



WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit
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Cholera

Background



According to Global Health Observatory (GHO) data, a total of 132 121 cholera cases had been reported from 38 countries in 2016 including 17 countries in Africa, 12 in Asia, 4 in Europe, 4 in the Americas, and 1 in Oceania. Of cases reported globally, 54% were from Africa, 13% from Asia and 32% from Hispaniola. Imported cases were reported in 9 countries. It is estimated by researches that 1.3 million to 4.0 million cases of cholera and 21,000 to 143,000 deaths have occurred each year worldwide. Though cholera is endemic currently in many countries, it is related to many pandemics in the world. Cholera was started in the Ganges delta in India during the 19th century and spread across the world, forming six pandemics and killing of millions of people. The seventh pandemic had occurred in South Asia in 1961 and was spread to Africa in 1971 and to America in 1991.

Outbreaks of cholera cause economic and social impact on populations by disrupting the social and economic structure and obstructing the development in the affected countries. South-East Asia has faced many challenges due to unavoidable risk factors such as poverty, lack of development, high population density, frequent flooding which can contaminate water sources with dislocation of populations. Hence, cholera is still a public health problem in the world and improving WASH (global access to water, sanitation and hygiene) can mitigate the problem.

What is cholera?



Cholera is a bacterial disease caused by bacterium *Vibrio Cholerae* and affecting the human part is intestine. It is an acute diarrhoeal disease.

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Transmission

Occurs by ingesting contaminated food or water

Signs and Symptoms

Most of the time infection is mild and asymptomatic but can cause severe and life-threatening infection (5-10%). When it is severe, it shows signs and symptoms as follows

Profuse watery diarrhoea, sometimes described as “rice-water stools,” vomiting, rapid heart rate, loss of skin elasticity, dry mucous membranes, low blood pressure, thirst, muscle cramps, restlessness or irritability

Complications

Acute renal failure, severe electrolytes imbalance, coma If untreated, severe dehydration can rapidly lead to shock and death in hours.

Treatment

Rehydration therapy: Oral rehydration fluids, intravenous fluids and electrolytes should be administered at the earliest in adequate volume to reduce the fatality of patients.

Antibiotic treatment: It is recommended for severely ill patients. Antibiotic treatment is also recommended for all patients who are hospitalized. Doxycycline is recommended as first-line treatment for adults, while Azithromycin is recommended as first-line treatment for children and pregnant women. None of the guidelines recommend antibiotics as prophylaxis for cholera prevention.

Zinc treatment: has also been shown to help improve cholera symptoms in children

Prevention and control

Strengthening of basic sanitary measures, including drinking and using safe water, washing hands with soap and safe water, proper disposal of human excreta (use of latrines), consume cooked, covered food, wash fruits and vegetable thoroughly before consumption.

Vaccine: Vaxchora - a single-dose live oral cholera vaccine is recommended for 18 – 64 year olds who are travelling to an area of active cholera transmission.

Reference: Centers for Disease control and prevention, cholera – *Vibrio cholerae* infection, <https://www.cdc.gov/cholera/asia/index.html>

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**Table 1 : Water Quality Surveillance
Number of microbiological water samples June 2019**

District	MOH areas	No: Expected *	No: Received
Colombo	15	90	30
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	NR
Galle	20	120	80
Matara	17	102	133
Hambantota	12	72	33
Jaffna	12	72	197
Kilinochchi	4	24	42
Manner	5	30	NR
Vavuniya	4	24	NR
Mullatvu	5	30	NR
Batticaloa	14	84	83
Ampara	7	42	NR
Trincomalee	11	66	NR
Kurunegala	29	174	122
Puttalam	13	78	15
Anuradhapura	19	114	20
Polonnaruwa	7	42	35
Badulla	16	96	86
Moneragala	11	66	114
Rathnapura	18	108	94
Kegalle	11	66	8
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 13th - 19th July 2019 (29thWeek)

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	474	6771	0	32	0	7	0	13	2	33	5	124	0	7	1	6	0	0	3	294	2	31	0	3	48	100	
Gampaha	453	4785	1	24	0	5	0	3	0	24	4	64	0	3	1	5	0	1	6	279	1	14	1	123	51	98	
Kalutara	198	2840	0	49	0	6	0	14	1	52	4	325	0	4	0	4	0	1	7	442	3	71	0	3	62	99	
Kandy	138	1892	1	65	0	10	0	3	0	11	1	46	1	63	1	3	0	1	2	176	0	44	0	30	64	100	
Matale	14	319	0	18	0	3	0	0	1	5	1	36	0	5	0	4	0	2	3	59	0	4	10	139	56	100	
Nuwareliya	8	132	6	83	0	1	0	6	0	2	1	35	3	53	1	7	0	0	5	81	1	27	0	0	26	100	
Galle	151	3333	0	30	0	6	0	3	0	5	4	244	1	29	6	32	0	0	9	281	0	32	0	2	61	99	
Hambantota	78	819	1	6	0	2	0	1	0	5	1	70	1	80	0	3	0	1	1	221	0	24	26	530	75	100	
Matara	192	1434	1	13	0	4	0	2	3	13	11	235	1	25	0	16	0	0	5	196	2	11	15	335	59	100	
Jaffna	28	2034	7	141	0	12	1	20	2	40	0	23	0	262	0	4	0	0	1	216	0	14	0	0	25	93	
Kilinochchi	1	112	0	13	0	1	0	9	0	0	0	18	0	24	0	1	0	0	0	6	2	7	2	9	48	99	
Mannar	0	75	0	2	0	1	0	8	0	1	0	1	0	8	0	0	0	0	0	0	0	0	1	0	1	56	100
Vavuniya	5	197	0	14	0	10	0	22	0	9	0	47	0	4	0	0	0	0	0	62	0	9	0	1	58	98	
Mullaitivu	0	103	0	6	0	0	0	9	0	2	0	18	0	6	0	0	0	0	0	3	0	6	0	4	32	89	
Batticaloa	21	968	4	76	0	2	0	11	3	7	2	39	0	1	0	0	0	1	5	185	0	21	0	0	51	100	
Ampara	5	144	1	45	0	2	0	0	0	8	2	28	0	1	0	10	0	0	11	167	0	7	0	4	57	100	
Trincomalee	20	853	0	10	0	0	0	0	0	16	1	9	2	18	0	3	0	0	4	174	0	5	0	1	31	97	
Kurunegala	69	1065	1	51	0	11	0	6	1	30	2	115	0	13	2	19	1	2	3	430	1	66	13	504	60	100	
Puttalam	39	446	0	19	0	2	0	1	0	3	1	29	0	9	0	1	0	0	3	111	3	35	0	7	60	100	
Anuradhapura	18	350	3	32	0	7	0	4	1	7	0	92	2	30	1	19	0	2	5	382	1	59	6	324	41	99	
Polonnaruwa	11	204	0	16	0	2	0	1	0	1	5	56	0	4	0	15	0	2	7	227	0	13	11	173	61	100	
Badulla	27	482	0	49	0	5	0	7	1	73	3	136	3	80	0	13	0	0	8	198	1	129	0	11	64	100	
Monaragala	8	306	0	35	0	4	0	0	0	78	6	184	3	75	0	41	0	0	6	202	8	111	3	21	59	100	
Ratnapura	87	1564	0	68	0	24	0	8	0	13	8	560	0	22	0	18	0	4	7	248	0	107	4	100	45	100	
Kegalle	59	896	0	27	0	14	1	2	0	22	5	139	0	35	1	82	0	0	6	316	1	34	0	26	67	100	
Kalmune	6	543	0	39	1	1	0	1	26	38	1	23	0	3	1	4	0	0	3	159	0	15	0	0	64	100	
SRI LANKA	2110	32667	26	963	1	142	2	154	41	498	68	2696	17	864	15	310	1	17	110	5115	26	897	91	2351	54	99	

Source: Weekly Returns of Communicable Diseases (WRCD).

*T=Timeliness refers to returns received on or before 19th July, 2019. Total number of reporting units 353. Number of reporting units data provided for the current week: 330. C**=Completeness
A = Cases reported during the current week. B = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

13th – 19th July 2019 (29th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2019	Number of cases during same week in 2018	Total number of cases to date in 2019	Total number of cases to date in 2018	Difference between the number of cases to date in 2019 & 2018
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	01	00	01	00	00	00	00	02	01	46	37	24.3 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	02	00	01	00	01	00	00	00	01	05	03	202	202	0 %
Measles	01	02	00	00	00	00	00	00	00	03	04	201	77	161.0 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	00	04	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	01	11	15	- 26.6 %
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	09	18	- 50 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	02	34	34	0 %
Tuberculosis	00	15	16	12	08	00	00	02	05	58	296	4708	4753	-0.9 %

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	90	16	10	6			

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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