



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Healthcare and Nutrition

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Flashback 2008

Training and Special Activities

Merely performing routine surveillance of communicable diseases will not be able to fulfill the present needs in disease prevention and control. Emerging and re-emerging diseases, changing epidemiological pattern of diseases and the so called 'double burden' with communicable and non-communicable disease demand expanding horizons. This has resulted in the Epidemiology Unit engaging in more research, carrying out special surveillance activities, and thereby expanding its scope for surveillance.

Epidemiology Unit also contribute in teaching medical graduates and training of healthcare staff where the end result will be improved surveillance performance, both quantitatively and qualitatively.

Training and continuous professional development

A two-week Field Epidemiology Training Programme in order to strengthen the capacity of Regional Epidemiologists (Res) and Medical Officers of Health (MOOH) was conducted in November 2008. The training consisted class room teaching as well as field visits. A comprehensive training on principles of epidemiology, epidemiological investigation, basic statistics and surveillance of specific diseases was provided during the training.

Training of trainers workshops on adverse events following immunization (AEFI) targeting healthcare staff of Northern & Eastern Provinces, Nuwara Eliya district in the Central province and Badulla district in the Uva province were also conducted in 2008. Participants

in the training were REE, Medical Officers (Maternal and Child Health) and Medical Officers working in hospitals. This was made possible through the Health Service Strengthening (HSS) programme funded by the GAVI - The Global Alliance for Vaccines and Immunization. It is expected that these trainers will carry out training for healthcare staff in their respective districts which will subsequently improve the overall AEFI surveillance in the country.

Three training programmes in order to strengthen disease surveillance activities were held in Hambantota, Galle and Ratnapura districts. Surveillance of vaccine preventable diseases and other communicable diseases and AEFI was covered in this training. Participants were MOOH, REE, AMOOH, SPHII, PHII and ICNOO. Training of field staff on control of diarrhoeal disease was also conducted in Anuradhapura and Badulla districts.

In addition, undergraduates from several medical faculties and post graduate trainees of Paediatrics, Community Medicine, Microbiology and Family Medicine visited the Epidemiology Unit for in site training on Epidemiology and activities of the Epidemiology Unit. Medical staff of the Epidemiology Unit provided an extensive contribution in the post graduate training, undergraduate medical training and also preparing doctors qualified overseas preparing for their local qualifying examination.

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The 1st and the 3rd Quarterly Reviews of REE were held at the Epidemiology Unit while the 2nd and 4th were held in the Hambantota and Matale districts respectively. The latter two reviews were coupled with reviewing disease surveillance and EPI related activities of all MOH offices, hospitals and regional drug stores by visiting these places.

Research and Special activities

EPI vaccine coverage survey: In December 2008, the Epidemiology Unit successfully conducted an EPI vaccine coverage survey in the Ampara district in the Eastern province. Data obtained are still being analysed but show very promising results of very good coverage of infant and childhood immunization despite the prevailed disturbed situation in that part of the country.

Chronic kidney disease: The chronic kidney disease in the North Central province which causes disability and death among victims from very young ages to old age was prevailing for some time and now has become a problem of national public health importance. In collaboration with the WHO, an effort is underway to identify the aetiology and also to design appropriate preventive measures. Epidemiology Unit coordinates the entire research project while directly involving in the execution of certain components of the research. They are, the population prevalence study, geographical mapping of cases and a case control study to identify risk factors for the condition.

Dengue fever surveillance: A serosurveillance of dengue fever was initiated in collaboration with the International Vaccine Institute. Under this project households of a cohort of 1000 children under 12 years were enrolled into. They will be actively followed-up for one year to detect fever episodes and to serologically determine whether fever was actually dengue or not.

Pneumococcal surveillance: The initial phase of the pneumococcal surveillance among paediatric population, which commenced under the South Asian Pneumococcal Alliance project could be able to be completed during 2008. In addition to the Lady Ridgeway Hospital for Children - the sentinel centre, satellite centres were established at Colombo South, Colombo North, Karapitiya and Kalutara Teaching Hospitals. Strengthening of laboratory facilities and improving the capacity of laboratory staff could make a possibility under this project. As a result, an automated blood culture machine was installed in the laboratory of the Lady Ridgeway Hospital for Children. Medical Laboratory Technicians of the Medical Research Institute obtained training in India under the same project. In addition, laboratory surveillance of non-invasive

bacterial pathogens associated with conjunctivitis and corneal ulcers was also commenced at the same study centres.

An analysis of cost effectiveness of introduction of pneumococcal vaccine has been carried out in the Colombo district. Findings will be very useful in the future, at the stage of decision making on introduction of the vaccine into the national programme. Pneumococcal data was also presented in the poster symposium of the 6th International Symposium on Pneumococci and Pneumococcal Diseases, held in Iceland in June 2008.

Rota virus surveillance: The second phase of the rota virus surveillance in collaboration with International Vaccine Institute is currently in progress. Under this project all children under five years of age presented with diarrhoea to the LRH will be investigated. Virological investigations are being carried out at the MRI to determine the percentage of rota virus infection among children with diarrhoea.

Japanese Encephalitis (JE) live vaccine clinical trial: The study on safety and immunogenicity of SA 14-14-2 live JE vaccine has been completed and preliminary data are now available. The findings were useful in decision making on introduction of the same vaccine into the national immunization programme. Consequently, this vaccine will be in use by mid-2009.

Risk of tuberculosis infection: A study to estimate the annual risk of tuberculosis infection among school children in Sri Lanka has been designed. This is an island wide school based study which will be conducted in collaboration with National Centre for Control of Tuberculosis and Respiratory Diseases and Global Fund to Fight AIDS, Tuberculosis and Malaria. The study is now in the planning stage and will be implemented this year.

Other activities

The new national cold room complex for vaccines which was installed in the new building of the Epidemiology Unit was declared open early January 2008.

Epidemiology Unit, as the Programme Management Unit of the immunization subcomponent of the World Bank funded Sri Lanka Health Sector Development Project, carried out activities related to the improvement of quality of immunization of "best practice immunization services" in the field clinics was completed for the second consecutive year under which a total of Rs 68.8 million was released to the MOH areas in 21 districts. The project continues till 2010.

The editor wishes to acknowledge all the medical staff of the Epidemiology Unit for the assistance provided in preparing this article on activities of Epidemiology Unit in 2008.

Table 1: Vaccine-preventable Diseases & AFP 27th December 2008 - 02nd January 2009 (01st Week)

Disease	No. of Cases by Province									Number of cases during current week in 2009	Number of cases during same week in 2008	Total number of cases to date in 2009	Total number of cases to date in 2008	Difference between the number of cases to date in 2009 & 2008
	W	C	S	N	E	NW	NC	U	Sab					
Acute Flaccid Paralysis	00	00	00	00	02 BT=1 KM=1	00	00	00	00	02	04	02	04	-50.0%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	-
Measles	00	02 NE=2	00	00	01 TR=1	00	01 PO=1	00	01 KG=1	05	00	05	00	-
Tetanus	00	00	00	00	00	00	00	00	00	00	01	00	01	-100.0%
Whooping Cough	00	00	02 GL=1 MT=1	00	00	00	00	00	00	02	00	02	00	-
Tuberculosis	36	64	66	24	24	00	00	06	129	349	311	349	311	+12.2%

Table 2: Newly Introduced Notifiable Disease 27th December 2008 - 02nd January 2009 (01st Week)

Disease	No. of Cases by Province									Number of cases during current week in 2009	Number of cases during same week in 2008	Total number of cases to date in 2009	Total number of cases to date in 2008	Difference between the number of cases to date in 2009 & 2008
	W	C	S	N	E	NW	NC	U	Sab					
Chickenpox	08	12	07	02	03	02	22	06	07	69	71	69	71	-02.8%
Meningitis	03 CB=2 KL=1	00	03 GL=2 MT=1	00	01 BT=1	01 PU=1	00	00	08 RP=2 KG=6	16	25	16	25	-36.0%
Mumps	05	02	03	02	02	03	18	03	05	43	36	43	36	+19.4%
Leishmaniasis	00	00	03 HB=1 MT=2	00	00	00	04 AP=4	00	00	07	Not available*	07	Not available*	-

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.
 DPDHS Divisions: CB: Colombo, GM: Gampaha, KL: Kalutara, KD: Kandy, ML: Matala, 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.

National Control Program for Tuberculosis and Chest Diseases: Tuberculosis.

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

Table 3: Laboratory Surveillance of Dengue Fever 27th December 2008 - 02nd January 2009 (01st Week)

Samples	Number tested	Number positive	Serotypes *				
			D1	D2	D3	D4	Negative
Number for current week	01	00	00	00	00	00	00
Total number to date in 2009	01	00	00	00	00	00	00

Sources: Genetic Laboratory, Asiri Surgical Hospital

* Not all positives are subjected to serotyping. NA= Not Available.

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

27th December 2008 - 02nd January 2009 (01st Week)

DPDHS Division	Dengue Fever / DHF*		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Returns Received Timely**
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	%
Colombo	44	44	6	6	0	0	9	9	3	3	16	16	0	0	3	3	0	0	85
Gampaha	23	23	4	4	0	0	0	0	1	1	2	2	0	0	3	3	0	0	93
Kalutara	5	5	7	7	0	0	1	1	0	0	3	3	0	0	1	1	0	0	83
Kandy	16	16	13	13	0	0	0	0	0	0	9	9	0	0	2	2	0	0	80
Matale	21	21	1	1	0	0	0	0	0	0	11	11	1	1	1	1	0	0	83
Nuwara Eliya	2	2	6	6	0	0	4	4	0	0	1	1	1	1	0	0	0	0	92
Galle	0	0	8	8	0	0	0	0	0	0	10	10	0	0	0	0	0	0	78
Hambantota	5	5	5	5	0	0	0	0	0	0	0	0	1	1	0	0	0	0	91
Matara	18	18	19	19	0	0	1	1	0	0	6	6	3	3	0	0	0	0	82
Jaffna	1	1	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	50
Kilinochchi	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mannar	0	0	2	2	0	0	3	3	0	0	0	0	0	0	0	0	0	0	50
Vavuniya	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75
Mullaitivu	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Batticaloa	0	0	6	6	0	0	1	1	0	0	0	0	0	0	0	0	0	0	82
Ampara	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	1	0	0	71
Trincomalee	1	1	2	2	0	0	0	0	0	0	0	0	2	2	1	1	0	0	80
Kurunegala	10	10	3	3	1	1	0	0	1	1	4	4	1	1	0	0	0	0	79
Puttalam	5	5	7	7	1	1	1	1	0	0	3	3	1	1	0	0	0	0	89
Anuradhapura	0	0	0	0	0	0	0	0	2	2	0	0	0	0	1	1	0	0	63
Polonnaruwa	0	0	4	4	0	0	1	1	0	0	1	1	0	0	0	0	0	0	71
Badulla	1	1	19	19	0	0	2	2	0	0	2	2	4	4	11	11	0	0	93
Monaragala	0	0	2	2	0	0	0	0	0	0	0	0	2	2	3	3	0	0	91
Ratnapura	1	1	6	6	0	0	4	4	0	0	3	3	0	0	0	0	0	0	67
Kegalle	25	25	3	3	0	0	1	1	0	0	5	5	0	0	2	2	0	0	73
Kalmunai	1	1	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69
SRI LANKA	179	179	13	133	2	2	29	29	7	7	76	76	17	17	29	29	0	0	77

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 10 January, 2009 Total number of reporting units =309. Number of reporting units data provided for the current week: 238

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

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