



WEEKLY EPIDEMIOLOGICAL REPORT

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Ministry of Health

231, de Saram Place, Colombo 01000, Sri Lanka
Tele: + 94 11 2695112, Fax: +94 11 2696583, E mail: epidunit@slt.net.lk
Epidemiologist: +94 11 2681548, E mail: chepid@slt.net.lk
Web: <http://www.epid.gov.lk>

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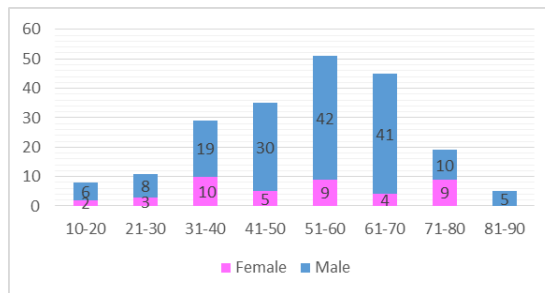
Understanding the factors that may contribute to deaths from leptospirosis in Sri Lanka:

Analysis of the 2023 mortality data II

This is the second article of two in a series on “Understanding the factors that may contribute to deaths from leptospirosis in Sri Lanka: Analysis of the 2023 mortality data”

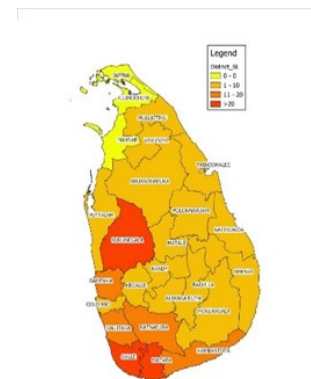
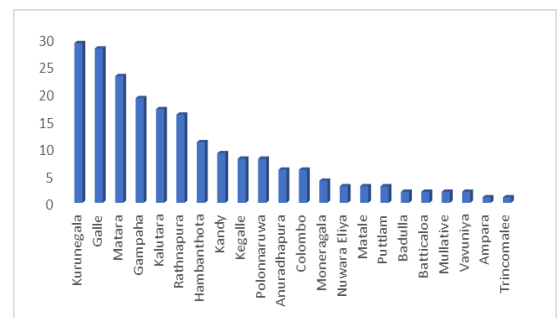
The following findings are summarized from the data in the special investigation forms completed by the Public Health Inspectors (PHI) after the field investigation of notified leptospirosis deaths. The PHI obtains the information from the relatives or caregivers of the deceased and medical records, if available. Therefore, the findings should be interpreted with caution as there may be discrepancies in the history regarding the illness given by the caregiver/relatives.

Distribution of leptospirosis deaths in 2023 by age and sex



The majority of deaths were among males (n=161; 79.1%) and primarily in the 51- 60-year age category (n=51; 25%). The demographic pattern indicates a notable impact on the country's workforce. Implementing notification and preventive measures tailored to these groups would be essential for effectively managing the situation and mitigating further risks.

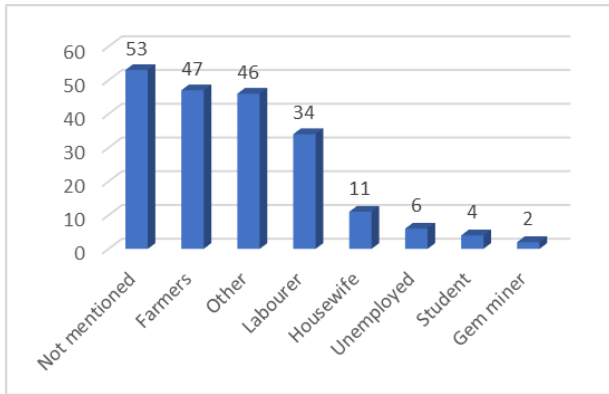
District-wise distribution of leptospirosis deaths in 2023



The district-wise distribution of leptospirosis deaths showed that Kurunegala district has recorded 29 deaths (mainly Polpithigama and Ganewaththa MOH area). Similarly, in the Galle district, the majority of deaths, totalling 28, were concentrated in Baddegama and Balapitiya MOH area. Additionally, Matara district, reported 23 deaths, indicating a significant concentration of fatalities in the Morawaka MOH area.

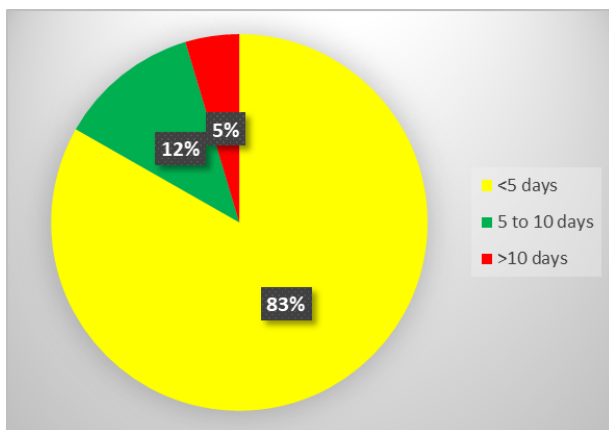
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Distribution of leptospirosis deaths in 2023 by occupation



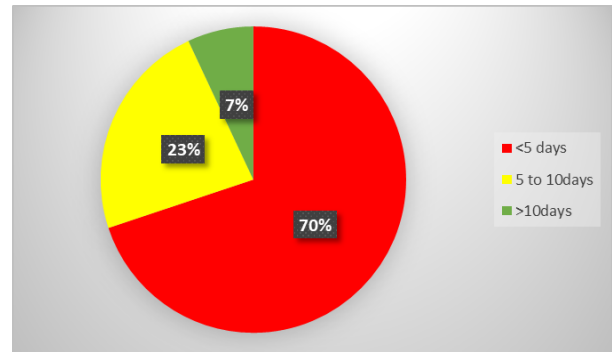
Overall, the high incidence of leptospirosis deaths among farmers (n=47) and labourers (n=34) underscores the need for targeted interventions to raise awareness, improve access to healthcare, implement preventive measures, and address socio-economic disparities to effectively mitigate the burden of the disease within these vulnerable populations. However, with the highest number being recorded as "not mentioned," it is important to reinforce the responsibility of the public health team to accurately record data in the special investigation form, including occupation. Supervising officers should oversee and verify the data, to identify trends in demographics, allowing for targeted actions.

Distribution of the number of days from onset of symptoms to admission to the hospital of the leptospirosis patients who died in 2023



The observation that the majority of individuals with leptospirosis were admitted to the hospital within 5 days of symptom onset underscores the importance of a comprehensive analysis to understand the root causes behind deaths among those who were admitted early. Delayed presentation to healthcare facilities due to distance to healthcare centres, transportation issues, or reluctance to seek medical help promptly may impact the effectiveness of treatment. Addressing these root causes through improved healthcare access, enhanced diagnostic capabilities, increased awareness and education, and targeted preventive measures is crucial for reducing leptospirosis-related mortality, particularly among those admitted early during the disease.

Number of days from admission to death of leptospirosis patients who died in 2023



The high mortality rate of leptospirosis patients within the first 5 days of admission in 2023 underscores significant challenges in timely intervention and effective management. Root causes contributing to this phenomenon include the rapid progression of the disease, delayed presentation to healthcare, late diagnosis, underlying health conditions, and treatment challenges. Addressing these issues necessitates a multifaceted approach, involving improving public awareness, enhancing diagnostic capabilities, ensuring timely access to healthcare, and optimizing treatment protocols.

Institutional death reviews are important to identify the 3 delays in patient care and other administrative issues that may impact patient management. Out of the 203 deaths, only two people had taken doxycycline as prophylaxis and one of them had taken only one dose. This highlights the crucial need for proper preventive measures including prophylaxis. If the 47 farmers had taken doxycycline prophylaxis for leptospirosis, those deaths could have been prevented. Strengthening healthcare systems, especially prevention and control activities and improving surveillance, particularly in endemic regions, is paramount to reducing mortality rates associated with leptospirosis.

Compiled by:

Dr.W.D.J K.Amarasena
Senior Registrar in Community Medicine, Epidemiology Unit

Dr.Thushani Dabrera
Consultant Community Physician, Epidemiology Unit

References:

[1] F. Costa *et al.*, "Global Morbidity and Mortality of Leptospirosis: A Systematic Review," *PLoS Negl. Trop. Dis.*, vol. 9, no. 9, pp. 0–1, 2015, doi: 10.1371/journal.pntd.0003898.

[2] N. & I. M. Epidemiology Unit Ministry of Health, "WEEKLY EPIDEMIOLOGICAL REPORT Vol. 50 No. 19," no. May, pp. 1–4, 2013, [Online]. Available: <http://www.epid.gov.lk>

Table 1: Selected notifiable diseases reported by Medical Officers of Health 13th-19th Apr 2024 (16th Week)

RDHS	Dengue Fever		Dysentery		Encephalitis		En. Fever		F. Poisoning		Leptospirosis		Typhus F.		Viral Hep.		H. Rabies		Chickenpox		Meningitis		Leishmania-		Tuberculosis		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	A	B	T*	C**	
Colombo	111	4326	2	7	1	4	2	25	1	5	7	149	0	6	0	4	0	0	14	162	0	12	0	0	0	50	673	95	100
Gampaha	68	1880	1	8	2	6	0	3	0	1	14	215	0	2	0	1	0	0	7	106	2	37	0	8	17	377	86	100	
Kalutara	37	1245	1	12	0	1	4	20	0	5	12	248	0	5	0	5	0	0	8	229	0	25	0	0	2	201	87	100	
Kandy	73	1681	1	7	0	0	0	4	0	3	4	95	1	10	0	4	0	0	5	194	0	5	1	17	1	213	100	100	
Matale	16	329	0	1	0	0	0	1	0	8	1	42	0	1	0	4	0	0	2	33	0	5	7	89	1	41	92	100	
Nuwara Eliya	7	180	2	30	0	3	0	3	6	133	2	75	3	19	0	3	0	0	8	77	0	3	0	0	5	95	92	100	
Galle	19	1030	0	17	1	8	0	5	0	21	7	282	2	47	0	5	0	1	6	229	1	29	0	3	3	144	100	100	
Hambantota	32	460	1	9	0	1	0	3	0	33	6	244	1	17	0	2	0	0	10	114	0	12	2	168	0	38	100	100	
Matara	3	374	1	3	0	3	0	2	0	4	6	123	1	9	0	2	0	0	7	121	0	38	4	35	3	37	94	100	
Jaffna	34	4886	1	26	0	1	1	4	1	16	0	12	6	351	0	3	0	1	6	106	0	6	0	0	4	76	100	93	
Kilinochchi	4	268	3	5	0	0	0	2	0	1	1	13	0	7	0	0	0	0	0	4	1	4	0	0	0	7	100	100	
Mannar	1	173	0	0	0	0	0	1	0	0	0	16	0	6	0	0	0	0	0	4	0	3	0	1	1	23	100	100	
Vavuniya	0	125	0	0	0	0	0	0	2	7	0	54	0	2	0	4	0	0	0	14	0	6	0	5	1	8	100	100	
Mullaitivu	2	176	0	4	0	0	0	0	0	2	3	50	0	10	0	0	0	0	0	2	0	0	1	5	0	11	83	100	
Batticaloa	11	1029	2	53	1	6	0	4	0	12	2	26	0	1	2	8	0	0	7	45	1	20	0	1	3	41	100	100	
Ampara	4	142	0	14	0	1	0	0	0	8	4	109	0	1	0	3	0	0	1	52	0	19	0	6	3	71	86	100	
Trincomalee	17	422	0	8	0	0	1	2	0	1	3	92	0	9	0	0	0	0	1	23	0	3	0	8	6	24	100	100	
Kurunegala	21	1212	2	13	1	12	1	1	0	339	5	243	0	15	0	2	0	2	12	163	12	89	19	187	15	178	85	96	
Puttalam	19	620	0	1	0	1	0	3	0	0	2	123	0	5	1	1	0	4	4	54	5	22	1	9	1	62	54	100	
Anuradhapura	4	474	0	4	0	2	0	0	1	4	8	199	1	23	0	6	0	0	7	78	2	20	21	286	7	88	100	100	
Polonnaruwa	3	185	1	10	0	0	0	1	0	2	4	121	0	1	0	2	0	4	4	65	0	12	9	164	5	32	100	100	
Badulla	9	493	1	10	1	4	0	0	3	19	14	224	1	10	1	8	0	12	110	1	11	0	10	6	72	100	100		
Monaragala	10	372	0	5	0	1	0	1	0	68	14	416	2	16	5	12	0	1	38	2	43	4	81	0	31	73	100	100	
Ratnapura	44	940	4	34	0	3	1	3	1	5	19	578	0	10	1	12	0	2	10	115	0	47	6	69	9	73	90	100	
Kegalle	23	956	0	3	0	4	0	5	1	4	10	228	0	8	0	5	0	0	30	285	2	25	0	12	4	104	82	100	
Kalmunai	4	502	0	9	0	0	0	0	0	2	3	37	0	1	0	1	0	6	6	75	0	6	0	0	1	44	77	100	
SRILANKA	576	24480	23	293	7	61	10	93	16	703	151	4014	18	592	10	97	0	6	168	2498	29	502	75	1164	148	2764	91	99	

Source: Weekly Returns of Communicable Diseases (esurveillance.avid.gov.lk). T=Timeliness refers to returns received on or before 19th April, 2024 Total number of reporting units 368 Number of reporting units data provided for the current week. 366 C**=Completeness . A = Cases reported during the current week . B = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

13th – 19th Apr 2024 (16th Week)

Disease	No. of Cases by Province									Number of cases during current week in 2024	Number of cases during same week in 2023	Total number of cases to date in 2024	Total number of cases to date in 2023	Difference between the number of cases to date in 2024 & 2023
	W	C	S	N	E	NW	NC	U	Sab					
AFP*	00	00	00	00	00	00	00	00	00	00	01	28	25	12 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0 %
Mumps	00	00	01	00	02	02	02	01	00	08	05	88	73	20.5 %
Measles	01	00	04	02	02	00	00	00	00	09	00	201	00	0 %
Rubella	00	00	00	00	00	00	00	00	00	00	00	01	01	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	01	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	00	01	02	-50 %
Whooping Cough	01	00	00	00	00	00	00	00	00	01	00	03	03	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
NA = Not Available

Number of Malaria Cases Up to End of January 2024,

02

All are Imported!!!

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

Dr. Samitha Ginige
 Actg. CHIEF EPIDEMIOLOGIST
 EPIDEMIOLOGY UNIT
 231, DE SARAM PLACE
 COLOMBO 10