

# WEEKLY EPIDEMIOLOGICAL REPORT

### A publication of the Epidemiology Unit Ministry of Health

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#### 29thDecember– 04th January 2013

## Flashback - 2012

Year 2012 was yet another successful year for the Epidemiology Unit. The year was full of daunting tasks, but as always, the epidemiology unit handled those tasks successfully.

One of the most important functions of the unit- the Expanded Programme on Immunization (EPI) - is continuing to function efficiently and effectively across Sri Lanka. This is evident by high coverages achieved by all the antigens concerned and almost elimination levels of vaccine preventable diseases throughout the country. Cold chain of EPI was subjected to extensive evaluation (Effective Vaccine Management-EVM) with the collaboration of UNICEF. Most of the districts in the country were evaluated under this project and strengths and weaknesses in the EPI were highlighted. The overall EVM assessment demonstrates that Sri Lanka has maintained effective vaccine management practices and vaccine s reach intended recipients safely. New interventions were planned after taking results of the EVM into consideration.

A national survey on Surveillance of Adverse Events Following Immunization was conducted in 2012. Fifty two (52) immunization clinics (2 from each district) with the highest number of AEFI reported during the given time period was selected for the survey. The final report was published recently and the report concluded that immunization safety practices adopted at clinics (screening, advices, observation for immediate AEFI following immunization) were good, but still it needs to be strengthened to ensure the highest immunization safety practices in clinic settings. An another important finding of the survey was that overall reporting of AEFI at immunization clinics and Medical Officer of Health level is good, however both over-reporting and under-reporting of AEFI were observed.

District immunization reviews were conducted in all health districts including National Institute of Health

Sciences area and feedbacks were given to the relevant authorities regarding their respective performances on the EPI.

Mid- Level Managers (MLM) training on EPI for Public Health Personnel based on WHO MLM modules was launched in Sri Lanka in 2012. The objective of the training is to improve the technical and managerial capabilities of the mid-level managers involved in the management of the Expanded Programme on Immunization (EPI) and this training contains modules on Micro Planning for immunization service delivery using the Reaching every District (RED) Strategy, Cold chain, vaccines and safe-injection equipment management, Immunization safety, Supportive supervision, Monitoring the immunization system etc. Mainly Public Health Nursing Sisters (PHNSS) were trained under this programme during the last year and PHNSS of Central, Uva, Southern, Western, Northern and Eastern provinces were trained under this programme in 2012. All officers in charge of Regional Medical Supplies Divisions (OICC-RMSD) were also trained on effective vaccine management last year. Ultimate goal is to strengthen the EPI further.

Web-Based Immunization Information System (WBIIS) is being pilot tested in Wattala Medical Officer of Health area. Public Health Midwives and Public Health Nursing Sisters in the MOH area were given extensive hands on training on the computer package. Netbook computers and internet connection packages were also handed over to the MOH area for this purpose. Plans are underway to introduce this system to the other parts of the country as well, in the near future.

Disease surveillance is one of the main functions of the unit and timeliness and completeness of the Disease surveillance system, including Vaccine preventable diseases were reviewed during the Quarterly Regional Epidemiologists' Conferences held last year. One of the conferences was held in Vavuniya

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last year and MOH offices, immunization clinics and Hospital surveys were conducted in both Mannar and Vavuniya districts at the same time. Survey of MOH offices, immunization clinics and Hospitals were also conducted in the Ratnapura district in conjunction with the Regional Epidemiologists' Conferences held in the Ratnapura district last year.

Review and strengthening of district disease surveillance system and training of public health staff on disease surveillance and outbreak investigations were carried out in the districts of Nuwara-Eliya, Matara, Ratnapura, Mannar, Mullativu, Kilinochchi, Puttlam and Anuradhapura. Review and strengthening of hospital disease surveillance with special emphasis on AFP, Measles and Rubella/CRS was carried out in Anuradhapura, Mannar, Nuwara-Eliya, Dickoya, Mullativu, Kilinochchi, Matara, Ratnapura, Ambilipitiya, Puttlam and Vavuniya.

Dengue is a very important mosquito borne disease in Sri Lanka and the number of cases was higher than the corresponding months of 2011 for most months of 2012. There were about 500-1000 cases reported every week. However, Case Fatality Rate (CFR) has shown a substantial reduction last year (0.4%) compared to the previous year. This was especially seen in the paediatric age group (CFR among paediatric cases was 0.34 compared to 0.44 among adult cases). Upon closer scrutiny, although there is an increase in the number of adult cases reported, most of the adult deaths were among young adults in the 15-30 age group without any evidence of underlying co-morbidities.

Both adult and paediatric Dengue management guidelines were revised and expanded in November 2012. A circular was issued on the management of Dengue Fever and Dengue Haemorrhagic fever and it contained parts on

- First contact management in adult and children for Primary care doctors (e.g. OPD Medical Officers, General Practitioners etc)
- Inward patient care, advising to use Dengue guidelines in patient management
- Monitoring during Hospital stay for adult and paediatric cases, advising to use monitoring charts
- Transferring a patient to another institution
- Institutional Dengue Death Review

A dengue early warning system was developed last year using 45 sentinel sites situated all over the country and a web based daily report was generated from the sentinel sites. This system was an instant success and more than 90% of the cases (more than 38,000 cases) were captured by this system. Advantage of this system is that the system can be utilised to minimize the response time during an epidemic, leading to more effective control activities.

Leptospirosis, a very important zoonotic disease associated with paddy cultivation, showed a remarkable decrease in the disease incidence in 2012. Leptospirosis co-ordination meetings were conducted by MOH staff during both Yala and Maha paddy cultivation seasons in hundred high risk Medical Officer of Health (MOH) areas. In addition, mass media campaigns were conducted on both radio and television coinciding with the Yala and Maha paddy cultivation seasons. Number of cases was low throughout the year (2649 cases in 2012 compared to 6689 cases in 2011). Number of deaths due to Leptospirosis also came down and there were no major outbreaks as in 2011. Colombo, Gampaha, Kaluthara, Matara, Ratnapura and Kegalle districts showed a higher number of cases in 2012. District reviews were conducted by the Epidemiology Unit in Kalutara and Monaragala districts.

An influenza outbreak among poultry was reported in Bingiriya in the North-western province but it was revealed later that the causative agent was low pathogenic H5N2. However, it was noted that influenza outbreaks might occur in future and Rapid Response Teams (RRT) were established in 4 districts, namely Colombo, Kalutara, Kurunegala and Puttlam with the view of combating disease outbreaks, including influenza. OPD medical officers of Lady Ridgeway Hospital (LRH) were trained on influenza and a special triage area for influenza surveillance was established in the Out Patient Department (OPD) of LRH. A poster on influenza safety behaviours was developed in all 3 local languages to increase public awareness on Pandemic/Avian Influenza preparedness and duly distributed. Monitoring of surveillance activities in sentinel sites at TH Kurunegala, GH Ampara, TH Karapitiya, TH Peradeniya, TH Batticoloa and TH Kandy was carried out and logistics were provided for the sentinel sites. National Vaccine Deployment Plan (NVDP) which was initially developed in 2010 was revised and updated last year.

A goal has been set to eliminate Rabies by year 2016 and the national strategic Plan for elimination of rabies was developed last year. Maintenance of dog rabies vaccine cold chain was entrusted to the Epidemiology unit.

A fact sheet on Leishmaniasis was developed last year and a special case investigation form to investigate Leishmaniasis cases was also developed last year. A workshop was held to discuss future strategies to control Leishmaniasis with the participation of consultant dermatologists from all parts of the country and other stake holders.

Several small scale disease outbreaks were reported in 2012 and Diarrhoea outbreak in Lindula (Central Province), Mumps outbreak in Kalutara (Western Province), Typhoid outbreak in Mannar (Northern Province) and Rubella outbreak in Minuwangoda (Western Province) are to mention a few. A slight increase in the number of Japanese Encephalitis (JE) cases, especially in Ratnapura district was noted towards the latter part of 2012 and is still being investigated.

An epidemic of body itching among school children was reported in several parts of the country in November. Some of the affected schools were in Weligepola, Pinnawala (Sabaragamuwa Province), Minuwangoda, Dematagoda (Western Province), Gampola, Panwilathanna (Central Province). Majority of the children were in the grade 5 and above and none of the teachers in the school were affected. This epidemic was highly publicized and was found to be due to mass hysteria.

Number of new books were published by the epidemiology Unit last year. They were, National guidelines on immunization safety surveillance: Surveillance of adverse events following immunization and Immunization Handbook (3rd Edition). Immunization handbook for Primary Health Care Staff was printed and distributed among the health care workers last year.

Epidemiology unit is looking forward to a fruitful new year with the successful achievements of year 2012.

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#### Table 1: Vaccine-preventable Diseases & AFP

22<sup>nd</sup> - 28<sup>th</sup> December 2012 (52<sup>nd</sup>Week)

Disease			Ν	lo. of Cas	ses by P	rovince		Number of cases during current	Number of cases during same	Total number of cases to date in	Total num- ber of cases to date in	Difference between the number of cases to date			
	W	C	S	N	E	NW	NC	U	Sab	week in 2012	week in 2011	2012	2011	in 2012 & 2011	
Acute Flaccid Paralysis	00	00	00	00	00	00	00	00	00	00	02	74	87	- 14.9 %	
Diphtheria	00	00	00	00	00	00	00	00	00	-	-	-	-	-	
Measles	01	00	00	01	00	00	01	00	00	03	00	83	134	- 38.0 %	
Tetanus	00	00	01	00	00	00	00	00	00	01	01	14	26	- 46.2 %	
Whooping Cough	01	00	00	01	00	00	00	00	00	02	00	103	55	+ 87.3 %	
Tuberculosis	26	17	57	03	10	00	00	06	07	126	116	8720	9454	07.8 %	

#### **Table 2: Newly Introduced Notifiable Disease**

22<sup>nd</sup> - 28<sup>th</sup> December 2012 (52<sup>nd</sup>Week)

Disease			I	No. of Ca	ises by	Province	e		Number of	Number of	Total	Total num-	Difference	
	W	C	S	N	E	NW	NC	U	Sab	cases during current week in 2012	cases during same week in 2011	number of cases to date in 2012	ber of cases to date in 2011	between the number of cases to date in 2012 & 2011
Chickenpox	11	00	17	04	03	03	04	01	00	43	64	4440	4249	+ 04.5 %
Meningitis	02 KL=2	00	02 GL=1 MT=1	03 JF=1 VU=1 MU=1	00	01 KR=1	00	00	03 RP=2 KG=1	11	12	853	899	- 05.1 %
Mumps	02	06	04	02	03	05	03	01	00	26	58	4304	3428	+ 25.5 %
Leishmaniasis	00	00	03 HB=2 MT=1	00	00	00	05 AP=4 Po=1	00	00	08	14	1216	930	+ 30.7 %

#### Key to Table 1 & 2 Provinces: W<sup>·</sup> W

W: Western, C: Central, S: Southern, N: North, E: East, NC: North Central, NW: North Western, U: Uva, Sab: Sabaragamuwa.

DPDHS 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, Whooping Cough, Chickenpox, Meningitis, Mumps.

Special Surveillance: Acute Flaccid Paralysis.

Leishmaniasis is notifiable only after the General Circular No: 02/102/2008 issued on 23 September 2008. .

**Dengue Prevention and Control Health Messages** 

You have a duty and a responsibility in preventing dengue fever. Make sure that your environment is free from water collections where the dengue mosquito could breed.

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## Table 4: Selected notifiable diseases reported by Medical Officers of Health

22<sup>nd</sup> - 28<sup>th</sup> December 2012 (52<sup>nd</sup>Week)

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DPDHS Division	Dengue Fe- ver / DHF*		Encephali I tis			Enteric Fever P		Food Poisoning		Leptospiro sis		Typhus Fever		Viral Hepatitis		man bies	Returns Re- ceived		
	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	%
Colombo	95	9994	5	160	0	12	2	230	0	69	4	226	0	9	0	120	0	5	85
Gampaha	82	7900	0	95	1	19	0	64	0	47	5	322	0	23	4	331	0	1	67
Kalutara	10	2776	1	228	0	5	1	57	0	28	3	301	0	4	1	36	0	2	54
Kandy	15	2467	1	137	0	4	0	25	0	58	0	84	0	124	0	136	0	0	9
Matale	5	580	5	142	0	5	0	14	0	54	1	50	0	3	0	35	0	1	58
Nuwara	4	336	0	186	0	3	1	29	0	9	1	43	0	67	0	20	0	1	46
Galle	6	1512	1	131	0	7	0	18	0	17	6	147	1	76	0	4	0	0	84
Hambantota	7	605	2	55	0	3	0	12	0	31	3	99	0	60	0	29	0	0	92
Matara	14	1835	2	120	0	9	0	22	0	52	6	213	3	86	2	149	0	0	100
Jaffna	33	886	3	266	0	14	18	435	0	83	0	3	20	360	0	21	0	2	92
Kilinochchi	0	91	0	61	0	3	0	38	0	45	0	4	0	31	0	4	0	1	25
Mannar	7	186	2	94	0	4	1	74	0	17	1	30	0	45	0	2	0	0	40
Vavuniya	4	104	2	63	0	21	0	14	0	27	0	19	0	3	0	3	0	2	75
Mullaitivu	0	41	1	39	0	1	0	16	0	3	0	3	0	5	0	1	0	0	80
Batticaloa	4	713	1	310	0	5	0	16	0	308	0	12	0	0	0	9	0	4	79
Ampara	1	151	0	104	0	3	0	6	0	22	0	29	0	0	0	3	0	0	71
Trincomalee	2	166	2	270	0	2	0	16	0	15	1	43	0	19	0	5	0	0	67
Kurunegala	52	3477	6	256	0	18	0	107	2	45	2	160	1	40	0	134	0	4	85
Puttalam	15	1768	1	111	0	9	0	14	0	12	1	42	0	17	0	6	0	2	58
Anuradhapu	22	501	1	104	0	7	0	15	0	27	1	103	0	29	0	62	1	2	68
Polonnaruw	1	287	1	92	0	2	0	4	0	129	5	74	0	3	0	48	0	1	86
Badulla	12	420	1	140	0	4	1	52	0	6	1	38	0	120	0	44	0	0	71
Monaragala	6	285	0	179	0	6	0	28	0	24	0	76	0	86	1	178	0	2	64
Ratnapura	8	3881	1	316	0	28	0	51	0	15	2	309	0	43	0	138	0	3	67
Kegalle	28	2680	0	62	0	11	0	29	0	20	1	194	0	65	2	600	0	0	64
Kalmune	6	378	0	289	0	2	0	8	0	91	0	9	0	1	0	10	0	3	46
SRI LANKA	439	44020	39	4010	01	207	24	1394	02	1254	44	2633	25	1319	10	2128	01	36	67

Source: Weekly Returns of Communicable Diseases WRCD).

\*Dengue Fever / DHF refers to Dengue Fever / Dengue Haemorrhagic Fever.

\*\*Timely refers to returns received on or before 28<sup>th</sup> December, 2012 Total number of reporting units 329. Number of reporting units data provided for the current week: 224 A = Cases reported during the current week. B = Cumulative cases for the year.

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### **ON STATE SERVICE**

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