

Volume 46
April - June
2005



Epidemiological Bulletin

SRI LANKA

Second Quarter
2005

Epidemiology Unit
Ministry of Health

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

Contents :

1. Surveillance of Poliomyelitis
2. Surveillance of Enteric Fever
3. Surveillance of Viral Hepatitis
4. Surveillance of Dysentery
5. Surveillance of Cholera
6. Surveillance of Tetanus
7. Surveillance of Measles
8. Surveillance of Leptospirosis
9. Surveillance of Human Rabies
10. Tuberculosis Quarterly Report
11. Surveillance of Malaria
12. Surveillance of Japanese Encephalitis
13. Surveillance of Leprosy
14. Surveillance of Dengue Fever (D.F.) & Dengue Haemorrhagic Fever (D.H.F.)
15. Entomological Surveillance of Dengue Vectors
16. Surveillance at Sea Port
17. Sexually Transmitted Diseases Quarterly Summary
18. Bacteriology Report – 2nd Quarterly Summary
19. Surveillance Report of Dengue Fever/Dengue Haemorrhagic Fever – 2004
20. Summary of Notifiable Diseases – 2nd Quarter 2005

1. POLIOMYELITIS

A total of 26 cases of Acute Flaccid Paralysis (AFP) were notified in the 2nd quarter of 2005 compared to 34 cases notified in the previous quarter.

The distribution of these 26 cases of AFP according to the Deputy Provincial Directors of Health Services (DPDHS) divisions and Medical Officers of Health/Divisional Directors of Health Services (MOOH/DDDHS) areas is as follows:

DPDHS KANDY 1
MOH Yatinuwara 1

DPDHS KALUTARA 4
MOH Panadura 2
MOH Matugama 1
MOH Agalawatta 1

DPDHS GAMPAHA 4
MOH Minuwangoda 2
MOH Kirindiwala 1
MOH Mahara 1

DPDHS RATNAPURA 2
MOH Kahawatta 1
MOH Kiriella 1

DPDHS KEGALLE 1
MOH Mawanella 1

DPDHS MATALE 1
MOH Ukuwela 1

DPDHS KURUNEGALA 2
MOH Pannala 1
MOH Polgahawela 1

DPDHS COLOMBO 1
MOH Kotte 1

DPDHS GALLE 2
MOH Habaraduwa 2

DPDHS NUWARA ELIYA 1
MOH Ginigathhena 1

DPDHS MULLATIVU 1
MOH Mullativu 1

DPDHS JAFFNA 2
MOH MC Chavakachcheri 1
MOH Kopay 1

DPDHS MATARA 2
MOH Akuressa 1
MOH Malimboda 1

DPDHS HAMBANTOTA 1
MOH Katuwana 1

DPDHS BADULLA 1
MOH Soranatota 1

Age and Sex Distribution

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

Table 1.

AGE AND SEX DISTRIBUTION OF 34 AFP CASES – 2nd QUARTER 2005

Age Group	Sex		Total
	Male	Female	
Below 1 year	1	0	1
1 – 4 years	3	7	10
5 – 9 years	5	4	9
10 – 14 years	3	3	6
Over 15 years	0	0	0
Total	12	14	26

Surveillance

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

Hospital	No. of cases
Lady Ridgeway Hospital (LRH)	08
T.H. Colombo South	01
T.H. Kandy	01
T.H. Peradeniya	01
T.H. Ratnapura	02
T.H. Karapitiya	05
T.H. Jaffna	03
T.H. Kurunegala	01
G.H. Badulla	01
G.H. Kegalle	01
B.H. Nuwara Eliya	01
B.H. Kuliyaipitiya	01

T.H. - Teaching Hospital
G.H. - General Hospital
B.H. - Base Hospital

Table 2.

LABORATORY SURVEILLANCE OF STOOL SAMPLES FOR POLIO VIROLOGY

	No.	%
No. of AFP cases from whom -		
(1) At least 1 stool sample collected (the lab data was reviewed at the Epidemiological Unit with the Virologist/MRI)	24	92.0
(2) At least 1 stool sample collected within 14 days of onset of paralysis (and received by MRI, Colombo)	21	80.7
(3) Two stool samples collected within 14 days of onset of paralysis (and received by the MRI, Colombo)	21	80.7

MRI – Medical Research Institute

2. ENTERIC FEVER

In the 2nd quarter of 2005, 602 cases of enteric fever were reported to the Epidemiological Unit, compared to 697 cases in the previous quarter and 607 cases in the corresponding quarter of 2004. DPDHS divisions of Jaffna (94), Ratnapura (82) and Badulla (67) reported the highest number of cases accounting for 40% of the total case load.

The following MOH areas recorded the highest number of cases.

MOH Area	No. of cases
Vavuniya	38
Telippalai	32
Manipay	24
Hingurakgoda	24

3. VIRAL HEPATITIS

In the 2nd quarter of 2005, 509 cases of viral hepatitis were reported to the Epidemiological Unit, compared to 420 cases in the previous quarter (1st quarter 2005) and 636 cases in the corresponding quarter of 2004. Among the reported cases, 290 were investigated and confirmed as viral hepatitis. DPDHS area Batticaloa (100 cases) and the following MOH areas recorded the highest number of cases.

MOH area	No. of cases
Batticaloa	56
Thirukkivil	28
Kinniya	23

4. DYSENTERY

A total of 1,632 dysentery cases were reported in the 2nd quarter of 2005, compared to 1,508 cases in the previous quarter of 2004 and 2,477 cases in the corresponding quarter of last year.

DPDHS areas Ratnapura (179), Kalutara (172) and Badulla (151) recorded the highest number of cases accounting for 30% of the total case load.

The highest number of cases was reported from the following MOH areas.

MOH Area	No. of cases
Yatiyantota	55
Kurunduwatta	50
Maskeliya	46
Beruwala	44

5. CHOLERA

In the 2nd quarter of 2005, no confirmed cases of cholera were reported to the Epidemiological Unit.

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

6. TETANUS

During the 2nd quarter of 2005, 12 cases of tetanus were notified to the Epidemiological Unit. Out of these cases, 7 cases were investigated and confirmed as shown in Table 3.

Table 3.

DISTRIBUTION OF TETANUS CASES BY DPDHS DIVISIONS – 2ND QUARTER 2005

DPDHS Division	No. notified	No. confirmed
Colombo	02	0
Kandy	02	0
Gampaha	01	1
Nuwara Eliya	01	0
Hambantota	01	1
Matara	01	1
Jaffna	01	1
Anuradhapura	01	1
Polonnaruwa	01	1
Ratnapura	01	1
Total	12	7

Out of the 07 confirmed cases of tetanus, 04 had been fatal. No cases of neo-natal tetanus were reported during this period.

7. MEASLES

A total of 15 cases of measles were reported during the 2nd quarter 2005, when compared to 19 cases notified in the 1st quarter 2005

and 22 cases notified in the 2nd quarter 2004.

During the 2nd quarter 2005, 14 cases of suspected measles cases were investigated, out of which 4 cases were confirmed as measles. (Table 4)

Table 4.

SELECTED CHARACTERISTICS OF CONFIRMED CASES OF MEASLES - 2ND QUARTER 2005

(N = 4)

Variable	No.
Sex	
Male	04
Female	00
Age group	
* <1 year	01
1- 9 yrs.	01
10 – 19 yrs.	00
20 – 29 yrs.	02
>30 yrs.	00
District	
Moneragala	01
Matale	02
Vavuniya	01
Immunization Status	
Immunized	01
Non immunized	03

* 6 months old baby

8. LEPTOSPIROSIS

In the 2nd quarter of 2005, 349 leptospirosis cases were notified to the Epidemiological Unit compared to 402 cases in the previous quarter (1st quarter 2005). Among the reported cases 174 were confirmed as leptospirosis.

9. HUMAN RABIES

In the 2nd quarter of 2005, 15 human rabies cases were notified to the Epidemiological Unit, compared to 13 cases in the previous

quarter (1st quarter 2005) and 25 cases in the corresponding quarter of the last year.

Highest incidence of rabies was reported from Gampaha district (04 cases) compared to 01 cases in the previous quarter and 02 cases in the corresponding quarter of last year

Animal Rabies*

One hundred and six (106) dogs were reported positive for rabies compared to 105 positives in the previous quarter and 122 positives in the same period in the last year.

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

Cats – 13, Wild animals – 01,
Domestic ruminants – 03

Rabies Control Activities*

Dog vaccination – A total of 190,765 dogs were immunized during the 2nd quarter 2005 compared to 196,375 in the previous quarter and 204,190 in the corresponding quarter of last year.

Stray dog elimination – A total of 15,418 dogs were destroyed during the 2nd quarter 2005 compared to 24,409 in the previous quarter and 20,814 in the corresponding quarter of last year.

* Source – Director/PHVS

10. TUBERCULOSIS

A total of 2,041 tuberculosis patients were registered for the 2nd quarter by the National Programme for Tuberculosis Control and Chest Diseases.

Of this total, 1,775 suffered from pulmonary tuberculosis, while the balance 266 patients suffered from non pulmonary tuberculosis.

There were 1,110 bacteriologically confirmed cases and the bacteriological confirmation rate was 62.5%.

The distribution of tuberculosis patients registered for the 2nd quarter 2005 by age, sex and DPDHS divisions is given in Table 5 and 6 respectively.

Nine hundred and fifteen (915) Tuberculosis patients and 982 other patients were hospitalized during the quarter.

Central Laboratory – 1635 cultures were done during the period.

B.C.G. Vaccination

A total of 84457 B.C.G. vaccinations were carried out during the 2nd quarter 2005 with 102.56% coverage.

Table 5.

**AGE AND SEX DISTRIBUTION OF TUBERCULOSIS PATIENTS
2ND QUARTER 2005**

Age group in years	Male		Female		Total	
	No.	%	No.	%	No.	%
Under 5	20	60	13	40	33	1.7
5 – 9	11	52	10	48	21	1.0
10 –14	17	53	15	47	32	1.6
15 –19	32	38	51	62	83	4.0
20 –24	88	55	70	45	158	7.8
25 –29	109	58	77	42	186	9.1
30 –34	79	58	56	42	135	6.6
35 –39	107	67	51	33	158	7.7
40 –44	163	79	42	21	205	10.0
45 –49	146	75	47	25	193	9.5
50 –54	174	78	49	22	223	10.9
55 –59	150	76	47	24	197	9.6
60 –64	110	73	40	27	150	7.5
65 –69	87	75	29	25	116	5.6
70 –74	61	71	24	29	85	4.2
75 +	50	75	16	25	66	3.2
TOTAL	1404	68	637	32	2041	100

Source: National Programme for Tuberculosis Control and Chest Diseases.

Table 6.

**REGISTRATION OF TUBERCULOSIS PATIENTS BY DPDHS DIVISIONS
2ND QUARTER 2005**

DPDHS Division	* P.T.B.	** O.T.B.	Total	Pulmonary TB Direct Smear Positive	
				No.	%
Colombo	400	49	449	297	74.3
Gampaha	173	12	185	147	85.0
Kalutara	116	40	156	78	67.2
Kandy	191	34	225	88	46.1
Matale	9	0	9	5	55.6
Nuwara Eliya	45	1	46	18	40.0
Hambantota	37	5	42	20	54.1
Matara	49	11	60	32	65.3
Galle	93	12	105	69	74.2
Jaffna	66	14	80	25	37.9
Vavuniya	20	3	23	4	20.0
Mannar	10	1	11	8	80.0
Trincomalee	16	5	21	10	62.5
Ampara	56	3	59	23	41.1
Batticaloa	31	5	36	9	29.0
Puttalam	21	1	22	13	61.9
Kurunegala	138	19	157	78	56.5
Polonnaruwa	32	2	34	20	62.5
Anuradhapura	37	6	43	26	70.3
Badulla	25	4	29	17	68.0
Moneragala	14	1	15	11	78.6
Ratnapura	105	17	122	51	48.6
Kegalle	84	21	105	56	66.7
Kilinochchi	0	0	0	0	0.0
Mullativu	7	0	7	5	71.4
TOTAL	1775	266	2041	1110	62.5

* PTB – Pulmonary Tuberculosis **OTB – Other Tuberculosis

Source: National Programme for Tuberculosis Control and Chest Diseases.

11. MALARIA

Table 7.

EPIDEMIOLOGICAL REPORT – 2nd QUARTER 2005

District	B.F.	+ves	P.v.	P.f.
Colombo	12701	8	4	4
Gampaha	7590	24	24	0
Kalutara	1244	0	0	0
Kandy	6000	7	3	4
Matale	2498	0	0	0
Nuwara Eliya	136	0	0	0
Galle	95	0	0	0
Matara	2159	6	6	0
Hambantota	8715	0	0	0
Jaffna	21250	2	2	0
Kilinochchi	8418	2	2	0
Vavuniya	7354	1	1	0
Mannar	6116	2	1	1
Mullativu	5759	3	3	0
Batticaloa	25868	29	23	6
Ampara	4997	13	9	4
Kalmunai	10458	19	18	1
Trincomalee	8538	52	51	1
Kurunegala	26102	29	29	0
Puttalam	7634	23	12	11
Anuradhapura	39318	22	22	0
Polonnaruwa	11416	6	6	0
Badulla	6872	2	0	2
Moneragala	13534	3	3	0
Ratnapura	4044	8	8	0
Kegalle	1318	0	0	0
Total	250134	261	227	34

During the 2nd quarter of 2005, there was a significant reduction in the incidence of malaria in comparison with the same period of 2004 as seen in table 8.

Table 8.

**RESULTS OF BLOOD SMEAR EXAMINATION FOR MALARIA PARASITES
2ND QUARTER 2004/2005**

	2nd Quarter 2004	2nd Quarter 2005
No. of blood smears examined	296,578	250,134
No. of positives	788	261
No. of <i>P. vivax</i>	623	227
No. of <i>P. falciparum</i>	149	27
No. of mixed infections	16	7
Slide Positivity Rate (S.P.R.)	0.26%	0.1%
<i>P.v.</i> : <i>P.f.</i> ratio	4:1	7:1
No. of infant positives	3	3
Percentage of infant positives	0.38%	1.15%

The 2nd quarter figures for the year 2005 show a significant reduction of all indices in comparison to the same period of year 2004.

12. JAPANESE ENCEPHALITIS (J.E.)

In the 2nd quarter of 2005, 15 cases of Encephalitis were reported to the Epidemiological Unit (Table 9).

Among the reported cases, 7 cases were investigated in detail and 3 of them were found to be clinically confirmed JE. Out of 3 cases, 2 case was fatal (CFR 28.5%).

This is in comparison to 17 cases and 1 death reported during the previous quarter (CFR 5.8%) and 21 cases and 4 deaths in the corresponding quarter of the last year (CFR 19%).

Table 9.

**DISTRIBUTION OF ENCEPHALITIS
CASES BY DPDHS DIVISIONS -
2ND QUARTER 2005**

DPDHS Area	Cases	Deaths
Colombo	2	0
Jaffna	1	1
Kurunegala	1	0
Ratnapura	2	1
Kegalle	1	0
TOTAL	7	2

13. LEPROSY

Table 10.

**QUARTERLY RETURN OF LEPROSY STATISTICS
2ND QUARTER 2005****1. Nationals**

	At the end of the quarter			Cumulative for end of the quarter		
	2 nd Quarter 2005	2 nd Quarter 2004	Diff. (%)	2005	2004	Diff. (%)
New patients detected	527	520	1.3	987	976	1.1
Children	44	66	-33.3	103	110	-6.3
Grade 2 Deformities	27	35	-22.8	55	74	-25.6
Multi-Bacillary	228	216	5.5	404	411	-1.7
Females	218	215	1.4	417	402	3.73

2. District

District	New patients	Deformities	Child	MB	Females
Colombo	116	1	16	30	57
Gampaha	66	4	7	17	29
Kalutara	43	2	4	17	21
Western	225	7	27	64	107
Galle	17	1	0	7	5
Matara	19	1	1	9	5
Hambantota	28	2	3	12	12
Southern	64	4	4	28	22
Kandy	9	3	0	3	6
Matale	0	0	0	0	0
Nuwara Eliya	2	0	0	0	1
Central	11	3	0	3	7
Anuradhapura	11	0	1	4	4
Polonnaruwa	28	1	1	16	9
North Central	39	1	2	20	13
Kurunegala	33	3	0	23	13
Puttalam	18	2	1	13	4
North Western	51	5	1	36	17
Kegalle	9	2	0	6	3
Ratnapura	32	1	2	12	11
Sabaragamuwa	41	3	2	18	14
Badulla	1	0	0	0	1
Moneragala	2	0	0	1	1
Uva	3	0	0	1	2
Trincomalee	6	1	0	3	2
Batticaloa	47	0	2	31	16
Ampara	4	0	0	3	1
Kalmunai	32	2	5	20	17
Eastern	89	3	7	57	36
Jaffna	1	0	0	0	0
Vavuniya	0	0	0	0	0
Mannar	1	0	0	0	0
Mulativu	1	1	1	0	0
Kilinochchi	1	0	0	1	0
Northern	4	1	1	1	0
Sri Lanka	527	27	44	228	218

Source: Leprosy Campaign

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

The total number of suspected DF/DHF cases and deaths reported during the second quarter 2005 were 891 and 11 respectively (CFR 1.23%). This compares with 862 cases and 5 deaths during the previous quarter (CFR 0.6%) and 5711 cases and 44 deaths in the corresponding quarter (CFR 0.77%) of last year. Although there is a significant reduction in the case load, case fatality rate due to DF/DHF has not come down during the 2nd quarter of 2005.

Table 11 shows the distribution of DF/DHF cases and deaths in the DPDHS divisions during the 2nd quarter 2005.

Table 11.

MORBIDITY AND MORTALITY DUE TO DF/DHF - 2ND QUARTER 2005

DPDHS Division	Cases	Deaths
Colombo	337	4
Gampaha	169	2
Kalutara	56	-
Kandy	121	3
Matale	6	-
Nuwara Eliya	1	-
Galle	9	-
Hambantota	3	-
Matara	16	-
Jaffna	2	-
Kilinochchi	-	-
Mannar	-	-
Vavuniya	7	-
Mullativu	-	-
Batticaloa	1	-
Ampara	3	-
Trincomalee	12	1
Kurunegala	12	1
Puttalam	11	-

Anuradhapura	18	-
Polonnaruwa	4	-
Badulla	7	-
Moneragala	1	-
Ratnapura	72	2
Kegalle	21	-
Kalmunai	2	-
TOTAL	891	11

Colombo District reported the highest number of cases (37.8%) followed by Gampaha (19.0%), Kandy (13.6%) and Ratnapura Districts (8.0%).

Table 12.

DHF STATISTICS FROM DEPARTMENT OF VIROLOGY, MRI - 2ND QUARTER 2005

Month	Clinically Suspected	Serologically Confirmed
April	14	4
May	12	3
June	14	7
TOTAL	40	14

15. ENTOMOLOGICAL SURVEILLANCE OF DENGUE VECTORS

Results of the entomological surveillance carried out by the Medical Research Institute, in selected MOH areas of Colombo and Gampaha districts, for the 2nd quarter 2005 are given in Table 13.

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

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

Table 13.

**AEDES LARVAL DENSITIES
(BRETEAU INDEX) IN COLOMBO
AND GAMPAHA DISTRICTS – 2ND
QUARTER 2005**

Area	April		May		June	
	(A)	(B)	(A)	(B)	(A)	(B)
Colombo MC	8.9	5.5	8.7	4.3	9.5	4.7
Maharagama	0.44	14.22	2.91	14.55	2.91	21.45
Moratuwa	9.81	9.9	6.50	9.50	8.0	12.0
Kaduwela	5.42	5.09	5.82	10.91	2.77	16.92
Kelaniya	12.72	12.0	8.0	13.0	7.0	15.0
Ragama	1.09	14.18	3.27	14.5	3.6	19.2
Ja-Ela	7.5	21.0	11.27	20.72	9.45	16.0

(A) = *Aedes aegypti*

(B) = *Aedes albopictus*

Number of premises examined per area =
300

17. SURVEILLANCE AT SEA PORT

Surveillance activities carried out by the Port Health Office at Colombo Harbour during the 2nd quarter 2005 is given below.

1. Yellow Fever Vaccination

Total number vaccinated - 21

2. Granting Pratique to Vessels

No. issued - 889

3. Deratting Certification

No. issued - 48

Vaccinations carried out by the Assistant Port Health Office, Colombo 8, during the 2nd quarter 2005 is given below.

	April	May	June
a. Yellow fever	45	83	94
b. Meningococcal Meningitis	0	90	64
c. TAB	92	62	48

18. SEXUALLY TRANSMITTED DISEASES QUARTERLY SUMMARY

Statistics relating to sexually transmitted diseases including HIV/AIDS received from the National STD/AIDS Control Programme are given in Table 14.

Table 14.

NEW EPISODES OF STD/HIV/AIDS REPORTED OR TREATED AT STD CLINICS IN SRI LANKA* - 2ND QUARTER 2005

Disease	New cases or new disease episodes during the quarter			Total new cases or new episodes for the calendar year up to end of the quarter**		
	Male	Female	Total	Male	Female	Total
HIV positives ¹	20	5	25	39	21	60
AIDS	2	2	4	11	4	15
Early Syphilis ²	23	9	32	47	19	66
Syphilis Late Syphilis ³	70	79	149	140	169	309
Congenital Syphilis ⁴	7	2	9	7	2	9
Gonorrhoea ⁵	247	73	320	527	152	679
Ophthalmia neonatorum ⁶	2	1	3	8	4	12
Non specific cervicitis/urethritis	161	259	420	309	566	875
Chlamydial Infection	0	0	0	4	3	7
Genital Herpes	208	187	395	395	357	752
Genital Warts	149	93	242	287	174	461
Chancroid	0	0	0	3	1	4
Trichomoniasis	2	31	33	6	59	65
Candidiasis	198	240	438	425	524	949
Bacterial Vaginosis	4	242	246	4	482	486
Other sexually transmitted diseases ⁷	98	42	140	202	84	286
Non-venerial ⁸	846	558	1404	1700	1086	2786

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

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

MEDICAL RESEARCH INSTITUTE

19. BACTERIOLOGY REPORT – 2ND QUARTER 2005

Table 15.

	April	May	June
(A) CHOLERA			
No. of stool spe. examined	05	-	01
No. of El. tor cholera	-	-	-
Ogawa	-	-	-
Inaba	-	-	-
Cholera 0139	-	-	-
(B) SALMONELLA			
Blood No. examined	56	73	70
S. typhi	06	04	-
S. paratyphi	-	-	-
Stools – No. examined	175	311	254
No. +ve S. typhi	-	-	-
S. paratyphi A	-	-	-
Others	03	02	07
(C) SHIGELLA			
No. of spec. examined	175	311	254
No. +ve Sh. flexneri 1	-	06	-
Sh. flexneri 2	02	10	05
Sh. flexneri 3	-	-	-
Sh. flexneri 4	-	-	-
Sh. flexneri 5	-	-	-
Sh. flexneri 6	02	04	02
Sh. sonnei	22	17	17
Sh. others	-	-	-
(D) ENTEROPATHOGENIC			
E. coli			
No. of spec, examined	98	154	144
No. +ve Group A	06	02	05
(E) CAMPYLOBACTOR SPECIES			
	14	11	08

20. Surveillance Report on Dengue /Dengue Haemorrhagic Fever -2004

Dengue Fever and Dengue Haemorrhagic Fever (DF/DHF) are endemic in Sri Lanka. Since the first serologically confirmed case of Dengue Fever in 1962, there had been outbreaks on and off until the recent past with progressively large outbreaks occurring more frequently.

In the past 10 years a dramatic increase in the incidence of dengue and its severe manifestations has been observed making this infectious disease a major public health problem. (Figure I)

The year 2004 recorded the largest outbreak in the recent past with 15463 cases and 88 deaths.

Table 16.

COMPARISON OF NUMBER OF DF/DHF CASES AND DEATHS, 2001 – 2004

Year	Number of cases DF/DHF	Number of deaths	Case Fatality Rate %
2001	4304	54	1.25
2002	8931	67	0.75
2003	4672	33	0.71
2004	15463	88	0.57

Figure I:
DF/DHF total suspected cases and deaths, Sri Lanka 1992-2004

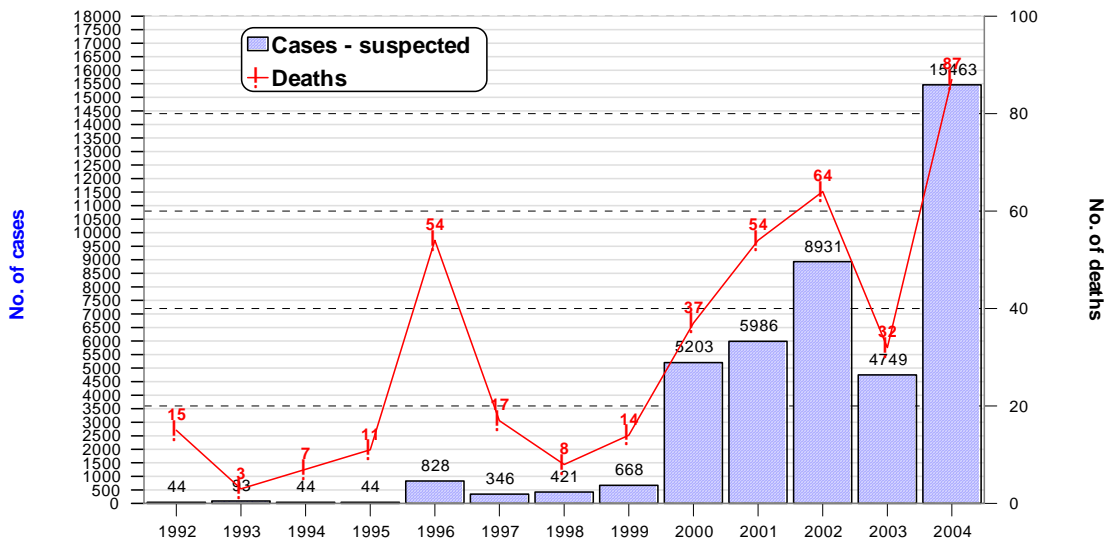
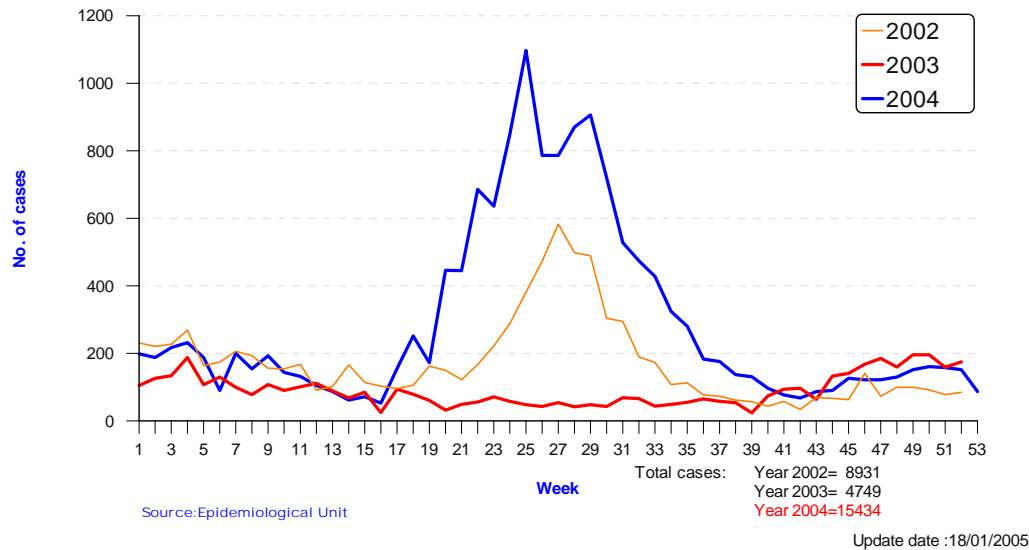


Figure 2 below shows the distribution of reported cases of DF/DHF by week during the last 3 year period in Sri Lanka.

Figure 2: Distribution of suspected Dengue Fever/DHF cases by week in Sri Lanka, 2002 - 2004



The disease has a seasonal trend, where two peaks of dengue occur following monsoon rains in June - July and October - December.

Almost all the districts in Sri Lanka have reported DF/DHF cases which posed a threat to the health of the people. **The DPDHS areas of Colombo, Gampaha, Kalutara and Kandy have recorded the highest number**

of cases amounting for approximately 60% of the total case load (Table 17).

Forty eight (48) high risk MOH areas have been identified from 20 districts where the incidence was high (Table 18).

The DPDHS areas of Colombo (24), Gampaha (17) and Kandy (9) recorded the highest number of deaths due to DHF/DSS. The total case fatality rate was 0.57 %.

Table 17.

DISTRIBUTION OF SUSPECTED CASES AND DEATHS DUE TO DF/DHF BY DPDHS DIVISIONS

District	No of Cases	Percentage	No of deaths	Percentage
Colombo	3551	23.0	24	27.0
Gampaha	3030	19.6	17	19.0
Kalutara	1253	8.0	05	5.6
Kandy	2284	14.7	09	10.2
Matale	358	2.3	01	1.0
Nuwara-Eliya	65	0.4	0	0
Galle	268	1.7	05	5.7
Hambantota	84	0.5	0	0
Matara	390	2.5	02	2.3
Jaffna	93	0.6	0	0
Kilinochchi	1	0.01	0	0
Mannar	3	0.0	0	0
Vavuniya	62	0.4	0	0
Mullaitivu	0	0.0	0	0
Batticaloa	101	0.6	02	2.3
Ampara	64	0.4	0	0
Trincomalee	272	1.7	02	2.3
Kurunegala	860	5.5	06	6.8
Puttalam	725	4.7	05	5.7
Anuradhapura	476	3.0	01	1.0
Polonnaruwa	239	1.5	0	0
Badulla	136	0.8	0	0
Moneragala	49	0.3	0	0
Ratnapura	469	3.0	01	1.0
Kegalle	474	3.0	06	6.8
Kalmunai	156	0.8	02	2.3
Total	15463	100	88	100

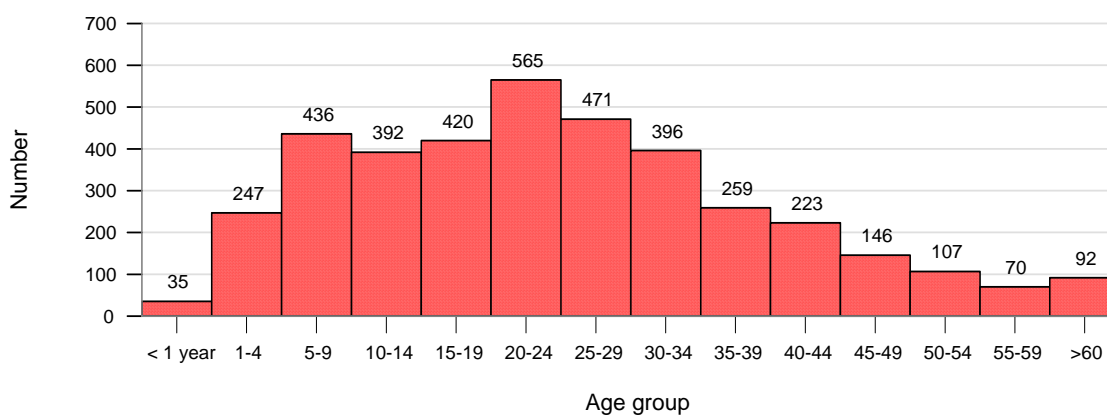
Table 18.

HIGH RISK AREAS IDENTIFIED FOR DF/DHF – SEPT. 2004

DPDHS Division	MOH Area
Colombo	MC Colombo, Piliyandala, Kaduwela, Maharagama, Moratuwa, Nugegoda
Gampaha	Ja-Ela, Kelaniya, Mahara, Wattala
Kalutara	Horana, Panadura
Kandy	Gangawatakorale, Harispattuwa, Kundasale, MC Kandy, Udunuwara, Wattegama, Yatinuwara
Matale	Ukuwela, MC Matale
Galle	MC Galle
Matara	Matara MC
Hambantota	Hambantota
Vavuniya	Vavuniya
Trincomalee	Trincomalee
Batticaloa	Kattankudy
Ampara	Dehiattakandiya
Kalmunei	Akkareipattu, Ninthavur, Addalachchenei
Kurunegala	Kurunegala MC
Puttalam	Puttalam MC, Dankotuwa, Marawila
Anuradhapura	Anuradhapura
Polonnaruwa	Hingurakgoda, Medirigiriya, Polonnaruwa
Badulla	Badulla
Ratnapura	Eheliyagoda, Kuruwita, Pelmadulla, Ratnapura
Kegalle	Kegalle, Mawanella, Yatiyantota, Warakapola

Figure 4: Distribution of DF/DHF cases by age groups 2004

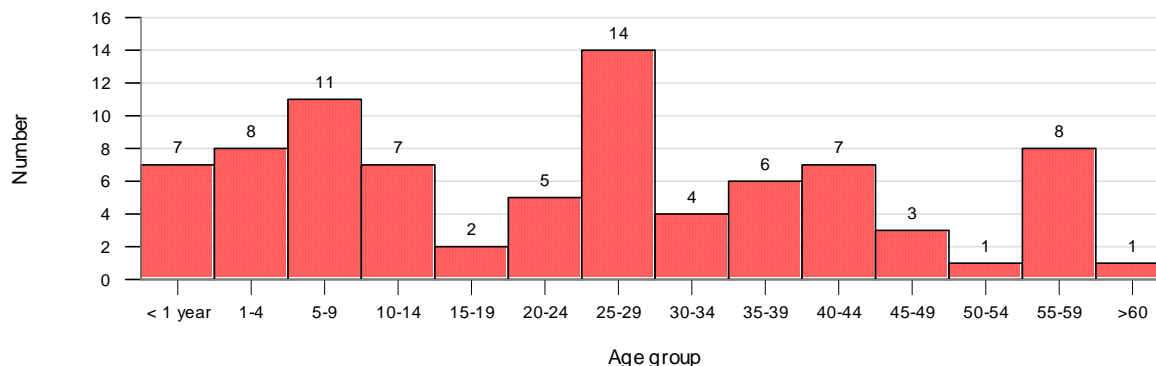
Source – DF/DHF special surveillance



All age groups were affected by the disease but there were 1110 cases below 15 years of age (22%) and 2480 cases were aged between 15 – 49 years(50%). This signifies the shifting of the disease incidence in the age pyramid with more adult cases.

Figure 5.

Distribution of DF/DHF Deaths , by age group, Sri Lanka - 2004



Deaths have occurred in all age groups but 30% of the deaths (33 cases) were among children less than 15 years of age. The highest number of deaths (14) were observed in the 25-29 year age group.

Distribution of DF/DHF cases and deaths by sex

Sex	Cases	%	Deaths	%
Male	2300	58	33	38
Female	1651	42	55	62
Total	3962	100	88	100

There was a slight male preponderance among the confirmed cases but when the deaths are concerned there was a female preponderance.

Laboratory confirmation of DF/DHF

Blood samples from 3219 cases of suspected DF/DHF were tested for dengue antibodies at the Department of Virology of the MRI and 1563 (48.5%) were found to be positive for Ig M antibodies.

Activities carried out during the year 2004 for prevention and control of DF/DHF

- **Preparation of the National Plan of Action for Prevention and Control of DF/DHF**

A national workshop was held in July 2004 chaired by the Hon. Minister of Health, with

the participation of Ministry of Science & Technology and mayors of Munciple Council Colombo, Kandy and Gampaha. Subsequently six sub-committees were formulated comprising of experts in different fields (clinical management, vector control, social mobilization, co-ordination of Research, laboratory development and legislative enactment) to address key issues, regarding prevention and control of dengue in the country. The National Plan of Action for dengue control has been developed by the Epidemiological Unit based on the recommendations of the sub-committees.

- **Establishment of Dengue Control Unit**

The Minister of Health has taken steps to appoint a National Coordinator/Dengue Control, to co-ordinate and mandate the dengue control programme in the country.

- **Strengthening of Dengue Prevention and Control activities in the High Risk Areas identified**

A special workshop was held to identify deficiencies in the dengue prevention and control activities and prepare plan of action for control of DF/DHF. Project proposals were prepared to solve major constraints in the field of dengue control which were funded by the National Dengue Control Unit, Ministry of Health.

21. SUMMARY OF NOTIFIABLE DISEASES – 2ND QUARTER (APRIL - JUNE) 2005

Table 19.

Health Region	Cholera	* Acute Flaccid Paralysis (AFP)	Dysentery	Dengue Haemorrhagic Fever	Encephalitis	Enteric Fever	Food Poisoning	Human Rabies	Leptospirosis	Measles	Simple Comtd. Fever	Tetanus	Typhus Fever	Viral Hepatitis
Colombo	0	1	67	337	0	14	3	0	16	1	13	2	3	33
Gampaha	0	4	72	169	0	16	23	4	43	0	2	1	0	31
Kalutara	0	4	172	56	0	9	7	1	28	0	2	0	0	8
Kandy	0	1	133	121	0	34	2	0	17	2	2	2	14	26
Matale	0	1	80	6	0	8	1	0	7	2	0	0	0	2
Nuwara Eliya	0	1	118	1	0	55	287	0	3	1	0	1	7	10
Galle	0	2	36	9	1	0	0	1	13	0	1	0	2	5
Hambantota	0	1	66	3	0	1	6	0	16	1	2	1	22	4
Matara	0	2	76	16	1	7	14	0	49	1	3	1	31	2
Jaffna	0	2	17	2	1	94	2	0	1	0	4	1	9	23
Kilinochchi	0	0	4	0	0	1	0	0	0	0	0	0	0	3
Mannar	0	0	12	0	0	15	0	0	0	0	0	0	1	2
Vavuniya	0	0	29	7	0	42	2	0	0	1	1	0	0	1
Mullativu	0	1	5	0	0	5	1	0	0	0	1	0	0	2
Batticaloa	0	0	12	1	0	1	2	0	1	0	0	0	4	100
Ampara	0	0	13	3	0	1	1	0	3	0	1	0	0	3
Trincomalee	0	0	76	12	0	18	12	0	1	0	0	0	2	59
Kurunegala	0	2	91	12	1	16	20	2	5	0	0	0	2	19
Puttalam	0	0	16	11	0	48	1	0	6	0	0	0	0	13
Anuradhapura	0	0	32	18	0	5	2	3	22	0	0	1	4	11
Polonnaruwa	0	0	6	4	0	35	0	0	11	1	0	1	0	8
Badulla	0	1	151	7	0	67	2	2	21	1	1	0	26	40
Moneragala	0	0	41	1	0	10	7	1	25	1	0	0	17	18
Ratnapura	0	2	179	72	8	82	6	1	29	1	3	1	7	7
Kegalle	0	1	114	21	0	12	7	0	32	2	2	0	6	27
Kalmunai	0	0	14	2	3	6	0	0	0	0	1	0	0	52
TOTAL	0	26	1632	891	15	602	408	15	349	15	39	12	157	509

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

- The Bulletin is compiled and distributed by the Epidemiological Unit, Ministry of Health, 231, De Saram Place, Colombo 10.
(Telephone : 2695112, FAX No : 2696583, E-mail: www.epid.gov.lk)
- Figures given may be subjected 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:

The Editor
Quarterly Epidemiological Bulletin
Epidemiology Unit, P.O. BOX 1567, Colombo, SRI LANKA.
This document is available on the internet www.epid.gov.lk