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# WEEKLY EPIDEMIOLOGICAL REPORT

## A publication of the Epidemiology Unit Ministry of Health

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### Vol. 39 No.01

#### 31st December – 06th January 2012

# Flashback-2011

The preceding year (2011) was full of challenges as all the other years were. But functions of the unit-mainly the Expanded Programme on Immunization (EPI) and Disease surveillance (both vaccine preventable and other important communicable diseases) - were carried out successfully as a team effort.

Expanded Programme on Immunization suffered set backs in 2009 and 2010 due to the unfortunate incidents which occurred previously. But the social marketing campaign launched to regain confidence in Immunization with the collaboration of UNICEF and WHO was highly successful and immunization levels have reached previous levels during year 2011. In addition, entire public health staff of the country was trained on risk communication related to immunization and how to handle anaphylaxis following immunization during the last year. New vaccine MMR (Measles, Mumps and Rubella) was introduced in October 2011 and was well accepted.

The national Immunization guidelines were revised during 2011 and the revised National immunization Guidelines are ready for printing now. Web-Based Immunization Information System (WBIIS) is ready for pilot testing in the early part of 2012.

District immunization reviews were held in 4 districts to strengthen immunization activities in these areas. Strengthening of vaccine logistics was done in year 2011 by provision of 2 Cold Rooms (for Mullativu and Killinochchi) and distributing over 100 Ice Lined Refrigerators for vaccine storage to the North & East.

Disease surveillance is one of the main functions of the unit and Nivarana, the web based surveillance system is being pilot tested in 4 districts (Monaragala, Matale, Badulla and Gampaha) and showing great promise. Routine disease surveillance system, vaccine preventable diseases and other aspects of preventive sector functions were reviewed during the 4 Quarterly Regional Epidemiologists' Conferences and disease surveillance system and vaccine preventable diseases were specially scrutinized during district reviews. District reviews, called "Strengthening of Disease surveillance and Vaccine Preventable Disease activities in districts", were held in 13 districts, namely Ampara, Monaragala, Jaffna, Trincomalee, Batticaloa, Polonnaruwa, Kalmunai, Galle, Mullativu, Kilinochchi, Mannar, Vavunia and Hambanthota. All districts in the North and East were covered.

Dengue is by far the most important mosquitoborne viral infection of public health significance in Sri Lanka. It has now become a hyper endemic disease in the country. Dengue infection is spread throughout the year in a uniform manner, affecting persons of all ages. Still deaths are more common among the adult patients. Changing weather patterns might have played a part in making Dengue hyper endemic in Sri Lanka.

A lower level of incidence of Dengue that was continued from the latter part of 2010 was seen in the first half of the year and a significant increase compared to 2010 was seen in the last 4 months of the year.

Dengue showed a decrease in incidence compared to 2010 (27, 439 cases of dengue in 2011 compared to 34,105 cases of Dengue in 2010). Mortality was also reduced (173 Dengue deaths in 2011 compared to 246 deaths in 2010). Case fatality rate was reduced from 0.72 per 100 cases in 2010 to 0.63 per 100 cases in 2011. Highest number of cases was reported in the month of July in both 2010 and 2011, but in 2011 there were only 4817 cases compared to 6113 cases in 2010. 34.3% of cases were from western province in 2010, but in 2011, 56.22% cases were from the western province. 66.47% of the deaths have

	Contents	Page
1.	Leading Article – Flashback 2011	1
2.	Surveillance of vaccine preventable diseases & AFP $(24^{th}-30^{th}{ m December}2011)$	3
3.	Summary of newly introduced notifiable diseases (24 <sup>th</sup> $-$ 30 <sup>th</sup> December 2011)	3
4.	Summary of selected notifiable diseases reported (24th $-$ 30th ${f D}$ ecember 2011)	4

### WER Sri Lanka - Vol. 39 No. 01

occurred in the western province in 2011 compared to 43.49% in 2010.

Colombo district had the highest incidence of Dengue for the year (9909 cases), followed by Gampaha (4135 cases) and Kandy (1644 cases). Most districts showed a decreasing trend in the incidence of Dengue cases.

Training of clinical staff (Consultants, Senior Registrars, Registrars, Medical officers in both Government & Private sectors) on the Revised Dengue Management Guidelines, holding of National Dengue death review were done to improve the clinical management of Dengue.

In addition, active dengue surveillance system using 40 sentinel sites was upgraded to web based, daily updated system. This facilitated early identification of disease outbreaks.

The overall reduction in the incidence of Dengue and deaths due to dengue reflects the success of the disease control strategies adopted and hard and diligent work carried out by both field and hospital staff personnel.

Leptospirosis, an important endemic zoonotic disease that mainly affects the paddy farming community, has shown an increase in incidence of the disease occurrence during 2011. There were only 4545 cases for the year 2010, whereas there were 6589 cases of Leptospirosis for the year 2011 and still counting (some of the reports are still arriving). But the death toll has gone down in 2011 compared to 2010 (94 deaths in 2011 compared to 122 in 2010).

Central level activities such as issuing of Guidelines for Strengthening District Leptospirosis coordination Committees, preparation of IEC (Information, Education and Communication) materials, Mass media Campaigns on TV and Radio during the Yala and Maha seasons, holding of Leptospirosis District Reviews in high endemic districts and provision of necessary logistics needed for diagnosis to MRI (Medical Research Institute) were carried out to bring the disease under control. At MOH level, around 100 high risk MOH areas were identified and around 300 Leptospirosis Review Programmes were held in high risk MOH areas with the collaboration of both preventive and curative health sectors, agrarian services, local governments etc. These programmes were aimed not only at reviewing the activities carried out so far, but they were focused on enhancing intersectoral collaboration and community empowerment necessary to combat this disease.

Despite strenuous work carried out at the central level and by the field staff, aforementioned increase in the incidence of Leptospirosis occurred due to unforeseen floods which occurred in most parts of the country during the Maha harvesting season. Changing weather patterns pose a new challenge in controlling Leptospirosis.

Inculcation of Leptospirosis into the curriculum of the Agricultural Instructors was done during this year as part of a long term plan to control Leptospirosis .This was done with the concurrence of Department of Agriculture.

Influenza continues to be global threat and Lady Ridgeway Hospital, TH Peradeniya and GH Matara were established as Severe Acute Respiratory Tract Infections (SARI) surveillance sites during the year 2011. Surveillance officers were deployed in these hospitals to assist the infection control unit of the hosTraining programmes were held to train the staff on influenza surveillance and pandemic preparedness (one programmme for infection control nursing officers (ICNO) and two programmes for hospital directors and OPD medical officers) to maintain efficient functioning of Influenza surveillance.

pital.

Lab Equipments, Reagents and consumables worth over Rs. 12million were provided to the National Influenza Centre (NIC), MRI to carry out laboratory surveillance of influenza.

IT equipment worth Rs. 3.5 million had been handed over to the ICNO units and Influenza Operational Cell at Epidemiology Unit to strengthen surveillance activities.

Polio seems to be a thing of the past with the last endemic case being reported way back in 1993. But the risk of importing Polio virus is always present as our neighbouring countries are still harbouring the virus. Therefore, Acute Flaccid paralysis (AFP) Surveillance was stepped up in 2011.

There were only 57 AFP surveillance sentinel sites in 2010 and nine more hospitals were added to the sentinel surveillance system taking the tally of sentinel sites up to 66. BH Elpitiya, BH Kamburupitiya, BH Dehiaththakandiya, BH Dambadeniya, BH Galgamuwa, BH Thambuththegama, BH Welimada, BH Dikoya and BH Samanthurai were the newly added sentinel sites during the year 2011. To strengthen AFP surveillance further, AFP hospital reviews were conducted in BH Welimada, PGH Badulla, BH Mannar, DGH Monaragala, BH Kilinochchi, GH Ampara, TH Kurunegala, BH Nikaweratiya, BH Galgamuwa, BH Dambadeniya and BH Kuliyapitiya.

The number of human Rabies deaths declined from 50 in 2010 to 35 (7 more are awaiting confirmation) in 2011. Majority of the conformed deaths were in males (25 males and 10 females). Batticoloa reported the highest number of Rabies deaths (8deaths) for the year 2011 followed by Gampaha (6deaths), Kurunegala (4deaths) and Galle (4 deaths). It is heartening to see the reducing trend in the Rabies deaths continuing.

# A step in the right direction-Getting established in the International Arena

Lahore city of Punjab province, Pakistan was affected by the worst known Dengue Outbreak in the history of Pakistan in 2011. Government of Pakistan sought assistance from Sri Lanka to control the Dengue epidemic in Lahore. Two teams of medical specialists including Epidemiologists, Clinical Specialists, Virologists and Entomologists visited Pakistan on two occasions to help Punjab province to control the spread of Dengue. Essential items used in the control of Dengue such as fogging machines, chemicals, dextran, micro-haematocrit machines etc were also dispatched to Pakistan on an urgent basis. Epidemiology Unit led these activities from the forefront.

Taking a step further, Epidemiology unit with the collaboration of Asian Institute of Technology (AIT) of Thailand organized an International Training on Case Management of Dengue, Epidemiological training and Vector Control training for a group of Pakistani medical professionals. The Training programme was held from December 12<sup>th</sup> to 16<sup>th</sup>, 2011 in Colombo.

#### This article was compiled by Dr Madhava Gunasekera of the Epidemiology Unit

### WER Sri Lanka - Vol. 39 No. 01

31<sup>st</sup> December– 06<sup>th</sup> January 2012

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

24th - 30th December 2011 (52nd Week)

Disease			١	No. of Cas	ses by F	Province		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 2011	week in 2010	2011	2010	in 2011 & 2010	
Acute Flaccid Paralysis	00	00	00	00	01	01	00	00	00	02	02	87	78	+ 11.5 %	
Diphtheria	00	00	00	00	00	00	00	00	00	-	-	-	-	-	
Measles	00	01	00	00	01	00	00	00	00	00	00	134	89	+ 50.6 %	
Tetanus	00	00	01	00	00	00	00	00	00	01	00	26	24	+ 08.3 %	
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	55	32	+ 71.9 %	
Tuberculosis	22	11	00	15	13	33	10	00	12	116	208	9454	10235	- 07.6 %	

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

24<sup>th</sup> - 30<sup>th</sup> December 2011 (52<sup>nd</sup> Week)

Disease			I	No. of Ca	ases by	Provinc	e	Number of	Number of	Total	Total num-	Difference			
	W	C	S	N	E	NW	NC	U	Sab	cases during current week in 2011	cases during same week in 2010	number of cases to date in 2011	ber of cases to date in 2010	number of cases to date in 2011 & 2010	
Chickenpox	16	06	11	04	10	2	2	3	10	64	36	4249	3412	+ 24.5 %	
Meningitis	03 CB=1 KL=1 GM=1	01 KD=1	01 HB=1	01 JF=1	00	03 KR=3	02 AP=2	00	01 KG=1	12	18	899	1563	- 42.4 %	
Mumps	08	09	04	04	15	02	07	02	07	58	36	3428	1287	+ 166.6%	
Leishmaniasis	00	00	01 HB=1	00	00	00	11 AP=7 Po=3	00	00	14	19	930	428	+ 117.2 %	

#### Key to Table 1 & 2 Provinces: W: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** 

To prevent dengue, remove mosquito breeding places in And around your home, Workplace or school once a week.

31<sup>st</sup> December– 06<sup>th</sup> January 2012

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

24<sup>th –</sup> 30<sup>th</sup> December 2011 (52<sup>nd</sup> Week)

DPDHS Division	Den ver	Dengue Fe- ver / DHF*		e- Dysentery *		Encephali tis		Enteric Fever		Food Poisoning		Leptospiro sis		Typhus Fever		Viral Hepatitis		man pies	Returns Re- ceived
	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	Α	В	%
Colombo	207	1050	4	189	0	8	6	343	0	67	5	506	0	8	0	71	0	6	100
Gampaha	43	4184	3	139	0	20	0	104	0	85	3	537	1	28	3	401	0	2	53
Kalutara	21	1405	2	165	0	10	1	92	0	26	1	398	0	5	2	25	0	1	67
Kandy	58	1628	5	406	0	7	2	46	0	40	3	192	0	106	0	61	0	0	96
Matale	9	364	1	216	0	4	0	39	0	27	2	171	0	17	0	13	0	0	92
Nuwara	0	251	1	331	0	4	0	62	0	154	2	55	1	71	0	34	0	1	62
Galle	24	877	1	114	0	8	0	34	0	28	2	249	0	46	0	11	0	5	100
Hambantota	7	414	2	81	0	4	0	5	3	36	5	516	1	69	0	17	0	2	92
Matara	22	795	2	107	0	3	2	26	0	36	2	392	0	95	1	33	0	1	100
Jaffna	17	400	2	451	0	4	19	382	0	92	0	3	23	307	0	38	0	1	91
Kilinochchi	6	66	0	41	0	3	1	20	0	14	0	2	2	15	0	3	0	0	100
Mannar	11	100	2	49	0	1	1	39	0	83	1	16	2	41	0	2	0	0	100
Vavuniya	2	81	2	50	2	20	0	15	1	61	0	54	0	2	0	3	0	0	75
Mullaitivu	0	19	1	73	0	1	0	7	0	9	0	9	0	2	0	3	0	0	75
Batticaloa	124	1583	4	607	0	5	0	8	0	32	0	29	0	3	0	2	0	10	79
Ampara	9	187	6	269	0	1	0	14	0	55	3	70	0	2	0	12	0	0	71
Trincomalee	3	176	8	720	1	3	1	15	0	13	0	104	0	9	0	9	0	1	83
Kurunegala	35	1027	9	395	1	16	5	108	0	94	4	1576	2	80	0	78	0	4	91
Puttalam	21	570	0	202	1	4	0	36	0	51	0	125	1	22	0	12	0	2	75
Anuradhapu	5	294	5	171	0	2	0	8	0	36	5	259	0	17	0	32	0	1	68
Polonnaruw	4	302	0	127	0	1	0	17	0	22	0	87	0	3	0	26	0	0	86
Badulla	5	632	4	407	0	6	0	60	0	24	0	84	1	91	2	72	0	0	71
Monaragala	6	310	0	150	0	5	1	49		14	1	194	1	79	1	99	1	1	82
Ratnapura	27	1139	10	519	0	9	1	62	0	44	4	631	0	30	2	89	0	2	78
Kegalle	23	1067	2	121	0	14	2	86	0	26	4	367	1	39	11	375	0	0	82
Kalmune	15	81	21	688	0	2	0	6	0	108	0	7	0	2	0	6	1	2	69
SRI LANKA	704	28002	97	6788	05	165	42	1683	04	1277	47	6633	36	1189	22	1527	02	42	82

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 30<sup>th</sup> December, 2011 Total number of reporting units =329. Number of reporting units data provided for the current week: 261 A = Cases reported during the current week. B = Cumulative cases for the year.

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### **ON STATE SERVICE**

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