 in major hospitals in every RDHS Division where Consultant Paediatricians are in place. Regional Epidemiologists are expected to visit their respective sentinel sites in the regions at least once a week. A monthly report of cases of AFP including a nil report is received from the Regional Epidemiologists at the Epidemiological Unit in Colombo.

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

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

Geographical Distribution of AFP cases 2007

A total of 87 AFP cases were reported for the year 2007 (Fig.1). This yielded a non polio AFP rate of 1.6 per 100,000 under 15 year old population. The highest number of cases, 14 (9%) was reported from Kandy RDHS Division. Nine cases were reported from Gampaha RDHS Division and eight from Ratnapura RDHS division. Highly populated Central and Western provinces accounted for 22 (25%) and 16 (18%) cases respectively. All Provinces and most RDHS divisions had reported AFP cases during the year. However Colombo, Kalutara, Galle and Kurunegala, had less than the required number and a non polio AFP rate below 2 per 100,000 under 15 year old population. Kalmunai, Ampara, Mannar, Mullativu, Kilinochchi and Moneragala districts have not reported any cases for the year.

Seasonal Distribution of AFP Cases 2007

The highest number of cases for the year was reported in November (11 cases i.e. 13%). Ten cases each were reported in January and June. Lowest number of cases (4) each was seen in February and August. As in previous years there was no trend observed in this distribution. Figure 2 shows the distribution of AFP cases for the year 2007.

AFP Surveillance Performance by Hospitals 2007

The main sentinel site for AFP out of the 58 sentinel sites in the country, Lady Ridgeway Children's Hospital (LRH), Colombo which is a tertiary paediatric care center receiving referrals from other hospitals all over the country had reported almost one fourth (24%) of the total case load (21 cases) during 2007. Teaching Hospital Kandy, another referral centre which drains a vast area in the country has reported 13 cases (15%) during the year.

Teaching Hospital Jaffna and General Hospital Vavuniya from the Northern Province of the country reported 2 and 1 AFP cases respectively during 2007.

All cases of AFP reported should have two stool samples collected within 14 days of onset of the paralysis. This is one of the main responsibilities of the sentinel hospitals in the AFP surveillance programme. Eighty percent of cases should have two such timely stool samples to fulfill the criteria stipulated by the WHO.

In 2007, 2 samples of stools were collected for virology within 14 days of the onset of paralysis from 78 cases (90%) of the 87 cases reported. Samples of stools were not collected from only one AFP case that was reported from the Teaching Hospital, Jaffna.

Figure 3 shows the distribution of AFP cases notified from hospitals with their performance in collection of stools for the year 2007.

Age and Sex Distribution of AFP Cases 2007

Almost a similar number of male and female AFP cases was reported in 2007. Out of the total of 87 AFP cases, 44 (51%) were males and 43 (49%) were female children. This is in contrast to the trend observed last year where male cases were

more than female cases.

In 2007 unlike in the previous year, male predominance was only observed in 1-4 year and 5-9 year age groups. A majority (67%) of the cases (59) were 5 – 14 years old. Twenty five children (29%) were between 1 – 4 years of age and only 3 children were less than 1 year of age (Fig.4).

Immunization Status of AFP Cases Reported in 2007

All AFP cases (100%) reported during the year 2007 were age appropriately immunized with OPV. Data supporting the immunization status of the children had been obtained from the Child Health Development Record (CHDR) by the medical officers treating the patients or by the Medical Officer of Health (MOH) team.

Final Classification of AFP Cases 2007

In 2007 all 87 cases reported were assigned a final classification. Majority of the cases (61) were classified as Guillan Barre syndrome (GBS) by the respective clinicians who reported these cases. This amounted to 70% of the total caseload in the year. This trend has been observed in the surveillance programme of the country throughout the recent years.

There were 4 cases (4%) each of Miller Fisher Syndrome and Functional disorder. Table 18 shows the final classification of AFP cases for the year.

Feedback Information on AFP Cases

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

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

In addition to the feedback sent through these two methods, Quarterly Epidemiological Bulletin published by the Epidemiological Unit provides summary information on AFP surveillance activities for each quarter.

Indicators of AFP Surveillance and Laboratory performance 2007

Performance of an AFP surveillance programme is considered to be of adequate standard if a number of performance criteria were achieved. Firstly the system should detect at least one case of non-polio AFP for every 100,000 population of children aged less than 15 years. Secondly two adequate diagnostic stool specimens (2 stools

specimens collected at least 24 – 48 hours apart within 14 days of onset of paralysis and received in good condition at the laboratory) should be collected from at least 80% of the AFP cases reported. The other criteria are based on the performance of the laboratory processing the specimens, monitoring mechanisms in place to streamline the reporting system and the clinical investigation procedures involved.

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

Sri Lanka achieved a non-polio AFP rate (Number reported/number expected) of 1.6 during the year 2007. This exceeds the expected rate of 1 per 100,000 population of under 15 year old children. This rate is lower than the non-polio AFP rate of 2.2/100,000 under 15 year old population reported in 2006. In the year 2007 most of the districts in the country have reported the expected number or more AFP cases. The AFP rate is monitored for each district and surveillance is strengthened in those districts where the AFP rate has been low during the previous year.

2. Completeness of reporting

2.1 Weekly reporting of Notifiable Diseases

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

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

2.2 Weekly reporting of AFP cases from institutions

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

In 2007 the completeness of weekly reporting of AFP cases from those institutions was 79%.

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

Regional Epidemiologists in all 26 districts send a monthly return on AFP to the Epidemiological Unit. Completeness and timeliness of these returns are monitored centrally. In the previous year the completeness of monthly reporting was 81%.

3. Timeliness of reporting

3.1 Weekly reporting of Notifiable Diseases

Weekly reports from MOOH on notifiable diseases received within a week from the due date are considered as timely. During the year 2007 the timeliness of reporting was 71%.

3.2 Weekly reporting of AFP cases from institutions

During the year 2007 the timeliness of weekly

reporting of AFP was extremely poor at 45%. However it showed a slight improvement from the previous year where this figure stood at 38%. Steps have been taken to educate the infection control nurses who are responsible for this activity in sentinel sites with repeated supervisions by the central as well as the regional level authorities.

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

Monthly reports received from REE before the 20th of the following month are considered as timely. Timeliness of monthly reporting in 2007 was unsatisfactory at 26%.

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

All AFP cases notified should be examined and investigated by an epidemiologist (at central or regional level) within 48 hrs of notification. In the year 2007, 100% of the AFP cases reported were investigated by an epidemiologist within 48 hours of notification.

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

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

In 2007, 2 samples of stools were collected for virology within 14 days of the onset of paralysis from 76 cases (87%) of the 87 cases reported. Samples of stools were not collected from only one AFP case that was reported from Teaching Hospital Jaffna.

Stool samples from contacts

Following notification, stools samples are collected from 3 to 5 contacts of all AFP cases during the outbreak response activities carried out by the respective MOH. The contact stool sampling was satisfactory during the previous year and samples of stools were collected from contacts of 78 (90%) AFP cases reported in 2007.

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

All reported AFP cases should be followed up at 60 days of onset of paralysis by an epidemiologist at central or regional level for presence of residual paralysis. In 2007, all 87 cases reported have been followed up after 60 days of onset of paralysis. It therefore achieved a 100% follow up rate.

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

In the year 2007, 19 samples out of the total of 197 samples collected have been received after 3 days of being collected. This amounts to a 90% of the samples of stools being received timely.

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

In 2007, out of the 197 samples of stools collected from 87 AFP cases 188 samples were in 'good' condition (95%) on arrival at the laboratory.

Good condition means that upon arrival:

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

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

In the previous year out of the 197 samples of stools collected and sent, results of all 197 specimens of stools were reported within 28 days. This achieved the target with a percentage of 100%.

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

Non polio enterovirus was isolated from samples of stools of 17 cases out of the total 87 cases (9%). This is just below the expected target of 10%. Wild poliovirus was not isolated at the MRI during 2007.

National Polio Expert Committee Meetings 2007

The National Polio Expert Committee consists of experts from fields of paediatrics, virology, epidemiology, clinical neurology and neurophysiology. The expert committee meets once every quarter to discuss AFP cases that could not be discarded on laboratory results. In 2007, six such AFP cases were presented to the committee for deliberations. All these cases had stools samples collected late and had residual paralysis at 60 days of onset of paralysis. All of them were reviewed and discarded by the Expert committee as non Polio AFP cases with diagnosis of Guillain Barre' Syndrome in 4 of the cases.

Table 18

DISTRIBUTION OF FINAL CLASSIFICATION OF AFP CASES 2007

Diagnosis	Number of AFP Cases (%)
Guillan Barre Syndrome	68 (78%)
Miller Fisher Syndrome	5 (6%)
Functional disorder	3 (3%)
Transverse Myelitis	1(1%)
Mumps Encephalitis	1(1%)
Right Common Peroneal Leision	1(1%)
Congenital syringomyelia	1(1%)
Viral Myalgia	1(1%)
Aseptic Meningitis	1(1%)
Post Viral Cerebellitis	1(1%)
Extramedullary Lipoma	1(1%)
Acute Cerebellar Syndrome	1(1%)
Rheumatic Chorea	1(1%)
Transient Unsteady Gait	1(1%)
Total	87

Figure 1

GEOGRAPHIC DISTRIBUTION OF AFP CASES - YEAR 2007

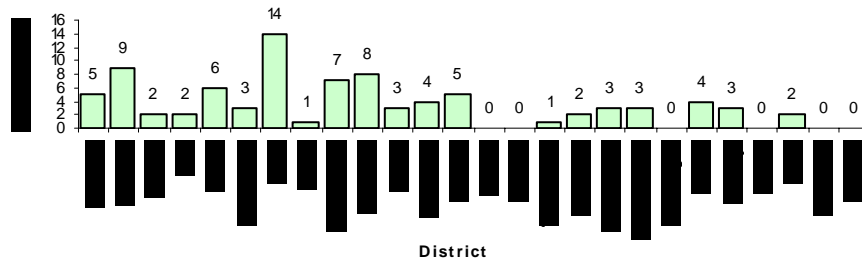


Figure 2

DISTRIBUTION OF AFP CASES ACCORDING TO MONTH 2007

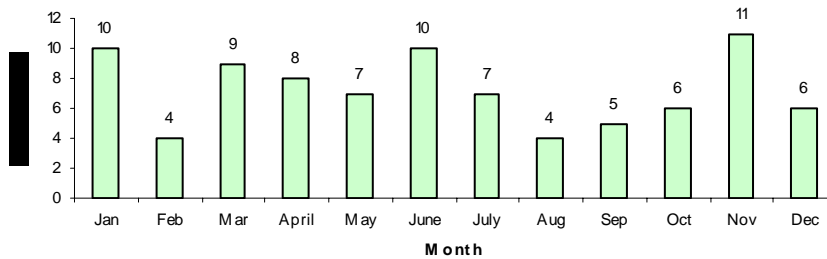


Figure 3

PERFORMANCE OF SENTINEL HOSPITALS 2007

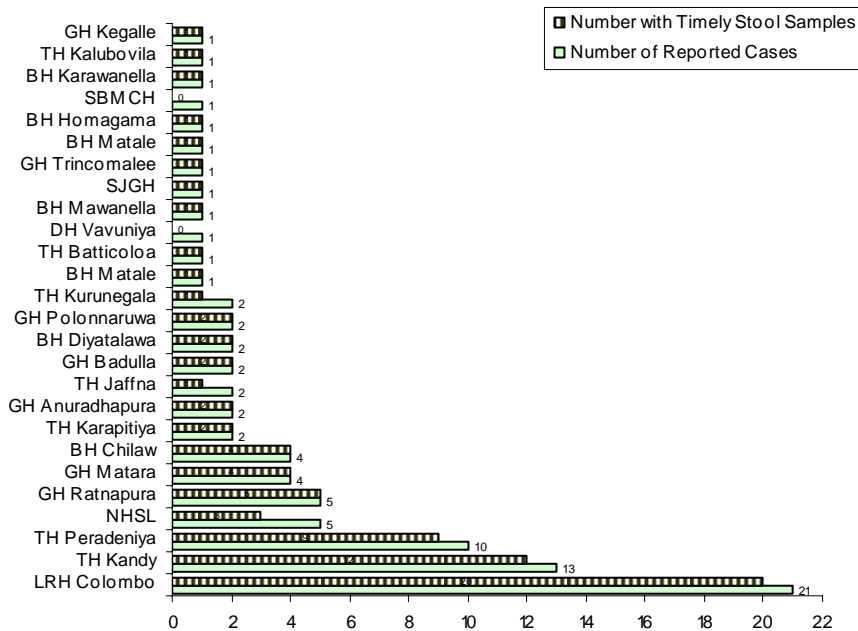
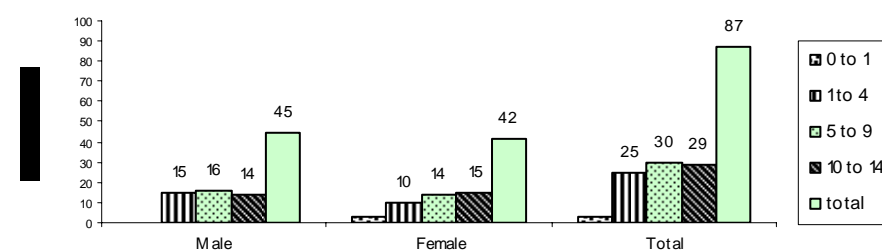


Figure 4

AGE AND SEX DISTRIBUTION OF AFP CASES 2007



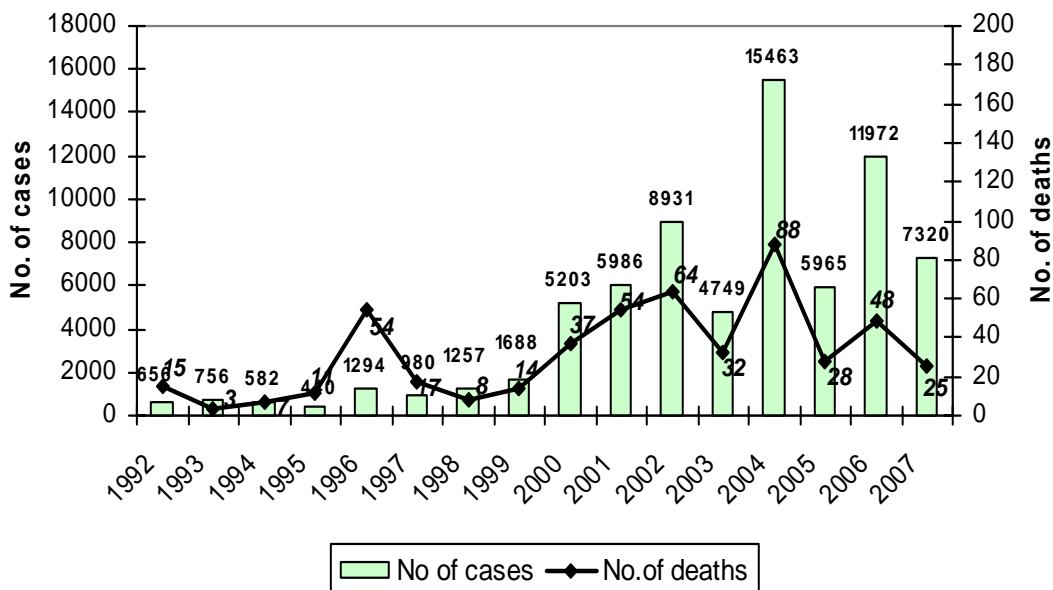
21. SURVEILLANCE REPORT ON DENGUE FEVER/ DENGUE HAEMORRHAGIC FEVER – 2007

Dengue Fever was serologically confirmed in the country in 1962 and the first outbreak was reported in 1965. The disease which was earlier confined to urban areas has spread to peri urban and predominantly rural districts as well. At present it has become endemic in the country and epidemics have been experienced every other year since 2002 (Figure 5). The worst ever epidemic of DF/DHF occurred in year 2004 in which there were 15463 notified cases and 88 deaths reported to the Epidemiology Unit. During the following year (2005), the case load came down approximately by 40% (5965 cases and 28 deaths). This could be contributed to the enhanced control efforts adopted, especially the high-risk approach in which 48 MOH areas were identified as high risk for dengue transmission in the country and the disease situation and preventive and control activities were closely monitored by the Epidemiology Unit and the newly established Dengue Control Unit.

During the year 2007, 7320 suspected Dengue Fever /Dengue Haemorrhagic Fever cases and 25 deaths (CFR 0.3%) were reported to the Epidemiology Unit, which was a 40% reduction in the number of cases when compared to 2006. The incidence rate for DF/DHF in 2007 was 3.7 per 10000 population.

The usual seasonal increase in incidence which occurs in June-July in relation to the South West monsoon rains was not marked since 2004, but the increase of incidence following North-East monsoon was continuously observed in the country. However, a state of high endemicity prevailed through out the period since 2005 (Figure 5).

DENGUE CASES AND DEATHS NOTIFIED DURING 1992 – 2007



(Figure 6 & 7).

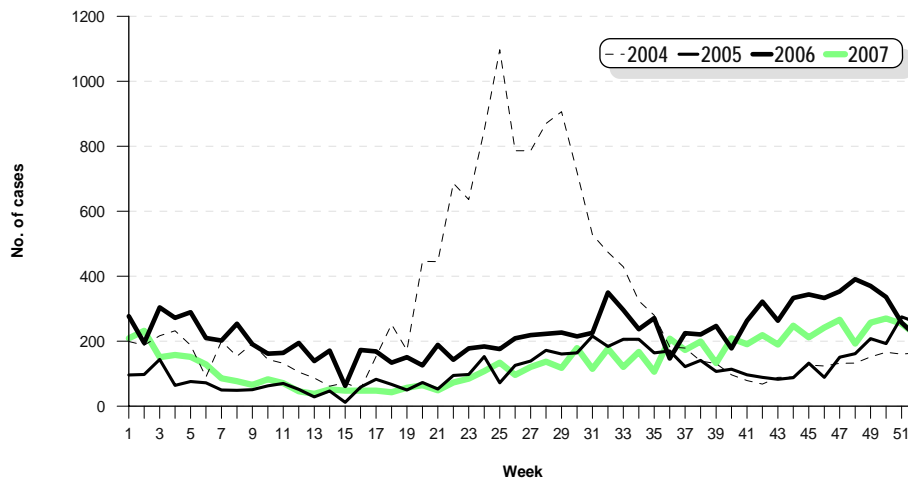
The cases of DF/DHF were distributed in almost all the districts but majority of the cases were reported from the Western Province which accounted for 45% of the total case load. Kurunegala district also reported a high case load accounting for 10.8% of the total case load. Although there was a reduction in the total number of cases when compared to 2006 for the entire country, the districts of Kurunegala (14%), Anuradhapura (112%) and Jaffna (350%) reported an increase in the case load whereas Ratnapura and Kegalle reported marginally less number of cases when compared to 2006. Distribution of cases by RDHS divisions is given in Figure 8 and Table 19.

Some of the 'high-risk ' MOH areas identified in 2004 continued to report a significant number of cases during the year 2007. Colombo Municipal Council area reported 401 cases (5.5% of the total case load) followed by the MOH areas Kurunegala (303 cases i.e. 4.0%), Homagama (251 cases i.e. 3.4%) and Maharagama (217 cases i.e. 3.0%). Furthermore, several MOH areas such as Embilipitiya in Ratnapura district, Nuwagampalatha East in Anuradhapura district, Jaffna, Telippilei, and Kopay in Jaffna district experienced an epidemic situation during 2007. The MOH areas which had a major contribution to the case load are given in Table 20.

Special Surveillance of DF/DHF

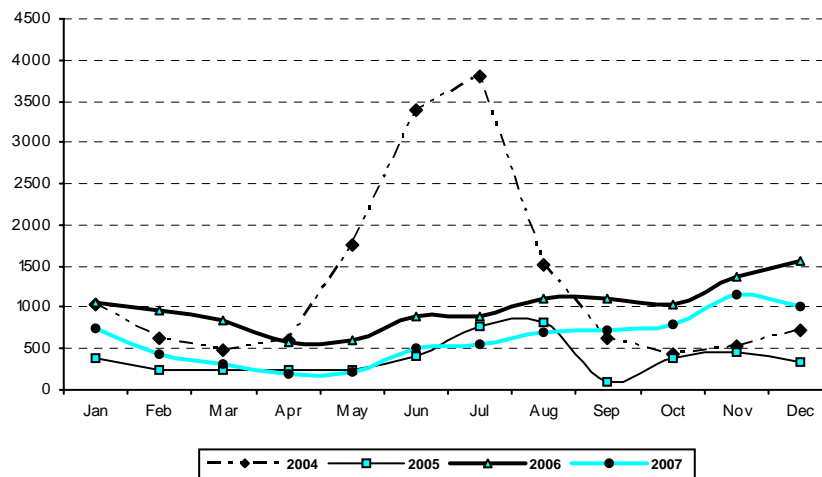
Special surveillance data were received from the Infection Control Nursing Officers in Medical institutions where dengue patients were treated. Colombo South Teaching Hospital and North Colombo Teaching hospital provided a major proportion of special surveillance data. Several leading private hospitals in the Colombo district also significantly contributed to the surveillance data.

Figure 6.

DISTRIBUTION OF NOTIFIED DF/DHF CASES BY WEEK - SRI LANKA 2004 -2007

* Source: Epidemiological Unit, Sri Lanka

Figure 7.

DISTRIBUTION OF NOTIFIED DF/DHF CASES BY MONTH - SRI LANKA 2004 - 2006

Special surveillance data in respect of 3250 cases were received for the year 2007. All age groups were affected by the disease but 30% of the cases (956) were less than 15 years old while 24% of the cases (781) were in the 20-29 year age group (Figure 9).

Deaths due to DF/DHF too had occurred among all age groups except 10 -14 years and 50-54 years. The highest case fatality rate was for the infants followed by 55-59 years. The highest number of deaths was among the 45- 49 year age group (19%) while 19% of the deaths (5) were among those less than 15 years (Figure 10).

Distribution of DF/DHF cases and deaths by sex showed that there was a male preponderance among cases (56%) and deaths (63%) (Figure 11).

Severity of the disease

According to the WHO disease classification

2722 cases (84%) received through the Special surveillance mechanism were classified as dengue fever while the remaining 506 cases (16%) were classified as DHF. Case fatality rate for 2007 was 0.2 % of DHF cases.

Majority of the DHF cases were classified as DHF II (330 cases i.e. 65%), followed by DHF I (157 cases i.e. 31%). Out of the DHF cases 7.5% (38) had developed Dengue shock syndrome DHF III & IV (Figure 12).

Confirmation of the diagnosis

Department of Virology, Medical Research Institute, Colombo had tested 1846 samples during the year using IgM capture ELISA test and Haemagglutination Inhibition test and 793 were serologically confirmed .

Special surveillance data revealed that 50.4% of the total case load (1628) had been tested serologically of whom 47.7% (1544) were positive for IgM antibodies whereas 37.6% (1216)

Table 19.

DISTRIBUTION OF NOTIFIED CASES AND DEATHS DUE TO DF/DHF BY DISTRICTS - 2007

District	No. of cases	%	Incidence Rate (per 10000 population)	No of deaths	%
Colombo	1865	25.5	7.7	11	40.7
Gampaha	992	13.6	4.7	1	3.7
Kalutara	425	5.8	3.9	0	0.0
Kandy	416	5.7	3.1	1	3.7
Matale	121	1.7	2.6	1	3.7
Nuwara Eliya	42	0.6	0.6	0	0.0
Galle	100	1.4	1.0	0	0.0
Matara	236	3.2	2.9	0	0.0
Hambantota	102	1.4	1.9	0	0.0
Jaffna	257	3.5	4.3	1	3.7
Kilinochchi	1	0.0	0.1	0	0.0
Mullaitivu	3	0.0	0.2	0	0.0
Vavuniya	41	0.6	2.5	1	3.7
Mannar	7	0.1	0.7	0	0.0
Trincomalee	66	0.9	1.7	2	7.4
Batticaloa	79	1.1	7.4	0	0.0
Ampara	5	0.1	0.2	0	0.0
Kalmune	9	0.1	0.2	0	0.0
Kurunegala	791	10.8	5.8	1	3.7
Puttalam	373	5.1	5.0	1	3.7
Anuradhapura	281	10.8	3.6	1	3.7
Polonnaruwa	70	1.0	1.8	0	0.0
Badulla	83	1.1	1.0	2	7.4
Moneragala	57	0.8	1.4	0	0.0
Ratnapura	449	6.1	4.2	2	7.4
Kegalle	449	6.1	5.6	2	7.4
Total	7320	100	3.7	27	100

were positive for IgG antibodies.

Nested PCR test was carried out to determine the serotype of dengue virus in 477 patients by Genetech Laboratory, Colombo 8 and 55 were found to be positive. The virus serotypes DEN 2 (25%) and DEN 3 (19%) have been predominantly prevalent during the year.

Prevention & Control

The control strategy adopted in 2005 to closely monitor the high risk areas was continued during 2007. The Epidemiology Unit of the Ministry of Healthcare & Nutrition carried out surveillance and rapid response activities and the Dengue Control Unit carried out the implementation of prevention and control activities including monitoring at district level. Dengue control activities were reviewed at district level by the Dengue Control Unit in collaboration with the Epidemiology Unit.

Table 20.

DISTRIBUTION OF NOTIFIED CASES OF DF/DHF CASES BY HIGH RISK MOH AREAS - 2007

RDHS Division	MOH area	No. of suspected cases	% of the total case load	Incidence Rate (per 10,000 population)
Colombo	MC Colombo	401	5.5	5.8
	Homagama	251	3.4	12.5
	Maharagama	217	3.0	14.2
	Kolonnawa	178	2.4	10.2
	Dehiwala	159	2.2	7.0
	Piliyandala	142	1.9	8.6
Gampaha	Wattala	135	1.8	7.0
	Kelaniya	120	1.6	7.9
Kalutara	Panadura	148	2.0	6.6
Jaffna	Jaffna	112	1.5	1.9
Kurunegala	Kurunegala	303	4.1	18.7
	Polgahawela	109	1.5	11.6
Puttalam	Chilaw	106	1.4	9.2
Anuradhapura	NPE	153	2.1	17.0
Kegalle	Mawanella	146	2.0	14.0

Figure 8.

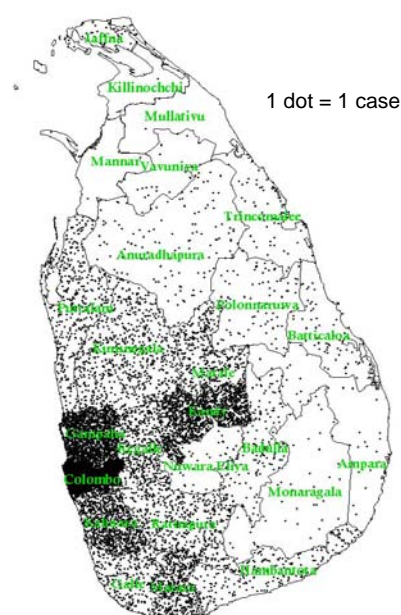
NOTIFIED DF/DHF CASES BY DISTRICT – 2007

Figure 9.

DISTRIBUTION OF CONFIRMED DF/DHF CASES BY AGE GROUP - 2007

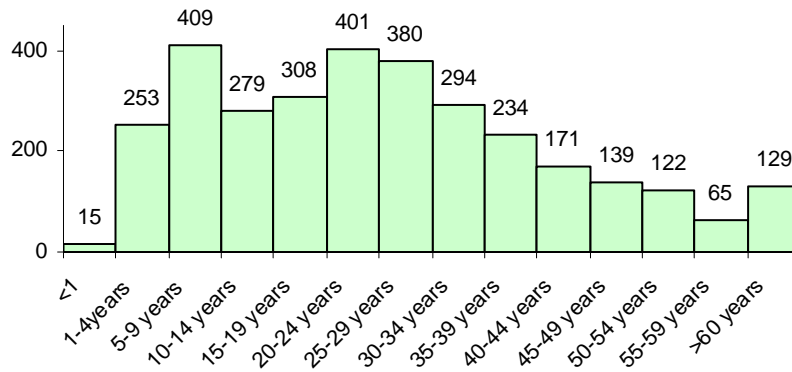


Figure 10.

DISTRIBUTION OF DEATHS DUE TO DF/DHF AND CASE FATALITY RATES BY AGE GROUPS - 2007

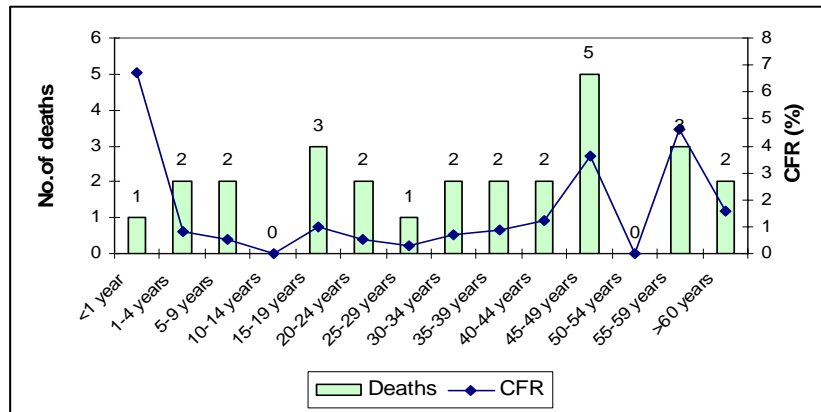


Figure 11.

DISTRIBUTION OF CONFIRMED CASES AND DEATHS BY SEX - 2007



Figure 12.

CLASSIFICATION OF THE CASE LOAD BY WHO CLASSIFICATION - 2007

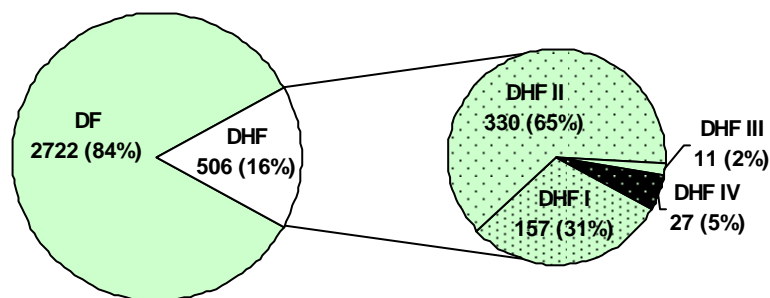


Table 21

22. SUMMARY OF NOTIFIABLE DISEASES – 1ST QUARTER 2008

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	2	46	500	4	45	56	0	115	1	16	0	1	42
Gampaha	0	2	48	316	4	20	65	1	86	0	5	1	2	41
Kalutara	0	0	102	158	6	34	15	0	91	2	5	0	2	15
Kandy	0	1	68	68	2	15	22	0	55	0	7	1	31	53
Matale	0	1	73	32	0	14	2	0	159	1	0	0	1	12
Nuwara Eliya	0	0	60	6	0	81	107	1	11	0	7	0	27	50
Galle	0	2	35	36	8	10	42	2	91	1	1	0	7	4
Hambantota	0	2	27	39	3	5	6	0	32	0	3	0	31	3
Matara	0	1	59	75	2	19	2	1	91	2	1	0	61	3
Jaffna	0	0	42	32	1	138	2	0	0	14	2	1	107	17
Kilinochchi	0	0	2	0	0	0	0	0	1	0	0	1	0	1
Mannar	0	0	7	20	6	80	0	0	0	0	0	0	0	9
Vavuniya	0	0	12	10	1	1	6	0	2	0	0	0	0	2
Mullativu	0	0	1	0	0	5	0	0	0	0	0	0	0	4
Batticaloa	0	1	22	55	1	7	17	4	0	0	1	2	1	47
Ampara	0	0	67	7	0	2	0	0	6	0	2	0	0	1
Trincomalee	0	0	27	125	0	4	1	0	7	0	0	1	9	8
Kurunegala	0	1	108	159	7	17	2	3	20	3	10	2	14	14
Puttalam	0	0	32	170	2	40	3	2	2	2	3	1	15	17
Anuradhapura	0	1	25	84	4	8	4	0	24	1	56	0	9	7
Polonnaruwa	0	0	32	27	1	14	4	0	7	0	1	0	0	12
Badulla	0	2	120	21	3	39	1	1	10	0	0	0	45	50
Moneragala	0	0	64	24	1	15	10	0	23	0	0	0	45	8
Ratnapura	0	2	76	93	16	35	42	0	45	3	19	1	49	29
Kegalle	0	1	143	95	15	14	0	0	39	1	3	0	28	175
Kalmunai	0	0	60	12	1	4	3	0	0	0	0	0	1	11
TOTAL	0	19	1358	2164	88	666	412	15	917	31	142	11	486	635

No polio cases. (from AFP surveillance system).

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Figures given may be subject to revision.

The editor welcomes accounts of interesting cases, outbreaks or other public health problems of current interest to health officials.

Such reports should be addressed to:

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ON STATE SERVICE

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