

# Report outlines progress, challenges in childhood cancer

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A new report from the American Cancer Society outlines progress made and –more importantly—challenges that remain in fighting childhood cancer. The report estimates the number of new cancer cases and deaths for children and adolescents in the United States, summarizes the most recent and comprehensive data on cancer incidence, mortality, and survival, and outlines what is known and where answers are still needed for childhood cancers. It appears in *CA: A Cancer Journal for Clinicians* and also as a Special Section in *Cancer Facts & Figures 2014*. The American Cancer Society created the report to inform clinicians and the public about progress and challenges in preventing and averting suffering and death from the cancers that affect children and adolescents.

The report calls the diagnosis of cancer in children and adolescents "a life-altering event for [children and adolescents] as well as their families." It points out that although advances in the treatment of [childhood cancer](#) have saved many lives over recent decades, there has been less progress made in understanding the causes and prevention of childhood and adolescent cancers. And while there have been substantial improvements in survival for many cancers of childhood, others have seen little progress. For example, progress against central nervous system (CNS) cancers has been significant overall, but for some subtypes, survival times remain tragically low. For diffuse intrinsic pontine glioma (DIPG), the median survival time after diagnosis remains less than one year.

The report says in 2014, an estimated 15,780 new cases of cancer will be

diagnosed and 1960 deaths will occur among children and adolescents aged birth to 19 years. Annual incidence of cancer from birth to age 19 is 18.8 per 100,000; approximately 1 in 285 children will be diagnosed with cancer before age 20. Today, about 1 in 530 young adults between the ages of 20 and 39 is a childhood cancer survivor.

Among the issues the report outlines that need to be addressed: while advances in survival for many types of malignancies have resulted from advances in surgical techniques, delivery of radiation therapy, and use of chemotherapy, children treated for many cancers have a high risk of long-term health issues. For example, children treated for brain tumors, a leading cancer in children, may experience seizures, weakness in the arms and legs, blindness, hearing loss, neuroendocrine effects, including growth hormone deficiency, hypothyroidism, abnormal timing of menarche, and neurocognitive deficits. Other cancers and their treatments also have serious long-term effects.

In addition, unlike adult cancers, only a relatively small percentage of all childhood cancers have known preventable causes. Also, early detection of cancer in children is made much more difficult because of the similarity of some symptoms to those of more common childhood diseases. Some symptoms of childhood cancer that should alert parents and health care providers include an unusual mass or swelling; unexplained pallor or loss of energy; a sudden tendency to bruise; a persistent, localized pain or limping; a prolonged, unexplained fever or illness; frequent headaches, often with vomiting; sudden changes in vision; and excessive, rapid weight loss.

"Progress in childhood cancer has been dramatic for some sites, but we cannot let that blind us from the fact that progress has been disappointingly slow for other sites, and that cancer remains the second leading cause of [death](#) in children," said Otis W. Brawley, M.D., American Cancer Society chief medical officer. "There is much work to

be done to improve outcomes, to reduce side effects associated with cancer and its treatment, and, we hope, to understand more about the molecular events that lead to childhood cancer in order to come up with ways to prevent or detect it early."

"It is important to recognize that all of the issues identified in this report, including the long term and late effects of cancer treatment, came about due to the foresight and dedication of pediatric oncologists, researchers, and other health professionals who have dedicated their lives to fighting these deadly cancers," said lead author Elizabeth Ward, PhD. "This report, which was compiled from published research, is intended to inform the broader clinical community and public about the unique and complex challenges faced by children and [adolescents](#) with cancer and the growing number of survivors of these cancers."

In an accompanying commentary also published in CA, Jennifer Cullen, PhD, MPH, a cancer epidemiologist, mother of a child diagnosed with cancer, and a board member of the American Childhood Cancer Organization ([acco.org](#)), writes that "[a]s a cancer epidemiologist, I was better equipped than most parents to face down this crisis. But that realization frequently left me wondering: how did families with little medical knowledge or inflexible work schedules manage their fears and navigate the numerous daily unknowns? ...Having to choose between treatment strategies that are terrible and terrible really presents no choice at all."

"We have seen successes for some cancers, but others remain incurable and untreatable," she continues. The new report "is an essential inventory to help evaluate our progress and shortfalls. Importantly, for the first time in over a decade, instead of presenting these figures in the aggregate, these more comprehensive data tease out several specific cancer types to capture a clearer picture of the actual childhood [cancer](#) landscape today. These figures demonstrate tremendous variation in

survival and success rates across the different cancers affecting [children](#)."

**More information:** Ward, E., DeSantis, C., Robbins, A., Kohler, B., and Jemal, A. (2014), Childhood and Adolescent Cancer Statistics, 2014. CA Cancer Journal for Clinicians. [DOI: 10.3322/caac.21219](https://doi.org/10.3322/caac.21219). Published online ahead of print January 31, 2014.

Commentary: Cullen, J. (2014), Because Statistics Don't Tell the Whole Story: A Call for Comprehensive Care for Children With Cancer. CA Cancer Journal for Clinicians. [DOI: 10.3322/caac.21215](https://doi.org/10.3322/caac.21215). Published online ahead of print January 31, 2014.

Provided by American Cancer Society

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