



# WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit  
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Vol. 45 No. 42

13<sup>th</sup> – 19<sup>th</sup> October 2018

## Falls

A fall is defined as an event which results in a person coming to rest inadvertently on the ground or floor or other lower level.

Fall-related injuries may be fatal or non-fatal though most are non-fatal. For example, of children in the People's Republic of China, for every death due to a fall, there are 4 cases of permanent disability, 13 cases requiring hospitalization for more than 10 days, 24 cases requiring hospitalization for 1–9 days and 690 cases seeking medical care or missing work/school.

### The problem

Globally, falls are a major public health problem. An estimated 646 000 fatal falls occur each year, making it the second leading cause of unintentional injury death, after road traffic injuries.

Over 80% of fall-related fatalities occur in low- and middle-income countries, with regions of the Western Pacific and South East Asia accounting for 60% of these deaths. In all regions of the world, death rates are highest among adults over the age of 60 years.

Though not fatal, approximately 37.3 million falls severe enough to require medical attention occur each year. Such falls are responsible for over 17 million DALYs (disability-adjusted life years) lost. The largest morbidity occurs in people aged 65 years or older, young adults aged 15–29 years and children aged 15 years or younger.

While nearly 40% of the total DALYs lost due to falls worldwide occurs in children, this measurement may not accurately reflect the impact of fall-related disabilities for older individuals who have fewer life years to lose. In addition, those individuals who fall and suffer a disability, particularly older people, are at a major risk for subsequent long-term care and institutionalization.

The financial costs from fall-related injuries are substantial. For people aged 65 years or older, the average health system cost per fall injury in the Republic of Finland and Australia are US\$ 3611 and US\$ 1049 respectively.

Evidence from Canada suggests the implementation of effective prevention strategies with a subsequent 20% reduction in the incidence of falls among children under 10 years of age could create a net savings of over US\$ 120 million each year.

### Who is at risk?

While all people who fall are at risk of injury, the age, gender and health of the individual can affect the type and severity of injury.

### Age

Age is one of the key risk factors for falls. Older people have the highest risk of death or serious injury arising from a fall and the risk increases with age. For example, in the United States of America, 20–30% of older people who fall suffer moderate to severe injuries such as bruises, hip fractures, or head trauma. This risk level may be

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in part due to physical, sensory, and cognitive changes associated with ageing, in combination with environments that are not adapted for an aging population.

Another high risk group is children. Childhood falls occur largely as a result of their evolving developmental stages, innate curiosity in their surroundings, and increasing levels of independence that coincide with more challenging behaviours commonly referred to as 'risk taking'. While inadequate adult supervision is a commonly cited risk factor, the circumstances are often complex, interacting with poverty, sole parenthood, and particularly hazardous environments.

### Gender

Across all age groups and regions, both genders are at risk of falls. In some countries, it has been noted that males are more likely to die from a fall, while females suffer more non-fatal falls.

Older women and younger children are especially prone to falls and increased injury severity. Worldwide, males consistently sustain higher death rates and DALYs lost. Possible explanations of the greater burden seen among males may include higher levels of risk-taking behaviours and hazards within occupations.

Other risk factors include:

- occupations at elevated heights or other hazardous working conditions;
- alcohol or substance use;
- socioeconomic factors including poverty, overcrowded housing, sole parenthood, young maternal age;
- underlying medical conditions, such as neurological, cardiac or other disabling conditions;
- side effects of medication, physical inactivity and loss of balance, particularly among older people;
- poor mobility, cognition, and vision, particularly among those living in an institution, such as a nursing home or chronic care facility;
- unsafe environments, particularly for those with poor balance and limited vision.

### Prevention

Fall prevention strategies should be comprehensive and multifaceted. They should prioritize research and public health initiatives to further define the burden, explore variable risk factors and utilize effective prevention strategies. They should support policies that create safer environments and reduce risk factors. They should promote engineering to remove the potential for

falls, the training of health care providers on evidence-based prevention strategies; and the education of individuals and communities to build risk awareness.

Effective fall prevention programmes aim to reduce the number of people who fall, the rate of falls and the severity of injury should a fall occur. For older individuals, fall prevention programmes can include a number of components to identify and modify risk, such as:

- screening within living environments for risks for falls;
- clinical interventions to identify risk factors, such as medication review and modification, treatment of low blood pressure, vitamin D and calcium supplementation, treatment of correctable visual impairment;
- home assessment and environmental modification for those with known risk factors or a history of falling;
- prescription of appropriate assistive devices to address physical and sensory impairments;
- muscle strengthening and balance retraining prescribed by a trained health professional;
- community-based group programmes which may incorporate fall prevention education and Tai Chi-type exercises or dynamic balance and strength training;
- use of hip protectors for those at risk of a hip fracture due to a fall.

For children, effective interventions include multifaceted community programmes; engineering modifications of nursery furniture, playground equipment, and other products; and legislation for the use of window guards.

Other promising prevention strategies include: use of guard rails/gates, home visitation programmes, mass public education campaigns, and training of individuals and communities in appropriate acute pediatric medical care should a fall occur.

### Source:

WHO. Falls Fact Sheet. <https://www.who.int/news-room/fact-sheets/detail/falls>

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Table 1: Selected notifiable diseases reported by Medical Officers of Health 06<sup>th</sup>-12<sup>th</sup> October 2018(41<sup>st</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	78	7729	2	73	0	9	0	37	0	37	4	178	0	12	1	7	0	0	10	583	0	55	0	4	62	100
paha	70	4409	0	58	0	8	1	21	1	21	5	192	0	5	0	12	0	0	15	629	2	40	4	45	65	100
Kalutara	26	2539	2	75	0	5	1	12	1	12	14	518	0	6	0	12	0	0	17	551	0	82	0	9	53	100
Kandy	48	3029	1	98	0	5	0	3	0	3	3	72	1	87	1	19	0	1	4	277	2	34	2	27	59	100
Matale	5	789	4	21	0	1	0	4	0	4	6	82	0	2	0	7	0	0	3	40	0	13	10	122	60	100
NuwaraEliya	2	172	1	50	0	4	0	12	0	12	2	41	0	120	1	24	0	0	2	190	1	37	0	0	26	100
Galle	8	808	5	47	1	12	0	6	0	6	11	335	4	57	0	3	0	1	13	297	3	52	0	5	27	100
Hambantota	12	753	0	14	0	4	0	3	0	3	0	62	0	68	0	3	0	1	5	226	0	13	3	655	72	100
Matarata	18	905	1	36	0	6	0	7	0	7	2	197	1	42	0	15	0	0	2	243	0	12	9	393	55	100
Jaffna	58	2490	6	140	0	5	2	43	2	43	0	10	0	257	0	1	0	2	8	253	0	9	0	3	37	93
Kilinochchi	1	277	0	26	0	1	0	17	0	17	0	5	0	16	0	0	0	1	0	31	0	2	0	1	50	100
Mannar	1	193	1	18	0	0	0	3	0	3	0	1	0	1	0	0	0	0	0	27	0	4	0	3	37	100
Vavuniya	6	498	0	15	0	4	0	41	0	41	1	33	0	7	0	0	0	1	4	45	0	5	1	12	57	100
Mullaitivu	0	95	0	7	0	0	0	10	0	10	0	8	0	6	0	0	0	1	0	9	0	1	0	2	24	100
Batticaloa	19	4325	2	147	0	5	0	7	0	7	1	40	0	1	1	3	0	3	4	160	0	18	0	0	65	100
Ampara	3	205	3	57	0	3	0	2	0	2	0	34	0	0	0	7	0	1	6	265	0	22	1	3	66	100
Trincomalee	0	939	0	36	0	2	1	5	1	5	0	48	0	22	0	2	0	0	7	180	0	9	0	18	28	100
Kurunegala	16	2016	3	115	0	16	0	13	0	13	0	119	0	21	0	20	0	2	17	461	2	82	13	340	62	100
Puttalam	9	1458	1	40	0	6	0	4	0	4	0	41	0	11	0	2	0	0	4	127	1	69	0	2	62	100
Anuradhapura	5	746	3	51	0	7	0	4	0	4	0	112	0	17	1	12	0	2	7	357	3	43	15	408	45	95
Polonnaruwa	0	260	1	33	0	2	0	0	0	0	1	95	0	0	0	4	0	1	8	232	0	18	7	206	56	88
Badulla	10	463	4	104	0	8	3	13	3	13	2	142	5	80	1	60	0	0	8	397	2	100	2	9	46	100
Monaragala	7	753	1	66	0	2	0	1	0	1	1	242	2	122	0	35	0	0	5	158	8	125	3	41	67	100
Ratnapura	17	1883	6	157	1	38	0	21	0	21	13	579	0	26	0	25	0	2	11	263	2	102	3	184	47	100
Kegalle	29	1201	0	49	1	9	1	8	1	8	7	233	0	68	2	15	0	0	8	328	0	42	0	13	64	100
Kalmune	8	1572	1	41	0	3	0	3	0	3	0	7	0	1	0	1	0	0	9	177	0	14	0	1	51	100
<b>SRILANKA</b>	<b>456</b>	<b>40507</b>	<b>48</b>	<b>1574</b>	<b>3</b>	<b>165</b>	<b>9</b>	<b>300</b>	<b>9</b>	<b>300</b>	<b>73</b>	<b>3426</b>	<b>13</b>	<b>1055</b>	<b>8</b>	<b>289</b>	<b>0</b>	<b>19</b>	<b>177</b>	<b>6506</b>	<b>26</b>	<b>1003</b>	<b>73</b>	<b>2506</b>	<b>53</b>	<b>99</b>

Source: Weekly Returns of Communicable Diseases (WRCD).

\*T=Timeliness refers to returns received on or before 12<sup>th</sup> October, 2018 Total number of reporting units 353 Number of reporting units data provided for the current week: 351 C\*\*=Completeness  
A = Cases reported during the current week. B = Cumulative cases for the year.

**Table 2: Vaccine-Preventable Diseases & AFP**

**06<sup>th</sup>– 12<sup>th</sup> October 2018(41<sup>st</sup> 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*	01	01	00	00	00	02	00	00	00	04	03	52	56	- 7.1 %
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	01	00	01	00	00	02	00	01	00	05	03	277	250	10.8 %
Measles	00	00	00	00	00	00	02	00	00	02	00	102	175	- 41.7 %
Rubella	00	00	00	00	00	00	01	00	00	01	00	05	10	- 50 %
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	02	17	16	6.2 %
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	25	21	19.0 %
Whooping Cough	00	00	00	00	00	00	00	00	00	00	01	41	19	115.7 %
Tuberculosis	58	07	05	02	03	02	00	04	33	114	210	6705	6703	0.02 %

**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

**Dengue Prevention and Control Health Messages**

**Look for plants such as bamboo, bohemia, rampe and banana in your surroundings and maintain them free of water collection.**

**PRINTING OF THIS PUBLICATION IS FUNDED BY THE WORLD HEALTH ORGANIZATION (WHO).**

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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