

Childhood cancer

Prelims: Current events of national and international importance | Health

Why in News? C

Karnataka is witnessing a gradual year-on-year rise in childhood cancer cases, with 1,882 estimated cases in 2025, highlighting the growing burden of paediatric malignancies

- **Cancer** - Cancer is a disease in which some of the **body's cells grow uncontrollably** and can spread to other parts of the body.
 - **Malignant tumours** - Invade nearby tissues and can spread.
 - **Benign tumours** - They do not invade and usually do not grow back.
- **Childhood cancer** - It refers to **cancers occurring in children and adolescents (0-19 years).**
 - In Karnataka, childhood cancers formed about 2.1% of all new cancer cases in 2025.

Globally, about 400,000 children develop cancer annually, and it is a leading cause of death in children and adolescents.

- **Causes** - Genetic changes in cells that control growth and division.
- Errors during cell division or inherited genetic mutations.
- Damage to DNA by harmful substances or infections (HIV, Epstein-Barr virus, malaria)
 - **About 10% of childhood cancers have a genetic predisposition.**
- Unlike adults, lifestyle and environmental factors play a limited role

International Childhood Cancer Day (ICCD) is observed globally every year on 15 February to raise awareness about childhood cancers. The theme for ICCD 2026 is "Demonstrating Impact: From Challenge to Change."

- **Symptoms** - Fever, severe and persistent headaches, bone pain, weight loss.
- Unusual swellings, pallor, easy bruising or bleeding, fatigue
- White reflex in the eye, enlarged lymph nodes, night sweats
- **Vulnerable Populations** - Children in low- and middle-income countries (LMICs).
- Poor households with limited access to diagnosis and treatment.
- Children with inherited genetic predisposition.
- **Treatment** - Chemotherapy, surgery, radiotherapy, and bone marrow transplantation.

- Supportive and psychosocial care, palliative care, with treatment support under Arogya Karnataka scheme and NGOs in Karnataka.
- **Cure rates** -
 - >80% in high-income countries.
 - <30% in many Low- and Middle-Income Countries (LMICs).
 - >70% curable with early diagnosis and uninterrupted treatment (Karnataka data).
- **Measures** - Prompt and correct diagnosis followed by effective evidence-based therapy.
- Improving access, strengthening childhood cancer data systems, along with financial and psychosocial support for families.
- **India** -
- **Ayushman Bharat** - Arogya Karnataka (AB-ARK) provides up to ₹5 lakh per year for BPL families.
- **Kidwai Memorial Institute (KMIO)** - As the state's apex centre, it offers free treatment for BPL patients and has established a dedicated 65-bed pediatric ward.
- **NGO Support** - Organizations like the Indian Cancer Society and various local foundations often bridge the gap for medication and travel costs.
- **Prevention** - Childhood cancer generally cannot be prevented or screened.
- Vaccination (Hepatitis B, HPV) and early treatment of chronic infections
- Genetic counselling and monitoring in high-risk families.

Quick Fact

Types of Cancer

- **Carcinoma** - Cancer of epithelial cells (e.g., breast, colon, lung, prostate)
- **Sarcoma** - Cancer of bone and soft tissues (muscle, fat, blood vessels, cartilage).
- **Leukaemia** - Cancer of blood-forming tissues (bone marrow), does not form solid tumours.
- **Lymphoma** - Cancer of lymphocytes (Hodgkin and Non-Hodgkin).
- **Multiple Myeloma** - Cancer of plasma cells in bone marrow.
- **Melanoma** - Cancer of pigment-producing melanocytes (skin, eye).
- **Brain and Spinal Cord Tumours** - Cancers originating in the central nervous system.
- **Germ Cell Tumours** - Tumours from sperm/egg-forming cells.
- **Neuroendocrine Tumours** - Tumours from hormone-producing nerve cells (includes carcinoid tumours).

References

1. [The Hindu | Childhood Cancer](#)
2. [WHO | Childhood Cancer](#)