



# WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiological Unit,

Ministry of Healthcare & Nutrition

231, de Saram Place, Colombo 01000, Sri Lanka.

Tele:(+94-011)2695112, 681548, 4740490, 4740492, 2677600 Fax: 2696583  
Epidemiologist:(+94-011) 4740491, E-mail:chepid@slt.net.lk, epidunit@slt.net.lk  
Web: www.epid.gov.lk

Vol. 35 No. 39

20<sup>th</sup> – 26<sup>th</sup> September 2008

## AEFI SURVEILLANCE REPORT— 2007 [Part II]

Part I of this article was published in the last issue of the Weekly Epidemiological Report.

Nil returns on AEFI are a cause for concern. It may reflect poor detection and reporting on the part of the field health officers and other relevant health care personnel. Reporting any Adverse Events Following Immunization is mandatory and it is the responsibility that lies with all health care providers who come across such an incident. Therefore if this is strictly observed it is unlikely that there would be such large proportion of “nil returns”

As a percentage nil returns have reduced from 58.5% in 2006 to 46.2% in 2007 which is a favourable trend. All RDHS divisions other than Jaffna, Vavuniya and Kalutara had made a stronger effort in strengthening their surveillance on AEFI. Puttlam district recorded the most impressive figure (8.7%) followed by Gampaha (11.2%) and Colombo districts (12.7%) respectively. All three of these RDHS divisions show a marked improvement over the previous year. Well over 90% of the returns received from Jaffna and Mullaitivu did not report any AEFI which is undoubtedly reflecting some form of underreporting due to the prevailing conflict situation.

In 2007 the leading AEFI were high fever (1437), allergic reactions (992) injection site abscesses (873) and the ill defined category named “others

Distribution of reported AEFI by type of adverse events

	2006		2007	
	Nu m.	Rate *	Num.	Rate
Injection sit abscess	677	13.3	873	18.1
BCG Lymphadenitis	11	3.1	22	5.9
Severe local reaction	767	15	642	13.3
High fever	729	10.7	1437	21.9
Allergic reaction	969	14.3	992	15.1
Nodule	122	2.4	**	**
Seizures	212	3.1	239	3.6
Arthralgia	24	0.4	19	0.3
Shock	6	0.1	0	0
Excessive screaming	59	0.9	112	1.7
Encephalopathy	2	0.03	0	0
Meningitis	3	0.04	4	0.06
GBS	2	0.03	1	0.02
Deaths	4	0.06	5	0.08
Others	597	8.8	1871	28.5
Total	4184	61.6	6217	94.6

\* Per 100,000 immunization

\*\*Nodules are included in the “Others” category from 2007

In 2006 allergic reactions were the highest reported AEFI but in 2007 there were more reported cases of high fever. In 2006 14.3 allergic reactions were reported per 100,000 immunizations and it had increased to 15.1 in 2007. Reporting of high fever increased by more than

### Contents

### Page

1. Leading Article - AEFI Surveillance Report –2007 [Part II]	1
2. Surveillance of vaccine preventable diseases & AFP (13 <sup>th</sup> – 19 <sup>th</sup> September 2008)	3
3. Summary of newly introduced notifiable diseases (13 <sup>th</sup> – 19 <sup>th</sup> September 2008)	3
4. Laboratory surveillance of dengue fever (13 <sup>th</sup> – 19 <sup>th</sup> September 2008)	3
5. Summary of selected notifiable diseases reported (13 <sup>th</sup> – 19 <sup>th</sup> September 2008)	4

WEEKLY EPIDEMIOLOGICAL REPORT SRI LANKA 2008

two fold indicating more vigilance on the part of the field health personnel.

The AEFI categorized as “others” had increased dramatically by more than three fold and the re-categorization of nodules under ‘others’ category could have contributed to this increase.

There has been an increase in the reported number and rate of AEFI after immunization with almost all the antigens in 2007.

Vaccine	2006		2007	
	No.	Rate*	No.	Rate*
BCG	37	10.5	61	16.6
DPT	2803	205.7	5092	364.3
DT	129	39.2	184	51.1
OPV	19	1.1	28	1.6
Measles	106	30.0	228	62.6
TT	54	15.9	79	22.8
JE	817	92.5	41	90.5
Rubella	46	20.8	152	49.9
aTd	51	19.1	66	25.5
MR	69	20.7	169	49.6
Hep B	44	4.4	61	5.9
Other	6		54	
Total	4184	61.5	6215	94.5

This increase was marked following Measles, Rubella and MR vaccinations but number of AEFI following JE had reduced remarkably [but rate remain more or less same].

This reduction could be due to limited number of immunizations carried out with

(\* Rate per 100,000 antigens)

JE during the previous year. As expected adverse events following DPT vaccination heads the table. Over 5000 cases were reported in 2007 whereas only 2803 cases had been identified the year before.

There is an increasing trend in the identification of AEFI following immunization with vaccines other than those in the EPI as well.

**Distribution of selected adverse events by type of vaccine - 2007**

	Seizures	Allergic reaction	Abscesses	Local reaction	High fever	Persistent screaming
BCG	1	2	16	4	4	0
DPT	214	542	808	544	1290	103
OPV	5	3	0	0	13	3
Measles	5	84	4	11	66	1
DT	4	45	13	35	22	2
TT	0	27	5	12	3	0
Rubella	0	124	0	3	6	0
JE	2	21	0	5	7	0
aTd	0	13	1	1	5	0
MR	6	115	1	15	13	2
Hep B	2	12	13	2	5	1
Other	0	4	12	10	3	0
Total	239	992	873	642	1437	112

As in the previous years all the main AEFI are high following vaccination with DPT vaccine. A large proportion of the abscesses are also found after DPT vaccination. This is once again a cause for concern. In addition allergic reactions are high after immunization with Rubella and MR vaccines.

Five death temporally associated with immunization were reported compared to four such deaths during the previous year. All five deaths were investigated. Some of the details of those deaths are given below.

One child aged three years developed fever and vomiting on the same day of immunization with MR vaccine. The following day his condition deteriorated rapidly and he developed neck stiffness and kernig’s sign in the morning with profuse haemetemesis. By evening the child developed DIC and death occurred around five pm that day. The investigation that followed revealed that the death was probably due to a severe reaction to the MR vaccine.

Another death occurred after vaccination with DPT, Hep B and OPV first dose at the age of two months. The child died on the third day after vaccination and the child was dead on admission to the hospital. The cause of death was concluded as aspiration pneumonia during the post mortem.

A girl of six years from Kopai, Jaffna died after two days following vaccination with DT and OPV early in the year and the child had features of encephalitis. Unfortunately the death could not be investigated due to difficulty in accessibility to the area due to the civil conflict.

A four months old girl died 12 hours following 2<sup>nd</sup> dose of DPT, Hep B and OPV. The cause of death was concluded as congenital heart disease.

Another death occurred 5 days after vaccination with DT. The investigation revealed that the death was due to asphyxia following convulsions with complicated chickenpox.

It is obvious from these figures that reporting of Adverse Events Following Immunization has improved immensely. This is the result of better vigilance and commitment at the grass root level and enhanced supervision and technical guidance at the district and National level. This is commendable and will undoubtedly improve the standards further of the Expanded Programme on Immunization in Sri Lanka.

**Source**

1. Quarterly Epidemiological Report, forth quarter 2007, Epidemiology Unit.

**This article was compiled by Dr W L S P Perera , Epidemiology Unit Colombo.**

13<sup>th</sup> - 19<sup>th</sup> Sep 2008 (38<sup>th</sup> Week)

Table 1: Vaccine-preventable Diseases &amp; AFP

Disease	No. of Cases by Province									Number of cases during current week in 2008	Number of cases during same week in 2007	Total number of cases to date in 2008	Total number of cases to date in 2007	Difference between the number of cases to date between 2008 & 2007
	W	C	S	N	E	NW	NC	U	Sab					
Acute Flaccid Paralysis	00	01 ML=1	01 MT=1	00	00	00	00	00	00	02	01	73	63	+15.8%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	00.0%
Measles	00	01 NE=1	00	00	00	00	00	00	00	01	03	93	52	+78.0%
Tetanus	00	00	00	00	00	00	00	00	00	00	00	27	26	+3.8%
Whooping Cough	00	00	00	00	00	01 KR=1	00	00	00	01	00	39	32	+21.8%
Tuberculosis	68	01	54	25	03	00	00	00	59	210	154	6378	7504	-15.0%

Table 2: Newly Introduced Notifiable Diseases

13<sup>th</sup> - 19<sup>th</sup> Sep 2008 (38<sup>th</sup> Week)

Disease	No. of Cases by Province									Number of cases during current week in 2008	Number of cases during same week in 2007	Total number of cases to date in 2008	Total number of cases to date in 2007	Difference between the number of cases to date between 2008 & 2007
	W	C	S	N	E	NW	NC	U	Sab					
Chicken-pox	14	18	13	01	07	07	03	03	22	88	57	4016	2514	+59.7%
Meningitis	00	00	04 HA=2 GL=2	00	01 TR=1	02 KR=2	03 PO=2 AP=1	00	02 KG=3	13	23	995	452	+120.1%
Mumps	03	06	08	00	11	11	02	09	05	55	43	2214	1499	+47.7%

Key to Table 1 &amp; 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=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 3: Laboratory Surveillance of Dengue Fever 13<sup>th</sup> -19<sup>th</sup> Sep 2008 [38 week]

Samples	Number tested		Number positive *		Serotypes									
					D <sub>1</sub>		D <sub>2</sub>		D <sub>3</sub>		D <sub>4</sub>		Negative	
	GT	AH	GT	AH	GT	AH	GT	AH	GT	AH	GT	AH	GT	AH
Number for current week	00	02	00	00	00	00	00	00	00	00	00	00	00	00
Total number to date in 2008	124	134	09	22	00	00	06	08	01	08	00	00	02	00

**Sources:** Genetech Molecular Diagnostics & School of Gene Technology, Colombo [GT] and Genetic Laboratory Asiri Surgical Hospital [AH]

\* Not all positives are subjected to serotyping.

NA= Not Available.

**Data 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.

**Table 4: Selected notifiable diseases reported by Medical Officers of Health**  
13<sup>th</sup> - 19<sup>th</sup> Sep 2008 (38<sup>th</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	24	1300	09	193	00	14	06	99	00	87	82	627	00	02	01	93	00	00	92
Gampaha	09	800	03	165	00	17	00	41	00	98	32	536	00	06	00	132	00	04	71
Kalutara	07	391	06	253	00	11	02	48	00	20	38	440	01	03	01	37	00	02	100
Kandy	04	215	07	242	00	07	02	51	07	88	06	349	03	84	06	108	00	02	76
Matale	14	109	03	172	00	04	00	40	05	10	08	635	01	02	00	24	00	00	83
Nuwara	02	24	06	207	00	03	17	219	00	166	01	41	00	36	04	97	00	01	85
Galle	01	88	07	146	02	14	00	15	00	43	13	295	00	12	00	08	00	03	88
Hambantota	06	85	01	83	00	05	00	07	01	12	02	83	01	76	00	14	00	01	100
Matara	06	249	10	162	01	13	02	33	00	06	38	355	08	189	00	14	00	01	100
Jaffna	00	52	00	114	00	04	02	229	00	15	00	00	00	151	00	34	00	00	13
Kilinochchi	00	00	00	35	00	00	00	01	00	04	00	02	00	00	00	01	00	00	00
Mannar	00	25	01	18	00	06	02	155	00	00	00	00	00	01	01	14	00	00	25
Vavuniya	00	11	03	55	00	02	00	11	00	16	00	05	00	01	00	05	00	00	100
Mullaitivu	00	00	00	11	00	00	00	13	00	13	00	00	00	01	00	09	00	00	00
Batticaloa	00	85	02	107	00	05	00	20	01	26	00	06	00	01	01	86	00	06	55
Ampara	00	30	06	239	00	00	00	07	00	283	01	21	00	00	00	08	00	00	43
Trincomalee	00	177	03	81	00	01	00	13	02	14	00	30	00	16	00	13	00	00	70
Kurunegala	06	289	05	187	00	14	01	51	07	23	29	536	00	26	01	59	00	06	94
Puttalam	00	274	06	74	00	08	00	145	00	26	02	48	00	35	01	29	00	04	89
Anuradhapu	00	115	03	82	00	09	00	11	01	09	02	234	00	10	00	13	00	03	68
Polonnaruw	00	62	04	110	00	01	00	21	04	21	00	59	00	01	01	19	00	00	100
Badulla	02	77	08	392	00	05	02	116	01	95	05	53	00	103	02	127	01	02	87
Monaragala	01	52	06	292	00	03	00	35	00	116	02	89	01	87	00	40	00	00	73
Ratnapura	03	239	07	311	01	31	01	45	01	68	06	143	01	78	01	48	00	00	72
Kegalle	11	358	09	258	00	25	04	60	02	09	39	338	01	59	04	456	00	01	100
Kalmunai	01	35	05	232	00	02	00	09	00	16	01	02	01	03	00	23	00	00	62
<b>SRI LANKA</b>	<b>97</b>	<b>5142</b>	<b>120</b>	<b>4221</b>	<b>04</b>	<b>204</b>	<b>39</b>	<b>1495</b>	<b>32</b>	<b>1284</b>	<b>307</b>	<b>4927</b>	<b>18</b>	<b>983</b>	<b>24</b>	<b>1511</b>	<b>01</b>	<b>36</b>	<b>77</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 27 September, 2008 Total number of reporting units =238. Number of reporting units data provided for the current week: 227

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.

### ON STATE SERVICE

**Dr. M. R. N. ABEYSINGHE**  
 EPIDEMIOLOGIST  
 EPIDEMIOLOGICAL UNIT  
 231, DE SARAM PLACE  
 COLOMBO 10