WEEKLY EPIDEMIOLOGICAL REPORT

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WER

Neglected Tropical Diseases (NTD)

Neglected Tropical Diseases comprises group of communicable diseases that are commonly seen in countries with tropical and sub tropical climatic conditions. One billion populations in 149 countries in the world have been affected with NTDs. Common characteristics of these populations are poverty, poor sanitary facilities, low quality of life and close contact with vectors and domestic animals.

The word "neglected" has come due to the fact that these diseases have been largely eradicated in affluent countries and only limited to the countries with poor economies. Further the number of existing NTDs and their prevalence in a country, generally act as a proxy measure of the poverty level.

The impact of the NTDs are enormous and majorities are lifelong disabilities. In childhood it impairs the growth, development and education. In adults it promotes poverty through affecting the active engagement in productive work.

There are 17 NTDs and they can be classified in to 3 groups based on the type of agent that causes it. Further 9 out of these are caused by micro parasites and the balance 8 by macro parasites.

Parasitic Infections

1. Chagas disease (American trypanosomiasis)
2. Cysticercosis
3. Dracunculiasis (guinea-worm disease)
4. Echinococcosis
5. Human African trypanosomiasis (sleeping sickness)
6. Leishmaniasis
7. Lymphatic filariasis (elephantiasis)
8. Schistosomiasis (bilharziasis)
9. Onchocerciasis (river blindness)
10. Food borne trematode infections
11. Soil-transmitted helminthiasis

Bacterial

12. Trachoma
13. Buruli ulcer (*Mycobacterium ulcerans* infection)
14. Leprosy (Hansen disease)
15. Endemic treponematoses

Viral

16. Dengue
17. Rabies

Complications

Onchocerciasis and trachoma cause blindness.

Lymphatic Filariasis and leprosy cause deformation of the body. Patients with Buruli ulcer in the limbs may need amputation.

The fatality of untreated cases of Human African Trypanosomiasis and Human Rabies is 100%. Leishmaniasis causes permanent scars and affects the mucous membranes of the nose, mouth and throat.

Contents	*Page*

Complication of Leishmaniasis could be fatal if untreated. Chagas disease basically affects the muscles in the heart and gastro intestinal tract leading to heart failure and colon enlargement (Megacolon). Schistosomiasis could be complicated by gastro-intestinal bleeding, gastro-intestinal obstruction and malnutrition.

Guinea-worm diseases could be complicated by cellulites, abscesses, sepsis and septic arthritis. Dengue hemorrhagic fever and Dengue shock syndrome are the main two complications of the Dengue disease.

Control and Prevention

Five strategies have been identified for control and prevention of NTD.

1. Preventive chemotherapy
2. Intensified case-management
3. Vector control
4. Provision of safe water, sanitation and hygiene
5. Veterinary public health (i.e. applying veterinary sciences to ensure the health and well-being of humans)

Preventive chemotherapy

Mass administration of broad spectrum anti-helminthic medication is advocated mainly for Lymphatic filariasis, Onchocerciasis, Schistosomiasis, and Soil-transmitted helminthiases. Albendazole, Diethylcarbamazine, Ivermectin, Levamisole, Mebendazole, Praziquantel, and Pyrantel have been recommended by WHO due to their efficacy, safety, minimal side effects and ease of administration.

Intensified case-management

This is basically for the management of the protozoan and bacterial diseases (e.g. Chagas disease, Buruli ulcer disease, African Trypanosomiasis). Early detection with improved diagnosis techniques of cases and access to specialized care is aimed to prevent mortality and morbidity of the NTDs. Diagnostic accuracy is more emphasized in NTDs as they remain asymptomatic for long periods, some NTDs do not have a preventive chemoprophylaxis and possible toxicity of the medications.

Vector Control

Insects are responsible for transmission of the following NTDs. They are Leishmaniasis, Chagas disease, Dengue, Human African Trypanosomiasis, Lyphatic Phylariasis, Onchocerciasis. Food borne trematodiasis and Schistosomiasis are transmitted by snails. While Dracunculiasis and food borne Paragonimiasis spreads by crustaceans.

Integrated vector control is the key to success and it enhances the effects of preventive chemotherapy and intensified case management. Usage of a combination of different interventions (from different sectors) to control the vectors will improve the efficacy, sustainability of disease control while keeping cost at low levels.

Provision of safe water, Sanitation and Hygiene

Existence of NTD is highly linked to poor sanitation and lack of access to safe drinking water. UN reported that 900 million people worldwide lack access to safe drinking water while 2500 million live without proper sanitary facilities.

Veterinary public health

NTDs like food borne trematodiases, African trypanosomiasis and human rabies are involved with the agent originated from animals. Improved veterinary public health approach will control and prevent these diseases.

Sri Lankan situation

Sri Lanka has already eliminated some NTDs while controlling many. Leprosy has been eliminated at national level since 1996 through an excellent social marketing campaign. Successful progress has been shown in lymphatic filariasis control programme. This has been achieved by many activities including mass drug administration, health education and improvement in surveillance activities. In contrast the Sri Lankan health systems struggles with the control of the Dengue fever. Case fatality rate has impressively reduced due to improvement in the infrastructure facilities at the hospitals along with the development and strict adherence to the updated patient management protocols.

References

1. Accelerating work to overcome the global impact of Neglected Tropical Diseases. A roadmap for implementation. WHO

Editor

Table 1: Selected notifiable diseases reported by Medical Officers of Health 21st- 27th Oct 2017 (43rd Week)

RDHS Division	Dengue Fever		Dysentery		Encephalitis		Enteric Fever		Food Poisoning		Leptospirosis		Typhus Fever		Viral Hepatitis		Human Rabies		Chickenpox		Meningitis		Leishmania-sis		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	221	31541	2	54	0	3	0	28	1	35	2	130	0	3	0	14	0	0	6	322	0	27	0	1	**21**	**84**
Gampaha	238	29350	0	32	1	14	0	17	1	9	10	69	0	12	0	14	0	1	5	251	0	28	0	3	**7**	**100**
Kalutara	99	9887	1	53	0	4	1	18	0	53	14	321	0	7	3	18	0	1	11	471	4	140	0	1	**2**	**96**
Kandy	196	12567	1	65	0	5	0	7	6	16	2	46	1	120	0	13	0	2	3	225	1	36	1	13	**15**	**100**
Matale	60	2742	0	21	0	4	0	1	0	10	0	30	0	2	1	10	1	1	0	46	0	58	0	6	**13**	**100**
NuwaraEliya	8	831	1	27	1	9	2	33	0	53	0	50	4	175	1	20	0	0	6	282	0	40	0	0	**61**	**100**
Galle	51	5618	0	46	0	13	0	19	0	16	17	365	1	65	0	5	0	1	0	347	1	63	0	1	**17**	**99**
Hambantota	36	3153	0	22	0	7	0	7	0	25	3	49	0	64	0	9	0	1	0	178	0	19	6	336	**10**	**100**
Matara	38	5968	2	37	0	8	1	4	0	14	6	196	1	24	1	11	0	1	2	214	1	13	7	147	**10**	**100**
Jaffna	183	4654	26	360	0	21	1	37	0	57	1	29	11	435	0	3	0	0	7	185	0	34	0	0	**43**	**87**
Kilinochchi	4	458	3	30	0	1	0	11	0	1	0	4	0	15	0	2	0	0	0	3	1	11	0	3	**24**	**100**
Mannar	1	513	0	10	0	0	0	2	0	1	0	2	0	3	0	0	0	0	0	14	0	0	0	0	**14**	**100**
Vavuniya	17	835	1	22	0	0	2	72	0	7	0	27	1	11	0	7	0	0	2	36	1	4	0	9	**13**	**100**
Mullaitivu	6	330	0	15	0	4	0	5	0	5	2	21	0	4	0	1	0	1	1	17	0	5	0	2	**8**	**100**
Batticaloa	35	4779	6	141	0	9	0	15	0	37	0	23	0	1	1	6	0	1	1	163	2	30	0	1	**23**	**100**
Ampara	10	841	2	41	0	2	0	1	2	3	0	18	0	1	0	4	0	0	6	178	2	43	0	5	**32**	**100**
Trincomalee	21	4783	3	39	0	2	1	13	0	21	2	26	0	13	1	18	0	0	3	145	0	23	1	11	**19**	**100**
Kurunegala	138	9960	4	83	0	10	0	3	1	55	2	69	1	27	0	19	1	4	6	447	1	69	2	138	**11**	**100**
Puttalam	143	5669	1	50	0	2	0	2	0	9	0	26	0	11	0	1	0	0	2	145	0	44	0	3	**12**	**100**
Anuradhapur	25	2571	1	40	1	4	0	1	0	16	2	66	0	19	1	14	0	2	4	346	1	70	9	233	**7**	**95**
Polonnaruwa	16	1272	3	21	1	6	0	9	0	8	2	42	0	7	0	8	0	0	5	209	1	21	2	123	**4**	**100**
Badulla	28	3382	2	102	0	9	0	10	0	5	3	125	0	110	0	55	0	1	7	345	10	208	0	13	**7**	**99**
Monaragala	147	2619	2	68	0	3	0	1	0	9	2	120	2	121	0	19	0	1	3	95	3	67	0	24	**30**	**100**
Ratnapura	50	10735	0	146	0	80	0	13	0	8	5	534	2	30	0	73	0	0	1	261	0	140	1	22	**11**	**100**
Kegalle	63	9039	1	34	0	12	1	6	4	33	5	107	1	74	0	13	0	0	22	291	1	66	0	10	**11**	**100**
Kalmune	53	2367	1	96	0	7	0	4	1	285	1	10	0	0	0	3	0	0	1	137	2	31	0	0	**13**	**100**
SRILANKA	**1887**	**166464**	**63**	**1655**	**4**	**239**	**9**	**339**	**16**	**791**	**81**	**2505**	**25**	**1354**	**9**	**360**	**2**	**18**	**104**	**5353**	**32**	**1290**	**29**	**1105**	**16**	**98**

Source: esurveillance.epid.gov.lk

*T=Timeliness refers to returns received on or before 27thOctober , 2017 Total number of reporting units 344 Number of reporting units data provided for the current week: 341 C**-Completeness

Table 2: Vaccine-Preventable Diseases & AFP

21st– 27th Oct 2017 (43rd Week)

Disease	No. of Cases by Province									Number of cases during current week in 2017	Number of cases during same week in 2016	Total number of cases to date in 2017	Total number of cases to date in 2016	Difference between the number of cases to date in 2017 & 2016
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	01	00	00	01	00	00	00	00	02	01	61	58	5.1%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	02	00	01	02	00	02	00	00	00	07	03	263	333	- 21.0%
Measles	00	03	00	00	00	00	00	00	00	03	02	180	345	- 47.8%
Rubella	00	00	00	00	00	00	00	00	00	00	01	10	09	11.12%
CRS**	00	00	00	00	00	00	00	00	00	00	00	01	00	0%
Tetanus	00	00	00	00	00	00	00	00	00	00	00	16	08	100%
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	01	21	16	23.8%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	02	19	60	- 68.3%
Tuberculosis	88	23	18	03	08	07	03	15	14	179	220	7056	7709	-8.4%

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

Number of Malaria Cases Up to End of October 2017,

08

All are Imported!!!

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ON STATE SERVICE

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