



Cancer Facts

Children/Adolescents and Cancer

WHO WE ARE

As American children and adolescents under 18 years of age we number 72.3 million, or about 26% of the U.S. population and our numbers are increasing. We have grown from 63.6 million in 1990 representing a 13% increase.⁽¹⁾ Seventeen percent of us are Hispanic and 15% are African American. More than 3% of us belong to Asian and Pacific Islander groups while 1.1% are American Indian/Alaska Natives.⁽¹⁾ About two-thirds of us (68.8%) are non Hispanic/Latino white. Throughout the past 50 years, less

than half of us have lived in “traditional” families where the father was a full-time worker and the mother a full-time homemaker. Currently, a majority of us (70%) live with both parents, but an increasing proportion of us have only one parent in the home. An increasing number of us now live with a grandparent or even nonrelatives including housemates, roommates, and unmarried partners.⁽²⁾ For every one of us who lives in a “traditional” family, four of us live in “nontraditional” two-parent families.

Almost 13 million of us live in families with incomes below the federal poverty level. Nationwide, 17% of us are living in families that are officially labeled as poor, an increase of 11% since 2000.⁽³⁾ As African American, Hispanic, and American Indian/Alaska Native children, we experience much higher poverty rates than non Hispanic/Latino white children. Further, 11.7% of all children (8.7 million) have no health insurance. Among those of us who are poor, 19% of us lack health insurance coverage.⁽⁴⁾

Causes/Etiology

- The cause of most childhood cancers is unknown, although some of these cancers are the result of genetic predisposition. Radiation exposure also contributes to certain types of childhood cancers. Other factors that have been implicated in childhood cancers include infectious diseases, prenatal conditions, environmental pollutants, and use of medications.⁽⁵⁾
- Cancer during the adolescent and young adult years challenges these young people’s ability to achieve crucial developmental milestones such as establishing autonomy and independence, intimate relationships, and financial independence.⁽⁶⁻⁸⁾
- All racial and ethnic groups with cancer are under-represented in cancer clinical trials. Only 50% of children with cancer are enrolled into treatment trials.⁽⁹⁾
- Disparities in mortality and survival outcomes for adolescents and young adults may be attributable to limited access to healthcare/higher rates of uninsured and low enrollment in clinical trials.^(10, 11)

Screening

- Lack of health insurance and family poverty are often insurmountable barriers to adolescents in need of health care services. Non-financial barriers also interfere with the ability of adolescents to get care and contribute to limited frequency of contact and the lack of relationships with providers.⁽¹²⁾
- Uninsured children in the U.S. are less likely to get appropriate or preventive care.⁽¹³⁾
- Eligibility restrictions, coupled with barriers to Medicaid enrollment, leave a quarter of low-income children uninsured.⁽¹⁴⁾

Disparities

- From 1975 to 2003 in the United States, Hispanic/Latino children were found to have higher incidence of leukemia, retinoblastoma, osteosarcoma, and germ-cell tumors when compared to non-Hispanic/Latino white children.⁽¹⁵⁾
- Florida cancer registry incidence data indicate a 30% increase in incidence of lymphoma in Hispanic/Latino children compared to non-Hispanic white children.⁽¹⁶⁾

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- For lymphomas in general (including the Hodgkin lymphoma and non-Hodgkin lymphoma subtypes), Hispanic/Latino children have higher incidence rates (approximately 30% greater) compared to non-Hispanic/Latino white children.⁽¹⁶⁾
- The incidence rate of Burkitt's lymphoma is higher for Hispanic/Latino children than it is for non-Hispanic/Latino white children, although the increase is less than that observed for either Hodgkin's lymphoma or non-Hodgkin lymphoma.⁽¹⁶⁾
- In general, Hispanic/Latino children in Florida have significantly higher risks of lymphoid leukemia and lymphomas, as well as the Hodgkin's lymphoma and non-Hodgkin lymphoma subtypes, when compared to non-Hispanic/Latino white children.⁽¹⁶⁾
- Lymphoma incidence rates for Hispanic/Latino children living in Florida are nearly 2 to 3 times higher than those in Texas or California.⁽¹⁶⁾
- The incidence of germ cell, trophoblastic, and other gonadal neoplasms is 60% higher among Hispanic/Latino children than among non-Hispanic/Latino white children (13.8 and 11.5 new cases per 100,000 children, respectively).⁽¹⁷⁾
- The incidence of lymphoid leukemia is approximately 15% higher among Hispanic/Latino children than among non-Hispanic/Latino white children (39.7 and 33.7 new cases per 100,000 respectively).⁽¹⁷⁾
- The incidence rate for leukemia, the most common childhood cancer, is approximately 17% higher among Hispanic/Latino children compared with non-Hispanic/Latino white children (53.7 and 46.2 new cases per 100,000 children, respectively).⁽¹⁷⁾
- Leukemia accounts for greater than 40% of all cancers diagnosed in Hispanic/Latino children aged less than 5 years. It also accounts for more than 45% of all cancers diagnosed in Hispanic/Latino children aged 5-9 years, and 31% of all cancers diagnosed in Hispanic/Latino children aged 10-14.⁽¹⁷⁾
- Lymphomas and Central Nervous System (CNS) neoplasms comprise 30% of all cancers diagnosed in Hispanic/Latino children aged 10-14.^(17, 18)
- Hispanics/Latinos have the highest acute lymphoblastic leukemia (ALL) rate compared to African American/blacks and non-Hispanic/Latino whites.⁽¹⁹⁾
- Incidence rates for childhood leukemia are reported to be higher in California Hispanics/Latinos, but the increase is noted only in children aged 5-14 years.⁽²⁰⁾

- From 1988 to 1994, more than 7,100 cases of childhood cancer were diagnosed in California. More than one-third of the cases were leukemias, and 19% were gliomas; 36% of the total cases were Hispanic/Latino children, 47% were non-Hispanic/Latino white, and 7% were African American/black.⁽²⁰⁾
- Asian and Pacific Islander children show a two-fold increased risk of developing acute nonlymphatic leukemia (ANLL) compared to non-Hispanic/Latino white infants.⁽²⁰⁾
- As a subset of acute nonlymphatic leukemia (ANLL), Asian and Pacific Islander children have an increased risk for developing acute myeloid leukemia (AML) compared to non-Hispanic/Latino white infants.⁽²⁰⁾
- Nearly 80% of the ovarian cancers among children and young adults occur among non-Hispanic/Latino whites, approximately 12% occur among African Americans/blacks, and 6% occur among Asian and Pacific Islanders.⁽²¹⁾
- In each age group, from birth to 24 years, ovarian cancer rates among Hispanic/Latino children and adolescents exceed the rates among non-Hispanic/Latino females. Rates among Hispanic/Latino girls between the ages of birth and 14 years were 42% higher than among non-Hispanic/Latino girls.⁽²¹⁾
- Among girls from birth to 14 years old, the rate of ovarian cancer is highest among Asian Pacific Islanders (5.7 per million), followed by African Americans/blacks (4.2 per million) and non-Hispanic/Latino whites (3.8 per million).⁽²¹⁾
- The majority (53-64%) of ovarian cancers diagnosed in children and adolescents are diagnosed at a localized stage compared to less than 20% of tumors in women age 50 years and older.⁽²¹⁾



Outcomes

- Childhood cancers showed some of the largest improvements in cancer survival during the past 20 years, with an absolute survival rate increase of 20% in boys and 13% in girls.⁽²²⁾
- Although the incidence of invasive cancer in children has increased slightly over the past 30 years, mortality in this group has declined dramatically for many childhood cancers.⁽²³⁾
- Research suggests that adolescents and young adult cancer patients tend to present with more advanced and aggressive diagnoses, and adolescents and young adult patients account for an estimated 2% of all invasive cancer diagnoses compared to 0.75% in childhood cancer patients.⁽²⁴⁾
- An estimated 1.6 million African Americans/blacks who are now under the age of 18 will become regular smokers. About 500,000 of those smokers will die of a smoking-related disease.⁽²⁵⁾
- In Multnomah County, Oregon, cancer is the second leading cause of death among children ages 1-9 who are 16% Hispanics/Latinos, 15% Asian Americans, 14% African American/black, 13% American Indian, and 11% non-Hispanic/Latino white.⁽²⁶⁾
- Among children with high risk factors, Hispanic/Latino children with acute lymphoblastic leukemia (ALL) have significantly poorer outcomes than non-Hispanic/Latino white children.⁽²⁷⁾
- African American/black children with acute lymphoblastic leukemia (ALL) have poorer 5 year survival rates than non-Hispanic/Latino white children (58% versus 71%).⁽¹⁹⁾
- While the median survival period for children with acute lymphoblastic leukemia (ALL) is more than 10 years overall, the 5 year survival rate remains poor for African American/black males under 4 years of age compared to other same aged children (50% versus 82-88%).⁽¹⁹⁾
- African American/black and Hispanic/Latino children have worse survival rates and Asian children have better survival rates of acute lymphoblastic leukemia (ALL) when compared to non-Hispanic/Latino white children after adjusting for known risk factors.⁽²⁷⁾

- Cancer occurring between the ages of 15 and 30 years is 2.7 times more common than cancer occurring during the first 15 years of life, yet is much less common than cancer in older age groups, and accounts for just 2% of all invasive cancer.⁽²⁴⁾
- For all sites, the 5-year survival rate for childhood cancer is 79%; neuroblastoma, 66%; brain and other nervous system, 73%; bone and joint, 73%; leukemia, 79%; Wilms tumor (kidney), 92%; and Hodgkin lymphoma, 96%.⁽²⁸⁾
- The overall 10-year period survival estimate for the years 1995-99 was 59% for children with all central nervous system (CNS) tumors combined, 73% for children with astrocytoma, 53% for children with ependymoma and 45% for children with primitive neuroectodermal tumors.⁽²⁹⁾
- Non-Hodgkin lymphoma is the third most common childhood malignancy and occurs approximately 1.5 times as often as Hodgkin lymphoma in childhood.^(28, 30)
- From 1992 to 2001, Hispanics/Latinos in the United States did not have a greater lifetime incidence of acute promyelocytic leukemia than non-Hispanic whites, but incidence among Hispanic/Latino children ages 1-19 years was greater than in non-Hispanic/Latino white children ages 1-19.⁽³¹⁾
- Children with thyroid cancer have higher local and distant disease recurrences with progression-free survival of only 70% at 5 years, mandating life-long surveillance.⁽³²⁾

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