



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
Ministry of Health, Nutrition & Indigenous Medicine

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Open Defecation – A Global issue; Local issue?

Public health consequences of open defecation are enormous. Contamination of the environment by the faecal matter can cause severe repercussions by causing disease outbreaks (Cholera, Diarrhoea, Dysentery, Hepatitis A, Typhoid and Polio). In addition, poor hygiene practices could lead to severe child morbidity, under nutrition, stunting and child mortality. Further, it can impinge on the cognitive development of children.

During the MDG era, it was proposed to halve the proportion of the population who do not have access to improved sanitation, globally. Though there was progress, the target was missed by nearly 700 million people. SDG have come out with many ambitious targets to “end the open defecation”, along with “adequate and equitable sanitation and hygiene for all”.

According to a report published by WHO in February 2018, 2.3 billion people still do not have basic sanitation facilities such as toilets or latrines. Out of them, 892 million people still practice open defecation (street drains, behind bushes, open water sources) globally. India is reported as being the country which has the largest number of people who practised the open defe-

cation (approx. 600 million individuals).

Ironically, at least 10% of the world population is thought to consume food, which has been cultivated using water contaminated with human excreta.

In 2012, WHO estimated that every single US dollar invested on sanitation, returns with US dollar 5.5 worth health benefits along with more productivity and fewer premature deaths. However, in some rural communities, it was observed that the toilets donated by the community organizations are used for many other activities (additional storing area, animal husbandry) and not for the intended use. This could be due to lack of health education and poor health literacy. In the Sri Lankan context, the open defecation is much less compared to the other countries in the region. It was static at 2.67% (out of the total population) since 2000 and a slight reduction (2.65%) was observed in the year 2015. DHS 2016, reported that the figure has dropped to 1.9% out of the total population studied. When the total household studied is taken into consideration, the value stands at 2.1%.

Further, it clearly depicts the inter-sector disparity of unimproved toilet facilities. Estate sector

Contents

	Page
1. Leading Article – Open Defecation – A Global issue; Local issue?	1
2. Summary of selected notifiable diseases reported (15 th – 21 st December 2018)	3
3. Surveillance of vaccine preventable diseases & AFP (15 th – 21 st December 2018)	4

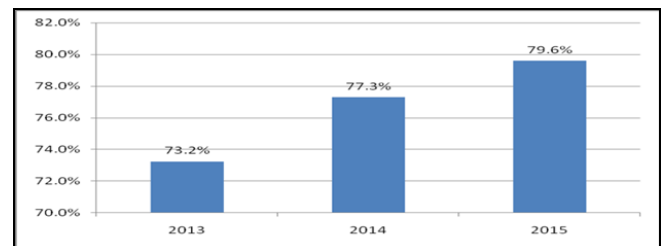
WEB SRI LANKA 2018

reported the most number of unimproved facilities even when the urban and rural sectors are taken together.

Unimproved facility	Households				Populations			
	Urban	Rural	Estate	Total	Urban	Rural	Estate	Total
Flush/pour flush not to sewer/septic tank/pit latrine	1.1	0.3	0.6	0.4	1.2	0.2	0.5	0.4
Pit latrine without slab/open pit	0.1	0.2	0.1	0.2	0.1	0.2	0.0	0.2
Bucket	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
No facility/bush/field	0.4	1.3	3.0	1.2	0.4	1.1	2.6	1.0
Other	0.4	0.2	0.6	0.2	0.5	0.2	0.7	0.2
Total	2.0	2.0	4.3	2.1	2.2	1.7	3.9	1.9

Source: DHS 2016, Department of Census and Statistics

This fact is further supported by the epidemiological pattern of the main food and water-borne diseases in the country. Nuwaraeliya, Kegalle and Rathnapura, which generally come within the top five districts of the food and water-borne diseases reported annually in the country are mainly consisted of estates.



Source: Epidemiology Unit, Ministry of Health, Sri Lanka

Though these two findings cannot be generalized to the population as they came from the patients who got the diseases but can be considered as proxy measures of the situation.

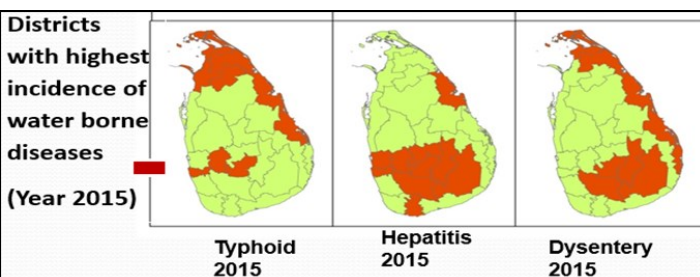
In addition to the development of the toilet facilities to the needy people, the country needs to think about many other aspects to further reduce food and water-borne diseases.

- Quality of the bottled water in the country needs to be evaluated frequently. And only the quality assured brands to be permitted for sale.
- The habit of drinking boiled cool water as a core value needs to be further strengthened. This can be done through schools, social media, electronic and printed media.
- All drinking water sources need to be chlorinated and the level of chlorine needs to be assessed frequently.
- Protection of rain forests with minimal or no human activities.

So in summary, open defecation is surely a global issue as the countries have pledged to end the open defecation in SDG. By looking outside the Sri Lankan context it seems to be stationed in a good position in relation to the open defecation with a downward trend. However when drilled down to the inter-sector situations and district situations one can see the areas which need to be further strengthened.

Sources: <https://www.who.int/news-room/fact-sheets/detail/sanitation>
<http://www.sundaytimes.lk/140511/sunday-times-2/open-defecation-india-tops-the-list-98549.html>
 Sri Lanka, Demographic and Health Survey, 2016

Editor



Source: Epidemiology Unit, Ministry of Health, Sri Lanka

Further, analysis of the Typhoid fever special investigation forms by the Epidemiology unit in the year 2017 reveals that 37.6% of the confirmed patients in that year had consumed un-boiled, un-chlorinated or unfiltered water.

Similarly, the analysis of the Hepatitis A special investigation forms has revealed that the trend of drinking un-boiled water has increased over the period of time. This could be due to many reasons, like the myth among the general population that any water which is coming through a tap is considered to be safe and hygienic, availability of bottled water at any corner of the country from many brand names, inability to boil water due to high fuel prices etc.

Analysis of Hepatitis A special investigation form – Drinking un-boiled water as a habit among the confirmed patients.

Table 1: Selected notifiable diseases reported by Medical Officers of Health 15th-21st Dec 2018(51st 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	390	9938	5	101	0	9	1	47	0	43	8	239	1	15	1	11	0	1	7	716	0	68	0	5	62	100
paha	172	5706	0	77	2	12	1	24	0	179	3	229	1	11	0	15	0	0	12	736	3	51	6	68	64	100
Kalutara	76	3053	4	94	0	5	1	18	0	64	8	692	0	7	1	17	0	0	13	721	2	107	0	9	55	100
Kandy	90	3778	1	119	0	7	0	6	0	30	3	118	1	110	1	24	0	1	5	330	1	43	0	40	60	100
Matale	21	899	1	24	0	1	1	8	0	42	6	116	0	5	0	10	0	0	1	61	0	17	12	195	60	100
NuwaraEliya	3	205	1	61	0	5	1	15	0	159	2	52	5	147	0	28	0	0	3	208	3	51	0	0	24	100
Galle	22	960	0	64	0	14	0	6	0	25	8	428	0	66	0	4	0	1	6	373	1	60	0	5	32	100
Hambantota	25	953	2	30	0	4	0	3	0	8	4	87	2	94	0	3	0	1	5	284	0	15	5	746	72	100
Matarra	41	1113	1	42	1	7	0	9	0	23	8	291	2	67	2	26	0	0	4	299	0	15	7	500	56	100
Jaffna	219	3822	4	218	0	6	1	55	0	224	2	19	35	393	0	1	0	2	3	277	0	13	0	3	37	93
Kilinochchi	8	329	1	41	0	1	1	21	1	6	0	8	0	17	0	0	0	1	1	33	0	4	2	9	52	100
Mannar	4	220	0	26	0	0	0	3	0	2	0	1	0	12	0	1	0	0	0	28	0	4	0	4	36	100
Vavuniya	17	592	2	20	0	4	1	54	0	16	3	52	0	7	0	0	0	1	1	52	1	10	0	13	55	100
Mullaitivu	0	114	1	9	0	0	0	12	0	26	0	12	0	8	0	0	0	1	0	12	0	2	0	2	26	99
Batticaloa	50	4796	10	224	0	5	0	11	3	36	2	61	0	3	0	7	0	3	3	192	0	21	0	0	64	100
Ampara	8	249	3	85	0	6	0	3	0	11	7	70	0	0	0	7	0	1	3	292	0	34	0	3	63	100
Trincomalee	45	1174	0	42	0	2	0	10	0	15	3	64	0	24	0	4	0	0	1	203	0	10	0	21	31	100
Kurunegala	51	2419	1	149	1	20	1	17	0	13	5	368	3	32	0	25	0	2	7	605	1	89	27	511	61	100
Puttalam	28	1983	2	94	1	8	0	7	0	10	3	59	0	12	0	3	0	0	1	151	0	89	2	6	63	100
Anuradhapura	12	866	1	93	0	8	1	10	0	45	13	247	0	23	6	24	0	2	5	422	1	54	6	509	44	95
Polonnaruwa	9	317	0	49	0	5	0	0	0	20	11	179	0	1	0	4	0	1	6	322	2	24	7	254	56	88
Badulla	16	591	2	146	0	10	0	14	0	18	6	185	3	96	1	69	0	0	3	496	7	149	0	12	48	100
Monaragala	13	846	0	88	0	2	0	1	0	4	17	407	0	143	0	51	0	0	2	190	4	186	0	51	67	100
Ratnapura	36	2220	2	205	0	43	1	30	0	5	17	755	0	29	0	30	0	2	3	320	6	138	5	223	47	100
Kegalle	40	1502	0	64	0	13	0	11	0	97	7	366	0	79	0	19	0	0	8	434	1	49	0	17	64	100
Kalmune	32	1744	5	69	0	4	0	4	0	35	4	15	0	1	0	1	0	0	3	216	0	19	0	1	51	100
SRILANKA	1428	50389	49	2234	5	201	11	399	4	1156	15	5120	53	1402	12	384	0	20	106	7973	33	1322	79	3207	53	99

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 21st December, 2018 Total number of reporting units 353 Number of reporting units data provided for the current week: 348 C**=Completeness
A = Cases reported during the current week. B = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

15th–21st Dece 2018(51st Week)

Disease	No. of Cases by Province									Number of cases during current week in 2018	Number of cases during same week in 2017	Total number of cases to date in 2018	Total number of cases to date in 2017	Difference between the number of cases to date in 2018 & 2017
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	00	00	00	00	00	00	00	00	02	63	70	- 10 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	01	02	02	01	01	00	01	01	00	09	09	360	298	20.8 %
Measles	00	01	00	02	01	01	00	00	00	04	03	128	201	- 36.3 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	08	10	- 20 %
CRS**	00	00	00	00	00	00	00	00	00	00	00	00	01	0%
Tetanus	00	00	00	00	00	00	00	00	00	00	00	20	16	25 %
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	26	29	- 10.3 %
Whooping Cough	00	00	00	00	02	00	00	00	00	02	01	54	23	134.7 %
Tuberculosis	97	36	03	02	22	03	21	03	38	225	255	8690	8119	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

Number of Malaria Cases Up to End of December 2018,

07

06 are Imported!!! 01 is Introduced !!!

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

ON STATE SERVICE

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