ANNUAL EPIDEMIOLOGICAL BULLETIN

2012 Epidemiology Unit




CONTENTS PAGE NO

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Foreword

Epidemiology Unit is the Institute in Ministry of Health responsible for prevention and control of communicable diseases. The Unit handles this task through a well established and widely accepted disease surveillance system with a sound legal basis. It is also responsible for developing prevention and control strategies and monitoring implementation and effectiveness of such interventions. Disease surveillance is one of the leading strategies in communicable disease prevention and control. Surveillance provides accurate epidemiological data which guides monitoring component in prevention and control of communicable diseases.

National Immunization Programme (NIP) of Sri Lanka is one of the best performing public health programmes in the region and as well as in the world. Vaccine preventable diseases are well controlled in the country with successful implementation of the NIP. Epidemiology unit is the focal point for important functions of the National Immunization Programme (NIP) which include developing policy and strategies of vaccine introduction, coordinating logistical supply of vaccines and consumables and monitoring and evaluation of the programme.

The Unit acts as the emergency response unit for disease control activities in disasters, emergencies and handles outbreak investigation and control.

Further the Epidemiology Unit carries out training for undergraduates, postgraduates and clinical and field health staff. It was recently identified as a Centre of Excellence in Training on Immunization by the WHO and undertakes training of international participants. The Unit carries out research on burden of communicable diseases, on evaluating effectiveness of interventions and on many other related areas with collaboration of other national institutions and international agencies.

This Annual Report of Epidemiological Data 2012 demonstrates the situation on communicable diseases in the country and describes the performances of individual disease surveillance components. It also highlights the achievements of National Immunization Programme within the year.

Annual Report of Epidemiological data – 2012

01. AFP SURVEILLANCE: POLIOMYELITIS ERADICATION:

No Poliomyelitis cases have been reported in Sri Lanka since 1993. Acute Flaccid Paralysis (AFP) surveillance is carried out since 1991 aiming to identify all poliomyelitis cases and exclude all other AFP cases as non polio cases conforming to other differential diagnoses.

Distribution of AFP cases by Province and Districts in year 2012

A total number of seventy five (75) AFP cases were notified to the Epidemiology Unit in 2012.

Province	District	Number of AFP cases reported
Western	Colombo	9
	Gampaha	9
	Kalutara	2
Southern	Galle	4
	Hambanthota	2
	Matara	1
Central	NuwaraEliya	7
	Kandy	4
	Matale	1
Sabaragamuwa	Ratnapura	4
	Kegalle	2
Uva	Badulla	5
	Moneragala	3
North Central	Anuradapura	4
	Polonnaruwa	2
Nothern	Jaffna	4
	Mullativu	1
Eastern	Batticaloa	2
	Trincomalee	2
	Ampara	1
North Western	Kurunegala	3
	Puttalam	3
Total		**75**

One surveillance criterion of the WHO for endemic countries is non polio AFP rate of 2:100,000 under 15 year age population, and this is 1 per 100,000 under 15 populations for non endemic countries. The non polio AFP rate in Sri Lanka is 1.5 per 100,000 under 15 year age population in 2012.

The highest number of AFP cases has been reported from districts of Colombo, Gampaha and Nuwara Eliya with more than 5 cases from each district. The complete list of distribution of AFP cases according to the province and the district is given below.

AFP Sentinel site surveillance:

Sixty seven hospitals were functioning as sentinel sites for AFP surveillance during 2012. The sentinel site for AFP surveillance is defined as a hospital with availability of a Consultant Paediatrician's service. Twenty three AFP cases were reported from Lady Ridgeway Children's Hospital (LRH) during the Year. Teaching Hospital Karapitiya, T.H.Kandy and Sirimavo Bandaranayake Specialized Children's Hospital (SBSCH) have reported more than five patients from each hospital. All cases reported are given below.

Notification of AFP cases from Hospitals in year 2012

Hospital	Number of AFP cases reported
LRH	23
NHSL	2
T.H Ragama	1
T.H Kalutara	2
B.H Horana	1
T.H Kandy	7
T.H.Preradeniya	5
G.H Nuwaraeliya	1
B.H Nuwaraeliya	1
T.H Karapitiya	6
SBSCH	6
T.H Jaffna	4
G.H Vavuniya	1
T.H Baticaloa	3
T.H Kurunegala	2
T.H Anuradhapura	1
G.H Polonnaruwa	1
P.G.H Badulla	5
G.H Ratnapura	1
B.H Awissawella	1
G.H Nawalapitiya	1
Total	**75**

Age and Sex Distribution of AFP Cases

Majority (39, 52 %,) of AFP cases reported during the year were males. From those reported majority belongs to the age group 5-9 years.

*** The table below shows the age distribution in the year 2012.**

Age group	Number of AFP cases	Percentage (%)
< 1 year	1	1.3%
1 - 4 year	25	33.3%
5 – 9 year	28	37.3%
10 – 14 year	21	28.0%
Total	**75**	**100%**

Laboratory Surveillance of AFP Cases

Two stool samples collected within 14 days of onset of paralysis are required to be tested at the Virology Laboratory, Medical Research Institute for polio virology. According to WHO criteria these samples should be of 'good condition' as well as to be of timely. Being of correct quantity (8-10g), sent in a leak proof container with no evidence of spillage or leakage and presence of ice in the container on receipt at the virology laboratory (MRI) are the criteria to be completed to make the samples of 'good condition'. The annual timely stool specimen collection rate was 84% during 2012, which is above the expected annual target of 80%.

02. CHICKENPOX

Chickenpox is a notifiable disease condition in Sri Lanka since year 2005. A total of 4473 chickenpox cases were reported in 2012 and of which 92.6% clinically conformed and compatible with surveillance case definition. The highest number of cases was reported among age groups of 20-30 years (29.4%) and majority of them were females (50.1%). Around one fourth of reported cases were hospitalized. Among the hospitalized cases, Secondary bacterial skin infection (0.84%), Pneumonia (0.33%), Encephalitis (0.19%), and Myocarditis (0.19%), were the leading complications identified. Five deaths were reported in year 2012.

Colombo (561) was the district reported the highest number of cases followed by Kurunegla (464), Kegalle (335), Galle (281), Matara (270), Anuradhapura (252), Gampaha (225), and Kalmunai (218).

A few outbreaks were reported in some districts during the year; Kegalle (Warakapola 51, Rambukkana 41, Galigamuwa 39, Aranayake 34, Kegalle 31,), Colombo (Kolonnawa 98, Kaduwela 45, Homagama 43, and MC Colombo 32), Kalmunai (Kalmunai (MD) 38, Sainthamaruth 37, Karaithvu 31), Nuwara Eliya (Nawathispane 70), Galle (Gonapinuwala 53), Kurunegala (Alawwa 39), Jaffna (Telippalai 36) Anuradhapura (Anuradhapura 33), and Ampara (Uhana 31).

03. CHOLERA

No confirmed cases of cholera were reported to the Epidemiology Unit during the year 2012. Last case of cholera was reported in the country in January 2003.

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

During the year 2012, 44,461 cases of DF/DHF and 181 deaths were reported (0.40% CFR). From reported Dengue cases 31020 (69.76%) were clinically confirmed. Majority of confirmed (H 411 a) Dengue cases were males (55.75 %) and belongs to the age groups 20 - 29 years (23. 78 %) and 30 - 39 years (15. 60 %).

Majority of cases were presented as Dengue fever (DF) 8325 (88.9%) followed by Dengue hemorrhagic fever (DHF) 1032 (11.02%) with category of DHF1 676 (7.21%), DHFII 256 (2.73%), DHF III 80 (0.85%), and DHF IV 20 (0.21%).During the year 2012, blood samples of 6,106 cases were tested using IgM capture ELISA test and Haem Agglutination Inhibition test (HAI) at the Department of Virology, MRI. Out of this 3,176 (52.01%) samples were confirmed as positive for dengue.

Dengue Cases and Deaths in year 2012

District	Reported cases	%	Deaths	CFR%
Colombo-MC	2611	5.9	19	0.7
Colombo-RHDS	7406	16.7	39	0.5
Colombo	10017	22.5	58	0.6
Gampaha	8006	18.0	33	0.4
Kalutara	2791	6.3	12	0.4
Kandy	2517	5.7	14	0.6
Matale	596	1.3	1	0.2
Nuwara Eliya	342	0.8	1	0.3
Galle	1513	3.4	3	0.2
Hambantota	604	1.4	3	0.5
Matara	1835	4.1	4	0.2
Jaffna	894	2.0	2	0.2
Killinochchi	93	0.2	0	0.0
Mannar	186	0.4	0	0.0
Vavuniya	104	0.2	0	0.0
Mulativu	42	0.1	0	0.0
Batticaloa	717	1.6	0	0.0
Ampara	155	0.3	0	0.0
Trincomalee	168	0.4	0	0.0
Kalmunai	402	0.9	4	1.0
Kurunegala	3537	8.0	12	0.3
Puttalum	1800	4.0	12	0.7
Anuradhapura	493	1.1	0	0.0
Polonnaruwa	289	0.7	0	0.0
Badulla	430	1.0	2	0.5
Monaragala	287	0.6	1	0.3
Ratnapura	3938	8.9	12	0.3
Kegalle	2705	6.1	7	0.3
National	**44461**	**100.0**	**181**	**0.4**

Age distribution of Dengue cases in year 2012 (source - H411 a)		
AGE	**No of Dengue cases**	**Percentage %**
< 1 year	141	0.53%
1 - 4 years	1381	5.20%
5 - 9 years	2840	10.69%
10 - 14 years	2939	11.06%
15 - 19 years	2876	10.83%
20 - 29 years	6315	23.78%
30 - 39 years	4142	15.60%
40 - 49 years	2795	10.53%
50 - 59 years	1907	7.18%
> 60 year	1218	4.60%
Total	**26559**	**100.00%**

05. DYSENTERY

In the year 2012, a total of 4085 cases of Dysentery were reported and, out of which 3016 (73.83%) cases were clinically confirmed. Majority of confirmed Dysentery cases were males (53.22 %) and belongs to the age group 1 - 4 years (33.93%).

Ratnapura (319), Batticaloa (314), Kalmunai (296), Trincomalee (282), Jaffna (270), and Kurunegala (263) were the leading districts reported.

06. ENTERIC FEVER

A total number of 1403 cases of Enteric fever were reported to the Epidemiology Unit during year 2012, out of which 987 (70.34%) were clinically confirmed. Majority of confirmed Enteric fever cases were males (54.27 %) and belongs to the age group 5– 9 years (18.12%).

The district of Jaffna (438) had reported the highest number of cases of enteric fever, followed by Colombo (232), Kurunegala (107) and Mannar (74).

07. HUMAN RABIES

Thirty eight cases of Human Rabies were notified to the Epidemiology Unit in the year 2012. All cases were investigated and confirmed as human rabies. 32 cases were lab confirmed, 06 cases were clinically confirmed. Out of the total of 38 Human Rabies cases, 31 (81.58%) were males while 7 (18.42%) were females. Colombo (5), Kurunegala (4) and Batticaloa (4), were the leading districts reporting Human Rabies.

08. INVASIVE BACTERIAL DISEASES (IBD) SURVEILLANCE

Invasive Bacterial Diseases (IBD) surveillance activities were initiated in Sri Lanka with the assistance of WHO in 2009. Surveillance of causative agents responsible for meningitis, pneumonia and sepsis in children less than 5 years of age is conducted under IBD surveillance.

Twenty eight (28) children were suspected of having meningitis and lumber puncture was performed on 22 children. Nine (9) of the children had lumber puncture results compatible with probable bacterial meningitis. Responsible organisms were not identified by either Cerebro-Spinal Fluid culture, latex test or PCR. None of the children had fatal outcomes.

Sixty seven (67) children were suspected of having pneumonia and none of them had a fatal outcome during the year 2012. Blood culture was performed on 59 of them and none of the cultures were positive.

Positive results were not obtained by latex test or PCR.

Fifteen (15) children were suspected of having sepsis. Blood cultures were performed on 10 of them and none of the cultures were positive. Positive results were not obtained by latex test or PCR.

09. INFLUENZA SURVEILLANCE

Influenza surveillance in humans and animals is conducted in the country as part of the Pandemic/Avian Influenza Preparedness Programme. Influenza surveillance in animals is carried out by the Department of Animal Production and Health (DAPH) of the Ministry of Livestock Development and human influenza surveillance is conducted in selected sentinel hospitals by the Epidemiology Unit of Ministry of Health.

Human Influenza surveillance

Human Influenza surveillance comprises of 2 components; Influenza like illness (ILI) surveillance and Severe Acute Respiratory tract Infections (SARI) surveillance.

ILI Surveillance

A total of 80660 ILI visits to OPD of sentinel hospitals had been reported in 2012. This showed that 1.7% of all OPD visits to sentinel hospitals were ILI patients. Only data related to age is available on these patients. In 2012 as in previous years, around half (exactly 50%) of all ILI patients were under 14 years old. The Lady Ridgeway Children's Hospital (LRH) - the premier paediatric hospital in the country being a consistently better performing ILI sentinel site may have contributed for the higher proportion of children among ILI patients. Thirty seven percent (37%) belonged to the 15-49 year age group.

These hospitals sent in 2,673 ILI samples for the year 2012 to be processed in the Medical Research Institute (MRI) which is the National Influenza Centre (NIC) for the country

The following table shows the summary of influenza surveillance activities in 2012

MONTH	Human Surveillance							
	ILI Surveillance				SARI Surveillance			
	Total ILI Visits Reported	Proportion of ILI out of Total OPD Visits	Total ILI Samples Tested	Influenza yield from ILI Samples	Total SARI Visits Reported	Proportion of SARI out of Total Admissions	Total SARI Samples Tested	Influenza yield from SARI Samples
Jan	11265	2.7	341	16.1%	181	2.9	69	20.3
Feb	8348	2.0	238	9.6%	83	1.4	36	16.7
Mar	6792	1.5	143	2.1%	200	3.1	32	18.8
Apr	5364	1.7	171	1.7%	193	3.2	49	2.0
May	4138	1.3	204	11.3%	165	2.1	53	5.7
Jun	7937	1.6	199	24.6%	173	1.9	44	15.9
July	7602	1.8	304	21%	267	3.4	71	50.7
Aug	6229	1.4	212	17%	314	3.6	66	34.8
Sept	5268	1.4	286	12%	259	3.7	70	24.3
Oct	5113	1.4	208	18%	301	3.6	63	28.6
Nov	6223	1.7	216	20%	367	4.2	63	47.6
Dec	6381	2.6	151	28%	77	3.1	32	50.0
Total	**80660**	**17.5**	**2673**	**16%**	**2580**	**3.0**	**648**	**27.3**

SARI Surveillance

A total of 2580 patients that were treated inward for severe respiratory tract infections in the selected SARI sentinel hospitals were reported within 2012. This showed that a proportion of 3% of total admissions were due to SARI in 2012. Six hundred and forty eight (648) samples from these SARI patients were sent to the NIC / MRI to be processed.

10. JAPANESE ENCEPHALITIS (JE)

During the year 2012, 210 cases of clinically suspected Encephalitis cases were reported to the Epidemiology Unit through the routine disease notification system. Out of this only 154 (73%) cases were clinically confirmed as encephalitis following field investigation. Majority of confirmed Encephalitis cases were males (56.69 %). Among these 154 cases, 60 were found to be lab confirmed as Japanese encephalitis. Ratnapura (12), Kurunegala (8), Puttalam (7), Kegalle (6) and Gampaha (5) were the leading districts which reported Japanese encephalitis cases in year 2012.Out of 60 laboratory confirmed cases 46 (77%) were among age group > 20 years.

11. LEPTOSPIROSIS

Leptospirosis is a potentially fatal bacterial disease that can display a wide array of clinical presentations. It is a zoonotic illness which is transmitted to humans through mucus membranes or abraded skin to water that has been contaminated by urine from infected animals, especially rodents when exposed.

During the year 2012, 2663 cases and 52 deaths (CFR 1.9%) due to Leptospirosis were notified to the Epidemiology Unit. From those notified cases, 1815 (68.15%) were clinically confirmed. Majority of confirmed Leptospirosis cases were males (85.18 %) and belongs to the age groups 20 - 29 years (15.33 %), 30 - 39 years (25.46 %), 40- 49 (21 .23 %) and 50 - 59 years (18.60 %).

Gampaha 329, Ratnapura 315, Kalutara 307, Colombo 226, Matara 213, Kegalle 196, Kurunegala 160, and Galle 148 were the districts which notified the highest number of cases.

Preventive measures are dependent on detailed knowledge of how, where and when humans may become infected in a particular area. Increasing awareness among the population, risk groups and health care providers will help in recognizing and treating the disease promptly.

Administration of prophylaxis treatment is a strategy implemented by the Ministry of Health for Leptospirosis control.

It is recommended only for well recognized high risk groups. Identification of high risk localities at divisional level (e.g. clustering of cases in a particular area) will help to identify high risk groups. If a decision to give prophylaxis is made, it should be closely monitored by the MOH and the field public health staff. Prescribing Doxycycline as a chemo prophylaxis agent has been reported to give some protection against infection and disease. It is very important that prophylaxis is not made a substitute for primary prevention activities. Primary prevention activities such as rat control measures and interrupting transmission are the most important activities for control of Leptospirosis.

12. LEISHMANIASIS

Number of notified cases to the Epidemiology Unit was 1219, out of which 934 (76.62%) were clinically confirmed. Majority of confirmed Leishmaniasis cases were males (64.44 %) and belongs to the age groups 20 - 29 years (17.24%) , 30 –39 years (20.84%) and 40 –49 years (19.1%).

Anuradhapura (434) had the highest number reported, followed by Hambantota (336), Polonnaruwa (143), Matara (92), Kurunegala (56), Matale (46) and Ratnapura (35).

13. MEASLES

Eighty three (83) suspected cases of Measles were reported during 2012 but only 51 cases were clinically confirmed as measles. Clinical confirmation is considered according to the surveillance case definition of "fever and maculopapular rash with one of the signs of cough, coryza or conjunctivitis". From confirmed (H411 a) Measles cases, Majority were males (64.86 %) and belongs to the age groups 1-4 years (18.91%) , 5 - 9 years (16 .21%) and 20-29 years (21.62%).

Majority of cases were reported from districts of Colombo, Kurunegala, Gampaha, Matale, Nuwara Eliya, Trincomalee, Mannar, and Anuradhapura. Outbreaks of measles were not reported during the year.

Fever and maculopopular rash patients suspected of Measles or Rubella, admitted to any hospital, or treated as an out-patient in OPD or presented to General Practitioners or if primary health care personnel identified in the community are requested to be investigated with IgM for Measles or Rubella, ideally a blood sample collected within 3rd to 28th day of the onset of rash. Importance of laboratory confirmation is highlighted and requested to send 3ml blood/ serum sample to the virology laboratory at the Medical Research Institute (MRI).

Laboratory investigations of 84 fever and maculopapular rash patients suspected of Measles or Rubella were carried out in the WHO accredited virology laboratory at the Medical Research Institute (MRI) and 7 cases were serology positive for Measles IgM antibodies and laboratory confirmed as Measles in 2012.

14. MENINGITIS

Meningitis is a notifiable disease condition in Sri Lanka since year 2005. During the year 2012, 865 cases of suspected meningitis were reported to the Epidemiology Unit through the routine disease notification system. Out of this 625 (75.37%) cases were clinically confirmed by the Public Health Inspectors during their field investigations.

Majority of the confirmed cases were males 319 (61%). Forty percent of the clinically confirmed meningitis cases were among age group < 1 year of age followed by 20% among age group 1-5 years. Kurunegala (86), Rathnapura (71), Anuradhapura (67), Kalutara (49), Gampaha (38) and Colombo (37) were the leading districts which reported clinically confirmed meningitis cases in year 2012. Highest incidence of meningitis was reported by Vavuniya district (110 per 100,000 Pop) followed by Anuradhapura (78 per 100,000 Pop), Ampara (68per 100,000 Pop) and Rathnapura districts (64per 100,000 Pop).

15. MUMPS

A total of 4330 cases of Mumps were reported in year 2012 and of which 3558 (82.17%) cases were clinically confirmed .Majority of confirmed Mumps cases were males (53.77 %) and belongs to the age group 5- 9 years (31.76 %).

Kalutara (387) was the district reported the highest number of cases followed by Kegalle (346), Kalmunai (339) Kurunegala (310), Colombo (297), Anuradapura (283), Ampara (218), and Polonnaruwa (218).

A few outbreaks were reported in some districts during the year. Jaffna (Telippalai 52, Kopay 20), Kalutara (Kalutara (NIHS) 97), Badulla (Kandaketiya 52), Polonnaruwa (Lankapura 26), and Kalmunai (Kalmunai (TD) 26).

16. ROTA VIRUS GASTRO-ENTERITIS SURVEILLANCE

Rota Virus Gastro-Enteritis surveillance activities were initiated in Sri Lanka with the assistance of WHO in 2009. Three hundred and one (301) stool samples were collected from children under 5 years of age and of Rota virus was present in 87 (28.9%). Twenty seven (27) of them (31%) were under one year of age and 38 of them (43.6%) were between 1 and 2 years of age. Twenty two (22) of them (25.3%) were between 2 to 5 years of age. Majority (78.3%) of them had the genotype G2P [4] and 5.8% had G1P [8] genotype.

17. RUBELLA

Sixty two (62) suspected cases of Rubella were reported during 2012 and 52 of them were compatible with surveillance case definition of "fever and maculopapular rash with fever, conjunctivitis, lymphadenopathy, arthralgia or arthritis". One outbreak was reported during the year from the district of Gampaha in Minuwangoda Medical Officer of Health area in a factory.

This outbreak was epidemiologically investigated and laboratory confirmed with virus isolation. The total number affected in the outbreak was 30 and the majority (60%) of them were male and adult (over 20 years).

Eighty four (84) fever and maculopopular rash patients suspected of Measles or Rubella were investigated at the Virology laboratory at MRI for Rubella IgM and 23 of them were serology positive for Rubella IgM antibodies as laboratory confirmed during 2012.

Congenital Rubella Syndrome (CRS)

Twelve infants were detected as CRS with congenital abnormalities compatible with clinically confirmed CRS and Rubella IgM positive at the Virology laboratory (MRI) in 2012. Elimination target of CRS in Sri Lanka is < 1 CRS case per 100,000 live births by 2018 and this was 3.7/100,000 live births during 2012.

18. TETANUS

Out of 14 reported tetanus cases, eight cases (57.14%) were clinically confirmed during the year 2012. Majority of confirmed Tetanus cases were males (60%) and belongs to the age -

- group 55 - 59 years (40%).

Colombo (2), Kalutara (2), Hambanota (2), and Jaffna (2) were the districts which notified the highest number of cases.

19. VIRAL HEPATITIS

In the year 2012, a total of 2146 cases of Viral Hepatitis were reported to the Epidemiology Unit. From those reported 1672 (77.91%) cases were clinically confirmed. Majority of confirmed Viral Hepatitis cases were males (70.01%) and belongs to the age groups 15 - 19 years (15.72%) ,20 - 29 years (34.37%) and 30 - 39 years (23.78%). Kegalle (608), Gampaha (336), Moneragala (178), Matara (149), Ratnapura (139), Kandy (137), and Kurunegala (135) were the leading districts reported.

20. WHOOPING COUGH

Number of Whooping cases reported in 2012 was 102 and, out of which 61 (59.8%) cases were clinically confirmed. Majority of confirmed Whooping cough cases were males (39, 13 %) and belongs to the age group < 1 years (69.56 %).

Anuradapura (17) was the district reported the highest number of confirmed cases followed by Matara (12), Colombo (15), Ratnapura (9), Galle (9), Gampaha (5), Kalutara (5). Not a single case was confirmed by laboratory examination.

21. EXPANDED PROGRAMME ON IMMUNIZATION (EPI)

Immunization is one of the most successful and cost effective health interventions. The national immunization programme has excellent EPI vaccines records with extremely low vaccine preventable diseases and high coverage with the efforts of field staff in the health system.

22. AEFI SURVEILLANCE

In 2012, special attention was made to improve and maintain the quality and safety of vaccination. Adverse Events Following Immunization (AEFI) surveillance was expanded to the private sector through introducing a uniform AEFI reporting form for both public and private sector institutions. A total of 6445 AEFI were reported in 2012 and the highest number of AEFI was reported for Penatavalent vaccine (n = 2735) followed by DPT (n = 1238). High fever > 39^{o}C (n = 1933) and allergic reactions (n = 1720) are the leading reported AEFI.

IMMUNIZATION (EPI) COVERAGE (%) - YEAR 2012

District	BCG	PVV 1	PVV 3	OPV 1	OPV 3	LJE	MMR 1	DPT 4	OPV 4	MMR 2	DT 5	OPV 5	aTd	TT 2+
Colombo (+MC Colombo)	97	98	98	99	99	100	100	94	94	91	99	99	76	96
Gampaha	96	99	100	99	100	103	97	96	97	100	103	103	79	97
Kalutara (+NIHS)	98	100	99	100	99	96	94	97	97	100	105	105	67	92
Kandy	96	100	99	100	99	99	93	95	95	96	97	97	72	98
Matale	100	100	98	100	98	97	91	91	91	100	94	94	72	91
Nuwara Eliya	100	99	99	99	99	94	87	93	93	92	91	92	132	87
Galle	99	100	99	100	99	102	94	97	97	98	105	105	61	88
Hambantota	96	96	95	96	95	94	92	93	93	92	89	88	70	87
Matara	89	99	97	99	97	93	95	95	94	96	101	101	71	90
Jaffna	101	92	95	92	95	101	100	93	93	90	97	97	113	87
Killinochchi	91	95	100	95	100	95	95	115	115	102	118	118	79	85
Mannar	88	98	100	98	100	106	89	92	92	95	97	97	102	86
Vavuniya	113	97	100	97	100	103	95	101	101	93	96	96	76	93
Mulativu	86	98	99	98	99	94	100	80	105	95	99	104	78	95
Batticaloa	122	98	100	97	99	102	98	101	99	102	101	101	95	90
Ampara	97	97	100	97	100	101	97	103	103	103	103	105	130	94
Trincomalee	92	91	100	91	100	100	95	104	103	101	104	103	84	80
Kurunegala	90	99	100	99	100	99	95	97	96	98	98	98	76	94
Puttalam	103	98	100	98	100	99	95	97	97	96	100	100	85	90
Anuradhapura	99	99	100	99	100	101	97	97	98	100	94	94	66	92
Polonnaruwa	116	99	98	99	100	102	98	101	100	102	97	97	62	91
Badulla	104	98	98	100	98	100	93	96	96	93	98	98	79	89
Moneragala	96	99	100	99	100	100	96	96	96	96	99	99	75	93
Ratnapura	95	99	98	99	98	99	94	96	96	91	99	99	63	88
Kegalle	99	100	100	100	100	100	98	97	94	97	103	101	75	91
Kalmunai	92	94	94	94	94	100	100	95	95	96	97	97	89	74
SRI LANKA	98	99	99	99	99	99	95	96	96	96	99	99	79	91

*** Note : For certain antigen coverage's exceed 100%. This is due to the estimated denominator is less than the actual number of immunization performed.**

SUMMERY OF AEFI SURVEILLANCE - YEAR 2012

	BCG	OPV	PVV	DPT	MMR	LE	DT	TT	aTd	Total number of AEFI reported
Total number of AEFI reported AEFI reporting rate/ 1,000,000doses administered	36 10.3	18 1	2735 259.5	1238 361.9	837 122.2	746 125.6	457 129.5	62 19.1	155 55.8	6455
High Fever (>39C°) AEFI reporting rate/ 1,000,000doses administered	1 0.3	5 0.3	1108 105.1	430 125.7	144 21	159 26.8	72 20.4	1 0.3	8 2.9	1933
Allergic reactions AEFI reporting rate/ 1,000,000doses administered	2 0.6	4 0.2	422 40	227 66.4	359 52.4	361 60.8	145 41.1	30 9.3	38 13.7	1720
Sever local reactions AEFI reporting rate/ 1,000,000doses administered	3 0.9		82 7.8	83 24.3	15 2.2	13 2.2	34 9.6	3 0.9	5 1.8	239
Seizure (Febrile/Afebrile) AEFI reporting rate/ 1,000,000doses administered		2 0.1	73 6.9	76 22.2	19 2.8	33 5.6	8 2.3			212
Nodules AEFI reporting rate/ 1,000,000doses administered	3 0.9		488 46.3	183 53.5	17 2.5	15 2.5	37 10.5	5 1.5	2 0.7	756
Injection site abscess AEFI reporting rate/ 1,000,000doses administered	19 5.5		101 9.6	38 11.1	5 0.7	14 2.4	25 7.1	2 0.6	2 0.7	207
HHE AEFI reporting rate/ 1,000,000doses administered			24 2.3		3 0.4	3 0.5	2 0.6		1 0.4	33

23. DISEASE SURVEILLANCE

Disease surveillance is one of main strategies in disease prevention and control in communicable diseases. It guides proper monitoring and controlling diseases through accurately collected epidemiological data. It helps to face the challenges of public health emergencies of disease outbreaks.

SUMMARY OF NOTIFIED DISEASES - YEAR 2012

District	Acute Flaccid Paralysis	Dysentery	Encephalitis	Enteric Fever	Human Rabies	Leptospirosis	Measles	Tetanus	Viral Hepatitis	Whooping Cough	DF / DHF	Rubella	Chicken Pox	Mumps	Meningitis	Leishmaniasis
Colombo	10	161	12	232	5	226	14	2	120	15	10017	6	561	297	55	4
Gampaha	4	97	20	65	1	329	3	0	336	5	8006	42	225	179	60	1
Kalutara	1	228	5	57	2	307	1	2	36	5	2791	1	191	387	57	3
Kandy	2	139	4	25	0	85	1	0	137	4	2517	1	140	77	18	0
Matale	2	146	5	14	2	52	4	0	35	1	596	1	69	73	36	46
Nuwara-Eliya	4	188	3	29	1	43	9	0	20	2	342	0	147	124	10	0
Galle	3	132	7	18	0	148	2	0	4	9	1513	0	281	152	31	1
Hambantota	2	59	3	12	0	100	1	2	30	2	604	0	111	106	28	336
Matara	1	120	9	22	0	213	3	0	149	12	1835	0	270	164	17	92
Jaffna	4	270	14	438	2	3	4	2	21	3	894	0	175	156	25	0
Kilinochchi	0	66	3	39	1	4	0	1	4	2	93	0	3	9	1	4
Mannar	0	94	4	74	0	30	3	0	2	0	186	0	12	6	12	4
Vavuniya	0	63	21	14	2	19	0	0	3	0	104	0	33	9	32	10
Mullaitivu	3	40	1	17	0	3	1	0	1	0	42	0	6	5	8	9
Batticaloa	6	314	5	16	4	12	0	1	9	4	717	0	21	69	7	2
Ampara	2	107	3	6	0	29	2	0	3	0	155	1	155	270	29	2
Trincomalee	1	282	2	16	0	43	2	0	5	1	168	0	72	147	15	17
Kurunegala	4	263	18	107	4	160	6	1	135	3	3537	2	464	310	115	56
Puttalam	2	112	9	14	2	42	1	0	6	2	1800	0	72	83	19	4
Anuradhapura	4	110	7	14	2	102	21	0	63	17	493	5	255	283	85	434
Polonnaruwa	2	93	2	4	1	75	2	0	48	1	289	1	142	218	32	143
Badulla	6	144	4	52	0	38	2	1	44	3	430	0	136	183	20	0
Moneragala	3	180	6	28	2	79	1	0	178	1	287	0	127	149	16	14
Ratnapura	2	319	29	53	3	315	2	0	139	9	3938	0	252	189	100	35
Kegalle	2	62	12	29	0	196	1	1	608	1	2705	1	335	346	27	2
Kalmunai	1	296	2	8	3	10	0	1	10	0	402	0	218	339	10	0
Total	**71**	**4085**	**210**	**1403**	**37**	**2663**	**86**	**14**	**2146**	**102**	**44461**	**61**	**4473**	**4330**	**865**	**1219**