WEEKLY EPIDEMIOLOGICAL REPORT
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Expanded Programme on Immunization -Present Status

The Epidemiology Unit of Sri Lanka had organized an EPI Summit with the participation of all stakeholders of the programme in January 2007. The main objectives of this forum were to initiate a national dialogue on current and future strategies for the national immunization programme, agree on appropriate immunization schedules and time frames for the introduction of new vaccines after taking into consideration the priorities, cost, safety and programmatic feasibility and to reach a consensus on the national immunization policy for the next 5 to 10 years.

It is widely recognized that Sri Lanka's immunization programme is one of the strongest performers in the region and one of the finest in the world. It has not only effectively eliminated or controlled all traditional childhood vaccine preventable diseases [polio, neonatal tetanus, whooping cough and diphtheria] through superior levels of sustained infant immunization coverage but also extended the same control up to the school going age and adulthood with very high coverage of childhood immunization with repeated booster immunization schedules against Polio, Tetanus and Diphtheria.

With the commencement of EPI in 1978, traditional antigens like OPV, DPT and TT for pregnant women to prevent neonatal tetanus introduced in early 1960s, immunization coverage commenced to rise to significant levels. According to the available data, it has taken nearly 30 years to reach over 95 % immunization coverage (universal reach) for OPV3, DPT 3 and Tetanus Toxoid protection for pregnant mothers and to eliminate respective diseases. Measles vaccine was introduced into the EPI schedule in 1984 and it took only just over 13 years to reach over 90% coverage. Similarly, when Measles-Rubella (MR) vaccine was introduced in 2001, within four years (in 2001) it was able reach over 90% coverage throughout the country. When Hepatitis B vaccine was introduced on a phased manner in 2003 it instantly reached universal coverage because it was introduced concurrently with existing DPT vaccine. This is a clear indication of the maturity of the Sri Lankan immunization programme and its amenability to the introduction of new vaccines.

Among the developing countries, Sri Lanka also has pioneered the introduction of non traditional vaccines into the national EPI schedule. Phase basis introduction of Japanese Encephalitis vaccine in 1988, Rubella vaccine for women in child bearing ages in 1995, MR and aTd vaccines in 2001 and Hepatitis B in 2003 are examples. Even though coverage of some of the above antigens are yet to reach very high levels when compared to infant immunizations, respective target diseases are gradually reaching elimination levels.

Gradual internalization of the value of immunization among parents and the healthcare providers is the key factor in the success of immunization in Sri Lanka. Field health staff under the direction of divisional, regional and provincial health management in close collaboration

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Family Health Bureau and Health Education Bureau and priority given by the Ministry of Health during resource allocation have immensely contributed to this success as well. Consistent technical and financial support accorded to the programme by the WHO and UNICEF since the inception of the programme was an immense strength.

In most of the developed countries, when the respective immunization programmes reached the level of maturity as of Sri Lankan programme today, with high immunization coverage, with no apparent threat of target disease in the community, suddenly immunization coverage started to drop and disease outbreaks started to reappear. This was due to a proportion of the clients stopping immunization and a small section of the medical community also advocating such stoppage due to the undue fear for the rare adverse effects following immunization (AEFI) in the background of low or no disease.

After foreseeing the above phenomenon well ahead, Sri Lankan immunization programme commenced AEFI surveillance as early as 1995, even well before most of the developed countries were able to establish such a system. Because of this system on receipt of AEFI reports, following investigation it was able to clearly demonstrate that most of the severe AEFI reported were mere coincidence and there were no relationships to immunization. This led to sustain the confidence of the medical community as well as the parents with immunization and up to now, has been able to prevent a drop in the immunization coverage.

Even though the Government system continuously provided high quality potent vaccine through good cold chain with safe injections free of charge, some deficiencies in service conditions and facilities such as inappropriate clinic hours, overcrowding and unattractive physical environment at clinics need to be improved in future in order to maintain this high quality immunization coverage. To address these micro managerial issues the Epidemiology Unit in collaboration with the Family Health Bureau commenced the MCH clinic quality improvement project in 2005 with financial grant from the World Bank through the HSDP project.

Over the years Sri Lanka also has developed a time tested expertise on purchasing of known good quality vaccine directly from the global vaccine market by floating worldwide tenders for a highly competitive price and a network of central and regional cold storage and transport network for efficient distribution under the cold chain network.

The above facts are ample evidence to testify the current efficient and mature status of the Sri Lankan immunization programme and it is well equipped to add or receive new antigens to control more vaccine preventable diseases, which has reasonable disease burden where benefits of such introduction outweigh the costs. However, the most important factor to be considered before such introduction is the long term financial sustainability of the overall programme when considering the high cost of new antigens compared to existing traditional vaccines.

Today 26 diseases are vaccine preventable. Newly licensed vaccines [Hib, Pneumococcus, Rotavirus, HAV] that are not being widely used in developing countries including Sri Lanka, are widely used in most of the developed world and reaping the benefits and are already creating a vast immunization gap between the developed and developing countries.

In 2000, in an effort to maintain the EPI momentum and to harmonize the immunization gap the Global Alliance for Vaccines and Immunization (GAVI) was launched. GAVI comprises of United Nations agencies, governments, donors, foundations, private companies, and academic institutions. Sri Lanka has received financial and technical assistance through GAVI Phase I, in 2003 to introduce Hepatitis B vaccine and also to improve injection safety in the immunization programme by introducing AD syringes and Safety Boxes.

Sentinel site surveillance on Haemophilus Influenzae disease carried out by the Epidemiology Unit at Lady Ridgway children's Hospital had revealed a possible increasing trend of Haemophilus Influenzae infections in future. This was further endorsed by the findings of Haemophilus Influenzae B burden study carried out in 2005.Based on the above evidence the National Advisory Committee on Communicable Diseases has decided to introduce Hib vaccine into the National EPI Programme.

Sri Lanka is currently in the process of implementing the introduction plan for Hib vaccine in the form of pentavalent vaccine to the EPI programme with the financial and technical assistance of the GAVI from year 2008. With proper justification there is an opportunity to receive such assistance for some other interventions as well in the future.

After considering the real burden of the target diseases and financial sustainability, new and under utilized vaccines namely live attenuated JE, MMR and Pneumococcal vaccines will be incorporated into the national Immunization Programme in future. In view of this, the Epidemiology Unit has already included Chicken pox, meningitis and Mumps into the list of notifiable diseases in year 2005 and detail investigation is carried out for each case of reported meningitis and mumps. In addition to this, sentinel site surveillance on Pneumococcal disease has already been initiated at the Lady Ridgway Children's Hospital and hoped to expand Pneumococcal sentinel sites surveillance at Teaching Hospital Karapitiya, Colombo North, Colombo South and GH Kalutara very soon.

Source; Update on Present Status of National Immunization Programme , Sri Lanka—Paper presented at the EPI Summit 2007 in Colombo by Dr T.S.R Peris, Assistant Epidemiolo-

Table 1: Vaccine-preventable Diseases & AFP

18th - 24th August 2007 (34th 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	00	00	00	00	00	00	00	00	00	01	59	82	-28.0%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00.0%
Measles	00	00	00	00	00	00	00	00	00	02	50	27	+85.2%
Tetanus	00	00	01 MT=1	00	00	00	00	00	01	01	24	33	-27.3%
Whooping Cough	00	00	00	00	00	00	00	01 RP=1	01	00	31	62	-50.0%
Tuberculosis	27	10	05	01	00	05	17	40	106	134	6624	6568	+0.9%

Table 2: Diseases under Special Surveillance

18th - 24th August 2007 (34th 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*	75	02	03	00	19	01	04	11	115	218	3480	6854	-49.2%
Encephalitis	05 GM=3,CB=1, KL=1	00	00	00	00	00	00	01 RP=1	06	00	143	88	+62.5%
Human Rabies	00	00	01 GL=1	00	00	00	00	00	01	01	45	44	+2.3%

Table 3: Newly Introduced Notifiable Diseases

18th - 24th August 2007 (34th 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	11	01	02	03	06	01	05	04	33	2263
Meningitis	07 GM=3,CB=2, K L=2	01 ML=1	03 MT=3	00	01 KR=1	00	00	11 KG=5 RP=6	23	345
Mumps	12	01	10	04	11	01	01	01	41	11492

*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:

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

18th - 24th August 2007 (34th Week)

Samples	Number tested	Number positive *	Serotypes				
			D_1	D_2	D_3	D_4	Negative
Number for current week	07	01	00	01	00	00	00
Total number to date in 2007	389	39	01	19	11	00	07

Source: Genetech Molecular Diagnostics & School of Gene Technology, Colombo. * Not all positives are subjected to serotyping.

Table 5: Selected notifiable diseases reported by Medical Officers of Health
18th - 24th August 2007 (34th 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	47	953	05	266	01	08	03	53	03	54	03	90	01	03	04	100	**62**
Gampaha	18	388	03	267	03	22	02	53	00	36	05	155	00	14	05	122	**57**
Kalutara	10	234	12	354	01	04	00	35	00	31	01	79	00	01	00	47	**64**
Kandy	02	289	08	211	00	03	00	46	00	07	03	59	02	54	25	1729	**27**
Matale	00	76	00	144	00	06	00	15	00	11	01	39	00	05	01	105	**42**
Nuwara Eliya	00	31	04	202	00	02	02	98	00	367	00	08	00	29	18	430	**43**
Galle	01	64	10	116	00	09	01	18	00	36	00	35	00	22	00	14	**25**
Hambantota	01`	43	03	120	00	05	00	20	00	17	00	34	02	39	00	14	**45**
Matara	01	109	07	231	00	08	01	27	00	13	07	128	03	153	00	25	**38**
Jaffna	00	37	00	119	00	02	00	347	00	07	00	00	00	81	00	17	**00**
Kilinochchi	00	01	00	00	00	00	00	05	00	00	00	00	00	02	00	04	**25**
Mannar	00	07	00	15	00	00	01	63	00	00	00	01	00	00	00	08	**00**
Vavuniya	00	12	02	39	00	04	01	13	00	48	00	02	00	00	00	08	**75**
Mullaitivu	00	03	00	21	00	08	00	19	00	01	00	00	00	00	01	07	**40**
Batticaloa	00	70	03	434	00	08	00	16	00	10	00	00	00	22	21	810	**36**
Ampara	00	03	00	74	00	00	00	03	00	00	00	01	00	01	00	21	**29**
Trincomalee	00	53	03	188	00	03	01	23	00	23	01	09	00	13	00	97	**56**
Kurunegala	13	384	08	323	00	04	00	53	00	22	01	21	00	32	01	52	**39**
Puttalam	06	93	02	91	00	11	01	63	00	04	00	18	00	04	00	66	**33**
Anuradhapura	00	129	01	79	00	08	00	18	01	15	00	18	00	18	00	35	**26**
Polonnaruwa	01	49	02	66	00	02	00	09	00	04	00	19	00	00	01	23	**43**
Badulla	01	34	16	433	00	02	00	72	00	08	01	39	01	121	08	240	**47**
Monaragala	03	25	04	252	00	02	01	45	01	17	01	38	01	59	00	31	**70**
Ratnapura	03	227	05	416	01	14	01	52	00	17	01	44	00	21	01	74	**13**
Kegalle	08	166	05	217	00	07	00	37	00	04	02	79	01	26	07	147	**36**
Kalmunai	0	03	03	129	00	01	00	08	00	04	00	00	00	02	02	97	**54**
SRI LANKA	**115**	**3480**	**106**	**4807**	**06**	**143**	**15**	**1211**	**05**	**756**	**27**	**916**	**11**	**722**	**95**	**4323**	**70**

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 1 Septem. 2007. Total number of reporting units =290. Number of reporting units data provided for the current week: 204
A = Cases reported during the current week. **B** = Cumulative cases for the year.

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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

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