

Section 32
Adolescent and Young Adult Cancer by Site
Incidence, Survival and Mortality

Tumors affecting adolescents and young adults often differ from those affecting pediatric and older adult populations¹. For this reason, a classification scheme has been proposed for tumors diagnosed in adolescents and young adults². This classification scheme was updated based on site and histology codes of the International Classification of Diseases for Oncology, Third Edition³. Effective 2001, all cases reported to SEER were required to have an ICD-O-3 histology and behavior code and all previous cases were converted to ICD-O-3⁴. In addition, although benign brain tumors have also been reported to SEER since 2004, not enough time has elapsed to present rates and trend data for these tumors. These site / histology groupings, however, are not comparable with the groupings of ICD-10 for mortality. Therefore, for incidence and mortality comparisons, the SEER site recode as described in the appendix was used⁵. In this chapter, the incidence of malignant cancers in adolescent and young adults, 15 to 39 years of age, are presented based on the 2 different classification schemes described above.

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1. The distinctive biology of cancer in adolescents and young adults. Bleyer A, Barr R, Hayes-Lattin B, et al. *Nat Rev Cancer*. 2008; 8: 288-98.
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3. International Classification of Diseases for Oncology, Third Edition Edited by A. Fritz, C. Percy, A. Jack, K. Shanmugaratnam, L. Sobin, D.M. Parkin and S. Whelan. World Health Organization. Geneva, Switzerland, 2000. 240 pp.
4. National Cancer Institute SEER Conversion Programs.
Worldwide web: (<http://seer.cancer.gov/tools/conversion/>) Accessed May 28, 2008.
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Released April 15, 2013.

Table 32.1

Age-Adjusted SEER Incidence^a, by Age Group and Sex
By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
All Races, 2009-2013

Site	Ages 0-14		Ages 15-39		Ages 40+	
	Male	Female	Male	Female	Male	Female
All Sites Combined	16.9	15.3	53.6	87.0	1119.9	873.1
1. LEUKEMIAS	5.6	4.9	3.8	2.8	34.3	19.6
1.1 Acute lymphoid leukemia	4.4	3.9	1.2	0.7	1.3	1.0
1.2 Acute myeloid leukemia	0.9	0.8	1.3	1.3	10.7	6.9
1.3 Chronic myeloid leukemia	0.1	0.1	0.8	0.5	4.5	2.6
1.4 Other and unspecified leukemias	0.2	0.1	0.4	0.3	17.8	9.1
2. LYMPHOMAS	2.1	1.1	8.3	6.7	54.1	36.7
2.1 Non-Hodgkin Lymphoma	1.4	0.7	4.8	3.3	50.5	34.4
2.2 Hodgkin Lymphoma	0.7	0.4	3.5	3.4	3.6	2.3
3. CNS, INTRACRANIAL, INTRASPINAL	3.3	3.1	3.2	2.5	13.1	8.9
3.1 Astrocytoma	1.7	1.7	1.7	1.3	10.3	6.6
3.1.1 Specified low-grade astrocytic tumors	1.2	1.2	0.4	0.4	0.3	0.3
3.1.2 Glioblastoma and anaplastic astrocytoma	0.3	0.3	1.0	0.6	9.4	6.0
3.1.3 Astrocytoma, NOS	0.2	0.2	0.3	0.3	0.6	0.4
3.2 Other glioma	0.5	0.6	0.9	0.7	1.5	1.1
3.3 Ependymoma	0.3	0.3	0.2	0.2	0.3	0.3
3.4 Medulloblastoma and other PNET	0.7	0.5	0.2	0.2	0.1	0.1
3.4.1 Medulloblastoma	0.5	0.3	0.1	0.1	0.0	0.0
3.4.2 Supratentorial PNET	0.2	0.2	0.1	0.1	0.0	0.1
3.5 Other specified intracranial and intraspinal neoplasms	0.1	0.1	0.1	0.1	0.2	0.2
3.6 Unspecified intracranial and intraspinal neoplasms	0.0	0.0	0.1	0.0	0.7	0.6
4. OSSEOUS & CHONDROMATOUS NEOPLASMS	0.9	0.8	1.1	0.8	1.5	1.0
4.1 Osteosarcoma	0.4	0.4	0.4	0.3	0.3	0.2
4.2 Chondrosarcoma	0.0	-	0.2	0.2	0.7	0.4
4.3 Ewing tumor	0.4	0.3	0.3	0.2	0.1	0.1
4.4 Other specified and unspecified bone tumors	0.0	-	0.1	0.1	0.4	0.3
5. SOFT TISSUE SARCOMAS	1.0	0.9	3.2	2.3	12.7	9.1
5.1 Fibromatous neoplasms	0.1	0.1	0.7	0.8	2.7	1.6
5.2 Rhabdomyosarcoma	0.6	0.4	0.2	0.1	0.2	0.2
5.3 Other specified soft tissue sarcoma	0.3	0.3	2.4	1.4	9.8	7.3
5.3.1 Specified soft tissue sarcoma	0.2	0.2	2.0	1.1	7.1	5.4
5.3.1.1 Specified (excluding Kaposi sarcoma)	0.2	0.2	1.0	1.1	5.6	5.2
5.3.1.2 Kaposi sarcoma	-	-	0.9	0.0	1.5	0.2
5.3.2 Unspecified soft tissue sarcoma	0.1	0.1	0.4	0.3	2.7	1.9
6. GERM CELL AND TROPHOBLASTIC NEOPLASMS	0.5	0.6	11.1	1.1	4.1	0.2
6.1 Germ cell and trophoblastic neoplasms of gonads	0.2	0.3	10.6	0.7	3.9	0.1
6.2 Germ cell and trophoblastic neoplasms of nongonadal sites	0.3	0.3	0.5	0.3	0.1	0.1
6.2.1 Intracranial sites	0.2	0.1	0.2	0.0	-	-
6.2.2 Other nongonadal sites	0.1	0.2	0.3	0.3	0.1	0.1

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^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 Adapted from RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 1967; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

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

Table 32.1 - continued

Age-Adjusted SEER Incidence^a, by Age Group and Sex
By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
All Races, 2009-2013

Site	Ages 0-14		Ages 15-39		Ages 40+	
	Male	Female	Male	Female	Male	Female
7. MELANOMA AND SKIN CARCINOMAS	0.2	0.2	5.1	8.6	68.4	36.2
7.1 Melanoma	0.1	0.2	5.1	8.5	64.1	34.1
7.2 Skin carcinomas	-	-	0.1	0.1	4.3	2.0
8. CARCINOMAS (excluding skin)	0.5	0.8	16.7	60.4	868.5	713.9
8.1 Thyroid carcinoma	0.2	0.5	3.7	17.9	12.8	32.7
8.2 Other carcinoma of head and neck	0.1	0.1	1.8	1.4	51.6	16.3
8.2.1 Nasopharyngeal carcinoma	0.0	-	0.3	0.2	1.8	0.6
8.2.2 Other sites in lip, oral cavity and pharynx	0.1	0.1	1.2	1.1	34.8	12.3
8.2.3 Nasal cavity, middle ear, sinuses, larynx, other ill-defined head/neck	-	-	0.3	0.2	15.0	3.4
8.3 Carcinoma of trachea, bronchus, and lung	-	-	1.0	1.0	144.6	105.3
8.4 Carcinoma of breast	-	-	0.0	20.8	2.6	269.6
8.5 Carcinoma of genitourinary tract	0.0	0.1	3.6	13.1	425.5	135.8
8.5.1 Carcinoma of kidney	-	-	2.4	1.7	43.7	20.9
8.5.2 Carcinoma of bladder	-	-	0.8	0.3	80.0	19.2
8.5.3 Carcinoma of gonads	-	-	0.0	1.8	0.0	22.3
8.5.4 Carcinoma of cervix and uterus	-	-	-	8.9	-	62.2
8.5.5 Carcinoma of other and ill-defined sites, genitourinary tract	-	-	0.4	0.4	301.8	11.2
8.6 Carcinoma of gastrointestinal tract	0.1	0.1	6.1	5.6	214.9	139.6
8.6.1 Carcinoma of colon and rectum	-	0.0	4.0	3.8	107.0	82.9
8.6.2 Carcinoma of stomach	-	-	0.7	0.7	21.0	10.3
8.6.3 Carcinoma of liver and intrahepatic bile ducts	0.1	-	0.5	0.3	28.2	9.2
8.6.4 Carcinoma of pancreas	-	-	0.4	0.4	28.6	21.9
8.6.5 Carcinoma of other and ill-defined sites, gastrointestinal tract	-	-	0.6	0.4	30.2	15.2
8.7 Carcinoma of other and ill-defined sites, NOS	0.1	0.0	0.4	0.5	16.5	14.6
8.7.1 Adrenocortical carcinoma	-	-	0.0	0.1	0.2	0.3
8.7.2 Carcinoma of other and ill-defined sites, NOS	-	-	0.4	0.5	16.3	14.3
9. MISCELLANEOUS SPECIFIED NEOPLASMS, NOS	2.9	2.8	0.8	1.3	27.0	21.7
9.1 Other pediatric and embryonal tumors, NOS	2.7	2.8	0.1	0.1	0.2	0.2
9.1.1 Wilms tumor	0.7	0.8	-	-	0.0	0.0
9.1.2 Neuroblastoma	1.1	1.0	0.0	-	-	-
9.1.3 Other pediatric and embryonal tumors, NOS	1.0	0.9	0.1	0.0	0.2	0.1
9.2 Other specified neoplasms, NOS	0.1	0.1	0.7	1.2	26.8	21.5
9.2.1 Paraganglioma and glomus tumors	-	-	0.0	0.0	0.1	0.1
9.2.2 Other specified gonadal tumors	-	-	0.0	0.2	0.0	0.4
9.2.3 Myeloma, mast cell, miscellaneous lymphoreticular neoplasms, NOS	0.1	0.0	0.4	0.3	20.0	12.5
9.2.4 Other specified neoplasms, NOS	-	-	0.2	0.7	6.6	8.5
10. UNSPECIFIED MALIGNANT NEOPLASMS	-	-	0.3	0.5	36.1	25.9

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^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 Adapted from RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 1967; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

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

Table 32.2

Age-Adjusted SEER Incidence^a, by Age Group and Sex
By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
White, 2009-2013

Site	Ages 0-14		Ages 15-39		Ages 40+	
	Male	Female	Male	Female	Male	Female
All Sites Combined	17.8	16.2	57.6	91.8	1124.5	898.0
1. LEUKEMIAS	6.0	5.5	4.0	2.9	36.1	20.6
1.1 Acute lymphoid leukemia	4.8	4.4	1.4	0.8	1.3	1.0
1.2 Acute myeloid leukemia	0.9	0.8	1.4	1.3	11.2	7.1
1.3 Chronic myeloid leukemia	0.1	0.1	0.8	0.5	4.7	2.7
1.4 Other and unspecified leukemias	0.2	0.1	0.4	0.3	18.9	9.8
2. LYMPHOMAS	2.1	1.1	8.5	6.9	56.8	38.8
2.1 Non-Hodgkin Lymphoma	1.4	0.7	4.7	3.2	53.0	36.3
2.2 Hodgkin Lymphoma	0.7	0.4	3.7	3.7	3.8	2.4
3. CNS, INTRACRANIAL, INTRASPINAL	3.6	3.3	3.6	2.8	14.4	9.8
3.1 Astrocytoma	1.9	1.8	1.9	1.5	11.4	7.4
3.1.1 Specified low-grade astrocytic tumors	1.4	1.3	0.5	0.4	0.4	0.3
3.1.2 Glioblastoma and anaplastic astrocytoma	0.3	0.3	1.0	0.7	10.4	6.7
3.1.3 Astrocytoma, NOS	0.2	0.2	0.4	0.3	0.6	0.4
3.2 Other glioma	0.5	0.6	1.1	0.8	1.7	1.2
3.3 Ependymoma	0.3	0.3	0.2	0.2	0.3	0.3
3.4 Medulloblastoma and other PNET	0.8	0.5	0.3	0.2	0.1	0.1
3.4.1 Medulloblastoma	0.5	0.3	0.1	0.1	0.0	0.0
3.4.2 Supratentorial PNET	0.3	0.2	0.1	0.1	0.1	0.1
3.5 Other specified intracranial and intraspinal neoplasms	0.1	0.1	0.1	0.1	0.2	0.2
3.6 Unspecified intracranial and intraspinal neoplasms	-	-	0.1	0.0	0.8	0.6
4. OSSEOUS & CHONDROMATOUS NEOPLASMS	0.9	0.9	1.2	0.9	1.5	1.1
4.1 Osteosarcoma	0.4	0.5	0.4	0.3	0.3	0.2
4.2 Chondrosarcoma	-	-	0.2	0.2	0.8	0.5
4.3 Ewing tumor	0.4	0.4	0.4	0.3	0.1	0.1
4.4 Other specified and unspecified bone tumors	-	-	0.1	0.1	0.4	0.3
5. SOFT TISSUE SARCOMAS	1.0	0.9	2.8	2.2	13.0	8.8
5.1 Fibromatous neoplasms	0.2	0.1	0.6	0.7	2.9	1.6
5.2 Rhabdomyosarcoma	0.6	0.5	0.2	0.1	0.2	0.1
5.3 Other specified soft tissue sarcoma	0.3	0.3	2.1	1.3	10.0	7.1
5.3.1 Specified soft tissue sarcoma	0.2	0.2	1.7	1.1	7.2	5.3
5.3.1.1 Specified (excluding Kaposi sarcoma)	0.2	0.2	1.1	1.1	5.8	5.1
5.3.1.2 Kaposi sarcoma	-	-	0.6	-	1.4	0.2
5.3.2 Unspecified soft tissue sarcoma	0.1	0.1	0.4	0.3	2.8	1.9
6. GERM CELL AND TROPHOBLASTIC NEOPLASMS	0.5	0.6	13.3	1.0	4.7	0.2
6.1 Germ cell and trophoblastic neoplasms of gonads	0.2	0.3	12.9	0.7	4.6	0.1
6.2 Germ cell and trophoblastic neoplasms of nongonadal sites	0.3	0.3	0.5	0.3	0.1	0.1
6.2.1 Intracranial sites	0.2	0.1	0.2	-	-	-
6.2.2 Other nongonadal sites	0.1	0.2	0.3	0.3	0.1	0.1

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^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 Adapted from RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 1967; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

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

Table 32.2 - continued

Age-Adjusted SEER Incidence^a, by Age Group and Sex
By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
White, 2009-2013

Site	Ages 0-14		Ages 15-39		Ages 40+	
	Male	Female	Male	Female	Male	Female
7. MELANOMA AND SKIN CARCINOMAS	0.2	0.2	6.4	10.9	79.6	42.9
7.1 Melanoma	0.2	0.2	6.3	10.8	74.9	40.7
7.2 Skin carcinomas	-	-	0.1	0.1	4.7	2.2
8. CARCINOMAS (excluding skin)	0.5	0.9	16.9	62.4	856.7	729.7
8.1 Thyroid carcinoma	0.2	0.5	4.1	19.8	13.6	34.2
8.2 Other carcinoma of head and neck	0.1	0.1	1.7	1.4	53.4	16.9
8.2.1 Nasopharyngeal carcinoma	-	-	0.2	0.1	1.1	0.4
8.2.2 Other sites in lip, oral cavity and pharynx	0.1	0.1	1.3	1.1	37.2	13.0
8.2.3 Nasal cavity, middle ear, sinuses, larynx, other ill-defined head/neck	-	-	0.3	0.2	15.1	3.5
8.3 Carcinoma of trachea, bronchus, and lung	-	-	1.0	1.1	144.8	110.4
8.4 Carcinoma of breast	-	-	0.0	20.3	2.6	276.9
8.5 Carcinoma of genitourinary tract	-	0.1	3.6	13.9	417.4	141.6
8.5.1 Carcinoma of kidney	-	-	2.4	1.8	44.6	21.5
8.5.2 Carcinoma of bladder	-	-	0.9	0.4	87.3	20.7
8.5.3 Carcinoma of gonads	-	-	0.1	1.9	0.0	23.6
8.5.4 Carcinoma of cervix and uterus	-	-	-	9.4	-	63.8
8.5.5 Carcinoma of other and ill-defined sites, genitourinary tract	-	-	0.3	0.4	285.3	11.9
8.6 Carcinoma of gastrointestinal tract	0.1	0.1	6.0	5.5	208.1	134.9
8.6.1 Carcinoma of colon and rectum	-	0.1	4.0	3.9	104.5	81.6
8.6.2 Carcinoma of stomach	-	-	0.7	0.6	19.1	8.8
8.6.3 Carcinoma of liver and intrahepatic bile ducts	0.1	-	0.3	0.2	25.1	8.1
8.6.4 Carcinoma of pancreas	-	-	0.4	0.4	28.6	21.6
8.6.5 Carcinoma of other and ill-defined sites, gastrointestinal tract	-	-	0.6	0.4	30.8	14.8
8.7 Carcinoma of other and ill-defined sites, NOS	-	-	0.4	0.5	16.8	14.8
8.7.1 Adrenocortical carcinoma	-	-	0.0	0.1	0.2	0.3
8.7.2 Carcinoma of other and ill-defined sites, NOS	-	-	0.4	0.4	16.5	14.5
9. MISCELLANEOUS SPECIFIED NEOPLASMS, NOS	2.9	2.9	0.8	1.2	26.2	19.7
9.1 Other pediatric and embryonal tumors, NOS	2.8	2.8	0.1	0.1	0.2	0.2
9.1.1 Wilms tumor	0.7	0.8	-	-	0.0	0.0
9.1.2 Neuroblastoma	1.1	1.1	-	-	-	-
9.1.3 Other pediatric and embryonal tumors, NOS	1.0	0.9	0.1	0.0	0.2	0.1
9.2 Other specified neoplasms, NOS	0.1	0.1	0.7	1.1	26.0	19.6
9.2.1 Paraganglioma and glomus tumors	-	-	0.0	0.0	0.1	0.1
9.2.2 Other specified gonadal tumors	-	-	0.0	0.2	0.0	0.4
9.2.3 Myeloma, mast cell, miscellaneous lymphoreticular neoplasms, NOS	0.1	0.1	0.4	0.3	19.0	11.2
9.2.4 Other specified neoplasms, NOS	-	-	0.2	0.6	6.8	8.0
10. UNSPECIFIED MALIGNANT NEOPLASMS	-	-	0.3	0.5	35.5	26.4

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^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 Adapted from RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 1967; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

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

Table 32.3

Age-Adjusted SEER Incidence^a, by Age Group and Sex
By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
Black, 2009-2013

Site	Ages 0-14		Ages 15-39		Ages 40+	
	Male	Female	Male	Female	Male	Female
All Sites Combined	13.5	12.9	40.5	71.6	1288.7	865.3
1. LEUKEMIAS	3.4	2.8	2.9	2.5	27.9	16.6
1.1 Acute lymphoid leukemia	2.5	2.0	0.6	0.3	0.9	0.8
1.2 Acute myeloid leukemia	0.7	0.7	1.1	1.3	9.2	6.1
1.3 Chronic myeloid leukemia	-	-	0.8	0.6	3.8	2.6
1.4 Other and unspecified leukemias	-	-	0.4	0.3	14.0	7.1
2. LYMPHOMAS	2.0	1.4	9.7	6.9	39.0	27.1
2.1 Non-Hodgkin Lymphoma	1.3	0.8	6.2	3.8	35.2	24.8
2.2 Hodgkin Lymphoma	0.7	0.6	3.6	3.1	3.8	2.4
3. CNS, INTRACRANIAL, INTRASPINAL	2.6	3.0	2.0	1.7	8.3	5.6
3.1 Astrocytoma	1.2	1.5	1.1	0.9	6.2	3.8
3.1.1 Specified low-grade astrocytic tumors	0.9	1.1	0.2	0.3	0.2	-
3.1.2 Glioblastoma and anaplastic astrocytoma	-	-	0.6	0.4	5.7	3.4
3.1.3 Astrocytoma, NOS	-	0.2	0.2	0.2	0.3	0.2
3.2 Other glioma	0.6	0.6	0.5	0.4	0.8	0.6
3.3 Ependymoma	0.2	0.3	-	-	0.2	0.2
3.4 Medulloblastoma and other PNET	0.4	0.3	-	-	-	-
3.4.1 Medulloblastoma	0.2	0.3	-	-	-	-
3.4.2 Supratentorial PNET	-	-	-	-	-	-
3.5 Other specified intracranial and intraspinal neoplasms	-	-	-	-	0.4	0.4
3.6 Unspecified intracranial and intraspinal neoplasms	-	-	-	-	0.6	0.5
4. OSSEOUS & CHONDROMATOUS NEOPLASMS	0.9	0.6	0.9	0.6	1.0	0.9
4.1 Osteosarcoma	0.6	0.4	0.4	0.3	0.3	0.4
4.2 Chondrosarcoma	-	-	0.3	-	0.4	0.3
4.3 Ewing tumor	-	-	-	-	-	-
4.4 Other specified and unspecified bone tumors	-	-	-	-	0.2	0.2
5. SOFT TISSUE SARCOMAS	1.1	1.0	5.9	3.2	11.2	11.7
5.1 Fibromatous neoplasms	-	-	1.2	1.1	1.9	1.7
5.2 Rhabdomyosarcoma	0.7	0.3	0.2	0.2	0.2	0.3
5.3 Other specified soft tissue sarcoma	0.3	0.4	4.5	2.0	9.1	9.6
5.3.1 Specified soft tissue sarcoma	-	0.3	4.1	1.6	6.9	7.3
5.3.1.1 Specified (excluding Kaposi sarcoma)	-	0.3	0.9	1.5	4.5	7.0
5.3.1.2 Kaposi sarcoma	-	-	3.2	-	2.4	0.3
5.3.2 Unspecified soft tissue sarcoma	-	-	0.4	0.4	2.2	2.4
6. GERM CELL AND TROPHOBLASTIC NEOPLASMS	0.2	0.6	2.4	1.1	1.4	0.3
6.1 Germ cell and trophoblastic neoplasms of gonads	-	0.3	2.2	0.7	1.3	-
6.2 Germ cell and trophoblastic neoplasms of nongonadal sites	-	0.3	0.3	0.5	-	0.2
6.2.1 Intracranial sites	-	-	-	-	-	-
6.2.2 Other nongonadal sites	-	-	-	0.4	-	0.2

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^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 Adapted from RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 1967; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

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

Table 32.3 - continued

Age-Adjusted SEER Incidence^a, by Age Group and Sex
By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
Black, 2009-2013

Site	Ages 0-14		Ages 15-39		Ages 40+	
	Male	Female	Male	Female	Male	Female
7. MELANOMA AND SKIN CARCINOMAS	-	-	0.3	0.4	3.9	3.4
7.1 Melanoma	-	-	0.2	0.4	2.8	2.6
7.2 Skin carcinomas	-	-	-	-	1.0	0.8
8. CARCINOMAS (excluding skin)	0.4	0.5	15.0	52.7	1100.5	730.2
8.1 Thyroid carcinoma	-	-	1.3	7.8	7.1	21.9
8.2 Other carcinoma of head and neck	-	-	1.4	1.3	53.2	14.8
8.2.1 Nasopharyngeal carcinoma	-	-	0.3	0.3	1.9	0.5
8.2.2 Other sites in lip, oral cavity and pharynx	-	-	0.7	0.9	29.7	9.7
8.2.3 Nasal cavity, middle ear, sinuses, larynx, other ill-defined head/neck	-	-	0.3	-	21.7	4.5
8.3 Carcinoma of trachea, bronchus, and lung	-	-	1.1	0.9	186.5	108.1
8.4 Carcinoma of breast	-	-	-	24.7	4.2	265.9
8.5 Carcinoma of genitourinary tract	-	-	4.0	10.9	563.6	126.3
8.5.1 Carcinoma of kidney	-	-	2.8	1.6	52.3	25.8
8.5.2 Carcinoma of bladder	-	-	0.4	-	47.5	15.6
8.5.3 Carcinoma of gonads	-	-	-	1.2	-	17.0
8.5.4 Carcinoma of cervix and uterus	-	-	-	7.4	-	58.9
8.5.5 Carcinoma of other and ill-defined sites, genitourinary tract	-	-	0.8	0.6	463.8	9.1
8.6 Carcinoma of gastrointestinal tract	-	-	6.5	6.3	267.8	177.1
8.6.1 Carcinoma of colon and rectum	-	-	4.1	4.2	134.9	101.5
8.6.2 Carcinoma of stomach	-	-	0.6	0.7	28.2	15.4
8.6.3 Carcinoma of liver and intrahepatic bile ducts	-	-	0.7	0.3	35.8	10.6
8.6.4 Carcinoma of pancreas	-	-	0.5	0.7	34.7	28.4
8.6.5 Carcinoma of other and ill-defined sites, gastrointestinal tract	-	-	0.5	0.5	34.2	21.2
8.7 Carcinoma of other and ill-defined sites, NOS	-	-	0.6	0.8	18.1	16.3
8.7.1 Adrenocortical carcinoma	-	-	-	-	-	0.2
8.7.2 Carcinoma of other and ill-defined sites, NOS	-	-	0.5	0.7	18.0	16.1
9. MISCELLANEOUS SPECIFIED NEOPLASMS, NOS	2.8	3.1	1.1	1.8	44.0	41.1
9.1 Other pediatric and embryonal tumors, NOS	2.7	3.0	-	-	0.2	0.2
9.1.1 Wilms tumor	0.8	1.1	-	-	-	-
9.1.2 Neuroblastoma	1.0	1.0	-	-	-	-
9.1.3 Other pediatric and embryonal tumors, NOS	0.8	0.9	-	-	-	-
9.2 Other specified neoplasms, NOS	-	-	1.0	1.7	43.8	41.0
9.2.1 Paraganglioma and glomus tumors	-	-	-	-	-	0.2
9.2.2 Other specified gonadal tumors	-	-	-	0.4	-	0.8
9.2.3 Myeloma, mast cell, miscellaneous lymphoreticular neoplasms, NOS	-	-	0.7	0.5	36.7	26.9
9.2.4 Other specified neoplasms, NOS	-	-	0.2	0.7	6.9	13.1
10. UNSPECIFIED MALIGNANT NEOPLASMS	-	-	0.4	0.6	51.5	28.5

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

^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 Adapted from RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 1967; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

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

Table 32.4
Age-Specific SEER Incidence^a, by Age Group and Sex
By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
All Races, 2009-2013

Site	Ages 15-19		Ages 20-24		Ages 25-29		Ages 30-34		Ages 35-39	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All Sites Combined	22.9	21.4	34.6	37.0	48.8	67.2	66.1	113.4	89.5	179.4
1. LEUKEMIAS	3.6	2.5	3.0	2.2	3.1	2.4	3.8	3.1	4.9	3.7
1.1 Acute lymphoid leukemia	2.2	1.2	1.3	0.7	1.0	0.5	0.8	0.6	0.8	0.6
1.2 Acute myeloid leukemia	1.0	1.1	1.0	1.1	1.1	1.2	1.6	1.6	1.8	1.6
1.3 Chronic myeloid leukemia	0.3	0.2	0.5	0.4	0.8	0.5	1.0	0.7	1.3	0.9
1.4 Other and unspecified leukemias	0.2	-	0.2	0.1	0.3	0.2	0.5	0.3	1.0	0.6
2. LYMPHOMAS	5.4	4.2	7.2	6.4	7.8	6.8	9.4	7.4	11.3	8.4
2.1 Non-Hodgkin Lymphoma	2.4	1.1	3.1	1.9	3.9	2.9	5.7	4.0	8.3	5.9
2.2 Hodgkin Lymphoma	3.0	3.1	4.1	4.5	3.9	3.9	3.7	3.4	3.0	2.5
3. CNS, INTRACRANIAL, INTRASPINAL	2.2	2.0	2.2	2.1	3.1	2.5	3.9	2.9	4.5	2.9
3.1 Astrocytoma	1.3	1.3	1.2	1.1	1.6	1.2	2.0	1.5	2.4	1.6
3.1.1 Specified low-grade astrocytic tumors	0.7	0.7	0.4	0.4	0.3	0.3	0.4	0.4	0.3	0.3
3.1.2 Glioblastoma and anaplastic astrocytoma	0.4	0.3	0.5	0.4	0.9	0.7	1.3	0.7	1.6	1.0
3.1.3 Astrocytoma, NOS	0.2	0.3	0.3	0.2	0.4	0.3	0.4	0.4	0.4	0.3
3.2 Other glioma	0.4	0.4	0.6	0.6	0.9	0.8	1.4	1.0	1.4	0.9
3.3 Ependymoma	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
3.4 Medulloblastoma and other PNET	0.3	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.2	-
3.4.1 Medulloblastoma	0.2	0.1	0.1	0.1	0.1	-	-	-	0.1	-
3.4.2 Supratentorial PNET	-	-	0.1	-	0.1	0.1	-	-	-	-
3.5 Other specified intracranial and intraspinal neoplasms	-	-	-	-	-	-	-	-	-	-
3.6 Unspecified intracranial and intraspinal neoplasms	-	-	-	-	-	-	-	-	0.1	-
4. OSSEOUS & CHONDROMATOUS NEOPLASMS	2.0	1.2	1.1	0.8	0.8	0.8	0.8	0.5	0.7	0.7
4.1 Osteosarcoma	1.0	0.6	0.4	0.3	0.2	0.3	0.2	0.1	0.2	0.1
4.2 Chondrosarcoma	0.2	-	0.2	0.1	0.2	0.2	0.3	0.2	0.3	0.3
4.3 Ewing tumor	0.8	0.4	0.4	0.3	0.2	0.2	0.2	0.1	0.1	0.1
4.4 Other specified and unspecified bone tumors	-	0.1	-	-	0.2	-	0.1	-	0.2	0.2
5. SOFT TISSUE SARCOMAS	1.4	1.4	2.1	1.6	3.3	2.0	4.5	2.8	4.5	3.5
5.1 Fibromatous neoplasms	0.3	0.3	0.3	0.5	0.7	0.7	1.0	1.1	1.0	1.1
5.2 Rhabdomyosarcoma	0.4	0.3	0.1	0.1	0.1	-	-	0.1	-	-
5.3 Other specified soft tissue sarcoma	0.8	0.7	1.6	1.0	2.4	1.2	3.5	1.6	3.4	2.4
5.3.1 Specified soft tissue sarcoma	0.5	0.5	1.2	0.8	2.1	1.0	3.0	1.3	2.9	1.9
5.3.1.1 Specified (excluding Kaposi sarcoma)	0.5	0.5	0.7	0.8	1.0	0.9	1.3	1.3	1.5	1.8
5.3.1.2 Kaposi sarcoma	-	-	0.5	-	1.1	-	1.7	-	1.4	-
5.3.2 Unspecified soft tissue sarcoma	0.2	0.2	0.4	0.2	0.3	0.3	0.5	0.3	0.4	0.5
6. GERM CELL AND TROPHOBLASTIC NEOPLASMS	4.6	1.3	11.0	1.3	15.3	1.1	14.0	0.9	11.1	0.8
6.1 Germ cell and trophoblastic neoplasms of gonads	3.9	1.0	10.4	0.9	14.8	0.8	13.7	0.5	10.8	0.4
6.2 Germ cell and trophoblastic neoplasms of nongonadal sites	0.7	0.2	0.6	0.3	0.5	0.4	0.3	0.4	0.2	0.4
6.2.1 Intracranial sites	0.5	-	0.2	-	0.1	-	-	-	-	-
6.2.2 Other nongonadal sites	0.2	0.1	0.4	0.3	0.4	0.3	0.3	0.4	0.2	0.4

^a Rates are per 100,000.
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 Adapted from: RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 106:7; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

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

Table 32.4 - continued
 Age-Specific SEER Incidence^a, by Age Group and Sex
 By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
 All Races, 2009-2013

Site	Ages 15-19		Ages 20-24		Ages 25-29		Ages 30-34		Ages 35-39	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
7. MELANOMA AND SKIN CARCINOMAS	0.9	1.3	2.0	5.3	4.3	9.0	7.1	12.0	10.5	14.6
7.1 Melanoma	0.9	1.2	2.0	5.2	4.2	9.0	7.0	11.9	10.3	14.5
7.2 Skin carcinomas	-	-	-	-	-	-	0.2	-	0.2	0.2
8. CARCINOMAS (excluding skin)	2.4	7.0	5.5	16.5	10.4	41.2	21.1	81.3	39.9	141.1
8.1 Thyroid carcinoma	0.9	4.8	1.8	9.6	3.0	17.3	5.0	24.8	7.2	30.8
8.2 Other carcinoma of head and neck	0.4	0.5	0.7	0.7	1.1	1.1	2.0	1.7	4.3	2.9
8.2.1 Nasopharyngeal carcinoma	0.2	-	0.2	-	0.2	0.1	0.3	0.3	0.7	0.4
8.2.2 Other sites in lip, oral cavity and pharynx	0.2	0.4	0.5	0.5	0.8	0.9	1.4	1.3	2.8	2.2
8.2.3 Nasal cavity, middle ear, sinuses, larynx, other ill-defined head/neck	-	-	-	-	0.1	-	0.3	0.2	0.8	0.4
8.3 Carcinoma of trachea, bronchus, and lung	-	0.2	0.3	0.3	0.5	0.6	1.1	1.1	2.7	2.7
8.4 Carcinoma of breast	-	-	-	1.3	-	8.7	-	26.6	0.1	59.7
8.5 Carcinoma of genitourinary tract	0.3	0.7	0.7	2.7	1.8	9.5	4.4	19.0	9.4	30.4
8.5.1 Carcinoma of kidney	0.2	0.2	0.4	0.4	1.2	1.2	3.1	2.1	6.2	4.0
8.5.2 Carcinoma of bladder	0.1	-	0.3	-	0.5	0.2	1.0	0.4	1.8	0.8
8.5.3 Carcinoma of gonads	-	0.3	-	0.7	-	1.3	-	2.4	-	3.8
8.5.4 Carcinoma of cervix and uterus	-	0.1	-	1.4	-	6.5	-	13.5	-	20.7
8.5.5 Carcinoma of other and ill-defined sites, genitourinary tract	-	-	-	-	-	0.2	0.3	0.6	1.3	1.1
8.6 Carcinoma of gastrointestinal tract	0.6	0.7	1.7	1.6	3.6	3.5	7.9	7.4	15.1	13.4
8.6.1 Carcinoma of colon and rectum	0.4	0.4	1.2	1.0	2.4	2.5	5.4	5.0	9.5	9.2
8.6.2 Carcinoma of stomach	-	-	0.1	0.2	0.4	0.4	1.0	1.1	1.7	1.6
8.6.3 Carcinoma of liver and intrahepatic bile ducts	-	-	0.2	0.2	0.4	0.2	0.5	0.3	1.1	0.5
8.6.4 Carcinoma of pancreas	-	-	-	0.2	0.2	0.3	0.5	0.6	1.2	1.0
8.6.5 Carcinoma of other and ill-defined sites, gastrointestinal tract	-	-	0.1	-	0.3	0.2	0.6	0.5	1.6	1.0
8.7 Carcinoma of other and ill-defined sites, NOS	-	-	0.1	0.3	0.3	0.4	0.6	0.6	1.0	1.2
8.7.1 Adrenocortical carcinoma	-	-	-	-	-	-	-	-	-	0.1
8.7.2 Carcinoma of other and ill-defined sites, NOS	-	-	0.1	0.2	0.3	0.4	0.5	0.6	0.9	1.1
9. MISCELLANEOUS SPECIFIED NEOPLASMS, NOS	0.3	0.5	0.3	0.5	0.5	0.9	1.1	1.6	1.7	2.6
9.1 Other pediatric and embryonal tumors, NOS	0.2	0.1	-	-	-	-	0.1	-	-	-
9.1.1 Wilms tumor	-	-	-	-	-	-	-	-	-	-
9.1.2 Neuroblastoma	-	-	-	-	-	-	-	-	-	-
9.1.3 Other pediatric and embryonal tumors, NOS	-	-	-	-	-	-	-	-	-	-
9.2 Other specified neoplasms, NOS	0.2	0.4	0.2	0.4	0.4	0.9	0.9	1.6	1.6	2.5
9.2.1 Paraganglioma and glomus tumors	-	-	-	-	-	-	-	-	-	-
9.2.2 Other specified gonadal tumors	-	0.1	-	-	-	0.2	-	0.2	-	0.3
9.2.3 Myeloma, mast cell, miscellaneous lymphoreticular neoplasms, NOS	-	-	0.1	-	0.3	0.2	0.6	0.4	1.1	0.7
9.2.4 Other specified neoplasms, NOS ^c	-	0.1	-	0.2	0.1	0.5	0.3	0.9	0.4	1.4
10. UNSPECIFIED MALIGNANT NEOPLASMS	-	-	0.2	0.3	0.3	0.4	0.4	0.7	0.6	1.1

Rates are per 100,000.

^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 Adapted from: RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 106:7; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

^c Myeloproliferative disorders and myelodysplastic syndromes were first reported effective January 1, 2001 with the implementation of ICD-O 3.

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

Table 32.5
Age-Specific SEER Incidence^a, by Age Group and Sex
By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
White, 2009-2013

Site	Ages 15-19		Ages 20-24		Ages 25-29		Ages 30-34		Ages 35-39	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All Sites Combined	25.2	23.1	38.4	40.7	53.4	72.5	70.5	120.2	94.5	185.8
1. LEUKEMIAS	4.1	2.8	3.3	2.4	3.3	2.6	4.0	3.0	5.0	3.8
1.1 Acute lymphoid leukemia	2.6	1.4	1.5	0.8	1.1	0.6	0.9	0.5	0.9	0.7
1.2 Acute myeloid leukemia	1.1	1.1	1.1	1.1	1.2	1.2	1.6	1.5	1.9	1.6
1.3 Chronic myeloid leukemia	0.2	0.2	0.5	0.4	0.8	0.5	1.0	0.6	1.3	0.9
1.4 Other and unspecified leukemias	0.2	-	0.2	-	0.3	0.2	0.5	0.3	0.9	0.6
2. LYMPHOMAS	5.7	4.6	7.5	6.9	7.9	7.0	9.4	7.7	11.3	8.3
2.1 Non-Hodgkin Lymphoma	2.4	1.1	3.1	2.0	3.8	2.7	5.4	4.0	8.2	5.7
2.2 Hodgkin Lymphoma	3.3	3.5	4.4	4.9	4.1	4.3	4.0	3.7	3.1	2.6
3. CNS, INTRACRANIAL, INTRASPINAL	2.4	2.1	2.5	2.3	3.5	3.0	4.3	3.3	5.0	3.1
3.1 Astrocytoma	1.4	1.3	1.3	1.2	1.8	1.3	2.2	1.7	2.7	1.6
3.1.1 Specified low-grade astrocytic tumors	0.8	0.7	0.4	0.5	0.4	0.3	0.5	0.4	0.4	0.3
3.1.2 Glioblastoma and anaplastic astrocytoma	0.4	0.3	0.5	0.4	1.1	0.8	1.3	0.8	1.9	1.0
3.1.3 Astrocytoma, NOS	0.2	0.3	0.4	0.3	0.4	0.3	0.4	0.5	0.4	0.4
3.2 Other glioma	0.4	0.4	0.6	0.6	1.1	1.1	1.6	1.1	1.5	1.0
3.3 Ependymoma	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3
3.4 Medulloblastoma and other PNET	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.2	0.2	-
3.4.1 Medulloblastoma	0.2	-	0.1	-	0.2	-	-	-	-	-
3.4.2 Supratentorial PNET	-	-	0.2	-	0.1	-	-	-	-	-
3.5 Other specified intracranial and intraspinal neoplasms	-	-	-	-	-	-	-	-	-	-
3.6 Unspecified intracranial and intraspinal neoplasms	-	-	-	-	-	-	-	-	-	-
4. OSSEOUS & CHONDROMATOUS NEOPLASMS	2.3	1.3	1.2	0.8	0.9	0.9	0.9	0.6	0.8	0.7
4.1 Osteosarcoma	1.1	0.7	0.4	0.3	0.2	0.3	0.2	-	-	-
4.2 Chondrosarcoma	-	-	0.2	-	0.2	0.2	0.3	0.2	0.4	0.3
4.3 Ewing tumor	0.9	0.5	0.5	0.3	0.3	0.3	0.2	0.2	-	0.2
4.4 Other specified and unspecified bone tumors	-	-	-	-	0.2	-	0.2	-	0.2	0.2
5. SOFT TISSUE SARCOMAS	1.4	1.4	1.6	1.6	2.8	2.0	3.8	2.6	4.2	3.2
5.1 Fibromatous neoplasms	0.2	0.3	0.3	0.5	0.6	0.7	0.8	1.0	0.9	1.0
5.2 Rhabdomyosarcoma	0.4	0.3	-	0.2	-	-	-	-	-	-
5.3 Other specified soft tissue sarcoma	0.8	0.8	1.2	0.9	2.0	1.2	2.9	1.4	3.2	2.2
5.3.1 Specified soft tissue sarcoma	0.5	0.6	0.8	0.8	1.7	0.9	2.4	1.2	2.8	1.7
5.3.1.1 Specified (excluding Kaposi sarcoma)	0.5	0.6	0.6	0.8	1.1	0.9	1.3	1.2	1.7	1.7
5.3.1.2 Kaposi sarcoma	-	-	0.1	-	0.7	-	1.1	-	1.1	-
5.3.2 Unspecified soft tissue sarcoma	0.2	0.2	0.4	0.1	0.3	0.3	0.4	0.2	0.5	0.5
6. GERM CELL AND TROPHOBLASTIC NEOPLASMS	5.6	1.2	13.5	1.2	18.2	1.0	16.8	0.8	13.2	0.8
6.1 Germ cell and trophoblastic neoplasms of gonads	4.9	1.0	12.7	0.9	17.7	0.7	16.4	0.4	13.0	0.4
6.2 Germ cell and trophoblastic neoplasms of nongonadal sites	0.7	0.2	0.7	0.3	0.5	0.3	0.4	0.4	0.2	0.3
6.2.1 Intracranial sites	0.4	-	0.3	-	-	-	-	-	-	-
6.2.2 Other nongonadal sites	0.3	-	0.4	0.3	0.4	0.3	0.3	0.4	0.2	0.3

^a Rates are per 100,000.
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 Adapted from: RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 106:7; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

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

Table 32.5 - continued
 Age-Specific SEER Incidence^a, by Age Group and Sex
 By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
 White, 2009-2013

Site	Ages 15-19		Ages 20-24		Ages 25-29		Ages 30-34		Ages 35-39	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
7. MELANOMA AND SKIN CARCINOMAS	1.1	1.6	2.5	6.7	5.3	11.3	8.7	15.3	13.0	18.6
7.1 Melanoma	1.1	1.6	2.5	6.6	5.3	11.2	8.5	15.2	12.8	18.5
7.2 Skin carcinomas	-	-	-	-	-	-	0.2	-	0.2	0.2
8. CARCINOMAS (excluding skin)	2.5	7.6	6.0	18.1	10.7	43.3	21.3	84.6	39.9	143.7
8.1 Thyroid carcinoma	1.1	5.3	2.1	11.2	3.3	19.4	5.4	27.6	7.9	33.1
8.2 Other carcinoma of head and neck	0.4	0.5	0.7	0.6	1.1	1.1	1.9	1.6	4.1	2.8
8.2.1 Nasopharyngeal carcinoma	0.1	-	-	-	-	-	-	-	0.4	-
8.2.2 Other sites in lip, oral cavity and pharynx	0.3	0.5	0.5	0.5	0.8	0.9	1.5	1.3	2.9	2.2
8.2.3 Nasal cavity, middle ear, sinuses, larynx, other ill-defined head/neck	-	-	-	-	-	-	0.3	0.2	0.8	0.4
8.3 Carcinoma of trachea, bronchus, and lung	-	0.2	0.3	0.4	0.5	0.6	0.9	1.2	2.8	2.8
8.4 Carcinoma of breast	-	-	-	1.2	-	8.4	-	25.9	-	58.6
8.5 Carcinoma of genitourinary tract	0.3	0.8	0.7	2.7	1.9	10.0	4.7	20.4	9.4	32.4
8.5.1 Carcinoma of kidney	0.2	0.2	0.3	0.4	1.2	1.2	3.2	2.5	6.2	4.4
8.5.2 Carcinoma of bladder	-	-	0.3	-	0.6	0.2	1.2	0.4	2.0	0.9
8.5.3 Carcinoma of gonads	-	0.3	-	0.7	-	1.5	-	2.6	-	4.0
8.5.4 Carcinoma of cervix and uterus	-	0.1	-	1.5	-	6.9	-	14.3	-	21.9
8.5.5 Carcinoma of other and ill-defined sites, genitourinary tract	-	-	-	-	-	0.2	0.3	0.6	1.1	1.2
8.6 Carcinoma of gastrointestinal tract	0.6	0.7	1.9	1.6	3.6	3.4	7.7	7.4	14.7	13.1
8.6.1 Carcinoma of colon and rectum	0.4	0.5	1.3	1.0	2.5	2.4	5.4	5.1	9.4	9.3
8.6.2 Carcinoma of stomach	-	-	0.1	0.2	0.4	0.4	1.0	1.0	1.6	1.4
8.6.3 Carcinoma of liver and intrahepatic bile ducts	-	-	0.2	0.2	0.2	0.1	0.3	0.3	0.7	0.5
8.6.4 Carcinoma of pancreas	-	-	-	0.2	0.2	0.3	0.4	0.5	1.2	0.9
8.6.5 Carcinoma of other and ill-defined sites, gastrointestinal tract	-	-	-	-	0.3	0.2	0.7	0.5	1.7	1.0
8.7 Carcinoma of other and ill-defined sites, NOS	-	-	0.2	0.2	0.3	0.4	0.6	0.6	0.9	0.9
8.7.1 Adrenocortical carcinoma	-	-	-	-	-	-	-	-	-	-
8.7.2 Carcinoma of other and ill-defined sites, NOS	-	-	-	0.2	0.3	0.4	0.5	0.5	0.9	0.8
9. MISCELLANEOUS SPECIFIED NEOPLASMS, NOS	0.3	0.4	0.3	0.5	0.5	1.0	1.0	1.4	1.6	2.4
9.1 Other pediatric and embryonal tumors, NOS	0.2	-	-	-	-	-	-	-	-	-
9.1.1 Wilms tumor	-	-	-	-	-	-	-	-	-	-
9.1.2 Neuroblastoma	-	-	-	-	-	-	-	-	-	-
9.1.3 Other pediatric and embryonal tumors, NOS	-	-	-	-	-	-	-	-	-	-
9.2 Other specified neoplasms, NOS	-	0.3	0.2	0.4	0.5	0.9	0.9	1.4	1.6	2.4
9.2.1 Paraganglioma and glomus tumors	-	-	-	-	-	-	-	-	-	-
9.2.2 Other specified gonadal tumors	-	-	-	-	-	0.2	-	-	-	0.3
9.2.3 Myeloma, mast cell, miscellaneous lymphoreticular neoplasms, NOS	-	-	-	-	0.3	-	0.5	0.3	1.1	0.7
9.2.4 Other specified neoplasms, NOS ^c	-	-	-	0.2	-	0.6	0.3	0.9	0.4	1.3
10. UNSPECIFIED MALIGNANT NEOPLASMS	-	-	0.2	0.2	0.2	0.5	0.3	0.8	0.6	1.0

Rates are per 100,000.

^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 Adapted from: RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 106:7; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

^c Myeloproliferative disorders and myelodysplastic syndromes were first reported effective January 1, 2001 with the implementation of ICD-O 3.

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

Table 32.6
Age-Specific SEER Incidence^a, by Age Group and Sex
By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
Black, 2009-2013

Site	Ages 15-19		Ages 20-24		Ages 25-29		Ages 30-34		Ages 35-39	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
All Sites Combined	14.6	14.4	22.4	23.0	31.7	49.9	50.7	95.2	76.7	159.2
1. LEUKEMIAS	1.8	1.4	1.8	2.0	2.3	2.2	3.1	2.7	4.9	3.9
1.1 Acute lymphoid leukemia	0.9	-	-	-	-	-	-	-	-	-
1.2 Acute myeloid leukemia	-	0.7	0.7	1.2	-	1.4	1.4	1.4	1.9	1.7
1.3 Chronic myeloid leukemia	-	-	-	-	-	-	-	-	1.4	1.2
1.4 Other and unspecified leukemias	-	-	-	-	-	-	-	-	1.2	-
2. LYMPHOMAS	4.5	3.0	7.3	5.0	9.2	7.3	11.8	8.2	15.0	10.3
2.1 Non-Hodgkin Lymphoma	2.4	0.8	3.9	1.5	4.9	3.6	7.7	5.0	11.2	7.4
2.2 Hodgkin Lymphoma	2.2	2.2	3.4	3.5	4.3	3.7	4.1	3.2	3.9	2.9
3. CNS, INTRACRANIAL, INTRASPINAL	1.8	1.7	1.4	1.3	1.4	1.3	2.6	2.0	2.6	2.2
3.1 Astrocytoma	1.0	1.0	0.7	-	-	0.9	1.5	0.9	1.3	1.4
3.1.1 Specified low-grade astrocytic tumors	-	0.7	-	-	-	-	-	-	-	-
3.1.2 Glioblastoma and anaplastic astrocytoma	-	-	-	-	-	-	0.9	-	-	1.0
3.1.3 Astrocytoma, NOS	-	-	-	-	-	-	-	-	-	-
3.2 Other glioma	-	-	-	-	-	-	-	0.8	-	-
3.3 Ependymoma	-	-	-	-	-	-	-	-	-	-
3.4 Medulloblastoma and other PNET	-	-	-	-	-	-	-	-	-	-
3.4.1 Medulloblastoma	-	-	-	-	-	-	-	-	-	-
3.4.2 Supratentorial PNET	-	-	-	-	-	-	-	-	-	-
3.5 Other specified intracranial and intraspinal neoplasms	-	-	-	-	-	-	-	-	-	-
3.6 Unspecified intracranial and intraspinal neoplasms	-	-	-	-	-	-	-	-	-	-
4. OSSEOUS & CHONDROMATOUS NEOPLASMS	1.6	1.0	0.8	0.7	-	-	-	-	1.0	-
4.1 Osteosarcoma	1.0	0.7	-	-	-	-	-	-	-	-
4.2 Chondrosarcoma	-	-	-	-	-	-	-	-	-	-
4.3 Ewing tumor	-	-	-	-	-	-	-	-	-	-
4.4 Other specified and unspecified bone tumors	-	-	-	-	-	-	-	-	-	-
5. SOFT TISSUE SARCOMAS	1.6	1.1	5.2	2.1	6.6	2.5	8.8	4.3	7.4	5.7
5.1 Fibromatous neoplasms	-	-	-	0.8	1.4	-	1.4	1.6	1.8	1.9
5.2 Rhabdomyosarcoma	-	-	-	-	-	-	-	-	-	-
5.3 Other specified soft tissue sarcoma	-	-	4.3	1.1	5.1	1.6	7.2	2.6	5.4	3.8
5.3.1 Specified soft tissue sarcoma	-	-	3.8	0.9	4.9	1.3	6.6	2.3	5.1	3.0
5.3.1.1 Specified (excluding Kaposi sarcoma)	-	-	1.3	0.8	0.8	1.2	1.1	2.0	1.3	2.9
5.3.1.2 Kaposi sarcoma	-	-	2.5	-	4.0	-	5.5	-	3.8	-
5.3.2 Unspecified soft tissue sarcoma	-	-	-	-	-	-	-	-	-	-
6. GERM CELL AND TROPHOBLASTIC NEOPLASMS	0.8	1.2	1.9	1.4	2.7	1.6	3.7	1.1	3.0	-
6.1 Germ cell and trophoblastic neoplasms of gonads	-	0.9	1.8	0.9	2.6	0.9	3.3	-	2.9	-
6.2 Germ cell and trophoblastic neoplasms of nongonadal sites	-	-	-	-	-	-	-	-	-	-
6.2.1 Intracranial sites	-	-	-	-	-	-	-	-	-	-
6.2.2 Other nongonadal sites	-	-	-	-	-	-	-	-	-	-

^a Rates are per 100,000.
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 Adapted from: RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 106:7; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

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

Table 32.6 - continued
 Age-Specific SEER Incidence^a, by Age Group and Sex
 By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
 Black, 2009-2013

Site	Ages 15-19		Ages 20-24		Ages 25-29		Ages 30-34		Ages 35-39	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
7. MELANOMA AND SKIN CARCINOMAS	-	-	-	-	-	-	-	-	-	1.2
7.1 Melanoma	-	-	-	-	-	-	-	-	-	1.0
7.2 Skin carcinomas	-	-	-	-	-	-	-	-	-	-
8. CARCINOMAS (excluding skin)	1.7	4.2	3.2	9.6	8.7	33.3	17.8	72.8	39.0	129.4
8.1 Thyroid carcinoma	-	1.8	-	2.7	1.4	6.4	1.6	11.0	2.5	15.7
8.2 Other carcinoma of head and neck	-	-	-	-	1.1	1.0	1.1	1.4	3.3	2.7
8.2.1 Nasopharyngeal carcinoma	-	-	-	-	-	-	-	-	-	-
8.2.2 Other sites in lip, oral cavity and pharynx	-	-	-	-	-	-	-	1.0	1.9	1.9
8.2.3 Nasal cavity, middle ear, sinuses, larynx, other ill-defined head/neck	-	-	-	-	-	-	-	-	0.9	-
8.3 Carcinoma of trachea, bronchus, and lung	-	-	-	-	-	-	1.8	1.0	2.7	2.4
8.4 Carcinoma of breast	-	-	-	1.7	-	11.8	-	34.1	-	67.5
8.5 Carcinoma of genitourinary tract	-	-	0.9	2.6	1.8	9.1	3.7	16.1	12.0	23.9
8.5.1 Carcinoma of kidney	-	-	-	-	1.5	1.6	3.2	1.7	7.4	3.7
8.5.2 Carcinoma of bladder	-	-	-	-	-	-	-	-	1.3	-
8.5.3 Carcinoma of gonads	-	-	-	-	-	1.0	-	1.8	-	2.2
8.5.4 Carcinoma of cervix and uterus	-	-	-	1.4	-	6.0	-	11.7	-	16.0
8.5.5 Carcinoma of other and ill-defined sites, genitourinary tract	-	-	-	-	-	-	-	-	3.2	1.5
8.6 Carcinoma of gastrointestinal tract	-	0.8	1.3	1.6	3.4	3.7	8.4	8.5	17.1	15.3
8.6.1 Carcinoma of colon and rectum	-	-	0.8	1.0	2.2	2.5	5.4	5.6	10.8	10.2
8.6.2 Carcinoma of stomach	-	-	-	-	-	-	-	1.0	1.8	1.6
8.6.3 Carcinoma of liver and intrahepatic bile ducts	-	-	-	-	-	-	1.0	-	1.6	-
8.6.4 Carcinoma of pancreas	-	-	-	-	-	-	-	0.9	1.2	1.6
8.6.5 Carcinoma of other and ill-defined sites, gastrointestinal tract	-	-	-	-	-	-	-	0.9	1.7	1.4
8.7 Carcinoma of other and ill-defined sites, NOS	-	-	-	-	-	-	1.0	-	1.1	2.0
8.7.1 Adrenocortical carcinoma	-	-	-	-	-	-	-	-	-	-
8.7.2 Carcinoma of other and ill-defined sites, NOS	-	-	-	-	-	-	0.9	-	1.0	1.9
9. MISCELLANEOUS SPECIFIED NEOPLASMS, NOS	-	0.7	-	-	-	0.9	1.3	2.9	2.5	3.6
9.1 Other pediatric and embryonal tumors, NOS	-	-	-	-	-	-	-	-	-	-
9.1.1 Wilms tumor	-	-	-	-	-	-	-	-	-	-
9.1.2 Neuroblastoma	-	-	-	-	-	-	-	-	-	-
9.1.3 Other pediatric and embryonal tumors, NOS	-	-	-	-	-	-	-	-	-	-
9.2 Other specified neoplasms, NOS	-	0.7	-	-	-	0.8	1.1	2.9	2.5	3.5
9.2.1 Paraganglioma and glomus tumors	-	-	-	-	-	-	-	-	-	-
9.2.2 Other specified gonadal tumors	-	-	-	-	-	-	-	-	-	-
9.2.3 Myeloma, mast cell, miscellaneous lymphoreticular neoplasms, NOS	-	-	-	-	-	-	-	1.0	1.9	1.2
9.2.4 Other specified neoplasms, NOS ^c	-	-	-	-	-	-	-	1.1	-	1.6
10. UNSPECIFIED MALIGNANT NEOPLASMS	-	-	-	-	-	-	-	0.9	-	1.5

Rates are per 100,000.

^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 Adapted from: RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 106:7; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

^c Myeloproliferative disorders and myelodysplastic syndromes were first reported effective January 1, 2001 with the implementation of ICD-O 3.

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

Table 32.7

Age-Adjusted SEER Incidence^a, by Year and Sex
By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
All Races, Ages 15-19

Both Sexes	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	14,842	20.6	0.6*	4,395	22.2	0.6*
1. Leukemias	1,757	2.4	0.7*	520	2.6	0.7*
2. Lymphomas	3,659	5.1	0.0	1,006	5.1	0.0
3. CNS, intracranial, intraspinal	1,440	2.0	0.4	413	2.1	0.4
4. Osseous & chondromatous neoplasms	1,146	1.6	0.5	326	1.6	0.5
5. Soft tissue sarcomas	1,070	1.5	0.2	303	1.5	0.2
6. Germ cell and trophoblastic neoplasms	1,803	2.5	0.9*	552	2.8	0.9*
7. Melanoma and skin carcinomas	1,088	1.5	0.7*	308	1.6	0.7*
8. Carcinomas (excluding skin)	2,591	3.6	2.0*	891	4.5	6.0*
9. Miscellaneous specified neoplasms, NOS	232	0.3	0.4	71	0.4	0.4
10. Unspecified malignant neoplasms	56	0.1	-	-	-	-
Males	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	7,799	21.2	0.6*	2,304	22.7	0.6*
1. Leukemias	1,047	2.8	0.4	300	3.0	0.4
2. Lymphomas	1,966	5.3	0.2	551	5.4	0.2
3. CNS, intracranial, intraspinal	828	2.3	0.3	226	2.2	0.3
4. Osseous & chondromatous neoplasms	755	2.1	0.8*	216	2.1	0.8*
5. Soft tissue sarcomas	567	1.5	0.2	156	1.5	0.2
6. Germ cell and trophoblastic neoplasms	1,327	3.6	1.2*	433	4.3	1.2*
7. Melanoma and skin carcinomas	436	1.2	1.0*	129	1.3	1.0*
8. Carcinomas (excluding skin)	744	2.0	1.6*	258	2.5	1.6*
9. Miscellaneous specified neoplasms, NOS	104	0.3	-	33	0.3	-
10. Unspecified malignant neoplasms	25	0.1	-	-	-	-
Females	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	7,043	20.0	0.5*	2,091	21.7	0.5*
1. Leukemias	710	2.0	1.2*	220	2.3	1.2*
2. Lymphomas	1,693	4.8	-0.1	455	4.7	-0.1
3. CNS, intracranial, intraspinal	612	1.7	0.5	187	1.9	0.5
4. Osseous & chondromatous neoplasms	391	1.1	0.1	110	1.1	0.1
5. Soft tissue sarcomas	503	1.4	0.2	147	1.5	0.2
6. Germ cell and trophoblastic neoplasms	476	1.4	-0.2	119	1.2	-0.2
7. Melanoma and skin carcinomas	652	1.9	0.4	179	1.9	0.4
8. Carcinomas (excluding skin)	1,847	5.2	2.0*	633	6.6	7.3*
9. Miscellaneous specified neoplasms, NOS	128	0.4	-	38	0.4	-
10. Unspecified malignant neoplasms	31	0.1	-	-	-	-

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

^b Adapted from: RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 106:7; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

^c The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint over the time range of 1975-2013.

- Statistic could not be calculated. Count and rate based on less than 16 cases for the time interval. AAPC could not be calculated due to insufficient data.

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

Table 32.8

Age-Adjusted SEER Incidence^a, by Year and Sex
By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
All Races, Ages 20-24

Both Sexes	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	25,326	34.4	0.7*	7,538	38.2	0.7*
1. Leukemias	1,632	2.2	0.8*	481	2.4	0.8*
2. Lymphomas	5,270	7.2	0.7*	1,482	7.5	-0.2
3. CNS, intracranial, intraspinal	1,671	2.3	0.7*	478	2.4	0.7*
4. Osseous & chondromatous neoplasms	672	0.9	1.1*	214	1.1	1.1*
5. Soft tissue sarcomas	1,540	2.1	0.8	378	1.9	-1.2*
6. Germ cell and trophoblastic neoplasms	3,950	5.4	0.8*	1,199	6.1	0.8*
7. Melanoma and skin carcinomas	3,184	4.3	1.1*	961	4.9	1.1*
8. Carcinomas (excluding skin)	6,985	9.5	0.5	2,218	11.3	1.5*
9. Miscellaneous specified neoplasms, NOS	264	0.4	1.7*	88	0.4	1.7*
10. Unspecified malignant neoplasms	158	0.2	0.3	39	0.2	0.3
Males	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	12,429	33.3	0.5*	3,608	35.7	0.5*
1. Leukemias	936	2.5	0.5	262	2.6	0.5
2. Lymphomas	2,824	7.6	0.3	793	7.8	0.3
3. CNS, intracranial, intraspinal	933	2.5	0.1	238	2.4	0.1
4. Osseous & chondromatous neoplasms	393	1.1	0.8	121	1.2	0.8
5. Soft tissue sarcomas	916	2.5	0.7	222	2.2	-2.1*
6. Germ cell and trophoblastic neoplasms	3,530	9.4	0.8*	1,083	10.7	0.8*
7. Melanoma and skin carcinomas	1,084	2.9	0.1	291	2.9	0.1
8. Carcinomas (excluding skin)	1,654	4.4	1.1*	552	5.5	5.0*
9. Miscellaneous specified neoplasms, NOS	100	0.3	-	31	0.3	-
10. Unspecified malignant neoplasms	59	0.2	-	-	-	-
Females	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	12,897	35.6	1.0*	3,930	40.9	1.0*
1. Leukemias	696	1.9	0.2	219	2.3	0.0
2. Lymphomas	2,446	6.7	1.1*	689	7.2	-0.2
3. CNS, intracranial, intraspinal	738	2.0	1.4*	240	2.5	1.4*
4. Osseous & chondromatous neoplasms	279	0.8	1.4*	93	1.0	1.4*
5. Soft tissue sarcomas	624	1.7	0.5	156	1.6	0.5
6. Germ cell and trophoblastic neoplasms	420	1.2	0.4	116	1.2	0.4
7. Melanoma and skin carcinomas	2,100	5.8	1.6*	670	7.0	1.6*
8. Carcinomas (excluding skin)	5,331	14.7	0.6	1,666	17.3	1.5*
9. Miscellaneous specified neoplasms, NOS	164	0.5	1.9*	57	0.6	1.9*
10. Unspecified malignant neoplasms	99	0.3	-	24	0.2	-

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

^b Adapted from: RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 106:7; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

^c The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint over the time range of 1975-2013.

- Statistic could not be calculated. Count and rate based on less than 16 cases for the time interval. AAPC could not be calculated due to insufficient data.

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

Table 32.9

Age-Adjusted SEER Incidence^a, by Year and Sex
By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
All Races, Ages 25-29

Both Sexes	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	43,116	55.8	0.7*	12,401	62.0	1.1*
1. Leukemias	1,839	2.4	0.7*	535	2.7	0.7*
2. Lymphomas	6,413	8.3	0.6	1,694	8.5	0.4
3. CNS, intracranial, intraspinal	2,241	2.9	1.0*	648	3.2	1.0*
4. Osseous & chondromatous neoplasms	530	0.7	1.2*	161	0.8	1.2*
5. Soft tissue sarcomas	3,146	4.1	1.3	581	2.9	-0.4
6. Germ cell and trophoblastic neoplasms	5,510	7.1	1.5*	1,673	8.4	2.0*
7. Melanoma and skin carcinomas	5,906	7.6	0.7*	1,773	8.9	-1.2
8. Carcinomas (excluding skin)	16,903	21.9	0.5*	5,150	25.7	1.5*
9. Miscellaneous specified neoplasms, NOS	419	0.5	1.9*	140	0.7	1.9*
10. Unspecified malignant neoplasms	209	0.3	-	46	0.2	-

Males	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	19,439	50.1	0.8*	5,416	53.7	1.1*
1. Leukemias	1,061	2.7	0.3	294	2.9	0.3
2. Lymphomas	3,659	9.4	0.7	934	9.3	0.9
3. CNS, intracranial, intraspinal	1,226	3.2	1.0*	370	3.7	1.0*
4. Osseous & chondromatous neoplasms	306	0.8	0.5	88	0.9	0.5
5. Soft tissue sarcomas	2,302	5.9	1.7	380	3.8	-0.4
6. Germ cell and trophoblastic neoplasms	5,091	13.1	1.6*	1,578	15.6	2.0*
7. Melanoma and skin carcinomas	2,093	5.4	0.2	557	5.5	0.2
8. Carcinomas (excluding skin)	3,455	8.9	0.4	1,132	11.2	1.9*
9. Miscellaneous specified neoplasms, NOS	156	0.4	-	58	0.6	-
10. Unspecified malignant neoplasms	90	0.2	-	25	0.2	-

Females	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	23,677	61.6	0.7*	6,985	70.3	1.0*
1. Leukemias	778	2.0	1.1*	241	2.4	1.1*
2. Lymphomas	2,754	7.2	0.7	760	7.7	-0.5
3. CNS, intracranial, intraspinal	1,015	2.6	0.9*	278	2.8	0.9*
4. Osseous & chondromatous neoplasms	224	0.6	1.5*	73	0.7	1.5*
5. Soft tissue sarcomas	844	2.2	0.5	201	2.0	-1.5*
6. Germ cell and trophoblastic neoplasms	419	1.1	-0.8	95	1.0	-0.8
7. Melanoma and skin carcinomas	3,813	9.9	1.1*	1,216	12.2	-1.1
8. Carcinomas (excluding skin)	13,448	35.0	0.5*	4,018	40.5	1.3*
9. Miscellaneous specified neoplasms, NOS	263	0.7	1.5*	82	0.8	1.5*
10. Unspecified malignant neoplasms	119	0.3	-	21	0.2	-

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

^b Adapted from: RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 106:7; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

^c The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint over the time range of 1975-2013.

- Statistic could not be calculated. Count and rate based on less than 16 cases for the time interval. AAPC could not be calculated due to insufficient data.

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

Table 32.10

Age-Adjusted SEER Incidence^a, by Year and Sex
By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
All Races, Ages 30-34

Both Sexes	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	66,176	85.8	0.9*	18,299	92.9	1.0*
1. Leukemias	2,216	2.9	0.6*	633	3.2	0.6*
2. Lymphomas	7,195	9.3	1.3	1,836	9.3	-0.2
3. CNS, intracranial, intraspinal	2,603	3.4	0.3	685	3.5	0.3
4. Osseous & chondromatous neoplasms	493	0.6	0.6	132	0.7	0.6
5. Soft tissue sarcomas	5,203	6.7	1.2	745	3.8	-0.7
6. Germ cell and trophoblastic neoplasms	5,519	7.2	1.8*	1,635	8.3	0.5*
7. Melanoma and skin carcinomas	8,452	11.0	1.6*	2,390	12.1	0.2
8. Carcinomas (excluding skin)	33,428	43.3	0.6*	9,911	50.3	1.8*
9. Miscellaneous specified neoplasms, NOS	735	1.0	2.0*	239	1.2	2.0*
10. Unspecified malignant neoplasms	331	0.4	1.0	92	0.5	1.0
Males	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	27,331	70.8	0.9*	6,935	70.2	0.8*
1. Leukemias	1,281	3.3	0.7*	358	3.6	0.7*
2. Lymphomas	4,440	11.5	0.6	1,050	10.6	0.0
3. CNS, intracranial, intraspinal	1,514	3.9	0.2	396	4.0	0.2
4. Osseous & chondromatous neoplasms	276	0.7	0.7	74	0.7	0.7
5. Soft tissue sarcomas	4,175	10.8	1.4	469	4.7	-1.6
6. Germ cell and trophoblastic neoplasms	5,160	13.4	1.8*	1,536	15.6	0.5*
7. Melanoma and skin carcinomas	3,363	8.7	0.1	878	8.9	0.1
8. Carcinomas (excluding skin)	6,718	17.4	0.7*	2,037	20.6	2.4*
9. Miscellaneous specified neoplasms, NOS	286	0.7	2.5*	105	1.1	2.5*
10. Unspecified malignant neoplasms	118	0.3	-	32	0.3	-
Females	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	38,845	100.8	0.7*	11,364	115.7	1.4*
1. Leukemias	935	2.4	0.5	275	2.8	0.5
2. Lymphomas	2,755	7.1	1.2*	786	8.0	1.2*
3. CNS, intracranial, intraspinal	1,089	2.8	0.5	289	2.9	0.5
4. Osseous & chondromatous neoplasms	217	0.6	-	58	0.6	-
5. Soft tissue sarcomas	1,028	2.7	0.2	276	2.8	0.2
6. Germ cell and trophoblastic neoplasms	359	0.9	0.2	99	1.0	0.2
7. Melanoma and skin carcinomas	5,089	13.2	2.1*	1,512	15.4	1.0*
8. Carcinomas (excluding skin)	26,710	69.3	0.6*	7,874	80.2	1.6*
9. Miscellaneous specified neoplasms, NOS	449	1.2	1.8*	134	1.4	1.8*
10. Unspecified malignant neoplasms	213	0.6	-	60	0.6	-

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

^b Adapted from: RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 106:7; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

^c The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint over the time range of 1975-2013.

- Statistic could not be calculated. Count and rate based on less than 16 cases for the time interval. AAPC could not be calculated due to insufficient data.

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

Table 32.11

Age-Adjusted SEER Incidence^a, by Year and Sex
By Adapted Classification Scheme for Tumors of Adolescents and Young Adults^b
All Races, Ages 35-39

Both Sexes	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	97,311	133.3	0.7*	27,797	140.1	0.2
1. Leukemias	2,758	3.8	0.5	806	4.1	2.8
2. Lymphomas	8,144	11.2	1.4*	2,193	11.1	-1.3*
3. CNS, intracranial, intraspinal	2,896	4.0	-0.1	764	3.9	-0.1
4. Osseous & chondromatous neoplasms	490	0.7	1.4*	156	0.8	1.4*
5. Soft tissue sarcomas	6,101	8.4	0.9	972	4.9	-1.5
6. Germ cell and trophoblastic neoplasms	4,314	5.9	1.6*	1,259	6.3	0.3
7. Melanoma and skin carcinomas	10,549	14.4	1.5*	3,123	15.7	0.3
8. Carcinomas (excluding skin)	60,266	82.6	0.5	17,979	90.6	1.3*
9. Miscellaneous specified neoplasms, NOS	1,292	1.8	1.4*	425	2.1	1.4*
10. Unspecified malignant neoplasms	501	0.7	-0.2	120	0.6	-0.2
Males	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	36,413	100.1	0.5	9,538	96.3	0.0
1. Leukemias	1,600	4.4	0.2	459	4.6	0.2
2. Lymphomas	5,280	14.5	1.3*	1,315	13.3	-2.5*
3. CNS, intracranial, intraspinal	1,697	4.7	-0.1	456	4.6	-0.1
4. Osseous & chondromatous neoplasms	278	0.8	0.6	84	0.8	0.6
5. Soft tissue sarcomas	4,775	13.1	2.2	617	6.2	-2.1*
6. Germ cell and trophoblastic neoplasms	4,090	11.2	1.7*	1,194	12.1	0.3
7. Melanoma and skin carcinomas	4,576	12.6	0.6	1,238	12.5	-0.7*
8. Carcinomas (excluding skin)	13,396	36.8	0.3	3,968	40.1	1.2*
9. Miscellaneous specified neoplasms, NOS	520	1.4	1.0*	166	1.7	1.0*
10. Unspecified malignant neoplasms	201	0.6	-0.6	41	0.4	-0.6
Females	1975-2013			2004-2013		
	No.	Rate	AAPC ^c	No.	Rate	AAPC ^c
All Sites Combined	60,898	166.3	0.8*	18,259	183.7	1.1*
1. Leukemias	1,158	3.2	1.0	347	3.5	2.3*
2. Lymphomas	2,864	7.8	1.3*	878	8.8	1.3*
3. CNS, intracranial, intraspinal	1,199	3.3	-0.2	308	3.1	-0.2
4. Osseous & chondromatous neoplasms	212	0.6	-	72	0.7	-
5. Soft tissue sarcomas	1,326	3.6	-0.5	355	3.6	-0.5
6. Germ cell and trophoblastic neoplasms	224	0.6	0.3	65	0.7	0.3
7. Melanoma and skin carcinomas	5,973	16.3	1.5	1,885	19.0	-0.8
8. Carcinomas (excluding skin)	46,870	128.0	0.6*	14,011	141.0	1.3*
9. Miscellaneous specified neoplasms, NOS	772	2.1	1.6*	259	2.6	1.6*
10. Unspecified malignant neoplasms	300	0.8	-0.1	79	0.8	-0.1

Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

^b Adapted from: RD Barr, EJ Holowaty, JM Birch. Classification Scheme for tumors diagnosed in adolescents and young adults. Cancer. 106:7; 1425-1430. (Restricted to malignant tumors and updated based on ICD-O-3 definitions).

^c The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint over the time range of 1975-2013.

- Statistic could not be calculated. Count and rate based on less than 16 cases for the time interval. AAPC could not be calculated due to insufficient data.

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

Table 32.12

SEER Incidence^a and U.S. Mortality^b Rate Comparison by Race/Ethnicity, 2009-2013
Ages 15-19

	<u>Incidence</u>					<u>Mortality</u>				
	All Races	White	Black	API ^c	Hispanic ^d	All Races	White	Black	API ^c	Hispanic ^d
Males										
All Malignant Cancers	22.9	25.2	14.6	17.4	22.9	3.4	3.4	3.2	3.5	3.8
Leukemia	3.6	4.1	1.8	3.5	5.0	0.9	1.0	0.7	1.0	1.4
Lymphoma	5.4	5.7	4.5	4.3	4.2	0.2	0.2	0.3	-	0.2
Hodgkin Lymphoma	3.0	3.3	2.2	2.0	2.3	0.1	0.1	-	-	-
Non-Hodgkin Lymphoma	2.4	2.4	2.4	2.3	1.9	0.2	0.2	0.2	-	0.1
Brain and Other Nervous System	2.4	2.6	2.0	1.4	1.9	0.6	0.6	0.6	0.6	0.5
Bones and Joints	1.8	1.9	1.5	1.2	1.7	0.6	0.6	0.5	-	0.7
Soft Tissue including Heart	1.2	1.2	1.1	-	1.0	0.4	0.4	0.4	-	0.3
Skin excluding Basal and Squamous	1.0	1.2	-	-	-	-	-	-	-	-
Respiratory System	0.4	0.4	-	-	0.7	0.1	0.0	-	-	-
Male Genital System	4.1	5.1	-	1.4	5.9	0.1	0.1	-	-	0.2
Digestive System	0.7	0.7	-	-	0.5	0.1	0.1	0.2	-	0.1
Females										
All Malignant Cancers	21.4	23.1	14.4	16.9	18.9	2.4	2.4	2.4	2.2	2.5
Leukemia	2.5	2.8	1.4	2.1	3.2	0.6	0.6	0.4	0.6	0.9
Lymphoma	4.2	4.6	3.0	3.4	3.2	0.2	0.1	0.2	-	-
Hodgkin Lymphoma	3.1	3.5	2.2	2.2	2.2	0.0	0.0	-	-	-
Non-Hodgkin Lymphoma	1.1	1.1	0.8	1.2	1.0	0.1	0.1	0.2	-	-
Brain and Other Nervous System	2.1	2.1	1.6	1.6	1.3	0.4	0.4	0.5	-	0.4
Bones and Joints	1.1	1.1	1.1	-	0.9	0.4	0.4	0.3	-	0.4
Soft Tissue including Heart	1.1	1.2	0.7	-	1.2	0.3	0.3	0.2	-	0.2
Skin excluding Basal and Squamous	1.4	1.7	-	-	-	0.0	0.0	-	-	-
Respiratory System	0.3	0.3	-	-	-	0.0	-	-	-	-
Breast	0.2	0.1	-	-	-	-	-	-	-	-
Female Genital System	1.9	1.9	1.8	1.8	2.3	0.1	0.1	-	-	-
Digestive System	0.7	0.8	0.9	-	0.5	0.1	0.1	-	-	-

^a Rates are per 100,000.
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 US Mortality Files, National Center for Health Statistics, CDC.

^c Asian/Pacific Islander

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

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

Table 32.13

SEER Incidence^a and U.S. Mortality^b Rate Comparison by Race/Ethnicity, 2009-2013
Ages 20-24

	<u>Incidence</u>					<u>Mortality</u>				
	All Races	White	Black	API ^c	Hispanic ^d	All Races	White	Black	API ^c	Hispanic ^d
Males										
All Malignant Cancers	34.6	38.4	22.4	20.6	32.3	5.1	5.2	4.9	4.3	5.7
Leukemia	3.0	3.3	1.8	2.8	4.2	1.1	1.1	0.9	1.2	1.7
Lymphoma	7.2	7.5	7.3	5.0	5.8	0.5	0.6	0.6	0.5	0.5
Hodgkin Lymphoma	4.1	4.4	3.4	3.0	3.0	0.2	0.2	-	-	0.2
Non-Hodgkin Lymphoma	3.1	3.1	3.9	2.0	2.8	0.4	0.4	0.4	-	0.3
Brain and Other Nervous System	2.3	2.6	1.4	1.4	1.3	0.6	0.7	0.5	-	0.4
Bones and Joints	0.9	1.0	0.7	-	0.9	0.7	0.7	0.5	-	0.6
Soft Tissue including Heart	1.3	1.2	1.8	1.0	1.1	0.4	0.4	0.5	-	0.4
Skin excluding Basal and Squamous	2.1	2.6	-	-	0.6	0.1	0.2	-	-	-
Respiratory System	0.8	0.8	-	1.0	0.9	0.2	0.2	0.2	-	0.1
Male Genital System	10.6	13.0	2.0	4.4	13.1	0.3	0.4	-	-	0.7
Digestive System	2.0	2.1	1.7	1.1	1.8	0.5	0.4	0.7	0.7	0.5
Females										
All Malignant Cancers	37.0	40.7	23.0	26.0	27.9	3.5	3.5	3.9	2.8	3.5
Leukemia	2.2	2.4	2.0	1.4	2.7	0.8	0.8	0.7	0.5	1.1
Lymphoma	6.4	6.9	5.0	5.0	4.5	0.3	0.3	0.4	-	0.3
Hodgkin Lymphoma	4.5	4.9	3.5	2.7	3.1	0.1	0.1	0.2	-	-
Non-Hodgkin Lymphoma	1.9	2.0	1.5	2.3	1.4	0.2	0.2	0.3	-	0.2
Brain and Other Nervous System	2.1	2.3	1.3	1.9	1.4	0.5	0.5	0.4	-	0.3
Bones and Joints	0.7	0.7	0.7	-	0.5	0.3	0.3	0.2	-	0.3
Soft Tissue including Heart	1.2	1.2	1.3	1.2	1.1	0.3	0.3	0.5	-	0.2
Skin excluding Basal and Squamous	5.5	6.8	-	-	0.9	0.1	0.1	-	-	-
Respiratory System	0.5	0.6	-	-	0.5	0.1	0.1	-	-	-
Breast	1.4	1.4	1.8	1.1	1.1	0.1	0.1	-	-	-
Female Genital System	3.8	3.7	3.8	3.1	4.1	0.3	0.3	0.4	-	0.3
Digestive System	1.8	1.8	1.7	1.9	1.2	0.4	0.3	0.4	0.6	0.4

^a Rates are per 100,000.
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 US Mortality Files, National Center for Health Statistics, CDC.

^c Asian/Pacific Islander

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

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

Table 32.14

SEER Incidence^a and U.S. Mortality^b Rate Comparison by Race/Ethnicity, 2009-2013
Ages 25-29

	<u>Incidence</u>					<u>Mortality</u>				
	All Races	White	Black	API ^c	Hispanic ^d	All Races	White	Black	API ^c	Hispanic ^d
Males										
All Malignant Cancers	48.8	53.4	31.7	29.9	38.9	7.0	7.0	7.5	5.2	6.3
Leukemia	3.1	3.3	2.3	2.5	3.3	1.1	1.1	1.2	0.9	1.4
Lymphoma	7.8	7.9	9.2	5.6	4.9	0.8	0.8	1.4	-	0.7
Hodgkin Lymphoma	3.9	4.1	4.3	2.6	2.1	0.3	0.3	0.4	-	0.2
Non-Hodgkin Lymphoma	3.9	3.8	4.9	3.0	2.7	0.5	0.5	1.0	-	0.5
Brain and Other Nervous System	3.1	3.5	1.5	2.3	2.0	1.0	1.1	0.6	0.6	0.6
Bones and Joints	0.7	0.8	-	-	0.7	0.4	0.4	0.4	-	0.2
Soft Tissue including Heart	1.6	1.5	1.7	1.1	1.4	0.5	0.5	0.7	-	0.5
Skin excluding Basal and Squamous	4.5	5.5	-	-	0.8	0.4	0.5	-	-	0.1
Respiratory System	1.1	1.1	-	1.0	1.1	0.3	0.3	0.3	-	0.3
Male Genital System	15.0	18.0	2.6	6.8	15.8	0.5	0.6	-	-	0.8
Digestive System	3.9	3.9	3.6	3.7	3.5	1.1	1.0	1.5	1.5	1.0
Females										
All Malignant Cancers	67.2	72.5	49.9	45.3	54.8	6.0	5.9	7.4	4.0	5.5
Leukemia	2.4	2.6	2.2	1.4	2.8	0.8	0.8	0.6	0.5	1.0
Lymphoma	6.8	7.0	7.3	4.9	4.7	0.5	0.5	0.8	-	0.5
Hodgkin Lymphoma	3.9	4.3	3.7	2.4	2.5	0.2	0.2	0.3	-	0.2
Non-Hodgkin Lymphoma	2.9	2.7	3.6	2.5	2.2	0.3	0.3	0.5	-	0.4
Brain and Other Nervous System	2.5	2.9	1.3	1.3	2.1	0.6	0.6	0.5	-	0.4
Bones and Joints	0.6	0.7	-	-	0.4	0.2	0.2	-	-	-
Soft Tissue including Heart	1.3	1.2	1.5	0.9	1.2	0.3	0.3	0.5	-	0.3
Skin excluding Basal and Squamous	9.3	11.5	-	-	2.0	0.2	0.3	-	-	-
Respiratory System	0.8	0.8	0.9	1.2	0.5	0.2	0.2	-	-	0.2
Breast	9.0	8.7	12.0	7.6	7.3	0.7	0.6	1.4	0.4	0.6
Female Genital System	10.0	10.4	9.4	6.8	11.1	1.0	1.0	1.2	0.6	1.1
Digestive System	3.8	3.8	3.8	3.0	3.9	0.8	0.8	1.2	0.8	0.9

^a Rates are per 100,000.
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 US Mortality Files, National Center for Health Statistics, CDC.

^c Asian/Pacific Islander

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

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

Table 32.15

SEER Incidence^a and U.S. Mortality^b Rate Comparison by Race/Ethnicity, 2009-2013
Ages 30-34

	<u>Incidence</u>					<u>Mortality</u>				
	All Races	White	Black	API ^c	Hispanic ^d	All Races	White	Black	API ^c	Hispanic ^d
Males										
All Malignant Cancers	66.1	70.5	50.7	42.2	49.2	10.2	10.2	11.8	7.9	8.6
Leukemia	3.8	4.0	3.1	3.1	4.2	1.3	1.3	1.5	1.0	1.5
Lymphoma	9.4	9.4	11.8	4.9	6.8	1.0	1.0	1.6	0.5	0.9
Hodgkin Lymphoma	3.7	4.0	4.1	1.5	2.5	0.3	0.3	0.4	-	0.2
Non-Hodgkin Lymphoma	5.7	5.4	7.7	3.4	4.4	0.7	0.7	1.2	-	0.7
Brain and Other Nervous System	4.0	4.4	2.5	2.9	2.8	1.4	1.6	0.7	0.8	0.8
Bones and Joints	0.7	0.8	-	-	0.7	0.2	0.2	0.3	-	0.2
Soft Tissue including Heart	2.0	1.9	2.1	1.8	1.6	0.5	0.5	0.7	0.6	0.5
Skin excluding Basal and Squamous	7.6	9.0	1.6	1.1	1.6	0.6	0.8	-	-	0.2
Respiratory System	1.8	1.7	2.7	1.8	1.4	0.6	0.6	1.1	0.6	0.4
Male Genital System	14.1	16.9	3.7	4.9	12.2	0.4	0.5	0.2	-	0.7
Digestive System	8.3	8.2	8.7	8.4	7.4	2.5	2.4	3.3	2.8	2.4
Females										
All Malignant Cancers	113.4	120.2	95.2	82.5	90.0	11.8	11.5	15.5	7.9	10.4
Leukemia	3.1	3.0	2.7	3.1	3.2	0.9	0.9	0.9	0.7	1.0
Lymphoma	7.4	7.7	8.2	5.1	5.7	0.6	0.6	0.9	-	0.7
Hodgkin Lymphoma	3.4	3.7	3.2	1.8	2.3	0.2	0.2	0.3	-	0.2
Non-Hodgkin Lymphoma	4.0	4.0	5.0	3.3	3.4	0.4	0.4	0.5	-	0.5
Brain and Other Nervous System	2.9	3.3	2.0	1.4	2.1	0.9	1.0	0.5	0.5	0.6
Bones and Joints	0.4	0.5	-	-	0.4	0.2	0.2	-	-	0.2
Soft Tissue including Heart	1.6	1.6	2.1	0.9	1.5	0.5	0.5	0.5	-	0.4
Skin excluding Basal and Squamous	12.5	15.6	1.6	1.0	2.7	0.5	0.6	-	-	-
Respiratory System	1.5	1.6	1.4	1.3	1.2	0.5	0.5	0.5	0.5	0.4
Breast	27.0	26.3	34.6	23.0	20.3	2.7	2.3	5.4	1.1	2.0
Female Genital System	18.5	19.2	17.3	13.4	20.2	2.1	2.2	2.6	1.3	2.1
Digestive System	7.9	7.9	9.1	6.3	7.4	1.9	1.8	2.5	1.9	2.1

- ^a Rates are per 100,000.
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 US Mortality Files, National Center for Health Statistics, CDC.
- ^c Asian/Pacific Islander
- ^d Hispanic is not mutually exclusive from whites, blacks, and Asian/Pacific Islanders. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.
- Statistic could not be calculated. Rate based on less than 16 cases for the time interval.

Table 32.16

SEER Incidence^a and U.S. Mortality^b Rate Comparison by Race/Ethnicity, 2009-2013
Ages 35-39

	<u>Incidence</u>					<u>Mortality</u>				
	All Races	White	Black	API ^c	Hispanic ^d	All Races	White	Black	API ^c	Hispanic ^d
Males										
All Malignant Cancers	89.5	94.5	76.7	58.2	63.3	17.1	17.2	19.8	13.6	12.2
Leukemia	4.9	5.0	4.9	3.7	5.4	1.5	1.5	1.8	1.3	1.8
Lymphoma	11.3	11.3	15.0	5.7	8.8	1.3	1.2	2.3	0.7	1.2
Hodgkin Lymphoma	3.0	3.1	3.9	1.0	1.9	0.3	0.3	0.5	-	0.3
Non-Hodgkin Lymphoma	8.3	8.2	11.2	4.7	6.9	1.0	0.9	1.8	0.7	0.9
Brain and Other Nervous System	4.5	5.0	2.6	3.4	3.2	2.0	2.3	1.2	1.2	1.2
Bones and Joints	0.7	0.7	-	-	0.5	0.3	0.3	0.3	-	-
Soft Tissue including Heart	2.3	2.4	2.1	1.5	2.3	0.6	0.6	0.9	-	0.5
Skin excluding Basal and Squamous	10.8	13.1	1.8	1.4	2.0	1.0	1.3	0.3	-	0.3
Respiratory System	3.8	3.9	4.0	3.2	2.8	1.7	1.7	1.7	1.7	0.9
Male Genital System	12.3	14.3	6.1	4.0	9.0	0.5	0.5	0.3	-	0.5
Digestive System	15.7	15.2	18.1	14.9	13.1	5.5	5.3	6.9	5.2	4.2
Females										
All Malignant Cancers	179.4	185.8	159.2	148.3	141.2	22.3	21.6	30.6	15.3	16.9
Leukemia	3.7	3.8	3.9	2.8	4.2	1.1	1.1	1.2	0.9	1.4
Lymphoma	8.4	8.3	10.3	5.8	6.6	0.8	0.8	1.5	-	0.7
Hodgkin Lymphoma	2.5	2.6	2.9	1.3	1.4	0.2	0.2	0.3	-	-
Non-Hodgkin Lymphoma	5.9	5.7	7.4	4.5	5.2	0.6	0.5	1.1	-	0.5
Brain and Other Nervous System	2.9	3.1	2.1	2.2	2.1	1.2	1.4	0.8	0.8	0.6
Bones and Joints	0.5	0.5	-	-	-	0.1	0.1	0.2	-	-
Soft Tissue including Heart	1.9	1.9	2.6	1.2	2.1	0.5	0.5	0.7	-	0.4
Skin excluding Basal and Squamous	14.9	18.7	2.3	1.5	4.0	0.7	0.9	-	-	-
Respiratory System	3.2	3.4	3.0	2.9	2.3	1.4	1.5	1.4	1.5	0.7
Breast	60.4	59.3	68.6	57.8	45.4	6.5	5.9	11.1	3.8	4.6
Female Genital System	28.3	29.6	23.3	23.4	28.5	4.0	3.9	5.2	2.4	3.4
Digestive System	14.0	13.7	16.0	12.5	12.5	3.8	3.5	5.2	3.4	3.3

^a Rates are per 100,000.
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 US Mortality Files, National Center for Health Statistics, CDC.

^c Asian/Pacific Islander

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

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

Table 32.17

SEER Incidence^a and U.S. Mortality^b Rates and Trends for the Top 5 Cancer Sites^c by Age
All Races, Both Sexes, 1975-2013

	Incidence				Mortality			
	1975-2013		2004-2013		1975-2013		2004-2013	
	Rate	AAPC ^d	Rate	AAPC ^d	Rate	AAPC ^d	Rate	AAPC ^d
<u>Ages 15-19</u>								
All Malignant Cancers	20.6	0.6*	22.2	0.6*	4.1	-1.8*	3.1	-1.2
Hodgkin Lymphoma	3.5	-0.6*	3.2	-0.6*	0.2	-4.9*	0.1	-4.9*
Brain and Other Nervous System	2.1	0.3	2.1	0.3	0.6	-1.1*	0.5	-1.1*
Thyroid	1.9	2.8*	2.6	8.3*	0.0	-	-	-
Non-Hodgkin Lymphoma	1.6	1.3*	1.9	1.3*	0.3	-3.9*	0.2	-7.4*
Testis	1.6	1.4*	2.0	1.4*	0.1	-5.3*	0.0	-2.7*
<u>Ages 20-24</u>								
All Malignant Cancers	34.4	0.7*	38.2	0.7*	5.5	-1.7*	4.5	-2.5*
Hodgkin Lymphoma	4.9	0.2	4.9	-0.7*	0.4	-5.4*	0.2	-9.7*
Testis	4.5	1.1	5.2	-0.2	0.3	-3.8*	0.2	0.5
Thyroid	4.3	1.9*	5.7	1.9*	0.0	-	0.0	-
Melanoma of the Skin	4.2	1.1*	4.7	1.1*	0.2	-4.1*	0.1	-7.1*
Brain and Other Nervous System	2.3	0.6*	2.5	0.6*	0.6	-0.8*	0.5	-0.8*
<u>Ages 25-29</u>								
All Malignant Cancers	55.8	0.7*	62.0	1.1*	8.3	-1.5*	6.6	-1.5*
Melanoma of the Skin	7.4	0.8*	8.7	-1.1	0.5	-2.9*	0.3	-2.9*
Thyroid	7.1	2.1*	10.6	4.0*	0.0	-	0.0	-
Testis	6.4	1.2*	7.7	1.2*	0.3	-2.9*	0.2	0.8
Hodgkin Lymphoma	4.8	-0.1	4.7	-0.1	0.6	-4.2*	0.3	-4.2*
Breast	4.1	0.3	4.4	2.4*	0.5	-2.3*	0.3	-2.3*
<u>Ages 30-34</u>								
All Malignant Cancers	85.8	0.9*	92.9	1.0*	14.4	-1.4*	11.2	-1.3*
Breast	13.3	0.0	13.6	0.0	2.1	-2.1*	1.4	-2.6*
Melanoma of the Skin	10.6	1.6*	11.8	0.2	0.9	-2.1*	0.6	-1.8*
Thyroid	9.1	2.6*	14.6	3.8*	0.0	-1.4*	0.0	-1.4*
Testis	6.5	1.9*	7.7	0.6*	0.3	-3.0*	0.2	-1.3*
Cervix Uteri	5.8	-1.3*	4.7	-1.3*	0.9	-1.1*	0.7	-0.5
<u>Ages 35-39</u>								
All Malignant Cancers	133.3	0.7*	140.1	0.2	26.8	-1.6*	20.3	-1.5*
Breast	31.7	0.4	32.0	0.4*	5.0	-1.8*	3.5	-2.9*
Melanoma of the Skin	14.0	1.5*	15.1	0.3	1.3	-2.1*	0.8	-0.9
Thyroid	11.2	3.7*	18.4	4.3*	0.1	-0.6	0.1	-0.6
Non-Hodgkin Lymphoma	7.9	2.0*	7.9	-0.2	1.5	-1.6*	0.8	-2.7*
Colon and Rectum	7.2	0.9*	8.6	2.2*	2.1	-0.5*	2.1	1.1*

Rates are per 100,000.

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

^b US Mortality Files, National Center for Health Statistics, CDC.

^c Top 5 cancer sites selected based on 1975-2013 SEER 9 Incidence rates for the age group.

^d The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint over the time range of 1975-2013.

- Statistic could not be calculated. Count and rate based on less than 16 cases for the time interval. AAPC could not be calculated due to insufficient data.

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

Table 32.18

SEER Incidence^a and U.S. Mortality^b Rates and Trends for the Top 5 Cancer Sites^c by Age
All Races, Males, 1975-2013

	Incidence				Mortality			
	1975-2013		2004-2013		1975-2013		2004-2013	
	Rate	AAPC ^d	Rate	AAPC ^d	Rate	AAPC ^d	Rate	AAPC ^d
<u>Ages 15-19</u>								
All Malignant Cancers	21.2	0.6*	22.7	0.6*	4.8	-1.9*	3.6	-1.4
Hodgkin Lymphoma	3.3	-0.6*	3.1	-0.6*	0.2	-5.1*	0.1	-5.1*
Testis	3.2	1.3*	3.8	1.3*	0.1	-5.3*	0.1	-2.7*
Brain and Other Nervous System	2.3	0.3	2.3	0.3	0.7	-1.0*	0.6	-1.0*
Non-Hodgkin Lymphoma	2.0	1.3*	2.3	1.3*	0.5	-3.2*	0.3	-3.2*
Bones and Joints	1.9	0.4	1.9	0.4	0.7	-1.3*	0.6	0.0
<u>Ages 20-24</u>								
All Malignant Cancers	33.3	0.5*	35.7	0.5*	6.5	-2.0*	5.3	-3.2*
Testis	8.9	1.0	10.2	-0.2	0.5	-3.8*	0.3	0.5
Hodgkin Lymphoma	4.9	-0.5*	4.6	-0.5*	0.5	-4.4*	0.2	-4.4*
Melanoma of the Skin	2.8	0.2	2.8	0.2	0.2	-4.8*	0.2	-10.3
Non-Hodgkin Lymphoma	2.7	1.6*	3.3	1.6*	0.6	-2.3*	0.4	-5.4*
Brain and Other Nervous System	2.6	0.1	2.4	0.1	0.7	-0.8*	0.6	-0.8*
<u>Ages 25-29</u>								
All Malignant Cancers	50.1	0.8*	53.7	1.1*	8.8	-1.4*	7.1	-0.5
Testis	12.8	1.2*	15.4	1.2*	0.6	-2.9*	0.5	0.8
Melanoma of the Skin	5.2	0.2	5.4	0.2	0.6	-2.8*	0.4	-0.6
Hodgkin Lymphoma	5.0	-0.2	4.8	-0.2	0.7	-4.4*	0.3	-4.4*
Non-Hodgkin Lymphoma	4.4	1.5	4.5	1.5	0.9	-1.9*	0.6	-5.4*
Kaposi sarcoma	3.8	-	1.3	-	-	-	-	-
<u>Ages 30-34</u>								
All Malignant Cancers	70.8	0.9*	70.2	0.8*	13.4	-1.4*	10.3	-1.0*
Testis	13.1	1.9*	15.3	0.6*	0.6	-3.0*	0.4	-1.3*
Melanoma of the Skin	8.4	0.2	8.6	0.2	1.0	-2.3*	0.7	-2.3*
Kaposi sarcoma	8.2	-	2.1	-	-	-	-	-
Non-Hodgkin Lymphoma	7.2	1.1	6.1	-0.2	1.4	-1.3	0.8	-3.2*
Hodgkin Lymphoma	4.3	0.1	4.5	0.1	0.7	-4.4*	0.3	-5.3*
<u>Ages 35-39</u>								
All Malignant Cancers	100.1	0.5	96.3	0.0	23.3	-1.6*	17.3	-1.2*
Melanoma of the Skin	12.1	0.6	11.9	-0.7*	1.6	-2.4*	1.0	-1.3
Testis	11.1	1.8*	12.0	0.3	0.5	-2.8*	0.4	-1.3*
Non-Hodgkin Lymphoma	10.8	2.5*	9.8	-0.4	2.0	-1.6*	1.1	-2.5
Kaposi sarcoma	9.8	-	2.7	-	-	-	-	-
Colon and Rectum	7.6	1.0	9.4	2.2*	2.3	-0.2	2.3	3.4*

Rates are per 100,000.

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

^b US Mortality Files, National Center for Health Statistics, CDC.

^c Top 5 cancer sites selected based on 1975-2013 rates for the age group.

^d The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint over the time range of 1975-2013.

- Statistic could not be calculated. Count and rate based on less than 16 cases for the time interval. AAPC could not be calculated due to insufficient data.

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

Table 32.19

SEER Incidence^a and U.S. Mortality^b Rates and Trends for the Top 5 Cancer Sites^c by Age
All Races, Females, 1975-2013

	Incidence				Mortality			
	1975-2013		2004-2013		1975-2013		2004-2013	
	Rate	AAPC ^d	Rate	AAPC ^d	Rate	AAPC ^d	Rate	AAPC ^d
<u>Ages 15-19</u>								
All Malignant Cancers	20.0	0.5*	21.7	0.5*	3.3	-1.8*	2.5	-1.8*
Hodgkin Lymphoma	3.6	-0.5	3.2	-0.5	0.2	-4.5*	0.1	-4.5*
Thyroid	3.2	2.9*	4.4	8.3*	0.0	-	-	-
Melanoma of the Skin	1.8	0.5	1.8	0.5	0.1	-3.0*	0.0	-3.0*
Brain and Other Nervous System	1.7	0.3	1.9	0.3	0.5	-1.2*	0.4	-1.2*
Ovary	1.5	-0.2	1.4	-0.2	0.1	-4.2*	0.1	-4.2*
<u>Ages 20-24</u>								
All Malignant Cancers	35.6	1.0*	40.9	1.0*	4.4	-1.2*	3.6	-1.2*
Thyroid	7.4	2.1*	9.8	2.1*	0.0	-	-	-
Melanoma of the Skin	5.6	1.6*	6.8	1.6*	0.2	-3.2*	0.1	-3.2*
Hodgkin Lymphoma	5.0	0.8	5.2	-0.6	0.3	-3.6*	0.2	-5.0*
Brain and Other Nervous System	2.0	1.4*	2.5	1.4*	0.5	-0.7*	0.5	-0.7*
Cervix Uteri	2.0	-3.1	1.3	-5.1*	0.2	-1.4*	0.1	-1.4*
<u>Ages 25-29</u>								
All Malignant Cancers	61.6	0.7*	70.3	1.0*	7.7	-1.4*	6.1	-1.4*
Thyroid	11.7	2.3*	18.0	4.3*	0.0	-	0.0	-
Melanoma of the Skin	9.7	1.2*	12.0	-1.1	0.4	-2.7*	0.3	-2.7*
Breast	8.3	0.3	8.9	2.4*	1.0	-2.3*	0.7	-2.3*
Cervix Uteri	6.9	-2.1	4.6	-3.1*	0.7	-1.4*	0.6	-1.4*
Hodgkin Lymphoma	4.6	0.0	4.5	0.0	0.5	-3.8*	0.2	-3.8*
<u>Ages 30-34</u>								
All Malignant Cancers	100.8	0.7*	115.7	1.4*	15.4	-1.5*	12.0	-1.8*
Breast	26.6	0.1	27.3	0.1	4.1	-2.0*	2.8	-2.6*
Thyroid	14.8	2.9*	24.1	4.8*	0.0	-	0.0	-
Melanoma of the Skin	12.8	2.2*	15.0	1.1*	0.7	-2.4*	0.5	-2.4*
Cervix Uteri	11.5	-1.2*	9.5	-1.2*	1.7	-1.0*	1.3	-0.6
Hodgkin Lymphoma	3.7	0.2	3.9	-3.2	0.5	-3.5*	0.2	-3.5*
<u>Ages 35-39</u>								
All Malignant Cancers	166.3	0.8*	183.7	1.1*	30.2	-1.6*	23.2	-2.0*
Breast	63.0	0.4*	63.7	0.4*	9.9	-1.7*	7.0	-2.9*
Thyroid	17.6	4.1*	29.8	5.8*	0.1	-1.1	0.1	-1.1
Melanoma of the Skin	15.8	1.4	18.3	-1.0	1.0	-2.4*	0.7	-2.4*
Cervix Uteri	14.2	-1.2*	12.2	-1.2*	2.9	-1.4*	2.3	-0.7
Corpus and Uterus, NOS	7.0	1.1*	8.9	3.2*	0.4	-0.6	0.5	3.6*

Rates are per 100,000.

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

^b US Mortality Files, National Center for Health Statistics, CDC.

^c Top 5 cancer sites selected based on 1975-2013 rates for the age group.

^d The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint over the time range of 1975-2013.

- Statistic could not be calculated. Count and rate based on less than 16 cases for the time interval. AAPC could not be calculated due to insufficient data.

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

Table 32.20

SEER^a 5-Year Relative Survival for the Top 5 Cancer Sites^b by Age
All Races, Both Sexes, 1975-2012

	5-year Relative Survival (Percent)					
	1975-2012	1975-1982	1983-1990	1991-1998	1999-2005	2006-2012
<u>Ages 15-19</u>						
All Malignant Cancers	78.2	69.0	76.3	79.3	81.5	85.2
Hodgkin Lymphoma	92.3	88.3	88.9	94.2	95.9	97.1
Brain and Other Nervous System	73.3	62.2	73.0	78.0	76.2	77.1
Thyroid	99.0	99.2	98.9	98.8	98.6	99.2
Non-Hodgkin Lymphoma	72.4	51.4	69.4	72.0	80.1	83.7
Testis	90.2	77.2	91.8	90.1	94.5	94.4
<u>Ages 20-24</u>						
All Malignant Cancers	80.9	74.7	78.4	81.1	84.7	86.2
Hodgkin Lymphoma	90.7	85.0	89.8	91.0	94.5	94.9
Testis	92.5	84.8	90.5	95.0	96.6	94.8
Thyroid	99.7	99.6	99.6	99.3	99.6	100.0
Melanoma of the Skin	92.8	85.8	90.5	94.5	96.7	96.8
Brain and Other Nervous System	66.9	59.1	60.8	71.2	66.9	78.3
<u>Ages 25-29</u>						
All Malignant Cancers	79.7	76.7	74.0	77.3	84.8	87.2
Melanoma of the Skin	93.3	88.1	91.6	94.0	96.2	96.6
Thyroid	99.7	99.7	99.3	99.9	99.7	99.2
Testis	95.1	88.1	95.1	96.1	97.2	97.4
Hodgkin Lymphoma	90.5	85.3	89.1	92.0	91.9	95.5
Breast	74.4	69.4	68.3	73.1	82.9	83.9
<u>Ages 30-34</u>						
All Malignant Cancers	76.0	73.5	68.4	71.8	83.1	86.3
Breast	77.4	70.0	72.8	77.5	83.6	86.0
Melanoma of the Skin	92.6	86.5	90.5	93.5	95.8	96.2
Thyroid	99.7	99.5	99.5	99.8	99.8	99.6
Testis	95.7	92.0	95.6	96.0	95.8	97.5
Cervix Uteri	84.6	84.3	83.1	85.1	87.6	82.9
<u>Ages 35-39</u>						
All Malignant Cancers	74.0	68.0	65.8	71.5	80.6	83.7
Breast	81.5	74.9	76.1	82.7	86.0	87.5
Melanoma of the Skin	92.3	87.4	90.0	92.5	95.1	95.3
Thyroid	99.5	99.0	99.2	99.4	99.3	99.9
Non-Hodgkin Lymphoma	63.9	65.9	51.6	52.6	73.4	83.3
Colon and Rectum	63.3	54.8	56.6	61.6	69.9	68.7

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

^b Top 5 cancer sites selected based on 1975-2012 SEER 9 Incidence rates for the age group.

- Statistic could not be calculated due to fewer than 25 cases during the time period.

Table 32.21

SEER^a 5-Year Relative Survival for the Top 5 Cancer Sites^b by Age
All Races, Males, 1975-2012

	5-year Relative Survival (Percent)					
	1975-2012	1975-1982	1983-1990	1991-1998	1999-2005	2006-2012
<u>Ages 15-19</u>						
All Malignant Cancers	74.0	62.4	71.2	75.6	78.3	82.7
Hodgkin Lymphoma	91.4	86.8	87.4	93.1	96.5	96.5
Testis	90.2	77.2	91.8	90.1	94.5	94.4
Brain and Other Nervous System	70.2	58.3	67.6	76.2	75.5	73.8
Non-Hodgkin Lymphoma	70.2	45.2	71.0	70.4	76.5	83.4
Bones and Joints	58.6	42.0	53.0	64.3	65.5	69.0
<u>Ages 20-24</u>						
All Malignant Cancers	76.5	69.5	72.2	76.7	82.6	82.4
Testis	92.5	84.8	90.5	95.0	96.6	94.8
Hodgkin Lymphoma	88.9	83.5	86.0	90.0	94.7	93.3
Melanoma of the Skin	86.4	76.9	81.9	88.6	94.1	93.7
Non-Hodgkin Lymphoma	65.9	54.8	55.4	56.5	81.3	77.1
Brain and Other Nervous System	65.6	54.8	59.1	74.4	66.1	76.2
<u>Ages 25-29</u>						
All Malignant Cancers	73.6	71.2	65.2	69.9	81.1	84.2
Testis	95.1	88.1	95.1	96.1	97.2	97.4
Melanoma of the Skin	88.6	82.6	87.1	89.5	92.6	92.3
Hodgkin Lymphoma	88.3	84.0	85.4	89.5	91.2	94.2
Non-Hodgkin Lymphoma	58.8	57.3	46.3	47.3	73.3	80.4
Kaposi sarcoma	15.2	-	9.1	12.0	43.9	59.6
<u>Ages 30-34</u>						
All Malignant Cancers	67.8	68.6	56.4	60.9	79.5	82.7
Testis	95.7	92.0	95.6	96.0	95.8	97.5
Melanoma of the Skin	88.3	79.2	85.3	90.6	93.3	93.8
Kaposi sarcoma	18.2	32.5	8.4	19.6	52.6	70.1
Non-Hodgkin Lymphoma	54.8	69.8	41.2	39.6	72.2	79.6
Hodgkin Lymphoma	87.2	78.8	83.3	86.9	93.0	94.6
<u>Ages 35-39</u>						
All Malignant Cancers	63.8	59.5	51.9	59.1	74.3	78.7
Melanoma of the Skin	88.2	82.1	85.2	88.5	91.8	93.0
Testis	96.2	92.1	95.0	96.9	96.9	97.2
Non-Hodgkin Lymphoma	56.4	61.8	43.7	45.3	67.0	78.5
Kaposi sarcoma	19.0	-	6.8	18.9	60.1	74.7
Colon and Rectum	61.9	55.5	52.8	60.7	69.5	65.5

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

^b Top 5 cancer sites selected based on 1975-2012 SEER 9 Incidence rates for the age group.

- Statistic could not be calculated due to fewer than 25 cases during the time period.

Table 32.22

SEER^a 5-Year Relative Survival for the Top 5 Cancer Sites^b by Age
All Races, Females, 1975-2012

	5-year Relative Survival (Percent)					
	1975-2012	1975-1982	1983-1990	1991-1998	1999-2005	2006-2012
<u>Ages 15-19</u>						
All Malignant Cancers	82.9	75.9	81.9	83.5	85.2	87.9
Hodgkin Lymphoma	93.2	89.7	90.4	95.1	95.1	97.8
Thyroid	99.4	99.0	100.0	98.6	99.1	99.7
Melanoma of the Skin	95.4	88.1	94.7	95.0	99.3	98.9
Brain and Other Nervous System	77.6	67.9	79.8	80.5	77.1	81.6
Ovary	88.3	78.5	89.7	91.3	92.8	90.8
<u>Ages 20-24</u>						
All Malignant Cancers	85.3	79.7	85.2	85.3	86.7	89.8
Thyroid	99.8	99.3	99.5	99.7	99.8	100.0
Melanoma of the Skin	96.2	91.5	95.7	97.2	97.9	98.1
Hodgkin Lymphoma	92.5	87.0	93.4	92.1	94.3	96.3
Brain and Other Nervous System	68.6	65.4	63.0	66.2	67.7	80.7
Cervix Uteri	88.3	89.1	91.0	85.2	89.4	84.1
<u>Ages 25-29</u>						
All Malignant Cancers	84.7	80.6	82.1	84.3	87.6	89.6
Thyroid	99.7	99.8	99.4	99.9	100.0	99.1
Melanoma of the Skin	96.0	91.9	94.4	96.6	98.0	98.6
Breast	74.5	69.4	68.1	73.2	83.1	84.0
Cervix Uteri	87.3	88.8	86.2	87.3	87.9	86.2
Hodgkin Lymphoma	92.8	86.8	93.2	94.7	92.7	97.0
<u>Ages 30-34</u>						
All Malignant Cancers	81.9	76.3	78.5	81.2	85.4	88.5
Breast	77.4	69.9	72.8	77.5	83.6	86.1
Thyroid	99.8	99.3	99.6	99.8	99.8	99.7
Melanoma of the Skin	95.4	92.1	94.3	95.4	97.2	97.8
Cervix Uteri	84.6	84.3	83.1	85.1	87.6	82.9
Hodgkin Lymphoma	91.4	85.1	89.9	89.4	94.7	98.4
<u>Ages 35-39</u>						
All Malignant Cancers	80.2	72.3	75.6	80.2	84.2	86.4
Breast	81.5	74.8	76.1	82.7	86.0	87.6
Thyroid	99.7	99.3	99.3	99.7	99.5	99.9
Melanoma of the Skin	95.6	92.3	94.2	95.6	97.5	96.8
Cervix Uteri	81.6	79.5	80.4	81.5	84.9	82.0
Corpus and Uterus, NOS	90.2	92.0	90.1	90.6	90.1	87.9

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

^b Top 5 cancer sites selected based on 1975-2012 SEER 9 Incidence rates for the age group.

- Statistic could not be calculated due to fewer than 25 cases during the time period.