



# WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit  
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## Human Rabies

Rabies is an infectious viral disease that is 100 % fatal if post-exposure prophylaxis is not administered prior to the onset of clinical signs and symptoms. Rabies affects domestic and wild animals, and is spread to people through bites or scratches of rabid animals.

Globally more than 3 billion people, about half the world's population, are living in countries/territories where dog rabies still exists and are potentially exposed to rabies. It is estimated that at least 55,000 human rabies deaths occur yearly in Africa and Asia following contact with rabid dogs.

Rabies is also 100% preventable in humans. However in Sri Lanka, still there are **20 to 30** people succumbing to rabies annually.

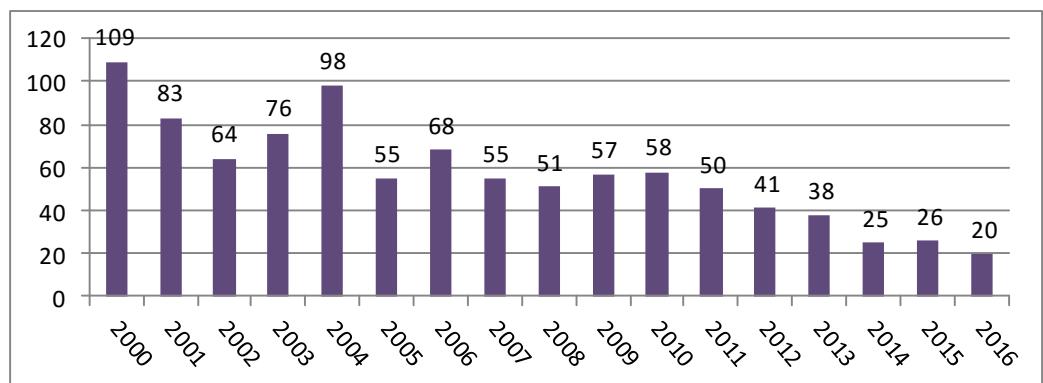
### Transmission

People are usually infected following a deep bite or scratch by an infected animal. Dogs are the main host and transmitter of rabies.

Transmission can also occur when infectious material – usually saliva – comes into direct contact with human mucosa or fresh skin wounds. Human-to-human transmission by bite is theoretically possible but has never been confirmed.

Rarely, rabies may be contracted by inhalation of virus-containing aerosol or via transplantation of an infected organ. Ingestion of raw meat or other tissues from animals infected with rabies is not a confirmed source of human infection.

## Human Rabies Cases In Sri Lanka 2000 - 2016



Source– Epidemiology Unit

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**Clinical features**

The rabies virus infects the central nervous system, ultimately causing disease in the brain and death. The early symptoms of rabies in people may be similar to that of many other illnesses, including fever, headache, and general weakness or discomfort. The initial symptoms of rabies also can be an unusual or unexplained tingling, pricking or burning sensation (paraesthesia) at the wound site. As the virus spreads through the central nervous system the disease progresses, and more specific symptoms appear .

Two forms of the disease can follow. People with furious rabies exhibit signs of hyperactivity, excited behaviour, hydrophobia (fear of water) and sometimes aerophobia (fear of flying). After a few days, death occurs by cardio-respiratory arrest.

Human Rabies by the Ownership of the Animal/ Source of Infection in 2016	
Animal/ Source of Infection	No. of Cases
Household Pet	04
Neighbour's Pet	02
Stray Dog	10
Wild Animal	-
Not Known	04
<b>Total</b>	<b>20</b>

People with paralytic rabies accounts for about 30% of the total number of human cases. This form of rabies runs a less dramatic and usually longer course than the furious form. The muscles gradually become paralyzed, starting at the site of the bite or scratch. A coma slowly develops, and eventually death occurs. The paralytic form of rabies is often misdiagnosed, contributing to the under-reporting of the disease.

The incubation period for rabies is typically 1–3 months, but may vary from <1 week to >1 year, dependent upon factors such as location of rabies entry and rabies viral load.

**Diagnosis**

No tests are available to diagnose rabies infection in humans before the onset of clinical disease, and unless the rabies-specific signs of hydrophobia or aerophobia are present, the clinical diagnosis may be difficult. Human rabies can be con-

firmed *intra-vitam* and post mortem by various diagnostic techniques aimed at detecting whole virus, viral antigens or nucleic acids in infected tissues (brain, skin, urine or saliva).

The main reasons for deaths in Sri Lanka are non vaccination of dogs against rabies and not getting post exposure treatments. If treated properly immediately after infected animal bite it is 100% preventable. Unfortunately there were 12 cases of human rabies who had not gone for post exposure Anti rabies vaccination in 2016 . This is an eye opener to further analyze why these people have not gone for vaccination in spite of freely availability of this vaccine even in peripheral hospitals.

**Post-exposure prophylaxis (PEP)**

Post-exposure prophylaxis (PEP) means the treatment of a bite victim that is started immediately after exposure to rabies in order to prevent rabies virus from entering the central nervous system which would result in imminent death. This consists of: local treatment of the wound, initiated as soon as possible after exposure; a course of potent and effective rabies vaccine that meets WHO standards; and the administration of rabies immunoglobulin (RIG), if indicated. Effective treatment soon after exposure to rabies can prevent the onset of symptoms and death.

**Local treatment of the wound**

This involves first-aid of the wound that includes immediate and thorough flushing and washing of the wound for a minimum of 15 minutes with soap and water, detergent, povidone iodine or other substances that kill the rabies virus.

It is mandatory to organize sustainable mass dog vaccination campaigns and dog population management programs in addition to the improvement in education of the public about rabies prevention especially where it is needed most.

**Source**

- <http://www.who.int/>
- <http://www.rabies.gov.lk>
- <https://www.cdc.gov/rabies/>

**Compiled by**

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Table 1: Selected notifiable diseases reported by Medical Officers of Health 18<sup>th</sup> - 24<sup>th</sup> Feb 2017 (08<sup>th</sup> 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	220	4427	0	22	0	0	0	5	0	3	0	13	0	1	0	5	0	0	0	2	45	1	9	0	1	63	94
Gampaha	23	2352	0	11	0	6	0	7	0	7	0	12	0	2	0	3	0	1	3	34	0	13	0	4	33	87	
Kalutara	40	902	1	8	0	2	0	1	4	12	4	39	0	2	0	0	0	0	10	84	1	18	0	0	57	86	
Kandy	28	470	7	16	0	2	0	0	0	0	0	10	4	29	0	5	0	1	8	55	0	10	0	2	91	96	
Matale	22	222	0	3	0	0	0	0	0	0	0	9	0	1	0	3	0	0	0	5	0	19	0	0	77	92	
NuwaraEliya	4	82	0	6	0	1	0	2	0	0	0	8	3	31	0	2	0	0	2	29	2	12	0	0	69	85	
Galle	53	1262	2	11	1	3	0	4	0	5	1	33	0	13	0	0	0	0	6	53	2	11	0	0	70	80	
Hambantota	24	420	2	13	0	1	1	4	5	6	0	13	1	12	1	4	0	0	6	52	1	5	10	66	83	92	
Matarata	69	805	2	10	0	2	0	0	0	2	1	13	0	9	0	1	0	1	6	37	0	1	4	19	94	100	
Jaffna	165	1034	4	67	1	3	1	11	2	21	1	14	24	244	0	3	0	0	2	65	1	10	0	0	100	100	
Kilinochchi	1	97	0	5	0	0	0	1	0	0	0	2	0	8	0	2	0	0	0	0	0	0	0	0	3	50	75
Mannar	16	234	1	4	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	60	100	
Vavuniya	15	129	1	6	0	0	0	8	0	1	3	7	1	2	0	1	0	0	1	12	0	0	0	3	50	100	
Mullaitivu	4	61	0	1	0	0	0	2	0	0	0	7	0	2	0	0	0	0	0	1	0	4	0	0	20	80	
Batticaloa	55	555	0	30	0	7	0	5	0	0	0	6	0	0	0	2	0	0	2	43	0	11	0	1	50	93	
Ampara	1	88	0	5	0	0	0	1	0	0	0	4	0	1	0	1	0	0	3	36	0	5	0	1	43	71	
Trincomalee	225	1047	0	3	0	1	0	2	0	1	0	4	0	5	1	4	0	0	4	37	0	3	0	0	85	85	
Kurunegala	49	764	0	20	0	0	0	0	0	2	2	19	0	14	1	3	0	0	14	113	1	14	0	22	59	93	
Puttalam	26	327	3	16	0	1	0	0	0	0	0	3	0	9	0	1	0	0	4	39	1	13	0	1	71	86	
Anuradhapura	16	269	0	6	0	1	0	0	0	2	0	19	0	9	1	3	0	0	4	69	0	12	9	52	47	84	
Polonnaruwa	5	114	0	5	0	1	2	3	0	0	0	10	0	1	0	1	0	0	2	40	0	4	0	24	71	100	
Badulla	22	357	2	22	0	3	0	2	0	1	0	11	1	9	0	9	0	0	5	65	2	38	0	1	71	94	
Monaragala	19	187	0	10	0	1	0	0	0	1	1	21	0	32	0	4	0	0	0	23	0	12	0	4	82	100	
Ratnapura	43	710	4	26	3	26	1	4	0	0	5	66	0	6	1	15	0	0	8	54	4	41	0	0	78	89	
Kegalle	20	399	1	12	2	3	0	1	0	9	1	8	0	16	0	2	0	0	3	45	2	17	0	2	82	91	
Kalmune	4	588	0	18	0	4	0	1	0	4	0	2	0	0	0	0	0	0	4	53	0	4	0	0	46	85	
<b>SRI LANKA</b>	<b>1169</b>	<b>17902</b>	<b>30</b>	<b>356</b>	<b>7</b>	<b>68</b>	<b>5</b>	<b>65</b>	<b>11</b>	<b>77</b>	<b>19</b>	<b>353</b>	<b>34</b>	<b>459</b>	<b>5</b>	<b>74</b>	<b>0</b>	<b>3</b>	<b>99</b>	<b>1092</b>	<b>18</b>	<b>286</b>	<b>23</b>	<b>208</b>	<b>68</b>	<b>90</b>	

Source: Weekly Returns of Communicable Diseases (WRCD).

\*T=Timeliness refers to returns received on or before 24<sup>th</sup> February, 2017 Total number of reporting units 337 Number of reporting units data provided for the current week: 314 C\*\*-Completeness  
A = Cases reported during the current week. B = Cumulative cases for the year.

Table 2: Vaccine-Preventable Diseases & AFP

18<sup>th</sup> – 24<sup>th</sup> Feb 2017 (08<sup>th</sup> Week)

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	00	00	00	00	00	00	00	00	01	01	17	08	+112.2%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	00	00	00	01	01	00	00	00	02	04	04	47	66	-29.7%
Measles	01	01	00	00	00	01	01	00	01	05	06	55	119	-54.1%
Rubella	00	00	00	00	00	00	00	00	00	00	00	01	04	-75%
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	03	01	+200%
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	04	00	0%
Whooping Cough	00	00	00	00	00	00	00	00	00	00	02	04	17	-76.4%
Tuberculosis	34	04	06	13	03	42	04	06	11	123	228	1308	1453	-10.1%

**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

**Dengue Prevention and Control Health Messages**

**Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them**

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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](mailto: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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