



# WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit  
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Vol. 37 No.02

09<sup>th</sup> - 15<sup>th</sup> January 2010

## Flashback 2009 (Part 2)

While this stage continued with rigorous screening for cases at entry points to Sri Lanka, on 16<sup>th</sup> June 2009, the first case of H1N1 was reported in Sri Lanka. The victim was an Australian of Sri Lankan heritage. The control strategy was accordingly changed by the Epidemiology Unit. Contacts of the first victim and subsequent patients and their contacts were traced and they were monitored for the onset of the disease while implementing strategies to prevent the spread of the disease.

Diagnosed patients were admitted to the Infection Diagnose Hospital for management. Disease and laboratory surveillance were strengthened to detect new cases. The focus was predominantly on those who had a travel history and other epidemiological risk factors.

The subsequent evolution of the pandemic H1N1 was the establishment of sustained community transmission of the pandemic influenza H1N1 by 16<sup>th</sup> October. The Epidemiology Unit activated the pandemic plan to suit the phase and prevent establishment of widespread community transmission. All hospitals in the country were alerted for outbreak response. The Epidemiology Unit coordinated revising guidelines on case management with the support of clinicians. Antiviral medications and Personal Protective Equipments were dispatched to hospitals to mitigate the impact of the pandemic. Epidemiologists conducted capacity building programs for the health staff and awareness programmes were designed with the Health Education Bureau. The final outcome of the planned response to the pandemic was the ability of the country to prevent wide spread community transmission.

In May 2009, the government ended a 30 year war with a legacy of a displaced population numbering about 230,000 housed in welfare

camp established in Cheddikulam MOH area. Few camps were scattered in other MOH areas in the Vavuniya district occupying mainly the existing government buildings. Predictions of the international agencies were devastating effects of a wide variety of communicable diseases due to poor infrastructure. The magnitude of the responsibility of the Epidemiology Unit in averting the said predictions was very much higher than during the Tsunami. Today, looking back, the epidemiology Unit is able to heave a sigh of relief as committed implementation of its strategic plan not only minimized communicable diseases and its impacts but also made predictions of the international community stand unrealized as it was in the aftermath of the Tsunami.

Epidemiologists fulfilled their national responsibility by assisting the regional health staff in establishing communicable disease surveillance activities in displaced camps. A notification system was set up to report communicable diseases from the welfare camps to the Epidemiology Unit. WHO, came forward to support the proposal of the Epidemiology Unit to recruit 13 retired Public Health Inspectors who were involved in disease surveillance activities since mid August and improving sanitation and hygiene. Access to safe drinking water for inhabitants was ensured by monitoring water sources and quality. Hygiene of the kitchen, fly control and garbage disposal were introduced to ensure best possible sanitation in welfare camps. All epidemiologists were not confined to their cells in Colombo. They took turns in monitoring and supervision at displaced camps by residing in vavuniya in least comfortable living conditions.

Displaced population was at increased vulnerability to vaccine preventable diseases as many of them had been deprived of vaccination in conflict

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areas. Epidemiologists prepared interim guidelines for vaccination in IDP camps. These guidelines were implemented in IDP camps in addition to routine vaccination. Disease surveillance activities indicated early cases of suspected measles and catch up programmes were launched to reduce the vulnerability of non immunized individuals. Another disease entity of concern was typhoid. Measures were introduced to create awareness on typhoid prevention, ensure sanitation and hygiene and vaccination of high risk individuals. Chickenpox was prevented from reaching epidemic proportions. Viral hepatitis notified to the Epidemiology Unit Includes all types of hepatitis. Compared to the preceding year, 2009 could be viewed as an “outbreak year” for viral hepatitis. More than 90% cases reported during the year 2009 were from Vavuniya district as a result of the unprecedented internal displacement of population. Concerted efforts by stakeholders pushed the observed high incidence of viral hepatitis back to the expected base line level by the end of the year.

Today, government has taken steps to dismantle these transitory camps and been involved in resetting these people at identified areas in the Killinochchi and Mullativu districts. The Epidemiology Unit has not evaded its national duty even at this hour by visiting resettlement areas in the initial stage of resettlement with a view to recommending basic sanitary and hygienic standards and supporting regional health staff in providing epidemiological services

While the Country was handling emerging diseases, leptospirosis as a re emerging infection was being reported still in high numbers. In comparison to 2008 ( 7421 cases ), there was a 33% reduction in leptospirosis cases in 2009 (4970 cases). The Epidemiology Unit was in the forefront in the establishment of a technical advisory group for leptospirosis control. Further, a dialogue was initiated between Epidemiology Unit and the Ministry of Health to establish novel, evidence based methods for rodent control.

While the Epidemiology Unit embarked on new ventures, traditional areas were further consolidated in the bygone year. Experts extended their support to the National polio expert committee and the National committee for certification for polio-myelitis eradication to ensure high standards of AFP surveillance.

In 2009, there was an increased incidence of prognostically good, viral meningitis reported from paediatric units of major hospitals in the country.. Analysis of some samples at the Genetec laboratory confirmed that the outbreak was due to enterovirus.

Diarrhoeal disease remained a high priority area in 2009 too. A novel control approach was adopted in 2009 by selecting target areas based on the disease prevalence of 2008. Within the district of concern, PHI areas with the highest incidence of diarrhoea were selected for a package of intervention. In a participatory approach, all public health staff in the relevant MOH area identified area specific causes for high incidence of diarrhoea. Subsequently, a field visit was organized to determine the social conditions of inhabitants, identify their practices and determine attitudes towards safe, potable drinking water and sanitation. Also in the site, sources of drinking water, water distribution and purification system were studied by partici-

pants. On-site experience enabled designing effective solutions to local problems by the local staff. In the class room setting, these groups identified practically applicable solutions with available resources. These were implemented and monitored by the local staff. Outcome of interventions in terms of reducing the incidence will be assessed in the coming year and beyond.

In addition to common control and preventive activities, the Epidemiology Unit prepared guidelines for typhoid vaccination for high risk groups. Already, an initial stock of vaccines has been donated and the program has been launched in Vavuniya, Puttlum and Mannar areas. Another feather in the cap of the Epidemiology Unit was its contribution to the codes alimentaris committee which is working to maintain food quality.

In keeping with the tradition, year 2009 also saw accomplishment of many research activities by the Epidemiology Unit. WHO signed an agreement to support invasive bacterial disease and rotavirus surveillance in Sri Lanka. Acknowledging the contribution to bridging the information gap, reputed American journal “ Journal of Infectious disease “ carried two original research papers of the Unit namely “*Surveillance of pneumococcal disease in Sri Lanka* “ and “ *Epidemiology of rotavirus diarrhoea in Mongolia and Sri Lanka* “. The burden study and the study assessing the cost effectiveness of introduction of pneumococcal vaccine to the EPI was initiated in 2009 and is on the verge of completion. Since Sri Lanka did not have base line data on the risk of tuberculosis, the unit undertook the cumbersome task of completing a nation wide tuberculin survey to determine the annual risk of tuberculosis infection in the country. This study was in collaboration with the NPTCCD of the Ministry of Health under the financial support of GFATM. Epidemiology Unit also undertook the task of preparing the health sector report on vulnerability and adaptation for health effects of climate change for the Ministry of Environment. Epidemiology Unit was richly rewarded by the centers of disease control (CDC), USA when they signed a memorandum of understanding to conduct a project on surveillance and response to avian and pandemic influenza in Sri Lanka under the stewardship of the Epidemiology Unit. These efforts will bear fruit in 2010.

Like in previous years, the realm of operation of epidemiologists extended to academic activities at medical faculties and the post graduate institute of medicine. Their expertise was provided in many committees and scientific papers were presented at many a conference. Another two notable important undertakings in the previous year were updating the immunization handbook as a hand on reference and the PHI manual on communicable diseases.

In conclusion, it must be stated that the bygone year was a challenging and daunting one for the Epidemiology Unit. As Joseph Campbell articulated opportunities to find deeper powers within ourselves come when life seems most challenging. Demonstrating how prophetic these utterances are, Epidemiology unit seems to have unleashed the fountain of its inner strength in the wake of facing up to probably the most challenging period of its existence as an institute to bring about well being of the inhabitants of the island.

*This article was compiled by Dr Ranjan Wijesinghe, Consultant Epidemiologist*

Table 1: Vaccine-preventable Diseases & AFP

02<sup>nd</sup> – 08<sup>th</sup> January - 2010(01<sup>st</sup> Week)

Disease	No. of Cases by Province									Number of cases during current week in 2010	Number of cases during same week in 2009	Total number of cases to date in 2010	Total number of cases to date in 2009	Difference between the number of cases to date in 2010 & 2009
	W	C	S	N	E	NW	NC	U	Sab					
Acute Flaccid Paralysis	00	00	01	00	00	00	00	00	00	01	02	01	04	-75.0 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	-
Measles	09	02	00	00	00	00	01	00	01	12	05	12	05	+140.0 %
Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	02	-100.0 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	02	00	02	-100.0 %
Tuberculosis	42	21	07	01	29	13	13	00	08	134	349	134	349	- 61.6 %

Table 2: Newly Introduced Notifiable Disease

02<sup>nd</sup> – 08<sup>th</sup> January - 2010(01<sup>st</sup> Week)

Disease	No. of Cases by Province									Number of cases during current week in 2010	Number of cases during same week in 2009	Total number of cases to date in 2010	Total number of cases to date in 2009	Difference between the number of cases to date in 2009 & 2008
	W	C	S	N	E	NW	NC	U	Sab					
Chickenpox	08	01	08	05	05	05	08	02	05	47	69	47	69	- 39.9 %
Meningitis	17 CB=11 KT=3 GM=3	02 ML=1 KN=1	04 GL=2 MT=1 HB=1	00	01 TR=1	02 KR=2	17 PO=12 AP=5	05 BD=5	08 KG=3 RP=5	56	16	56	16	250.0 %
Mumps	05	03	02	01	22	01	00	02	06	20	43	20	43	-53.5 %
Leishmaniasis	00	00	03 HB=3	00	00	00	02 AP=2	00	00	05	07	05	07	-28.6 %

**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.  
 DPHS 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.

**10<sup>th</sup> South East Asia Regional Scientific Meeting of the International Epidemiological Association**  
**23<sup>rd</sup> - 26<sup>th</sup> May 2010**

**Colombo, Sri Lanka**

**Theme**

**"Epidemiological Methods in Evidence Based Healthcare"**

Visit <http://www.episea2010.com>

**Table 4: Selected notifiable diseases reported by Medical Officers of Health**  
02<sup>nd</sup> - 08<sup>th</sup> January - 2010(01<sup>st</sup> Week)

DPDHS Division	Dengue Fever / DHF*		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Returns Received
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	
Colombo	176	176	9	9	0	0	4	4	3	3	9	9	1	1	2	2	0	0	15
Gampaha	153	153	0	0	0	0	2	2	0	0	4	4	0	0	4	4	0	0	0
Kalutara	32	32	3	3	1	1	2	2	6	6	6	6	0	0	0	0	0	0	0
Kandy	68	68	18	18	0	0	0	0	0	0	2	2	4	4	0	0	0	0	4
Matale	25	25	2	2	0	0	1	1	0	0	4	4	0	0	2	2	0	0	0
Nuwara	9	9	1	1	0	0	3	3	0	0	1	1	2	2	0	0	0	0	0
Galle	10	10	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0	21
Hambantota	11	11	2	2	0	0	0	0	0	0	5	5	3	3	0	0	0	0	9
Matara	14	14	2	2	0	0	0	0	0	0	3	3	6	6	14	14	0	0	41
Jaffna	22	22	0	0	0	0	11	11	0	0	0	0	8	8	2	2	0	0	0
Kili-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mannar	2	2	5	5	0	0	2	2	0	0	0	0	0	0	1	1	0	0	0
Vavuniya	174	174	2	2	1	1	4	4	0	0	0	0	0	0	2	2	0	0	0
Mullaitivu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batticaloa	52	52	6	6	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Ampara	3	3	3	3	0	0	0	0	0	0	6	6	0	0	3	3	0	0	0
Trincomalee	16	16	10	10	0	0	0	0	0	0	3	3	0	0	2	2	0	0	10
Kurunegala	36	36	5	5	0	0	1	1	0	0	5	5	0	0	2	2	0	0	0
Puttalam	11	11	8	8	1	1	2	2	0	0	2	2	0	0	0	0	0	0	11
Anuradhapura	64	64	6	6	0	0	1	1	0	0	1	1	1	1	1	1	0	0	5
Polonnaruwa	7	7	8	8	0	0	0	0	0	0	3	3	0	0	2	2	0	0	0
Badulla	19	19	3	3	0	0	1	1	0	0	2	2	2	2	2	2	0	0	0
Monaragala	13	13	6	6	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0
Ratnapura	16	16	6	6	2	2	2	2	6	6	7	7	1	1	4	4	0	0	11
Kegalle	29	29	1	1	1	1	1	1	0	0	3	3	0	0	4	4	0	0	0
Kalmunai	35	35	5	5	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
<b>SRI LANKA</b>	<b>997</b>	<b>997</b>	<b>111</b>	<b>111</b>	<b>07</b>	<b>07</b>	<b>39</b>	<b>39</b>	<b>15</b>	<b>15</b>	<b>69</b>	<b>69</b>	<b>28</b>	<b>28</b>	<b>35</b>	<b>35</b>	<b>00</b>	<b>00</b>	<b>06</b>

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 08<sup>th</sup> January, 2010 Total number of reporting units =311. Number of reporting units data provided for the current week: 20

A = Cases reported during the current week. B = Cumulative cases for the year.

**PRINTING OF THIS PUBLICATION IS FUNDED BY THE UNITED NATIONS CHILDREN'S FUND (UNICEF).**

Comments and contributions for publication in the WER Sri Lanka are welcome. However, the editor reserves the right to accept or reject items for publication. All correspondence should be mailed to The Editor, WER Sri Lanka, Epidemiological Unit, P.O. Box 1567, Colombo or sent by E-mail to [chepid@sltnet.lk](mailto:chepid@sltnet.lk).

**ON STATE SERVICE**

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