

Volume 48
July - September
2007



Epidemiological Bulletin

SRI LANKA

Third Quarter
2007

Epidemiology Unit
Ministry of Health

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

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1. POLIOMYELITIS

Sixteen (16) Acute Flaccid Paralysis cases were notified to the Epidemiology Unit during the 3rd quarter 2007. In comparison during the 3rd quarter of 2006 and 2005, 26 and 14 AFP cases were reported respectively. The reported number of cases at completion of the 3rd quarter 2007 does not reach the expected number of AFP cases to be reported at this point which is 28 according to WHO surveillance criteria. One hundred and twelve (112) AFP cases are expected for a year, to make up a non-polio AFP rate of 2 per 100,000 children under 15-year.

Notification of AFP Cases from Hospitals

Lady Ridgeway Children's Hospital (LRH), Colombo, has reported the majority of cases (7, i.e.44%). LRH, the main sentinel site for AFP, is a tertiary care centre which receives referrals from other hospitals in the country. Several hospitals reported a AFP case each and all the hospitals that notified the AFP cases in the 3rd quarter are as follows:

Hospital	No. of cases
LRH	7
TH Peradeniya	1
TH Kandy	1
GH Ratnapura	1
GH Matara	1
GH Chilaw	1
GH Anuradhapura	1
GH Polonnaruwa	1
TH Karapitiya	1
GH Kegalle	1

Distribution of AFP Cases by Provinces, Districts & MOH Areas

Five districts had reported 2 cases each during the 3rd quarter. Gampaha of Western Province, Matara and Hambantota of Southern Province, Puttalam of North Western Province and Polonnaruwa of North Central Province all had reported 2 cases each. There were no cases from the Eastern Province or from Northern Province except from Vavuniya which had 1 case during the quarter. The complete list of distribution of AFP cases according to the province, district and MOH area is given in Table 1.

Seasonal Distribution of AFP Cases

During the 3rd quarter 2007, the highest number of AFP cases were reported in the month of July

(7 cases i.e.44%). Four cases(4 i.e. 25%) were reported in August, and 5 cases were reported in September .

Table 1

GEOGRAPHICAL DISTRIBUTION OF AFP CASES

Province	District	MOH Area	Number of AFP cases
Western	Colombo	CMC	1
	Gampaha	Dompe	1
		Meerigama	1
Southern	Matara	Welipitiya	1
		Devinuwara	1
	Hambantota	Tissamaharama	1
		Walasmulla	1
Central	Kandy	Dolosbage	1
Sabara gamuwa	Ratnapura	Pelmadulla	1
North Western	Kurunegala	Galgamuwa	1
	Puttalam	Kalpitiya	1
		Anamaduwa	1
North Central	Polonnaruwa	Thamankaduwa	1
		Dimbulagala	1
	Anuradhapura	Kahatagas-digiliya	1
Northern	Vavuniya	Vavuniya	1

Distribution of AFP Cases by Age and Sex

Majority of AFP cases(11 i.e.69%) reported in the 3rd quarter 2007 were older children aged between 5-15 years. Similarly in the previous year 67% of cases in the 3rd quarter were in this age group. In the 2nd quarter 2007 also the majority of the AFP cases were in this age group. In this quarter, 6 (38%) children belonged to 5-9 year age group. Five cases were aged between 10-14 years and 4 cases were between 1-4 years.

Over half (63%) of the AFP cases (10) in the 3rd quarter 2007 were males. This is similar to the 3rd quarter 2006 where the majority of the cases were also males (78%). In this quarter this male predominance was observed in all age groups considered except in under 1 year old group. Table 2 shows the age and sex distribution of AFP cases in 3rd quarter 2007.

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'.

Table 2

DISTRIBUTION OF AFP CASES BY AGE AND SEX 3RD QUARTER 2007

Age Group	Sex		Total
	Male	Female	
<1 year old	0	1	1
1-4 year old	3	1	4
5-9 year old	4	2	6
10-15 year old	3	2	5
Total	10	6	16

All 16 AFP cases (100%) reported in the 3rd quarter 2007 had both stool samples sent to MRI for polio virology within 14 days of onset of paralysis. This rate is higher than the timely stool collection rate (85%) achieved out of 27 AFP cases recorded in the respective quarter 2006.

All hospitals which reported cases this quarter had complied with the specified guidelines to send in good and timely stools for polio virology. This is the result of inputs from the hospital staff and the respective Regional Epidemiologists.

2. CHOLERA

No confirmed cases of cholera were reported to the Epidemiology Unit during the 3rd quarter and the previous quarter, 2007 or the corresponding quarter of 2006.

3. TETANUS

During the 3rd quarter 2007, 8 tetanus cases were notified to the Epidemiology Unit. This is in comparison to 10 cases reported during the previous quarter and 8 cases reported during the corresponding quarter of 2006.

Two cases notified during the current quarter, were investigated and confirmed as tetanus. The confirmed cases were reported from the MOH areas Dehiwala and Homagama in the Colombo district. Both are adults aged 45 (female) and 59 (male). The immunization status of the patients is unknown.

No cases of neonatal tetanus were reported during the quarter.

4. MEASLES

During the 3rd quarter 2007, 22 cases of measles were notified to the Epidemiology Unit compared to 24 cases notified during the

previous quarter and 14 cases in the corresponding quarter of last year.

Twelve cases notified during the 3rd quarter 2007, were investigated and three cases were confirmed as measles (Table 3).

Table 3

SELECTED CHARACTERISTICS OF CONFIRMED CASES OF MEASLES – 3RD QUARTER 2007

(N = 03)

Sex	Male	2
	Female	1
Age group	< 1	0
	1-5	0
	>5	3*
District	Kegalle	1
	Hambantota	1
	Colombo	1
Immunization status	Immunized	0
	Non immunized	3*

* a child aged 8 years who was not immunized

5. LEPTOSPIROSIS

In the 3rd quarter 2007, 349 leptospirosis cases were notified to the Epidemiology Unit compared to 330 cases in the previous quarter and 281 cases during the corresponding quarter of the previous year. During the current quarter majority of the cases were reported from the districts of Matara (51 cases i.e. 15%) and Colombo (40 cases i.e. 11%). Among the reported cases 99 were confirmed as leptospirosis. This includes 88 cases and 5 deaths reported from the 15 hospitals identified as sentinel sites in the high endemic areas.

Analysis of special investigations received from sentinel sites showed that around 31% of them were in the age group 45-49 years and male female ratio was 9:2.

6. HUMAN RABIES

Fifteen (15) cases of human rabies were notified to the Epidemiology Unit in the 3rd quarter 2007, compared to 11 cases in the previous quarter and 14 cases in the corresponding quarter of year 2006. Distribution of cases by district is given in Table 36.

Animal Rabies

During the quarter 168 dogs were reported positive for rabies compared to 172 in the previous quarter and 169 in the corresponding quarter of 2006. In addition the following animals were also reported positive;

Cats-13, Wild animals- 02, Domestic ruminants-03

Rabies Control Activities*

Dog vaccination – A total of 182498 dogs were immunized during the 3rd quarter 2007 when compared to 234517 in the previous quarter and 273074 in the corresponding quarter of last year.

Birth Control Activities—20589 free roaming female dogs were injected with Progesterone and 49 female dogs were sterilized by surgical method. In comparison Progesterone injection was administered to 20283 female dogs during the previous quarter .

*Source – Director/PHVS

7. ENTERIC FEVER

In the 3rd quarter 2007, a total of 339 cases of enteric fever were notified to the Epidemiology Unit, compared to 372 cases in the previous quarter and 352 cases in the corresponding quarter of 2006. Jaffna district (51cases i.e. 15%) reported the highest number of cases (Table 36).

The MOH areas Walapone (19) and Mannar (16), notified a large number of cases during the quarter under review.

8. VIRAL HEPATITIS

In the 3rd quarter 2007, 2019 cases of viral hepatitis were reported to the Epidemiology Unit, compared to 2247 cases in the previous quarter and 588 cases in the corresponding quarter of 2006. Among the reported cases, 616 were investigated and confirmed as viral hepatitis. RDHS area Batticaloa notified the highest number of cases (601) accounting for 30% of the total case load followed by Kandy (484 cases i.e.24%) and Nuwara Eliya (226 cases i.e. 11%).The MOH areas Vellavelly (223 cases) and Kalavanchikudy (126 cases) in the Batticaloa district and the MOH area Gampola (134 cases) in the Kandy district reported the highest number of cases.

9. DYSENTERY

In the 3rd quarter 2007, 1768 cases of dysentery were notified to the Epidemiology Unit, compared to 2358 cases in the previous quarter and 2143 cases in the corresponding quarter of 2006.

The MOH areas Kalavanchikudi(64), Balangoda (29), Polgahawela(28) and Beruwala(28) notified the highest number of cases.

10. JAPANESE ENCEPHALITIS (J.E.)

During the 3rd quarter 2007 , 39 cases of Encephalitis were reported to the Epidemiology Unit.

Among the reported cases, 12 cases were investigated and 8 were found to be clinically confirmed as JE. One death was reported during the quarter.

This is in comparison to 11 cases and one death reported during the previous quarter and 20 cases and no deaths in the corresponding

quarter of 2006.

Table 4

DISTRIBUTION OF JAPANESE ENCEPHALITIS CASES BY RDHS/ MOH DIVISION - 3RD QUARTER 2007

RDHS Area	MOH Area	Cases	Deaths
Gampaha	Meerigama	2	0
Kalutara	Ingiriya	1	0
Ratnapura	Godakawela	1	0
Galle	Yakkalamulla	1	0
Kegalle	Bulathkohupitiya	1	0
Puttalam	Puttalam	1	1
Kurunegala	Kurunegala	1	0
Total		8	1

11. MALARIA

During the 3rd quarter 2007 , there was a significant reduction in the incidence of malaria in comparison to the same period of 2006 as seen in Table 5. Distribution of malaria cases by RMO division is shown in Table 6.

Source : Anti Malaria Campaign

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

During the 3rd quarter 2007 , 1953 cases of DF/ DHF and 8 deaths were reported (CFR 0.4%) when compared to 905 cases and 3 deaths (CFR 0.33%) reported during the previous quarter and 3104 cases and 12 deaths (CFR 0.58%) reported during the corresponding quarter of last year.

Table 7 shows the distribution of DF/DHF cases and deaths in the RDHS divisions during the quarter.

During the 3rd quarter 2007 , 27 blood samples were tested using Ig M capture ELISA test and Haemagglutination Inhibition test at the Department of Virology, MRI and 17 samples were confirmed as positive.(Table 8)

Table 8

DHF STATISTICS FROM DEPARTMENT OF VIROLOGY, MRI - 3RD QUARTER 2007

Month	Clinically Suspected	Serologically confirmed
July	3	2
August	2	1
September	22	14
Total	27	17

Table 5

RESULTS OF BLOOD SMEAR EXAMINATION FOR MALARIA PARASITES - 3RD QUARTER 2006/2007

	3 rd Quarter 2006	3 rd Quarter 2007
No. of blood smears examined	255,893	246,662
No. of positives	113	37
No. of <i>P. vivax</i>	108	35
No. of <i>P. falciparum</i>	5	2
No. of mixed infections	0	0
No. of infant positives	1	0
Slide positivity rate (S.P.R.)	0.04%	0.02%
P.v. : P.f. ratio	22:1	17:1
Percentage of infant positives	0.12%	0%

Table 6

DISTRIBUTION OF MALARIA CASES BY RMO DIVISION - 3RD QUARTER 2007

RDHS Division	Blood smears	Positives	P.v.	P.f./ Mixed
Colombo	11988	0	0	0
Gampaha	6182	1	1	0
Kalutara	2646	1	1	0
Kandy	5985	1	1	0
Matale	2608	0	0	0
Nuwara Eliya	34	0	0	0
Galle	246	0	0	0
Matara	3914	0	0	0
Hambantota	10469	0	0	0
Jaffna	29274	0	0	0
Kilinochchi	5606	1	1	0
Mannar	3675	0	0	0
Vavuniya	11818	3	3	0
Mullativu	4565	0	0	0
Batticaloa	11754	0	0	0
Ampara	8895	5	5	0
Trincomalee	17395	10	10	0
Kurunegala	13192	0	0	0
Maho	9667	0	0	0
Puttalam	11317	2	2	0
Anuradhapura	28080	5	3	2
Polonnaruwa	13215	0	0	0
Badulla	5059	2	2	0
Moneragala	13720	2	2	0
Ratnapura	4038	2	2	0
Kegalle	1478	2	2	0
Kalmunai	9842	0	0	0
TOTAL	246662	37	35	2

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

Table 7

MORBIDITY AND MORTALITY DUE TO DF/DHF - 3RD QUARTER 2007

RDHS Division	Cases	Percentage	Deaths
Colombo	519	26.6	2
Gampaha	233	11.9	1
Kalutara	119	6.1	0
Kandy	80	4.1	0
Matale	22	1.1	0
Nuwara Eliya	9	0.5	0
Galle	20	1.0	0
Hambantota	31	1.6	0
Matara	51	2.6	1
Jaffna	36	1.8	0
Kilinochchi	0	0	0
Mannar	0	0	0
Vavuniya	6	0.3	0
Mullativu	0	0	0
Batticaloa	12	0.6	0
Ampara	0	0	0
Trincomalee	10	0.5	0
Kurunegala	278	14.2	0
Puttalam	33	1.7	0
Anuradhapura	82	4.2	0
Polonnaruwa	15	0.8	0
Badulla	31	1.6	1
Moneragala	23	1.2	0
Ratnapura	203	10.4	1
Kegalle	140	7.2	2
Kalmunai	0	0	0
TOTAL	1953	100	8

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 3rd quarter 2007 are given in Table 9.

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 9

AEDES LARVAL DENSITIES (BRETEAU INDEX) IN COLOMBO AND GAMPAHA DISTRICTS - 3RD QUARTER 2007

Area	July		August		September	
	A	B	A	B	A	B
Nugegoda	1.33	7.3	8.0	9.0	9.7	14.2
Maharagama	6.0	6.0	9.3	22.6	8.6	18.9
Moratuwa	5.0	6.3	5.7	4.0	13.7	8.0
Kaduwela	2.5	18.2	5.7	29.1	2.9	25.1
Kelaniya	3.4	9.7	6.3	18.2	7.3	20.7
Ragama	2.5	9.5	0.6	6.6	3.7	9.3
Ja-Ela	1.7	12.5	4.5	17.2	3.2	14.8
Wattala	3.5	4.9	3.0	6.0	11.0	6.0
Dompe	-	-	0	19.0	0	17.5
Gampaha	2.9	19.4	0.5	11.5	0.4	6.9
Mahara	0	14.0	0.5	7.0	0	20.0

(A) = *Aedes aegypti*

(B) = *Aedes albopictus*

Number of premises examined per area = 300

13. TUBERCULOSIS

A total of 2480 tuberculosis patients were registered for 3rd quarter 2007 by the National Programme for Tuberculosis Control and Chest Diseases. Of this total, 1970 suffered from pulmonary disease, and the balance, 510 patients from non-pulmonary disease. During the quarter 2373 cultures were done in the central laboratory and, one thousand three hundred and seventy three (1373) of these patients were bacteriologically confirmed with a bacteriological confirmation rate of 69.8%.

The distribution of tuberculosis patients by RDHS division is given in Table 10.

B.C.G. vaccination

A total of 89682 B.C.G. vaccinations were carried out during the quarter with 95.0% coverage.

Table 10.

TUBERCULOSIS PATIENTS BY RDHS DIVISIONS - 3RD QUARTER 2007

RDHS DIVISION	PTB	OTB	Total	Pulmonary TB Direct Smear	
				No. +VE	%
Colombo	387	66	453	300	77.5
Gampaha	312	76	388	254	81.4
Kalutara	114	29	143	77	67.5
Kandy	193	54	247	94	48.7
Matale	41	16	57	29	70.7
Nuwara Eliya	47	13	60	24	51.1
Galle	104	26	130	81	77.9
Hambantota	24	4	28	15	62.5
Matara	43	18	61	32	74.4
Jaffna	71	36	107	32	45.1
Vavunia	17	17	34	12	70.6
Kilinochchi	14	3	17	11	78.6
Mannar	11	3	14	8	72.7
Mullativu	6	2	8	3	50.0
Ampara	25	6	31	14	56.0
Batticaloa	26	13	39	17	65.4
Trincomalee	35	5	40	15	42.9
Kurunegala	81	20	101	63	77.8
Puttalam	29	11	40	20	69.0
Anuradhapura	53	23	76	38	71.7
Polonnaruwa	33	2	35	21	63.6
Badulla	65	12	77	53	81.5
Monaragala	31	7	38	26	83.9
Kegalle	48	19	67	36	75.0
Ratnapura	115	27	142	77	67.0
Kalmune	45	2	47	25	55.6
Total	1970	510	2480	1377	69.9

PTB-Pulmonary Tuberculosis

OTB-Other Tuberculosis

Data from Central TB Register

14. ADVERSE EVENTS FOLLOWING IMMUNIZATION (AEFI)

In the third quarter of 2007, almost 93% of the monthly AEFI returns were received from MOOH, of which 43% were NIL returns. Eighteen districts have sent more than 90% of monthly returns while 3 districts (Kilinochchi, Mannar and Mullaitivu) have forwarded less than 80% of monthly MOH returns. All the Monthly AEFI returns for the quarter have been sent from Jaffna, Ampara, Puttalam, Polonnaruwa, Kegalle and Kalmunai districts.

Forty three percent of the total returns received during the current quarter were NIL returns. A smaller number of NIL returns were received from Gampaha (7%) and Colombo (10%) whereas Mullaitivu (100%), Jaffna (95%), Kilinochchi (88%), Mannar (86%) and Kalmunai (82%) have forwarded higher number of NIL returns. Puttalam district has not sent any Nil returns.

The timeliness of the MOH monthly AEFI returns was satisfactory in Trincomalee(76%) Badulla (70%) and Kegalle(67%).

Ten districts reported higher rates of AEFI than the country figure (107/100,000 doses of anti-gens). Highest rates were reported from Hambantota (251/100,000), followed by Ampara (240/100,000). However, a large number of AEFI was reported in Colombo (215), Kandy (210), Gampaha (178), Hambantota (116) and Badulla (112). (Table 11)

There were two deaths following DPT vaccination in Wellimada MOH area in the Badulla District and Homagama MOH area in the Colombo District. Post mortem had been carried out on the death in Welimada MOH area and confirmed that the death was due to milk aspiration and was categorized as a co-incidental event of AEFI. Post mortem was not carried out on the other death. However, the child had hypoxic ischaemic encephalopathy grade II with occasional seizures. Cause of death was given as physical disability occurred at birth. Conclusion was made as a coincidental category after investigation. As serious adverse events, seizures following DPT (46) and BCG lymphadenitis (2) were reported from the country. High fever was the commonest AEFI followed by abscess and severe local reaction which followed DPT vaccination. (Table 12)

Table 11.

REPORT ON MONTHLY RETURN OF AEFI BY RDHS DIVISION – 3RD QUARTER 2007

RDHS DIVISION	% Completeness	% Timeliness	% Nil Returns	No. of AEFI	AEFI Rate (/100,000 doses)
Colombo	95.2	27.5	10.0	215	150.4
Gampaha	97.8	40.9	6.8	178	120.3
Kalutara	97.0	43.8	37.5	54	63.1
Kandy	95.5	47.6	23.8	210	230.4
Matale	88.9	43.8	50.0	26	68.2
Nuwara Eliya	90.5	42.1	31.6	45	74.6
Galle	94.1	45.8	58.3	50	64.0
Hambantota	97.0	34.4	31.3	116	251.3
Matara	91.7	65.9	31.8	67	117.4
Jaffna	100.0	4.8	95.2	2	6.5
Kilinochchi	66.7	62.5	87.5	1	7.6
Mannar	58.3	14.3	85.7	1	19.5
Vavuniya	83.3	60.0	70.0	7	59.8
Mullativu	73.3	36.4	100.0	0	0.0
Batticaloa	84.9	32.1	75.0	16	32.2
Ampara	100.0	14.3	57.1	25	240.2
Trincomalee	92.6	76.0	60.0	17	49.3
Kurunegala	88.9	43.8	41.7	58	51.3
Puttalam	100.0	55.6	0.0	81	137.9
Anuradhapura	91.2	40.4	59.6	63	88.3
Polonnaruwa	100.0	52.4	33.3	51	160.3
Badulla	95.6	69.8	32.6	112	161.5
Moneragala	96.7	55.2	24.1	64	170.9
Ratnapura	81.3	20.5	56.4	36	68.9
Kegalle	100.0	66.7	33.3	59	92.3
Kalmunai	100.0	48.7	82.1	8	19.3
Sri Lanka	92.8	45.1	43.0	1562	107.4

Both the highest number (1308) and the rate (409/100,000) of AEFI were related to DPT vaccine while the lowest number (7) and rate (2/100,000) of AEFI were for OPV. The second highest rate (149/100,000) was for the vaccine 'others' which was Hib vaccine. AEFI Rate for Measles vaccine (79/100,000) was also high

compared to most of the other EPI vaccines. The total reported number of AEFI in the country was 1562 with the incidence rate of 107.39 per 100,000 immunizations (Table 13).

Table 12.

SELECTED ADVERSE EVENTS BY ANTIGENS - 3RD QUARTER 2007

Vaccine	Seizure	Allergy	Abscess	Severe local reaction	High fever	Lymphadenitis	Meningitis	Shock	Arthralgia	Death	Total
BCG	0	1	2	0	0	7	0	0	0	0	10
DPT	46	158	201	119	310	0	0	0	3	2	839
OPV	0	0	0	0	5	0	0	0	0	0	5
Measles	0	5	0	0	2	0	0	0	0	0	7
DT	0	1	1	1	1	0	0	0	0	0	4
TT	0	0	0	1	0	0	0	0	0	0	1
Rubella	0	7	0	0	0	0	0	0	0	0	7
JE	0	0	0	0	0	0	0	0	0	0	0
ATd	0	0	0	0	0	0	0	0	0	0	0
MR	0	4	0	0	0	0	0	0	0	0	4
Hep	0	0	1	0	0	0	0	0	0	0	1
Others*	0	0	1	1	0	0	0	0	0	0	2

Table 13.

REPORTED AEFI BY ANTIGEN - 3RD QUARTER 2007

Vaccine	No of AEFI	Rate (/ 100,000 doses)
BCG	12	14.3
DPT	1308	409.0
OPV	7	1.8
Measles	72	78.8
DT	46	67.1
TT	26	32.0
Rubella	24	49.4
ATd	8	21.8
MR	32	38.0
Hep	11	4.6
Others*	16	170.0
Total	1562	107.39

* Hib

15. LEPROSY

QUARTERLY RETURN OF LEPROSY STATISTICS - 3RD QUARTER 2007

Table 14.

1. National

	At the end of the quarter			Cumulative for end of the quarter		
	3 rd quarter 2007	3 rd quarter 2006	Diff. (%)	3 rd quarter 2007	3 rd quarter 2006	Diff. (%)
New patients detected	504	495	1.6	1360	1387	-1.9
Children	45	61	-26.2	128	145	-11.7
Grade 2 Deformities	28	18	55.5	79	71	11.2
Multi-Bacillary	226	205	9.7	612	596	2.7
Females	220	219	0.4	597	614	-2.8

2. Districts

District	New patients	Deformities	Child	MB	Females
Colombo	92	03	12	32	45
Gampaha	78	02	10	28	35
Kalutara	47	05	04	19	23
Western	217	10	26	79	103
Galle	04	0	0	03	01
Matara	20	03	0	08	07
Hambantota	24	04	0	11	11
Southern	48	07	0	22	19
Kandy	09	0	03	0	05
Matale	07	01	01	05	01
Nuwara Eliya	05	0	0	03	0
Central	21	01	04	08	06
Anuradhapura	21	01	01	10	07
Polonnaruwa	12	02	0	07	04
North Central	33	03	01	17	11
Kurunegala	40	02	03	29	13
Puttalam	28	0	02	08	11
North Western	68	02	05	37	24
Kegalla	06	0	0	03	03
Ratnapura	27	01	01	14	10
Sabaragamuwa	33	01	01	17	13
Badulla	04	02	0	03	02
Moneragala	04	01	0	02	03
Uva	08	03	0	05	05
Trincomalee	16	0	03	05	09
Batticaloa	31	0	19	16	17
Ampara	08	0	02	07	05
Kalmunai	14	01	0	10	06
Eastern	69	01	24	38	37
Jaffna	01	0	0	01	0
Vavuniya	02	0	01	0	01
Mannar	01	0	0	0	01
Mullativu	01	0	0	01	0
Kilinochchi	02	0	01	01	0
Northern	07	0	02	03	02
Sri Lanka	504	45	28	226	220

Source : Anti Leprosy Campaign

16. SURVEILLANCE AT SEA PORT

Surveillance activities carried out by the Port Health Office at Colombo Sea Port during the 3rd quarter 2007, is given below.

	Total
1. Yellow Fever Vaccination	
Total number vaccinated	- 107
2. Granting Pratique to Vessels	
Number issued	- 1097
3. Deratting Certification	
Number issued	- 98

Details of the vaccinations carried out by the Assistant Port Health Office, Colombo 8, during the 3rd quarter 2007, is given below.

	Total
a. Yellow fever	556
b. Meningococcal meningitis	426

17. SURVEILLANCE AT AIRPORT

Surveillance activities carried out at the International Airport, Katunayake during the 3rd quarter 2007 is given below.

1. Yellow Fever Surveillance	
a. No. with valid certificate	- 21
b. No. without valid certificate & Departed	- -
c. No. without valid certificate Isolated	- -
2. Airport Sanitation	
a. No. of sanitary inspections carried out including food establishments	- 56
b. No. of food samples taken under Food Act	- 11
c. No. found defective	- 02
d. No. of court cases/prosecuted/warned	- 02
e. No. of water samples tested	- 09
f. No. reported contaminated	- 01
3. Release of human remains	
No. of human remains released	- 91
No. referred to JMO for post-mortem	- 04
No. alleged suicide	- -

18. BACTERIOLOGY REPORT - 3RD QUARTER - 2007 - MEDICAL RESEARCH INSTITUTE

Table 15.

	July	August	September
(A) CHOLERA			
No. of stool specimens examined	-	-	-
No. of El. tor cholera	-	-	-
Ogawa	-	-	-
Inaba	-	-	-
Cholera 0139	-	-	-
(B) SALMONELLA			
No. of Blood specimens examined	47	46	59
No. positive S. typhi	-	-	03
S. paratyphi	-	-	-
No. of stool specimens examined	125	90	138
No. positive S. typhi	-	-	-
S. paratyphi A	-	-	-
Others	01	07	03
(C) SHIGELLA			
No. of specimens examined	125	90	138
No. positive Sh. flexneri 1	-	-	-
Sh. flexneri 2	02	02	02
Sh. flexneri 3	-	-	-
Sh. flexneri 4	-	-	-
Sh. flexneri 5	-	-	-
Sh. flexneri 6	-	-	01
Sh. sonnei	16	07	02
Sh. dysenteriae	-	-	-
(D) ENTEROPATHOGENIC E. COLI			
No. of specimens examined	48	52	42
No. positive Group A	01	-	-
(E) CAMPYLOBACTER SPECIES			
	01	02	05

19. SEXUALLY TRANSMITTED DISEASES

Table 16.

NEW EPISODES OF STD/HIV/AIDS REPORTED OR TREATED AT STD CLINICS IN SRI LANKA* - 3RD QUARTER 2007

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	19	18	37	48	37	85
AIDS	5	7	12	17	12	29
Early Syphilis ²	22	9	31	64	31	95
Syphilis	56	52	108	199	184	383
Late Syphilis ³						
Congenital Syphilis ⁴	1	0	1	1	0	1
Gonorrhoea ⁵	129	43	172	352	126	478
Ophthalmia neonatorum ⁶	1	1	2	4	4	8
Non specific cervicitis/urethritis	134	220	354	387	620	1007
Chlamydial Infection	7	23	30	15	55	70
Genital Herpes	191	279	470	534	782	1316
Genital Warts	151	124	275	479	324	803
Chancroid	1	0	1	1	0	1
Trichomoniasis	3	45	48	7	114	121
Candidiasis	218	292	510	625	938	1563
Bacterial Vaginosis		229	230		663	664
Other sexually transmitted diseases ⁷	77	61	138	213	211	424
Non-venerial ⁸	900	622	1522	2559	1879	4438

* - 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.

20. SURVEILLANCE REPORT OF VIRAL HEPATITIS - 2006

Viral Hepatitis is endemic in Sri Lanka particularly in areas where sanitation is poor and access to safe water is an issue. The average annual admission rate to government hospitals in Sri Lanka for viral hepatitis has progressively declined from 57 per 100,000 in 1991 to 13.9 per 100,000 during 2006. However, the actual incidence of viral hepatitis is likely to be much 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, out patient departments and practitioners of traditional medicine, and therefore, not reported via the routine health information system. Outbreaks have occurred infrequently during the past and with a lesser magnitude. These outbreaks have mostly been confined to limited geographical areas.

Viral hepatitis is a notifiable disease in Sri Lanka. In the year 2006, 2765 cases (13.9 per 100,000) of viral hepatitis were notified to the Epidemiology Unit, out of which 1153 were confirmed cases (Table 17). The highest number (398) was reported from Kegalle RDHS division (Table 18). The other RDHS areas, where high numbers of viral hepatitis cases reported were; Nuwara Eliya (293), Kalmunai (272), Batticaloa (220), Ratnapura (189), Badulla (184), Trincomalee (175), Gampaha (154), Puttalam (154) and Kandy (139). The lowest numbers were reported from Galle (04 cases), Vavunia (09 cases), Killinochchi (10 cases), Mannar (10 cases), Mullativu (10 cases), Matara (15 cases) and Ampara (20 cases). However, under reporting of cases is one of the reasons for the low figures seen in some of these RDHS divisions.

The highest incidence of 71.2 cases of viral hepatitis (calculated as rate per 100,000 population) was reported from Kalmunai RDHS division while in Kegalle, Trincomalee, Nuwara Eliya and Batticaloa RDHS divisions the recorded figures were at least three times more than the national average (Table 18). It should be noted that these RDHS divisions have been repeatedly reporting high incidence rates in the past as well. Kalmunai RDHS division continued to experience the outbreak of Hepatitis A which was reported during the previous year. The mostly affected were the internally displaced population.

Confirmed cases

Table 19 presents the confirmed cases of viral hepatitis received by the Epidemiology Unit from RDHS divisions from 2001 to 2006. Despite the 2765 cases of viral hepatitis reported from the government health institutions in 2006, only 1153 cases had been confirmed by field investigations. The highest number of confirmed cases (296) was reported from the Kegalle RDHS division. It should be noted that there were cases that had been notified but not investigated due to the inability to trace, as a result of incorrect or

incomplete addresses.

Seasonal Distribution

The distribution of Viral Hepatitis cases in 2004, 2005 and 2006 by month is given in Figure 1. Apart from the peak reported during the months of April and May in 2006, the occurrence of cases has been similar to the distribution seen in the previous two years.

Age and Sex Distribution

The age distribution of investigated / confirmed cases of viral Hepatitis for the years 2001 - 2006 is given in table 20. The highest percentage of around 44% occurred in the age group 1- 14 years in 2006. The same age group has been recording the highest percentage in each year during the past. There is a subsequent decline of cases with advancing age. This highlights that viral hepatitis is a problem among the age group of 1- 14 years. Therefore prevention and control activities should be specifically designed to target this age group.

The reported cases in 2006 of viral hepatitis gives a male to female sex ratio of 3.2 : 2 (707 males and 445 females). (Table 21)

Prevention and Control

The primary health care team is responsible for carrying out prevention and control activities related to viral hepatitis in their respective areas. They are expected to identify high risk areas based on diseases incidence and existence of other risk factors and target these areas for their interventions.

Apart from the routine investigation to be carried out, a special investigation for each suspected or confirmed case of viral hepatitis needs to be carried out at the medical institutions. The objective of introduction of special investigation form was to obtain necessary epidemiological information to carry out early prevention and control activities, particularly at the district and divisional levels.

Following the review of benefits and constraints of employing special investigation, it had been decided to limit this to selected RDHS divisions, where the incidence has been repeatedly high.

However, in the other RDHS divisions, if there were 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 had to be carried out by the respective DDHS/MOH.

It is the responsibility of the Regional Epidemiologists to monitor and evaluate this activity at the divisional and district levels. It is also the responsibility of the 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 investi-

gation (H 399, 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 direct. The purpose of sending special investigation reports of viral hepatitis to the Regional Epidemiologist is to provide an opportunity to use this information for the disease surveillance at the district level. The Regional Epidemiologists should send these special investigation forms to the Epidemiology Unit monthly with a consolidated report.

In Sri Lanka, prevalence of hepatitis B and C has been low, ranging from 0.27% - 2.5% for the former and for the latter from 0.56% to 0.97%.

Vaccination against hepatitis B, among other interventions, has been used as a major prevention strategy. Currently all infants in the country are targeted for vaccination under the Expanded Programme on Immunization. In addition, the vaccine is provided for those who are at a higher risk of contracting the disease.

Table 17.

REPORTED AND CONFIRMED VIRAL HEPATITIS CASES 1990-2006

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
2005	2286	921
2006	2765	1153

Table 18.

DISTRIBUTION OF NOTIFIED VIRAL HEPATITIS CASES BY RDHS DIVISION - 2006

RDHS Division	Number Notified	Percentage	Rate / 100,000 Population
Colombo	69	2.5	2.9
Gampaha	154	5.6	7.2
Kaluthara	48	1.7	4.4
Kandy	139	5.0	10.2
Matale	30	1.1	6.4
Nuwara Eliya	293	10.6	39.9
Galle	4	0.1	0.4
Hambantota	59	2.1	10.8
Matara	15	0.5	1.9
Jaffna	78	2.8	13.1
Kilinochchi	10	0.4	7.0
Mannar	10	0.4	10.0
Vavuniya	9	0.3	5.5
Mulativu	10	0.4	6.9
Batticaloa	220	8.0	39.6
Ampara	20	0.7	8.2
Trincomalee	175	6.3	44.3
Kurunegala	65	2.4	4.3
Puttalama	154	5.6	20.7
Anuradhapura	65	2.4	8.2
Polonnaruwa	23	0.8	6.0
Badulla	184	6.7	22.0
Moneragala	72	2.6	17.1
Ratnapura	189	6.8	17.6
Kegalle	398	14.4	49.9
Kalmunai	272	9.8	71.2
SRI LANKA	2765	100	13.9

Figure 1.

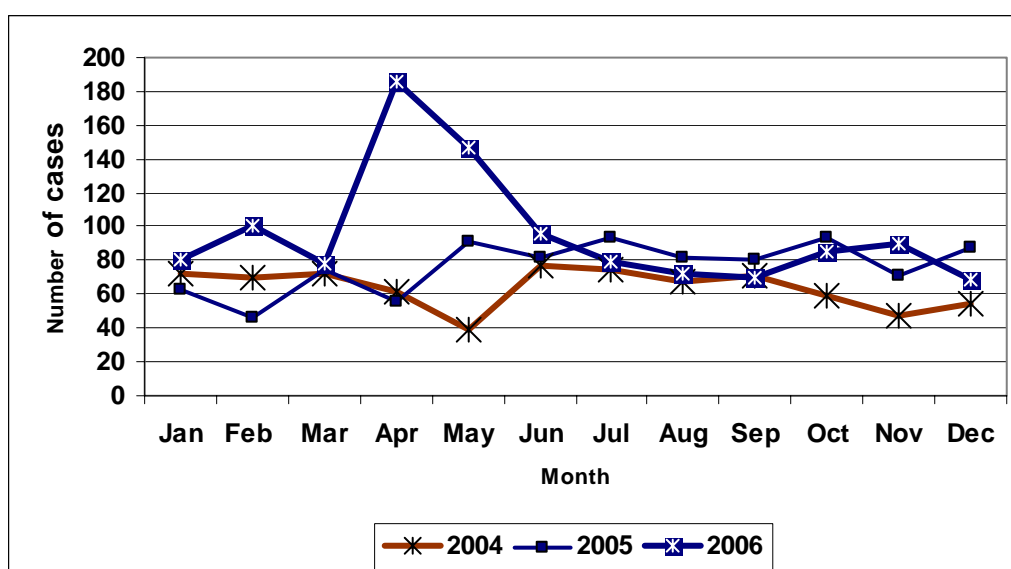
DISTRIBUTION OF CONFIRMED VIRAL HEPATITIS CASES BY MONTH 2004-2006

Table 19.

DISTRIBUTION OF CONFIRMED CASES OF VIRAL HEPATITIS BY DISTRICT 2001-2006

District	2001		2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Colombo	7	8.3	49	4.7	55	4.6	38	4.9	41	4.5	15	1.3
Gampaha	17	20.2	116	11.1	180	15.1	104	13.6	70	7.6	68	5.9
Kalutara	2	2.4	12	1.1	64	5.4	31	4.1	19	2.1	28	2.4
Kandy	19	22.6	113	10.8	160	13.4	69	9.0	53	5.8	55	4.8
Matale	0	0.0	45	4.3	157	13.1	20	2.6	7	0.8	13	1.1
Nuwara-Eliya	0	0.0	99	9.4	26	2.2	9	1.2	6	0.7	111	9.6
Galle	3	3.6	12	1.1	21	1.8	3	0.4	5	0.5	4	0.4
Hambantota	1	1.2	8	0.8	10	0.8	3	0.4	8	0.9	33	2.9
Matara	2	2.4	8	0.8	5	0.4	6	0.8	3	0.3	1	0.1
Jaffna	3	3.6	14	1.3	18	1.5	31	4.1	22	2.4	22	1.9
Vavuniya	2	2.4	0	0	0	0	2	0.3	1	0.1	0	0
Ampara	0	0.0	6	0.6	7	0.6	4	0.5	10	1.1	3	0.3
Batticaloa	0	0.0	37	3.5	77	6.5	55	7.2	104	11.3	79	6.9
Trincomalee	0	0.0	36	3.4	38	3.2	190	24.8	157	17.0	116	10.0
Kurunegala	5	6.0	21	2.0	38	3.2	18	2.4	23	2.5	27	2.3
Puttalam	5	6.0	16	1.5	11	0.9	11	1.4	13	1.4	7	0.6
Anuradhapura	0	0.0	35	3.3	29	2.4	14	1.8	23	2.5	33	2.9
Polonnaruwa	1	1.2	23	2.2	25	2.1	8	1.0	18	2.0	11	1.0
Badulla	0	0.0	39	3.7	36	3.0	20	2.6	9	1	28	2.4
Monaragala	0	0.0	1	0.1	23	1.9	28	3.7	19	2.1	36	3.1
Kegalle	12	14.3	330	31.5	229	19.2	71	9.3	76	8.3	296	25.7
Ratnapura	5	6.0	24	2.3	12	1.0	9	1.2	29	3.1	97	8.4
Kilinochchi	0	0.0	0	0	0	0	0	0	0	0	0	0
Mullativu							1	0.1	0	0	0	0
Mannar							17	2.2	3	0.3	2	0.2
Kalmunai							3	0.4	202	21.9	68	5.9
Total	84	100	1048	100	1194	100	756	100	921	100	1153	100

Table 20.

DISTRIBUTION OF CONFIRMED CASES OF VIRAL HEPATITIS BY AGE GROUP 2001-2006

Age Group	2001		2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<1 yrs	1	0.1	0	0	3	0.25	0	0	3	0.3	1	0.1
1 – 14 yrs	281	45.9	442	42.3	474	39.7	383	50.7	528	57.4	504	43.7
15-24 yrs	153	25.1	348	33.3	388	32.5	190	25.1	207	22.5	354	30.7
25-44 yrs	123	20.1	191	18.3	269	22.5	135	17.9	149	16.1	239	20.7
45-64 yrs	34	5.6	47	4.5	55	4.6	36	4.8	27	2.9	37	3.2
> 65 yrs	19	3.1	18	1.7	5	0.4	12	1.5	7	0.8	10	0.9
Unknown											8	0.7
Total	611	100	1046	100	1194	100	765	100	921	100	1153	100

Table 21.

DISTRIBUTION OF CONFIRMED CASES OF VIRAL HEPATITIS BY SEX 2001-2006

Year	2001		2002		2003		2004		2005		2006	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Male	352	57.6	620	59.3	892	74.7	439	57.4	513	55.7	707	61.3
Female	259	42.4	429	40.7	302	25.3	326	42.6	408	44.3	445	38.6
Unknown											1	0.1
Total	611	100	1046	100	1194	100	765	100	921	100	1153	100

21. SURVEILLANCE REPORT OF MEASLES & RUBELLA 2000 - 2006

Introduction.

With the objective of reducing the morbidity and mortality due to measles infection, the measles vaccine was introduced to the Expanded Programme on Immunization during the latter part of 1984. The morbidity and mortality due to measles has continued to come down since then. In spite of a relatively low incidence of measles during the past decade, an outbreak of the disease occurred in Sri Lanka in September 1999-June 2000 due to the accumulation of susceptibles over the years. Over 15,000 suspected cases of measles were notified to the Epidemiological Unit of the department of Health Services.

The rubella vaccine was introduced in the expanded programme on immunization in 1996 targeting all females aged 11-44 years with the objective of preventing Congenital Rubella Syndrome (CRS). In the school based programme females aged 11-15 years were immunized and the rest were immunized in the community. In 2001 MR vaccine was introduced to all children (male and female) aged 3 years with the objective, not only to prevent CRS but also to prevent rubella infection as well.

The national immunization schedule has been further revised and, rubella vaccine was introduced to all children at 8 years in schools since October 2001.

In January 2007 a second dose of Rubella vaccine was introduced in the form of MR vaccine at the age of 13 years (Year 8 children). This immunization is routinely carried out during School Medical Inspections (SMI).

Objectives of the measles & rubella control programme

- Reduction of morbidity and mortality due to measles & rubella
- Prevention of outbreaks
- Reduction of morbidity and mortality due to Congenital Rubella Syndrome and morbidity due to rubella infection

Strategies for measles & rubella control programme

- Maintain high routine immunization coverage
- Regular monitoring of accumulation of susceptible cases
- Prediction of outbreaks and control of outbreaks
- Conduct "Catch up", "Keep up" and "Follow up" immunization campaigns
- Strengthening of measles & rubella surveillance and laboratory surveillance

The information on morbidity due to these diseases is obtained from Weekly Return of Communicable Diseases (WRCD) from MOOH every week by the Epidemiology Unit and the data is published in the weekly Epidemiological Report. (Table 22)

Table 22.

INCIDENCE OF MEASLES AND RUBELLA 2000-2006

Year	Measles	Rubella
2000	13216	24
2001	267	4
2002	139	2
2003	114	3
2004	86	7
2005	48	1
2006	36	5

Source : WRCD data

Table 23 shows distribution of measles cases by districts and this information was obtained from weekly return of communicable diseases. In 2000 there was an outbreak of measles with 13,216 cases. From 2001 onwards number of cases has reduced and only 36 cases were reported in 2006. Galle district has reported relatively higher figures in 2001, 2002 and 2003 which could be due to small outbreaks of measles.

Table 24 shows the total number of cases investigated and confirmed by MOOH during 2000-2006.

An outbreak of measles was reported in 2000 and there were 13,216 cases reported to the

Epidemiology unit from the health institutions. Of the 13,216 cases 4115 cases were investigated in detail by the MOOH in the affected districts. It is noticed that number of cases has declined after year 2000.

A total of 21 measles cases were reported for 2005 and 2006 respectively. Trincomalee had reported an outbreak (14 cases) in a Navy camp in 2005.

All hospitals in the country send their indoor morbidity and mortality data to the medical statistician each quarter. It is observed that this information doesn't tally with WRCD data probably due to poor notification. (Table 25)

An outbreak of measles occurred in September 1999-June 2000 due to the accumulation of susceptibles over the years. Over 15,000 cases of measles were notified to Epidemiology Unit. In 2000, four thousand one hundred and eleven cases were reported. (Table 26). Almost 48% of the cases were in the age group of 10-20 years indicating the presence of a large proportion of susceptibles in this age group. Some of the individuals in this age group were born before measles immunization was introduced to the EPI and the others would have received only a single dose of measles vaccine. Since the vaccine coverage was low during the initial years some in this group would have not received a single dose of measles vaccine at all. (Table 27 - 29)

Table 23.

DISTRIBUTION OF MEASLES CASES BY DISTRICTS 2000-2006

RDHS Division	2000	2001	2002	2003	2004	2005	2006
Colombo	539	4	5	4	2	1	0
Gampaha	953	15	10	3	6	0	2
Kalutara	746	1	2	1	3	0	4
Kandy	320	14	9	12	3	3	0
Matale	296	7	4	5	8	5	3
Nuwara-Eliya	45	3	1	5	2	2	4
Galle	575	68	42	24	1	0	0
Hambantota	774	14	4	4	4	1	1
Matara	766	10	5	2	1	3	3
Jaffna	139	30	2	2	1	0	0
Killinochchi	39	1	0	0	1	2	0
Mannar	-	-	0	0	1	1	0
Vavuniya	185	1	0	0	0	1	0
Mullathivu	-	-	0	0	2	0	0
Batticaloa	18	3	0	0	2	1	0
Ampara	1063	12	0	0	2	0	0
Trincomalee	227	4	5	20	11	13	1
Kurunagala	1270	15	6	11	4	0	6
Puttalam	394	8	1	2	1	0	0
Anuradhapura	672	5	13	3	7	3	1
Polonnaruwa	628	9	3	2	0	3	0
Badulla	570	10	4	2	1	1	0
Moneragala	869	7	2	2	4	1	1
Rathnapura	1610	13	3	5	10	2	2
Kegalle	618	13	12	5	9	5	8
Kalmunai	-	-	6	0	0	0	0
Total	13216	267	139	114	86	48	36

Source : WRCD data

Table 24.

DISTRIBUTION OF MEASLES CASES BASED ON SPECIAL INVESTIGATIONS 2000-2006

RDHS Division	2000	2001	2002	2003	2004	2005	2006
Colombo	276	2	2	1	2	1	0
Gampaha	346	4	6	2	1	0	2
Kalutara	271	0	1	0	3	0	1
Kandy	99	2	4	8	1	2	0
Matale	128	1	2	0	2	0	1
Nuwara-Eliya	17	0	1	0	0	0	2
Galle	360	66	38	22	1	0	0
Hambantota	226	1	2	0	1	0	1
Matara	84	1	1	0	0	0	3
Jaffna	71	8	1	0	1	0	0
Killinochchi	0	0	0	0	0	0	0
Mannar	0	0	0	0	0	0	0
Vavuniya	7	1	0	0	0	0	0
Mullathivu	0	0	0	0	0	0	0
Batticaloa	0	0	0	0	1	0	0
Ampara	139	6	0	0	0	0	0
Trincomalee	116	4	2	8	8	14	0
Kurunagala	220	0	0	5	1	0	3
Puttalam	223	4	0	1	1	0	0
Anuradhapura	380	2	11	1	3	0	1
Polonnaruwa	340	7	2	1	0	0	0
Badulla	41	0	0	1	0	0	0
Moneragala	17	2	1	1	2	1	1
Rathnapura	354	3	0	0	0	0	0
Kegalle	400	8	8	1	5	3	7
Kalmunai	0	0	2	0	0	0	0
Total	4115	122	84	52	33	21	21

Source : Special investigation data

Measles/Rubella Catch-up campaigns

To prevent occurrence of outbreaks in the future and to interrupt the chain of transmission, the susceptibles in the community need to be reduced to the maximum. With this primary objective the phase I of the measles catch-up immunization programme was conducted in 2003 targeting all children between 10-14 years using measles vaccine. The phase II of the programme has been conducted in 2004 targeting all persons between 16-20 years. The analysis of the age specific morbidity pattern of the 1999/2000 measles outbreak and measles incidence in subsequent years clearly demonstrates that the majority of the susceptible population belongs to the above age groups.

Since the target population for the phase II of the measles catch-up immunization programme in 2004 was all persons aged 16-20 years and seropositivity of rubella was estimated to be 70-80% (palihawadana2000), it was decided to use the MR vaccine instead of the measles vaccine alone (as done in the phase 1) during the phase II of the measles catch-up immunization programme.

The US government through Centers for disease control has generously granted Sri Lanka over 150 million rupees worth of vaccines and injection equipment to make this campaign a reality. Sri Lankan Red cross society, WHO and UNICEF also has contributed over 12 million rupees on this campaign.

The vaccine coverage for 2003 is 95% and it is 73% in 2004. A decrease in coverage for MR vaccine was observed in 2004. The possible reasons could be a problem in the enumeration of the eligible population which was not carried out effectively at the MOH level due to lack of staff, lack of commitment, poor participation of volunteers, poor monitoring and evaluation. (Table 30)

Table 25.

COMPARISON OF REPORTED MEASLES AND RUBELLA CASES IN THE IMMR & NOTIFICATIONS 2000-2005

Year	Measles		Rubella	
	IMMR	Notifications	IMMR	Notifications
2000	17,567	13,216	95	24
2001	610	267	146	4
2002	300	139	96	2
2003	178	114	101	3
2004	NA	86	NA	7
2005	NA	48	NA	1

Source : Medical Statistitian's data

Pre & Post catch-up measles serosurvey 2003

A sero survey was carried out in all 26 districts prior to measles catch-up campaign in 2003. Blood samples were collected by the Regional Epidemiologists and sent to the Virology section, of the MRI. ELISA test was carried out to detect measles specific antibodies.

It was observed that sero conversion rate before vaccination was 74% and after vaccination campaign it has increased up to 88%.

The immunization coverage for measles vaccine remains at very high levels (above 95%) for last six years. MR vaccination was started in 2001 for all children at three years. Coverage for MR vaccine was low (48%) in the year of introduction because immunization activities were started in the month of April and the total birth cohort could not be completed in that year. MR vaccine coverage increased gradually and in 2006 it was reported as 96%.

The reported rubella vaccine coverage has been less than 80% in 2003 to 2005 and coverage for all the age groups, in 2006 was 93%. (Table 31)

The blood samples were sent to the MRI by different hospitals in the country for serological confirmation. (Table 33)

Surveillance of AEFI in Sri Lanka commenced in 1995. All AEFI detected in the periphery are reported to the relevant MOOH and MOOH in turn report to the Epidemiology Unit monthly.

Table 33 summarises the AEFI reported following measles and rubella immunization during 2000-2006 period. Over these years highest rates of AEFI following measles vaccine was reported in 2003 and 2006.

Allergic reactions were the commonest adverse events reported. As serious AEFI 4 seizures were reported following measles vaccination in 2005 and two were reported in 2006 following MR vaccination.

Table 26.

DISTRIBUTION OF MEASLES CASES BY MONTHS

Month	2000	2001	2002	2003	2004	2005	2006
January	1411	5	25	4	2	2	1
February	1305	4	21	1	1	11	1
March	546	6	6	3	2	1	1
April	152	7	7	1	7	1	1
May	74	7	2	0	2	4	3
June	22	39	10	1	3	2	3
July	18	25	6	4	1	0	2
August	7	8	2	22	2	0	4
September	4	5	2	0	3	0	2
October	5	1	1	11	1	0	2
November	51	10	0	3	8	0	1
December	516	5	2	2	1	0	0
Total	4111	122	84	52	33	21	21

Source : Special investigation data

Table 27.

DISTRIBUTION OF MEASLES CASES BY AGE 2000- 2006

Age Groups	2000	2001	2002	2003	2004	2005	2006
<1	291	13	8	7	2	2	3
1-9	826	21	11	7	4	2	9
10-19	2049	42	30	8	7	1	0
20-39	909	43	34	29	16	16	5
40-59	28	3	1	1	1	0	4
>60	8	0	0	0	0	0	0
Total	4111	122	84	52	30	21	21

Source : Special investigation data

Table 28.

DISTRIBUTION OF MEASLES CASES BY SEX 2000- 2006

	2000	2001	2002	2003	2004	2005	2006
Male	2118	101	64	44	25	16	11
Female	1993	21	20	8	8	5	10
Total	4111	122	84	52	33	21	21

Source : Special investigation data

Table 29.

DISTRIBUTION OF RUBELLA CASES BY SEX 2000- 2006

	2000	2001	2002	2003	2004	2005	2006
Male	0	0	0	0	4	1	2
Female	0	0	0	0	0	0	3
Total	0	0	0	0	4	1	5

Source : Special investigation data

Table 31.

IMMUNIZATION COVERAGE 2000-2005

Year	Measles	MR	Rubella
2000	97	-	
2001	96	48	
2002	98	88	92
2003	99	87	72
2004	96	94	67
2005	95	96	65 (8-11yrs)
2006	96	90	93

Table 32.

LABORATORY CONFIRMATION OF MEASLES & RUBELLA CASES

Year	CRS	Rubella	Measles
2000	26	24	1380
2001	15	26	2
2002	22	16	2
2003	06	03	0
2004	19	13	0
2005	05	16	5
2006	02	02	0

Source : MRI data

Table 33.

NUMBER OF ADVERSE EVENTS FOLLOWING IMMUNIZATION (AEFI) REPORTED DURING 2000-2006

Year	Measles		MR		Rubella	
	No.	Rate	No.	Rate	No.	Rate
2000	51	(13)	-		15	(13)
2001	46	(13)	12	(8)	49	(23)
2002	75	(21)	30	(10)	91	(29)
2003	663	(33)	24	(8)	34	(14)
2004	61	(18)	347	(105)	56	(16)
2005	67	(19)	84	(25)	44	(17)
2006	106	(30)	69	(21)	46	(21)

* Rate per 100,000 doses

Table 35.

DISTRIBUTION OF SELECTED ADVERSE EVENTS BY ANTIGEN 2006

Vaccine	Seizures	Allergic reactions	Severe local reactions	High fever
Measles	0	10	1	2
MR	2	10	2	0
Rubella	0	5	0	0

Table 30.

COVERAGE OF MEASLES CATCH-UP CAMPAIGNS 2003-2004

District	*Immunization coverage (%)	
	2003	2004
Colombo	95	75
Gampaha	96	72
Kalutara	93	67
Kandy	96	70
Matale	97	62
Nuwara Eliya	97	76
Galle	95	75
Matara	95	75
Hambantota	93	74
Rathnapura	95	60
Kegalle	96	80
Badulla	95	75
Moneragala	94	73
Anuradhapura	97	69
Polonnaruwa	97	64
Vavuniya	96	87
Mannar	96	81
Trincomalee	96	68
Bataloa	98	95
Ampara	96	65
Kalmunai	99	84
Jaffna	96	88
Killinochchi	97	102
Mulathivu	97	51
Puttalam	95	54
Kurunagala	96	73
Total	95	73

* Coverage has been calculated for the estimated population.

Table 34.

DISTRIBUTION OF SELECTED ADVERSE EVENTS BY ANTIGEN 2005

Vaccine	Seizures	Allergic reactions	Severe local reactions	High fever
Measles	4	29	3	18
MR	0	47	7	6
Rubella	0	35	3	1

Table 36

22. SUMMARY OF NOTIFIABLE DISEASES –3RD QUARTER 2007

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	1	100	519	2	19	19	0	40	5	7	4	2	62
Gampaha	0	2	72	233	7	19	17	2	36	0	3	0	5	102
Kalutara	0	0	99	119	4	9	17	1	38	0	4	0	0	19
Kandy	0	1	80	80	0	14	2	0	22	1	0	0	22	484
Matale	0	0	58	22	0	13	9	1	19	2	4	0	2	35
Nuwara Eliya	0	0	52	9	0	29	2	0	0	0	1	0	3	226
Galle	0	0	55	20	3	10	35	2	25	0	0	0	8	4
Hambantota	0	2	100	31	1	4	2	2	6	1	2	0	16	10
Matara	0	2	86	51	0	9	14	0	51	0	1	2	54	8
Jaffna	0	0	67	36	0	51	2	0	0	0	3	0	1	5
Kilinochchi	0	0	0	0	0	2	0	1	0	0	0	0	0	2
Mannar	0	0	4	0	0	27	0	0	1	0	0	0	0	12
Vavuniya	0	1	11	6	0	3	38	0	0	0	1	0	0	3
Mullativu	0	0	17	0	2	6	1	0	0	0	0	0	0	9
Batticaloa	0	0	114	12	1	5	0	1	0	0	0	1	0	601
Ampara	0	0	34	0	0	0	0	0	3	7	3	0	1	10
Trincomalee	0	0	73	10	1	9	0	0	5	2	3	0	9	31
Kurunegala	0	1	118	278	4	16	11	1	16	1	2	0	8	35
Puttalam	0	2	48	33	1	24	1	0	8	0	2	0	2	13
Anuradhapura	0	1	40	82	1	3	3	1	4	1	1	0	0	8
Polonnaruwa	0	2	27	15	1	5	1	0	1	1	1	0	0	24
Badulla	0	0	142	31	4	18	2	0	16	0	3	0	50	136
Moneragala	0	0	92	23	0	12	17	2	7	0	2	1	31	18
Ratnapura	0	1	134	203	5	16	11	1	20	0	12	0	11	39
Kegalle	0	0	72	140	2	15	0	0	30	1	3	0	17	102
Kalmunai	0	0	73	0	0	1	7	0	1	0	0	0	0	21
TOTAL	0	16	1768	1953	39	339	211	15	349	22	58	8	242	2019

No polio cases. (from AFP surveillance system).

The Bulletin is compiled and distributed by the:

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This document is available on the internet www.epid.gov.lk.

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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