



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health

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Effective Vaccine Management (EVM) Assessment - Sri Lanka-(Part-I)

Introduction

Effective Vaccine Management (EVM) process is mainly focused on maintaining good storage and distribution practices.

EVM tool is used to assess the quality and sufficiency of the seven-component elements of an effective supply chain.

1. buildings
2. storage and transport capacity
3. cold chain equipment
4. vehicles
5. repairs and maintenance
6. training
7. management systems needed for the effective operation and control of the system.

EVM assessment used a structured questionnaire which is designed to evaluate four distinctly different levels in the supply chain. They are -

1. The Primary level store (generally the National Store)

Here, vaccine is received directly from the vaccine manufacturer or from an international supplier and vaccine is typically stored in large cold rooms and freezer rooms.

2. The Sub National level

Here, vaccine is received from the primary store, stored for an agreed period, then distributed to lower levels stores or to health facilities. These stores may have a cold room and /or a number of vaccine refrigerators and freezers.

3. Lowest delivery level

Here, vaccine is received, either from the primary store or from a sub national store. From this point it is distributed directly to service delivery points. These stores normally do not provide any immunization services.

4. Service delivery points e.g. health centers and health points

Here, vaccine is stored for a short time before delivery to the target population and vaccine is usually stored in a single refrigerator, but also, on a very short-term basis, in vaccine cold boxes or vaccine carries

Site Selection

The selected sample is comprised of-

- the central store
- 26 regional stores
- 27 district stores
- 26 clinics

A total of 80 sites were included and visited

Organization of immunization services

Immunization services are provided by over 3,000 health facilities and approximately, 642 hospitals. BCG is given mainly at hospitals and maternity clinics. Public Health Midwives play an important role and they are responsible for providing immunization to infants, children and females at health facility level.

Supply chain overview

The vaccine supply chain in Sri Lanka is comprised of four levels.

1. central
2. 26 districts (RMSD Stores)
3. 237 MOH stores,

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4. more than 3,000 health facilities and hospitals.

All vaccines arrive in Colombo International Airport, and they are transported to the Central Vaccine Store at the EPID Unit.

Vaccines are distributed from the Central Store in a refrigerated vehicle to 26 RMSD stores bi-monthly in most cases.

Vaccines are distributed from RMSD stores in cold boxes by road, to the MOH stores on monthly basis,

and from MOH stores to over 3,000 health facilities by different transport modes mostly vehicles and motorcycles to facilities for their immunization sessions.

Remaining unused vaccine vials are collected and returned to the corresponding MOH stores at the end of the sessions.

There is a total of 33 cold rooms and 3 freezer rooms in the entire vaccine cold chain

- 7 cold rooms and all 3 freezer rooms are in the Central Vaccine Store (EPID Unit)

- 26 remaining cold rooms are placed one each at the 26 RMSD stores.

In large MOH stores there are deep freezers for ice pack freezing

At MOH stores vaccine and diluents are kept together in refrigerators

Clinics are not equipped with cold chain equipment. Vaccines are transported in cold boxes on vaccination days

There is a proper monitoring system in temperature of cold rooms, refrigerators etc.

And also there is a recording and reporting system of temperature recording, stock data recording, equipment inventory management and monitoring and supervision.

Present Immunization Schedule in Sri Lanka

Age	Vaccine
0-4 weeks	BCG
2 months	OPV, Pentavalent (1st dose)
4 Months	OPV, Pentavalent (2 nd dose)
6 Months	OPV, Pentavalent (3 rd dose)
9 Months	JE
12 months	MMR (1 st dose)
18 months	DTP booster, OPV booster (4 th dose)
3 yrs	MMR (2 nd dose)
5 yrs	OPV (5 th dose)
10-15 yrs	aTd
First Pregnancy (12 th week)	TT1
First Pregnancy: 6-8 weeks after TT1	TT2
Subsequent Pregnancies (1 dose TT)	TT3, TT4, TT5.

Sources:

-Sri Lanka EVM Assessment July 2015-Findings and recommendations of the assessment team

Compiled by Dr. T. N. Yapa of the Epidemiology Unit

**Table 1 : Water Quality Surveillance
Number of microbiological water samples September/ 2015**

District	MOH areas	No: Expected *	No: Received
Colombo	12	72	92
Gampaha	15	90	66
Kalutara	12	72	NR
Kalutara NIHS	2	12	11
Kandy	23	138	NR
Matale	12	72	6
Nuwara Eliya	13	78	44
Galle	19	114	36
Matara	17	102	20
Hambantota	12	72	46
Jaffna	11	66	9
Kilinochchi	4	24	36
Manner	5	30	34
Vavuniya	4	24	19
Mullatvu	4	24	17
Batticaloa	14	84	23
Ampara	7	42	39
Trincomalee	11	66	19
Kurunegala	23	138	103
Puttalam	9	54	39
Anuradhapura	19	114	6
Polonnaruwa	7	42	10
Badulla	15	90	163
Moneragala	11	66	171
Rathnapura	18	108	68
Kegalle	11	66	60
Kalmunai	13	78	NR

* No of samples expected (6 / MOH area / Month)

NR = Return not received

Table 1: Selected notifiable diseases reported by Medical Officers of Health 10th - 16th Oct 2015 (42nd Week)

RDHS Division	Dengue Fever		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Chickenpox		Meningitis		Leishmaniasis		WRCD	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	T*	C**
Colombo	151	7141	2	161	0	11	3	86	0	115	13	258	0	10	0	36	0	3	7	400	2	36	0	0	94	6
Gampaha	19	3065	0	74	1	10	0	29	0	27	4	322	0	10	4	121	0	0	13	240	2	25	0	2	67	33
Kalutara	18	1112	1	86	1	6	2	42	43	124	11	306	0	3	0	32	0	3	1	237	1	46	0	0	62	38
Kandy	39	968	10	117	0	6	2	29	2	44	2	100	0	59	3	130	0	0	10	199	1	22	0	13	100	0
Matale	5	356	1	36	0	1	0	9	0	5	0	53	0	8	0	29	0	0	0	24	0	26	0	16	62	38
NuwaraEliya	2	131	3	278	0	3	0	26	1	8	4	37	1	66	3	54	0	0	2	113	0	46	0	1	92	8
Galle	31	683	1	64	0	3	1	8	0	21	8	200	1	89	1	9	0	0	0	230	3	48	0	2	75	25
Hambantota	9	257	1	38	0	1	0	8	1	27	8	91	3	49	1	37	0	0	0	100	0	11	11	263	75	25
Matara	9	331	3	59	0	6	0	4	0	44	22	203	2	38	1	41	0	0	3	205	0	17	6	121	100	0
Jaffna	14	1313	20	807	0	9	3	165	2	77	0	15	3	551	1	12	0	2	7	183	0	17	0	0	100	0
Kilinochchi	0	61	2	76	0	0	0	15	0	31	0	1	0	23	0	0	0	1	0	15	0	0	0	0	50	50
Mannar	0	81	2	15	0	1	0	5	0	3	0	8	0	21	0	0	0	0	0	7	0	1	0	1	100	0
Vavuniya	3	112	0	16	0	6	1	71	4	20	0	17	0	13	0	2	0	2	0	39	0	17	1	7	75	25
Mullaitivu	0	117	0	29	0	2	1	13	0	16	0	5	0	9	0	4	0	1	0	5	1	4	0	6	80	20
Batticaloa	3	1339	6	278	0	7	0	26	0	181	0	12	0	4	0	12	0	1	1	53	1	17	0	0	71	29
Ampara	0	48	1	41	0	1	0	1	1	16	0	13	0	2	0	9	0	0	3	177	0	5	0	3	43	57
Trincomalee	3	522	4	96	0	0	0	33	0	35	1	15	0	22	13	42	0	1	1	83	1	9	1	5	75	25
Kurunegala	11	1020	2	157	0	5	0	7	0	19	3	215	1	29	1	40	0	6	3	349	0	30	1	118	85	15
Puttalam	2	563	6	60	0	4	0	8	0	9	1	34	0	18	0	2	0	0	2	52	0	27	0	3	54	46
Anuradhapura	4	325	6	114	0	3	0	3	1	63	1	191	0	20	2	17	0	1	7	160	0	29	2	300	84	16
Polonnaruwa	1	183	0	39	0	4	0	13	0	12	0	71	0	1	0	9	0	0	4	121	0	22	0	102	43	57
Badulla	8	443	3	188	0	7	0	9	3	27	0	63	5	127	6	195	0	3	2	181	1	79	0	7	82	18
Monaragala	3	159	1	102	0	4	0	15	0	5	0	139	1	77	19	374	0	1	0	89	0	27	1	36	82	18
Ratnapura	8	830	1	252	0	16	0	41	0	8	12	310	0	61	16	243	0	1	3	150	0	48	0	16	72	28
Kegalle	6	496	0	60	0	11	3	74	0	17	4	275	1	48	0	78	0	0	4	203	0	51	0	0	73	27
Kalmunei	1	458	1	108	0	1	0	1	0	56	0	7	0	0	0	3	0	0	2	102	0	9	0	0	54	46
SRILANKA	350	22114	77	3351	2	128	16	741	58	1010	94	2961	18	1358	71	1531	0	26	75	3717	13	669	23	1022	78	22

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 16th October, 2015 Total number of reporting units 337 Number of reporting units data provided for the current week: 265 C** Completeness
A = Cases reported during the current week. B = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

10th – 16th Oct 2015 (42nd Week)

Disease	No. of Cases by Province									Number of cases during current week in 2015	Number of cases during same week in 2014	Total number of cases to date in 2015	Total number of cases to date in 2014	Difference between the number of cases to date in 2014 & 2015
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	01	01	01	00	00	00	00	00	03	02	59	65	-9.2%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	01	01	03	00	01	03	00	00	01	10	06	322	555	-42.1%
Measles	12	01	08	00	02	03	04	02	04	36	17	2362	2799	-15.6%
Rubella	00	00	00	00	00	00	00	00	00	00	00	08	17	-53.1%
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	04	-100%
Tetanus	00	00	00	00	00	00	00	00	00	00	01	14	12	17.1%
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Japanese Encephalitis	00	00	00	00	00	00	00	00	00	00	00	10	22	-54.4%
Whooping Cough	00	01	01	00	00	00	00	00	00	02	04	85	57	+49.1%
Tuberculosis	36	48	22	27	10	10	13	12	26	204	156	7767	7749	+0.2%

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.
 RDHS 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, Neonatal Tetanus, Whooping Cough, Chickenpox, Meningitis, Mumps., Rubella, CRS,

Special Surveillance: AFP* (Acute Flaccid Paralysis), Japanese Encephalitis

CRS** =Congenital Rubella Syndrome

AFP and all clinically confirmed Vaccine Preventable Diseases except Tuberculosis and Mumps should be investigated by the MOH

Influenza Surveillance in Sentinel Hospitals - ILI & SARI								
Month	Human					Animal		
	No Received	ILI	SARI	Infl A	Infl B	Pooled samples	Serum Samples	Positives
September	4025	21	06	0	1	1032	461	0

Source: Medical Research Institute & Veterinary Research Institute

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