



WEEKLY EPIDEMIOLOGICAL REPORT

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Ministry of Health & Indigenous Medical Services

231, de Saram Place, Colombo 01000, Sri Lanka
Tele: + 94 11 2695112, Fax: +94 11 2696583, E mail: epidunit@slt.net.lk
Epidemiologist: +94 11 2681548, E mail: chepid@slt.net.lk
Web: <http://www.epid.gov.lk>

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Neglected Tropical Diseases - An overview Part I

This is the first in a series of two articles on Neglected Tropical Diseases—an overview

The term “Neglected Tropical Diseases (NTDs)” was utilized by the World Health Organisation (WHO) to describe a group of diseases (Figure 1) that are seen in the tropical and subtropical regions around the globe. These are referred to as “neglected” diseases due to the reduced attention given to them over the years when compared with other diseases. It is estimated that these diseases affect about one billion people worldwide, and result in high morbidity and mortality through their complications. Although most of these diseases are containable, their prevention and control have long since been overshadowed by that of more debilitating infectious diseases such as tuberculosis, HIV/AIDS and malaria. The poorest are the worst affected; those living in impoverished socio-economic conditions, i.e. in congested environments with poor sanitation and close contact with animals, are at increased risk of contracting these diseases. Hence, NTDs are seen more commonly in the developing (i.e. low and middle income) coun-

tries in Africa, Asia, and North and South America.

Figure 1 List of Neglected Tropical Diseases (“WHO | World Health Organization,” n.d.)

The WHO list of NTDs at present consists of twenty diseases and disease groups caused by a wide array of organisms including but not limited to viruses, bacteria, protozoa and helminths. At the start of the decade, there were only 17 diseases classified as NTDs; and in 2017, three more disease groups: **chromoblastomycosis and other deep mycoses, scabies and other ectoparasites and snakebite envenoming** were added to this list (“WHO | World Health Organization,” n.d.).

Global burden and epidemiology of NTDs

In the 2010 study on Global Burden of Disease, NTDs together caused 26.06 disability-adjusted life years (DALYs) with the highest burden resulting from soil-transmitted helminthiasis (STH), followed by leishmaniasis, schistosomiasis, lymphatic filariasis, and food-borne trematodiasis (Hotez et al., 2010). In another study the highest burden was among soil-transmitted helminthiasis (4443.47 thousand years), schistosomiasis

Buruli Ulcer Chagas Disease Dengue and Chikungunya Dracunculiasis Echinococcosis Foodborne trematodiasis Human African trypanosomiasis Leishmaniasis Leprosy (Hansen’s Disease) Lymphatic filariasis	Mycetoma, chromoblastomycosis and other deep mycoses Onchocerciasis (River Blindness) Rabies Scabies and other ectoparasites Schistosomiasis Soil-transmitted helminthiasis Snakebite envenoming Taeniasis/ Cysticercosis Trachoma Yaws (Endemic Treponematoses)
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WEB SRI LANKA 2020

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(3513.85 thousand years), dengue fever (2610.08 thousand years) (WHO, 2015).

The highest NTD burden is noticed in Brazil, Central and East Africa and Yemen, where these countries are burdened by 7 NTDs or more. India, Bangladesh and China face the highest burden of NTDs in Asia, each facing 5 or more NTDs.

The global burden of disease study in 2013 estimated that there had been more than 2 billion prevalent cases of NTDs worldwide, out of which the 3 major soil-transmitted helminth infections—ascariasis, trichuriasis, and hookworm infection—accounted for an estimated 1.75 billion, more than three-fourths of the total prevalence (Global Burden of Disease 2013 Study Collaborators, 2015). Furthermore, schistosomiasis, foodborne trematodiasis, lymphatic filariasis (LF), and onchocerciasis as well as dengue fever were among the most highly prevalent NTDs. The GBD study for 2016 data showed similar findings, with a total prevalence of NTDs close to 1.7 billion, with helminthic infestations (STH, Schistosomiasis), food-borne trematodiasis and lymphatic filariasis among the highest reported (Vos. T. et al., 2017).

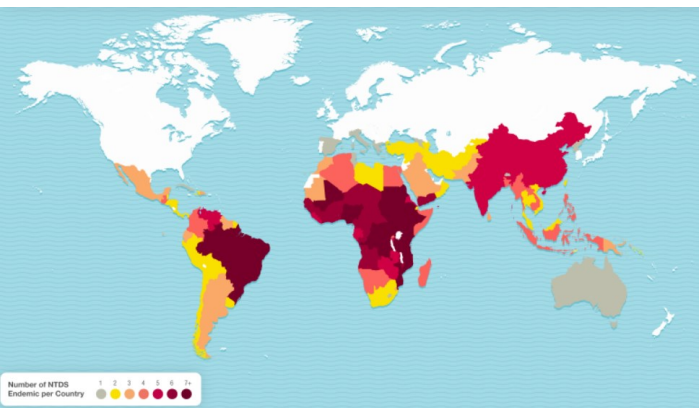


Figure: the global burden of NTDs as per 2009-2010 data Modified from: United to Combat. Burden map—Neglected Tropical Diseases

Effects/ impact of NTDs

Neglected Tropical Diseases have a multitude of detrimental effects on individuals, communities and nations that are affected. In addition to their effects on the affected individuals’ health, NTDs impose a never-ending cycle of economic and social impact on their families and communities.

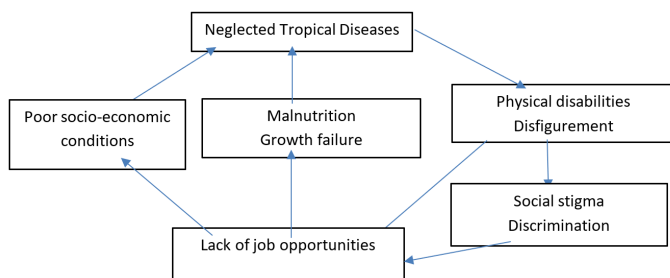


Figure: Impact of NTDs

For ease of description and understanding, the NTDs have been categorized into three broad groups as follows (All-Party Parliamentary Group on Malaria and Neglected Tropical Diseases, 2008):

- those for which there is inexpensive, safe and effective drugs, which need to be administered just once a year (annual MDA)
- those for which improved drugs are needed, but for which there is no profitable market because those needing the drugs cannot pay; and
- the “zoonotic” diseases, which are NTDs where human infections are derived from animals and predominantly infect those who work with livestock.

Compiled By:

Dr. Chathurika Herath
 PG Trainee in Community Medicine,
 Epidemiology Unit, Ministry of Health

**Table 1 : Water Quality Surveillance
 Number of microbiological water samples June 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	86
Galle	20	120	NR
Matara	17	102	NR
Hambantota	12	72	20
Jaffna	12	72	108
Kilinochchi	4	24	35
Manner	5	30	21
Vavuniya	4	24	23
Mullatvu	5	30	NR
Batticaloa	14	84	99
Ampara	7	42	NR
Trincomalee	11	66	NR
Kurunegala	29	174	6
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	0
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 11th-17th July 2020 (29th 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	82	3396	1	20	1	8	0	4	0	14	10	210	0	1	0	3	0	0	3	182	2	31	0	2	56	100
Gampaha	22	2037	0	8	1	4	0	5	0	19	5	159	0	1	1	5	0	0	0	224	0	17	0	38	44	97
Kalutara	30	1455	1	9	0	4	0	4	0	4	17	462	0	13	1	4	0	0	1	247	0	33	0	0	52	100
Kandy	149	2200	0	18	0	1	0	8	1	11	8	143	1	76	0	4	0	0	3	139	0	19	2	53	63	100
Matale	7	504	1	6	0	3	1	4	0	6	10	80	0	4	1	6	0	1	1	46	0	2	4	206	64	98
NuwaraEliya	2	142	3	22	0	1	0	1	1	8	8	76	2	66	0	3	0	0	2	69	0	10	0	0	21	100
Galle	3	1129	0	17	0	11	0	2	0	12	3	262	0	34	0	3	0	0	0	223	0	23	1	3	47	69
Hambantota	9	306	0	7	0	4	0	2	0	38	4	156	1	35	0	2	0	0	0	152	4	32	12	422	69	100
Mataru	0	356	0	11	0	3	0	0	0	0	0	149	0	4	0	6	0	0	0	71	0	7	0	117	43	41
Jaffna	8	1950	2	66	0	0	0	19	0	20	0	19	5	489	0	0	0	1	1	90	1	9	0	0	31	93
Kilinochchi	3	119	2	35	0	2	0	10	0	11	0	17	0	26	0	1	0	0	0	12	1	10	0	10	65	100
Mannar	0	127	0	0	0	0	0	1	0	2	0	6	0	1	0	0	0	0	0	2	0	6	0	0	39	100
Vavuniya	6	246	1	10	0	0	0	5	0	2	0	39	0	1	0	0	0	0	0	29	0	4	0	1	66	100
Mullaitivu	0	79	0	6	0	0	0	6	0	2	1	20	0	9	0	3	0	2	0	9	0	4	0	6	39	95
Batticaloa	17	2247	3	60	0	3	0	1	1	45	1	25	0	0	0	5	0	1	0	77	1	18	0	1	50	100
Ampara	1	301	1	14	1	3	0	0	0	0	0	77	0	0	0	2	0	0	0	99	2	15	0	4	67	100
Trincomalee	6	2260	0	12	0	0	0	0	0	2	0	27	0	6	0	0	0	0	0	81	0	8	0	0	46	91
Kurunegala	12	773	1	18	0	6	1	3	0	36	2	152	1	24	0	4	0	2	4	281	0	21	1	281	47	99
Puttalam	2	412	0	8	0	4	0	3	0	1	0	48	1	14	0	0	0	1	0	70	2	39	1	5	58	100
Anuradhapur	4	374	0	16	0	1	0	4	1	26	6	199	0	17	0	10	0	1	0	162	1	37	3	148	43	95
Polonnaruwa	1	219	0	5	0	0	0	0	0	5	1	113	0	0	1	17	0	1	0	115	1	12	10	159	62	92
Badulla	7	419	1	14	0	5	0	3	0	3	6	236	7	64	0	11	0	0	0	125	1	28	2	17	59	99
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	0	0
Ratnapura	42	1467	1	61	1	22	0	5	0	24	28	1049	2	30	0	13	0	0	3	152	1	81	5	82	49	100
Kegalle	20	613	0	16	1	7	0	3	1	17	15	306	2	36	1	8	0	0	2	139	3	38	0	19	59	98
Kalmune	0	861	4	43	0	3	0	0	0	3	1	15	0	2	0	3	0	0	1	266	1	33	0	0	71	100
SRILANKA	433	23992	22	502	5	95	2	93	5	311	12	4045	22	953	5	113	0	10	21	3062	21	537	41	1574	52	90

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 17th July, 2020 Total number of reporting units 356 Number of reporting units data provided for the current week: 281 C**=Completeness

Table 2: Vaccine-Preventable Diseases & AFP

11th– 17th July 2020 (29th 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	01	00	00	00	00	00	00	01	02	02	24	46	- 47.8 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	00	01	00	00	00	00	00	00	02	03	05	106	202	- 47.5 %
Measles	00	00	01	00	01	00	00	00	00	02	03	34	201	- 82.6 %
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	11	- 72.7 %
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Japanese Encephalitis	00	00	01	00	00	00	01	00	00	00	00	28	10	180 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	05	34	- 85.2 %
Tuberculosis	63	06	46	13	18	24	25	08	07	210	58	3356	4708	- 28.7 %

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
July							

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

ON STATE SERVICE

Dr. Sudath Samaraweera
 CHIEF EPIDEMIOLOGIST
 EPIDEMIOLOGY UNIT
 231, DE SARAM PLACE
 COLOMBO 10