



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health

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Flashback-2013

The year 2013 was an eventful year for the Epidemiology Unit. Only the most important events are mentioned below.

Disease surveillance is an important function of the Epidemiology Unit and disease surveillance activities were reviewed at Quarterly Regional Epidemiologists' Conferences. A total of four conferences were held and two of the conferences were held in Batticaloa (Eastern Province) and Mullaitivu (Northern Province). Field surveys were carried out in conjunction with the conferences to review the disease surveillance and Expanded Programme of Immunization (EPI) activities in the area. Relevant activities carried out by Regional Medical Supplies Divisions (RMSDD), Medical Officer of Health (MOH) Offices, Immunization clinics and hospitals in the districts of Batticaloa, Mullaitivu, Kilinochchi and Colombo were reviewed during these field surveys.

In addition, teams of experts from the Epidemiology Unit visited and reviewed disease surveillance activities and EPI activities at the MOH level in the districts of Hambanthota, Galle, Ampara, Kalmunai and Jaffna. Measles, Rubella, Acute Flaccid Paralysis and Japanese Encephalitis surveillance activities (mainly the disease notification system) were reviewed in Teaching Hospital Jaffna, District General Hospital (DGH) Ampara, DGH Hambanthota, DGH Mannar, Base Hospital (BH) Kalmunai, BH Tangalle, BH Tissamaharama and Ashroff Memorial Hospital, Kalmunai. Experts from the Epidemiology Unit reviewed Vaccine storage (cold chain) and record keeping activities in RMSDD of Mannar, Ampara, Kalmunai and Jaffna.

Surveillance data revealed an increasing number of laboratory confirmed measles cases (around 2,000) last year. Transmission of the disease was initially observed in late December 2012 and early January 2013 with higher transmission among adults. Numbers gradually in-

creased over the time with higher proportions reported (around 40-50% of the total) among infants below 1 year of age. Of the infants affected, majority were in the 6 months to 1 year age category throughout the period. Advisory Committee on Communicable Diseases advocated a Supplementary Immunization Activity (SIA) with Measles vaccine targeting 6-12 month old children, based on the available epidemiological evidence of measles disease burden. The main purpose of the campaign was the rapid reduction of the susceptible age group who were highly vulnerable for complications. This vaccine was given as an additional vaccine dose against measles with the view of controlling measles outbreak and 96% vaccination coverage has been achieved in the SIA.

Expanded Programme on Immunization (EPI) is another very important responsibility of the Epidemiology Unit. EPI Reviews were conducted in most of the districts during the year 2013.

Monitoring of Adverse Event Following Immunization (AEFI) is an integral part of EPI and new AEFI reporting forms and a Hospital AEFI register was introduced last year to facilitate reporting of AEFI. AEFI Survey Report (survey was conducted in 2012) was published last year and it was distributed among the main stakeholders.

Two deaths occurred following Penta-valent injection and investigations revealed that the deaths were co-incidental and not caused by the vaccine.

Mid-Level Managers (MLM) training on Expanded Programme of Immunization (EPI) for Public Health Personnel based on WHO MLM modules was launched in Sri Lanka in 2012. A total of 225 Public Health Personnel including Regional Epidemiologists (REE), Medical Officers of Health (MOOH) and Public Health Nursing Sisters (PHNSS) were trained last year and most of the PHNSS in Sri Lanka have received the Mid-

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Level Managers (MLM) training by now. Rest of the Public Health Nursing Sisters will be offered the training in 2014.

It was decided to update the knowledge of pharmacists based in hospitals on vaccine management and training programmes were conducted on Effective Vaccine Management targeting hospital pharmacists. A total of 50 pharmacists based in hospitals were trained under this programme.

Web-Based Immunization Information System (WBIS) was introduced to Gampaha and Kaluthara districts (Phase I) last year and plans are underway to introduce the system to other parts of the country as well.

Dengue is undoubtedly the most important vector borne disease for Sri Lanka at the moment. There was a marked decline in the number of dengue cases in 2013 (31975 cases for the year) compared to 2012 (44456 cases for the year) as result of effective control activities carried out with community participation.

A lot was done during the year 2013 to improve the clinical management of Dengue patients. New Revised Guidelines on management of Dengue were widely circulated (among General Practitioners, Consultants in both private and government sectors) in the early part of 2013. Ten specialist clinicians from high risk areas (including North and East) were trained on clinical management of Dengue Fever in Thailand. Therefore, each district has at least one specialist clinician especially trained on clinical management of Dengue fever (some were trained earlier also). In addition, local training on dengue management was provided for both medical officers and nursing officers country-wide.

Dengue High dependency units were established in hospitals in high risk areas and a unique Dengue Patient care unit was established in Base Hospital Negombo, which treats both adult and child dengue patients. Sri Lanka is the first country to establish such a unit and the unit has been invaluable in providing highly specialized care to Dengue patients.

Formal introduction of Dengue Patients Monitoring Charts to hospitals was done in 2013. Portable Ultra Sound Scanning machines were distributed to hospitals in high risk areas to facilitate early diagnosis. A dedicated Dengue Reference Laboratory was established at the Medical Research Institute (MRI) to provide all the necessary dengue diagnostics such as PCR, NS1, IgM and IgG ELISA under one roof.

Institutional Death reviews are conducted regularly to improve the clinical management of dengue patients. In addition, a national death review was conducted last year with the participation of all stake holder and dengue experts.

A web-based dengue surveillance system was introduced last year linking 50 sentinel hospitals to the Epidemiology Unit. This substantially reduced the lag period in case reporting, enabling rapid implementation of effective control activities.

As a combined effect of all these activities, dengue case fatality rate came down to .27 per 100 cases in 2013, compared to 0.4 per 100 cases in 2012.

Dengue tools Project (an European Union funded project consisting of 14 global partners including Sri Lanka) held its progress review in Sri Lanka last year. In conjunction with the

progress review, an international conference called **Dengue- the way forward** was held in Colombo.

Number of Leptospirosis cases showed an increase in the year 2013 (4276 Leptospirosis cases in 2013) and the cases increased significantly during the months of March and April. These increases during were mainly associated with the rains which occurred during the paddy harvesting season.

Preventive and control measures such as community awareness programmes, chemo-prophylaxis for the high risk and District Leptospirosis Reviews were conducted to control the situation. Epidemiology Unit with the collaboration of Health Education Bureau developed a documentary and a telefilm on Leptospirosis and these will be telecast/used in leptospirosis control activities in the near future.

Middle East Respiratory Syndrome Coronavirus (MERS-CoV) was identified in 2012 in Saudi Arabia. There is frequent traveling between the two countries and therefore, Sri Lanka is at higher risk of getting the disease. Therefore, a poster on MERS-Corona Virus was developed in all 3 local languages to increase public awareness under Pandemic/Avian Influenza preparedness plan and the posters were duly distributed all over the country. In addition, simulation exercises were conducted to optimize the level of preparedness and public education materials such as leaflets and books on influenza were printed. Hospital based influenza surveillance system was expanded and Rapid Response Teams were established. Awareness programmes were conducted to hospital staff (including hospital directors) in sentinel hospitals all over the country.

Influenza surveillance activities in Teaching Hospital Karapitiya, Teaching Hospital Peradeniya, Teaching Hospital Nuwara Eliya and Teaching Hospital Batticaloa were reviewed within the year.

Laboratory Equipments such as PCR Machines, Freezers, Bio Safety Cabinet, Micro centrifuge etc and laboratory consumables were procured for Regional Laboratory Kandy and Medical Research Institute (MRI).

A web based laboratory link was developed between the National Influenza Laboratory (NIC/MRI), Central Epidemiology Unit, Regional Epidemiologists and the Sentinel Hospitals enabling fast and safe data transfer. Necessary equipment for this purpose was also procured. Epidemiologists at central and regional levels were trained on data management to facilitate smooth functioning of the system.

Number of Human Rabies cases in 2013 was 25, showing a clear reduction in the incidence relative to the previous year (38 cases). Batticaloa and Anuradhapura were the highest reporting districts with 03 cases in each followed by Puttalm, Jaffna, Matara, Galle, Polonnaruwa and Monaragala reporting 2 cases each, while some districts not reporting any case. The great majority (76%) were adults with no sex preponderance. The dog was the major biting animal and stray dogs were responsible in most cases.

Epidemiology Unit is highly recognized as a training centre in the international arena also. A Korean team and a Thai team received training at the Epidemiology Unit last year.

Compiled by Dr. Madhava Gunasekera of the Epidemiology Unit

Table 1: Selected notifiable diseases reported by Medical Officers of Health 21st - 27th Dece 2013 (52nd Week)

RDHS Division	Dengue Fever		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Chickenpox		Meningitis		Leishmaniasis		WRCD	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	T*	C**
Colombo	329	10734	1	235	0	18	2	175	0	59	2	220	0	10	0	93	0	1	4	463	0	74	0	1	62	38
Gampaha	44	3769	0	227	0	24	1	55	0	41	2	488	1	26	0	195	0	0	4	181	0	101	0	5	33	67
Kalutara	19	1881	1	198	0	21	0	83	0	27	0	450	0	6	0	29	0	0	38	336	2	90	0	0	54	46
Kandy	22	1758	1	174	0	13	0	31	0	24	3	97	1	104	2	136	0	0	5	167	1	27	0	5	65	35
Matale	10	485	2	118	0	4	0	25	0	11	5	75	0	4	4	65	0	0	0	49	0	41	0	13	54	46
NuwaraEliya	2	269	1	176	0	4	2	19	2	219	1	34	1	66	0	25	0	0	0	166	1	16	0	0	46	54
Galle	27	912	2	138	0	20	1	8	1	90	4	261	1	68	0	17	0	2	4	342	0	48	0	3	74	26
Hambantota	5	344	4	76	1	4	0	16	0	38	0	181	1	72	2	96	0	0	2	103	0	57	1	361	67	33
OMatara	6	486	2	101	0	17	0	30	0	30	0	175	1	98	0	157	0	2	1	268	1	94	2	106	88	12
Jaffna	34	799	18	489	2	15	8	350	0	114	0	10	44	449	1	18	0	2	0	153	1	60	0	0	92	8
Kilinochchi	0	65	0	57	0	0	1	17	0	5	0	9	1	18	0	0	0	2	0	3	0	7	0	14	50	50
Mannar	1	70	0	80	0	3	1	72	0	36	0	15	0	22	0	2	0	0	0	12	0	7	0	4	40	60
Vavuniya	1	91	1	81	0	14	0	15	1	33	0	51	0	3	0	4	0	2	0	23	0	38	1	17	75	25
Mullaitivu	0	123	2	35	0	3	0	11	0	47	0	38	0	7	0	2	0	2	0	8	0	7	1	16	80	20
Batticaloa	2	560	3	404	0	5	2	13	0	74	0	44	0	2	0	17	0	3	0	48	0	9	0	0	57	43
Ampara	13	241	2	206	0	1	0	5	0	12	0	44	0	1	1	13	0	0	1	108	0	21	0	4	43	57
Trincomalee	5	201	4	79	0	3	0	7	0	4	0	61	0	15	0	4	0	1	1	42	0	5	0	30	58	42
Kurunegala	17	2744	3	233	1	44	0	43	0	31	6	394	2	54	1	67	0	1	6	387	1	106	1	62	59	41
Puttalam	15	923	3	89	1	8	0	18	0	36	3	49	1	16	0	7	0	2	2	92	0	36	1	13	54	46
Anuradhapura	14	565	1	123	0	17	0	3	1	72	7	343	1	29	1	31	0	2	2	179	1	109	8	439	47	53
Polonnaruwa	7	505	5	107	0	3	0	14	0	73	1	185	0	3	0	36	0	2	0	152	0	25	1	178	57	43
Badulla	9	537	3	218	0	5	0	22	0	12	1	63	3	98	0	48	0	1	0	141	2	76	0	8	59	41
Monaragala	3	271	0	130	0	7	0	26	0	38	4	211	0	69	2	197	0	2	1	71	0	28	0	15	55	45
Rathapura	10	1719	2	398	0	84	2	46	0	21	7	421	0	79	7	616	0	1	3	210	0	92	0	18	50	50
Kegalle	18	1225	1	149	0	17	0	37	0	11	2	309	0	76	2	256	0	0	9	366	3	118	0	2	82	18
Kalmune	0	504	11	210	0	3	0	6	0	130	0	11	0	3	1	6	0	0	7	115	0	13	0	1	38	62
SRI LANKA	613	31781	73	4531	5	357	20	1147	5	1288	48	423	60	1398	24	2137	0	28	90	4185	13	1305	16	131	59	41

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 27th December, 2013 Total number of reporting units 337 Number of reporting units data provided for the current week; 200 C**=Completeness
A = Cases reported during the current week. B = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

21st – 27th Dece 2013 (52nd Week)

Disease	No. of Cases by Province									Number of cases during current week in 2013	Number of cases during same week in 2012	Total number of cases to date in 2013	Total number of cases to date in 2012	Difference between the number of cases to date in 2012& 2013
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	00	00	00	00	00	00	00	00	00	105	74	+41.9%
Diphtheria	00	00	00	00	00	00	00	00	00	00	-	00	-	-
Mumps	00	00	05	01	02	01	01	00	01	11	26	1491	4304	-65.4%
Measles	13	01	10	01	01	10	04	02	11	53	03	4024	83	+4748.2%
Rubella	00	00	00	00	00	00	00	00	00	00	-	27	-	-
CRS**	00	00	00	00	00	00	00	00	00	00	-	06	-	-
Tetanus	00	00	00	00	00	00	00	00	00	00	01	24	14	+71.5%
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	-	-	-	-	-
Japanese Encephalitis	01	00	01	00	00	00	00	00	00	02	-	70	-	-
Whooping Cough	00	00	00	00	00	00	00	00	00	00	02	86	103	-16.5%
Tuberculosis	62	18	17	18	30	09	09	15	11	189	126	8880	8720	+1.9%

Key to Table 1 & 2

Provinces: W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.
 RDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matale, NE: Nuwara Eliya, GL: Galle, HB: Hambantota, MT: Matara, JF: Jaffna, KN: Killinochchi, MN: Mannar, VA: Vavuniya, MU: Mullaitivu, BT: Batticaloa, AM: Ampara, TR: Trincomalee, KM: Kalmunai, KR: Kurunegala, PU: Puttalam, AP: Anuradhapura, PO: Polonnaruwa, BD: Badulla, MO: Moneragala, RP: Ratnapura, KG: Kegalle.

Data Sources:

Weekly Return of Communicable Diseases: Diphtheria, Measles, Tetanus, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS,

Special Surveillance: AFP* (Acute Flaccid Paralysis), Japanese Encephalitis

CRS** =Congenital Rubella Syndrome

AFP and all clinically confirmed Vaccine Preventable Diseases except Tuberculosis and Mumps should be investigated by the MOH

Dengue Prevention and Control Health Messages

Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them

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ON STATE SERVICE

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