

Table 29.1

Age-Adjusted and Age-Specific SEER Cancer Incidence Rates, 2005-2009^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	155.4	171.7	235.5	204.4	119.2	139.1	220.0
Including Group III benign brain/CNS tumors ^d	166.0	185.9	246.7	211.5	128.8	153.2	245.1
I Leukemia (includes myelodysplastic syndromes)	51.6	47.1	53.2	88.0	40.7	34.6	33.8
I(a) Lymphoid leukemia	39.9	34.3	21.3	74.9	33.5	23.0	17.9
I(b) Acute myeloid leukemia	7.7	8.3	18.4	9.5	4.3	7.7	10.0
I(c) Chronic myeloproliferative diseases	1.5	2.1	4.9	0.7	0.9	2.1	3.8
I(d) Myelodysplastic syndrome and other myeloproliferative	1.4	1.4	5.3	1.6	1.1	0.8	1.5
I(e) Unspecified and other specified leukemias	1.2	1.1	3.3	1.3	0.9	1.1	0.7
II Lymphomas and reticuloendothelial neoplasms	16.6	25.1	6.2	8.7	15.1	26.0	50.7
II(a) Hodgkin lymphoma	6.4	12.8	-	0.9	5.3	12.8	31.9
II(b) Non-Hodgkin lymphoma (except Burkitt lymphoma)	6.4	8.7	-	4.2	5.8	9.5	15.7
II(c) Burkitt lymphoma	2.6	2.5	-	1.9	3.1	3.2	2.1
II(d) Miscellaneous lymphoreticular neoplasms	0.9	0.8	4.3	1.5	-	-	-
II(e) Unspecified lymphomas	0.2	0.4	-	-	-	-	0.8
III CNS and misc intracranial and intraspinal neoplasms ^d	42.2	43.1	45.6	45.9	41.1	40.0	45.8
III(a) Ependymomas and choroid plexus tumor	3.9	3.8	9.0	5.5	2.9	2.7	3.4
III(b) Astrocytoma	15.9	14.9	14.4	17.4	15.5	15.3	11.9
III(c) Intracranial and intraspinal embryonal tumors	7.4	6.3	11.3	11.4	7.3	3.8	2.9
III(d) Other gliomas	5.8	5.3	3.4	5.4	7.1	5.2	3.9
III(e) Other specified intracranial/intraspinal neoplasms	8.1	11.5	5.7	5.2	7.3	11.5	21.8
III(f) Unspecified intracranial and intraspinal neoplasms	1.1	1.3	-	0.9	0.9	1.4	1.9
IV Neuroblastoma and other peripheral nervous cell tumor	10.2	7.8	51.5	19.6	3.9	1.4	0.9
IV(a) Neuroblastoma and ganglioneuroblastoma	10.1	7.7	51.4	19.5	3.9	1.3	-
IV(b) Other peripheral nervous cell tumors	-	0.2	-	-	-	-	-
V Retinoblastoma	4.1	3.1	26.3	8.5	-	-	-
VI Renal tumors	7.8	6.3	13.1	18.3	5.7	1.1	1.8
VI(a) Nephroblastoma and other nonepithelial renal tumor	7.5	5.7	13.0	18.1	5.3	0.6	-
VI(b) Renal carcinoma	0.3	0.6	-	-	-	-	1.4
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, 2005-2009^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	2.5	2.2	9.0	5.2	0.7	0.9	1.5
VII(a) Hepatoblastoma	2.0	1.5	8.7	5.1	-	-	-
VII(b) Hepatic carcinoma	0.4	0.7	-	-	-	0.8	1.5
VII(c) Unspecified malignant hepatic tumors	-	-	-	-	-	-	-
VIII Malignant bone tumors	7.3	9.2	-	1.7	6.0	14.0	15.1
VIII(a) Osteosarcoma	4.2	5.3	-	-	3.1	8.8	8.8
VIII(b) Chondrosarcoma	-	0.3	-	-	-	-	0.8
VIII(c) Ewing tumor and related sarcomas of bone	2.4	2.9	-	1.0	2.2	4.1	4.3
VIII(d) Other specified malignant bone tumors	0.3	0.4	-	-	-	-	1.0
VIII(e) Unspecified malignant bone tumors	0.2	0.2	-	-	-	-	-
IX Soft tissue and other extraosseous sarcomas	10.9	12.4	18.4	10.2	8.4	12.5	16.7
IX(a) Rhabdomyosarcoma	5.3	4.7	5.6	7.2	4.7	4.2	3.2
IX(b) Fibrosarcoma, peripheral nerve & other fibrous	1.1	1.3	5.3	0.8	0.6	1.1	2.0
IX(c) Kaposi sarcoma	-	-	-	-	-	-	-
IX(d) Other specified soft tissue sarcomas	3.6	5.1	5.9	1.6	2.5	5.7	9.6
IX(e) Unspecified soft-tissue sarcomas	1.0	1.2	-	-	0.6	1.5	1.8
X Germ cell & trophoblastic tumors & neoplasms of gonads	5.7	11.9	19.4	3.2	2.6	8.2	30.1
X(a) Intracranial and intraspinal germ-cell tumors	1.4	1.8	-	-	1.2	2.6	2.9
X(b) Extracranial & extragonadal germ cell tumors	1.4	1.5	12.5	1.2	-	0.6	1.9
X(c) Malignant gonadal germ cell tumors	2.8	7.9	5.3	1.8	1.2	4.6	23.2
X(d) Gonadal carcinomas	-	0.5	-	-	-	-	1.6
X(e) Other and unspecified malignant gonadal tumors	-	0.2	-	-	-	-	-
XI Other malignant epithelial neoplasms and melanomas ^d	6.7	17.1	-	1.5	3.9	14.2	48.0
XI(a) Adrenocortical carcinoma	0.2	0.2	-	-	-	-	-
XI(b) Thyroid carcinoma	2.5	7.2	-	-	1.3	6.0	21.2
XI(c) Nasopharyngeal carcinoma	0.4	0.6	-	-	-	1.0	1.3
XI(d) Malignant melanoma	2.0	4.9	-	0.7	1.5	3.6	13.7
XI(e) Skin carcinoma	-	-	-	-	-	-	-
XI(f) Other and unspecified carcinomas ^d	1.6	4.0	-	-	1.0	3.4	11.4
XII Other and unspecified malignant neoplasms	0.5	0.5	-	0.7	-	-	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>1975-2009</u>	<u>1975-1983</u>	<u>1984-1992</u>	<u>1993-2001</u>	<u>2002-2009</u>
All ICCC Groups Combined	157.3	142.4	158.4	161.2	167.0
I Leukemia	38.5	34.3	38.7	39.0	41.7
I(a) Lymphoid leukemia	28.8	25.1	29.1	29.2	31.3
I(b) Acute myeloid leukemia	7.0	5.9	6.6	7.6	7.9
II Lymphomas and reticuloendothelial neoplasms	24.4	24.5	24.9	23.6	24.8
II(a) Hodgkin lymphoma	13.1	14.3	14.2	12.1	11.7
II(b,c,e) Non-Hodgkin lymphoma	10.7	9.4	10.2	10.9	12.5
III CNS & misc intracranial & intraspinal neoplasms	27.8	23.0	29.1	29.4	29.3
III(a) Ependymomas and choroid plexus tumor	2.3	1.8	2.6	2.4	2.4
III(b) Astrocytoma	14.0	11.4	15.3	14.5	14.6
III(c) Intracranial and intraspinal embryonal tumors	5.5	4.4	5.2	6.7	5.9
III(d) Other gliomas	5.1	4.5	5.1	5.2	5.7
IV Neuroblastoma and other peripheral nervous cell tumors	8.4	7.9	8.4	8.7	8.7
IV(a) Neuroblastoma and ganglioneuroblastoma	8.2	7.7	8.0	8.4	8.4
V Retinoblastoma	3.0	2.8	3.1	3.4	2.7
VI Renal tumors	6.6	6.6	6.5	7.1	6.2
VI(a) Nephroblastoma and other nonepithelial renal tumor	6.1	6.3	6.1	6.5	5.5
VII Hepatic tumors	1.8	1.2	1.8	2.0	2.3
VII(a) Hepatoblastoma	1.3	0.8	1.2	1.5	1.6
VIII Malignant bone tumors	8.6	8.1	9.0	8.5	8.8
VIII(a) Osteosarcoma	4.7	4.2	4.9	4.8	4.8
VIII(c) Ewing tumor and related sarcomas of bone	2.9	2.9	3.1	2.9	2.8
IX Soft tissue and other extraosseous sarcomas	11.4	10.4	11.1	11.8	12.4
IX(a) Rhabdomyosarcoma	4.5	4.0	4.6	4.8	4.5
X Germ cell & trophoblastic tumors & neoplasms of gonads	10.5	9.3	10.2	11.0	11.3
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	6.9	7.6
XI Other malignant epithelial neoplasms and melanomas ^d	15.7	13.5	14.9	16.1	18.3
XI(b) Thyroid carcinoma	5.7	4.9	5.2	5.8	6.9
XI(d) Malignant melanoma	5.1	4.0	5.1	5.2	6.3

^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.

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^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, 1975-2009^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 1975-2009	APC 1975-2009	APC 1975-1992	APC 1993-2009	% Change 1975-2009	APC 1975-2009	APC 1975-1992	APC 1993-2009
All ICCC Groups Combined	33.9	0.5*	1.0*	0.3 [®]	33.1	0.6*	1.0*	0.5* [#]
I Leukemia	40.6	0.6*	1.2*	0.6	30.9	0.6*	1.1*	0.7*
I(a) Lymphoid leukemia	60.0	0.7*	1.4*	0.5	52.8	0.7*	1.4*	0.7
I(b) Acute myeloid leukemia	34.5	1.1*	1.7	0.9	20.4	1.1*	1.3	0.5
II Lymphomas and reticuloendothelial neo.	-2.1	0.0	-0.8	1.3* [#]	4.6	0.0	0.1	0.7
II(a) Hodgkin lymphoma	-8.1	-0.7*	-1.0	1.0 [®]	-17.3	-0.8*	-0.2	-0.1
II(b,c,e) Non-Hodgkin lymphoma	3.1	0.6*	-0.2	1.5* [®]	39.0	1.0*	0.8*	1.6*
III CNS & misc intracranial & intraspinal neo.	67.9	0.9*	2.3*	0.0 [#]	55.2	0.8*	2.2*	0.2 [#]
III(a) Ependymomas and choroid plexus tumors	-	-	-	0.2	-	-	-	0.2
III(b) Astrocytoma	85.1	1.0*	3.2*	-0.2 [#]	70.0	0.7*	2.8*	-0.1 [#]
III(c) Intracranial and intraspinal embryonal tum.	199.7	1.0*	1.1	-0.9	205.5	1.2*	1.5	-0.6 [®]
III(d) Other gliomas	6.2	0.6	0.6	1.7	-2.9	0.8*	1.0	1.4
IV Neuroblastoma and other peripheral nervous cell tumors	-4.4	0.3	0.0	-0.3	0.5	0.3	0.1	-0.2
IV(a) Neuroblastoma and ganglioneuroblastoma	-4.4	0.3	-0.1	-0.2	-2.8	0.3	-0.1	-0.2
V Retinoblastoma	-10.9	0.1	1.0	-2.0* [#]	-10.9	0.1	1.2	-2.1* [#]
VI Renal tumors	21.3	-0.2	0.4	-1.7 [®]	22.3	0.0	0.5	-1.4 [®]
VI(a) Nephroblastoma and other nonepithelial renal tumors	23.0	-0.3	0.4	-1.7 [®]	23.0	-0.3	0.5	-1.7 [®]
VII Hepatic tumors	-	-	-	-	-	-	-	-
VII(a) Hepatoblastoma	-	-	-	-	-	-	-	-
VIII Malignant bone tumors	117.0	0.2	1.3	0.5	61.2	0.2	1.2*	0.2
VIII(a) Osteosarcoma	-	-	-	-0.5	95.2	0.5	2.0*	-0.3 [®]
VIII(c) Ewing tum. and related sarcomas of bone	103.9	-	-	-	45.8	-0.2	0.5	0.2
IX Soft tissue and other extrasosseous sarcomas	26.8	0.6*	1.1	0.9	37.0	0.7*	0.8	1.0
IX(a) Rhabdomyosarcoma	-13.7	0.3	1.2	-0.5	-8.0	0.3	1.3	-0.5
X Germ cell & trophoblastic tum. & neo. of gonads	19.6	1.0*	1.6	0.4	38.3	0.8*	1.5*	0.5
X(a) Intracranial and intraspinal germ-cell tum.	-	-	-	-	-	-	-	-
X(c) Malignant gonadal germ cell tumors	-3.9	-	-	-	71.7	1.0*	1.4*	1.4*
XI Other malignant epithelial neo. and melanomas ^d	30.7	1.0*	-0.5	0.8	67.5	1.1*	0.8	1.4*
XI(b) Thyroid carcinoma	88.3	-	-	-	146.8	1.4*	0.9	2.8*
XI(d) Malignant melanoma	-	-	-	-	64.7	1.4*	2.0	1.4

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 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 1993-2009 is significantly different from the APC for 1975-1992 (p<.05).

® The APC for 1993-2009 is significantly different from the APC for 1975-1992 (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, 1975-2009^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 1975-2009	APC 1975-2009	APC 1975-1992	APC 1993-2009	% Change 1975-2009	APC 1975-2009	APC 1975-1992	APC 1993-2009
All ICCC Groups Combined	28.0	0.5*	1.1*	0.2 [#]	29.0	0.6*	1.2*	0.5 [#]
I Leukemia	28.4	0.6*	1.2*	0.7	18.8	0.6*	1.0*	0.8
I(a) Lymphoid leukemia	55.6	0.7*	1.6*	0.7	48.8	0.7*	1.6*	0.9
I(b) Acute myeloid leukemia	9.5	-	-	0.4	-5.3	1.2*	0.2	0.2
II Lymphomas and reticuloendothelial neo.	-8.0	-0.2	-0.6	1.1 [#]	1.5	-0.1	0.1	0.9
II(a) Hodgkin lymphoma	-16.3	-	-	-	-30.0	-0.8*	-0.2	1.0
II(b,c,e) Non-Hodgkin lymphoma	-3.1	0.1	-0.3	0.7	41.5	0.7*	0.6	0.7
III CNS & misc intracranial & intraspinal neo.	78.8	0.8*	2.6*	-0.6 [#]	54.5	0.8*	2.5*	-0.3 [#]
III(a) Ependymomas and choroid plexus tumors	-	-	-	-	-	-	-	-
III(b) Astrocytoma	88.6	0.9*	3.2*	-0.6 [#]	63.1	0.6*	2.9*	-0.2 [#]
III(c) Intracranial and intraspinal embryonal tum.	-	-	-	-1.2	-	-	-	-1.1
III(d) Other gliomas	-17.3	-	-	-	-25.2	-	-	0.4
IV Neuroblastoma and other peripheral nervous cell tumors	4.0	0.2	0.4	-0.9	10.6	0.3	0.7	-0.9
IV(a) Neuroblastoma and ganglioneuroblastoma	4.0	0.3	0.3	-0.9	7.2	0.3	0.4	-0.8
V Retinoblastoma	-16.2	-	-	-	-16.2	-	-	-
VI Renal tumors	12.9	-0.1	1.8	-1.6 [#]	11.6	0.0	1.4	-1.3 [#]
VI(a) Nephroblastoma and other nonepithelial renal tumors	27.3	0.0	1.8	-1.3 [#]	27.3	-0.1	1.7	-1.3 [#]
VII Hepatic tumors	-	-	-	-	-	-	-	-
VII(a) Hepatoblastoma	-	-	-	-	-	-	-	-
VIII Malignant bone tumors	125.6	0.7	0.8	0.4	105.5	0.7	1.4	-0.1
VIII(a) Osteosarcoma	-	-	-	-	-	-	-	-0.5
VIII(c) Ewing tum. and related sarcomas of bone	-	-	-	-	37.0	-	-	-
IX Soft tissue and other extrasosseous sarcomas	28.6	0.7*	0.9	0.8	41.2	0.8*	1.0	0.8
IX(a) Rhabdomyosarcoma	-1.0	-	-	-1.3	6.3	-	-	-0.5
X Germ cell & trophoblastic tum. & neo. of gonads	-5.8	-	-	-0.3	72.2	1.2*	1.9	1.0
X(a) Intracranial and intraspinal germ-cell tum.	-	-	-	-	-	-	-	-
X(c) Malignant gonadal germ cell tum. (testis)	-	-	-	-	100.6	1.3*	1.5	2.1*
XI Other malignant epithelial neo. and melanomas ^d	-0.1	-	-	-	28.1	1.2*	1.2	1.7*
XI(b) Thyroid carcinoma	-	-	-	-	-	-	-	-
XI(d) Malignant melanoma	-	-	-	-	-18.3	-	-	-

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.

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^d Includes *in situ* urinary bladder tumors.

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

[#] The APC for 1993-2009 is significantly different from the APC for 1975-1992 (p<.05).

[@] The APC for 1993-2009 is significantly different from the APC for 1975-1992 (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, 1975-2009^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 1975-2009	APC 1975-2009	APC 1975-1992	APC 1993-2009	% Change 1975-2009	APC 1975-2009	APC 1975-1992	APC 1993-2009
All ICCC Groups Combined	41.3	0.5*	0.8*	0.4	37.9	0.5*	0.8*	0.5*
I Leukemia	59.6	0.5*	1.2	0.4	49.7	0.6*	1.2	0.5
I(a) Lymphoid leukemia	66.4	0.6*	1.2	0.2	58.4	0.7*	1.2	0.5
I(b) Acute myeloid leukemia	66.1	0.9*	2.1	1.6	54.4	1.0*	2.5*	0.9
II Lymphomas and reticuloendothelial neo.	9.8	0.4	-1.3	1.5 [#]	9.1	0.1	0.1	0.4
II(a) Hodgkin lymphoma	2.8	-	-	-	-1.4	-0.7*	-0.2	-1.1
II(b,c,e) Non-Hodgkin lymphoma	20.9	-	-	-	33.3	1.8*	1.2	3.2*
III CNS & misc intracranial & intraspinal neo.	57.7	0.9*	1.9*	0.7	55.7	0.8*	1.9*	0.8
III(a) Ependymomas and choroid plexus tumors	-	-	-	-	-	-	-	-
III(b) Astrocytoma	81.8	1.1*	3.1*	0.2 [#]	77.5	0.8*	2.7*	0.0 [#]
III(c) Intracranial and intraspinal embryonal tum.	-	-	-	-0.2	-	-	-	0.2
III(d) Other gliomas	27.9	-	-	-	20.6	-	-	-
IV Neuroblastoma and other peripheral nervous cell tumors	-11.6	0.3	-0.6	0.2	-8.6	0.2	-0.8	0.3
IV(a) Neuroblastoma and ganglioneuroblastoma	-11.6	0.3	-0.7	0.3	-11.6	0.2	-0.8	0.3
V Retinoblastoma	-	-	-	-	-	-	-	-
VI Renal tumors	30.8	-0.3	-0.8	-1.9	34.8	-0.1	-0.4	-1.7
VI(a) Nephroblastoma and other nonepithelial renal tumors	18.5	-0.5	-0.9	-2.2	18.5	-0.5	-0.6	-2.1
VII Hepatic tumors	-	-	-	-	-	-	-	-
VII(a) Hepatoblastoma	-	-	-	-	-	-	-	-
VIII Malignant bone tumors	104.3	-	2.0	-	5.7	-0.3	0.9	0.8
VIII(a) Osteosarcoma	-	-	-	-	11.8	-0.1	1.3	0.0
VIII(c) Ewing tum. and related sarcomas of bone	-	-	-	-	-	-	-	-
IX Soft tissue and other extrasosseous sarcomas	24.8	0.6	1.2	0.8	32.1	0.7*	0.6	1.2
IX(a) Rhabdomyosarcoma	-	-	-	-	-	-	-	-
X Germ cell & trophoblastic tum. & neo. of gonads	45.6	-	-	1.1	10.2	0.2	1.0	0.0
X(a) Intracranial and intraspinal germ-cell tum.	-	-	-	-	-	-	-	-
X(c) Malignant gonadal germ cell tum. (ovary)	-	-	-	-	39.2	-	-	0.3
XI Other malignant epithelial neo. and melanomas ^d	54.1	-	-	1.1	91.0	1.0*	0.6	1.3*
XI(b) Thyroid carcinoma	-	-	-	-	171.4	1.5*	1.1	2.4*
XI(d) Malignant melanoma	-	-	-	-	157.2	-	-	1.1

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 1993-2009 is significantly different from the APC for 1975-1992 (p<.05).

@ The APC for 1993-2009 is significantly different from the APC for 1975-1992 (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), 2002-2008^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	81.3	80.1	82.8	76.9	83.0	81.1	80.3	81.8	81.1
I Leukemia	80.7	79.8	82.0	59.4	89.3	87.1	75.2	65.0	83.9
I(a) Lymphoid leukemia	86.1	84.3	88.5	55.6	92.8	91.0	79.9	69.0	88.7
I(b) Acute myeloid leukemia	60.8	60.7	61.0	58.7	67.7	65.4	63.0	52.3	64.3
II Lymphomas and reticuloendothelial neo.	90.0	89.8	90.3	74.0 ^d	91.4	91.4	90.0	89.9	90.1
II(a) Hodgkin lymphoma	95.9	96.2	95.6	-	95.8	94.7	96.5	95.8	96.1
II(b,c,e) Non-Hodgkin lymphoma	83.8	83.9	83.6	-	89.4	89.1	83.6	80.4	86.3
III CNS & misc intracranial & intraspinal neo.	72.1	70.8	73.6	54.4	72.0	70.0	76.2	76.3	71.1
III(a) Ependymomas and choroid plexus tumor	71.7	64.7	79.7	58.5 ^d	70.9	64.7 ^d	79.0 ^d	82.5 ^d	69.6
III(b) Astrocytoma	82.8	81.6	84.1	75.9	91.3	82.2	80.7	77.1	84.3
III(c) Intracranial and intraspinal embryonal tumors	60.4	60.6	60.2	23.5 ^d	52.2	74.0	69.9	65.3 ^d	59.8
III(d) Other gliomas	57.9	60.4	55.3	76.0 ^d	52.4	39.0	67.1	79.8	52.1
IV Neuroblastoma and other peripheral nervous cell tumors	75.4	74.5	76.5	91.8	67.5	60.5 ^d	70.7 ^d	84.5 ^d	75.2
IV(a) Neuroblastoma and ganglioneuroblastoma	75.3	74.7	76.0	92.0	67.9	60.0 ^d	65.9 ^d	-	75.2
V Retinoblastoma	97.8	96.4	99.3	100.0	95.9	-	-	-	97.8
VI Renal tumors	88.8	90.4	87.3	86.8	90.2	87.3	84.3 ^d	85.7 ^d	89.0
VI(a) Nephroblastoma and other nonepithelial renal tumor	89.0	90.7	87.5	86.8	90.3	86.6	-	-	89.2
VII Hepatic tumors	68.2	69.1	66.3	79.2	76.8	68.1 ^d	33.2 ^d	48.4 ^d	72.0
VII(a) Hepatoblastoma	77.0	74.2	83.1	79.6	76.3	-	-	-	77.4
VIII Malignant bone tumors	69.0	67.9	70.5	-	72.3 ^d	75.8	73.0	63.0	73.6
VIII(a) Osteosarcoma	66.8	65.2	68.9	-	-	71.1	72.0	60.9	71.4
VIII(c) Ewing tumor and related sarcomas of bone	67.6	66.3	69.9	-	80.8 ^d	80.2 ^d	70.0	55.9	74.8
IX Soft tissue and other extraosseous sarcomas	71.0	69.7	72.7	70.1	71.5	76.7	71.4	68.1	72.4
IX(a) Rhabdomyosarcoma	64.7	64.8	64.6	70.7 ^d	71.3	72.1	58.0	48.5 ^d	68.0
X Germ cell & trophoblastic tumors & neo. of gonads	91.2	91.4	90.8	89.5	87.0	88.0	92.3	91.7	90.2
X(a) Intracranial and intraspinal germ-cell tumor	86.7	90.6	74.6 ^d	-	-	85.4 ^d	89.7	89.8	84.7
X(c) Malignant gonadal germ cell tumor	94.8	93.9	96.8	100.0	89.2 ^d	95.5	96.7	94.4	95.8
XI Other malignant epithelial neo. and melanomas ^f	92.7	88.3	94.9	-	93.7	95.5	94.5	92.1	94.1
XI(b) Thyroid carcinoma	98.9	95.5	99.5	-	97.8	97.8	99.5	98.8	99.2
XI(d) Malignant melanoma	95.7	92.7	97.8	-	92.8	98.2	96.4	95.9	95.1

^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 2009.

^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, 2009
Number of People Previously Diagnosed with Cancer as Children (Ages 0-19 Years) in the United States and Alive January 1, 2009
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 1975-2008	Diagnosed before 1975	% ^b
									Count	Count	
All Sites	Both	111,023	89,411	59,878	53,611	33,505	15,703	363,131	288,469	74,662	21
	Male	59,903	46,813	29,211	23,582	14,395	8,427	182,331	148,974	33,357	18
	Female ^c	51,120	42,598	30,667	30,029	19,110	7,276	180,800	139,495	41,305	23
I Leukemia	Both	34,866	18,665	10,312	4,111	1,220	122	69,296	65,041	4,255	6
	Male	19,076	10,046	5,153	2,139	595	53	37,062	35,117	1,945	5
	Female	15,790	8,619	5,159	1,972	625	69	32,234	29,924	2,310	7
Acute lymphocytic leukemia ^d	Both	29,489	15,460	8,888	3,368	284	1	57,490	54,252	3,238	6
	Male	16,246	8,401	4,572	1,961	179	1	31,360	29,636	1,724	5
	Female	13,243	7,059	4,316	1,407	105	0	26,130	24,616	1,514	6
I(b) Acute myeloid leukemia	Both	3,883	2,094	1,063	539	182	1	7,762	7,272	490	6
	Male	1,985	1,046	427	262	99	1	3,820	3,562	258	7
	Female	1,898	1,048	636	277	83	0	3,942	3,710	232	6
II(a) Hodgkin lymphoma	Both	4,286	9,000	7,873	7,531	4,296	936	33,922	28,323	5,599	17
	Male	2,492	4,438	3,934	3,715	2,105	496	17,180	14,176	3,004	17
	Female	1,794	4,562	3,939	3,816	2,191	440	16,742	14,147	2,595	15
II(b,c,e) Non-Hodgkin lymphoma	Both	6,537	6,581	4,250	2,878	1,614	1,007	22,867	19,231	3,636	16
	Male	4,328	4,344	2,957	1,681	818	595	14,723	12,759	1,964	13
	Female	2,209	2,237	1,293	1,197	796	412	8,144	6,472	1,672	21
III CNS and misc intracranial & intraspinal neoplasms	Both	19,994	14,276	8,534	8,257	4,381	1,222	56,664	45,355	11,309	20
	Male	10,961	7,834	4,644	3,927	1,971	525	29,862	24,704	5,158	17
	Female	9,033	6,442	3,890	4,330	2,410	697	26,802	20,651	6,151	23
IV Neuroblastoma & other peripheral nervous cell tumor	Both	9,536	3,359	2,067	1,491	1,359	683	18,495	14,559	3,936	21
	Male	4,872	1,724	869	526	406	168	8,565	7,354	1,211	14
	Female	4,664	1,635	1,198	965	953	515	9,930	7,205	2,725	27
VI Renal tumors	Both	7,751	4,538	3,662	3,999	2,077	615	22,642	14,989	7,653	34
	Male	3,823	2,145	1,698	2,173	1,142	363	11,344	7,089	4,255	38
	Female	3,928	2,393	1,964	1,826	935	252	11,298	7,900	3,398	30
VIII Malignant bone tumors	Both	3,552	4,167	2,903	2,462	2,175	683	15,942	12,296	3,646	23
	Male	2,029	2,360	1,646	1,143	966	366	8,510	6,842	1,668	20
	Female	1,523	1,807	1,257	1,319	1,209	317	7,432	5,454	1,978	27
VIII(a) Osteosarcoma	Both	1,733	2,249	1,655	1,247	1,123	680	8,687	6,526	2,161	25
	Male	961	1,243	946	573	425	368	4,516	3,559	957	21
	Female	772	1,006	709	674	698	312	4,171	2,967	1,204	29
VIII(c) Ewing tumor & related sarcomas of bone	Both	1,356	1,358	828	640	348	88	4,618	3,987	631	14
	Male	795	777	412	291	167	26	2,468	2,210	258	10
	Female	561	581	416	349	181	62	2,150	1,777	373	17
IX Soft tissue & other extraosseous sarcomas	Both	7,088	6,589	4,004	4,808	3,910	4,122	30,521	20,064	10,457	34
	Male	3,926	3,589	2,069	2,252	1,802	2,285	15,923	10,710	5,213	33
	Female	3,162	3,000	1,935	2,556	2,108	1,837	14,598	9,354	5,244	36
X Germ cell & trophoblastic tumors & neoplasms of gonads	Both	4,868	7,533	5,355	6,390	6,298	6,083	36,527	22,357	14,170	39
	Male	2,584	4,881	3,211	3,314	3,183	2,716	19,889	13,223	6,666	34
	Female	2,284	2,652	2,144	3,076	3,115	3,367	16,638	9,134	7,504	45

^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.

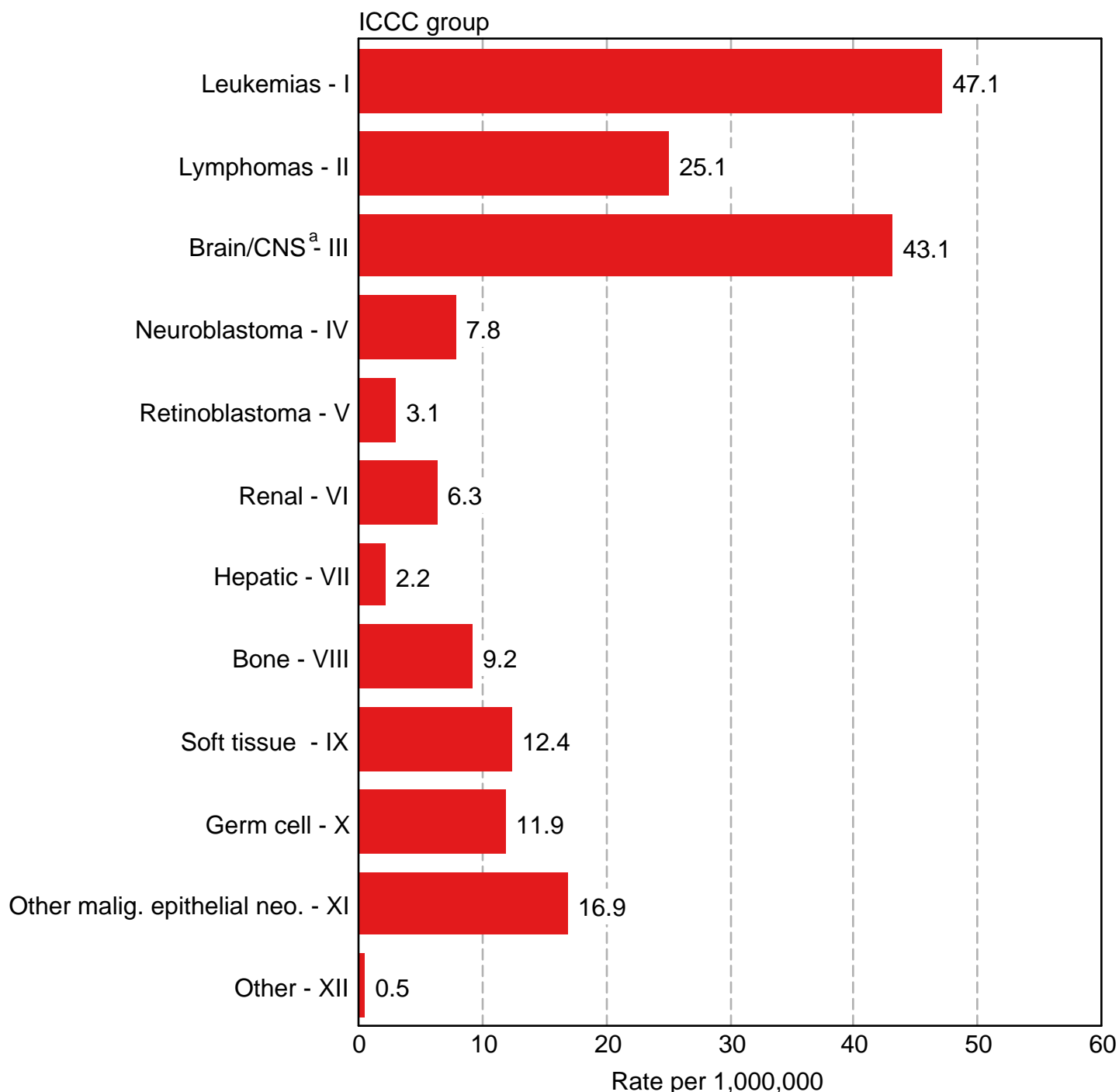
^c All sites females excludes breast cancer.

^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 2005-2009 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).

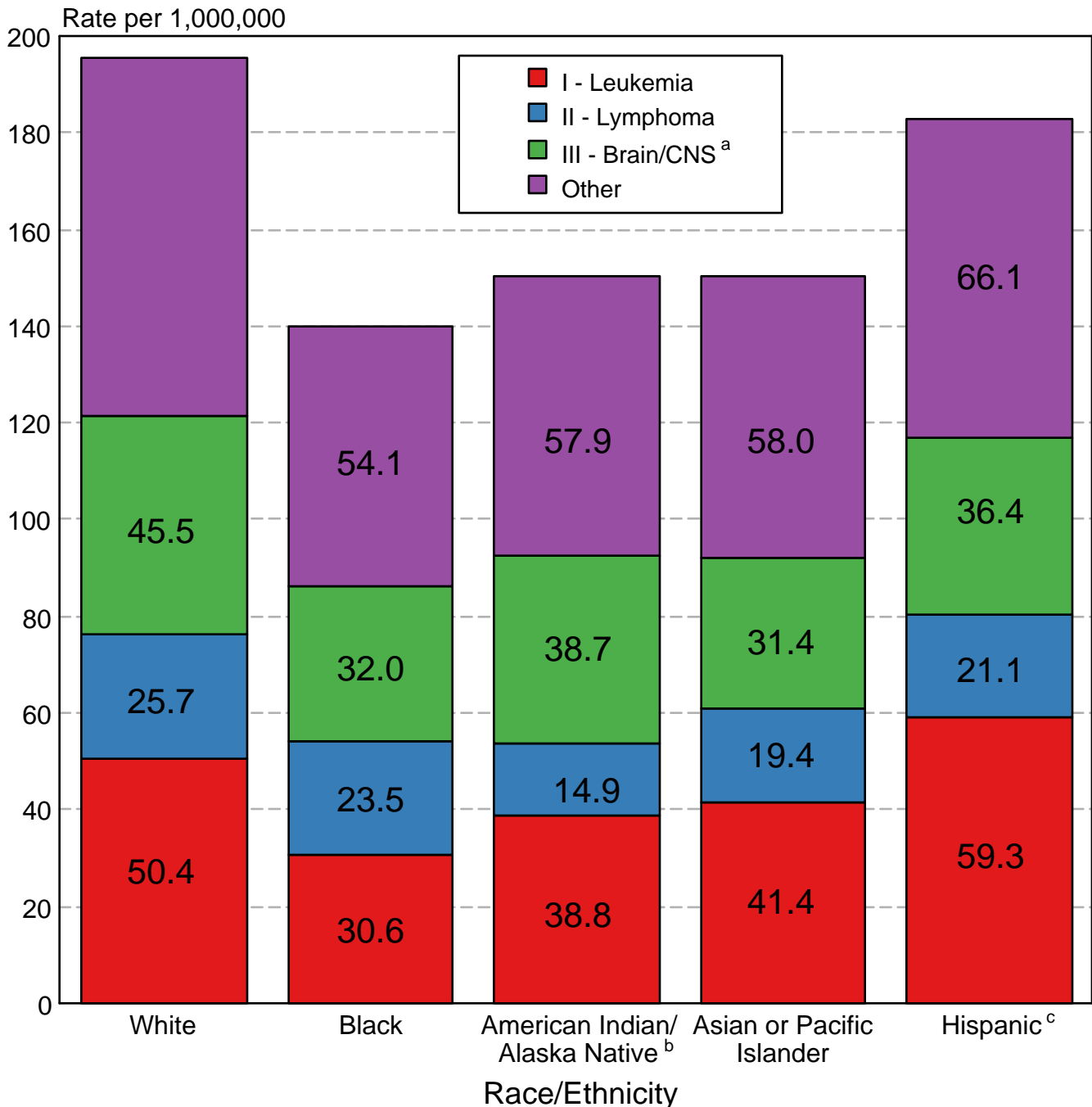
Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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 2005- 2009 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) and are not shown for fewer than 10 cases for the time period.

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.

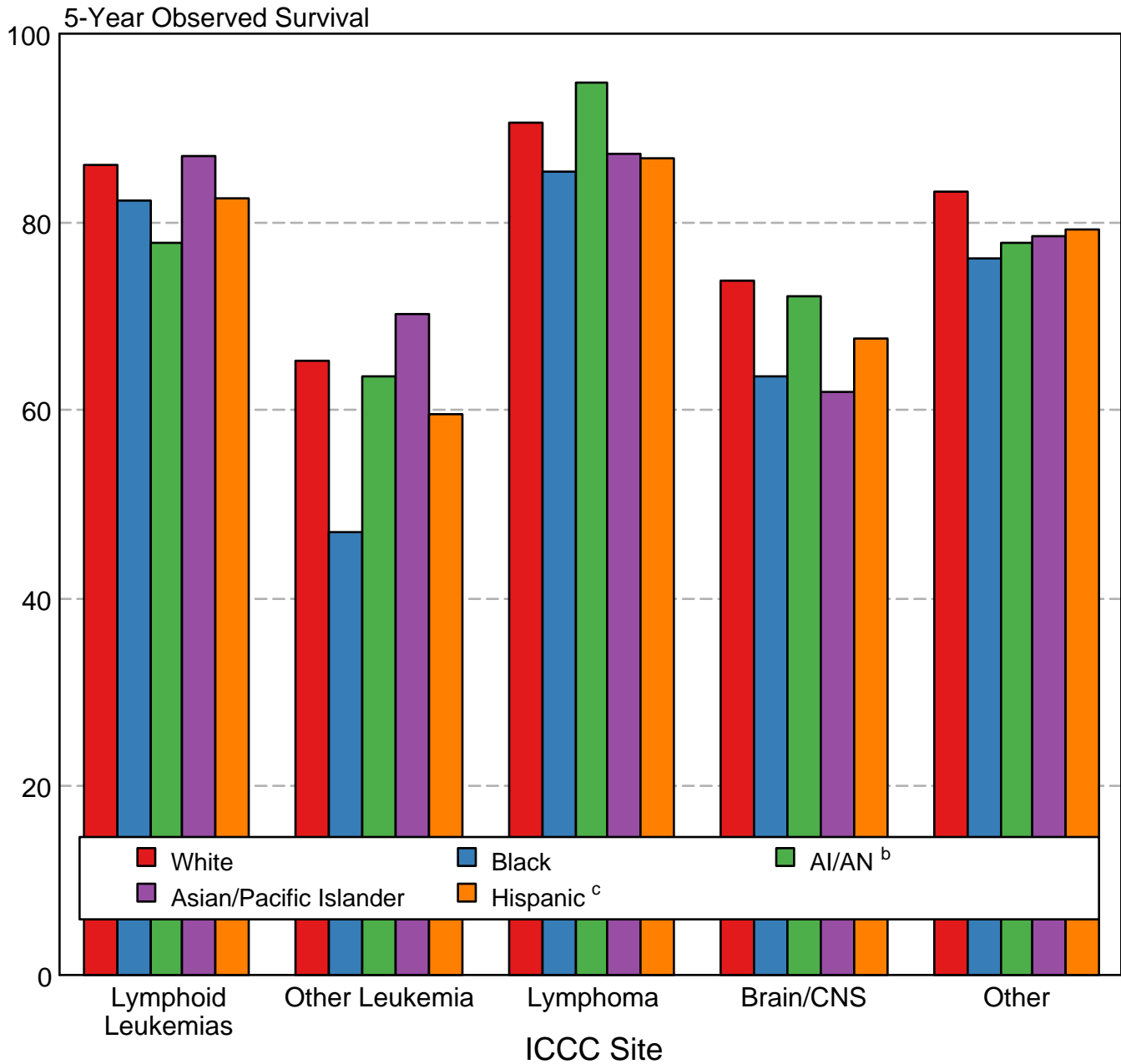
^a Rate for Group III (Brain/CNS) includes benign brain tumors.

^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, 2002-2008



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.