

Section XXVII
Childhood Cancer by Site
Incidence, Survival and Mortality

The site groupings used in this section correspond to those used in the rest of the Cancer Statistics Review. While these groupings are not as appropriate for children as they are for adults, they are necessary in order to be able to compare incidence to mortality.

Childhood cancer is better categorized by groupings based on histologic type and site rather than primary site alone (see section XXVIII for Childhood Cancer by the International Classification of Childhood Cancer). For the leukemias and lymphomas, the categories are similar, but for solid tumors the categories can be quite different and the different terminology confusing. For example, in this section 'soft tissue' refers to any type of tumor that arises in connective or soft tissue in contrast to 'soft tissue sarcomas' in the other section, which refers to soft tissue sarcomas in any primary site.

Rates are presented per 100,000 children in this section. In contrast in the other childhood cancer section rates are presented per million children.

Table XXVII-1

AGE-ADJUSTED CANCER SEER INCIDENCE TRENDS, 1975-99, 1975-86, 1987-99§

By Primary Cancer Site

All Races, Males and Females

Site	Ages 0-14				Ages 0-19			
	% Change 1975-99	EAPC 75-99	EAPC 75-86	EAPC 87-99	% Change 1975-99	EAPC 75-99	EAPC 75-86	EAPC 87-99
All Sites								
All Races	26.0	0.8★	1.3★	0.4◇	20.0	0.7★	1.3★	0.2◆
Whites	24.4	0.7★	1.4★	0.4◇	20.5	0.7★	1.5★	0.1◆
Blacks	35.8	0.9★	1.1	-0.4	9.3	0.6★	0.8	-0.4
Bone & Joint	39.8	0.8	3.4★	0.8	-1.7	0.6	2.6★	0.2
Brain & Other nervous	50.2	1.2★	1.8	-0.4◆	38.6	1.0★	1.6	-0.7◆
Hodgkin lymphoma	-32.7	-1.1★	-1.8	-1.4	-27.3	-0.6★	-0.5	-1.4
Kidney & Renal pelvis	14.2	0.5	1.2	0.6	11.1	0.5	1.1	0.6
Leukemia	44.5	0.8★	1.5★	0.5	34.6	0.7★	1.4★	0.5
Acute lymphocytic	61.7	1.0★	2.2★	0.6	53.1	1.0★	2.4★	0.5◇
Non-Hodgkin lymphoma	-21.7	0.0	0.1	-0.1	-11.1	0.6★	1.5	0.2
Soft tissue	8.3	1.2★	1.4	2.6	25.1	1.2★	2.1	2.4

§ The EAPC is the Estimated Annual Percent Change over the time interval.

SEER 9 areas.

★ The EAPC is significantly different from zero ($p < .05$).

◆ The EAPC for 1987-99 is significantly different from the EAPC for 1975-86 ($p < .05$).

◇ The EAPC for 1987-99 is significantly different from the EAPC for 1975-86 ($p < .10$).

- Statistic could not be calculated.

Table XXVII-2
AGE-ADJUSTED CANCER U.S. MORTALITY TRENDS, 1975-99, 1975-86, 1987-99^â

By Race and Primary Cancer Site

Males and Females

Race/Site	Ages 0-14				Ages 0-19			
	% Change 1975-99	EAPC 75-99	EAPC 75-86	EAPC 87-99	% Change 1975-99	EAPC 75-99	EAPC 75-86	EAPC 87-99
<u>All Races</u>								
All Sites	-47.5	-2.8*	-2.9*	-2.6*	-44.3	-2.6*	-2.7*	-2.3* ^â
Bone & Joint	-36.0	-2.4*	-2.9*	-0.2 ^â	-22.6	-1.9*	-2.7*	0.7 ^â
Brain & Other nervous	-26.2	-1.1*	-1.3*	-1.0*	-24.7	-1.1*	-1.3*	-1.0*
Hodgkin lymphoma	-55.8	-4.7*	-5.1*	-2.0	-57.4	-4.4*	-3.2*	-4.5*
Kidney & Renal pelvis	-48.3	-3.2*	-3.6*	-1.5	-45.1	-2.9*	-3.4*	-1.0 ^â
Leukemia	-64.0	-4.0*	-4.6*	-3.8* ^â	-57.7	-3.5*	-4.0*	-3.4* ^â
Acute lymphocytic	-71.3	-5.0*	-4.9*	-4.2*	-65.0	-4.3*	-4.1*	-3.9*
Non-Hodgkin lymphoma	-73.6	-4.9*	-4.4*	-5.7*	-69.2	-4.0*	-3.8*	-4.6*
Soft tissue	11.7	-1.2*	0.6	-2.7* ^â	12.9	-0.4	0.9	-1.7* ^â
<u>Whites</u>								
All Sites	-48.5	-2.9*	-3.0*	-2.8*	-46.0	-2.7*	-2.7*	-2.4*
Bone & Joint	-35.1	-2.4*	-2.4*	-1.0	-19.6	-1.8*	-2.2*	0.4 ^â
Brain & Other nervous	-26.3	-1.1*	-1.0*	-1.1*	-25.9	-1.1*	-1.0*	-1.1*
Hodgkin lymphoma	-51.4	-5.5*	-6.3*	-3.3	-56.0	-4.7*	-3.8*	-5.3*
Kidney & Renal pelvis	-53.7	-3.3*	-4.1*	-2.1*	-49.3	-3.0*	-3.6*	-1.7*
Leukemia	-65.1	-4.1*	-4.9*	-4.0* ^â	-59.5	-3.7*	-4.2*	-3.5* ^â
Acute lymphocytic	-71.5	-5.0*	-5.3*	-4.1* ^â	-65.6	-4.4*	-4.3*	-3.7*
Non-Hodgkin lymphoma	-75.7	-4.9*	-4.2*	-6.4* ^â	-72.8	-4.0*	-3.7*	-5.1*
Soft tissue	11.0	-1.3*	1.1	-2.9* ^â	15.5	-0.5	1.5	-1.8* ^â
<u>Blacks</u>								
All Sites	-40.3	-2.3*	-2.3*	-1.6*	-33.6	-2.1*	-2.5*	-1.6* ^â
Bone & Joint	-45.9	-2.4*	-6.2*	3.0 ^â	-37.4	-2.2*	-5.7*	2.6 ^â
Brain & Other nervous	-18.2	-1.0*	-2.2	-0.7	-12.1	-0.8*	-2.1*	-0.8
Hodgkin lymphoma	-78.1	-	-2.4	-	-57.5	-2.7*	-0.3	-2.1
Kidney & Renal pelvis	-35.2	-3.0*	-1.6	0.0	-40.4	-2.7*	-2.6	0.7
Leukemia	-53.7	-3.2*	-2.6*	-1.8*	-44.8	-2.6*	-2.4*	-2.4*
Acute lymphocytic	-68.4	-4.5*	-1.0	-4.8* ^â	-55.6	-3.5*	-1.2	-4.6* ^â
Non-Hodgkin lymphoma	-67.3	-4.9*	-6.1*	-0.5	-50.5	-3.8*	-4.5*	-1.2
Soft tissue	20.4	-0.7	-0.8	-3.0	7.3	-0.2	-1.1	-2.1

The EAPC is the Estimated Annual Percent Change over the time interval.

^â NCHS public use data file.

* The EAPC is significantly different from zero (p<.05).

â The EAPC for 1987-99 is significantly different from the EAPC for 1975-86 (p<.05).

â The EAPC for 1987-99 is significantly different from the EAPC for 1975-86 (p<.10).

- Statistic could not be calculated.

Table XXVII-3

AGE-ADJUSTED CANCER SEER INCIDENCE RATES[§], 1975-99

By Primary Cancer Site

All Races, Males and Females

Year of Diagnosis

Age/Site	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<u>Ages 0-14</u>																					
All Sites																					
All Races	11.5	12.9	12.4	12.9	12.9	13.9	14.5	14.3	14.2	13.5	15.1	14.2	15.1	13.5	15.1	14.1	14.2	14.9	14.3	15.6	14.5
Whites	12.0	13.0	12.5	13.1	13.6	14.4	15.5	14.9	14.6	14.0	15.5	14.2	16.1	13.9	15.2	14.5	14.7	14.8	14.8	16.2	14.9
Blacks	8.6	11.1	13.2	11.8	10.0	10.3	10.1	10.9	11.6	11.9	13.7	12.4	11.7	12.4	13.0	13.0	12.1	12.2	12.5	11.2	11.6
Bone & Joint	0.5	0.7	0.6	0.6	0.7	0.7	0.8	0.7	0.7	0.6	0.6	0.7	0.9	0.5	0.6	0.7	0.8	0.5	0.9	0.7	0.6
Brain & Other nervous	2.3	2.8	2.5	2.4	2.2	2.8	3.0	3.5	3.2	3.3	3.2	3.5	3.5	3.2	3.5	3.3	3.4	3.1	2.8	3.2	3.4
Hodgkin lymphoma	0.7	0.5	0.6	0.5	0.7	0.7	0.7	0.5	0.6	0.6	0.7	0.7	0.6	0.5	0.6	0.5	0.3	0.6	0.6	0.7	0.4
Kidney & Renal pelvis	0.7	0.8	0.9	1.0	1.2	0.7	0.9	0.9	0.9	0.8	1.1	0.7	0.9	0.7	1.0	1.2	0.6	1.0	1.0	1.1	0.8
Leukemia	3.3	4.0	4.0	3.8	3.7	4.5	4.6	4.1	4.4	4.1	4.8	4.4	4.6	4.0	4.2	3.7	4.5	4.7	4.3	4.9	4.7
Acute lymphocytic	2.2	3.1	3.3	3.0	3.0	3.5	3.5	3.3	3.4	3.3	3.9	3.4	3.5	3.1	3.1	2.9	3.6	3.5	3.6	4.0	3.6
Non-Hodgkin lymphoma	1.0	0.7	0.7	0.9	0.9	0.9	0.7	1.0	1.1	0.7	0.7	0.8	0.9	0.8	0.8	1.0	0.9	0.7	0.9	1.0	0.8
Soft tissue	0.9	0.9	0.7	0.9	0.9	0.8	0.9	0.9	0.8	0.6	0.9	0.7	1.1	0.8	0.6	0.9	1.0	1.1	1.0	1.1	0.9
<u>Ages 0-19</u>																					
All Sites																					
All Races	12.9	14.4	13.9	14.5	14.6	15.5	15.9	15.9	15.3	15.3	16.7	15.6	16.4	16.2	16.3	15.7	15.9	16.3	15.9	16.6	15.5
Whites	13.4	14.8	14.2	15.1	15.4	16.1	17.0	16.7	16.3	15.7	17.4	15.9	17.5	16.9	16.6	16.2	16.7	16.4	16.8	17.3	16.1
Blacks	10.8	11.0	13.0	11.8	11.2	12.2	10.6	12.3	11.3	13.0	14.0	13.2	12.5	12.8	13.6	13.7	12.6	13.1	12.0	12.4	11.8
Bone & Joint	0.7	0.9	1.0	0.8	0.8	0.9	1.0	0.9	1.0	0.8	0.9	0.8	1.0	0.9	0.9	1.0	0.9	0.7	1.2	0.9	0.7
Brain & Other nervous	2.1	2.5	2.3	2.3	2.2	2.6	2.7	3.2	2.9	3.0	3.0	3.2	3.0	3.3	3.0	2.9	3.0	3.0	2.6	2.8	3.0
Hodgkin lymphoma	1.5	1.2	1.3	1.5	1.4	1.5	1.4	1.3	1.4	1.3	1.7	1.3	1.4	1.4	1.3	1.3	1.0	1.4	1.3	1.4	1.1
Kidney & Renal pelvis	0.5	0.6	0.7	0.7	0.9	0.6	0.7	0.7	0.7	0.6	0.9	0.6	0.8	0.6	0.9	0.9	0.5	0.8	0.8	0.8	0.6
Leukemia	3.0	3.5	3.7	3.4	3.5	4.0	4.0	3.7	3.7	3.6	4.2	3.8	4.1	3.7	3.8	3.4	4.0	4.0	3.8	4.2	4.1
Acute lymphocytic	1.9	2.5	2.7	2.6	2.6	3.0	2.9	2.8	2.7	2.7	3.3	2.9	3.0	2.6	2.6	2.5	3.1	2.9	2.9	3.3	2.9
Non-Hodgkin lymphoma	1.0	0.9	1.0	1.0	1.1	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.1	1.0	0.9	1.2	1.1	1.0	1.1	1.1	0.9
Soft tissue	0.8	0.9	0.7	1.0	1.0	0.8	0.9	0.9	0.9	0.7	0.9	0.8	1.1	0.7	0.7	0.7	1.1	1.0	1.0	1.1	1.0

§ SEER 9 areas. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

Table XXVII-4

AGE-ADJUSTED CANCER U.S. DEATH RATES^a, 1975-99

By Primary Cancer Site

All Races, Males and Females

Year of Death

Age/Site	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<u>Ages 0-14</u>																					
All Sites	4.9	4.3	4.2	4.3	4.1	3.7	3.6	3.5	3.4	3.3	3.3	3.1	3.1	3.0	3.0	2.8	2.8	2.7	2.7	2.5	2.6
Bone & Joint	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Brain & Other nervous	1.0	0.9	0.9	1.0	0.9	0.8	0.8	0.9	0.7	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.8	0.7	0.7	0.7
Hodgkin lymphoma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kidney & Renal pelvis	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Leukemia	2.1	1.7	1.6	1.6	1.5	1.3	1.4	1.3	1.3	1.2	1.2	1.1	1.1	1.1	1.1	1.0	1.0	0.9	0.9	0.8	0.8
Acute lymphocytic	1.2	0.9	1.0	0.9	0.8	0.7	0.8	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.5	0.4	0.4	0.4	0.3
Non-Hodgkin lymphoma	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Soft tissue	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
<u>Ages 0-19</u>																					
All Sites	5.1	4.6	4.4	4.5	4.3	3.9	3.8	3.8	3.7	3.6	3.5	3.4	3.4	3.3	3.3	3.2	3.0	2.9	2.9	2.8	2.9
Bone & Joint	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Brain & Other nervous	0.9	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.7	0.8	0.7	0.7	0.8	0.7	0.7	0.7
Hodgkin lymphoma	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Kidney & Renal pelvis	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Leukemia	2.0	1.8	1.6	1.6	1.5	1.4	1.4	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.0	1.0	1.0	0.9	0.9
Acute lymphocytic	1.0	0.9	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4
Non-Hodgkin lymphoma	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Soft tissue	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

^a NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

Table XXVII-5

AGE-ADJUSTED CANCER U.S. DEATH RATES^a, 1975-99

By Primary Cancer Site

Whites, Males and Females

Year of Death

Age/Site	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<u>Ages 0-14</u>																					
All Sites	5.0	4.4	4.2	4.3	4.2	3.7	3.7	3.6	3.6	3.3	3.4	3.2	3.2	3.1	3.1	2.8	2.7	2.7	2.7	2.5	2.6
Bone & Joint	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Brain & Other nervous	1.0	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.8	0.8	0.7	0.7
Hodgkin lymphoma	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kidney & Renal pelvis	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Leukemia	2.3	1.8	1.7	1.6	1.6	1.4	1.4	1.4	1.4	1.2	1.2	1.1	1.1	1.2	1.1	1.0	1.0	0.9	0.9	0.8	0.8
Acute lymphocytic	1.2	1.0	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.6	0.5	0.5	0.5	0.4	0.4	0.4	0.4
Non-Hodgkin lymphoma	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Soft tissue	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
<u>Ages 0-19</u>																					
All Sites	5.3	4.7	4.5	4.6	4.4	4.0	3.9	3.9	3.7	3.6	3.6	3.5	3.5	3.4	3.3	3.2	3.0	3.0	2.9	2.8	2.8
Bone & Joint	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.3
Brain & Other nervous	0.9	0.8	0.8	0.9	0.9	0.8	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.7	0.7	0.7
Hodgkin lymphoma	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Kidney & Renal pelvis	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Leukemia	2.1	1.8	1.7	1.7	1.6	1.4	1.4	1.4	1.4	1.3	1.2	1.2	1.2	1.2	1.2	1.1	1.0	1.0	1.0	0.9	0.9
Acute lymphocytic	1.1	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.5	0.4	0.4
Non-Hodgkin lymphoma	0.4	0.3	0.4	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
Soft tissue	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2

^a NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

Table XXVII-6

AGE-ADJUSTED CANCER U.S. DEATH RATES^a, 1975-99

By Primary Cancer Site

Blacks, Males and Females

Year of Death

Age/Site	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	
<u>Ages 0-14</u>																						
All Sites	4.5	3.8	4.2	4.0	3.9	3.5	3.3	3.5	3.0	3.2	3.2	3.0	3.1	2.7	2.7	2.9	3.0	2.6	2.6	2.6	2.7	
Bone & Joint	0.3	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.1
Brain & Other nervous	0.9	0.9	1.0	0.8	0.8	0.7	0.6	0.9	0.7	1.0	0.8	0.7	0.8	0.7	0.6	0.8	0.8	0.8	0.7	0.8	0.8	0.8
Hodgkin lymphoma	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Kidney & Renal pelvis	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1
Leukemia	1.6	1.2	1.6	1.5	1.2	1.3	1.2	1.1	1.0	0.9	1.0	0.9	1.0	0.8	0.9	0.8	1.1	0.8	0.8	0.7	0.8	0.8
Acute lymphocytic	0.8	0.6	0.8	0.7	0.6	0.7	0.7	0.6	0.5	0.4	0.5	0.5	0.4	0.3	0.3	0.3	0.4	0.4	0.3	0.2	0.2	0.2
Non-Hodgkin lymphoma	0.4	0.2	0.2	0.2	0.2	0.1	0.2	0.3	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1
Soft tissue	0.2	0.1	0.3	0.3	0.3	0.2	0.2	0.1	0.3	0.2	0.2	0.3	0.1	0.2	0.2	0.3	0.1	0.2	0.2	0.2	0.2	0.2
<u>Ages 0-19</u>																						
All Sites	4.8	4.2	4.5	4.3	3.8	3.7	3.5	3.7	3.6	3.5	3.5	3.4	3.4	3.0	3.2	3.3	3.3	3.0	3.0	2.7	3.2	3.2
Bone & Joint	0.4	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.2	0.2
Brain & Other nervous	0.9	0.8	0.9	0.8	0.7	0.7	0.6	0.8	0.7	0.9	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.7	0.7	0.8
Hodgkin lymphoma	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Kidney & Renal pelvis	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Leukemia	1.6	1.4	1.5	1.5	1.1	1.3	1.1	1.2	1.2	1.0	1.1	1.0	1.1	0.9	1.0	1.0	1.1	0.9	0.8	0.8	0.8	0.9
Acute lymphocytic	0.7	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.5	0.4	0.3	0.2	0.3	0.3
Non-Hodgkin lymphoma	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
Soft tissue	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.2	0.3

^a NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

Table XXVII-7

AGE-ADJUSTED CANCER SEER INCIDENCES AND U.S. DEATH RATES, 1995-99

By Primary Cancer Site

All Races, Males and Females

Site	<u>Ages 0-14</u>						<u>Ages 0-19</u>					
	<u>Incidence</u>			<u>Mortality</u>			<u>Incidence</u>			<u>Mortality</u>		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites												
All Races	14.7	15.7	13.6	2.6	2.9	2.4	16.1	16.9	15.2	2.9	3.2	2.6
Whites	15.1	16.0	14.1	2.6	2.9	2.4	16.7	17.3	15.9	2.9	3.3	2.5
Blacks	11.9	13.0	10.8	2.7	2.8	2.6	12.4	13.4	11.3	3.0	3.2	2.8
Bone & Joint	0.7	0.8	0.6	0.1	0.1	0.1	0.9	1.1	0.6	0.2	0.3	0.2
Brain & Other nervous	3.2	3.5	2.8	0.8	0.8	0.7	2.9	3.1	2.6	0.7	0.8	0.6
Hodgkin lymphoma	0.5	0.5	0.5	0.0	0.0	0.0	1.2	1.2	1.3	0.0	0.0	0.0
Kidney & Renal pelvis	0.9	0.8	1.0	0.1	0.1	0.1	0.7	0.7	0.7	0.1	0.1	0.1
Leukemia	4.6	5.1	4.1	0.9	1.0	0.8	4.0	4.5	3.5	0.9	1.1	0.8
Acute lymphocytic	3.7	4.1	3.2	0.4	0.5	0.3	3.0	3.4	2.6	0.4	0.5	0.3
Non-Hodgkin lymphoma	0.8	1.3	0.4	0.1	0.2	0.1	1.0	1.5	0.6	0.2	0.2	0.1
Soft tissue	1.0	1.0	1.0	0.1	0.2	0.1	1.1	1.1	1.0	0.2	0.2	0.2

§ SEER 9 areas. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

ä NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

Table XXVII-8

5-YEAR RELATIVE SURVIVAL RATES (Percent)

By Selected Primary Cancer Site and Year of Diagnosis

All Races, Males and Females

Site	Ages 0-14							Ages 0-19						
	74-76	77-79	80-82	83-85	86-88	89-91	92-98	74-76	77-79	80-82	83-85	86-88	89-91	92-98
All Sites														
All Races	55.8	61.5	65.1	67.7	70.2	73.3	77.2 \bar{u}	58.6	64.0	66.6	69.7	72.8	74.4	77.6 \bar{u}
Whites	55.9	61.9	65.5	69.4	71.5	74.5	78.6 \bar{u}	58.9	64.5	67.5	71.4	74.5	76.2	78.9 \bar{u}
Blacks	56.8	58.0	61.6	57.4	62.4	66.1	73.0 \bar{u}	57.1	60.6	61.4	59.1	62.9	65.1	72.1 \bar{u}
Bone & Joint	54.6 \uparrow	52.2 \uparrow	54.6 \uparrow	56.6	63.4 \uparrow	61.8	72.5 \bar{u}	50.9	50.0	50.3	52.4	62.2	64.0	67.6 \bar{u}
Brain & ONS	54.8	56.1	55.5	61.7	63.0	62.1	69.9 \bar{u}	55.7	56.5	57.0	63.2	65.7	64.3	70.6 \bar{u}
Hodgkin lymphoma	78.3	83.5	91.0	89.6	89.9	94.0	93.5 \bar{u}	84.9	88.4	87.1	88.2	89.3	93.5	93.4 \bar{u}
Leukemia	45.2	59.4	62.8	61.0	70.1	72.8	77.9 \bar{u}	40.9	53.8	57.9	58.3	65.8	69.4	73.7 \bar{u}
Acute lymphocytic	53.2	67.1	71.1	69.1	78.1	80.3	85.3 \bar{u}	49.2	62.9	67.3	66.6	75.2	77.3	82.5 \bar{u}
Acute myeloid	14.4	27.4 \uparrow	24.3 \uparrow	28.5 \uparrow	30.2 \uparrow	35.2 \uparrow	46.4 \bar{u}	17.1	26.2	23.9	32.4	29.5	38.2	43.8 \bar{u}
Neuroblastoma	52.6	53.1	52.5	55.0	59.3	67.9	68.6 \bar{u}	52.2	53.1	52.7	54.3	58.6	66.6	68.5 \bar{u}
Non-Hodgkin lymphoma	44.3	50.2	61.5	70.9	69.7	74.8	81.0 \bar{u}	43.3	49.5	59.0	66.9	73.2	70.2	78.2 \bar{u}
Soft tissue	60.4	68.3	65.4	76.1	66.5	78.0	72.2 \bar{u}	61.8	64.9	64.9	74.4	68.3	69.2	71.8 \bar{u}
Wilms' tumor	74.4	77.5	87.1	86.5	90.8	92.6	90.3 \bar{u}	73.6	77.1	86.5	86.8	90.9	92.1	90.3 \bar{u}

Rates are from the SEER 9 areas. They are based on data from population-based registries in Connecticut, New Mexico, Utah, Iowa, Hawaii, Atlanta, Detroit, Seattle-Puget Sound and San Francisco-Oakland. Rates are based on follow-up of patients into 1999.

\bar{u} The difference in rates between 1974-76 and 1992-98 is statistically significant ($p < .05$).

\uparrow The standard error of the survival rate is between 5 and 10 percentage points.

$\uparrow\uparrow$ The standard error of the survival rate is greater than 10 percentage points.

Table XXVII-9

CHILDHOOD CANCER
SEER Incidence, U.S. Death and 5-Year Relative Survival Rates
For Top Cancer Sites ⊕ By 5-Year Age Groups
All Races, Males and Females

Age/Site	SEER Incidences§					US Mortalityä					Survivals§	
	1995-99 Num Cases	Rate	75-99 EAPC	75-86 EAPC	87-99 EAPC	1995-99 Num Cases	Rate	75-99 EAPC	75-86 EAPC	87-99 EAPC	1974-76	1992-98
Ages 0-4												
All Sites	1,858	20.5	0.9★	1.4★	0.4	2,527	2.6	-3.0★◇	-2.6★◇	-3.0★	56.5	76.8Û
Soft tissue	128	1.4	0.2	1.7	0.0	119	0.1	-2.0★◆	-0.1◆	-3.8	56.9↑	77.5Û
Kidney and Renal pelvis	191	2.1	0.5	-0.2	1.1	112	0.1	-4.2★◇	-6.3★◇	0.1◆	74.2	87.5Û
Eye and Orbit	112	1.2	0.9	2.8	0.4	27	0.0	-3.8★	-2.7	-6.8★	89.6	97.6
Brain and Other nervous	343	3.8	1.5★	4.3★	-0.6◆	677	0.7	-1.1★	-1.1	-0.8	51.4	63.8Û
Other endocrine	119	1.3	-	-	-	419	0.4	-	-	-	32.8↑	60.7Û
Leukemia	673	7.4	0.8★◇	0.9◇	0.4	806	0.8	-3.6★	-4.3★	-3.5★	51.2	81.0Û
Acute lymphocytic	552	6.1	0.9★	1.5★	0.3	274	0.3	-5.3★	-6.1★	-4.3★	58.4	87.9Û
Ages 5-9												
All Sites	1,018	11.1	0.4	0.9	-0.2	2,589	2.6	-3.1★◇	-3.5★◇	-2.9★	55.3	77.6Û
Brain and Other nervous	276	3.0	0.6	1.4	-0.7	857	0.9	-0.8★	-0.8	-1.4★	54.6	71.1Û
Leukemia	357	3.9	1.0★◇	0.4◇	0.1	806	0.8	-5.3★	-6.0★	-5.4★	46.7	78.9Û
Acute lymphocytic	302	3.3	1.3★	2.2	1.0	439	0.4	-6.2★	-6.2★	-5.3★	53.8	85.1Û
Ages 10-14												
All Sites	1,161	12.9	1.0★	1.5★	1.1★	2,520	2.6	-2.3★◇	-2.5★◇	-1.8★◇	55.1	77.7Û
Bone and Joint	123	1.4	0.9	3.2	0.0	243	0.3	-2.2★◆	-2.4★◆	-0.1	53.6↑	70.3Û
Brain and Other nervous	248	2.8	1.5★	-1.4	0.2	651	0.7	-1.4★	-2.2★	-0.9	58.7	77.2Û
Hodgkin lymphoma	111	1.2	-0.6	-1.0	-0.4	33	0.0	-3.8★	-3.7	-0.3	75.0↑	93.2Û
Leukemia	242	2.7	0.8★◇	4.9★◇	1.3	939	1.0	-2.9★	-3.1★	-2.5★	28.8	67.1Û
Acute lymphocytic	160	1.8	1.2	4.9★	-0.1◇	473	0.5	-3.4★	-2.1★	-3.0★	37.2↑	76.3Û
Ages 15-19												
All Sites	1,808	20.1	0.6★	1.5★	-0.3◆	3,543	3.7	-2.0★◇	-2.3★◇	-1.6★◆	63.8	78.5Û
Bone and Joint	130	1.4	0.4	1.5	-0.7	526	0.6	-1.5★◆	-2.5★◆	1.3★◆	46.6↑	61.7Û
Melanoma of skin	122	1.4	0.9	1.0	-1.5	43	0.0	-3.0★	-4.0★	-4.5	76.3↑	91.4Û
Ovary(females)	90	2.0	2.2★	-0.5	-2.3	31	0.1	-6.1★	-3.3	-3.3	69.7↑	93.6Û
Testis(males)	143	3.1	1.3★	3.7	1.8	39	0.1	-8.0★	-10.8★	-5.7★◇	55.3↑	89.1Û
Brain and Other nervous	172	1.9	0.4	1.0	-2.2	540	0.6	-1.1★	-1.1	-0.9	58.9↑	74.4Û
Thyroid	161	1.8	1.1	1.4	1.2	-	-	-	-	-	100.0	99.5
Hodgkin lymphoma	301	3.3	-0.4	0.2	-1.3	133	0.1	-4.2★	-2.5	-5.2★	88.5	93.4
Non-Hodgkin lymphoma	145	1.6	1.7★	4.4★	0.4◇	285	0.3	-2.6★	-2.7★	-3.4★	40.6↑	73.9Û
Leukemia	201	2.2	0.2◇	1.1◇	0.5	1,042	1.1	-2.2★	-2.0★	-2.5★	21.5	50.0Û
Acute lymphocytic	104	1.2	0.5	3.8★	-0.3◇	439	0.5	-2.1★	-0.5	-3.0★◇	21.2↑	56.5Û

Note: The EAPC is the Estimated Annual Percent Change over the time interval.
Incidence and death rates are per 100,000. Survival rates are expressed as percents.
§ SEER 9 areas.
ä NCHS public use data file.
★ The EAPC is significantly different from zero (p<.05).
◆ The EAPC for 1987-99 is significantly different from the EAPC for 1975-86 (p<.05).
◇ The EAPC for 1987-99 is significantly different from the EAPC for 1975-86 (p<.10).
Û The difference in rates between 1974-76 and 1992-98 is statistically significant (p<.05).
↑ The standard error of the survival rate is between 5 and 10 percentage points.
↓ The standard error of the survival rate is greater than 10 percentage points.
⊕ Sites were chosen based on more than 100 SEER incident cases between 1995-99.
- Statistic could not be calculated.

Table XXVII-10
ALL SITES (Invasive)

INCIDENCE, DEATH, AND SURVIVAL RATES*

By Year of Diagnosis/Death

All Races, Males and Females

Ages 0-14

Year of Diagnosis/Death

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Incidence																					
SEER ^a	11.5	12.9	12.4	12.9	12.9	13.9	14.5	14.3	14.2	13.5	15.1	14.2	15.1	13.5	15.1	14.1	14.2	14.9	14.3	15.6	14.5
Mortality																					
U.S. ^b	4.9	4.3	4.2	4.3	4.1	3.7	3.6	3.5	3.4	3.3	3.3	3.1	3.1	3.0	3.0	2.8	2.8	2.7	2.7	2.5	2.6
SEER ^a	5.0	4.2	4.1	4.3	4.5	3.6	4.0	4.1	3.8	3.6	2.8	3.2	3.4	2.8	3.1	2.6	2.7	2.5	2.5	2.7	2.6
Relative Survival Rates (SEER ^a)																					
1-year	80.0	84.1	84.2	85.8	84.6	86.2	87.1	85.6	86.0	88.7	88.5	89.2	90.9	91.1	88.4	90.4	90.3	92.8	91.0	90.8	
2-year	66.8	75.0	74.8	76.3	76.5	75.8	78.1	76.0	76.8	80.2	79.9	81.5	82.1	84.0	81.8	84.4	84.4	86.2	84.6		
3-year	61.2	68.6	70.3	71.2	72.2	70.9	73.8	72.2	72.5	76.4	75.5	77.1	78.7	80.8	78.3	81.3	80.8	83.4			
4-year	58.7	65.1	65.9	69.8	69.6	66.6	70.5	70.7	70.4	73.2	73.0	74.7	75.8	78.5	77.5	78.5	78.1				
5-year	55.7	62.6	64.4	68.2	67.3	65.9	69.6	68.5	69.9	72.3	71.5	73.6	74.6	77.4	75.7	77.6					
6-year	53.4	60.8	63.4	66.6	66.4	65.2	68.3	67.6	68.5	71.8	70.5	72.7	74.1	75.8	75.2						
7-year	51.8	59.7	61.8	65.9	66.1	64.0	67.1	67.3	67.3	70.9	68.9	71.6	73.7	75.6							
8-year	50.8	58.9	61.2	65.5	65.5	62.9	65.9	67.0	67.2	70.3	67.9	71.2	72.8								
9-year	50.4	57.9	60.3	65.2	65.3	62.3	65.4	66.4	66.9	70.0	67.5	70.6									
10-year	49.9	57.4	60.0	64.5	64.9	61.7	64.6	66.3	66.2	69.7	66.9										
11-year	49.9	57.3	59.3	64.2	64.4	61.4	63.9	66.3	65.9	69.7											
12-year	49.4	57.0	58.4	63.6	63.8	61.2	63.6	65.5	65.8												
13-year	49.3	56.8	58.4	63.3	63.3	60.2	63.3	65.2													
14-year	49.3	56.2	58.4	63.2	62.8	59.9	63.1														
15-year	49.3	56.2	58.4	63.1	62.5	58.6															
16-year	49.2	55.7	58.4	62.7	62.3																
17-year	48.7	55.4	57.8	62.6																	
18-year	48.3	54.7	57.4																		
19-year	48.3	54.5																			
20-year	48.3																				
21-year	48.3																				
22-year	47.8																				
23-year	47.6																				
24-year	47.4																				

^a Rates are from the SEER 9 areas.^b Rates are from the NCHS public use data file.

* Incidence and death rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

Survival rates are relative rates expressed as percents.

Table XXVII-11
ALL SITES (Invasive)

INCIDENCE, DEATH, AND SURVIVAL RATES*

By Year of Diagnosis/Death

All Races, Males and Females

Ages 0-19

Year of Diagnosis/Death

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Incidence																					
SEER ^a	12.9	14.4	13.9	14.5	14.6	15.5	15.9	15.9	15.3	15.3	16.7	15.6	16.4	16.2	16.3	15.7	15.9	16.3	15.9	16.6	15.5
Mortality																					
U.S. ^b	5.1	4.6	4.4	4.5	4.3	3.9	3.8	3.8	3.7	3.6	3.5	3.4	3.4	3.3	3.3	3.2	3.0	2.9	2.9	2.8	2.9
SEER ^a	5.4	4.4	4.4	4.7	4.8	3.8	4.2	4.3	3.9	3.8	3.1	3.6	3.6	3.3	3.5	3.1	3.0	2.7	2.7	2.8	2.9
Relative Survival Rates (SEER ^a)																					
1-year	81.5	86.2	85.0	85.7	86.8	87.5	87.9	88.0	88.0	90.0	89.6	90.4	91.4	90.4	89.7	90.6	90.1	93.2	91.6	91.9	
2-year	69.3	76.9	75.1	77.6	79.3	77.5	78.8	78.9	79.7	82.3	81.3	82.8	83.3	83.3	82.5	84.0	84.6	87.3	85.0		
3-year	64.3	70.5	70.2	72.5	75.0	73.0	75.2	75.5	75.4	78.1	77.3	78.3	79.5	80.2	79.3	80.5	81.2	84.9			
4-year	61.4	68.2	66.4	70.5	72.2	68.9	72.5	73.7	72.9	75.2	74.1	75.9	77.3	78.0	77.9	78.4	79.4				
5-year	58.7	66.2	65.0	68.8	69.8	67.9	71.5	71.8	72.2	74.5	72.8	74.5	76.0	76.8	76.0	77.5					
6-year	56.4	64.4	63.6	67.4	68.5	66.5	70.3	71.2	71.1	73.9	71.7	73.4	75.3	75.4	75.4						
7-year	55.2	63.6	62.6	66.8	67.9	65.5	69.1	70.7	69.9	73.0	70.6	72.4	74.6	74.9							
8-year	54.4	63.0	62.0	66.2	66.7	64.3	68.2	70.3	69.4	71.9	70.0	71.7	73.9								
9-year	53.8	62.3	61.1	65.4	66.2	63.7	67.6	69.7	68.8	71.8	69.3	71.1									
10-year	53.2	62.0	60.8	64.8	65.8	63.1	66.9	69.4	68.4	71.1	68.9										
11-year	53.2	61.7	60.1	64.4	65.5	62.8	66.2	69.2	68.1	71.1											
12-year	52.7	61.5	59.4	64.0	64.8	62.5	65.9	68.7	67.9												
13-year	52.7	61.2	59.4	63.5	64.3	61.8	65.5	68.0													
14-year	52.5	60.5	59.3	63.1	64.0	61.5	65.4														
15-year	52.4	60.2	59.1	63.0	63.6	60.7															
16-year	52.4	59.4	58.9	62.3	63.4																
17-year	52.1	58.9	58.3	62.3																	
18-year	51.6	58.4	58.0																		
19-year	51.6	58.3																			
20-year	51.5																				
21-year	51.5																				
22-year	50.8																				
23-year	50.5																				
24-year	49.8																				

^a Rates are from the SEER 9 areas.

^b Rates are from the NCHS public use data file.

* Incidence and death rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

Survival rates are relative rates expressed as percents.