



# WEEKLY EPIDEMIOLOGICAL REPORT

A publication of the Epidemiology Unit  
Ministry of Health, Nutrition & Indigenous Medicine

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## Cancer in Children

Cancer is a leading cause of death for children and adolescents worldwide. In high-income countries more than 80% of children with cancer are cured, but in many LMICs only 20% are cured

The reasons for lower survival rates in LMICs include an inability to obtain an accurate diagnosis, inaccessible therapy, abandonment of treatment, death from toxicity (side effects), and excess relapse, in part due to lack of access to essential medicines and technologies addressing each of these gaps improves survival and can be highly cost-effective.

### What causes cancer in children?

Cancer occurs in people of all ages and can affect any part of the body. It begins with genetic changes in a single cell that then grows out of control. In many cancers, this results in a mass (or tumour). If left untreated, cancer generally expands, invades other parts of the body and causes death.

Unlike cancer in adults, the vast majority of childhood cancers do not have a known cause. Many studies have sought to identify the causes of childhood cancer, but very few cancers in children are caused by environmental or lifestyle factors. Cancer prevention efforts in children should focus on behaviours that will prevent the child from developing preventable cancer as an adult.

Some chronic infections are risk factors for child-

hood cancer and have major relevance in low- and middle-income countries. For example, HIV, Epstein-Barr virus and malaria increase the risk of some childhood cancers. Other infections can increase the child's risk of developing cancer as an adult, so it is important to be vaccinated and pursue other methods such as early diagnosis or screening to decrease chronic infections that lead to cancer, whether in childhood or later.

Current data suggest that approximately 10% of all children with cancer have a predisposition because of genetic factors. Ongoing research is needed to identify factors impacting cancer development in children.

### Improving outcomes of childhood cancer

Because it is generally not possible to prevent cancer in children, the most effective strategy to reduce the burden of cancer in children is to focus on a prompt, correct diagnosis followed by effective therapy.

### Early diagnosis

When identified early, cancer is more likely to respond to effective treatment and result in a greater probability of survival, less suffering, and often less expensive and less intensive treatment. Significant improvements can be made in the lives of children with cancer by detecting cancer early and avoiding delays in care. A correct diagnosis is essential to treat children with cancer because each cancer requires a specific treatment regimen that may include surgery, radiotherapy, and chemotherapy.

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Early diagnosis consists of 3 components:

- \* awareness by families and accessing care
- \* clinical evaluation, diagnosis and staging (determining the extent to *which* a cancer has spread)
- \* access to treatment

Early diagnosis is relevant in all settings and improves survival for many cancers. Programmes to promote early and correct diagnosis have been successfully used in countries of all income levels, often through collaborative efforts of governments, civil society and non-governmental organizations, with vital roles played by parent groups. Childhood cancer is associated with a range of warning symptoms that can be detected by families and by trained primary health care providers.

Screening is generally not helpful for childhood cancers. In some select cases, it can be considered in high-risk populations. For example, some eye cancers in children can be caused by a mutation that is inherited, so if that mutation is identified in the family of a child with retinoblastoma, genetic counseling can be offered and siblings monitored with regular eye examination early in life. Genetic causes of childhood cancers are relevant in only a handful of children with cancer. There is no high-quality evidence to support population-based screening programmes in children.

### Treatment

A correct diagnosis is essential to treat children with cancer because each cancer requires a specific treatment regimen that may include surgery, radiotherapy, and chemotherapy. Access to effective diagnosis, essential medicines, pathology, blood products, radiation therapy, technology and psychosocial and supportive care are variable and inequitable around the world. However, cure is possible for more than 80% of children with cancer, in most cases with inexpensive generic medications that are listed on the WHO List of Essential Medicines (EML).

WHO EML for children, defined as those meeting the priority health care needs of the population, includes 22 cytotoxic or adjuvant medicines and 4 hormone treatments for childhood cancer. Children who complete treatment require ongoing care to monitor for cancer recurrence and to manage any possible treatment-related toxicity.

### Palliative care

Palliative care relieves symptoms caused by cancer and improves the quality of life of patients and their families. Not all children with cancer can be cured, but relief of suffering is pos-

sible for everyone. Pediatric palliative care should be appropriately considered as a core component of comprehensive care starting when illness is diagnosed, and continued regardless of whether or not a child receives treatment with curative intent.

Palliative care programmes can be delivered through community- and home-based care to provide pain relief and psychosocial support to patients and their families. Adequate access to oral morphine and other pain should be provided for the treatment of moderate to severe cancer pain, which affects more than 80% of cancer patients in the terminal phase.

- Cancer is a leading cause of death for children and adolescents around the world and approximately 300,000 children aged 0 to 19 years old are diagnosed with cancer each year.
- The most common categories of childhood cancers include leukemias, brain cancers, lymphomas and solid tumours, such as neuroblastoma and Wilms tumour.
- In high-income countries more than 80% of children with cancer are cured, but in many low- and middle-income countries (LMICs) only about 20% are cured.
- Childhood cancer generally cannot be prevented or screened.
- Improving outcomes for children with cancer requires early and accurate diagnosis followed by effective treatment.
- Most childhood cancers can be cured with generic medicines and other forms of treatments including surgery and radiotherapy. Treatment of childhood cancer can be cost-effective in all income settings.
- Avoidable deaths from childhood cancers in LMICs result from lack of diagnosis, misdiagnosis or delayed diagnosis, obstacles to accessing care, abandonment of treatment, death from toxicity, and higher rates of relapse.

Childhood cancer data systems are needed to drive continuous improvements in the quality of care, and to drive policy decisions.

### Source:

WHO. Cancer in Children Fact Sheet. <https://www.who.int/news-room/fact-sheets/detail/cancer-in-children>

### Compiled by :

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Table 1: Selected notifiable diseases reported by Medical Officers of Health 22nd- 28th Sept 2018(39th 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	91	7576	2	69	0	9	0	36	0	29	7	169	1	12	1	6	0	0	12	558	3	55	1	4	62	100
paha	78	4293	0	58	0	8	1	20	139	168	5	185	0	4	0	12	0	0	19	586	0	38	0	40	65	100
Kalutara	32	2485	2	69	0	4	0	11	0	54	28	478	0	6	0	12	0	0	14	507	0	81	0	9	53	100
Kandy	51	2940	0	93	0	5	0	3	1	20	0	65	2	86	0	18	0	0	1	267	1	30	1	25	59	100
Matale	4	780	1	17	0	1	0	4	0	32	0	74	0	2	0	7	0	0	0	36	0	13	6	108	61	100
NuwaraEliya	0	165	1	49	0	3	0	12	0	47	2	39	1	114	0	23	0	0	1	185	3	33	0	0	27	100
Galle	6	792	0	42	0	10	0	5	0	12	6	314	5	51	0	3	0	1	12	280	1	49	0	5	25	100
Hambantota	10	723	0	14	0	4	0	3	0	5	1	60	0	64	0	3	0	1	8	217	0	10	15	644	72	100
Matarata	7	871	2	34	0	6	0	6	1	23	2	192	0	41	2	15	0	0	7	235	0	12	10	364	55	100
Jaffna	21	2399	4	126	0	5	0	37	3	216	0	10	2	257	0	1	0	2	6	241	0	9	0	3	37	93
Kilinochchi	7	274	1	26	0	1	0	16	0	2	1	5	0	16	0	0	0	1	0	31	0	2	0	1	51	100
Mannar	0	190	0	17	0	0	0	3	0	2	0	1	0	1	0	0	0	0	0	27	0	4	0	3	37	100
Vavuniya	9	488	0	15	0	4	0	38	0	12	0	31	0	7	0	0	0	1	2	41	0	5	1	10	59	100
Mullaitivu	0	93	0	7	0	0	0	10	0	11	0	8	0	6	0	0	0	1	0	9	0	1	0	2	25	100
Batticaloa	21	4283	5	140	0	5	2	7	0	26	0	39	0	1	0	2	0	3	4	147	1	18	0	0	66	100
Ampara	0	200	1	54	0	3	0	2	0	9	0	34	0	0	0	7	0	1	12	257	0	22	0	2	66	100
Trincomalee	2	929	0	36	0	2	0	4	0	13	0	48	0	22	0	2	0	0	3	170	0	9	0	18	28	100
Kurunegala	21	1980	4	109	1	14	0	13	1	4	1	115	0	21	0	20	0	2	10	432	1	79	8	307	62	100
Puttalam	17	1437	0	35	0	6	0	4	0	10	2	39	0	11	0	2	0	0	0	119	0	68	0	2	62	100
Anuradhapura	7	736	0	46	0	7	1	4	0	39	2	111	0	17	0	11	0	2	11	345	4	38	18	373	44	95
Polonnaruwa	4	259	0	31	0	2	0	0	0	18	1	94	0	0	0	4	0	1	4	212	1	18	6	197	58	88
Badulla	7	446	0	98	0	8	0	8	2	15	3	135	1	73	13	46	0	0	5	384	2	96	0	7	47	100
Monaragala	10	737	1	64	0	2	0	1	0	2	1	235	1	117	3	34	0	0	4	152	2	114	0	36	67	100
Ratnapura	21	1846	4	149	1	37	0	21	0	5	6	553	1	25	0	21	0	2	3	239	1	99	5	178	47	100
Kegalle	9	1163	0	49	0	8	1	7	1	81	5	224	1	64	0	13	0	0	13	311	0	42	0	13	65	100
Kalmune	10	1551	0	36	0	3	0	2	0	31	0	7	0	1	0	1	0	0	4	165	1	12	0	1	50	100
<b>SRILANKA</b>	<b>445</b>	<b>39636</b>	<b>28</b>	<b>1483</b>	<b>2</b>	<b>157</b>	<b>5</b>	<b>277</b>	<b>148</b>	<b>886</b>	<b>73</b>	<b>3265</b>	<b>15</b>	<b>1019</b>	<b>19</b>	<b>263</b>	<b>0</b>	<b>18</b>	<b>155</b>	<b>6153</b>	<b>21</b>	<b>957</b>	<b>71</b>	<b>2352</b>	<b>53</b>	<b>99</b>

Source: Weekly Returns of Communicable Diseases (WRCD).

\*T=Timeliness refers to returns received on or before 28th September, 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**

**22nd– 28th Sept 2018(39th 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*	00	01	00	00	00	00	00	01	00	02	02	47	50	- 6%
Diphtheria	00	00	00	00	00	00	00	00	00	00	00	00	00	0%
Mumps	02	02	00	00	00	00	01	01	00	06	06	265	243	9 %
Measles	01	00	00	00	00	00	00	00	00	01	03	98	174	- 43.6 %
Rubella	00	00	00	00	00	00	00	00	00	00	01	04	10	- 60 %
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	03	00	00	00	00	00	00	00	00	03	01	40	18	122.2 %
Tuberculosis	140	02	34	03	01	02	18	03	02	205	141	6433	6261	2.7 %

**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.**

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**ON STATE SERVICE**

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