



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health

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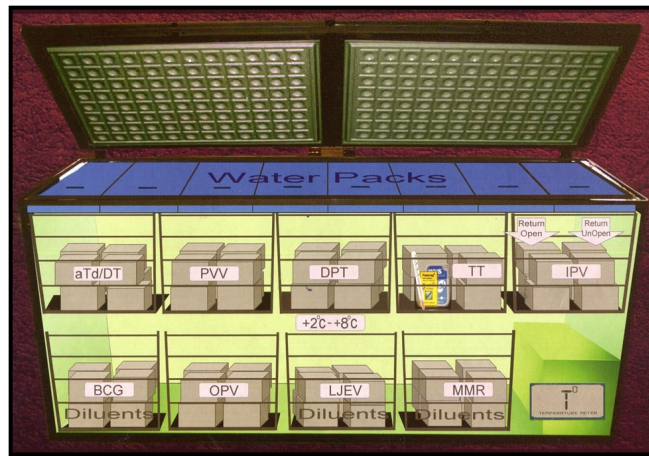
23rd– 29th Nov 2024

COLD CHAIN MANAGEMENT IN NATIONAL IMMUNIZATION PROGRAMME

PART II

This is the second article of two in a series on “Cold Chain Management in National Immunization Programme”

ing these vaccine carriers requires filling them with frozen cool packs (cool water packs being



National Immunization Programme
Vaccine Refrigerator Cold Chain Monitoring Chart

MOH Area: _____ Year: _____ Month: _____ Fridge No: _____

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Temperature (°C)																															
Power (kWh)																															
Number of vaccines																															
Number of incidents																															
Number of diluents																															
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Responsible Person for maintaining cold chain: _____ Vaccine stock arrival dates: _____
 Any cold chain failures: Yes No Number of incidents: _____ (PTD)
 Name of the MOH / ASMOH: _____ Signature: _____ Date: _____
 Cleaning of the refrigerator: _____
 Date: _____
 Time: _____
 Epidemiology Unit - Ministry of Health

Transport of Vaccines

Freeze Free Vaccine carriers & Ice-packs

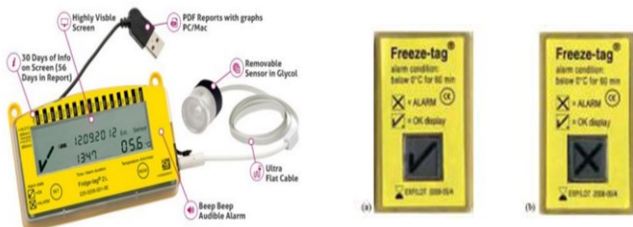
The introduction of Freeze Free Vaccine Carriers marks a significant upgrade to the country's cold chain maintenance system which enhances the maintenance of vaccine potency. These vaccine carriers, resembling previous models, feature four compartments for frozen ice packs surrounding a central vaccine storage compartment. A protective liner ensures thermal isolation between the ice packs and vaccines. Load-

ing these vaccine carriers requires filling them with frozen cool packs (cool water packs being frozen in a Freezer between -15°C and -25°C at least for 24 hours). Freeze-free vaccine carriers are loaded with fully frozen cool packs a day before vaccines are loaded into FPVC. For clinics held after holidays, ice packs in the FPVC which were loaded on the previous working day should be replaced with new frozen cool packs before loading vaccines into FPVC. On clinic days, vaccines are loaded directly into the FPVC in the morning just before vaccines are transported to the immunization clinic

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NOVEMBER SRI LANKA 2024

Temperature monitoring systems and devices



A. Alcohol Thermometer

The alcohol stem thermometer is highly sensitive and accurate, capable of recording temperatures from -40°C to +50°C, making it suitable for ILRs. The temperature inside the refrigerator should be observed and recorded in the temperature monitoring chart twice a day using the alcohol stem thermometer inside the refrigerator. Do not take the alcohol stem thermometer out of ILR while taking readings, as it is very sensitive.

B. Fridge tag:

A Fridge Tag is a temperature monitoring device designed to track and record the temperature inside a refrigerator. It consists of a small electronic sensor that measures the temperature and a display unit that shows the current temperature readings. It can keep a 30-day record and can be used to generate printouts. The Fridge Tag should be placed inside the ILR between freeze-sensitive vaccines (Hep B, DPT, TT, IPV, Penta, etc.) and must be checked at least once daily, with its alarm status. Immediate notification to the responsible officer/MOH is required if an Alarm has been triggered. Pressing the "read button" on the Fridge Tag reveals minimum and maximum temperatures recorded since immediate last midnight (0.00 Hours) which need to be recorded in the temperature monitoring chart once daily. Printouts of fridge tag readings should be obtained every two weeks and checked by the MOH/Responsible assigned officer for temperature accuracy and any excursions. At the MOH level, one copy of the printout of the temperature recording should be sent to the Regional Epidemiologist (RE) while the other copy, bearing the supervisor's signature, should be filed. Appropriate measures need to be taken by the MOH, whenever an error in cold chain maintenance is identified with the printout of temperature record from Fridge Tag, as recommended by the National Epidemiology Unit.

C. Freeze Tag

The Freeze Tag is used to monitor any temperature excursion below 0°C. **It becomes non-essential when a functioning Fridge Tag is available inside the vaccine storage facility.** If exposed to temperatures below 0°C for more than 60 minutes. Its display changes from "good" (O) to "alarm" (X), indicating that the safety of vaccines, stored in the particular vaccine storage facility, is required to be confirmed them being used in routine immunization practice. Fridge Tags and Freeze Tags are not reusable and therefore be discarded on their expiry date or malfunction.

Real-Time Temperature Monitoring System (Berlinger)



The Berlinger System of Temperature Monitor is a real-time remote temperature monitoring system network connecting the CVS and RMSD Vaccine Stores in Sri Lanka to a global system. It further strengthens the cold chain monitoring capacity of vaccine storage facilities where substantially large stocks of vaccines are stored in National Immunization Programmes. Consisting of a sensor, data logger, and display unit; it records temperature readings, triggers alarms, and can monitor multiple stores simultaneously and remotely for temperature excursions. With a 30-day storage capacity, programmable alarms to track at every level, and battery operation for remote use, it offers another reliable and accurate method of cold chain monitoring for healthcare facilities.

Monitoring the efficiency of Cold Chain and future developments

Effective Vaccine Management (EVM), overseen by WHO/ UNICEF ensures the integrity, and efficiency of vaccine storage and distribution practices which ultimately make sure that the vaccine recipient receives a good quality potent vaccine dose. Monitoring systems and comprehensive reporting mechanisms maintain the cold chain integrity, guaranteeing the potency and quality of vaccines throughout the distribution process. Monitoring systems meticulously track temperatures in cold rooms, refrigerators, and other storage facilities, alongside comprehensive recording and reporting mechanisms for temperature, stock data, equipment inventory, and supervision while a contingency plan is available at each vaccine storage facility to be activated at any cold chain failure. This holistic approach ensures the effective management of vaccines, safeguarding their potency and reliability throughout the storage and distribution process which ultimately ensures objectives of the NIP are achieved timely.

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Table 1: Selected notifiable diseases reported by Medical Officers of Health 16th-22nd Nov 2024 (47th Week)

RDHS	Dengue Fever		Dysentery		Encephalitis		En. Fever		F. Poisoning		Leptospirosis		Typhus F.		Viral Hep.		H. Rabies		Chickenpox		Meningitis		Leishmania-			Tuberculosis			WRCD	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	A	B	A	B	T*	C**	
Colombo	191	10533	3	44	0	11	0	49	0	25	536	25	8	0	9	0	0	0	15	555	2	46	0	2	54	1979	100	100	100	
Gampaha	153	5146	2	43	0	39	0	14	0	77	873	32	12	1	12	0	0	0	24	466	3	132	1	28	25	1091	80	100	100	
Kalutara	30	2565	0	34	0	3	0	38	0	38	844	47	8	0	11	0	1	0	22	638	1	61	0	2	0	542	93	100	100	
Kandy	84	4241	1	38	0	7	1	10	10	72	6	255	2	38	0	13	0	3	8	387	1	15	0	59	0	554	100	100	100	
Matale	41	884	0	18	0	3	0	8	1	30	3	103	0	6	0	9	0	0	1	143	0	24	0	350	3	119	100	100	100	
Nuwara Eliya	4	334	0	137	0	7	0	11	1	209	1	168	4	46	0	9	0	0	8	264	0	18	0	1	5	254	100	100	100	
Galle	59	1997	3	56	0	22	0	12	1	109	50	924	3	119	0	11	0	2	23	815	5	98	0	5	10	418	95	100	100	
Hambantota	23	808	0	28	0	4	0	6	2	50	36	497	1	48	1	8	0	2	9	302	2	30	14	475	8	142	100	100	100	
Matara	20	1101	0	13	0	6	0	2	0	38	42	589	0	29	0	24	0	0	12	357	2	76	1	114	10	161	88	100	100	
Jaffna	37	5407	2	69	0	2	0	27	1	48	2	26	6	499	0	7	0	1	4	213	0	33	0	1	2	238	100	93	100	
Kilinochchi	0	303	0	17	0	0	0	2	0	2	0	20	0	11	0	0	0	2	0	15	0	6	0	2	0	27	100	100	100	
Mannar	6	313	0	18	0	0	0	1	0	6	0	30	0	13	0	1	0	0	0	12	5	14	0	2	0	56	100	100	100	
Vavuniya	5	179	0	13	0	1	0	2	0	22	3	109	0	5	0	4	0	0	2	43	1	26	1	12	2	40	100	100	100	
Mullaitivu	3	214	1	10	0	0	0	0	3	22	2	72	0	11	0	0	0	2	0	11	0	5	0	14	1	33	100	100	100	
Batticaloa	12	1510	4	125	0	17	0	7	0	64	2	78	0	3	0	24	0	2	4	155	0	51	0	4	3	146	93	100	100	
Ampara	2	255	2	39	0	4	0	0	0	23	14	207	0	2	0	6	0	1	2	129	1	37	2	24	1	106	100	100	100	
Trincomalee	13	690	2	21	0	1	0	3	0	11	4	146	0	12	0	4	0	0	8	105	1	23	0	18	0	114	83	100	100	
Kurunegala	25	2122	3	55	1	37	0	3	1	355	79	931	0	39	0	9	0	4	18	591	5	270	11	609	3	445	93	100	100	
Puttalam	30	1129	1	13	0	4	1	4	1	4	13	270	0	38	0	4	0	1	1	129	3	81	0	36	0	216	85	100	100	
Anuradhapura	18	728	1	34	0	8	0	3	0	43	8	418	1	32	0	15	0	1	8	284	3	65	19	843	8	267	91	100	100	
Polonnaruwa	6	381	0	27	0	3	0	1	0	32	7	259	0	2	0	59	0	1	6	155	1	32	19	485	0	110	100	100	100	
Badulla	19	816	1	39	0	11	1	9	0	58	7	471	3	53	0	49	0	0	25	381	2	40	2	44	4	229	100	100	100	
Monaragala	45	948	1	21	0	5	0	3	1	88	18	646	0	35	3	67	0	1	9	172	2	98	4	243	4	122	100	100	100	
Ratnapura	54	2713	4	120	0	11	0	9	1	34	64	1946	0	34	0	31	0	2	10	362	1	135	1	170	11	355	100	100	100	
Kegalle	26	1884	3	31	1	15	0	10	0	15	41	840	2	33	0	14	0	1	38	881	3	80	0	30	10	335	91	100	100	
Kalmunai	7	701	1	18	0	1	0	2	0	30	2	72	0	5	0	4	0	0	1	229	4	27	0	0	1	133	92	100	100	
SRILANKA	913	47902	35	1081	2	222	3	236	23	1505	508	11330	23	1141	5	404	0	27	258	7794	48	1523	75	3573	165	8166	96	99		

Source: Weekly Returns of Communicable Diseases (esurveillance.avid.gov.lk). T=Timeliness refers to returns received on or before 22nd Nov, 2024. Total number of reporting units 358. Number of reporting units data provided for the current week: 358. C**=Completeness. A = Cases reported during the current week. B = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

16th – 22nd Nov 2024 (47th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2024	Number of cases during same week in 2023	Total number of cases to date in 2024	Total number of cases to date in 2023	Difference between the number of cases to date in 2024 & 2023
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	01	00	00	00	00	01	00	02	02	72	86	-16.2%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	00	00	00	00	01	00	01	00	01	08	00	261	212	23.1 %
Measles	00	00	00	00	00	00	00	00	00	00	14	295	744	-60.3 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	02	09	-77.7%
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	02	-100 %
Tetanus	00	00	00	00	00	00	00	00	00	00	00	05	06	-16.6 %
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	02	11	04	175 %
Whooping Cough	00	00	00	00	00	01	01	00	00	00	00	61	07	771.4 %

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
NA = Not Available

Number of Malaria Cases Up to End of November 2024,
02
 All are Imported!!!

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. **Prior approval should be obtained from the Epidemiology Unit before publishing data in this publication**

ON STATE SERVICE

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