

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 SEER CANCER INCIDENCE TRENDS, 1975-2000, 1975-1986, 1987-2000^a

By Primary Cancer Site

All Races, Males and Females

Site	Ages 0-14				Ages 0-19			
	% Change 1975-2000	APC 1975-2000	APC 1975-1986	APC 1987-2000	% Change 1975-2000	APC 1975-2000	APC 1975-1986	APC 1987-2000
All Sites								
All Races	31.7	0.7 ^b	1.3 ^b	0.3 ^c	29.6	0.7 ^b	1.4 ^b	0.2 ^c
Whites	35.8	0.8 ^b	1.4 ^b	0.6	34.8	0.7 ^b	1.5 ^b	0.4 ^c
Blacks	35.9	0.3	1.1	-1.3 ^{bc}	19.9	0.3	0.9	-0.9 ^c
Bone & Joint	29.2	0.5	3.4 ^b	0.0 ^d	4.4	0.4	2.6 ^b	-0.5 ^d
Brain & Other nervous	49.6	1.1 ^b	1.8	-0.4 ^c	43.9	0.9 ^b	1.6	-0.6 ^c
Hodgkin lymphoma	-9.4	-1.1 ^b	-1.8	-1.3	-24.6	-0.8 ^b	-0.5	-1.6
Kidney & Renal pelvis	47.5	0.4	1.2	0.5	47.1	0.5	1.1	0.6
Leukemia	39.6	0.7 ^b	1.5 ^b	0.4	35.5	0.7 ^b	1.4 ^b	0.5
Acute lymphocytic	57.2	0.9 ^b	2.2 ^b	0.4 ^d	57.6	0.9 ^b	2.4 ^b	0.4 ^c
Non-Hodgkin lymphoma	-5.1	0.1	0.1	0.2	32.7	0.8 ^b	1.5	0.9
Soft tissue	20.7	1.1 ^b	1.4	2.4	50.4	1.3 ^b	2.1	2.6 ^b

^a The APC is the Annual Percent Change over the time interval.

^b SEER 9 areas.

^c The APC is significantly different from zero ($p < .05$)

^d The APC for 1987-2000 is significantly different from the APC for 1975-1986 ($p < .05$).

^e The APC for 1987-2000 is significantly different from the APC for 1975-1986 ($p < .10$).

- Statistic could not be calculated.

Table XXVII-2

AGE-ADJUSTED CANCER U.S. MORTALITY TRENDS, 1975-2000, 1975-1986, 1987-2000^a

By Race and Primary Cancer Site

Males and Females

Site	Ages 0-14				Ages 0-19			
	% Change 1975-2000	APC 1975-2000	APC 1975-1986	APC 1987-2000	% Change 1975-2000	APC 1975-2000	APC 1975-1986	APC 1987-2000
<u>All Races</u>								
All Sites	-48.1	-2.9 ^b	-2.9 ^b	-2.6 ^b	-45.1	-2.6 ^b	-2.7 ^b	-2.3 ^b
Bone & Joint	-37.9	-2.3 ^b	-2.9 ^b	-0.1 ^c	-35.0	-1.9 ^b	-2.7 ^b	0.4 ^c
Brain & Other nervous	-26.9	-1.2 ^b	-1.3 ^b	-1.2 ^b	-26.9	-1.2 ^b	-1.3 ^b	-1.2 ^b
Hodgkin lymphoma	-66.4	-4.8 ^b	-5.1 ^b	-2.6	-70.7	-4.5 ^b	-3.2 ^b	-4.8 ^b
Kidney & Renal pelvis	-57.2	-3.3 ^b	-3.6 ^b	-1.9 ^b	-53.4	-3.0 ^b	-3.4 ^b	-1.5 ^b
Leukemia	-62.0	-4.0 ^b	-4.6 ^b	-3.8 ^{bc}	-55.2	-3.5 ^b	-4.0 ^b	-3.4 ^{bd}
Acute lymphocytic	-66.5	-5.0 ^b	-4.9 ^b	-4.1 ^b	-60.4	-4.3 ^b	-4.1 ^b	-3.8 ^b
Non-Hodgkin lymphoma	-74.6	-5.0 ^b	-4.4 ^b	-6.0 ^b	-67.6	-4.1 ^b	-3.8 ^b	-4.7 ^b
Soft tissue	-11.6	-1.4 ^b	0.6	-3.1 ^{bc}	4.0	-0.6	0.9	-1.9 ^{bc}
<u>Whites</u>								
All Sites	-47.8	-2.9 ^b	-3.0 ^b	-2.7 ^b	-45.6	-2.7 ^b	-2.7 ^b	-2.4 ^b
Bone & Joint	-29.3	-2.2 ^b	-2.4 ^b	-0.5	-32.7	-1.8 ^b	-2.2 ^b	0.1 ^c
Brain & Other nervous	-25.8	-1.1 ^b	-1.0 ^b	-1.2 ^b	-26.2	-1.1 ^b	-1.0 ^b	-1.2 ^b
Hodgkin lymphoma	-70.8	-5.5 ^b	-6.3 ^b	-3.9	-72.2	-4.8 ^b	-3.8 ^b	-5.5 ^b
Kidney & Renal pelvis	-66.0	-3.4 ^b	-4.1 ^b	-2.7 ^b	-60.2	-3.1 ^b	-3.6 ^b	-2.2 ^b
Leukemia	-61.3	-4.1 ^b	-4.9 ^b	-3.8 ^{bc}	-55.6	-3.6 ^b	-4.2 ^b	-3.3 ^{bc}
Acute lymphocytic	-65.1	-5.0 ^b	-5.3 ^b	-3.8 ^{bc}	-59.3	-4.3 ^b	-4.3 ^b	-3.4 ^b
Non-Hodgkin lymphoma	-73.3	-5.0 ^b	-4.2 ^b	-6.5 ^{bd}	-68.1	-4.1 ^b	-3.7 ^b	-5.2 ^b
Soft tissue	-1.1	-1.4 ^b	1.1	-2.9 ^{bc}	13.3	-0.6	1.5	-1.8 ^{bc}
<u>Blacks</u>								
All Sites	-48.1	-2.6 ^b	-2.3 ^b	-2.3 ^b	-40.1	-2.2 ^b	-2.5 ^b	-2.0 ^b
Bone & Joint	-61.7	-2.6 ^b	-6.2 ^b	1.4 ^c	-33.6	-2.0 ^b	-5.7 ^b	2.6 ^{bc}
Brain & Other nervous	-22.8	-1.2 ^b	-2.2	-1.3	-22.8	-1.1 ^b	-2.1 ^b	-1.3 ^b
Hodgkin lymphoma	-60.4	-	-2.4	-	-59.5	-2.9 ^b	-0.3	-2.9
Kidney & Renal pelvis	-18.5	-3.1 ^b	-1.6	-0.3	-33.3	-2.8 ^b	-2.6	0.0
Leukemia	-66.4	-3.6 ^b	-2.6 ^b	-3.1 ^b	-49.9	-2.8 ^b	-2.4 ^b	-2.9 ^b
Acute lymphocytic	-71.1	-4.8 ^b	-1.0	-5.6 ^{bc}	-59.4	-3.8 ^b	-1.2	-5.0 ^{bc}
Non-Hodgkin lymphoma	-81.8	-5.2 ^b	-6.1 ^b	-2.0	-71.3	-4.0 ^b	-4.5 ^b	-2.1
Soft tissue	-56.6	-1.4	-0.8	-4.7 ^b	-32.3	-0.7	-1.1	-3.1 ^b

The APC is the Annual Percent Change over the time interval.

^a NCHS public use data file.^b The APC is significantly different from zero (p<.05).^c The APC for 1987-2000 is significantly different from the APC for 1975-1986 (p<.05).^d The APC for 1987-2000 is significantly different from the APC for 1975-1986 (p<.10).

- Statistic could not be calculated.

Table XXVII-3

AGE-ADJUSTED SEER CANCER INCIDENCE RATES^a, 1975-2000

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	2000
<u>Ages 0-14</u>																						
All Sites																						
All Races	11.5	12.9	12.5	12.9	12.9	13.9	14.5	14.3	14.2	13.5	15.0	14.2	15.1	13.4	14.9	13.9	13.9	14.6	14.0	15.3	14.1	15.1
Whites	12.0	13.1	12.5	13.1	13.7	14.4	15.6	14.9	14.6	14.0	15.5	14.2	16.1	13.9	15.1	14.5	14.6	14.9	14.8	16.2	15.1	16.3
Blacks	8.6	11.1	13.2	11.8	10.0	10.3	10.1	10.9	11.6	11.9	13.7	12.3	11.6	12.0	12.3	12.2	11.2	11.1	11.1	9.8	10.1	11.7
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	0.8	0.8	0.5	0.9	0.6	0.6	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	3.4	3.2	3.3	3.1	2.7	3.1	3.3	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	0.6	0.6	0.5	0.6	0.5	0.3	0.6	0.6	0.6	0.4	0.6
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	0.8	0.9	0.7	1.0	1.2	0.6	1.0	1.0	1.1	0.7	1.0
Leukemia	3.3	4.0	4.1	3.8	3.7	4.5	4.6	4.1	4.4	4.1	4.8	4.4	4.6	4.0	4.2	3.6	4.4	4.6	4.2	4.8	4.6	4.6
Acute lymphocytic	2.2	3.1	3.3	3.0	3.0	3.5	3.5	3.3	3.4	3.3	4.0	3.4	3.5	3.1	3.1	2.9	3.6	3.5	3.5	3.9	3.5	3.5
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	0.6	0.9	0.9	0.8	1.0
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	0.7	0.6	0.9	0.9	1.1	1.0	1.1	0.9	1.0
<u>Ages 0-19</u>																						
All Sites																						
All Races	12.9	14.4	14.0	14.5	14.6	15.5	15.9	15.9	15.3	15.3	16.7	15.7	16.4	16.1	16.2	15.6	15.8	16.2	15.7	16.4	15.4	16.8
Whites	13.3	14.8	14.3	15.1	15.4	16.1	17.1	16.7	16.2	15.8	17.4	15.9	17.5	16.9	16.6	16.2	16.7	16.6	16.8	17.4	16.4	18.0
Blacks	10.8	11.0	13.0	11.8	11.2	12.2	10.6	12.5	11.3	13.0	14.0	13.2	12.4	12.5	13.2	13.1	11.9	12.2	11.0	11.3	10.7	12.9
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	0.8	1.0	0.9	0.7	1.2	0.8	0.7	0.8
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	3.2	3.0	2.8	3.0	2.9	2.5	2.7	2.9	3.1
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	0.9	1.4	1.3	1.4	1.1	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	0.7	0.6	0.8	0.9	0.5	0.7	0.8	0.8	0.6	0.8
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	3.7	3.4	3.9	3.9	3.7	4.1	4.0	4.1
Acute lymphocytic	1.9	2.5	2.7	2.6	2.6	3.0	2.9	2.8	2.7	2.7	3.4	2.9	3.0	2.6	2.6	2.5	3.0	2.9	2.9	3.3	2.9	3.0
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	1.3
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	1.2

^a 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, 1975-2000

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	2000
<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	2.7	2.6	2.6	2.4	2.5	2.5
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	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	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	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	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	1.0	1.0	1.0	0.9	0.9	0.8	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	0.4
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	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	0.1	0.1	0.1	0.1	0.1	0.2	0.1	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	3.1	3.0	2.9	2.9	2.7	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	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
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	0.7	0.7	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	0.0
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	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	0.9	1.0	0.8	0.8	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	0.4	0.4	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	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	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, 1975-2000

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	2000
<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	2.5	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	0.2
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	0.8
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	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	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	0.9
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	0.3	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	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	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	3.1	2.9	2.9	2.9	2.8	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	0.2
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	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	0.0
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	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	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	0.5
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	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	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, 1975-2000

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	2000
<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	3.0	2.7	2.6	2.8	2.9	2.5	2.5	2.4	2.5	2.3
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	0.2	0.1	0.1	0.2	0.1	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	0.7	0.6	0.7	0.7	0.7
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	0.2	0.1	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	1.0	0.8	0.7	0.7	0.7	0.5
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	0.2	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	0.1	0.2	0.2	0.2	0.1
<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	3.3	3.0	3.1	3.2	3.1	2.9	2.9	2.6	3.0	2.8
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	0.3
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	0.6	0.7	0.7	0.7	0.6	0.6	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	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	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	0.1	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	0.8	1.0	1.0	1.1	0.8	0.8	0.7	0.8	0.8
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	0.1	0.2	0.1	0.2	0.1	0.2	0.1
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	0.2	0.2	0.2	0.3	0.2	0.2	0.3	0.2	0.3	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-7

AGE-ADJUSTED SEER CANCER INCIDENCE^a AND U.S. DEATH^b RATES, 1996-2000

By Primary Cancer Site

All Races, Males and Females

Site	Ages 0-14						Ages 0-19					
	Incidence			Mortality			Incidence			Mortality		
	Total	Males	Females	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Sites												
All Races	14.6	15.4	13.8	2.5	2.8	2.3	16.1	16.8	15.3	2.8	3.1	2.5
Whites	15.5	16.2	14.7	2.6	2.8	2.4	17.0	17.7	16.4	2.9	3.2	2.5
Blacks	10.8	11.6	9.9	2.4	2.6	2.3	11.6	12.3	11.0	2.8	3.1	2.6
Bone & Joint	0.6	0.8	0.5	0.1	0.1	0.1	0.8	1.0	0.6	0.2	0.3	0.2
Brain & Other nervous	3.1	3.3	2.9	0.7	0.8	0.7	2.8	3.0	2.6	0.7	0.7	0.6
Hodgkin lymphoma	0.6	0.6	0.6	0.0	0.0	0.0	1.3	1.2	1.3	0.0	0.0	0.0
Kidney & Renal pelvis	0.9	0.9	1.0	0.1	0.1	0.1	0.7	0.7	0.8	0.1	0.1	0.1
Leukemia	4.5	4.9	4.1	0.8	0.9	0.7	4.0	4.4	3.6	0.9	1.0	0.8
Acute lymphocytic	3.6	3.9	3.3	0.4	0.4	0.3	3.0	3.3	2.7	0.4	0.5	0.3
Non-Hodgkin lymphoma	0.8	1.2	0.4	0.1	0.1	0.1	1.1	1.5	0.6	0.2	0.2	0.1
Soft tissue	1.0	1.0	1.1	0.1	0.1	0.1	1.1	1.1	1.0	0.2	0.2	0.2

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

^b 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						
	1974-1976	1977-1979	1980-1982	1983-1985	1986-1988	1989-1991	1992-1999
All Sites							
All Races	55.8	61.5	65.0	67.7	70.3	73.3	77.5 ^a
Whites	56.0	62.0	65.4	69.3	71.6	74.5	78.7 ^a
Blacks	56.8	58.0	61.6	57.5	62.5	66.0	73.2 ^a
Bone & Joint	55.2 ^b	52.2 ^b	54.6 ^b	56.6 ^b	63.4 ^b	61.8	72.4 ^a
Brain & ONS	54.8	56.1	55.5	61.7	63.2	62.2	69.9 ^a
Hodgkin lymphoma	78.3	83.5	91.0	89.6	89.9	94.0	94.4 ^a
Leukemia	45.2	59.4	62.6	61.0	70.1	72.8	78.1 ^a
Acute lymphocytic	53.2	67.2	71.1	69.2	78.1	80.3	85.1 ^a
Acute myeloid	14.3	26.4 ^b	24.7 ^b	30.1 ^b	33.0 ^b	36.1	47.3 ^a
Neuroblastoma	52.6	53.1	52.8	55.2	59.7	67.9	67.9 ^a
Non-Hodgkin lymphoma	44.3	50.2	61.0	70.9	69.7	75.0	81.4 ^a
Soft tissue	60.4	68.3	65.4	76.3	66.5	78.0	73.8 ^a
Wilms' tumor	74.4	77.5	86.4	86.5	90.8	92.7	91.3 ^a

Site	Ages 0-19						
	1974-1976	1977-1979	1980-1982	1983-1985	1986-1988	1989-1991	1992-1999
All Sites							
All Races	58.6	64.0	66.7	69.8	72.9	74.5	78.0 ^a
Whites	58.9	64.5	67.5	71.4	74.5	76.3	79.3 ^a
Blacks	57.1	60.6	61.6	59.1	63.1	65.0	72.2 ^a
Bone & Joint	51.2	50.0	50.3	52.4	62.2	64.0	68.1 ^a
Brain & ONS	55.7	56.5	57.0	63.2	65.8	64.4	70.8 ^a
Hodgkin lymphoma	84.8	88.4	87.1	88.2	89.3	93.5	94.2 ^a
Leukemia	40.9	53.8	57.8	58.3	65.8	69.4	74.2 ^a
Acute lymphocytic	49.3	62.9	67.3	66.7	75.2	77.3	82.6 ^a
Acute myeloid	16.9	25.3	24.1	33.6	32.1	38.7	44.8 ^a
Neuroblastoma	52.2	53.1	53.0	54.5	59.0	66.6	67.9 ^a
Non-Hodgkin lymphoma	43.3	49.5	58.8	66.9	73.2	70.4	79.0 ^a
Soft tissue	61.8	64.9	64.9	74.5	68.3	69.2	72.1 ^a
Wilms' tumor	73.6	77.1	85.8	86.8	90.9	92.1	91.4 ^a

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 2000.

^a The difference in rates between 1974-1976 and 1992-1999 is statistically significant ($p < .05$).
^b The standard error of the survival rate is between 5 and 10 percentage points.
^c 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 Sitesⁱ By 5-Year Age Groups
All Races, Males and Females

Age/Site	SEER Incidence ^a					US Mortality ^b					Survival ^a	
	1996-2000 Num Cases	1996-2000 Rate	1975-2000 APC	1975-1986 APC	1987-2000 APC	1996-2000 Num Deaths	1996-2000 Rate	1975-2000 APC	1975-1986 APC	1987-2000 APC	1974-1976	1992-1999
<u>Ages 0-4</u>												
All Sites	1,901	20.6	0.8 ^c	1.4 ^c	0.5	2,481	2.6	-2.9 ^c	-2.6 ^c	-2.8 ^c	56.5	77.3 ^e
Soft tissue	121	1.3	0.1	1.7	-0.3	117	0.1	-2.0 ^c	-0.1	-3.3	56.9 ^g	77.4 ^f
Kidney and Renal pelvis	202	2.2	0.5	-0.2	0.9	103	0.1	-4.2 ^c	-6.3 ^c	-0.6 ^d	74.2	88.6 ^f
Eye and Orbit	119	1.3	0.7	2.8	0.1	27	0.0	-3.8 ^c	-2.7	-5.8 ^c	89.6	98.2 ^e
Brain and Other nervous	346	3.8	1.4 ^c	4.3 ^c	-0.1 ^d	662	0.7	-1.2 ^c	-1.1	-1.0	51.4	64.8 ^f
Other endocrine	127	1.4	-	-	-	406	0.4	-	-	-	32.8 ^g	59.9 ^f
Leukemia	685	7.4	0.8 ^c	0.9	0.7	804	0.8	-3.4 ^c	-4.3 ^c	-3.0 ^c	51.2	81.6 ^e
Acute lymphocytic	554	6.0	0.9 ^c	1.5 ^c	0.4	281	0.3	-5.0 ^c	-6.1 ^c	-3.5 ^{ce}	58.4	88.1 ^f
<u>Ages 5-9</u>												
All Sites	1,070	11.1	0.3	1.0	-0.3	2,555	2.5	-3.2 ^c	-3.5 ^c	-3.2 ^c	55.3	77.6 ^f
Brain and Other nervous	278	2.9	0.3	1.4	-1.3	860	0.8	-1.0 ^c	-0.8	-1.7 ^c	54.6	71.0 ^e
Leukemia	374	3.9	0.8 ^c	0.4	-0.2	752	0.7	-5.3 ^c	-6.0 ^c	-5.6 ^c	46.7	79.0 ^f
Acute lymphocytic	315	3.3	1.2 ^c	2.2	0.7	404	0.4	-6.2 ^c	-6.2 ^c	-5.5 ^c	53.8	84.6 ^f
<u>Ages 10-14</u>												
All Sites	1,175	12.5	0.8 ^c	1.5 ^c	0.6	2,542	2.6	-2.4 ^c	-2.5 ^c	-1.9 ^c	55.2	77.6 ^e
Bone and Joint	119	1.3	0.5	3.2	-0.9 ^e	246	0.2	-2.1 ^c	-2.4 ^c	0.1 ^e	54.4 ^g	71.4 ^f
Brain and Other nervous	258	2.8	1.4 ^c	-1.4	0.2	680	0.7	-1.4 ^c	-2.2 ^c	-0.8	58.7	75.7 ^f
Hodgkin lymphoma	123	1.3	-0.6	-1.0	-0.4	37	0.0	-4.1 ^c	-3.7	-1.7	75.0 ^g	93.0 ^e
Leukemia	235	2.5	0.4	4.9 ^c	0.2 ^d	912	0.9	-3.0 ^c	-3.1 ^c	-2.9 ^c	28.8	66.8 ^f
Acute lymphocytic	156	1.7	0.8	4.9 ^c	-1.0 ^d	455	0.5	-3.4 ^c	-2.1 ^c	-3.2 ^c	37.2 ^g	75.5 ^f
<u>Ages 15-19</u>												
All Sites	1,861	20.3	0.6 ^c	1.5 ^c	0.0 ^d	3,597	3.7	-2.0 ^c	-2.3 ^c	-1.6 ^{cd}	63.8	79.3 ^e
Bone and Joint	128	1.4	0.2	1.5	-1.1	531	0.5	-1.6 ^c	-2.5 ^c	0.7 ^d	46.6 ^g	62.7 ^f
Melanoma of the skin	129	1.4	1.0	1.0	-1.1	40	0.0	-3.2 ^c	-4.0 ^c	-5.0	76.3 ^g	92.5 ^f
Testis(males)	145	3.1	1.3 ^c	3.8	1.7	34	0.1	-7.8 ^c	-10.8 ^c	-5.2 ^{cd}	55.3 ^g	90.0 ^e
Brain and Other nervous	179	2.0	0.4	1.0	-1.6	548	0.6	-1.2 ^c	-1.1	-1.2 ^c	58.9 ^g	75.8 ^f
Thyroid	162	1.8	1.2 ^c	1.4	1.6	-	-	-	-	-	100.0	99.1
Hodgkin lymphoma	304	3.3	-0.6	0.3	-1.7 ^c	119	0.1	-4.3 ^c	-2.5	-5.5 ^{ce}	88.4	94.1 ^e
Non-Hodgkin lymphoma	159	1.7	2.1 ^c	4.4 ^c	1.8	285	0.3	-2.7 ^c	-2.7 ^c	-3.3 ^c	40.6 ^g	75.2 ^f
Leukemia	209	2.3	0.4	1.1	1.0	1,087	1.1	-2.1 ^c	-2.0 ^c	-2.2 ^c	21.5	51.2 ^f
Acute lymphocytic	113	1.2	0.9	3.8 ^c	1.1	450	0.5	-2.1 ^c	-0.5	-2.8 ^{ce}	21.3 ^g	58.9 ^f

The APC is the Annual Percent Change over the time interval.

Note: Incidence and death rates are per 100,000. Survival rates are expressed as percents.

^a SEER 9 areas.

^b NCHS public use data file.

^c The APC is significantly different from zero (p<.05).

^d The APC for 1987-2000 is significantly different from the APC for 1975-1986 (p<.05).

^e The APC for 1987-2000 is significantly different from the APC for 1975-1986 (p<.10).

^f The difference in rates between 1974-1976 and 1992-1999 is statistically significant (p<.05).

^g The standard error of the survival rate is between 5 and 10 percentage points.

^h The standard error of the survival rate is greater than 10 percentage points.

ⁱ Sites were chosen based on more than 100 SEER incident cases between 1996-2000.

- Statistic could not be calculated.

Table XXVII-10
ALL SITES (Invasive)

INCIDENCE, DEATH, AND SURVIVAL RATES^c

By Year of Diagnosis/Death

All Races, Males and Females

Ages 0-14

Year of Diagnosis/Death

	1975- 1979	1980- 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Incidence																		
SEER ^a	12.7	13.0	14.5	14.3	14.2	13.5	15.0	14.2	15.1	13.4	14.9	13.9	13.9	14.6	14.0	15.3	14.1	15.1
Mortality																		
U.S. ^b	4.6	4.1	3.6	3.5	3.4	3.3	3.3	3.1	3.1	3.0	3.0	2.8	2.7	2.6	2.6	2.4	2.5	2.5
SEER ^a	4.7	4.2	4.0	4.1	3.8	3.6	2.8	3.2	3.4	2.8	3.1	2.6	2.6	2.4	2.4	2.6	2.5	2.6
Relative Survival Rates (SEER ^a)																		
1-year	81.4	85.0	87.2	85.6	86.0	88.7	88.5	89.2	90.9	91.1	88.4	90.4	90.3	92.7	91.1	90.9	91.2	
2-year	71.1	75.7	78.2	76.1	76.9	80.3	79.9	81.5	82.2	84.0	81.9	84.4	84.5	86.3	84.8	83.9		
3-year	65.4	70.6	73.8	72.2	72.6	76.5	75.5	77.1	78.7	80.9	78.4	81.3	81.0	83.5	82.3			
4-year	62.0	67.4	70.6	70.8	70.5	73.3	73.0	74.8	75.9	78.7	77.5	78.6	78.3	80.4				
5-year	59.8	65.7	69.7	68.5	69.9	72.4	71.5	73.7	74.7	77.5	75.8	77.9	76.7					
6-year	58.1	64.5	68.4	67.6	68.6	72.0	70.5	72.9	74.2	76.1	75.3	77.6						
7-year	56.9	63.5	67.2	67.4	67.4	71.1	69.0	71.8	73.8	75.8	74.7							
8-year	56.2	62.8	66.0	67.1	67.4	70.5	68.0	71.4	73.0	75.6								
9-year	55.8	62.3	65.5	66.5	67.1	70.2	67.6	70.8	72.5									
10-year	55.6	61.8	64.7	66.4	66.5	69.9	67.1	70.4										
11-year	55.2	61.4	64.0	66.4	66.2	69.8	66.8											
12-year	54.8	60.9	63.7	65.6	66.1	69.5												
13-year	54.7	60.5	63.4	65.3	65.6													
14-year	54.3	60.2	63.3	64.0														
15-year	54.0	59.9	63.0															
16-year	53.6	59.6																
17-year	53.2																	
18-year	53.0																	
19-year	52.7																	
20-year	52.5																	

^a Rates are from the SEER 9 areas.

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

^c 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^c

By Year of Diagnosis/Death

All Races, Males and Females

Ages 0-19

Year of Diagnosis/Death

	1975- 1979	1980- 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Incidence																		
SEER ^a	14.1	14.6	15.9	15.9	15.3	15.3	16.7	15.7	16.4	16.1	16.2	15.6	15.8	16.2	15.7	16.4	15.4	16.8
Mortality																		
U.S. ^b	4.9	4.4	3.8	3.8	3.7	3.6	3.5	3.4	3.4	3.3	3.3	3.1	3.0	2.9	2.9	2.7	2.8	2.8
SEER ^a	5.0	4.4	4.2	4.3	3.9	3.8	3.1	3.6	3.6	3.3	3.5	3.1	2.9	2.7	2.6	2.7	2.8	3.0
Relative Survival Rates (SEER ^a)																		
1-year	83.0	86.3	87.9	88.0	88.0	89.9	89.6	90.4	91.4	90.5	89.7	90.6	90.2	93.1	91.6	92.0	91.1	
2-year	73.0	77.3	78.8	79.0	79.8	82.4	81.3	82.9	83.4	83.4	82.6	84.0	84.6	87.3	85.1	85.0		
3-year	67.9	72.3	75.2	75.5	75.5	78.2	77.3	78.3	79.6	80.3	79.3	80.5	81.3	85.0	81.9			
4-year	64.7	69.3	72.5	73.8	73.0	75.4	74.1	75.9	77.4	78.2	77.9	78.5	79.6	81.9				
5-year	62.6	67.6	71.5	71.9	72.3	74.6	72.9	74.6	76.1	76.9	76.1	77.7	78.1					
6-year	60.9	66.1	70.4	71.2	71.2	74.0	71.7	73.6	75.5	75.6	75.6	77.3						
7-year	59.9	65.4	69.2	70.8	70.0	73.1	70.7	72.6	74.8	75.1	75.1							
8-year	59.1	64.5	68.3	70.4	69.6	72.1	70.1	71.9	74.1	75.0								
9-year	58.6	63.8	67.7	69.8	69.0	71.9	69.4	71.4	73.7									
10-year	58.2	63.4	67.0	69.5	68.6	71.3	69.1	71.1										
11-year	57.9	63.0	66.4	69.3	68.3	71.2	68.9											
12-year	57.5	62.6	66.1	68.8	68.2	70.9												
13-year	57.4	62.2	65.7	68.2	67.8													
14-year	57.0	61.8	65.5	66.9														
15-year	56.8	61.4	65.3															
16-year	56.4	60.9																
17-year	56.0																	
18-year	55.8																	
19-year	55.5																	
20-year	55.1																	

^a Rates are from the SEER 9 areas.

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

^c 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-12
 CHILDHOOD CANCER (Invasive, <20 Years old at diagnosis)

Estimated United States Cancer Prevalence Counts^a on January 1, 2000
 By Race/Ethnicity, Sex and Years Since Diagnosis

Years Since Diagnosis	0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	0 to <10	0 to <25	>=25 ^f	Complete ^g
<u>Race/Sex</u>									
All Races ^b	52,974	44,110	37,906	31,324	27,777	97,084	194,091	+	+
Males	28,094	23,182	19,331	15,713	12,813	51,276	99,133	+	+
Females	24,880	20,928	18,575	15,611	14,964	45,808	94,958	+	+
White ^b	44,348	36,920	32,634	27,374	24,481	81,268	165,757	+	+
Males	23,439	19,714	16,675	13,877	11,396	43,153	85,101	+	+
Females	20,909	17,206	15,959	13,497	13,085	38,115	80,656	+	+
Black ^b	5,524	4,765	3,555	2,775	2,372	10,289	18,991	+	+
Males	2,973	2,284	1,735	1,280	1,004	5,257	9,276	+	+
Females	2,551	2,481	1,820	1,495	1,368	5,032	9,715	+	+
Asian/Pacific Islander ^c	1,873	1,395	+	+	+	3,268	+	+	+
Males	1,018	667	+	+	+	1,685	+	+	+
Females	855	728	+	+	+	1,583	+	+	+
Hispanic ^d	7,557	5,538	+	+	+	13,095	+	+	+
Males	3,990	3,089	+	+	+	7,079	+	+	+
Females	3,567	2,449	+	+	+	6,016	+	+	+

^a US 2000 cancer prevalence counts are based on 2000 cancer prevalence proportions from the SEER registries and 1/1/2000 US population estimates based on the average of 1999 and 2000 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

^{b c d} Statistics based on b) SEER 9 Areas c) SEER 11 Areas d) SEER 11 Areas excluding Hawaii and Detroit.

^e Percentages are age-adjusted to the 2000 US standard population by 5-year age groups.

^{f g} (f) Cases diagnosed 25 years or more ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000). (g) Complete prevalence is obtained by summing 0 to <25 with >=25.

- Statistics not shown. Rate based on less than 25 cases estimated alive for the time interval.

+ Not available.