



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Healthcare and Nutrition

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Coverage, quality and factors affecting special surveillance investigations of communicable diseases : Survey findings in the Gampaha district (part 2)

The overall completeness of special surveillance investigation forms sent by MOH offices in Gampaha district during 2008 was found to be good (more than 80%). It varied from 79.4% (for Tetanus) to 100% (for Rubella). The overall legibility of some special surveillance investigations was not satisfactory (around 60%). Legibility of disease specific surveillance investigations varied from 51.2% (for Chickenpox) to 94.6% (for Pertussis). Based on study findings, it is recommended that the MOOH should try to improve these dimensions by training their PHII on special surveillance by using in-service training days. Before sending these forms to the Epidemiology Unit, MOH and SPHI should scrutinize forms completed by PHII and incomplete and illegible forms should be sent back to the relevant PHI for returning with suggested modifications. Regional Epidemiologist should also monitor special surveillance activities every quarter with a view to introducing relevant corrective measures in MOH areas.

Completeness of data items related to laboratory data (66%), vaccination status (69%) and risk factors (48%) in special surveillance investigation forms of Encephalitis was substandard. legibility of items related to laboratory data in both special surveillance investigation forms of Meningitis (13%) and Encephalitis (54%) were also found to be poor. Therefore, it is apt that a system should be developed to improve the quality of writing diagnosis cards by the House Officers (HO). Support should be sought from consultants and heads of the institutions to at least check randomly diagnosis cards written by HOs for quality. Wherever possible, RE should discuss the

matter with heads of institutions in the hospitals in the district with a view to improving the quality of the diagnosis cards. Public Health Inspectors should be trained on eliciting information on vaccination and risk factors using multiple methods (Child Health Development Record, school health records, vaccination cards etc.)

The number of days taken for special surveillance investigation forms to reach EU from the date of confirmation of the disease by PHII is satisfactory (median 17 days). Sending blank special surveillance investigation forms of the relevant disease along with the notification card when it is sent for routine investigations will further reduce the median number of days required for investigation forms to reach the Epidemiology Unit in the district.

Special surveillance investigation forms of some diseases (Human Rabies and Pertussis) have taken an unacceptable long time (more than six weeks) to reach the Epidemiology Unit from the date of confirmation of the diagnosis. Regional Epidemiologist should immediately investigate reasons for this undue delay and with the support of the RDHS, measures should be taken to prevent similar situations in the future. It is suggested that MOH should review the surveillance status every month while RE should review quarterly the same. Feedbacks on the status of the special surveillance investigations discussed at the RE review should be disseminated to all MOOH by the RE after the conclusion of the quarterly RE review at the Epidemiology Unit.

There was a significant variation in time taken for the special surveillance investiga-

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tion forms to reach the Epidemiology Unit from within the district. This ranged from only two weeks in MOH area Katana to more than two months in MOH areas Attanagalla, Kelaniya and Ja Ela, and more than six months in Ragama. It demonstrates the fact that the RE should conduct review programme on quarterly basis on all surveillance activities in all MOH areas. The wide variety of reasons for observed variations should be identified and necessary actions should be taken through the RDHS and the relevant MOH to improve timeliness in MOH areas within the district. The study highlighted that only few PHII (13%) had undergone training on special surveillance investigation. Therefore, organization of training programmes locally by the MOOH and the RE on special surveillance investigations for PHII in the district appears extremely important. Simultaneously, the RE should get the help of the Epidemiology Unit to incorporate new knowledge on surveillance to the content of the programme.

Among the reasons for being unable to locate patients, incomplete address in the notification cards (83%) was highlighted as a major factor. Non availability of diagnosis cards with patients (78%), illegibility (84%) and insufficient data in diagnosis cards (68%) were also cited as major factors affecting the special surveillance investigations by PHII. On the basis of above said findings, it is timely that the Epidemiology Unit should make arrangements with the Ministry of Health to conduct an introductory lecture on importance of routine, special surveillance and responsibilities of all medical officers on notification, on the date of appointing intern medical officers. As mentioned earlier, mechanisms should be developed to seek support from consultants and heads of institutions to improve the quality of medical recording by the HOO. Regional Epidemiologist should also follow up the process of improvement and discuss with the heads of the institutions and consultants at regular intervals about the progress achieved by hospitals in the district. The study revealed that the insufficient medical knowledge of the majority of PHII on diseases eligible for special surveillance in particular Meningitis (77%) and Encephalitis (57%) was a significant factor influencing the quality of the special surveillance investigations by PHII. It was cited that understanding medical terms (81%) and abbreviations (84%) were difficult for PHII.. According to the general circular (No01/42/2008), Meningitis and Encephalitis special surveillance should be carried out only by the MOH/AMOH or any other medical officer. Regional Epidemiologist should monitor this process and report to the RDHS if this is not adhered to. With regard to other investigations, RE and MOH should explain medical terms, abbreviations and medical procedures in the training programmes organized locally. The same should be done by the MOH when the need arises to explain these to the PHII in routine day to day practice also.

It was mentioned by PHII that the non availability of feedbacks from Epidemiology Unit (48%) regarding special surveillance investigations was a factor affecting special surveillance investigations.. It is recom-

mended that the RE should send a quarterly feedback on special surveillance carried out by the PHII in the district based on each quarterly review of RE conducted by the Epidemiology Unit. Since the national level feedbacks of the Epidemiology Unit in the Quarterly Epidemiological Bulletin focuses on district aggregation of data, it may not be useful for MOOH.

According to a majority of PHII, the non revision of petrol allowance (75%, 42/56) was seen as a factor affecting the special surveillance investigations. It is suggested that the district team should conduct a survey to determine the validity of this finding and based on the results, a concept paper should be developed for presentation to the line ministry of health and provincial ministry of health for consideration if it will be proven as a matter for consideration.

This article was prepared by Dr. Nandika Nagodawithana based on his MSc (Community Medicine) dissertation. Author wishes to thank Dr. Ranjan Wijesinghe, Consultant Epidemiologist for his guidance during the designing and conducting of the study, data analysis and report writing.

Categorization of responsibility of investigation of special surveillance of communicable diseases (Adopted from circular no. EPID/50/XVI/2008)	
Person responsible	Diseases
Medical Officer of Health	<ul style="list-style-type: none"> ● Encephalitis ● Meningitis ● Human Rabies ● Poliomyelitis / Acute Flaccid Paralysis ● Cholera (with Epidemiology Unit)
Medical Officer of Health / Public Health Inspector	<ul style="list-style-type: none"> ● Diphtheria ● Pertussis ● Tetanus and Neo Natal Tetanus ● Measles ● Rubella and Congenital Rubella Syndrome ● Viral Hepatitis ● Mumps ● Chickenpox ● Leptospirosis (field investigation)
MO-Public Health / Infection Control Nursing Officer / Officer Designated	<ul style="list-style-type: none"> ● Dengue and Dengue Hemorrhagic Frver ● Leptospirosis (hospital investigation)

Table 1: Vaccine-preventable Diseases & AFP

06th - 12th February - 2010 (06th 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	00	00	00	00	02	00	00	02	01	09	08	+ 12.5 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	-
Measles	00	01	00	00	01	00	00	00	01	01	00	20	15	+ 33.3 %
Tetanus	00	00	00	00	00	00	00	00	00	00	00	04	04	0.0 %
Whooping Cough	01	00	00	00	00	00	00	00	00	01	01	03	11	+ 72.7 %
Tuberculosis	119	17	23	01	10	63	18	09	32	302	187	1190	664	+ 79.2 %

Table 2: Newly Introduced Notifiable Disease

06th - 12th February - 2010 (06th 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					
Chickenpox	14	13	12	06	02	12	20	02	16	97	139	407	872	- 53.3 %
Meningitis	03 KT=1 CO=2	00	01 GL=1	01 JF=1	03 AP=1 TR=2	08 KR=8	02 AP=1 PO=1	01 BD=1	03 RP=3	22	09	235	121	+ 94.2 %
Mumps	01	01	02	01	00	04	00	02	02	13	22	100	215	- 53.5%
Leishmaniasis	00	00	04 MT=3 HB=1	00	00	00	01 AP=1	00	00	05	12	46	45	+ 02.2 %

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.
 DPDS 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.

10th South East Asia Regional Scientific Meeting of the International Epidemiological Association

23rd - 26th May 2010

Colombo, Sri Lanka

Theme

"Epidemiological Methods in Evidence Based Healthcare"

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Table 4: Selected notifiable diseases reported by Medical Officers of Health
06th - 12th January - 2010(06th 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	145	810	2	19	1	2	1	11	0	5	3	45	1	2	3	10	0	1	77
Gampaha	181	878	0	5	0	4	2	5	0	0	21	39	0	0	3	16	0	1	80
Kalutara	34	185	5	26	0	2	0	4	0	6	3	26	0	0	1	6	0	0	92
Kandy	51	287	6	57	0	0	0	2	1	1	0	9	5	26	2	13	1	2	96
Matale	12	173	6	26	0	0	0	6	3	3	1	17	0	0	0	8	0	0	83
Nuwara	4	34	1	12	0	0	3	20	0	0	0	4	4	14	1	6	0	0	85
Galle	24	75	6	27	0	1	0	0	0	0	0	2	0	1	0	1	0	1	95
Hambant	27	98	2	7	0	1	0	0	0	0	3	14	1	27	0	1	0	0	100
Matara	11	56	3	18	0	1	0	1	0	34	2	16	6	38	0	5	0	0	94
Jaffna	168	1400	2	27	0	1	20	146	0	4	0	0	12	64	1	10	0	0	75
Kili-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mannar	6	37	0	9	0	0	2	16	0	0	0	0	0	0	3	7	0	0	100
Vavuniya	24	392	1	10	0	1	3	16	0	0	0	0	0	0	3	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	56	426	3	15	0	0	1	5	6	9	0	1	0	1	0	0	0	0	85
Ampara	5	17	4	15	0	0	0	2	2	4	1	12	0	0	1	5	0	0	71
Trincomal	57	388	0	30	0	2	0	2	0	1	0	6	0	4	0	4	0	0	80
Kurunega	30	269	3	44	1	3	0	6	0	0	28	53	3	10	3	12	0	0	60
Puttalam	32	324	0	17	1	2	8	21	0	0	0	6	0	0	0	0	0	0	89
Anuradha	112	442	2	14	0	0	0	2	0	0	1	5	0	6	5	10	1	2	79
Polonnar	16	51	0	13	0	0	0	0	0	1	1	22	0	0	4	11	0	0	100
Badulla	14	108	8	29	0	0	2	13	0	6	0	9	2	7	2	11	0	0	87
Monaraga	6	63	3	40	0	0	1	14	0	1	0	9	3	8	0	1	0	0	82
Ratnapur	11	133	9	44	0	3	0	4	0	8	1	40	1	18	3	27	0	2	72
Kegalle	14	127	0	10	1	4	2	11	0	2	6	29	0	3	2	18	0	0	64
Kalmunai	15	224	2	20	0	0	0	2	0	0	0	0	0	0	3	4	0	0	46
SRI LANKA	105	6997	68	534	04	27	45	309	12	85	71	364	38	229	37	189	02	08	79

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 12th February, 2010 Total number of reporting units =311. Number of reporting units data provided for the current week: 252

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

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