WER *Sri Lanka - 2007*

Timeliness of WRCDs: A Crucial Element in Disease Surveillance

The Weekly Return of Communicable Diseases (WRCD) is the 'vector' that carries notifiable disease information which originates at the Medical Officer of Health (MOH) level to regional and central surveillance units. Details of suspected and confirmed cases of notifiable diseases are included, and dispatched to the Epidemiology Unit with a copy to the respective Regional Epidemiologist (RE) at the Deputy Provincial Director of Health Services (DPDHS) office. These forms are the main source of disease surveillance for most communicable diseases in Sri Lanka.

A sudden increase in the incidence of an endemic disease, or even a single case of a disease not normally seen would arouse the interest of the epidemiologists to observe for an impending epidemic with potentially serious consequences. In addition, weekly, quarterly and annual epidemiological reports contain systematically analysed data from the WRCDs. This is enough evidence to highlight the importance of the WRCDs towards disease surveillance and outbreak control with regard to communicable diseases in the country.

The Weekly Epidemiological Report (WER) utilizes the data in the WRCDs to provide a weekly breakdown for all notifiable diseases reported to the Epidemiology Unit. The WER also provides comparative data form the previous year's corresponding week. In addition, the timeliness of the WRCDs for each DPDHS area are given for each week. An analysis of the timeliness of the WRCDs for the year 2006 is given in Figure 1 in page 2. Matara DPDHS area (96%) has recorded the highest average percentage for timeliness, followed by the DPDHS areas of Hambantota (86%), Kandy (85%), Kalutara (84%), Badulla (83%), Gampaha (81%) and Moneragala (80%). Apart from the conflict-affected areas of the North and East of the country, the DPDHS areas of Galle (59%), Anuradhapura (66%), Ratnapura (68%) and Kegalle (68%) have reported low average percentages for timeliness. The DPDHS area of Ampara has reported the lowest average percentage for timeliness (30%) for 2006. The special areas of the Colombo Municipality Council (CMC) and the National Institute of Health Sciences (NIHS) have reported comparatively higher rates for timeliness.

The timeliness of the WRCDs by week was analysed for selected DPDHS areas for 2006 (Figure 2). This was done to identify different patterns characteristically seen in some of these areas. These were compared with the national variation. As expected, Matara consistently showed excellent rates for timeliness throughout the year. In contrast, Ampara demonstrated poor timeliness except for 2 peaks in the second quarter. The rates for Colombo had evidently improved towards the end of the year.
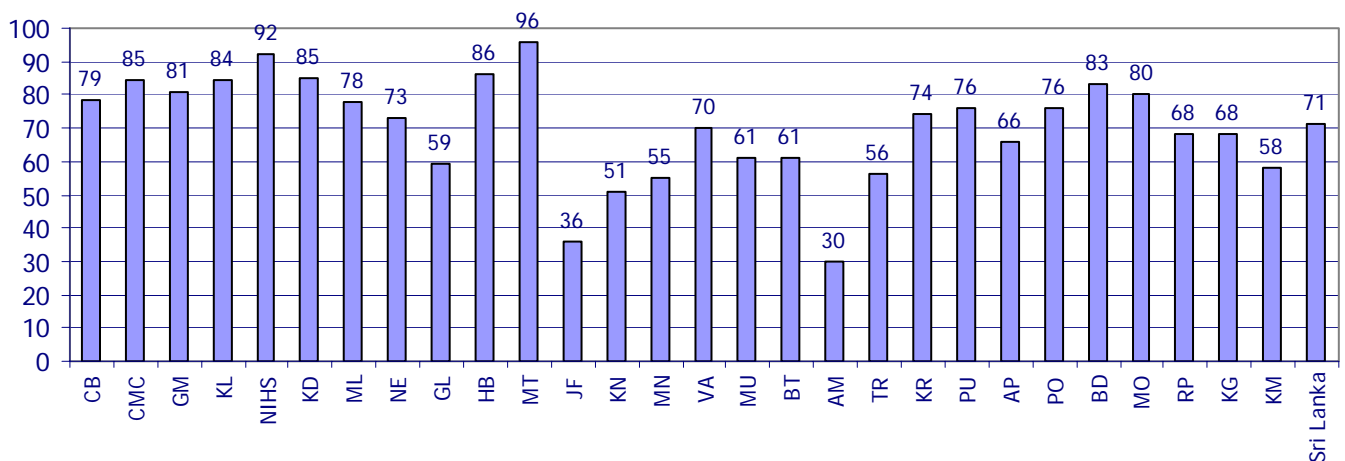
Many of the reason which contribute to the poor rates for the timeliness of the WRCDs could be logistical or operational ones which are beyond the control of the respective MOOH

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Figure 1. The timeliness of Weekly Return of Communicable Diseases (WRCD) received by the Epidemiology Unit from each DPDHS area in 2006
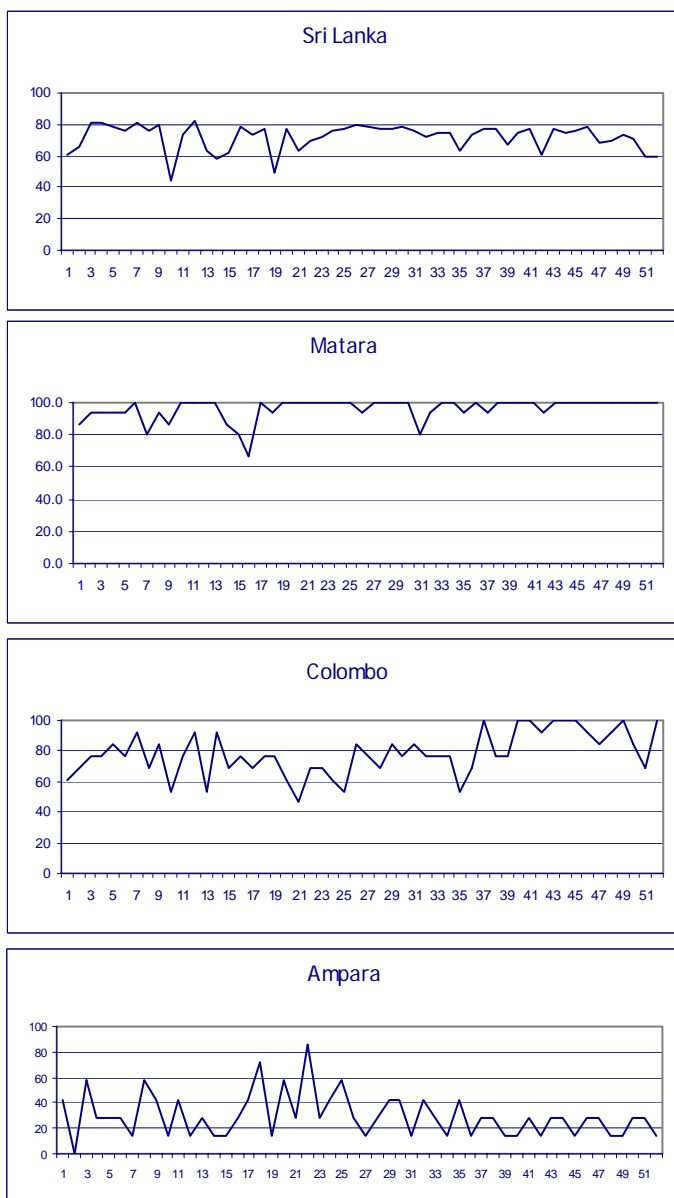

* See page 3 for district codes.   CMC=Colombo Municipality Council.   NIHS=National Institute of Health Sciences.

Figure 2. The weekly variation in the timeliness of WRCD received by the Epidemiology Unit from selected DPDHS areas in 2006

or the REE. But evidence from some DPDHS areas (e.g., Matara and Colombo) suggest that there is still a big role for the RE to play in this regard. When asked about the strategies adopted to maintain consistently high timeliness, the RE for Matara commented that the secret is in promoting the issue as a team-responsibility, along with constant monitoring. The RE for Colombo commented that after several rounds of discussions with MOOH and field staff, they were convinced to send the WRCDs in time. In addition, retrieval and return of notifications at MOH level was streamlined, and an identified person entrusted with the timely return of the WRCD. Continuous monitoring and appraisal of good work had helped achieve optimal timeliness by the end of the year. This reveals that the RE has a greater responsibility in identifying deficiencies, rectifying them and monitoring the trend regarding the WRCD in her/his district.

In addition to the timeliness, a few other deficiencies related to the WRCDs are encountered by the Epidemiology Unit. Illegible hand-writing, incomplete forms (sometimes without the weekending or even the MOH area), incorrectly filled forms (e.g., with incorrect weekending) and forms with transcription errors are regularly seen. At times, more than one WRCD is sent for the same weekending from the same MOH. Another problem is for those diseases which are not already typed in the form , the numbers are entered without a disease name (commonly occurring with regard to dengue fever/dengue haemorrhagic fever). It is our belief that paying some extra attention towards correcting these inconsistencies and delays regarding its timely dispatch at MOH level will help us achieve substantial gains. Whatever is achieved in this regard either in terms of quality or the timeliness of the data, the gains in terms of potential mortality and morbidity averted will be immense.

Table 1: Vaccine-preventable diseases & AFP
3rd - 9th Feb 2007 (6th Week)

Disease	No. of Cases by Province								Number of cases during current week in 2007	Number of cases during same week in 2006	Total number of cases to date in 2007	Total number of cases to date in 2006	Difference between the number of cases to date between 2007 & 2006
	W	C	S	NE	NW	NC	U	Sab					
Acute Flaccid Paralysis	01 KL=1	01 KD=1	00	00	00	00	00	01 RP=1	03	04	12	22	-45.4%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00.0%
Measles	00	00	00	00	01 KR=1	00	00	00	01	00	01	02	-50.0%
Tetanus	00	00	01 HB=1	01 VA=1	00	00	00	00	02	02	05	09	-44.4%
Whooping Cough	01 KL=1	00	00	00	00	00	00	00	01	04	06	10	-40.0%
Tuberculosis	94	10	03	03	00	10	07	00	127	234	1013	1243	-18.5%

Table 2: Diseases under Special Surveillance
3rd - 9th Feb 2007 (6th Week)

Disease	No. of Cases by Province								Number of cases during current week in 2007	Number of cases during same week in 2006	Total number of cases to date in 2007	Total number of cases to date in 2006	Difference between the number of cases to date between 2007 & 2006
	W	C	S	NE	NW	NC	U	Sab					
DF/DHF*	63	12	08	04	12	01	01	07	108	194	1008	1502	-32.9%
Encephalitis	00	00	01 GL=1	00	01 PU=1	00	00	00	02	06	40	16	+150.0%
Human Rabies	00	00	00	00	00	00	00	00	00	00	12	10	+20.0%

Table 3: Newly introduced Notifiable Diseases
3rd - 9th Feb 2007 (6th Week)

Disease	No. of Cases by Province								Number of cases during current week in 2007	Total number of cases to date in 2007
	W	C	S	NE	NW	NC	U	Sab		
Chickenpox	26 CB=10 GM=1 KL=15	07 KD=3 NE=4	03 GL=1 MT=2	00	03 KR=2 PU=1	02 AP=2	01 BD=1	04 RP=1 KG=3	46	272
Meningitis	00	00	00	00	00	00	00	00	00	35
Mumps	06 CB=3 GM=1 KL=2	00	02 MT=2	00	03 KR=3	00	00	00	11	78

*DF / DHF refers to Dengue Fever / Dengue Haemorrhagic Fever.
NA= Not Available.
Sources:
Weekly Return of Communicable Diseases:
Diphtheria, Measles, Tetanus, Whooping Cough, Human Rabies, Dengue Haemorrhagic Fever, Japanese Encephalitis, Chickenpox, Meningitis, Mumps.
Special Surveillance:
Acute Flaccid Paralysis.
National Control Program for Tuberculosis and Chest Diseases: Tuberculosis.
Details by districts are given in Table 5.

Provinces: W=Western, C=Central, S=Southern, NE=North & 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.

Table 4: Laboratory Surveillance of Dengue Fever
3rd - 9th Feb 2007 (6th Week)

Samples	Number tested	Number positive	Serotypes				
			D_1	D_2	D_3	D_4	Negative
Number for current week	15	01	00	00	00	00	01
Total number to date in 2007	164	08	00	01	02	00	04

Source: Genetech Molecular Diagnostics & School of Gene Technology, Colombo.

Table 5: Selected notifiable diseases reported by Medical Officers of Health
3rd – 9th Feb 2007 (6th Week)

DPDHS Division	Dengue Fever / DHF*		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptos- pirosis		Typhus Fever		Viral Hepatitis		Returns Re- ceived Timely**
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	%
Colombo	36	292	03	27	00	03	04	16	00	01	05	22	00	01	02	07	86
Gampaha	19	110	07	31	00	04	00	06	00	01	02	07	00	05	02	19	93
Kalutara	08	76	04	36	00	01	01	09	00	04	01	17	00	00	02	07	91
Kandy	10	140	02	32	00	00	01	10	00	02	00	12	01	13	13	27	73
Matale	02	34	01	27	00	03	02	03	00	00	01	10	00	02	11	30	50
Nuwara Eliya	00	14	04	18	00	00	02	13	00	00	00	03	02	08	07	47	71
Galle	04	34	01	16	01	04	01	02	03	03	02	11	02	09	00	04	63
Hambantota	02	10	01	07	00	00	01	02	00	01	03	09	00	12	00	03	91
Matara	02	32	11	38	00	01	00	05	00	01	00	16	09	39	00	03	94
Jaffna	00	01	00	13	00	01	00	44	00	00	00	00	00	27	00	04	00
Kilinochchi	00	00	00	00	00	00	01	02	00	00	00	00	00	00	00	02	75
Mannar	01	06	00	10	00	00	05	21	00	00	00	00	00	00	01	02	75
Vavuniya	02	08	00	10	00	00	00	07	01	05	00	02	00	00	00	03	100
Mullaitivu	00	00	00	03	00	01	00	06	00	00	00	00	00	00	00	00	20
Batticaloa	00	02	03	22	00	02	01	06	00	02	00	00	00	00	07	47	82
Ampara	00	00	01	17	00	00	00	00	00	00	00	00	00	00	00	02	29
Trincomalee	01	17	02	13	00	01	01	06	00	17	00	00	00	00	00	04	67
Kurunegala	08	77	11	44	00	00	02	13	00	00	01	05	01	16	01	04	78
Puttalam	04	50	02	19	01	09	00	11	00	00	00	03	00	00	01	14	89
Anuradhapura	01	10	05	19	00	04	02	11	00	00	01	07	01	05	01	12	84
Polonnaruwa	00	13	02	34	00	02	00	03	00	00	00	09	00	00	00	01	71
Badulla	01	08	07	58	00	00	01	08	00	01	03	08	04	13	02	31	87
Monaragala	00	05	05	34	00	00	02	09	00	00	01	09	04	11	02	02	90
Ratnapura	04	27	07	62	00	04	02	16	02	04	01	10	00	03	02	14	63
Kegalle	03	41	04	24	00	00	01	07	00	00	03	20	02	04	01	11	82
Kalmunai	00	01	02	11	00	00	00	03	00	00	00	00	00	00	01	29	25
SRI LANKA	108	1008	85	635	02	40	30	239	06	42	24	180	26	168	56	329	73

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 17 Feb. 2007. Total number of reporting units = 290. Number of reporting units data provided for the current week: 216.
A = Cases reported during the current week. **B** = Cumulative cases for the year.

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.

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