



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
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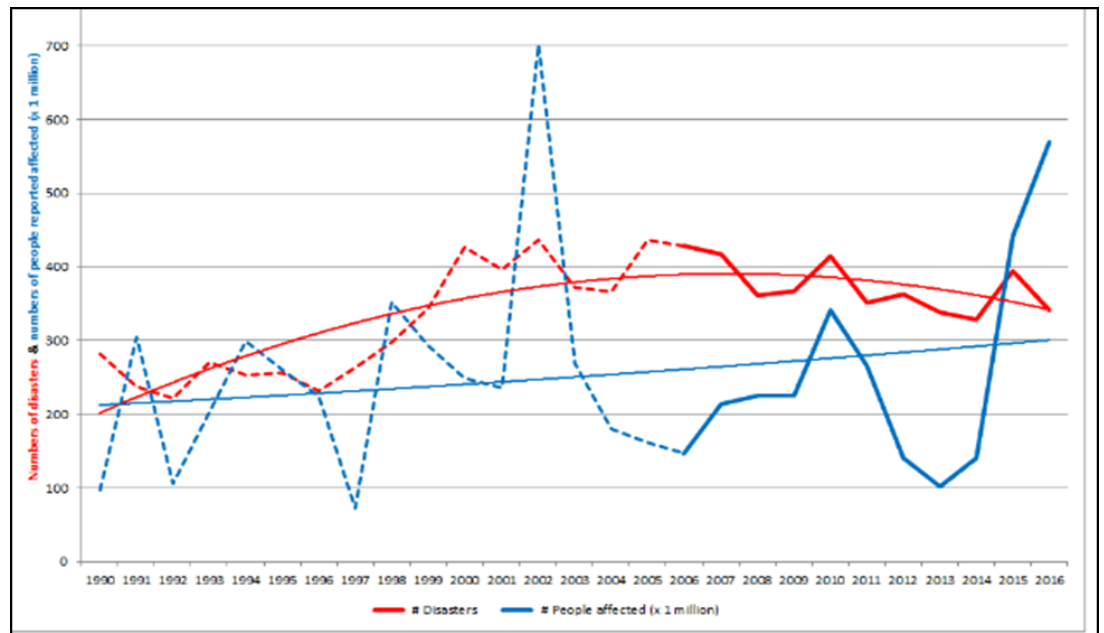
Control of Communicable Diseases during Disasters – Part 1

Disaster can be defined as a sudden accident or a natural catastrophe that causes great damage or loss of life. They can be classified as natural (e.g. Tsunami) or man-made (e.g. War situation). According to the International Disaster Database in the year of 2016, 342 disasters were recorded due to natural hazards. It is evident by studying the trajectory of a number of disasters over the past two and half decades it is coming down to its base level. The peak had been reported in 2005 (Red line in Fig. 1). Since 2006 hydrological related disasters took the largest portion of the natural disasters.

unavailability of disaster preparedness plans including early warning systems. China reported being the country with most disasters from 2005 to 2014 period while the USA is the country which incurred the largest damage during the same period.

Fig. 1: No. of disasters and total people affected (x 1million) from 1990 - 2016.

However, the number of people affected is showing a rising trend globally which is alarming (Blue line in Fig. 1). The amount of damage and the economic loss also follows the same rising pattern. Underdeveloped countries are highly affected by disasters due to lack of resources, infrastructure and



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There is a high chance of spreading of communicable diseases during and after a disaster. The reason for this high susceptibility can be explained by the loosing of the equilibrium of the Epidemiological triad (Fig. 2).

gency relief funds are the other important aspects of the preparation.

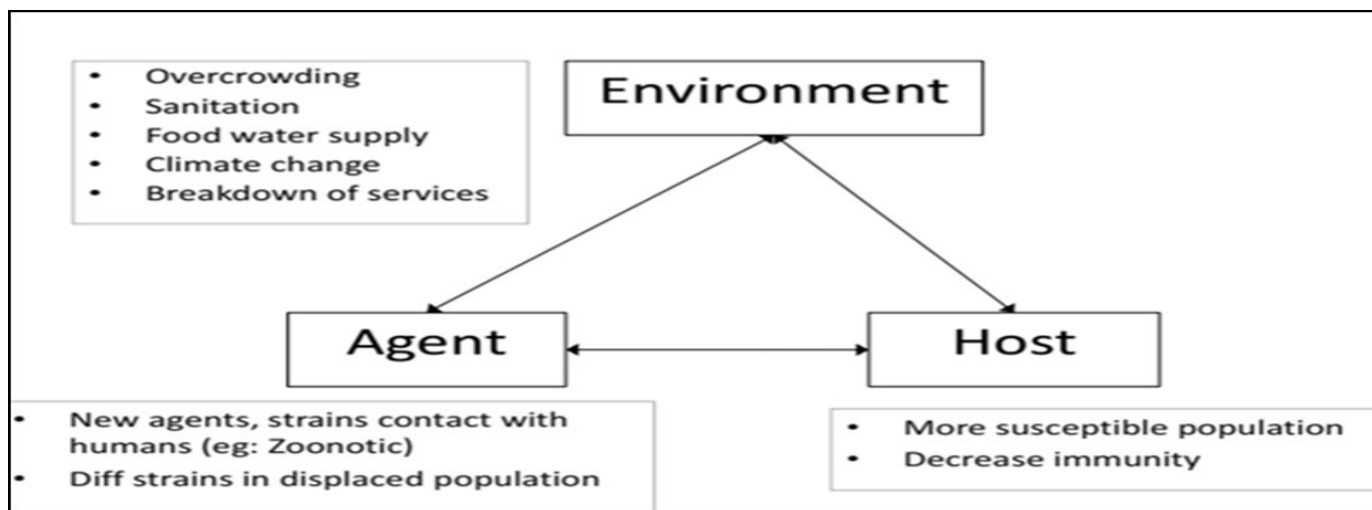


Figure 2. Epidemiological triad of disease spread during disaster

Following conditions will increase the risk of communicable diseases following disasters.

1. Increase population density which leads to close human contact and available sanitary facilities to be inadequate
2. Population displacement. Introduction of communicable diseases to migrant or indigenous populations (susceptible population)
3. Disruption and contamination of water supply and sanitation services. Eg: contamination of drinking water by breaks in sewage lines
4. Disruption of public health programs
5. Ecological changes that favour breeding of vectors
6. Displacement of domestic and wild animals
7. Lack of food, water, and shelter in disaster situations

These reasons complement each other and as a synergistic effect outbreak can set in and it could drag the disaster victims from bad to the worst. However, disease outbreaks situations following a disaster can be successfully averted/minimized by adequate preparation and prompt action. Formation of disaster coordination teams at central and district levels is the foremost activity that should take place. Preparation of the district disaster plans follows and periodic assessment/ modification of the plans should take place subsequently. Formation of rapid response teams, availability of guidelines and standard operation procedures, carry out simulations activities in predefined intervals, update the knowledge of the staff, allocating/maintaining emer-

Table 1 : Water Quality Surveillance Number of microbiological water samples October 2017

District	MOH areas	No: Expected *	No: Received
Colombo	15	90	88
Gampaha	15	90	NR
Kalutara	12	72	NR
Kalutara NIHS	2	12	25
Kandy	23	138	NR
Matale	13	78	NR
Nuwara Eliya	13	78	83
Galle	20	120	44
Matara	17	102	40
Hambantota	12	72	39
Jaffna	12	72	86
Kilinochchi	4	24	23
Manner	5	30	42
Vavuniya	4	24	22
Mullatvu	5	30	NR
Batticaloa	14	84	78
Ampara	7	42	34
Trincomalee	11	66	8
Kurunegala	29	174	50
Puttalam	13	78	39
Anuradhapura	19	114	37
Polonnaruwa	7	42	36
Badulla	16	96	100
Moneragala	11	66	83
Rathnapura	18	108	52
Kegalle	11	66	27
Kalmunai	13	78	67

* 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 November 2017 (46th 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	238	32352	1	59	0	3	2	30	0	38	17	157	0	3	2	16	0	0	5	341	0	28	0	1	22	84
Gampaha	345	30194	1	38	1	15	2	23	0	16	8	93	0	14	0	16	0	1	10	307	0	28	0	5	7	94
Kalutara	141	10256	2	57	0	4	0	21	0	53	14	365	2	9	1	21	0	1	8	486	1	144	0	1	1	96
Kandy	220	13250	2	71	0	5	1	8	0	20	4	53	1	125	1	15	0	2	3	240	0	37	2	15	16	100
Matale	63	2898	0	22	0	4	0	1	2	12	1	33	0	2	0	11	0	1	2	51	0	60	0	7	13	100
NuwaraEliya	3	845	3	31	0	9	1	35	0	53	2	53	2	179	0	21	0	0	14	308	3	45	0	0	62	100
Galle	45	5777	1	48	0	13	1	20	0	16	5	390	1	71	0	5	0	1	3	353	0	65	0	1	18	99
Hambantota	60	3354	1	26	0	7	1	8	5	31	1	56	0	67	0	10	0	1	15	203	0	19	5	384	11	100
Matara	41	6102	0	40	0	8	0	5	0	16	3	230	5	29	0	14	0	1	0	219	1	15	1	157	11	100
Jaffna	126	5055	11	400	0	22	3	43	1	58	2	31	10	476	0	3	0	0	0	188	0	36	0	0	43	87
Kilinochchi	5	471	1	36	0	1	0	12	0	1	0	4	0	17	0	2	0	0	0	3	0	11	0	3	24	100
Mannar	1	519	0	13	0	0	0	3	0	2	0	3	0	4	0	0	0	0	1	15	0	0	0	0	15	100
Vavuniya	29	913	0	24	0	0	6	83	0	7	0	27	0	11	0	7	0	0	0	36	0	4	1	10	13	100
Mullaithivu	5	349	1	16	0	4	1	9	0	5	0	21	0	4	1	2	0	1	0	17	0	5	1	3	9	100
Batticaloa	85	4969	7	166	0	9	0	15	0	42	0	24	0	1	0	6	0	1	3	166	0	34	0	1	23	100
Ampara	8	869	2	45	0	3	0	2	1	4	0	18	0	2	1	5	0	0	8	203	0	46	2	7	31	100
Trincomalee	34	4859	5	45	0	2	0	14	0	21	1	30	0	14	0	18	0	0	3	155	0	23	0	11	20	100
Kurunegala	156	10522	6	93	0	10	1	5	5	60	2	84	1	29	0	19	0	4	9	478	0	71	5	147	12	100
Puttalam	312	6474	2	58	0	2	0	2	0	18	1	29	0	11	0	1	0	0	2	151	0	45	0	3	12	100
Anuradhapur	40	2671	0	42	0	4	0	2	0	16	0	69	1	21	0	17	0	2	6	364	0	72	4	245	7	95
Polonnaruwa	10	1317	3	25	0	6	0	9	0	8	0	43	0	7	1	9	0	1	1	217	2	23	1	134	4	100
Badulla	56	3525	0	115	2	11	2	14	0	5	6	136	3	119	0	56	0	1	1	352	3	216	0	13	7	100
Monaragala	73	2882	2	77	0	3	0	1	0	11	5	133	0	123	0	20	0	1	3	99	0	68	2	29	31	100
Ratnapura	35	10926	1	162	0	83	0	13	0	9	5	564	0	31	1	77	0	0	2	274	1	145	0	22	11	100
Kegalle	59	9221	1	35	0	14	0	8	3	40	29	171	3	80	1	15	0	0	7	311	0	66	0	10	11	100
Kalmune	48	2510	1	100	0	7	0	4	0	290	0	10	0	0	0	3	0	0	3	142	0	36	0	0	14	100
SRI LANKA	2238	173080	54	1844	3	249	21	390	17	852	10	2827	29	1449	9	389	0	19	109	5679	11	1342	24	1209	17	97

Source: esurveillance.epid.gov.lk

*T=Timeliness refers to returns received on or before 17th November, 2017 Total number of reporting units 344 Number of reporting units data provided for the current week: 339 C**=Completeness
A = Cases reported during the current week. B = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

11th– 17th November 2017 (46thWeek)

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*	01	01	00	00	00	00	00	00	00	02	00	64	59	8.4%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	00	01	01	00	02	00	00	00	00	04	05	276	353	- 21.8%
Measles	00	01	00	00	02	00	00	00	00	03	01	185	358	- 48.3%
Rubella	00	00	00	00	00	00	00	00	00	00	01	10	10	0 %
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	01	16	10	60 %
Neonatal Tetanus	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Japanese Encephalitis	00	01	00	00	01	00	00	01	00	03	00	25	18	38.8%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	02	19	64	- 70.3%
Tuberculosis	43	31	19	04	17	13	12	01	12	152	156	7481	8135	- 8.0%

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 Total	No Positive	Infl A	Infl B	Pooled samples	Serum Samples	Positives
November	385	114	51	63	1686	612	0

Source: Medical Research Institute & Veterinary Research Institute

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

ON STATE SERVICE

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