

Table 29.1

Age-Adjusted and Age-Specific SEER Cancer Incidence Rates, 2007-2011^a
 By International Classification of Childhood Cancer (ICCC)^b Group and Subgroup^c and Age at Diagnosis
 Including myelodysplastic syndromes and Group III benign brain/CNS tumors
 All Races, Males and Females

ICCC Group and Subgroup	0-14	0-19	<1	1-4	5-9	10-14	15-19
All ICCC Groups Combined							
Excluding Group III benign brain/CNS tumors	162.0	176.3	241.7	220.7	128.0	136.2	218.8
Including Group III benign brain/CNS tumors ^d	172.8	191.2	253.4	228.1	137.2	150.9	246.2
I Leukemia (includes myelodysplastic syndromes)	54.4	49.4	51.7	95.0	44.5	33.9	34.5
I(a) Lymphoid leukemia	41.9	35.9	20.3	79.7	37.1	22.1	18.2
I(b) Acute myeloid leukemia	8.0	8.5	18.9	10.6	4.5	7.4	9.9
I(c) Chronic myeloproliferative diseases	1.6	2.3	4.6	1.1	0.8	2.4	4.4
I(d) Myelodysplastic syndrome and other myeloproliferative	1.5	1.4	5.0	1.9	1.0	1.0	1.2
I(e) Unspecified and other specified leukemias	1.4	1.2	2.9	1.7	1.1	1.0	0.7
II Lymphomas and reticuloendothelial neoplasms	16.3	24.6	5.5	8.4	16.1	24.5	49.3
II(a) Hodgkin lymphoma	5.9	12.4	-	1.1	5.0	11.6	31.8
II(b) Non-Hodgkin lymphoma (except Burkitt lymphoma)	6.8	8.6	-	4.5	6.9	9.5	14.1
II(c) Burkitt lymphoma	2.6	2.6	-	1.7	3.4	3.0	2.4
II(d) Miscellaneous lymphoreticular neoplasms	0.7	0.6	3.6	1.0	-	-	-
II(e) Unspecified lymphomas	0.2	0.3	-	-	-	-	0.6
III CNS and misc intracranial and intraspinal neoplasms ^d	44.3	45.1	48.8	49.4	43.1	40.6	47.8
III(a) Ependymomas and choroid plexus tumor	4.0	3.7	8.8	6.9	2.6	2.4	2.8
III(b) Astrocytoma	16.7	15.6	15.5	18.7	17.1	15.2	12.2
III(c) Intracranial and intraspinal embryonal tumors	7.6	6.4	12.5	11.3	7.4	4.1	2.7
III(d) Other gliomas	6.1	5.5	3.4	6.1	7.5	5.2	3.9
III(e) Other specified intracranial/intraspinal neoplasms	8.5	12.5	7.0	5.6	7.4	12.1	24.4
III(f) Unspecified intracranial and intraspinal neoplasms	1.2	1.4	-	0.8	1.1	1.7	1.8
IV Neuroblastoma and other peripheral nervous cell tumor	10.6	8.1	51.0	20.9	4.3	1.2	0.9
IV(a) Neuroblastoma and ganglioneuroblastoma	10.4	7.9	51.0	20.7	4.2	1.1	0.5
IV(b) Other peripheral nervous cell tumors	-	0.2	-	-	-	-	-
V Retinoblastoma	4.2	3.1	27.7	8.7	-	-	-
VI Renal tumors	8.4	6.8	15.3	19.8	5.8	1.1	1.9
VI(a) Nephroblastoma and other nonepithelial renal tumor	8.1	6.2	14.9	19.7	5.4	0.7	-
VI(b) Renal carcinoma	0.3	0.6	-	-	-	-	1.5
VI(c) Unspecified malignant renal tumors	-	-	-	-	-	-	-

^a SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).

^b International Classification of Childhood Cancer is based on ICD-O-3. Steliarova-Foucher E, Stiller C, Lacour B, Kaatsch P. International Classification of Childhood Cancer, Third Edition. Cancer. April 1, 2005: Vol 103, No. 7, pg 1457-1467.

^c Classifications are shown for invasive cases only except as noted. For ICCC groups and subgroups that include *in situ* behavior, only invasive cases are shown except as noted.

^d Group III and Group III subgroups include benign brain/CNS tumors.

Rates are per 1,000,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

- Statistic could not be calculated. Rate based on less than 16 cases for the time interval.

Table 29.1 - continued

Age-Adjusted and Age-Specific SEER Cancer Incidence Rates, 2007-2011^a
 By International Classification of Childhood Cancer (ICCC)^b Group and Subgroup^c and Age at Diagnosis
 Including myelodysplastic syndromes and Group III benign brain/CNS tumors
 All Races, Males and Females

<u>ICCC Group and Subgroup</u>	<u>0-14</u>	<u>0-19</u>	<u><1</u>	<u>1-4</u>	<u>5-9</u>	<u>10-14</u>	<u>15-19</u>
VII Hepatic tumors	2.9	2.5	10.1	6.4	0.8	0.9	1.5
VII(a) Hepatoblastoma	2.4	1.8	9.8	6.1	-	-	-
VII(b) Hepatic carcinoma	0.5	0.7	-	-	-	0.8	1.4
VII(c) Unspecified malignant hepatic tumors	-	-	-	-	-	-	-
VIII Malignant bone tumors	7.3	8.8	-	1.9	6.0	14.0	13.2
VIII(a) Osteosarcoma	4.2	5.1	-	-	3.3	8.5	7.7
VIII(b) Chondrosarcoma	0.2	0.4	-	-	-	-	1.0
VIII(c) Ewing tumor and related sarcomas of bone	2.5	2.8	-	1.1	2.2	4.3	3.5
VIII(d) Other specified malignant bone tumors	0.3	0.4	-	-	-	-	0.7
VIII(e) Unspecified malignant bone tumors	-	0.2	-	-	-	-	-
IX Soft tissue and other extraosseous sarcomas	11.2	12.4	19.6	11.0	8.8	12.2	15.9
IX(a) Rhabdomyosarcoma	5.4	4.9	5.8	7.7	4.9	4.1	3.5
IX(b) Fibrosarcoma, peripheral nerve & other fibrous	0.9	1.1	4.6	-	0.6	0.8	1.6
IX(c) Kaposi sarcoma	-	-	-	-	-	-	-
IX(d) Other specified soft tissue sarcomas	3.8	5.0	5.8	2.0	2.7	5.7	8.7
IX(e) Unspecified soft-tissue sarcomas	1.1	1.3	2.9	-	0.7	1.5	2.0
X Germ cell & trophoblastic tumors & neoplasms of gonads	6.0	12.2	18.9	4.0	3.2	7.8	30.7
X(a) Intracranial and intraspinal germ-cell tumors	1.9	2.2	-	-	1.9	2.8	3.3
X(b) Extracranial & extragonadal germ cell tumors	1.3	1.5	11.2	1.4	-	0.6	1.8
X(c) Malignant gonadal germ cell tumors	2.9	8.3	6.0	2.4	1.2	4.3	24.2
X(d) Gonadal carcinomas	-	0.4	-	-	-	-	1.3
X(e) Other and unspecified malignant gonadal tumors	-	0.2	-	-	-	-	-
XI Other malignant epithelial neoplasms and melanomas ^d	6.8	17.6	-	1.8	4.0	14.3	49.7
XI(a) Adrenocortical carcinoma	0.3	0.2	-	-	-	-	-
XI(b) Thyroid carcinoma	2.8	8.3	-	-	1.3	6.8	24.6
XI(c) Nasopharyngeal carcinoma	0.3	0.6	-	-	-	0.8	1.4
XI(d) Malignant melanoma	1.8	4.3	-	0.9	1.3	3.1	11.7
XI(e) Skin carcinoma	-	-	-	-	-	-	-
XI(f) Other and unspecified carcinomas ^d	1.5	4.1	-	-	1.2	3.2	11.7
XII Other and unspecified malignant neoplasms	0.5	0.6	-	0.8	-	-	0.7
XII(a) Other specified malignant tumors	0.3	0.3	-	-	-	-	-
XII(b) Other unspecified malignant tumors	0.2	0.2	-	-	-	-	-
Not classified by ICC	0.3	0.3	-	-	-	-	-

^a SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).

^b International Classification of Childhood Cancer is based on ICD-O-3. Steliarova-Foucher E, Stiller C, Lacour B, Kaatsch P. International Classification of Childhood Cancer, Third Edition. Cancer. April 1, 2005: Vol 103, No. 7, pg 1457-1467.

^c Classifications are shown for invasive cases only except as noted. For ICC groups and subgroups that include *in situ* behavior, only invasive cases are shown except as noted.

^d Includes *in situ* urinary bladder tumors.

Rates are per 1,000,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

- Statistic could not be calculated. Rate based on less than 16 cases for the time interval.

Table 29.2

Age-Adjusted SEER Cancer Incidence Rates^a
 By International Classification of Childhood Cancer (ICCC)^b Selected Group and Subgroup^c and Year of Diagnosis
 Excluding benign brain and myelodysplastic syndromes
 All Races, Males and Females, Ages 0-19

<u>ICCC Group and Subgroup</u>	<u>1975-2011</u>	<u>1975-1984</u>	<u>1985-1993</u>	<u>1994-2002</u>	<u>2003-2011</u>
All ICCC Groups Combined	158.9	143.7	159.2	162.9	169.9
I Leukemia	39.0	34.9	38.4	40.0	42.4
I(a) Lymphoid leukemia	29.2	25.7	28.6	30.3	32.0
I(b) Acute myeloid leukemia	7.1	5.9	6.9	7.7	7.7
II Lymphomas and reticuloendothelial neoplasms	24.5	24.7	24.6	23.7	25.2
II(a) Hodgkin lymphoma	13.1	14.4	13.9	12.1	12.0
II(b,c,e) Non-Hodgkin lymphoma	10.9	9.5	10.1	11.2	12.7
III CNS & misc intracranial & intraspinal neoplasms	28.2	23.1	29.8	29.8	30.0
III(a) Ependymomas and choroid plexus tumor	2.4	1.8	2.6	2.5	2.6
III(b) Astrocytoma	14.2	11.7	15.7	14.5	15.1
III(c) Intracranial and intraspinal embryonal tumors	5.6	4.3	5.4	6.7	6.1
III(d) Other gliomas	5.2	4.4	5.1	5.5	5.6
IV Neuroblastoma and other peripheral nervous cell tumors	8.4	8.1	8.4	8.6	8.5
IV(a) Neuroblastoma and ganglioneuroblastoma	8.2	8.0	8.1	8.3	8.3
V Retinoblastoma	3.0	2.8	3.3	3.1	2.9
VI Renal tumors	6.7	6.5	6.8	7.0	6.4
VI(a) Nephroblastoma and other nonepithelial renal tumor	6.2	6.2	6.3	6.5	5.7
VII Hepatic tumors	1.9	1.3	1.6	2.0	2.5
VII(a) Hepatoblastoma	1.3	0.9	1.2	1.4	1.8
VIII Malignant bone tumors	8.6	8.2	8.9	8.7	8.5
VIII(a) Osteosarcoma	4.6	4.2	4.9	5.0	4.5
VIII(c) Ewing tumor and related sarcomas of bone	2.9	3.1	3.0	2.8	2.9
IX Soft tissue and other extraosseous sarcomas	11.6	10.4	11.1	11.9	12.8
IX(a) Rhabdomyosarcoma	4.5	4.1	4.7	4.6	4.7
X Germ cell & trophoblastic tumors & neoplasms of gonads	10.6	9.3	10.4	11.1	11.5
X(a) Intracranial and intraspinal germ-cell tumor	1.4	0.9	1.3	1.9	1.7
X(c) Malignant gonadal germ cell tumor	6.7	5.9	6.5	7.0	7.6
XI Other malignant epithelial neoplasms and melanomas ^d	15.9	13.6	15.1	16.3	18.5
XI(b) Thyroid carcinoma	5.9	4.8	5.3	6.0	7.4
XI(d) Malignant melanoma	5.1	3.9	5.3	5.4	5.8

^a SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Rates are per 1,000,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^b International Classification of Childhood Cancer is based on ICD-O-3. Steliarova-Foucher E, Stiller C, Lacour B, Kaatsch P.

International Classification of Childhood Cancer, Third Edition. Cancer. April 1, 2005: Vol 103, No. 7, pg 1457-1467.

^c Classifications are shown for invasive cases only except as noted. For ICCC groups and subgroups that include *in situ* behavior, only invasive cases are shown except as noted.

^d Includes *in situ* urinary bladder tumors.

- Statistic could not be calculated. Rate based on less than 16 cases for the time interval.

Table 29.3

Age-Adjusted SEER Cancer Incidence Trends, 1975-2011^a
 By International Classification of Childhood Cancer (ICCC)^b Selected Group and Subgroup^c
 Excluding benign brain and myelodysplastic syndromes
 All Races, Males and Females

ICCC Group and Subgroup	Ages 0-14				Ages 0-19			
	% Change 1975-2011	APC 1975-2011	APC 1975-1993	APC 1994-2011	% Change 1975-2011	APC 1975-2011	APC 1975-1993	APC 1994-2011
All ICCG Groups Combined	36.0	0.6*	1.0*	0.7*	37.3	0.6*	1.0*	0.7*
I Leukemia	55.5	0.7*	1.0*	0.9*	51.9	0.7*	0.9*	0.8*
I(a) Lymphoid leukemia	85.5	0.8*	1.2*	0.8*	87.5	0.8*	1.1*	0.9*
I(b) Acute myeloid leukemia	7.3	1.0*	1.8*	0.6	7.1	1.0*	1.4*	0.2
II Lymphomas and reticuloendothelial neo.	-13.0	0.1	-0.7*	1.4* [#]	-4.5	0.1	0.0	0.8 [@]
II(a) Hodgkin lymphoma	-7.0	-0.7*	-1.2	0.9 [@]	-11.9	-0.6*	-0.4	0.3
II(b,c,e) Non-Hodgkin lymphoma	-13.6	0.7*	-0.3	1.6* [#]	9.7	1.0*	0.6	1.3*
III CNS & misc intracranial & intraspinal neo.	54.7	1.0*	2.3*	0.7 [#]	46.0	0.9*	2.1*	0.6 [#]
III(a) Ependymomas and choroid plexus tumors	-	-	-	0.8	-	-	-	0.6
III(b) Astrocytoma	82.8	1.1*	3.3*	0.9 [#]	65.6	0.8*	2.8*	0.8 [#]
III(c) Intracranial and intraspinal embryonal tum.	217.2	1.1*	1.5	0.0	239.2	1.3*	1.8	0.0
III(d) Other gliomas	-44.9	0.6	0.5	1.3	-44.7	0.8*	0.6	0.5
IV Neuroblastoma and other peripheral nervous cell tumors	-4.0	0.2	0.6	-0.1	0.9	0.2	0.6	0.0
IV(a) Neuroblastoma and ganglioneuroblastoma	-4.0	0.3	0.5	0.0	-2.3	0.2	0.4	0.0
V Retinoblastoma	11.2	0.2	1.8*	-0.6 [#]	11.2	0.2	1.9*	-0.6 [#]
VI Renal tumors	41.8	-0.1	0.7	-0.8	41.2	0.1	0.9	-0.6
VI(a) Nephroblastoma and other nonepithelial renal tumors	44.8	-0.1	0.6	-0.8	44.8	-0.1	0.7	-0.8
VII Hepatic tumors	-	-	-	-	-	-	-	-
VII(a) Hepatoblastoma	-	-	-	-	-	-	-	-
VIII Malignant bone tumors	49.9	0.1	0.8	0.1	27.6	0.1	0.9	-0.2
VIII(a) Osteosarcoma	-	-	-	-1.0	48.4	0.3	1.6*	-1.0 [#]
VIII(c) Ewing tum. and related sarcomas of bone	74.1	-	-	-	34.8	-0.2	0.4	0.5
IX Soft tissue and other extrasosseous sarcomas	50.3	0.7*	0.8	0.9*	75.9	0.7*	0.5	0.8
IX(a) Rhabdomyosarcoma	35.5	0.3	1.3	0.0	63.1	0.4	1.2	0.1
X Germ cell & trophoblastic tum. & neo. of gonads	29.4	1.1*	1.4	0.6	25.9	0.8*	1.5*	0.6
X(a) Intracranial and intraspinal germ-cell tum.	-	-	-	-	-	-	-	-
X(c) Malignant gonadal germ cell tumors	4.3	-	-	-	72.1	1.0*	1.3	1.2*
XI Other malignant epithelial neo. and melanomas ^d	31.4	1.0*	0.4	1.2	80.3	1.1*	0.9	1.6*
XI(b) Thyroid carcinoma	51.7	-	-	-	157.8	1.7*	0.7	3.4* [#]
XI(d) Malignant melanoma	-	-	-	-	57.0	1.1*	2.0*	0.4

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

^a SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

^b International Classification of Childhood Cancer is based on ICD-O-3. Steliarova-Foucher E, Stiller C, Lacour B, Kaatsch P. International Classification of Childhood Cancer, Third Edition. Cancer. April 1, 2005: Vol 103, No. 7, pg 1457-1467.

^c Classifications are shown for invasive cases only except as noted. For ICCG groups and subgroups that include *in situ* behavior, only invasive cases are shown except as noted.

^d Includes *in situ* urinary bladder tumors.

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

The APC for 1994-2011 is significantly different from the APC for 1975-1993 (p<.05).

@ The APC for 1994-2011 is significantly different from the APC for 1975-1993 (p<.10).

- Statistic could not be calculated. Trend based on less than 10 cases for at least one year within the time interval. Neoplasms are abbreviated as neo. Tumors are abbreviated as tum.

Table 29.4

Age-Adjusted SEER Cancer Incidence Trends, 1975-2011^a
 By International Classification of Childhood Cancer (ICCC)^b Selected Group and Subgroup^c
 Excluding benign brain and myelodysplastic syndromes
 All Races, Males

ICCC Group and Subgroup	Ages 0-14				Ages 0-19			
	% Change 1975-2011	APC 1975-2011	APC 1975-1993	APC 1994-2011	% Change 1975-2011	APC 1975-2011	APC 1975-1993	APC 1994-2011
All ICCC Groups Combined	30.8	0.6*	1.1*	0.5 [®]	35.6	0.6*	1.1*	0.6**
I Leukemia	38.5	0.7*	0.9*	0.7	37.3	0.7*	0.7*	0.7
I(a) Lymphoid leukemia	67.3	0.8*	1.1*	0.7	76.4	0.8*	1.2*	0.8
I(b) Acute myeloid leukemia	10.8	-	-	-0.2	-8.1	1.0*	0.5	-0.7
II Lymphomas and reticuloendothelial neo.	-10.2	-0.1	-0.8	1.2 [#]	-3.0	0.0	-0.1	0.9
II(a) Hodgkin lymphoma	10.7	-	-	-	-12.0	-0.6*	-0.5	1.3**
II(b,c,e) Non-Hodgkin lymphoma	-17.6	0.3	-0.5	0.9	10.7	0.7*	0.4	0.6
III CNS & misc intracranial & intraspinal neo.	82.3	0.9*	2.7*	0.4 [#]	59.5	0.8*	2.4*	0.2 [#]
III(a) Ependymomas and choroid plexus tumors	-	-	-	-	-	-	-	-
III(b) Astrocytoma	116.0	1.0*	3.5*	0.7 [#]	76.7	0.7*	3.0*	0.8 [#]
III(c) Intracranial and intraspinal embryonal tum.	-	-	-	-0.1	-	-	-	-0.1
III(d) Other gliomas	-47.5	-	-	-	-48.2	-	-	-0.5
IV Neuroblastoma and other peripheral nervous cell tumors	13.6	0.3	1.3	0.0	19.9	0.3	1.5	0.1
IV(a) Neuroblastoma and ganglioneuroblastoma	13.6	0.3	1.2	0.1	13.1	0.3	1.3	0.1
V Retinoblastoma	3.8	-	-	-	3.8	-	-	-
VI Renal tumors	12.2	-0.1	1.5	-1.3 [#]	6.3	0.0	1.3	-1.2 [#]
VI(a) Nephroblastoma and other nonepithelial renal tumors	14.5	0.0	1.4	-1.2 [#]	14.5	-0.1	1.3	-1.3 [#]
VII Hepatic tumors	-	-	-	-	-	-	-	-
VII(a) Hepatoblastoma	-	-	-	-	-	-	-	-
VIII Malignant bone tumors	27.7	0.5	0.3	-0.6	36.5	0.5	1.1	-0.9
VIII(a) Osteosarcoma	-	-	-	-	-	-	-	-1.4
VIII(c) Ewing tum. and related sarcomas of bone	-	-	-	-	3.6	-	-	-
IX Soft tissue and other extrasosseous sarcomas	55.8	0.7*	0.7	0.7	93.1	0.8*	0.8	0.8
IX(a) Rhabdomyosarcoma	53.9	-	-	-1.0	89.5	-	-	-0.3
X Germ cell & trophoblastic tum. & neo. of gonads	-14.8	-	-	-0.4	75.0	1.2*	1.7	0.8
X(a) Intracranial and intraspinal germ-cell tum.	-	-	-	-	-	-	-	-
X(c) Malignant gonadal germ cell tum. (testis)	-	-	-	-	125.7	1.2*	1.3	1.8*
XI Other malignant epithelial neo. and melanomas ^d	-18.6	-	-	-	43.6	1.1*	1.2	1.4*
XI(b) Thyroid carcinoma	-	-	-	-	-	-	-	-
XI(d) Malignant melanoma	-	-	-	-	4.2	-	-	-

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

^a SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

^b International Classification of Childhood Cancer is based on ICD-O-3. Steliarova-Foucher E, Stiller C, Lacour B, Kaatsch P.

International Classification of Childhood Cancer, Third Edition. Cancer. April 1, 2005: Vol 103, No. 7, pg 1457-1467.

^c Classifications are shown for invasive cases only except as noted. For ICCC groups and subgroups that include *in situ* behavior, only invasive cases are shown except as noted.

^d Includes *in situ* urinary bladder tumors.

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

The APC for 1994-2011 is significantly different from the APC for 1975-1993 (p<.05).

® The APC for 1994-2011 is significantly different from the APC for 1975-1993 (p<.10).

- Statistic could not be calculated. Trend based on less than 10 cases for at least one year within the time interval.

Neoplasms are abbreviated as neo. Tumors are abbreviated as tum.

Table 29.5

Age-Adjusted SEER Cancer Incidence Trends, 1975-2011^a
 By International Classification of Childhood Cancer (ICCC)^b Selected Group and Subgroup^c
 Excluding benign brain and myelodysplastic syndromes
 All Races, Females

ICCC Group and Subgroup	Ages 0-14				Ages 0-19			
	% Change 1975-2011	APC 1975-2011	APC 1975-1993	APC 1994-2011	% Change 1975-2011	APC 1975-2011	APC 1975-1993	APC 1994-2011
All ICCG Groups Combined	42.5	0.6*	0.9*	0.8*	39.3	0.6*	0.9*	0.8*
I Leukemia	82.1	0.6*	1.2	1.0*	74.5	0.7*	1.2*	1.1*
I(a) Lymphoid leukemia	112.2	0.7*	1.2	0.9*	103.3	0.8*	1.1	1.0*
I(b) Acute myeloid leukemia	3.0	0.8*	2.0	1.6	27.2	1.0*	2.5*	1.4*
II Lymphomas and reticuloendothelial neo.	-18.9	0.4	-0.8	1.6 [#]	-6.9	0.1	0.2	0.6
II(a) Hodgkin lymphoma	-29.5	-	-	-	-11.8	-0.6*	-0.2	-0.8
II(b,c,e) Non-Hodgkin lymphoma	-2.0	-	-	-	7.5	1.8*	1.0	2.6*
III CNS & misc intracranial & intraspinal neo.	29.1	1.0*	1.8*	1.1	31.5	0.9*	1.7*	1.0
III(a) Ependymomas and choroid plexus tumors	-	-	-	-	-	-	-	-
III(b) Astrocytoma	51.0	1.2*	3.0*	1.0	52.9	0.9*	2.6*	0.9
III(c) Intracranial and intraspinal embryonal tum.	-	-	-	0.1	-	-	-	0.1
III(d) Other gliomas	-42.5	-	-	-	-41.2	-	-	-
IV Neuroblastoma and other peripheral nervous cell tumors	-18.9	0.2	-0.5	-0.5	-15.9	0.1	-0.7	-0.4
IV(a) Neuroblastoma and ganglioneuroblastoma	-18.9	0.2	-0.5	-0.4	-15.9	0.1	-0.7	-0.3
V Retinoblastoma	-	-	-	-	-	-	-	-
VI Renal tumors	75.5	-0.1	-0.1	-0.4	82.7	0.1	0.6	0.0
VI(a) Nephroblastoma and other nonepithelial renal tumors	75.5	-0.2	-0.1	-0.4	75.5	-0.2	0.2	-0.3
VII Hepatic tumors	-	-	-	-	-	-	-	-
VII(a) Hepatoblastoma	-	-	-	-	-	-	-	-
VIII Malignant bone tumors	81.4	-	1.4	-	16.3	-0.3	0.7	0.9
VIII(a) Osteosarcoma	-	-	-	-	-19.6	-0.2	1.1	-0.1
VIII(c) Ewing tum. and related sarcomas of bone	-	-	-	-	-	-	-	-
IX Soft tissue and other extrasosseous sarcomas	43.9	0.7*	0.7	1.1	56.2	0.7*	0.2	0.9
IX(a) Rhabdomyosarcoma	-	-	-	-	31.4	-	-	-
X Germ cell & trophoblastic tum. & neo. of gonads	74.3	-	-	1.4	-15.1	0.2	1.1	0.5
X(a) Intracranial and intraspinal germ-cell tum.	-	-	-	-	-	-	-	-
X(c) Malignant gonadal germ cell tum. (ovary)	-	-	-	-	11.6	-	-	0.0
XI Other malignant epithelial neo. and melanomas ^d	69.2	-	-	1.5	102.3	1.1*	0.7	1.7*
XI(b) Thyroid carcinoma	-	-	-	-	191.8	1.8*	0.9	2.9*
XI(d) Malignant melanoma	-	-	-	-	115.9	-	-	1.0

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

^a SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

^b International Classification of Childhood Cancer is based on ICD-O-3. Steliarova-Foucher E, Stiller C, Lacour B, Kaatsch P.

International Classification of Childhood Cancer, Third Edition. Cancer. April 1, 2005: Vol 103, No. 7, pg 1457-1467.

^c Classifications are shown for invasive cases only except as noted. For ICCG groups and subgroups that include *in situ* behavior, only invasive cases are shown except as noted.

^d Includes *in situ* urinary bladder tumors.

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

The APC for 1994-2011 is significantly different from the APC for 1975-1993 (p<.05).

@ The APC for 1994-2011 is significantly different from the APC for 1975-1993 (p<.10).

- Statistic could not be calculated. Trend based on less than 10 cases for at least one year within the time interval.

Neoplasms are abbreviated as neo. Tumors are abbreviated as tum.

Table 29.6

5-Year Relative Survival (Percent), 2004-2010^aBy International Classification of Childhood Cancer (ICCC)^b Selected Group and Subgroup^c and Sex and Age
Excluding benign brain and myelodysplastic syndromes

ICCC Group & Subgroup	Ages 0-19 by Sex			Both Sexes by Age					
	Total	Male	Female	<1	1-4	5-9	10-14	15-19	0-14
All ICCC Groups Combined	82.5	81.6	83.5	77.7	84.1	82.3	81.2	83.2	82.1
I Leukemia	82.1	81.6	82.8	62.3	89.9	87.5	76.0	69.9	84.6
I(a) Lymphoid leukemia	87.2	86.2	88.6	56.5	93.9	91.0	80.0	73.8	89.2
I(b) Acute myeloid leukemia	62.3	62.0	62.6	65.0	65.1	65.5	62.4	57.6	64.2
II Lymphomas and reticuloendothelial neo.	91.8	91.6	92.0	82.1 ^d	93.1	92.7	91.8	91.5	92.0
II(a) Hodgkin lymphoma	96.4	96.8	96.0	-	96.2	96.6	97.7	95.8	97.4
II(b,c,e) Non-Hodgkin lymphoma	86.5	86.7	86.1	-	91.4	90.3	85.9	84.0	88.3
III CNS & misc intracranial & intraspinal neo.	73.2	73.3	73.0	56.6	72.4	71.5	77.6	77.4	72.3
III(a) Ependymomas and choroid plexus tumor	77.1	74.9	79.8	65.4 ^d	77.8	74.7 ^d	77.9 ^d	84.3	75.6
III(b) Astrocytoma	83.4	82.4	84.4	76.5	90.7	84.4	80.0	76.6	85.2
III(c) Intracranial and intraspinal embryonal tumors	61.2	63.2	58.2	27.2 ^d	55.5	72.5	68.8 ^d	68.6 ^d	60.4
III(d) Other gliomas	58.8	62.6	54.9	81.2 ^d	45.5	43.5	70.0	82.3	53.0
IV Neuroblastoma and other peripheral nervous cell tumors	78.6	77.2	80.0	91.9	72.5	69.8	68.1 ^d	80.1 ^d	78.5
IV(a) Neuroblastoma and ganglioneuroblastoma	78.4	77.3	79.6	92.2	72.5	69.7	65.5 ^d	-	78.6
V Retinoblastoma	96.5	96.0	96.9	98.1	95.0	-	-	-	96.5
VI Renal tumors	88.7	88.0	89.4	90.6	89.7	88.9	76.5 ^d	84.6	88.9
VI(a) Nephroblastoma and other nonepithelial renal tumor	89.7	89.3	90.1	90.6	89.8	90.0	-	-	89.8
VII Hepatic tumors	69.9	70.4	68.5	83.3	80.0	65.8 ^d	34.1 ^d	49.6 ^d	74.1
VII(a) Hepatoblastoma	80.1	78.0	84.1	83.7	79.5	-	-	-	80.1
VIII Malignant bone tumors	69.5	67.7	71.9	-	79.7 ^d	74.9	72.1	64.7	73.0
VIII(a) Osteosarcoma	66.4	64.2	68.9	-	-	66.6 ^d	71.9	60.3	70.6
VIII(c) Ewing tumor and related sarcomas of bone	69.8	66.0	75.9	-	89.9 ^d	86.3	66.7	61.0	75.4
IX Soft tissue and other extraosseous sarcomas	71.3	70.6	72.1	63.1	74.9	77.8	71.2	68.7	72.7
IX(a) Rhabdomyosarcoma	65.6	66.2	64.7	57.5 ^d	73.1	76.5	57.2	51.8 ^d	68.4
X Germ cell & trophoblastic tumors & neo. of gonads	92.3	92.1	92.6	90.8	93.6	91.2	95.1	91.6	93.4
X(a) Intracranial and intraspinal germ-cell tumor	90.9	91.7	88.1	-	-	84.1 ^e	96.1	89.5	91.7
X(c) Malignant gonadal germ cell tumor	95.7	95.0	97.2	100.0	98.5	95.2	98.3	94.9	98.1
XI Other malignant epithelial neo. and melanomas ^f	92.4	88.1	94.7	-	93.2	93.6	93.6	92.1	93.2
XI(b) Thyroid carcinoma	99.5	98.2	99.7	-	-	98.2	100.0	99.4	99.7
XI(d) Malignant melanoma	95.0	92.5	96.9	-	96.2	94.8	96.1	95.3	94.5

^a SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).

Based on follow-up of patients into 2011.

^b International Classification of Childhood Cancer is based on ICD-O-3. Steliarova-Foucher E, Stiller C, Lacour B, Kaatsch P. International Classification of Childhood Cancer, Third Edition. Cancer. April 1, 2005: Vol 103, No. 7, pg 1457-1467.

^c Classifications are shown for invasive cases only. For ICCC groups and subgroups that include *in situ* behavior, only invasive cases are shown except as noted.

^d The standard error is between 5 and 10 percentage points.

^e The standard error is greater than 10 percentage points.

^f Includes *in situ* urinary bladder tumors.

- Statistic could not be calculated due to fewer than 25 cases during the time period.
Neoplasms are abbreviated as neo.

Table 29.7
U.S. Childhood Cancer Survivors at January 1, 2011
Number of People Previously Diagnosed with Cancer as Children (Ages 0-19 Years) in the United States and Alive January 1, 2011
By International Classification of Childhood Cancer (ICCC)^a Selected Group and Subgroup, Age Group, and Sex

Site	Sex	Complete Prevalence Counts by Age at Prevalence							All Ages		
		0-19	20-29	30-39	40-49	50-59	60+	All Ages	Diagnosed between 1975-2010	Diagnosed before 1975	% ^b
									Count	Count	% ^b
All Sites	Both	114,469	96,086	63,670	56,072	39,055	19,149	388,501	314,744	73,757	19
	Male	61,300	50,413	31,574	25,285	16,475	9,976	195,023	162,249	32,774	17
	Female ^c	53,169	45,673	32,096	30,787	22,580	9,173	193,478	152,495	40,983	21
I Leukemia	Both	35,982	20,750	11,794	5,282	1,659	210	75,677	71,408	4,269	6
	Male	19,822	10,941	6,006	2,737	766	92	40,364	38,440	1,924	5
	Female	16,160	9,809	5,788	2,545	893	118	35,313	32,968	2,345	7
Acute lymphocytic leukemia ^d	Both	30,395	16,935	9,972	4,732	564	3	62,601	59,336	3,265	5
	Male	16,803	9,125	5,220	2,611	308	2	34,069	32,373	1,696	5
	Female	13,592	7,810	4,752	2,121	256	1	28,532	26,963	1,569	5
I(b) Acute myeloid leukemia	Both	3,992	2,528	1,185	690	245	4	8,644	8,145	499	6
	Male	2,075	1,183	498	321	137	3	4,217	3,952	265	6
	Female	1,917	1,345	687	369	108	1	4,427	4,193	234	5
II(a) Hodgkin lymphoma	Both	4,863	8,832	8,058	7,834	5,056	1,353	35,996	30,572	5,424	15
	Male	2,693	4,544	4,009	3,829	2,504	702	18,281	15,371	2,910	16
	Female	2,170	4,288	4,049	4,005	2,552	651	17,715	15,201	2,514	14
II(b,c,e) Non-Hodgkin lymphoma	Both	6,654	6,888	4,353	2,908	1,759	1,146	23,708	20,267	3,441	15
	Male	4,405	4,445	3,060	1,852	937	672	15,371	13,506	1,865	12
	Female	2,249	2,443	1,293	1,056	822	474	8,337	6,761	1,576	19
III CNS and misc intracranial & intraspinal neoplasms	Both	20,913	15,272	9,006	8,615	5,044	1,690	60,540	49,544	10,996	18
	Male	11,275	8,482	4,792	4,318	2,269	751	31,887	26,876	5,011	16
	Female	9,638	6,790	4,214	4,297	2,775	939	28,653	22,668	5,985	21
IV Neuroblastoma & other peripheral nervous cell tumor	Both	9,632	3,883	2,119	1,741	1,446	830	19,651	15,660	3,991	20
	Male	4,936	2,015	988	588	438	216	9,181	7,929	1,252	14
	Female	4,696	1,868	1,131	1,153	1,008	614	10,470	7,731	2,739	26
VI Renal tumors	Both	7,787	4,702	3,809	4,280	2,554	858	23,990	16,086	7,904	33
	Male	3,862	2,174	1,729	2,403	1,379	500	12,047	7,574	4,473	37
	Female	3,925	2,528	2,080	1,877	1,175	358	11,943	8,512	3,431	29
VIII Malignant bone tumors	Both	3,567	4,417	3,167	2,568	2,417	907	17,043	13,473	3,570	21
	Male	2,066	2,569	1,787	1,290	1,053	472	9,237	7,592	1,645	18
	Female	1,501	1,848	1,380	1,278	1,364	435	7,806	5,881	1,925	25
VIII(a) Osteosarcoma	Both	1,859	2,253	1,777	1,293	1,237	829	9,248	7,125	2,123	23
	Male	1,002	1,265	1,014	657	499	396	4,833	3,868	965	20
	Female	857	988	763	636	738	433	4,415	3,257	1,158	26
VIII(c) Ewing tumor & related sarcomas of bone	Both	1,347	1,467	972	728	358	148	5,020	4,420	600	12
	Male	819	872	487	336	197	43	2,754	2,506	248	9
	Female	528	595	485	392	161	105	2,266	1,914	352	16
IX Soft tissue & other extraosseous sarcomas	Both	6,799	7,126	4,166	4,913	4,267	4,670	31,941	21,477	10,464	33
	Male	3,724	3,812	2,131	2,424	1,995	2,608	16,694	11,350	5,344	32
	Female	3,075	3,314	2,035	2,489	2,272	2,062	15,247	10,127	5,120	34
X Germ cell & trophoblastic tumors & neoplasms of gonads	Both	5,233	7,869	5,634	6,245	6,641	6,817	38,439	24,486	13,953	36
	Male	2,749	5,143	3,461	3,322	3,301	3,136	21,112	14,507	6,605	31
	Female	2,484	2,726	2,173	2,923	3,340	3,681	17,327	9,979	7,348	42

^a International Classification of Childhood Cancer is based on ICD-O-3. Steliarova-Foucher E, Stiller C, Lacour B, Kaatsch P. International Classification of Childhood Cancer, Third Edition. Cancer. April 1, 2005; Vol 103, No. 7, pg 1457-1467.

^b Percent diagnosed before 1975 of all ages complete prevalence counts.

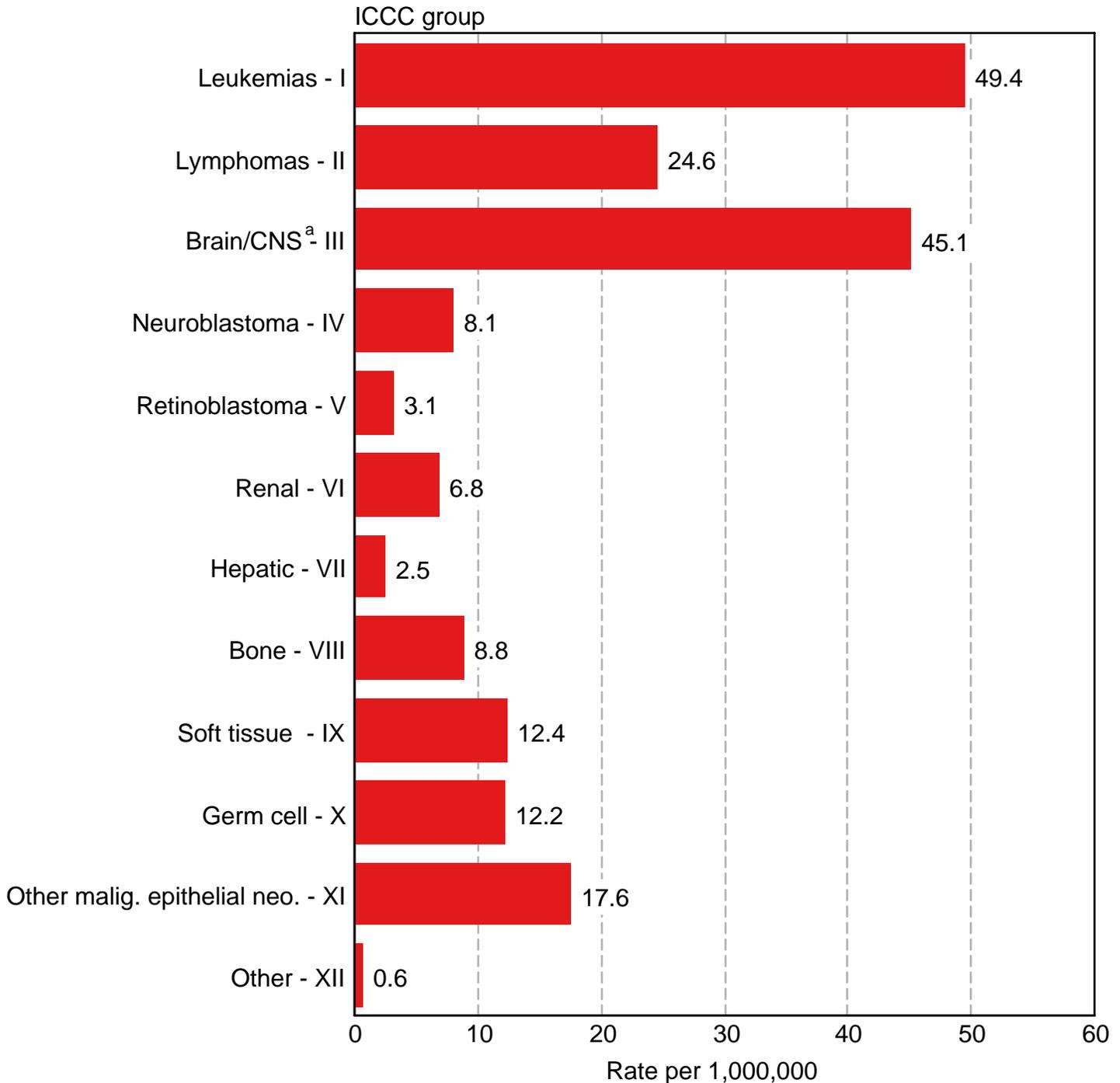
^c All sites females excludes breast cancer.

^d SEER site recode Acute Lymphocytic Leukemia was used instead of the ICCC classification lymphocytic leukemia (Ia) because of statistical modeling requirements.

For more information regarding the modeling of the prevalence estimates, see Mariotto et al. Long-Term Survivors of Childhood Cancers in the United States. Cancer Epidemiol Biomarkers Prev 2009, page 1034.

Figure 29.1

Childhood Cancer : SEER Incidence Rates 2007-2011 by ICCC Group (includes myelodysplastic syndromes and Group III benign brain) Under 20 Years of Age, Both Sexes, All Races



Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).

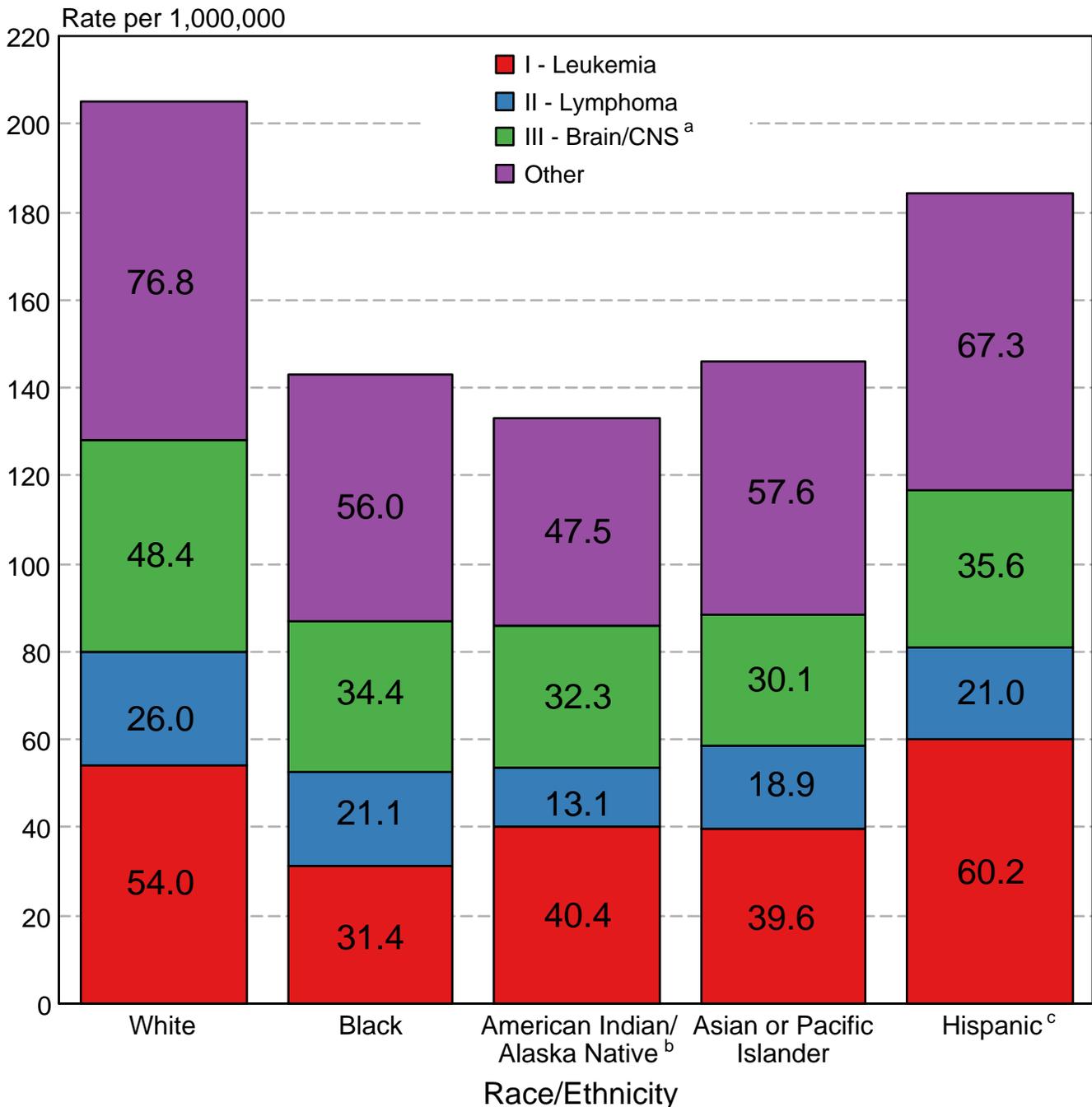
Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

International Classification of Childhood Cancer is based on ICD-O-3. Steliarova-Foucher E, Stiller C, Lacour B, Kaatsch P. International Classification of Childhood Cancer, Third Edition. Cancer. April 1, 2005; Vol 103, No. 7, pg 1457-1467.

^a Rate for Group III (Brain/CNS) includes benign brain tumors.

Figure 29.2

Childhood Cancer: SEER Incidence Rates 2007- 2011 by ICCC Group and Race/Ethnicity (includes myelodysplastic syndromes and Group III benign brain) Both Sexes, Under 20 Years of Age



Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG). Incidence rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

International Classification of Childhood Cancer is based on ICD-O-3. Steliarova-Foucher E, Stiller C, Lacour B, Kaatsch P. International Classification of Childhood Cancer, Third Edition. Cancer. April 1, 2005; Vol 103, No. 7, pg 1457-1467.

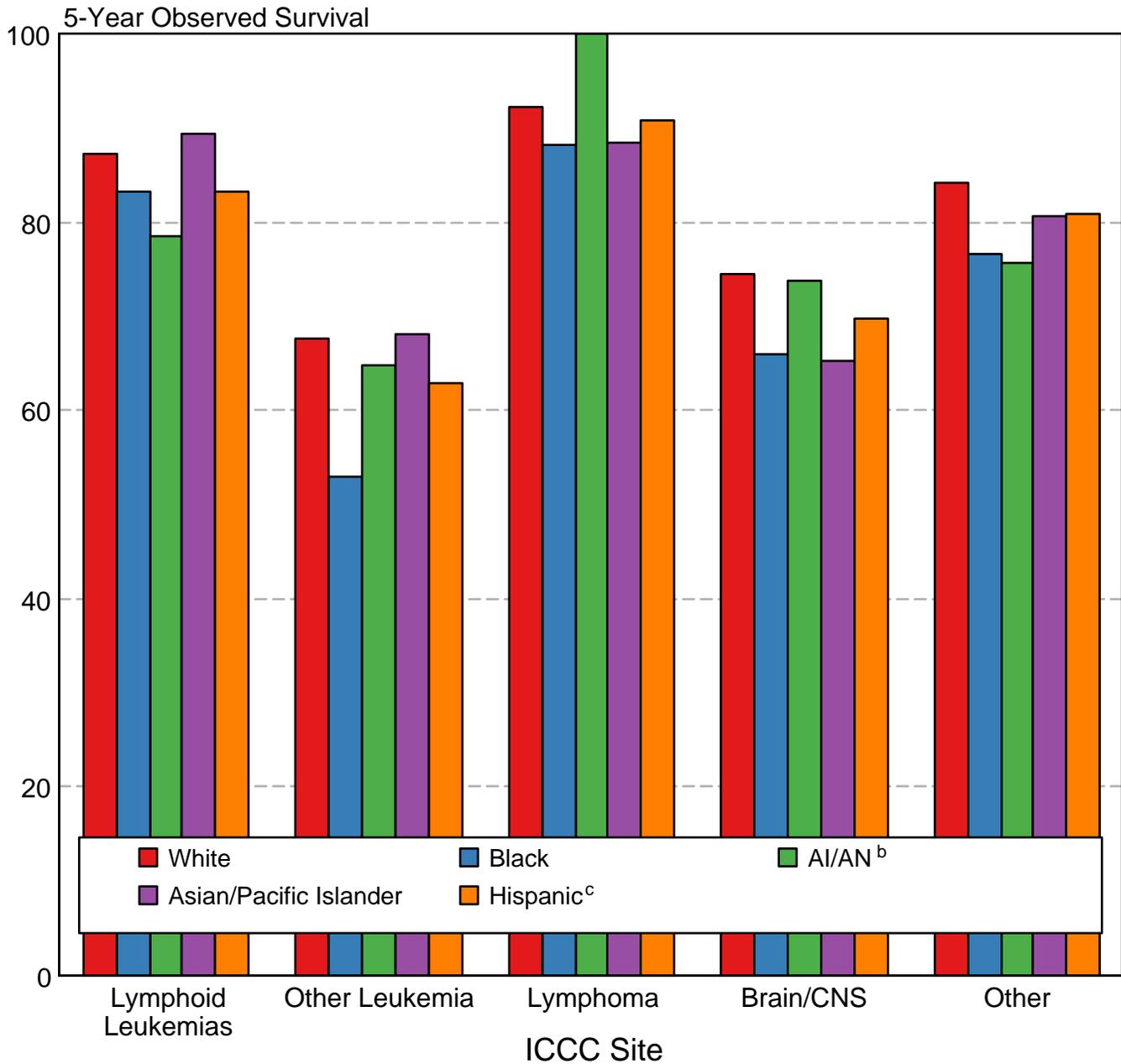
^a Rate for Group III (Brain/CNS) includes benign brain tumors.

^b Incidence rates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

^c Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

Figure 29.3

Childhood Cancer 5-Year Observed Survival (%) by ICCC Group^a and Race/Ethnicity Both Sexes, Under 20 Years of Age, 2004-2010



Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).

International Classification of Childhood Cancer is based on ICD-O-3. Steliarova-Foucher E, Stiller C, Lacour B, Kaatsch P. International Classification of Childhood Cancer, Third Edition. Cancer. April 1, 2005; Vol 103, No. 7, pg 1457-1467.

^a Excludes myelodysplastic syndromes (MDS) and benign brain tumors.

^b American Indian/Alaska Native. Survival data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.

^c Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Survival data for Hispanics are based on NHIA and excludes cases from the Alaska Native Registry.