WEEKLY EPIDEMIOLOGICAL REPORT

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Law and Water – part i

This is the first of a series of 2 articles

Access to safe drinking water is an important determinant of public health. Though the access to clean drinking water in urban areas has vastly improved in the last few decades, there the quality of water supplied is still an area of concern, since with the recurrent mixing seawater at river estuary, where many water supplying plants were located in Sri Lanka and frequent floods of these areas leading for challenging the turbidity and colour of the treated water at plants.

Surveillance of drinking water quality is defined as the continuous and vigilant public health assessment and overview of the safety and acceptability of drinking water supplies (WHO, 1976). It involves laboratory and field testing of water samples collected from various points in the water supply system, including the source, water treatment plants, service reservoirs distribution systems and at the consumer end which is representative of the condition of the water at the point and time of collection. In 2015, Sri Lanka has arranged access to safe water by piped 45.9%, Dug wells 36.4%, tube wells 3.2%, other sources 0.5% and no access to safe water 14%.

The objectives of No.19 of the 2017 Sustainable Development act to encapsulate legal provisions at the time of achieving the seventeen Sustainable Development Goals (SDG) adopted by the United Nations by follow-up and monitoring the progress through the national agencies of the countries. The national agency of Sri Lanka (National Water Supply and Drainage Board) mainly guides the sixth SDG which is described as "Clean water and sanitation to all- ensure availability and sustainable management of water and sanitation for all".

Finding quality water for consumption has become a problem for humans. Due to the vast expansion of industries, agriculture, population growth, and increasing use of harmful chemicals, as well as geographical factors, contamination of drinking water occurs through a range of chemical, microbial, and physical hazards which cause health risks when present at high levels. Examples of chemical hazards include lead, arsenic, and benzene. Microbial hazards include bacteria, viruses and parasites such as *Vibrio cholera*, and hepatitis A virus, and due to these reasons providing safe and accessible drinking water has become a major challenge world over. This situation, linked with the prevalence of market trends has caused the business of bottled water to flourish. Consumption of bottled water has been increasing consistently over the last decade, even in countries where pipe-borne water quality is considered good. The bottled water industry has grown dramatically in the last few decades, and today millions of people around the world in developed and developing countries consume bottled water regularly. Most people believe that bottled water is safe, and hence it has become an increasingly popular beverage all over the world.

Food (Bottled or Packaged Water) Regulations

In Sri Lanka, bottled water is regulated by the Ministry of Health through the Food (Bottled or Packaged Water) Regulations 2005 framed under the Food Act No.26 of 1980, which regulates bottled water as a "food", and manufacturers are obliged for producing safe wholesome and honestly-presented products.

Regulations include a standard of identity that define two different types of bottled water, namely 'Natural Mineral Water' and 'Bottled Drinking Water'. The regulations mandate the obtaining of a certificate of registration from the Chief Food Authority (CFA) before bottling or packaging or importing Natural Mineral Water or Bottled Drinking Water.

Provision 4 specifies that; No person shall sell, offer for sale, keep for sale, transport or advertise for

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sale for any bottled or Packaged Natural Mineral Water or Bottled or Packaged Drinking Water unless such product has been duly registered by the Chief Food Authority and a registration number in terms of the foregoing provisions of this regulation has been assigned thereto.

Applications received from prospective manufacturers for registration are processed by an institution that has the expertise in the required field, and presently the Sri Lanka Standards Institution functions as the recognized body under a Memorandum of Understanding with the Ministry of Health. At present, there are about 130 brands of bottled drinking water, 9 brands of Natural Mineral Water, and 09 brands of imported products from countries such as France and Italy, registered by the Ministry of Health.

Natural Mineral Water

The regulations define 'Natural Mineral Water' as "water that originates from underground water-bearing strata and is extracted for human consumption from natural or drilled sources such as springs, wells or boreholes" and 'Bottled or Packaged Drinking Water' as "water that is sealed in bottles (containers) ready for human consumption; but shall not include Natural Mineral Water".

Special provisions related to Natural Mineral Water to guarantee the original purity of the products, are also specified, and accordingly "Natural Mineral Water be collected under conditions, which guarantee the original purity, not be subjected to any treatment other than separation of unsuitable constituents by decantation or filtration, and if necessary, accelerated by pre- aeration, be bottled or packaged close to the point of emergence of the source under hygienic precautions, not be transported in bulk containers for packaging, pipeline transport is allowed if all precautions have been taken to maintain the purity of water".

The Food Act requires that bottled water should be safe and processed, bottled, stored, and transported under sanitary conditions. Processing practices addressed in the regulations include protection of the water source from contamination, sanitation at the bottling facility, quality control to ensure bacteriological and chemical safety of the water.

Bottled water labels should meet the appropriate standard of identity, or they will be considered a violation under the Act. For example, a bottle labelled as containing "mineral water" must meet the criteria set out for "Mineral Water" and it must come from a geologically and physically protected underground water source and it must contain no added minerals.

Though it has been defined in the regulations itself as "In addition to the hygienic requirements specified in paragraph (1), the hygienic requirements in Food Regulations -1988, published in Gazette Extraordinary No. 560/13 of June 2, 1989, shall also apply in relation to the production of Bottled or Packaged Natural Mineral Water", which was rescinded with the new regulation food (Hygiene) in 2011. This needs to be amended and re-gazetted.

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to be continued.....

Table 1: Selected notifiable diseases reported by Medical Officers of Health 05th – 11th Jun 2021 (24th Week)

RDHS	Dengue Fever		Dysentery		Encephaliti		Enteric Fever		Food Poi-		Leptospirosis		Typhus Fe-		Viral Hep-		Human		Chickenpox		Meningitis		Leishmania-		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	123	1544	0	8	0	0	0	3	0	3	0	100	0	1	0	2	0	2	0	20	0	6	0	1	**54**	**90**
Gampaha	38	717	0	1	0	1	0	1	0	0	0	125	0	2	0	3	0	2	0	15	0	5	0	6	**33**	**70**
Kalutara	22	527	0	11	0	2	0	0	0	0	4	292	0	3	0	1	0	1	1	57	0	9	0	0	**39**	**100**
Kandy	6	305	0	15	0	1	0	1	0	2	0	75	0	25	0	1	0	0	0	27	0	9	0	16	**60**	**100**
Matale	3	48	6	10	0	4	0	0	0	0	1	34	0	4	0	1	0	0	0	10	0	1	0	100	**57**	**100**
NuwaraEliya	2	29	0	11	0	2	0	2	0	0	0	34	0	32	0	2	0	0	0	22	0	4	0	1	**32**	**94**
Galle	3	119	0	2	0	1	0	5	0	5	3	366	0	20	0	2	0	0	0	28	0	18	0	1	**47**	**94**
Hambantota	8	157	0	6	0	2	0	2	0	4	1	136	0	37	0	6	0	0	0	29	0	15	1	209	**74**	**100**
Matara	11	178	0	3	0	1	0	1	0	0	1	133	0	12	0	2	0	0	1	42	0	3	1	170	**42**	**100**
Jaffna	3	109	0	33	0	3	0	12	0	25	0	13	4	414	0	0	0	2	0	24	0	3	0	2	**20**	**88**
Kilinochchi	0	22	1	16	0	0	0	0	1	10	0	42	0	55	0	0	0	0	0	10	0	0	0	1	**51**	**100**
Mannar	0	19	0	0	0	0	0	4	0	0	0	23	0	2	0	0	0	0	0	3	0	12	0	1	**53**	**80**
Vavuniya	0	30	0	2	0	1	0	0	0	0	0	17	0	2	0	1	0	0	0	5	0	1	0	1	**42**	**100**
Mullaitivu	0	5	0	1	0	0	0	0	0	0	0	23	0	7	0	0	0	0	0	8	0	4	0	0	**25**	**96**
Batticaloa	10	2938	0	18	0	3	0	2	0	15	3	35	0	0	0	1	0	0	2	10	1	18	0	0	**46**	**100**
Ampara	0	21	0	5	0	0	0	1	0	0	0	37	0	0	0	1	0	0	0	32	0	9	0	3	**60**	**100**
Trincomalee	1	95	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	0	14	0	2	0	0	**38**	**80**
Kurunegala	11	502	0	11	0	3	0	0	0	3	1	168	1	8	0	0	0	1	0	32	0	73	1	198	**45**	**93**
Puttalam	7	203	0	2	0	1	0	0	0	0	0	16	0	14	0	0	0	1	1	15	0	23	1	9	**46**	**93**
Anuradhapur	1	111	0	8	0	0	1	1	0	3	3	183	0	20	0	2	0	0	0	22	0	19	0	117	**34**	**78**
Polonnaruwa	1	40	0	3	0	0	0	2	1	2	2	80	0	2	0	1	0	0	0	20	0	1	4	221	**39**	**100**
Badulla	2	60	0	9	0	0	0	1	0	0	3	172	2	29	3	15	0	0	2	29	0	11	0	13	**46**	**100**
Monaragala	4	56	0	5	0	0	0	2	0	5	14	209	0	14	3	43	0	0	1	20	0	35	1	13	**45**	**100**
Ratnapura	0	273	0	21	0	5	0	0	0	4	0	446	0	16	0	6	0	1	2	38	0	43	0	50	**39**	**96**
Kegalle	9	250	0	4	0	7	0	0	0	1	4	165	0	8	0	1	0	0	0	70	0	15	0	11	**44**	**100**
Kalmune	5	253	1	11	0	2	0	1	0	1	0	14	0	0	0	2	0	2	2	12	0	7	0	2	**43**	**100**
SRILANKA	**270**	**8611**	**8**	**216**	**0**	**39**	**1**	**41**	**2**	**83**	**40**	**2941**	**7**	**727**	**6**	**95**	**0**	**12**	**12**	**614**	**1**	**346**	**9**	**1146**	**45**	**93**

Source: Weekly Returns of Communicable Diseases (esurvillance.epid.gov.lk).

*T=Timeliness refers to returns received on or before 11th June , 2021 Total number of reporting units 357 Number of reporting units data provided for the current week: 352 C**-Completeness

Table 2: Vaccine-Preventable Diseases & AFP

05th – 11th Jun 2021 (24th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2021	Number of cases during same week in 2020	Total number of cases to date in 2021	Total number of cases to date in 2020	Difference between the number of cases to date in 2021& 2020
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	00	00	00	00	00	00	00	00	02	23	17	35.29%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	00	00	00	00	00	00	00	01	00	01	03	44	81	-45.67%
Measles	00	00	00	00	00	00	00	00	00	00	02	10	30	-66.66%
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	02	03	-33.33%
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	01	00	01	00	02	11	- 81.8%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	00	00	05	-100%
Tuberculosis	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	149	2591	2006	29.16%

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

Covid-19 Prevention & Control
For everyone's health & safety, maintain physical distance, often wash hands, wear a face mask and stay home.

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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