WEEKLY EPIDEMIOLOGICAL REPORT

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Neglected Tropical Diseases - Leishmaniasis

Leishmaniasis is a protozoal disease that affects nearly one million people worldwide each year. It is caused by a protozoal species known as *Leishmania* which is transmitted to humans through the bites of infected female phlebotomine sandflies, which feed on blood to produce eggs.

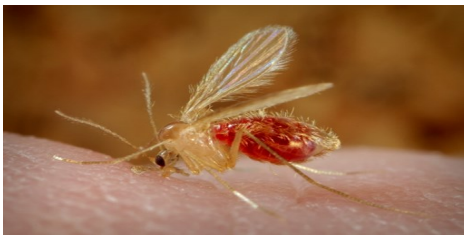

Figure – Phlebotomine sandfly

Major risk factors for Leishmaniasis include poor socio-economic conditions (housing, sanitation), malnutrition, population mobility and climate change. Cutaneous leishmaniasis is increasingly seen in Sri Lanka at present.

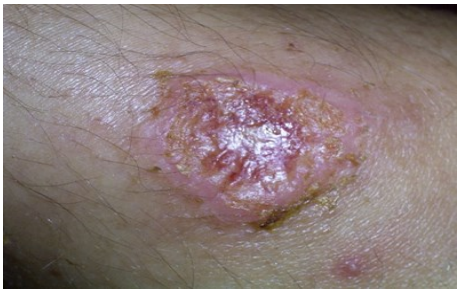

Figure- Cutaneous Leishmaniasis

	Occurrence	Features
Visceral Leishmaniasis (VL) also known as **Kala-Azar**	50,000-90,000 new cases of VL/year Brazil, East Africa and India are the most affected	Symptoms and signs include fever, loss of weight, hepatomegaly, splenomegaly and anaemia.
Cutaneous leishmaniasis (CL)	commonest form of leishmaniasis 600 000 to 1 million new cases occur worldwide annually. About 95% of CL cases occur in the Americas, the Mediterranean basin, the Middle East and Central Asia	Causes skin lesions, mainly ulcers, on exposed parts of the body, leaving lifelong scars and serious disability or stigma.
Mucocutaneous leishmaniasis	Over 90% of mucocutaneous leishmaniasis cases occur in Bolivia (the Plurinational State of), Brazil, Ethiopia and Peru.	leads to partial or total destruction of mucous membranes of the nose, mouth and throat.

There are three forms of Leishmaniasis as described below.

Visceral leishmaniasis is diagnosed based on clinical signs and parasitological, or serological tests (such as rapid diagnostic tests). In cutaneous and mucocutaneous leishmaniasis clinical features along with parasitological tests confirms the diagnosis.

Prevention and control involve a multi-strategic response consisting of early diagnosis and treatment of cases, vector control, heightened surveillance and community mobilization.

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Leprosy (Hansen's Disease)

Leprosy is a slow growing disease caused by a rod-shaped acid-fast bacillus known as *Mycobacterium leprae.* The incubation period on average, is about 5 years. However, symptoms may take as long as 20 years to develop. Leprosy is transmitted by droplet infection during close contact with untreated infected persons. It mainly affects the skin, peripheral nerves, mucosa of the upper respiratory tract, and the eyes; and can cause permanent damage to these tissues. Leprosy is curable with multi-drug therapy.

Elimination of leprosy as public health problem (defined as a registered prevalence of less than 1 case per 10 000 population) was achieved globally in 2000. However, the path to eradication has been tedious, and WHO launched its "*Global Leprosy Strategy 2016–2020: Accelerating towards a leprosy-free world*" in 2016 in order to "go the last mile".

Lymphatic filariasis (Elephantiatis)

Lymphatic filariasis or elephantiasis, is a chronic disfiguring disease caused by a family of roundworms (nematodes) known as Filariodidea. There are 3 species responsible for the disease:

- *Wuchereria bancrofti*, which is responsible for 90% of the cases
- *Brugia malayi*, which causes most of the remainder of the cases
- *Brugia timori*, which also causes the disease

Transmission to humans occurs following the introduction of the microfilaria (immature larvae) into the human tissue through infected mosquitoes. Microfilaria deposited on human skin by the mosquitoes enter the human body through a break in skin/mosquito bite migrate to the lymphatic system. Here, they grow into adult worms and reside in the lymphatic vessels, disrupting the normal function of the lymphatic system. These worms live for about 6–8 years and release large numbers of microfilariae into the blood. Mosquitoes are infected during bloodmeals from infected hosts, following which the microfilariae mature into infective larvae. When these infected mosquitoes bite people, mature parasite larvae are deposited on the skin from where they can enter the body.

Most infections are asymptomatic, with no external signs of infection while contributing to transmission of the parasite. These asymptomatic infections still cause damage to the lymphatic system and the kidneys, and alter the body's immune system. When lymphatic filariasis develops into chronic conditions it leads to lymphoedema or elephantiasis of limbs and hydrocele. These body deformities often lead to social stigma and poor psychological wellbeing, loss of income-earning opportunities and increased medical expenses for patients and their caretakers.

893 million people in 49 countries worldwide remain threatened by lymphatic filariasis and require preventive chemotherapy to stop the spread of this parasitic infection.The WHO's strategy for elimination of filiariasis, which concentrates on key components:

- stopping the local spread of infection through large-scale annual treatment by mass drug administration regimes containing albendazole
- alleviating the suffering caused by lymphatic filariasis
- vector control as a supplementary strategy

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References:

World Health Organisation: Fact sheets on NTDs
https://www.who.int/news-room/fact-sheets/detail/leishmaniasis
https://www.who.int/news-room/fact-sheets/detail/leprosy
https://www.who.int/news-room/fact-sheets/detail/lymphatic-filariasis#:~:text=Lymphatic%20filariasis%2C%20commonly%20known%20as,damage%20to%20the%20lymphatic%20system.

Table 1 : Water Quality Surveillance
Number of microbiological water samples July 2020

District	MOH areas	No: Expected *	No: Received
Colombo	15	90	**NR**
Gampaha	15	90	**NR**
Kalutara	12	72	**NR**
Kalutara NIHS	2	12	**NR**
Kandy	23	138	**NR**
Matale	13	78	**NR**
Nuwara Eliya	13	78	**12**
Galle	20	120	**NR**
Matara	17	102	**NR**
Hambantota	12	72	**31**
Jaffna	12	72	**103**
Kilinochchi	4	24	**69**
Manner	5	30	**0**
Vavuniya	4	24	**33**
Mullatvu	5	30	**NR**
Batticaloa	14	84	**NR**
Ampara	7	42	**NR**
Trincomalee	11	66	**NR**
Kurunegala	29	174	**12**
Puttalam	13	78	**NR**
Anuradhapura	19	114	**NR**
Polonnaruwa	7	42	**0**
Badulla	16	96	**NR**
Moneragala	11	66	**NR**
Rathnapura	18	108	**NR**
Kegalle	11	66	**21**
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 08th– 14th Aug 2020 (33rd 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	55	3640	0	22	0	9	0	5	0	14	10	236	0	2	0	3	0	0	1	186	1	35	0	2	**56**	**100**
Gampaha	50	2187	0	8	0	5	0	6	0	19	6	179	0	4	1	6	1	1	0	228	2	24	0	40	**42**	**98**
Kalutara	23	1542	0	10	0	5	0	4	0	4	12	502	0	13	1	6	0	0	2	256	0	33	0	0	**99**	**99**
Kandy	101	2595	2	23	0	1	0	9	0	13	2	168	1	83	0	4	0	0	0	142	1	22	0	55	**63**	**100**
Matale	2	529	0	7	0	3	0	5	0	6	0	87	0	6	0	7	0	1	2	49	2	4	11	232	**62**	**100**
NuwaraEliya	3	153	3	26	0	1	2	3	0	9	6	93	2	70	0	3	0	0	0	69	2	12	0	0	**23**	**100**
Galle	20	1505	2	29	0	17	0	4	0	14	22	522	2	50	0	3	0	0	2	281	3	46	0	4	**31**	**99**
Hambantota	8	325	0	7	0	4	0	2	3	47	9	178	5	51	2	4	0	1	4	159	1	39	19	514	**69**	**100**
Matara	7	471	1	22	1	15	0	1	0	3	7	389	0	10	0	7	0	0	3	117	0	17	7	295	**16**	**100**
Jaffna	5	1975	3	75	0	0	0	20	0	23	0	20	3	499	0	0	0	1	1	95	0	9	1	2	**31**	**93**
Kilinochchi	0	124	0	37	0	2	0	11	0	13	0	18	1	29	0	1	0	0	0	12	0	10	0	13	**64**	**100**
Mannar	3	133	0	0	0	0	0	1	0	2	0	6	0	2	0	0	0	0	0	2	1	8	0	0	**39**	**100**
Vavuniya	0	248	0	11	0	0	0	5	0	3	0	40	0	1	0	0	0	0	0	29	0	4	0	1	**64**	**100**
Mullaitivu	1	80	1	9	0	0	0	6	0	2	0	20	1	10	0	3	0	2	0	9	1	5	0	6	**43**	**93**
Batticaloa	14	2297	1	67	0	4	0	1	1	46	1	27	0	0	0	5	0	1	2	83	0	18	0	1	**52**	**100**
Ampara	2	305	1	16	0	4	0	0	0	0	4	83	0	0	0	2	0	0	6	105	0	15	1	5	**68**	**100**
Trincomalee	0	2268	0	12	0	0	0	0	0	2	0	28	0	9	0	0	0	0	2	83	0	8	0	0	**46**	**91**
Kurunegala	19	823	2	21	1	9	0	3	0	36	8	165	0	25	0	5	0	3	3	287	2	28	20	324	**47**	**99**
Puttalam	10	437	0	9	0	4	0	3	0	1	2	55	1	15	0	0	0	1	1	72	1	43	3	9	**57**	**100**
Anuradhapur	3	386	0	16	0	1	0	4	1	29	6	216	0	20	0	12	0	1	0	164	3	45	2	160	**42**	**95**
Polonnaruwa	2	223	0	5	0	0	0	0	0	5	1	117	0	1	0	17	0	1	1	118	0	14	8	187	**62**	**89**
Badulla	2	430	0	15	0	5	0	3	0	4	13	272	3	76	0	13	0	0	0	127	0	30	0	17	**59**	**93**
Monaragala	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Ratnapura	50	1708	4	73	3	26	0	5	2	34	37	1172	2	38	1	15	0	0	2	157	3	88	6	99	**49**	**100**
Kegalle	16	680	1	18	0	8	0	3	0	17	22	350	2	39	0	9	0	0	2	143	6	49	1	25	**55**	**100**
Kalmune	5	878	3	48	0	3	1	1	0	6	0	16	0	2	0	3	0	0	1	268	1	35	0	0	**69**	**100**
SRILANKA	**401**	**25942**	**24**	**586**	**5**	**126**	**3**	**105**	**7**	**352**	**16**	**4959**	**23**	**1055**	**5**	**128**	**1**	**13**	**35**	**3241**	**30**	**641**	**79**	**1991**	**49**	**95**

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 14th Aug, 2020 Total number of reporting units 356 Number of reporting units data provided for the current week: 318 C**-Completeness

Table 2: Vaccine-Preventable Diseases & AFP

08th– 14th Aug 2020 (33rd Week)

Disease	No. of Cases by Province									Number of cases during current week in 2020	Number of cases during same week in 2019	Total number of cases to date in 2020	Total number of cases to date in 2019	Difference between the number of cases to date in 2020 & 2019
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	00	00	00	00	00	00	01	01	03	26	50	- 46.8 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	00	00	02	00	00	00	00	00	01	03	09	119	232	- 48.7 %
Measles	01	00	00	00	00	00	00	00	00	01	02	36	225	- 84 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Tetanus	00	00	00	00	00	00	00	00	00	00	00	03	14	- 76.9 %
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	31	10	210 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	05	36	- 86.1 %
Tuberculosis	84	23	00	17	14	26	00	34	05	203	229	3884	5404	- 28.1 %

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

Influenza Surveillance in Sentinel Hospitals - ILI & SARI							
Month	Human				Animal		
	No Total	No Positive	Infl A	Infl B	Pooled samples	Serum Samples	Positives
May							
Source: Medical Research Institute & Veterinary Research Institute							

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**

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