

Table 13.1  
Leukemia

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2010 With up to Five Joinpoints, 1992-2010 With up to Three Joinpoints,  
Both Sexes by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC <sup>d</sup>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2001-10	2006-10
<b>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2010</b>														
All Races	1975-10	0.3*											0.3*	0.3*
White	1975-93	0.2	1993-10	0.8*									0.8*	0.8*
Black	1975-10	0.0											0.0	0.0
<b>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2010</b>														
All Races	1992-10	0.5*											0.5*	0.5*
White	1992-10	0.7*											0.7*	0.7*
Black	1992-10	0.4											0.4	0.4
<b>SEER 9 Observed Incidence<sup>a</sup>, 1975-2010</b>														
All Races	1975-10	0.1*											0.1*	0.1*
White	1975-10	0.2*											0.2*	0.2*
Black	1975-10	-0.2											-0.2	-0.2
<b>SEER 13 Observed Incidence<sup>b</sup>, 1992-2010</b>														
All Races	1992-10	0.1											0.1	0.1
White	1992-10	0.2											0.2	0.2
White NH <sup>ef</sup>	1992-10	0.2											0.2	0.2
Black	1992-10	-0.2											-0.2	-0.2
Black NH <sup>ef</sup>	1992-10	-0.2											-0.2	-0.2
API <sup>e</sup>	1992-10	-0.5*											-0.5*	-0.5*
AI/AN <sup>eg</sup>	1992-10	1.5											1.5	1.5
Hispanic <sup>f</sup>	1992-10	0.3											0.3	0.3
<b>U.S. Cancer Mortality<sup>c</sup>, 1975-2010</b>														
All Races	1975-80	0.6	1980-88	-0.6*	1988-91	0.7	1991-01	-0.5*	2001-10	-1.0*			-1.0*	-1.0*
White	1975-00	-0.3*	2000-10	-0.9*									-0.9*	-0.9*
Black	1975-91	0.7*	1991-10	-1.2*									-1.2*	-1.2*
<b>U.S. Cancer Mortality<sup>c</sup>, 1992-2010</b>														
All Races	1992-01	-0.5*	2001-10	-1.0*									-1.0*	-1.0*
White	1992-01	-0.4*	2001-10	-0.9*									-0.9*	-0.9*
White NH <sup>ef</sup>	1992-01	-0.4*	2001-10	-0.8*									-0.8*	-0.8*
Black	1992-10	-1.2*											-1.2*	-1.2*
Black NH <sup>ef</sup>	1992-10	-1.1*											-1.1*	-1.1*
API <sup>e</sup>	1992-10	-0.9*											-0.9*	-0.9*
AI/AN <sup>eg</sup>	1992-10	0.2											0.2	0.2
Hispanic <sup>f</sup>	1992-96	2.0	1996-10	-1.0*									-1.0*	-1.0*

Joinpoint Regression Program Version 4.0.3, April 2013, National Cancer Institute. (<http://surveillance.cancer.gov/joinpoint/>).

The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).

Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic

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

The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, DC, ME, MD, MN, NH, NY, ND, SC, OK and VT.

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

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

a b c d e f g \* -

Joinpoint regression line analysis could not be performed on data series.

Table 13.2  
Leukemia

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2010 With up to Five Joinpoints, 1992-2010 With up to Three Joinpoints,  
Males by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC <sup>d</sup>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2001-10	2006-10
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2010</u>														
All Races	1975-10	0.2*											0.2*	0.2*
White	1975-10	0.3*											0.3*	0.3*
Black	1975-10	0.1											0.1	0.1
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2010</u>														
All Races	1992-10	0.4*											0.4*	0.4*
White	1992-10	0.5*											0.5*	0.5*
Black	1992-10	0.6											0.6	0.6
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2010</u>														
All Races	1975-10	0.0											0.0	0.0
White	1975-10	0.1											0.1	0.1
Black	1975-10	-0.1											-0.1	-0.1
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2010</u>														
All Races	1992-10	-0.1											-0.1	-0.1
White	1992-10	0.0											0.0	0.0
White NH <sup>ef</sup>	1992-10	0.0											0.0	0.0
Black	1992-10	0.0											0.0	0.0
Black NH <sup>ef</sup>	1992-10	0.0											0.0	0.0
API <sup>e</sup>	1992-10	-0.4											-0.4	-0.4
AI/AN <sup>eg</sup>	1992-10	1.6											1.6	1.6
Hispanic <sup>f</sup>	1992-10	0.2											0.2	0.2
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2010</u>														
All Races	1975-80	0.5	1980-87	-0.7*	1987-95	0.1	1995-10	-0.9*					-0.9*	-0.9*
White	1975-01	-0.3*	2001-10	-0.9*									-0.9*	-0.9*
Black	1975-91	1.0*	1991-10	-1.2*									-1.2*	-1.2*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2010</u>														
All Races	1992-10	-0.8*											-0.8*	-0.8*
White	1992-10	-0.7*											-0.7*	-0.7*
White NH <sup>ef</sup>	1992-10	-0.7*											-0.7*	-0.7*
Black	1992-10	-1.2*											-1.2*	-1.2*
Black NH <sup>ef</sup>	1992-10	-1.1*											-1.1*	-1.1*
API <sup>e</sup>	1992-10	-0.8*											-0.8*	-0.8*
AI/AN <sup>eg</sup>	1992-10	0.9											0.9	0.9
Hispanic <sup>f</sup>	1992-10	-0.6*											-0.6*	-0.6*

Joinpoint Regression Program Version 4.0.3, April 2013, National Cancer Institute. (<http://surveillance.cancer.gov/joinpoint/>). The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry). Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic

Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, DC, ME, MD, MN, NH, NY, ND, SC, OK and VT.

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

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

- Joinpoint regression line analysis could not be performed on data series.

Table 13.3  
Leukemia

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2010 With up to Five Joinpoints, 1992-2010 With up to Three Joinpoints,  
Females by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC <sup>d</sup>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2001-10	2006-10
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2010</u>														
All Races	1975-10	0.4*											0.4*	0.4*
White	1975-10	0.5*											0.5*	0.5*
Black	1975-10	0.1											0.1	0.1
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2010</u>														
All Races	1992-10	0.6*											0.6*	0.6*
White	1992-10	0.8*											0.8*	0.8*
Black	1992-10	0.4											0.4	0.4
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2010</u>														
All Races	1975-10	0.2*											0.2*	0.2*
White	1975-10	0.3*											0.3*	0.3*
Black	1975-10	-0.2											-0.2	-0.2
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2010</u>														
All Races	1992-10	0.1											0.1	0.1
White	1992-10	0.2											0.2	0.2
White NH <sup>ef</sup>	1992-10	0.3											0.3	0.3
Black	1992-10	-0.2											-0.2	-0.2
Black NH <sup>ef</sup>	1992-10	-0.2											-0.2	-0.2
API <sup>e</sup>	1992-10	-0.4											-0.4	-0.4
AI/AN <sup>eg</sup>	1992-10	1.9											1.9	1.9
Hispanic <sup>f</sup>	1992-10	0.5											0.5	0.5
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2010</u>														
All Races	1975-80	0.8	1980-00	-0.4*	2000-10	-1.3*							-1.3*	-1.3*
White	1975-80	0.6	1980-00	-0.4*	2000-10	-1.2*							-1.2*	-1.2*
Black	1975-93	0.4	1993-10	-1.2*									-1.2*	-1.2*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2010</u>														
All Races	1992-00	-0.5*	2000-10	-1.3*									-1.3*	-1.3*
White	1992-00	-0.4*	2000-10	-1.1*									-1.1*	-1.1*
White NH <sup>ef</sup>	1992-01	-0.4*	2001-10	-1.2*									-1.2*	-1.2*
Black	1992-10	-1.2*											-1.2*	-1.2*
Black NH <sup>ef</sup>	1992-10	-1.0*											-1.0*	-1.0*
API <sup>e</sup>	1992-10	-0.9											-0.9	-0.9
AI/AN <sup>eg</sup>	1992-10	-0.7											-0.7	-0.7
Hispanic <sup>f</sup>	1992-10	-0.8*											-0.8*	-0.8*

Joinpoint Regression Program Version 4.0.3, April 2013, National Cancer Institute. (<http://surveillance.cancer.gov/joinpoint/>).

The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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

Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).

Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic

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

The Hispanic and Non-Hispanic mortality trends exclude deaths from CT, DC, ME, MD, MN, NH, NY, ND, SC, OK and VT.

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

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

a b c d e f g \* -

Table 13.4  
Leukemia

Delay-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>Year of Diagnosis:</b>									
1975	12.80	16.93	9.96	13.10	17.49	10.10	11.58	16.33	8.47
1976	13.55	18.49	10.21	13.84	19.13	10.31	11.30	14.19	9.39
1977	12.74	16.34	10.22	13.20	17.04	10.52	10.15	13.61	7.72
1978	12.87	17.25	9.79	13.54	18.30	10.26	9.16	11.42	7.47
1979	12.56	16.79	9.70	13.03	17.56	10.02	10.60	13.52	8.64
1980	12.92	17.36	9.84	13.27	17.91	10.11	12.18	16.11	9.47
1981	12.38	16.48	9.65	12.66	17.03	9.82	12.27	14.47	10.37
1982	13.16	18.25	9.70	13.51	18.80	9.94	10.75	15.16	7.91
1983	13.15	17.82	9.91	13.49	18.45	10.08	12.49	15.96	10.07
1984	13.01	17.11	10.12	13.46	17.98	10.34	10.68	11.88	9.61
1985	13.38	17.78	10.39	13.75	18.30	10.66	12.33	17.04	9.30
1986	12.85	17.55	9.52	13.41	18.40	9.94	10.24	13.21	8.09
1987	13.37	17.77	10.34	13.81	18.48	10.62	12.59	17.62	9.27
1988	12.98	17.54	9.71	13.44	18.32	10.00	11.57	14.05	9.43
1989	13.47	17.69	10.48	14.00	18.35	11.00	11.28	15.82	8.12
1990	12.92	17.35	9.80	13.54	18.29	10.24	11.43	14.94	8.91
1991	13.08	16.81	10.25	13.72	17.78	10.62	10.84	12.12	10.00
1992	13.08	17.58	9.82	13.67	18.75	10.04	10.71	13.96	8.44
1993	13.11	17.12	10.10	13.69	18.07	10.39	11.65	15.26	9.12
1994	13.12	17.05	10.21	13.80	17.98	10.75	9.91	12.77	7.82
1995	13.62	17.80	10.51	14.52	18.95	11.24	9.89	13.46	7.46
1996	13.20	17.08	10.42	13.82	17.92	10.88	10.77	13.94	8.79
1997	13.29	17.73	10.06	14.16	18.89	10.73	10.59	14.04	8.30
1998	13.27	17.31	10.28	14.12	18.27	11.03	9.94	14.59	7.03
1999	12.94	17.27	9.74	13.60	18.12	10.23	10.75	14.24	8.50
2000	13.81	17.94	10.72	14.54	18.95	11.25	11.92	13.98	10.38
2001	14.50	18.87	11.21	15.48	20.01	12.05	12.04	14.71	10.17
2002	13.74	18.12	10.45	14.89	19.58	11.33	9.10	12.03	7.07
2003	13.85	18.14	10.61	14.71	19.38	11.16	11.50	14.76	9.16
2004	14.11	18.38	10.88	14.89	19.28	11.49	13.04	17.85	10.04
2005	14.03	18.39	10.69	15.02	19.94	11.19	11.56	12.97	10.55
2006	14.03	17.55	11.40	15.13	18.75	12.43	11.52	15.80	8.62
2007	13.84	18.25	10.50	15.02	19.78	11.34	10.36	14.45	7.84
2008	14.46	18.76	11.08	15.42	20.03	11.74	11.66	15.85	8.56
2009	14.13	18.23	10.94	15.10	19.48	11.60	11.67	15.83	8.86
2010	15.10	19.79	11.53	16.28	21.29	12.36	11.58	14.96	9.44

Additional information on the model used to delay-adjust SEER Incidence rates can be found at (<http://surveillance.cancer.gov/delay/>).

<sup>a</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). - Delay-adjusted rate is not shown for observed rates based on less than 16 cases for the time interval.

Table 13.5  
Leukemia

Age-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>Year of Diagnosis:</b>									
1975-2010	13.18	17.36	10.13	13.80	18.26	10.56	10.87	14.15	8.63
1975	12.80	16.93	9.96	13.10	17.49	10.10	11.58	16.33	8.47
1976	13.55	18.49	10.21	13.84	19.13	10.31	11.30	14.19	9.39
1977	12.74	16.34	10.22	13.20	17.04	10.52	10.15	13.61	7.72
1978	12.87	17.25	9.79	13.54	18.30	10.26	9.16	11.42	7.47
1979	12.56	16.79	9.70	13.03	17.56	10.02	10.60	13.52	8.64
1980	12.92	17.36	9.84	13.27	17.91	10.11	12.18	16.11	9.47
1981	12.38	16.48	9.65	12.66	17.03	9.82	12.27	14.47	10.37
1982	13.15	18.25	9.70	13.51	18.80	9.94	10.75	15.16	7.91
1983	13.15	17.82	9.91	13.49	18.45	10.07	12.48	15.95	10.06
1984	13.01	17.11	10.12	13.46	17.97	10.34	10.68	11.87	9.61
1985	13.38	17.77	10.38	13.75	18.29	10.65	12.32	17.03	9.30
1986	12.84	17.54	9.51	13.40	18.39	9.93	10.23	13.20	8.09
1987	13.36	17.75	10.33	13.80	18.46	10.61	12.57	17.60	9.26
1988	12.97	17.52	9.70	13.42	18.30	9.99	11.55	14.03	9.42
1989	13.45	17.67	10.47	13.98	18.32	10.98	11.26	15.80	8.11
1990	12.90	17.32	9.78	13.51	18.25	10.22	11.40	14.91	8.89
1991	13.06	16.78	10.23	13.69	17.74	10.60	10.81	12.09	9.98
1992	13.05	17.54	9.80	13.63	18.69	10.01	10.68	13.91	8.42
1993	13.07	17.07	10.07	13.64	18.00	10.35	11.61	15.20	9.09
1994	13.07	16.99	10.18	13.74	17.90	10.70	9.86	12.71	7.78
1995	13.56	17.73	10.46	14.45	18.84	11.18	9.84	13.38	7.42
1996	13.13	16.99	10.36	13.73	17.81	10.81	10.70	13.85	8.73
1997	13.21	17.61	10.00	14.05	18.73	10.64	10.50	13.93	8.24
1998	13.17	17.18	10.21	13.98	18.09	10.92	9.84	14.45	6.96
1999	12.81	17.10	9.65	13.44	17.91	10.11	10.62	14.07	8.40
2000	13.64	17.73	10.59	14.33	18.68	11.09	11.75	13.78	10.23
2001	14.29	18.59	11.04	15.20	19.65	11.83	11.83	14.45	9.99
2002	13.50	17.79	10.26	14.57	19.15	11.08	8.90	11.77	6.91
2003	13.55	17.74	10.37	14.32	18.87	10.86	11.19	14.37	8.92
2004	13.73	17.88	10.59	14.40	18.65	11.11	12.62	17.27	9.71
2005	13.56	17.77	10.33	14.41	19.14	10.74	11.09	12.45	10.12
2006	13.45	16.83	10.93	14.37	17.81	11.81	10.94	15.01	8.19
2007	13.10	17.27	9.94	14.09	18.55	10.64	9.72	13.56	7.36
2008	13.50	17.51	10.34	14.23	18.48	10.83	10.76	14.63	7.90
2009	12.95	16.71	10.03	13.65	17.61	10.49	10.55	14.30	8.01
2010	13.31	17.44	10.16	14.06	18.40	10.68	10.01	12.93	8.16

<sup>a</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). - Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 13.6  
Acute Lymphocytic Leukemia

Age-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>Year of Diagnosis:</b>									
1975-2010	1.35	1.56	1.15	1.43	1.66	1.21	0.82	0.91	0.74
1975	0.93	1.12	0.76	0.99	1.23	0.78	-	-	-
1976	1.08	1.29	0.93	1.09	1.34	0.91	0.79	-	-
1977	1.10	1.30	0.91	1.17	1.38	0.96	-	-	-
1978	1.03	1.24	0.83	1.11	1.33	0.90	-	-	-
1979	1.02	1.18	0.88	1.08	1.20	0.97	-	-	-
1980	1.12	1.40	0.88	1.16	1.47	0.90	0.73	-	-
1981	1.24	1.31	1.18	1.30	1.39	1.23	0.95	-	-
1982	1.23	1.50	0.99	1.30	1.56	1.05	-	-	-
1983	1.29	1.53	1.08	1.39	1.65	1.17	0.80	-	-
1984	1.32	1.49	1.20	1.35	1.50	1.24	0.92	-	-
1985	1.30	1.55	1.09	1.35	1.62	1.12	-	-	-
1986	1.30	1.67	0.96	1.38	1.82	0.97	0.77	-	-
1987	1.32	1.48	1.19	1.35	1.55	1.19	0.89	-	1.15
1988	1.40	1.79	1.07	1.44	1.84	1.12	0.98	-	-
1989	1.62	1.82	1.43	1.69	1.90	1.49	1.03	-	-
1990	1.41	1.75	1.16	1.52	1.84	1.29	0.57	-	-
1991	1.38	1.72	1.05	1.51	1.94	1.09	0.86	-	-
1992	1.35	1.59	1.14	1.40	1.73	1.09	0.91	-	-
1993	1.26	1.41	1.09	1.37	1.57	1.14	0.82	-	-
1994	1.19	1.48	0.93	1.28	1.59	1.01	0.68	-	-
1995	1.50	1.80	1.20	1.61	1.88	1.34	0.96	1.27	-
1996	1.38	1.56	1.20	1.46	1.65	1.25	0.85	-	-
1997	1.33	1.51	1.16	1.45	1.62	1.28	0.75	0.89	-
1998	1.47	1.63	1.31	1.58	1.73	1.43	0.93	1.16	-
1999	1.31	1.48	1.15	1.41	1.57	1.25	0.68	-	-
2000	1.40	1.50	1.30	1.53	1.61	1.47	0.85	-	-
2001	1.47	1.67	1.26	1.59	1.83	1.35	0.68	-	-
2002	1.50	1.79	1.20	1.65	2.00	1.29	0.62	-	-
2003	1.43	1.66	1.22	1.48	1.70	1.27	0.76	-	-
2004	1.54	1.68	1.40	1.66	1.92	1.39	1.12	-	1.43
2005	1.58	1.88	1.29	1.68	1.96	1.38	0.97	1.18	-
2006	1.45	1.63	1.28	1.51	1.65	1.39	0.97	1.38	-
2007	1.53	1.68	1.39	1.60	1.72	1.50	0.97	1.06	-
2008	1.50	1.85	1.16	1.67	2.00	1.33	0.96	1.36	-
2009	1.46	1.60	1.34	1.57	1.74	1.41	0.96	1.08	0.85
2010	1.44	1.55	1.34	1.57	1.63	1.51	0.95	1.05	0.85

<sup>a</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). - Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 13.7  
Chronic Lymphocytic Leukemia

Age-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>Year of Diagnosis:</b>									
1975-2010	4.65	6.49	3.31	5.01	7.01	3.57	3.67	5.23	2.60
1975	4.35	5.92	3.27	4.48	6.12	3.39	4.82	7.06	3.23
1976	4.57	6.77	3.10	4.77	7.18	3.16	4.26	6.58	2.95
1977	4.18	5.72	3.13	4.37	5.96	3.31	3.81	5.78	2.46
1978	4.46	5.94	3.45	4.76	6.43	3.62	3.33	3.64	3.07
1979	4.06	5.69	2.94	4.32	6.09	3.13	3.06	4.16	-
1980	4.52	6.30	3.33	4.69	6.54	3.46	4.51	7.06	2.89
1981	4.27	6.30	2.90	4.46	6.63	3.05	3.82	5.41	2.47
1982	4.30	6.15	3.01	4.51	6.41	3.18	3.77	6.65	-
1983	4.46	6.41	3.14	4.69	6.79	3.26	4.21	6.11	3.03
1984	4.43	6.30	3.12	4.71	6.82	3.28	3.45	4.46	2.65
1985	4.48	6.20	3.30	4.78	6.61	3.53	4.11	6.15	2.87
1986	4.50	6.33	3.24	4.87	6.84	3.54	2.79	4.18	-
1987	4.65	6.80	3.07	4.94	7.24	3.28	4.03	6.14	2.45
1988	4.54	6.45	3.14	4.75	6.85	3.26	4.43	5.32	3.53
1989	4.68	6.42	3.45	4.98	6.88	3.65	3.91	5.15	3.04
1990	4.59	6.29	3.40	4.89	6.75	3.59	4.51	6.13	3.43
1991	4.58	6.15	3.42	4.97	6.76	3.64	3.40	3.75	3.15
1992	4.60	6.72	3.14	5.03	7.41	3.40	3.21	4.96	2.08
1993	4.44	6.11	3.17	4.71	6.51	3.36	4.48	6.70	2.89
1994	4.57	6.10	3.42	5.00	6.66	3.77	3.19	4.13	2.32
1995	4.50	6.38	3.15	4.92	6.95	3.46	3.33	5.20	2.06
1996	4.67	6.30	3.49	5.09	6.82	3.86	3.52	5.36	2.26
1997	4.47	6.05	3.28	4.89	6.60	3.60	3.44	4.96	2.46
1998	4.18	5.92	2.92	4.60	6.49	3.23	2.80	3.73	2.21
1999	4.12	5.98	2.74	4.44	6.43	2.95	3.87	5.89	2.68
2000	4.54	6.40	3.12	5.00	7.11	3.38	3.35	4.31	2.72
2001	5.15	7.16	3.64	5.65	7.84	4.02	3.86	4.89	3.12
2002	4.96	6.96	3.46	5.56	7.78	3.89	2.97	4.29	2.02
2003	5.21	7.21	3.70	5.72	7.97	4.02	4.09	5.67	2.98
2004	5.31	7.38	3.75	5.75	7.78	4.20	4.66	7.74	2.62
2005	5.09	7.32	3.39	5.62	8.18	3.62	3.73	4.48	3.25
2006	5.32	7.03	4.06	5.85	7.63	4.51	4.20	6.41	2.78
2007	4.94	6.99	3.38	5.55	7.78	3.80	2.82	4.51	1.88
2008	5.06	6.78	3.76	5.54	7.32	4.16	3.70	5.59	2.29
2009	4.76	6.60	3.31	5.19	7.13	3.62	3.61	5.33	2.54
2010	4.74	6.67	3.26	5.15	7.18	3.57	3.00	4.16	2.22

<sup>a</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). - Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 13.8  
Acute Myeloid Leukemia

Age-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>Year of Diagnosis:</b>									
1975-2010	3.49	4.33	2.90	3.55	4.43	2.95	3.04	3.65	2.66
1975	3.43	4.17	2.98	3.48	4.28	2.99	2.49	3.37	2.02
1976	3.50	4.43	2.87	3.53	4.46	2.91	2.56	-	2.64
1977	3.51	4.19	3.05	3.64	4.40	3.14	1.87	-	-
1978	3.42	4.43	2.69	3.53	4.59	2.78	2.70	3.47	2.13
1979	3.32	4.04	2.85	3.36	4.17	2.85	3.39	3.40	3.37
1980	3.14	4.10	2.43	3.17	4.11	2.49	2.88	3.28	2.53
1981	3.16	3.99	2.64	3.22	4.11	2.69	3.07	3.22	2.89
1982	3.42	4.80	2.59	3.47	4.91	2.62	2.50	3.22	2.09
1983	3.21	4.22	2.53	3.17	4.28	2.41	2.93	3.02	2.92
1984	3.30	4.06	2.73	3.35	4.17	2.77	2.35	2.10	2.44
1985	3.33	4.15	2.87	3.25	4.02	2.84	3.78	5.06	2.99
1986	3.00	3.91	2.40	2.95	3.85	2.38	3.21	4.04	2.68
1987	3.02	3.98	2.47	3.03	4.01	2.46	3.05	4.73	2.12
1988	3.03	3.79	2.51	3.07	3.87	2.56	2.79	3.14	2.49
1989	3.19	4.00	2.61	3.29	4.02	2.78	2.22	3.79	-
1990	3.04	3.91	2.43	3.12	4.06	2.46	2.55	3.02	2.19
1991	3.33	3.93	2.88	3.38	3.90	2.98	3.34	4.53	2.59
1992	3.22	3.85	2.76	3.28	4.03	2.75	3.05	2.99	3.05
1993	3.45	4.31	2.86	3.52	4.45	2.86	2.48	2.62	2.55
1994	3.46	4.14	3.02	3.48	4.25	2.97	2.94	3.24	2.77
1995	3.66	4.17	3.31	3.81	4.32	3.45	2.62	2.62	2.73
1996	3.47	4.35	2.90	3.47	4.30	2.94	3.21	4.05	2.73
1997	3.53	4.61	2.77	3.66	4.82	2.85	3.02	3.83	2.55
1998	3.92	4.93	3.19	4.05	5.05	3.32	3.05	4.64	2.11
1999	3.73	4.50	3.19	3.85	4.62	3.31	3.03	3.45	2.76
2000	4.05	4.95	3.41	4.05	4.96	3.39	4.41	4.88	4.01
2001	4.06	4.95	3.39	4.20	5.00	3.61	3.45	4.08	3.00
2002	3.63	4.58	2.98	3.78	4.78	3.11	2.91	3.31	2.67
2003	3.60	4.49	2.96	3.67	4.60	3.02	3.33	3.52	2.96
2004	3.41	4.13	2.92	3.50	4.21	3.00	3.33	4.25	2.96
2005	3.59	4.24	3.17	3.64	4.38	3.19	3.52	3.47	3.64
2006	3.53	4.08	3.14	3.64	4.18	3.25	2.84	3.34	2.57
2007	3.55	4.39	2.96	3.66	4.52	3.07	3.35	4.37	2.72
2008	3.81	4.67	3.17	3.85	4.83	3.08	3.04	3.78	2.69
2009	3.63	4.41	3.07	3.76	4.64	3.10	3.12	3.96	2.55
2010	4.04	5.11	3.26	4.21	5.36	3.33	3.27	4.36	2.57

<sup>a</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). - Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 13.9  
Chronic Myeloid Leukemia

Age-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>Year of Diagnosis:</b>									
1975-2010	1.76	2.33	1.34	1.78	2.37	1.36	1.77	2.33	1.37
1975	1.98	2.93	1.33	2.00	3.01	1.31	1.94	-	-
1976	1.93	2.48	1.55	1.90	2.45	1.52	1.86	2.58	-
1977	1.68	2.08	1.39	1.69	2.14	1.37	1.84	-	-
1978	1.71	2.26	1.34	1.74	2.28	1.39	1.43	-	-
1979	1.87	2.48	1.43	1.89	2.50	1.45	1.94	2.80	-
1980	1.70	2.06	1.46	1.73	2.10	1.51	1.48	-	-
1981	1.64	1.97	1.41	1.59	1.90	1.39	2.38	3.00	1.81
1982	1.68	2.16	1.35	1.65	2.19	1.31	1.75	-	1.79
1983	1.69	2.23	1.33	1.64	2.15	1.32	2.51	3.44	1.85
1984	1.67	2.40	1.18	1.62	2.40	1.10	2.58	2.61	2.59
1985	1.98	2.76	1.44	2.01	2.80	1.48	2.06	2.89	-
1986	1.68	2.20	1.29	1.71	2.26	1.31	1.54	-	-
1987	1.88	2.32	1.58	1.90	2.38	1.58	2.14	2.88	-
1988	1.91	2.54	1.50	1.93	2.60	1.49	2.08	2.88	-
1989	1.70	2.22	1.35	1.68	2.18	1.35	2.21	3.12	-
1990	1.76	2.47	1.24	1.75	2.50	1.20	2.63	3.66	1.95
1991	1.88	2.44	1.47	1.91	2.55	1.46	1.56	-	1.75
1992	1.76	2.16	1.47	1.80	2.22	1.49	1.49	1.73	-
1993	1.92	2.53	1.48	1.95	2.52	1.56	2.26	3.56	-
1994	1.86	2.47	1.42	1.90	2.48	1.50	1.70	2.57	-
1995	1.89	2.55	1.37	1.96	2.69	1.39	1.54	1.98	-
1996	1.81	2.45	1.35	1.81	2.53	1.27	1.99	2.39	1.83
1997	1.87	2.68	1.29	1.93	2.74	1.36	1.67	2.53	-
1998	1.65	1.95	1.42	1.73	1.97	1.55	1.48	2.31	-
1999	1.80	2.49	1.28	1.78	2.44	1.28	1.72	2.30	1.26
2000	1.78	2.33	1.36	1.80	2.33	1.40	1.55	1.72	1.33
2001	1.79	2.34	1.38	1.84	2.37	1.45	1.91	2.68	1.36
2002	1.61	2.05	1.28	1.63	2.08	1.31	1.10	-	-
2003	1.62	2.19	1.17	1.71	2.31	1.23	1.41	2.04	-
2004	1.78	2.51	1.22	1.85	2.62	1.25	1.47	1.97	1.11
2005	1.65	2.21	1.20	1.72	2.30	1.27	1.60	2.22	1.20
2006	1.80	2.38	1.36	1.90	2.50	1.45	1.61	2.17	1.16
2007	1.65	2.25	1.16	1.75	2.43	1.19	1.44	1.99	1.11
2008	1.74	2.23	1.34	1.73	2.16	1.40	1.73	2.42	1.11
2009	1.71	2.30	1.25	1.71	2.24	1.29	1.66	2.60	1.05
2010	1.70	2.29	1.23	1.64	2.26	1.15	1.76	2.01	1.64

<sup>a</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). - Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 13.10  
Leukemia

Age-adjusted U.S. Death<sup>a</sup> Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>Year of Death:</b>									
1975-2010	7.72	10.37	5.92	7.91	10.64	6.05	6.81	9.02	5.39
1975	8.09	10.98	6.16	8.27	11.28	6.29	6.58	8.57	5.15
1976	8.10	10.88	6.19	8.27	11.19	6.28	6.76	8.49	5.48
1977	8.11	10.84	6.26	8.27	11.11	6.34	6.82	8.76	5.51
1978	8.02	10.83	6.15	8.19	11.06	6.28	6.70	9.25	4.94
1979	8.26	11.06	6.41	8.43	11.36	6.52	6.99	8.90	5.68
1980	8.36	11.21	6.46	8.54	11.51	6.56	7.05	9.09	5.67
1981	8.10	10.89	6.24	8.24	11.16	6.31	7.11	8.92	5.86
1982	8.19	11.04	6.31	8.33	11.29	6.39	7.14	9.36	5.67
1983	8.11	10.93	6.26	8.24	11.19	6.32	7.22	9.21	5.90
1984	8.08	10.68	6.37	8.23	10.91	6.47	7.08	9.16	5.69
1985	8.07	10.77	6.31	8.23	10.97	6.44	7.08	9.62	5.42
1986	7.96	10.71	6.16	8.10	10.97	6.23	7.25	9.26	5.91
1987	7.80	10.31	6.14	7.91	10.50	6.20	7.24	9.41	5.85
1988	7.83	10.60	6.00	7.95	10.79	6.08	7.24	9.83	5.58
1989	7.95	10.62	6.15	8.07	10.75	6.26	7.36	10.34	5.45
1990	7.98	10.71	6.18	8.10	10.90	6.26	7.44	9.96	5.83
1991	7.99	10.50	6.32	8.12	10.64	6.44	7.45	10.05	5.80
1992	7.96	10.71	6.13	8.11	10.94	6.24	7.16	9.41	5.68
1993	7.93	10.66	6.09	8.04	10.84	6.16	7.36	9.76	5.77
1994	7.85	10.57	6.03	8.00	10.78	6.13	7.12	9.59	5.54
1995	7.90	10.80	5.98	8.04	11.03	6.05	7.17	9.75	5.53
1996	7.84	10.53	6.05	7.97	10.71	6.13	7.46	10.09	5.90
1997	7.71	10.42	5.89	7.89	10.68	6.01	6.83	9.23	5.29
1998	7.58	10.11	5.82	7.72	10.31	5.91	7.04	9.37	5.55
1999	7.68	10.22	5.96	7.87	10.47	6.09	6.74	8.78	5.43
2000	7.69	10.28	5.91	7.89	10.54	6.05	6.71	9.07	5.27
2001	7.64	10.19	5.88	7.83	10.46	6.02	6.74	8.80	5.41
2002	7.54	10.18	5.73	7.75	10.46	5.85	6.73	8.91	5.38
2003	7.45	10.02	5.63	7.68	10.37	5.76	6.54	8.47	5.30
2004	7.29	9.81	5.52	7.47	10.04	5.64	6.77	8.94	5.39
2005	7.26	9.82	5.46	7.50	10.14	5.63	6.07	8.11	4.78
2006	7.23	9.70	5.46	7.48	9.97	5.66	6.27	8.84	4.70
2007	7.08	9.54	5.33	7.30	9.86	5.46	6.19	8.07	5.05
2008	7.09	9.54	5.33	7.32	9.83	5.49	6.27	8.65	4.78
2009	7.06	9.53	5.25	7.31	9.86	5.41	6.05	8.14	4.71
2010	6.91	9.25	5.20	7.16	9.58	5.37	5.75	7.46	4.60

<sup>a</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.  
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 13.11  
Leukemia

SEER Incidence<sup>a</sup> and U.S. Death<sup>b</sup> Rates, Age-Adjusted and Age-Specific Rates, by Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>SEER Incidence</b>									
<b>Age at Diagnosis</b>									
Age-Adjusted Rates, 2006-2010									
All ages	12.8	16.3	10.0	13.5	17.2	10.5	9.8	12.6	7.8
Under 65	6.4	7.5	5.3	6.7	7.9	5.6	4.9	5.9	4.1
65 and over	56.9	77.5	42.4	59.9	81.5	44.5	43.0	59.0	33.7
All ages (IARC world std) <sup>c</sup>	9.2	11.3	7.4	9.8	12.0	7.9	6.9	8.6	5.6
Age-Specific Rates, 2006-2010									
<1	4.7	4.7	4.7	5.0	4.8	5.3	4.2	4.9	-
1-4	9.1	9.7	8.5	10.2	10.7	9.6	4.7	5.1	4.3
5-9	4.1	4.5	3.7	4.5	4.9	4.0	2.6	2.9	2.3
10-14	3.2	3.7	2.8	3.4	3.9	2.9	2.5	2.9	2.2
15-19	3.1	3.6	2.6	3.4	3.9	2.9	2.1	2.4	1.9
20-24	2.7	3.0	2.3	2.9	3.3	2.5	1.9	1.8	2.1
25-29	2.7	3.1	2.2	2.9	3.3	2.4	2.1	2.5	1.7
30-34	3.2	3.4	3.0	3.3	3.6	3.1	2.6	2.9	2.2
35-39	4.0	4.4	3.6	4.1	4.3	3.8	3.4	4.3	2.6
40-44	5.1	6.0	4.3	5.3	6.2	4.5	4.5	5.4	3.7
45-49	7.6	8.9	6.3	7.7	9.1	6.3	6.7	8.2	5.3
50-54	10.7	12.8	8.7	11.1	13.3	8.9	8.9	10.7	7.4
55-59	15.7	20.0	11.7	16.4	20.7	12.3	13.3	17.0	10.1
60-64	24.2	30.6	18.3	25.7	32.3	19.4	17.9	22.0	14.6
65-69	35.6	46.2	26.2	37.7	49.0	27.5	25.6	32.2	20.6
70-74	47.8	62.5	35.7	50.6	66.1	37.6	38.9	52.0	29.5
75-79	63.6	87.8	45.4	67.6	92.7	48.2	45.0	62.2	34.2
80-84	76.9	106.9	57.5	80.5	111.7	59.9	57.6	80.6	45.4
85+	87.6	125.4	69.2	91.0	130.7	71.8	69.5	101.8	56.7
<b>U.S. Mortality</b>									
<b>Age at Death</b>									
Age-Adjusted Rates, 2006-2010									
All ages	7.1	9.5	5.3	7.3	9.8	5.5	6.1	8.2	4.8
Under 65	2.1	2.5	1.7	2.2	2.6	1.8	2.2	2.7	1.8
65 and over	41.3	57.7	30.1	42.9	59.8	31.2	32.9	46.1	25.4
All ages (IARC world std) <sup>c</sup>	4.1	5.3	3.1	4.2	5.5	3.2	3.7	4.9	2.9
Age-Specific Rates, 2006-2010									
<1	0.6	0.7	0.6	0.7	0.8	0.6	0.5	-	-
1-4	0.7	0.7	0.7	0.8	0.7	0.8	0.6	0.6	0.6
5-9	0.6	0.6	0.5	0.6	0.6	0.6	0.5	0.5	0.4
10-14	0.7	0.8	0.7	0.8	0.8	0.7	0.6	0.7	0.6
15-19	0.9	1.0	0.7	0.9	1.1	0.7	0.7	0.8	0.6
20-24	1.1	1.3	0.8	1.1	1.4	0.8	1.0	1.2	0.8
25-29	1.1	1.3	0.8	1.1	1.3	0.9	1.0	1.2	0.7
30-34	1.2	1.4	1.0	1.2	1.4	1.0	1.3	1.6	1.0
35-39	1.4	1.5	1.2	1.4	1.5	1.2	1.5	1.8	1.2
40-44	1.8	2.0	1.5	1.8	2.0	1.6	2.1	2.6	1.7
45-49	2.5	2.8	2.2	2.6	2.9	2.3	2.5	2.9	2.1
50-54	3.9	4.5	3.3	3.9	4.5	3.3	4.5	5.5	3.7
55-59	6.4	8.0	5.0	6.5	8.1	5.0	7.0	8.9	5.3
60-64	11.2	14.5	8.1	11.5	14.9	8.2	11.6	15.0	8.9
65-69	18.6	24.6	13.3	19.3	25.4	13.8	17.0	23.7	12.0
70-74	29.9	40.4	21.1	31.1	42.0	21.8	26.6	35.6	20.2
75-79	44.5	62.0	31.3	46.3	64.5	32.2	35.7	47.9	28.2
80-84	63.0	91.2	44.7	65.6	94.7	46.4	46.1	66.2	35.5
85+	83.8	119.8	66.9	87.0	124.0	69.4	61.0	90.9	49.6

<sup>a</sup> SEER 18 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

<sup>b</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

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

<sup>c</sup> Rates are per 100,000 and are age-adjusted to the IARC world standard population.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 13.12  
Lymphocytic Leukemia

SEER Incidence<sup>a</sup> Rates, Age-Adjusted and Age-Specific Rates, by Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>Acute Lymphocytic Leukemia</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2006-2010									
All ages	1.7	1.9	1.5	1.8	2.1	1.6	0.9	1.2	0.7
Under 65	1.7	1.9	1.5	1.9	2.1	1.7	0.9	1.2	0.7
65 and over	1.5	1.8	1.3	1.6	1.9	1.3	1.1	1.1	1.1
All ages (IARC world std) <sup>b</sup>	2.0	2.3	1.8	2.3	2.5	2.0	1.1	1.4	0.8
Age-Specific Rates, 2006-2010									
<1	2.0	2.2	1.8	2.2	2.2	2.1	-	-	-
1-4	7.9	8.4	7.3	9.0	9.5	8.5	3.5	4.2	2.7
5-9	3.5	3.9	3.1	3.9	4.3	3.5	2.0	2.4	1.6
10-14	2.2	2.5	1.9	2.4	2.7	2.1	1.6	1.9	1.2
15-19	1.8	2.3	1.3	2.0	2.5	1.5	1.1	1.5	0.8
20-24	1.0	1.3	0.8	1.2	1.5	0.9	0.5	-	-
25-29	0.7	0.9	0.6	0.8	1.0	0.7	-	-	-
30-34	0.7	0.8	0.7	0.8	0.9	0.7	-	-	-
35-39	0.6	0.7	0.6	0.7	0.7	0.7	-	-	-
40-44	0.7	0.7	0.6	0.8	0.8	0.7	-	-	-
45-49	0.7	0.9	0.6	0.8	0.9	0.6	0.4	-	-
50-54	0.8	0.9	0.7	0.9	1.0	0.8	0.7	-	-
55-59	1.0	1.0	0.9	1.1	1.1	1.0	-	-	-
60-64	1.2	1.3	1.2	1.3	1.4	1.3	-	-	-
65-69	1.5	1.6	1.4	1.5	1.8	1.3	1.2	-	-
70-74	1.3	1.4	1.2	1.4	1.5	1.3	-	-	-
75-79	1.5	2.1	1.1	1.6	2.2	1.1	-	-	-
80-84	1.8	2.0	1.7	1.9	2.1	1.8	-	-	-
85+	1.6	2.3	1.2	1.5	2.3	1.2	-	-	-
<u>Chronic Lymphocytic Leukemia</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2006-2010									
All ages	4.3	5.9	3.1	4.6	6.3	3.3	2.9	4.2	2.0
Under 65	1.3	1.8	0.9	1.4	1.9	1.0	0.9	1.2	0.6
65 and over	24.8	34.6	17.9	26.5	36.7	19.2	16.8	24.8	12.2
All ages (IARC world std) <sup>b</sup>	2.6	3.5	1.8	2.8	3.7	2.0	1.7	2.5	1.2
Age-Specific Rates, 2006-2010									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-
30-34	0.1	0.1	-	0.1	-	-	-	-	-
35-39	0.2	0.3	0.2	0.3	0.3	0.2	-	-	-
40-44	0.7	0.9	0.5	0.7	0.9	0.5	0.5	-	-
45-49	1.8	2.4	1.3	2.0	2.6	1.4	1.2	1.4	1.0
50-54	3.5	4.5	2.5	3.7	4.7	2.6	2.5	3.4	1.7
55-59	6.4	8.9	4.1	6.9	9.4	4.5	3.9	6.1	2.1
60-64	10.8	13.9	7.9	11.6	14.8	8.6	6.9	9.5	4.8
65-69	16.3	22.5	10.8	17.5	24.2	11.5	10.5	14.5	7.3
70-74	21.5	29.0	15.3	23.1	30.8	16.6	15.5	21.7	11.0
75-79	27.5	37.7	19.9	29.7	40.4	21.5	16.9	23.3	12.8
80-84	32.0	45.4	23.4	33.7	47.5	24.6	23.1	35.6	16.5
85+	37.4	54.6	29.0	39.9	57.7	31.2	26.2	44.3	19.0

<sup>a</sup> SEER 18 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

<sup>b</sup> Rates are per 100,000 and are age-adjusted to the IARC world standard population.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 13.13  
Myeloid Leukemia

SEER Incidence<sup>a</sup> Rates, Age-Adjusted and Age-Specific Rates, by Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>Acute Myeloid Leukemia</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2006-2010									
All ages	3.7	4.5	3.1	3.8	4.6	3.2	3.1	3.6	2.8
Under 65	1.8	1.9	1.7	1.8	2.0	1.7	1.6	1.7	1.6
65 and over	16.8	22.1	13.2	17.6	23.2	13.6	13.2	16.4	11.3
All ages (IARC world std) <sup>b</sup>	2.5	2.9	2.2	2.6	3.0	2.3	2.2	2.4	2.0
Age-Specific Rates, 2006-2010									
<1	1.6	1.4	1.7	1.7	1.5	1.9	-	-	-
1-4	0.9	0.9	0.9	0.9	0.9	0.9	1.0	-	1.4
5-9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	-	-
10-14	0.7	0.8	0.6	0.7	0.8	0.5	0.8	0.9	-
15-19	0.9	0.8	0.9	0.9	0.9	0.9	0.7	-	0.8
20-24	1.0	0.9	1.0	1.0	1.0	1.1	0.8	-	1.1
25-29	1.1	1.2	1.0	1.2	1.2	1.1	1.0	1.1	0.8
30-34	1.3	1.3	1.4	1.4	1.4	1.4	1.0	1.0	1.0
35-39	1.6	1.5	1.6	1.5	1.5	1.5	1.3	1.3	1.3
40-44	1.8	2.0	1.6	1.8	2.0	1.6	1.9	2.3	1.6
45-49	2.5	2.5	2.4	2.4	2.4	2.3	2.4	2.7	2.1
50-54	3.3	3.6	3.0	3.3	3.7	3.0	3.0	3.4	2.7
55-59	4.3	5.0	3.7	4.5	5.1	3.9	4.1	4.6	3.7
60-64	6.6	7.7	5.6	6.9	8.1	5.7	5.6	6.0	5.3
65-69	10.0	12.0	8.3	10.6	12.7	8.8	7.4	8.9	6.4
70-74	14.6	18.0	11.8	15.4	19.4	11.9	12.6	14.0	11.5
75-79	20.0	26.9	14.9	21.1	28.1	15.8	14.7	20.3	11.1
80-84	23.3	31.7	17.8	24.0	32.9	18.2	17.2	22.2	14.5
85+	23.5	33.8	18.5	23.7	34.4	18.4	20.4	24.9	18.7
<u>Chronic Myeloid Leukemia</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2006-2010									
All ages	1.6	2.1	1.2	1.6	2.1	1.2	1.5	1.9	1.3
Under 65	0.9	1.1	0.7	0.9	1.1	0.7	1.0	1.1	0.8
65 and over	6.7	9.3	4.8	6.9	9.6	5.1	5.5	7.8	4.1
All ages (IARC world std) <sup>b</sup>	1.1	1.4	0.9	1.1	1.4	0.9	1.1	1.3	0.9
Age-Specific Rates, 2006-2010									
<1	0.4	-	-	0.5	-	-	-	-	-
1-4	0.1	-	-	0.1	-	-	-	-	-
5-9	0.1	-	-	-	-	-	-	-	-
10-14	0.2	0.2	0.1	0.2	0.2	-	-	-	-
15-19	0.2	0.3	0.2	0.2	0.2	0.3	-	-	-
20-24	0.5	0.5	0.4	0.4	0.5	0.4	0.5	-	-
25-29	0.5	0.7	0.4	0.6	0.7	0.4	0.5	-	-
30-34	0.8	1.0	0.6	0.7	0.9	0.5	1.0	1.2	-
35-39	0.9	1.1	0.8	0.9	1.0	0.8	1.2	1.4	0.9
40-44	1.2	1.3	1.0	1.2	1.3	1.0	1.2	1.4	1.0
45-49	1.5	1.8	1.2	1.4	1.7	1.2	1.7	2.2	1.1
50-54	1.7	2.0	1.4	1.7	1.9	1.4	1.8	1.7	1.8
55-59	2.2	2.7	1.8	2.2	2.7	1.6	3.0	3.3	2.7
60-64	3.0	3.9	2.1	3.0	4.0	2.1	3.1	3.4	2.8
65-69	4.2	5.4	3.1	4.4	5.6	3.3	3.2	3.5	2.9
70-74	5.5	7.6	3.9	5.7	7.7	4.0	5.7	8.6	3.6
75-79	7.4	10.8	4.9	7.7	11.3	5.0	5.6	8.5	3.8
80-84	9.5	13.4	7.1	10.0	13.7	7.5	7.3	11.7	5.0
85+	10.0	14.0	8.0	10.4	14.7	8.2	7.9	-	7.1

<sup>a</sup> SEER 18 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

<sup>b</sup> Rates are per 100,000 and are age-adjusted to the IARC world standard population.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 13.14  
Leukemia

5-Year Relative and Period Survival (Percent) by Race, Sex, Diagnosis Year and Age

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>5-Year Relative Survival (Percent)</b>									
<b>Year of Diagnosis:</b>									
1960-1963 <sup>a</sup>	-	-	-	14	-	-	-	-	-
1970-1973 <sup>a</sup>	-	-	-	22	-	-	-	-	-
1975-1977 <sup>b</sup>	34.1	33.0	35.5	34.6	33.6	35.8	33.1	30.0	36.5
1978-1980 <sup>b</sup>	36.0	35.0	37.3	36.7	35.8	37.9	28.2	27.3	29.3
1981-1983 <sup>b</sup>	37.3	37.0	37.7	38.1	37.8	38.4	33.9	33.4	34.3
1984-1986 <sup>b</sup>	40.5	40.1	41.0	41.6	41.3	42.0	32.7	31.5	34.1
1987-1989 <sup>b</sup>	42.8	44.0	41.3	43.9	45.5	41.7	35.0	32.7	37.8
1990-1992 <sup>b</sup>	45.0	44.4	45.8	46.2	46.1	46.5	35.7	30.5	41.3
1993-1995 <sup>b</sup>	47.2	48.1	46.0	48.3	49.2	47.1	40.9	41.0	40.6
1996-1998 <sup>b</sup>	47.9	48.2	47.5	49.3	49.2	49.3	38.0	38.9	36.9
1999-2002 <sup>b</sup>	51.8	52.4	51.1	52.7	53.2	52.0	44.6	46.6	42.5
2003-2009 <sup>b</sup>	59.2 <sup>e</sup>	60.0 <sup>e</sup>	58.1 <sup>e</sup>	60.0 <sup>e</sup>	60.6 <sup>e</sup>	59.1 <sup>e</sup>	53.2 <sup>e</sup>	55.7 <sup>e</sup>	50.2 <sup>e</sup>
<b>5-Year Period Survival (Percent)<sup>cd</sup></b>									
2009	57.2	58.1	55.9	57.4	58.0	56.5	49.7	51.6	47.4
<b>5-Year Relative Survival (Percent), 2003-2009<sup>c</sup></b>									
<b>Age at Diagnosis:</b>									
Ages <45	71.6	71.1	72.4	72.6	72.2	73.1	62.9	61.3	65.0
Ages 45-54	65.2	66.8	62.7	66.2	67.7	63.8	56.9	57.7	55.5
Ages 55-64	62.7	62.7	62.8	63.5	63.3	63.9	51.4	51.1	51.8
Ages 65-74	52.9	52.2	53.9	54.2	53.1	55.9	40.1	40.6	39.4
Ages 75+	36.1	35.3	36.8	36.4	35.7	37.2	28.6	27.5	29.2
Ages <65	67.4	67.4	67.5	68.2	68.1	68.3	58.3	57.5	59.4
Ages 65+	43.1	43.1	43.1	43.7	43.6	43.9	34.1	34.7	33.4

<sup>a</sup> Based on End Results data from a series of hospital registries and one population-based registry.<sup>b</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).<sup>c</sup> Based on follow-up of patients into 2010.<sup>d</sup> 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).<sup>e</sup> Based on follow-up of patients into 2010.<sup>f</sup> Period survival provides a 2009 estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2007-2009: 0-1 year survival), (2006-2008: 1-2 year survival), (2005-2007: 2-3 year survival), (2004-2006: 3-4 year survival), (2003-2005: 4-5 years survival).<sup>g</sup> The difference between 1975-1977 and 2003-2009 is statistically significant ( $p<.05$ ).<sup>h</sup> The standard error is between 5 and 10 percentage points.<sup>i</sup> The standard error is greater than 10 percentage points.<sup>j</sup> Statistic could not be calculated due to fewer than 25 cases during the time period.

**Table 13.15**  
**Lymphocytic Leukemia**

**5-Year Relative and Period Survival (Percent) by Race, Sex, Diagnosis Year and Age**

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>Acute Lymphocytic Leukemia</b>									
5-Year Relative Survival (Percent)									
Year of Diagnosis:									
1975-1977 <sup>a</sup>	40.6	36.9	45.6	40.8	37.4	45.7	33.5 <sup>e</sup>	-	-
1978-1980 <sup>a</sup>	48.8	45.4	53.6	49.3	45.9	54.2	31.4 <sup>e</sup>	30.9 <sup>e</sup>	-
1981-1983 <sup>a</sup>	50.5	47.1	54.9	51.3	48.0	55.7	42.3 <sup>e</sup>	36.2 <sup>e</sup>	48.4 <sup>e</sup>
1984-1986 <sup>a</sup>	52.0	49.1	56.1	52.8	49.3	57.9	36.0 <sup>e</sup>	43.5 <sup>e</sup>	27.3 <sup>e</sup>
1987-1989 <sup>a</sup>	54.3	53.7	55.0	54.8	54.8	54.9	44.7 <sup>e</sup>	42.0 <sup>e</sup>	47.1 <sup>e</sup>
1990-1992 <sup>a</sup>	57.9	54.4	63.1	57.6	54.8	62.0	57.1 <sup>e</sup>	50.4 <sup>e</sup>	63.3 <sup>e</sup>
1993-1995 <sup>a</sup>	60.0	57.8	63.2	59.6	57.9	62.1	52.6 <sup>e</sup>	44.6 <sup>e</sup>	63.8 <sup>e</sup>
1996-1998 <sup>b</sup>	65.4	64.3	66.7	66.1	63.9	68.8	56.2 <sup>e</sup>	60.3 <sup>e</sup>	50.2 <sup>e</sup>
1999-2002 <sup>a</sup>	64.7	63.4	66.4	65.3	64.0	67.0	56.7 <sup>e</sup>	52.3 <sup>e</sup>	61.6 <sup>e</sup>
2003-2009 <sup>a</sup>	68.8 <sup>d</sup>	68.5 <sup>d</sup>	69.3 <sup>d</sup>	69.7 <sup>d</sup>	69.3 <sup>d</sup>	70.1 <sup>d</sup>	63.9 <sup>d</sup>	64.2	63.5 <sup>e</sup>
5-Year Period Survival (Percent) <sup>bc</sup>									
2009	67.3	67.1	67.5	67.4	66.9	67.9	62.2	64.3	59.0
5-Year Relative Survival (Percent), 2003-2009 <sup>b</sup>									
Age at Diagnosis:									
Ages <45	76.9	75.2	79.3	77.2	75.7	79.3	73.5	70.8	78.0
Ages 45-54	31.8	34.5	28.0	29.7	32.0	26.6	31.2 <sup>e</sup>	-	-
Ages 55-64	23.4	21.7	24.9	23.7	21.7	25.3	18.1 <sup>e</sup>	-	-
Ages 65-74	14.4	13.3	15.0	15.2	13.2	16.0	0.0	-	-
Ages 75+	8.2	11.9	5.0	7.2	9.9	5.1	0.0	-	-
Ages <65	70.6	69.6	72.1	70.6	69.7	71.9	68.2	66.4	71.1
Ages 65+	11.8	12.8	10.7	11.8	11.8	11.2	0.0	-	0.0
<b>Chronic Lymphocytic Leukemia</b>									
5-Year Relative Survival (Percent)									
Year of Diagnosis:									
1975-1977 <sup>a</sup>	67.1	64.8	70.2	67.9	65.5	71.1	56.4 <sup>e</sup>	55.1 <sup>e</sup>	58.1 <sup>e</sup>
1978-1980 <sup>a</sup>	67.7	64.7	71.7	68.4	65.3	72.6	56.8 <sup>e</sup>	56.7 <sup>e</sup>	56.9 <sup>e</sup>
1981-1983 <sup>a</sup>	65.7	65.0	66.6	66.2	65.8	66.8	57.3 <sup>e</sup>	55.0 <sup>e</sup>	60.4 <sup>e</sup>
1984-1986 <sup>a</sup>	72.3	71.0	74.0	72.6	71.3	74.3	67.0 <sup>e</sup>	64.4 <sup>e</sup>	68.4 <sup>e</sup>
1987-1989 <sup>a</sup>	72.7	72.6	72.8	73.8	73.9	73.6	58.1	55.5 <sup>e</sup>	61.5 <sup>e</sup>
1990-1992 <sup>a</sup>	73.8	71.5	76.9	75.0	72.9	77.8	52.2	43.4 <sup>e</sup>	60.9 <sup>e</sup>
1993-1995 <sup>a</sup>	76.8	76.7	76.9	77.9	77.7	78.1	62.6	62.9 <sup>e</sup>	62.1 <sup>e</sup>
1996-1998 <sup>b</sup>	75.0	73.5	77.1	76.0	74.6	77.9	57.9 <sup>e</sup>	52.3 <sup>e</sup>	64.7 <sup>e</sup>
1999-2002 <sup>b</sup>	78.9	78.2	79.8	79.5	78.7	80.6	66.4	64.6 <sup>e</sup>	68.0 <sup>e</sup>
2003-2009 <sup>a</sup>	83.1 <sup>d</sup>	82.4 <sup>d</sup>	84.0 <sup>d</sup>	83.2 <sup>d</sup>	82.4 <sup>d</sup>	84.2 <sup>d</sup>	78.0 <sup>d</sup>	77.6 <sup>d</sup>	78.2
5-Year Period Survival (Percent) <sup>bc</sup>									
2009	80.5	80.1	80.9	80.4	80.0	80.9	67.9	67.2	68.8
5-Year Relative Survival (Percent), 2003-2009 <sup>b</sup>									
Age at Diagnosis:									
Ages <45	90.9	87.5	96.6	91.1	88.2	96.3	78.8 <sup>e</sup>	-	-
Ages 45-54	91.6	92.1	90.5	92.2	92.4	91.7	80.2	83.9	72.4 <sup>e</sup>
Ages 55-64	87.7	85.7	91.6	88.4	86.5	91.9	73.4	68.9	83.1 <sup>e</sup>
Ages 65-74	82.6	80.2	86.2	83.4	80.6	87.8	66.0	65.8	66.3 <sup>e</sup>
Ages 75+	66.0	63.9	68.2	65.8	63.9	67.7	54.8	46.2 <sup>e</sup>	61.8 <sup>e</sup>
Ages <65	89.1	87.8	91.7	89.7	88.4	92.2	76.1	74.0	80.3
Ages 65+	73.4	71.8	75.2	73.5	71.9	75.4	60.6	57.3	63.8

<sup>a</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).

Based on follow-up of patients into 2010.

<sup>b</sup> 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 2010.

<sup>c</sup> Period survival provides a 2009 estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2007-2009: 0-1 year survival), (2006-2008: 1-2 year survival), (2005-2007: 2-3 year survival), (2004-2006: 3-4 year survival), (2003-2005: 4-5 years survival).

The difference between 1975-1977 and 2003-2009 is statistically significant ( $p<.05$ ).

The standard error is between 5 and 10 percentage points.

The standard error is greater than 10 percentage points.

<sup>d</sup> Statistic could not be calculated due to fewer than 25 cases during the time period.

<sup>e</sup> -

<sup>f</sup> -

Table 13.16  
Myeloid Leukemia

5-Year Relative and Period Survival (Percent) by Race, Sex, Diagnosis Year and Age

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>Acute Myeloid Leukemia</u>									
5-Year Relative Survival (Percent)									
Year of Diagnosis:									
1975-1977 <sup>a</sup>	6.2	5.5	7.0	5.8	5.4	6.2	10.1	8.2	11.7
1978-1980 <sup>a</sup>	7.6	6.9	8.4	7.1	6.1	8.3	8.8	5.1	12.6
1981-1983 <sup>a</sup>	8.4	7.2	9.8	7.7	6.4	9.3	12.1	15.3 <sup>e</sup>	9.0
1984-1986 <sup>a</sup>	10.6	9.2	12.3	10.2	8.9	11.8	9.8	6.7	12.9
1987-1989 <sup>a</sup>	11.4	9.1	14.1	11.3	9.6	13.2	9.2	4.4	15.7 <sup>e</sup>
1990-1992 <sup>a</sup>	13.7	12.5	15.1	13.4	12.2	14.8	13.5	12.9	13.9
1993-1995 <sup>a</sup>	16.2	14.9	17.5	15.4	14.2	16.8	21.5	20.6 <sup>e</sup>	22.0
1996-1998 <sup>b</sup>	16.9	15.9	18.1	15.6	14.3	17.1	21.9	25.2	18.0
1999-2002 <sup>a</sup>	19.9	18.9	21.2	19.6	17.9	21.6	20.0	24.8	15.5
2003-2009 <sup>a</sup>	24.9 <sup>d</sup>	23.0 <sup>d</sup>	26.9 <sup>d</sup>	24.3 <sup>d</sup>	22.4 <sup>d</sup>	26.2 <sup>d</sup>	25.0 <sup>d</sup>	24.2 <sup>d</sup>	25.7 <sup>d</sup>
5-Year Period Survival (Percent) <sup>bc</sup>									
2009	25.7	24.2	27.3	24.9	23.4	26.7	25.6	24.9	26.1
5-Year Relative Survival (Percent), 2003-2009 <sup>b</sup>									
Age at Diagnosis:									
Ages <45	54.9	52.9	56.9	55.4	53.7	57.2	47.9	45.4	50.6
Ages 45-54	38.2	35.5	41.4	39.8	37.4	42.6	31.3	25.6 <sup>e</sup>	35.8 <sup>e</sup>
Ages 55-64	25.1	22.6	28.3	24.9	22.7	28.0	20.5	17.7	23.6
Ages 65-74	10.8	8.9	13.3	11.0	9.0	13.7	9.5	7.0	11.8
Ages 75+	1.8	1.5	2.2	1.9	1.6	2.2	0.6	0.0	0.9
Ages <65	41.6	38.8	45.1	41.6	38.9	45.0	37.4	34.3	40.7
Ages 65+	5.4	4.8	6.2	5.5	4.8	6.3	4.7	4.1	4.9
<u>Chronic Myeloid Leukemia</u>									
5-Year Relative Survival (Percent)									
Year of Diagnosis:									
1975-1977 <sup>a</sup>	21.7	19.3	25.0	20.5	18.4	23.3	27.7 <sup>e</sup>	21.6 <sup>e</sup>	35.5 <sup>e</sup>
1978-1980 <sup>a</sup>	23.4	23.0	23.8	23.6	23.7	23.5	21.4 <sup>e</sup>	20.6 <sup>e</sup>	22.7 <sup>e</sup>
1981-1983 <sup>a</sup>	28.2	24.5	32.5	28.3	25.1	32.0	29.7	20.8 <sup>e</sup>	40.1 <sup>e</sup>
1984-1986 <sup>a</sup>	22.4	20.2	25.5	22.9	20.2	26.7	21.4	20.3 <sup>e</sup>	22.2 <sup>e</sup>
1987-1989 <sup>a</sup>	30.4	30.7	30.0	30.4	31.3	29.4	33.3 <sup>e</sup>	28.1 <sup>e</sup>	41.3 <sup>e</sup>
1990-1992 <sup>a</sup>	30.6	29.5	31.9	30.1	29.9	30.4	34.9 <sup>e</sup>	25.5 <sup>e</sup>	44.9 <sup>e</sup>
1993-1995 <sup>a</sup>	35.3	35.0	35.5	35.0	34.9	35.0	35.3 <sup>e</sup>	33.2 <sup>e</sup>	38.5 <sup>e</sup>
1996-1998 <sup>b</sup>	36.9	37.7	35.7	37.9	37.7	38.1	28.3	27.6 <sup>e</sup>	28.9 <sup>e</sup>
1999-2002 <sup>a</sup>	47.6	46.1	49.6	45.8	44.1	48.0	52.1	54.8 <sup>e</sup>	48.5 <sup>e</sup>
2003-2009 <sup>a</sup>	58.6 <sup>d</sup>	57.4 <sup>d</sup>	60.4 <sup>d</sup>	57.4 <sup>d</sup>	56.1 <sup>d</sup>	59.5 <sup>d</sup>	59.3 <sup>d</sup>	61.0 <sup>d</sup>	56.6 <sup>e</sup>
5-Year Period Survival (Percent) <sup>bc</sup>									
2009	62.7	61.8	63.9	61.1	60.2	62.4	64.8	62.3	67.2
5-Year Relative Survival (Percent), 2003-2009 <sup>b</sup>									
Age at Diagnosis:									
Ages <45	85.8	85.2	86.9	87.4	86.0	89.4	74.6	76.5	71.9
Ages 45-54	80.5	78.3	83.5	80.2	79.3	81.5	77.5	70.9 <sup>e</sup>	84.3 <sup>e</sup>
Ages 55-64	68.0	66.7	70.1	68.1	66.8	70.6	62.6	63.2 <sup>e</sup>	61.0 <sup>e</sup>
Ages 65-74	49.4	45.5	55.8	49.0	45.4	54.8	39.4 <sup>e</sup>	31.6 <sup>e</sup>	53.1 <sup>f</sup>
Ages 75+	28.8	26.8	31.0	28.8	26.7	31.1	31.4 <sup>e</sup>	24.2 <sup>e</sup>	37.0 <sup>f</sup>
Ages <65	79.1	77.7	81.2	79.4	78.0	81.7	71.9	71.7	72.2
Ages 65+	37.4	35.4	39.9	37.0	35.1	39.3	35.1 <sup>e</sup>	27.4 <sup>e</sup>	43.9 <sup>e</sup>

<sup>a</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).

Based on follow-up of patients into 2010.

<sup>b</sup> 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 2010.

<sup>c</sup> Period survival provides a 2009 estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2007-2009: 0-1 year survival), (2006-2008: 1-2 year survival), (2005-2007: 2-3 year survival), (2004-2006: 3-4 year survival), (2003-2005: 4-5 years survival).

The difference between 1975-1977 and 2003-2009 is statistically significant ( $p<.05$ ).

The standard error is between 5 and 10 percentage points.

The standard error is greater than 10 percentage points.

<sup>d</sup> Statistic could not be calculated due to fewer than 25 cases during the time period.

<sup>e</sup>-

<sup>f</sup>-

Table 13.17  
LeukemiaSEER<sup>a</sup> Relative Survival (Percent)  
By Year of Diagnosis

All Races, Males and Females

## Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
<b>Survival Time</b>																								
1-year	60.8	62.6	64.8	66.4	66.2	67.0	67.5	66.7	67.8	68.0	67.7	66.4	65.7	66.4	70.1	71.6	72.8	74.4	73.2	75.2	75.8	75.1	75.7	
2-year	50.1	52.5	55.3	56.2	56.5	58.2	58.0	57.8	58.6	59.6	59.6	57.5	58.0	58.4	62.3	64.2	65.6	66.9	67.1	68.8	69.0	68.4		
3-year	43.7	46.5	49.6	51.3	51.0	52.9	54.4	53.2	53.9	55.0	54.6	53.5	54.3	54.4	58.1	61.0	61.5	63.3	63.2	65.2	65.7			
4-year	38.8	41.7	45.5	47.9	46.7	49.2	50.5	49.8	50.3	51.4	50.6	49.7	51.2	51.2	55.8	58.6	58.5	60.8	61.1	62.3				
5-year	34.6	37.6	42.3	44.8	44.2	46.0	47.2	46.8	47.7	48.2	48.0	47.6	47.9	49.0	53.3	56.7	56.4	58.5	59.2					
6-year	31.4	35.0	39.8	41.3	42.1	43.6	44.7	44.5	45.3	46.0	45.4	45.4	45.7	47.6	51.3	54.8	54.3	55.9						
7-year	29.1	32.5	37.1	38.7	39.5	40.6	42.1	42.2	43.8	44.7	43.5	43.9	43.8	46.3	49.8	53.0	52.3							
8-year	26.9	30.3	34.9	36.5	36.8	38.5	40.8	39.7	41.2	43.4	42.8	42.4	42.3	44.7	48.3	52.0								
9-year	25.0	28.5	32.9	34.8	35.5	36.8	39.2	38.3	40.1	41.6	41.4	41.3	41.4	43.7	46.9									
10-year	23.6	26.9	31.5	33.1	34.1	35.6	38.0	37.5	38.5	40.2	40.2	40.1	39.9	42.6										
11-year	22.3	25.7	29.8	31.5	32.9	34.0	37.1	36.0	37.2	39.3	38.3	38.8	38.5											
12-year	21.2	24.5	28.7	29.7	31.9	33.0	36.2	35.2	36.5	38.1	37.2	37.9												
13-year	20.4	23.6	27.9	28.5	31.5	32.4	35.1	33.8	36.0	37.7	36.5													
14-year	19.7	22.9	27.1	27.8	30.8	31.3	34.5	32.8	34.9	36.4														
15-year	19.2	22.2	26.6	27.6	30.2	30.8	33.5	32.3	34.5															
16-year	18.5	21.4	26.0	27.2	29.4	29.7	33.0	31.6																
17-year	18.0	20.6	25.5	26.4	28.5	29.2	32.3																	
18-year	17.6	20.1	25.2	25.7	27.8	29.1																		
19-year	17.1	19.4	24.7	24.9	27.5																			
20-year	16.5	19.1	24.3	24.4																				

<sup>a</sup> Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 13.18  
LeukemiaSEER<sup>a</sup> Relative Survival (Percent)  
By Year of Diagnosis

All Races, Males

Year of Diagnosis

	1975-1979	1980-1984	1985-1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
<b>Survival Time</b>																								
1-year	60.4	62.8	65.5	66.9	67.4	67.3	68.6	68.7	69.0	69.5	68.6	66.5	66.6	68.3	72.3	72.4	73.7	76.1	75.2	75.7	76.9	75.8	77.5	
2-year	49.4	52.4	56.1	56.1	57.6	58.4	59.3	59.3	60.1	61.4	60.8	58.3	58.7	60.2	64.1	64.2	66.2	67.7	68.9	68.9	70.4	69.4		
3-year	42.7	46.1	49.9	50.6	51.7	52.7	56.2	53.9	55.2	57.0	54.8	54.3	54.8	56.5	59.9	61.4	61.9	64.4	65.1	65.3	67.2			
4-year	37.7	41.2	45.9	46.9	46.5	49.1	52.4	51.3	51.3	53.2	50.1	50.2	51.5	53.0	57.2	58.5	59.1	61.6	63.5	62.4				
5-year	33.4	37.1	42.9	42.7	44.1	46.4	48.6	48.1	47.8	49.2	47.4	48.1	47.4	51.4	54.2	56.0	56.6	59.0	61.4					
6-year	30.3	34.4	40.4	39.2	42.2	43.6	46.1	45.2	44.8	46.8	45.4	45.8	45.5	49.9	51.7	53.9	54.3	56.1						
7-year	27.7	31.8	37.3	36.8	39.5	40.3	43.3	43.1	43.4	45.5	43.3	44.0	43.2	48.8	50.1	51.5	52.3							
8-year	25.4	29.5	35.3	34.0	36.9	38.4	42.0	40.0	41.2	44.3	42.5	42.6	41.6	46.6	46.6	48.6	50.3							
9-year	23.2	27.5	33.2	32.5	35.6	36.9	40.4	38.2	39.9	42.0	41.6	41.5	40.8	45.1	47.1									
10-year	21.8	26.1	31.6	30.6	34.0	36.0	39.2	37.4	37.7	40.3	40.7	40.5	39.2	44.0										
11-year	20.5	25.0	30.1	29.2	32.7	34.9	38.5	36.0	37.1	39.3	38.4	38.7	37.5											
12-year	19.3	24.3	29.0	27.3	31.4	34.0	37.0	35.3	36.4	38.6	37.4	37.8												
13-year	18.6	23.5	28.2	26.6	31.1	33.2	35.9	33.5	36.1	38.5	36.6													
14-year	17.9	22.8	27.6	26.1	29.9	31.9	35.3	32.0	35.0	37.3														
15-year	17.4	22.2	26.9	25.9	29.1	31.6	33.7	31.8	34.6															
16-year	16.7	21.3	26.2	25.6	28.5	30.5	33.2	31.4																
17-year	16.3	20.5	25.9	24.7	27.8	29.7	32.4																	
18-year	15.9	19.9	25.6	23.5	27.1	29.6																		
19-year	15.3	19.3	25.2	22.9	26.8																			
20-year	14.6	18.8	24.8	22.7																				

<sup>a</sup> Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 13.19  
Leukemia

SEER<sup>a</sup> Relative Survival (Percent)  
By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b>Survival Time</b>																							
1-year	61.3	62.2	63.8	65.6	64.5	66.6	66.0	64.1	66.3	66.1	66.5	66.2	64.4	63.9	67.0	70.6	71.5	72.3	70.4	74.4	74.3	74.2	73.2
2-year	50.9	52.6	54.2	56.2	55.0	57.8	56.3	56.0	56.5	57.2	57.9	56.5	57.0	56.0	60.0	64.0	64.8	65.7	64.7	68.7	67.2	67.0	
3-year	45.0	47.0	49.2	52.3	50.1	53.3	52.2	52.3	52.0	52.4	54.3	52.5	53.5	51.6	55.7	60.5	61.0	62.0	60.7	65.1	63.6		
4-year	40.1	42.4	44.8	49.0	47.1	49.4	48.1	48.0	49.0	49.2	51.2	49.0	50.7	48.8	54.0	58.7	57.7	59.8	57.7	62.1			
5-year	36.1	38.3	41.4	47.7	44.4	45.4	45.4	45.2	47.5	46.9	48.7	46.9	48.4	45.9	52.2	57.6	56.0	57.7	56.2				
6-year	32.8	35.9	39.2	44.2	41.8	43.6	42.8	43.5	45.9	45.1	45.5	45.0	45.9	44.7	50.7	55.8	54.3	55.6					
7-year	30.9	33.3	36.8	41.4	39.4	40.9	40.5	41.1	44.2	43.7	43.7	43.7	44.5	43.0	49.5	55.1	52.4						
8-year	29.0	31.4	34.4	39.8	36.7	38.5	39.3	39.3	41.1	42.2	43.2	42.1	43.3	41.9	47.9	54.4							
9-year	27.3	29.8	32.5	37.8	35.4	36.5	37.7	38.5	40.4	41.0	41.1	41.1	42.3	41.9	46.5								
10-year	25.9	28.0	31.4	36.5	34.3	35.0	36.4	37.6	39.3	39.9	39.4	39.5	40.8	40.5									
11-year	24.7	26.7	29.3	34.7	33.0	32.6	35.3	36.0	37.2	39.2	38.0	38.8	39.7										
12-year	23.5	24.9	28.3	32.8	32.4	31.7	35.0	34.9	36.5	37.6	36.9	38.1											
13-year	22.7	23.7	27.4	31.1	32.1	31.3	33.9	34.1	35.7	36.6	36.2												
14-year	22.0	23.0	26.5	29.9	31.8	30.4	33.3	33.7	34.6	35.2													
15-year	21.4	22.4	26.2	29.8	31.5	29.5	33.3	32.9	34.3														
16-year	20.6	21.5	25.6	29.2	30.5	28.5	32.6	31.7															
17-year	20.1	20.8	25.0	28.6	29.5	28.2	32.1																
18-year	19.8	20.3	24.6	28.6	28.6	28.2																	
19-year	19.2	19.7	24.0	27.5	28.4																		
20-year	19.0	19.4	23.6	26.7																			

<sup>a</sup> Based on the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 13.20

## Leukemia

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years,  
 Lifetime Risk of Being Diagnosed with Cancer Given Alive and Cancer-Free at Current Age, and  
 Lifetime Risk of Dying from Cancer Given Alive at Current Age  
 Both Sexes, 2008-2010 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer						Risk of Being Diagnosed with Cancer						Risk of Dying from Cancer		Risk of Being Diagnosed with Cancer						
		+10 yrs			+20 yrs			+30 yrs			Ever					+10 yrs			+20 yrs			
All Races	0	0.06	0.09	0.12	1.40	0.86		Asian/	0	0.05	0.07	0.09	0.97	0.64		0.03	0.05	0.08	0.93	0.64		
	10	0.03	0.06	0.09	1.35	0.86		Pacific	10	0.03	0.05	0.08	0.93	0.64		0.02	0.05	0.10	0.90	0.63		
	20	0.03	0.06	0.13	1.33	0.86		Islander	20	0.03	0.08	0.16	0.89	0.63		0.02	0.05	0.10	0.90	0.63		
	30	0.04	0.10	0.23	1.31	0.86			30	0.03	0.08	0.16	0.89	0.63		0.03	0.08	0.16	0.89	0.63		
	40	0.06	0.19	0.45	1.29	0.85			40	0.05	0.13	0.26	0.86	0.62		0.05	0.13	0.26	0.86	0.62		
	50	0.13	0.40	0.79	1.26	0.86			50	0.08	0.21	0.44	0.82	0.61		0.08	0.21	0.44	0.82	0.61		
	60	0.28	0.70	1.08	1.20	0.86			60	0.14	0.38	0.65	0.76	0.59		0.14	0.38	0.65	0.76	0.59		
	70	0.48	0.91	-	1.04	0.82			70	0.25	0.55	-	0.67	0.55		0.25	0.55	-	0.67	0.55		
	80	0.58	-	-	0.76	0.68			80	0.35	-	-	0.50	0.45		0.35	-	-	0.50	0.45		
White	0	0.06	0.10	0.13	1.46	0.90		American	0	0.03	0.06	0.07	0.88	0.53		0.03	0.06	0.07	0.88	0.53		
	10	0.03	0.06	0.10	1.41	0.90		Indian/	10	0.03	0.04	0.07	0.85	0.53		0.03	0.04	0.07	0.85	0.53		
	20	0.03	0.07	0.13	1.38	0.89		Alaska	20	0.02	0.05	0.08	0.83	0.53		0.02	0.05	0.08	0.83	0.53		
	30	0.04	0.10	0.23	1.36	0.89		Native <sup>a</sup>	30	0.03	0.07	0.17	0.83	0.53		0.03	0.07	0.17	0.83	0.53		
	40	0.06	0.20	0.47	1.34	0.89			40	0.04	0.14	0.31	0.82	0.53		0.04	0.14	0.31	0.82	0.53		
	50	0.14	0.42	0.83	1.31	0.89			50	0.11	0.28	0.49	0.81	0.54		0.11	0.28	0.49	0.81	0.54		
	60	0.30	0.74	1.13	1.24	0.89			60	0.19	0.41	0.62	0.75	0.55		0.19	0.41	0.62	0.75	0.55		
	70	0.50	0.94	-	1.08	0.85			70	0.26	0.50	-	0.65	0.56		0.26	0.50	-	0.65	0.56		
	80	0.60	-	-	0.78	0.70			80	0.33	-	-	0.54	0.45		0.33	-	-	0.54	0.45		
Black	0	0.03	0.06	0.08	0.92	0.62		Hispanic <sup>b</sup>	0	0.07	0.12	0.15	1.18	0.68		0.07	0.12	0.15	1.18	0.68		
	10	0.02	0.04	0.08	0.90	0.63			10	0.04	0.08	0.11	1.12	0.68		0.04	0.08	0.11	1.12	0.68		
	20	0.02	0.05	0.11	0.88	0.63			20	0.03	0.07	0.12	1.08	0.67		0.03	0.07	0.12	1.08	0.67		
	30	0.03	0.09	0.19	0.87	0.62			30	0.04	0.09	0.19	1.05	0.66		0.04	0.09	0.19	1.05	0.66		
	40	0.06	0.16	0.33	0.86	0.62			40	0.06	0.16	0.35	1.03	0.65		0.06	0.16	0.35	1.03	0.65		
	50	0.10	0.29	0.55	0.83	0.63			50	0.10	0.30	0.60	0.99	0.65		0.10	0.30	0.60	0.99	0.65		
	60	0.20	0.49	0.73	0.81	0.63			60	0.20	0.52	0.82	0.93	0.63		0.20	0.52	0.82	0.93	0.63		
	70	0.35	0.64	-	0.73	0.60			70	0.34	0.67	-	0.80	0.59		0.34	0.67	-	0.80	0.59		
	80	0.43	-	-	0.57	0.51			80	0.42	-	-	0.58	0.50		0.42	-	-	0.58	0.50		

Devcan 6.7.0, June 2013, National Cancer Institute (<http://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the 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). Mortality data are from the NCHS public use data file for the total US.

<sup>a</sup> Underlying incidence and mortality data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

<sup>b</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Underlying mortality data for Hispanics exclude deaths from the District of Columbia, Minnesota, New Hampshire, North Dakota and South Carolina.

- Statistic could not be calculated.  
 A percent of 0.00 represents a value that is below 0.005.

Table 13.21

## Leukemia

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years,  
 Lifetime Risk of Being Diagnosed with Cancer Given Alive and Cancer-Free at Current Age, and  
 Lifetime Risk of Dying from Cancer Given Alive at Current Age  
 Males, 2008-2010 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer					Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer					Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever	from Cancer			+10 yrs	+20 yrs	+30 yrs	Ever		
All Races	0	0.06	0.10	0.13	1.65	1.02	Asian/ Pacific Islander	0	0.05	0.08	0.10	1.14	0.72	
	10	0.04	0.07	0.11	1.61	1.03		10	0.03	0.05	0.08	1.10	0.72	
	20	0.03	0.07	0.14	1.58	1.02		20	0.02	0.05	0.11	1.07	0.72	
	30	0.04	0.11	0.27	1.57	1.03		30	0.03	0.09	0.17	1.06	0.71	
	40	0.07	0.23	0.55	1.56	1.03		40	0.05	0.14	0.30	1.03	0.70	
	50	0.16	0.50	1.00	1.53	1.04		50	0.09	0.25	0.54	0.99	0.70	
	60	0.36	0.90	1.35	1.48	1.06		60	0.17	0.47	0.84	0.94	0.68	
	70	0.63	1.16	-	1.31	1.03		70	0.33	0.73	-	0.84	0.64	
	80	0.77	-	-	0.98	0.88		80	0.50	-	-	0.65	0.51	
White	0	0.07	0.11	0.14	1.73	1.07	American Indian/ Alaska Native <sup>a</sup>	0	0.03	0.06	0.07	1.06	0.77	
	10	0.04	0.07	0.11	1.68	1.07		10	0.03	0.04	0.07	1.04	0.78	
	20	0.03	0.07	0.15	1.65	1.07		20	0.02	0.05	0.08	1.02	0.78	
	30	0.04	0.11	0.27	1.64	1.07		30	0.03	0.07	0.19	1.03	0.79	
	40	0.07	0.24	0.58	1.62	1.07		40	0.04	0.16	0.33	1.03	0.80	
	50	0.17	0.52	1.04	1.60	1.08		50	0.13	0.31	0.58	1.04	0.82	
	60	0.38	0.94	1.41	1.54	1.10		60	0.19	0.48	0.74	0.99	0.87	
	70	0.66	1.21	-	1.36	1.06		70	0.34	0.64	-	0.94	0.95	
	80	0.79	-	-	1.01	0.90		80	0.44	-	-	0.86	0.99	
Black	0	0.04	0.06	0.09	1.02	0.70	Hispanic <sup>b</sup>	0	0.08	0.13	0.16	1.35	0.79	
	10	0.03	0.05	0.09	1.01	0.71		10	0.05	0.09	0.13	1.29	0.79	
	20	0.02	0.06	0.13	0.98	0.71		20	0.04	0.08	0.14	1.25	0.78	
	30	0.04	0.10	0.23	0.98	0.71		30	0.04	0.10	0.21	1.22	0.77	
	40	0.07	0.19	0.39	0.97	0.72		40	0.06	0.17	0.40	1.20	0.77	
	50	0.13	0.34	0.66	0.95	0.72		50	0.11	0.34	0.68	1.16	0.76	
	60	0.24	0.60	0.85	0.92	0.74		60	0.24	0.61	0.98	1.12	0.76	
	70	0.46	0.78	-	0.87	0.72		70	0.41	0.83	-	0.98	0.74	
	80	0.54	-	-	0.69	0.64		80	0.56	-	-	0.77	0.65	

Devcan 6.7.0, June 2013, National Cancer Institute (<http://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the 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). Mortality data are from the NCHS public use data file for the total US.

<sup>a</sup> Underlying incidence and mortality data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

<sup>b</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Underlying mortality data for Hispanics exclude deaths from the District of Columbia, Minnesota, New Hampshire, North Dakota and South Carolina.

- Statistic could not be calculated.

A percent of 0.00 represents a value that is below 0.005.

Table 13.22

## Leukemia

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years,  
 Lifetime Risk of Being Diagnosed with Cancer Given Alive and Cancer-Free at Current Age, and  
 Lifetime Risk of Dying from Cancer Given Alive at Current Age  
 Females, 2008-2010 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer						Risk of Being Diagnosed with Cancer						Risk of Dying from Cancer		Risk of Being Diagnosed with Cancer						
		+10 yrs			+20 yrs			+30 yrs			Ever					+10 yrs			+20 yrs			
All Races	0	0.05	0.08	0.10	1.17	0.72		Asian/	0	0.04	0.06	0.08	0.82	0.58		0.04	0.06	0.08	0.82	0.58		
	10	0.03	0.05	0.08	1.13	0.72		Pacific	10	0.02	0.04	0.07	0.78	0.58		0.02	0.04	0.07	0.78	0.58		
	20	0.02	0.06	0.11	1.10	0.72		Islander	20	0.02	0.05	0.10	0.76	0.57		0.03	0.08	0.15	0.75	0.56		
	30	0.03	0.09	0.19	1.08	0.71			30	0.03	0.08	0.15	0.75	0.56		0.05	0.12	0.22	0.72	0.56		
	40	0.06	0.16	0.35	1.06	0.71			40	0.05	0.12	0.22	0.72	0.56		0.07	0.17	0.36	0.68	0.55		
	50	0.10	0.30	0.61	1.03	0.70			50	0.07	0.17	0.36	0.68	0.55		0.11	0.30	0.50	0.62	0.53		
	60	0.21	0.53	0.85	0.97	0.69			60	0.20	0.41	-	0.54	0.48		0.25	-	-	0.40	0.40		
	70	0.36	0.71	-	0.84	0.66			70	0.20	0.41	-	0.54	0.48		0.25	-	-	0.40	0.40		
	80	0.46	-	-	0.62	0.56			80	0.25	-	-	0.40	0.40		-	-	-	-	-		
White	0	0.06	0.09	0.11	1.22	0.75		American	0	0.04	0.06	0.07	0.74	0.35		0.04	0.06	0.07	0.74	0.35		
	10	0.03	0.05	0.09	1.17	0.75		Indian/	10	0.03	0.04	0.07	0.72	0.34		0.03	0.04	0.07	0.72	0.34		
	20	0.02	0.06	0.11	1.14	0.74		Alaska	20	0.01	0.05	0.09	0.69	0.34		0.03	0.08	0.16	0.69	0.33		
	30	0.03	0.09	0.19	1.12	0.74		Native <sup>a</sup>	30	0.03	0.08	0.16	0.69	0.33		0.04	0.13	0.29	0.66	0.34		
	40	0.06	0.16	0.37	1.10	0.73			40	0.09	0.26	0.41	0.64	0.34		0.18	0.35	0.53	0.59	0.33		
	50	0.11	0.32	0.64	1.06	0.73			50	0.19	0.39	-	0.46	0.30		0.29	0.44	0.69	0.46	0.30		
	60	0.22	0.55	0.88	1.00	0.72			60	0.18	0.35	0.53	0.59	0.33		0.19	0.39	-	0.46	0.30		
	70	0.37	0.73	-	0.86	0.68			70	0.19	0.39	-	0.46	0.30		0.26	-	-	0.35	0.14		
	80	0.47	-	-	0.64	0.57			80	0.26	-	-	0.35	0.14		-	-	-	-	-		
Black	0	0.03	0.05	0.07	0.83	0.56		Hispanic <sup>b</sup>	0	0.07	0.10	0.13	1.04	0.60		0.07	0.10	0.13	1.04	0.60		
	10	0.02	0.04	0.06	0.81	0.56			10	0.04	0.06	0.10	0.98	0.60		0.03	0.06	0.11	0.95	0.59		
	20	0.02	0.04	0.09	0.80	0.56			20	0.03	0.06	0.11	0.95	0.59		0.03	0.08	0.17	0.92	0.58		
	30	0.03	0.07	0.15	0.78	0.56			30	0.05	0.14	0.30	0.89	0.57		0.05	0.14	0.30	0.89	0.57		
	40	0.05	0.13	0.28	0.77	0.55			40	0.09	0.26	0.52	0.85	0.56		0.17	0.44	0.69	0.79	0.54		
	50	0.08	0.24	0.46	0.75	0.55			50	0.17	0.44	0.69	0.79	0.54		0.29	0.56	-	0.66	0.49		
	60	0.17	0.41	0.64	0.72	0.55			60	0.29	0.56	-	0.66	0.49		0.33	-	-	0.45	0.40		
	70	0.28	0.55	-	0.64	0.52			70	0.29	0.56	-	0.66	0.49		0.33	-	-	0.45	0.40		
	80	0.38	-	-	0.50	0.44			80	0.33	-	-	0.45	0.40		-	-	-	-	-		

Devcan 6.7.0, June 2013, National Cancer Institute (<http://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the 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). Mortality data are from the NCHS public use data file for the total US.

<sup>a</sup> Underlying incidence and mortality data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

<sup>b</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Underlying mortality data for Hispanics exclude deaths from the District of Columbia, Minnesota, New Hampshire, North Dakota and South Carolina.

- Statistic could not be calculated.

A percent of 0.00 represents a value that is below 0.005.

Table 13.23  
Leukemia

SEER Incidence and U.S. Mortality  
Age-Adjusted Rates and Trends<sup>a</sup>  
By Race/Ethnicity and Sex

SEER Incidence	SEER 18 Areas <sup>b</sup>			SEER 13 Areas <sup>b</sup>			SEER 9 Areas <sup>b</sup>		
	Rate 2006-2010			Trend 2001-2010 <sup>c</sup>			Trend 2001-2010 <sup>d</sup>		
	Rate per 100,000 persons			AAPC (%)			AAPC (%)		
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Races	12.8	16.3	10.0	0.1	-0.1	0.1	0.1*	0.0	0.2*
White	13.5	17.2	10.5	0.2	0.0	0.2	0.2*	0.1	0.3*
White Hispanic <sup>e</sup>	10.6	12.7	8.9	0.3	0.2	0.4	-	-	-
White Non-Hispanic <sup>e</sup>	13.6	17.5	10.5	0.2	0.0	0.3	-	-	-
Black	9.8	12.6	7.8	-0.2	0.0	-0.2	-0.2	-0.1	-0.2
Asian/Pacific Islander	7.4	9.0	6.1	-0.5*	-0.4	-0.4	-	-	-
Amer Ind/Alaska Nat <sup>f</sup>	7.3	8.8	6.2	1.5	-	-	-	-	-
Hispanic <sup>e</sup>	10.2	12.2	8.7	0.3	0.2	0.5	-	-	-
U.S. Mortality <sup>g</sup>	Rate 2006-2010			Trend 2001-2010 <sup>h</sup>			AAPC (%)		
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Races	7.1	9.5	5.3	-1.0*	-0.8*	-1.3*			
White	7.3	9.8	5.5	-0.9*	-0.7*	-1.1*			
White Hispanic <sup>e</sup>	5.1	6.4	4.2	-0.6*	-0.5	-0.7*			
White Non-Hispanic <sup>e</sup>	7.4	10.0	5.5	-0.8*	-0.7*	-1.2*			
Black	6.1	8.2	4.8	-1.2*	-1.2*	-1.2*			
Asian/Pacific Islander	3.9	5.0	3.1	-0.9*	-0.8*	-0.9			
Amer Ind/Alaska Nat									
Total U.S.	3.7	4.9	2.8	-0.9	-0.9	-1.3			
CHSDA Counties	4.8	7.0	3.3	0.2	0.9	-			
Non-CHSDA Counties	2.4	2.5	2.3	-2.4	-	-			
Hispanic <sup>e</sup>	4.9	6.1	4.0	-1.0*	-0.6*	-0.8*			

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 4.0.3, April 2013, National Cancer Institute.

\* Statistic not shown. Rate based on less than 16 cases for the time interval.

- Trend based on less than 10 cases for at least one year within the time interval.

<sup>a</sup> Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130). Trends are based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

<sup>b</sup> The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta.

The SEER 13 areas comprise the SEER 9 areas plus San Jose-Monterey, Los Angeles, the Alaska Native Registry, and Rural Georgia.

The SEER 18 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, and Georgia excluding ATL/RG.

<sup>c</sup> The 2001-2010 AAPC estimates are based on a Joinpoint analysis with up to 3 Joinpoints over diagnosis years 1992-2010.

<sup>d</sup> The 2001-2010 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2010.

<sup>e</sup> Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The 2006-2010 Hispanic and Non-Hispanic death rates exclude deaths from the District of Columbia, North Dakota, and South Carolina. The 2001-2010 Hispanic and Non-Hispanic mortality trends exclude deaths from Connecticut, the District of Columbia, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma, South Carolina and Vermont.

<sup>f</sup> Incidence data for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

<sup>g</sup> US Mortality Files, National Center for Health Statistics, CDC.

<sup>h</sup> The 2001-2010 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2010.

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

Table 13.24

## Leukemia

Age-Adjusted SEER Incidence Rates<sup>a</sup>  
By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>SEER Incidence Rates<sup>a</sup>, 2006-2010</b>									
California	12.30	15.62	9.65	13.11	16.61	10.28	9.70	12.91	7.45
Greater Bay Area	12.44	16.13	9.60	14.25	18.53	10.86	11.24	16.25	7.65
San Francisco-Oakland	12.13	15.86	9.29	13.95	18.37	10.47	11.24	16.22	7.78
San Jose-Monterey	12.99	16.60	10.17	14.66	18.67	11.48	11.36	16.47	-
Los Angeles	12.47	15.83	9.85	13.56	17.34	10.51	9.32	11.56	8.15
Greater California	12.15	15.33	9.58	12.59	15.75	10.02	9.17	12.02	6.66
Connecticut	13.00	17.12	9.95	13.38	17.52	10.27	9.09	11.93	6.99
Detroit	14.05	19.13	10.30	14.85	20.03	10.97	11.22	15.54	8.20
Georgia	11.61	14.85	9.33	12.33	15.71	9.86	9.54	11.92	8.02
Atlanta	11.30	14.42	9.14	12.37	15.60	10.03	9.40	12.24	7.65
Rural Georgia	11.39	12.68	10.99	12.46	14.45	11.33	9.10	-	-
Greater Georgia	11.75	15.08	9.37	12.32	15.79	9.76	9.65	11.84	8.20
Hawaii	11.12	14.03	8.75	14.69	18.49	11.23	-	-	-
Iowa	14.46	18.07	11.73	14.43	18.00	11.76	8.22	-	-
Kentucky	13.18	16.87	10.34	13.21	16.88	10.38	9.53	11.60	8.26
Louisiana	11.74	15.16	9.19	12.59	16.29	9.76	9.79	12.06	8.20
New Jersey	13.47	17.36	10.48	13.95	17.91	10.82	9.17	11.79	7.47
New Mexico	12.73	15.91	10.11	12.49	15.65	9.85	7.97	-	-
Seattle-Puget Sound	15.08	19.11	11.93	15.75	19.93	12.41	12.15	15.21	10.83
Utah	13.06	17.09	9.64	13.21	17.29	9.75	-	-	-
9 SEER Areas <sup>b</sup>	13.26	17.15	10.28	14.08	18.16	10.89	10.38	14.05	7.92
11 SEER Areas <sup>b</sup>	13.09	16.86	10.19	14.05	18.10	10.87	10.13	13.50	7.94
13 SEER Areas <sup>b</sup>	13.08	16.83	10.19	14.05	18.09	10.87	10.11	13.44	7.95
18 SEER Areas <sup>b</sup>	12.76	16.34	9.99	13.45	17.18	10.51	9.75	12.61	7.82

<sup>a</sup> Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130)  
<sup>b</sup> The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta.  
The SEER 11 areas comprise the SEER 9 areas plus San Jose-Monterey and Los Angeles.  
The SEER 13 areas comprise the SEER 11 areas plus the Alaska Native Registry and Rural Georgia.  
The SEER 18 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG.  
- Statistic not shown. Rate based on less than 16 cases for the time interval.

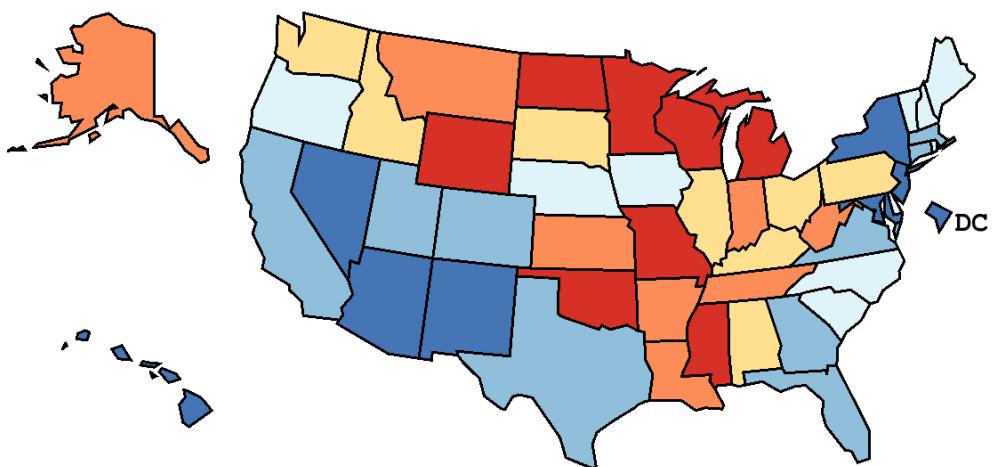


Table 13.26  
Leukemia

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2006-2010

Males and Females

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
TOTAL U.S.	7.07	0.02							
High Five States									
Wyoming	8.24	0.55	(01)	16.52 <sup>c</sup>					
Wisconsin	8.02	0.16	(02)	13.49					
North Dakota	7.92	0.45	(03)	11.99					
Minnesota	7.80	0.17	(04)	10.36					
Oklahoma	7.76	0.20	(05)	9.75					
Low Five States									
Arizona	6.50	0.14	(47)	-8.05					
Nevada	6.48	0.24	(48)	-8.35					
New Mexico	6.40	0.25	(49)	-9.53					
D.C.	6.18	0.47	(50)	-12.65					
Hawaii	5.35	0.27	(51)	-24.32 <sup>c</sup>					



**Age-Adjusted Death  
Rates per 100,000  
Quantile Interval**

- 7.74 - 8.24
- 7.48 - 7.73
- 7.21 - 7.47
- 6.81 - 7.20
- 6.67 - 6.80
- 5.35 - 6.66

**U.S. Rate: 7.07**

<sup>a</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

<sup>b</sup> Difference between state rate and total U.S. rate is statistically significant ( $p \leq .0002$ ).

<sup>c</sup> Absolute percent difference between state rate and total U.S. rate is 15% or more.

SE Standard error of the rate.

PD Percent difference between state rate and total U.S. rate.

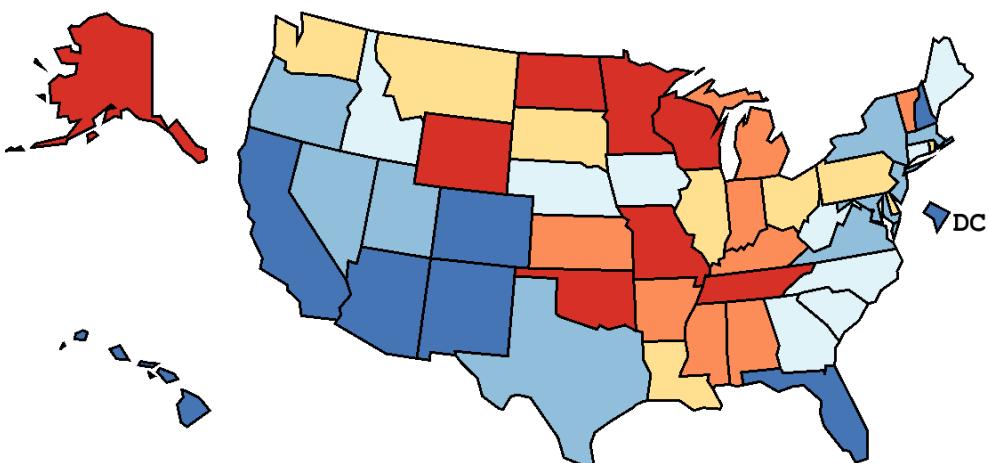
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 13.27  
Leukemia

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2006-2010

Males

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
TOTAL U.S.	9.51	0.04							
High Five States									
North Dakota	11.29	0.82	(01)	18.77 <sup>c</sup>					
Wisconsin	11.16	0.29	(02)	17.36 <sup>c</sup>					
Wyoming	10.88	0.96	(03)	14.48					
Alaska	10.81	1.19	(04)	13.73					
Minnesota	10.80	0.31	(05)	13.56					
Low Five States									
California	8.72	0.11	(47)	-8.26					
New Hampshire	8.49	0.54	(48)	-10.67					
Arizona	8.44	0.24	(49)	-11.27					
New Mexico	8.16	0.43	(50)	-14.12					
Hawaii	6.91	0.46	(51)	-27.28 <sup>c</sup>					



**Age-Adjusted Death  
Rates per 100,000  
Quantile Interval**

- 10.48 - 11.29
- 10.14 - 10.47
- 9.82 - 10.13
- 9.26 - 9.81
- 8.93 - 9.25
- 6.91 - 8.92

U.S. Rate: 9.51

<sup>a</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

<sup>b</sup> Difference between state rate and total U.S. rate is statistically significant ( $p \leq .0002$ ).

<sup>c</sup> Absolute percent difference between state rate and total U.S. rate is 15% or more.

SE Standard error of the rate.

PD Percent difference between state rate and total U.S. rate.

- Statistic not shown. Rate based on less than 16 cases for the time interval.

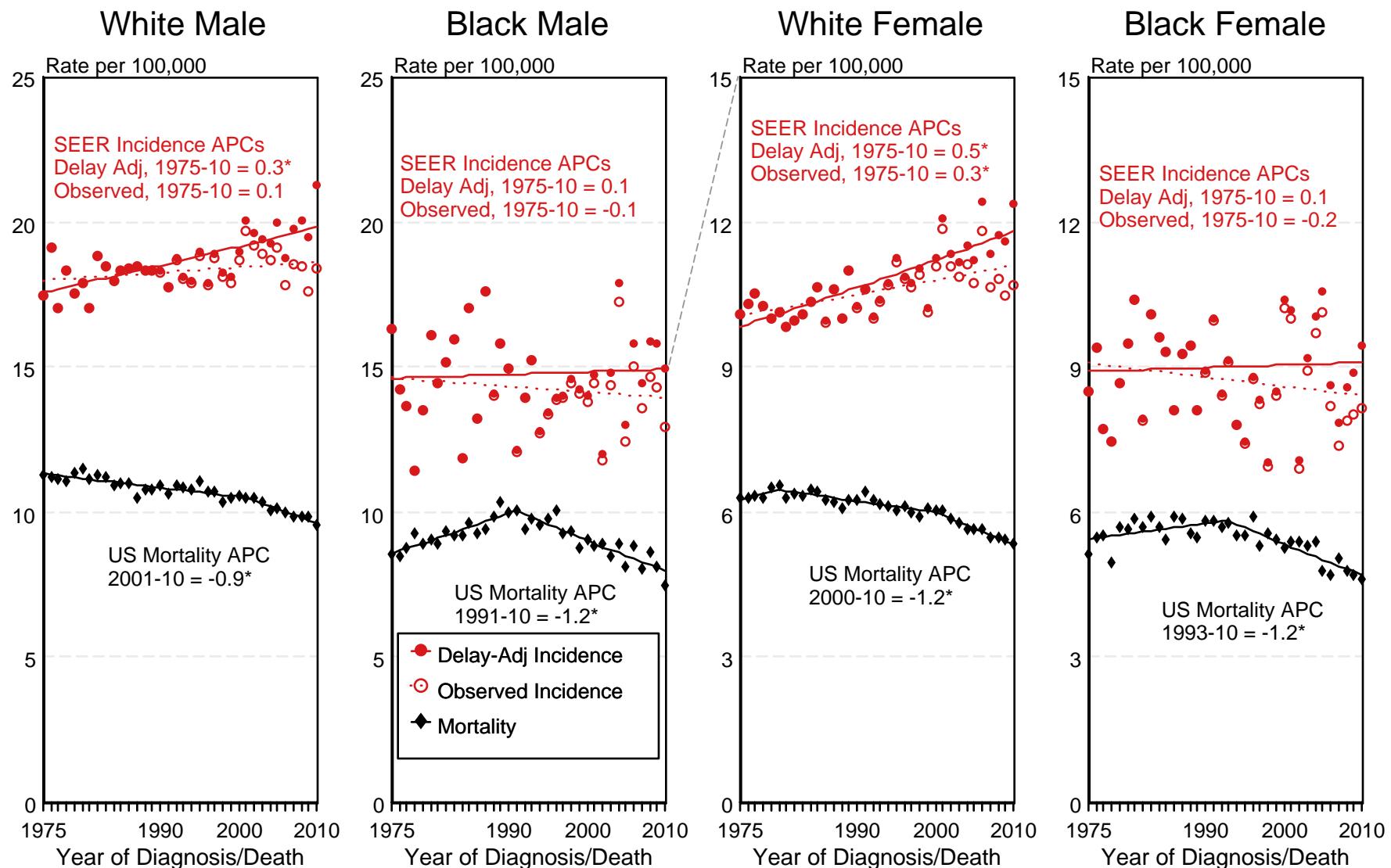






Figure 13.1

# SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates<sup>a</sup> Leukemia, by Race and Sex



<sup>a</sup> Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC).

Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

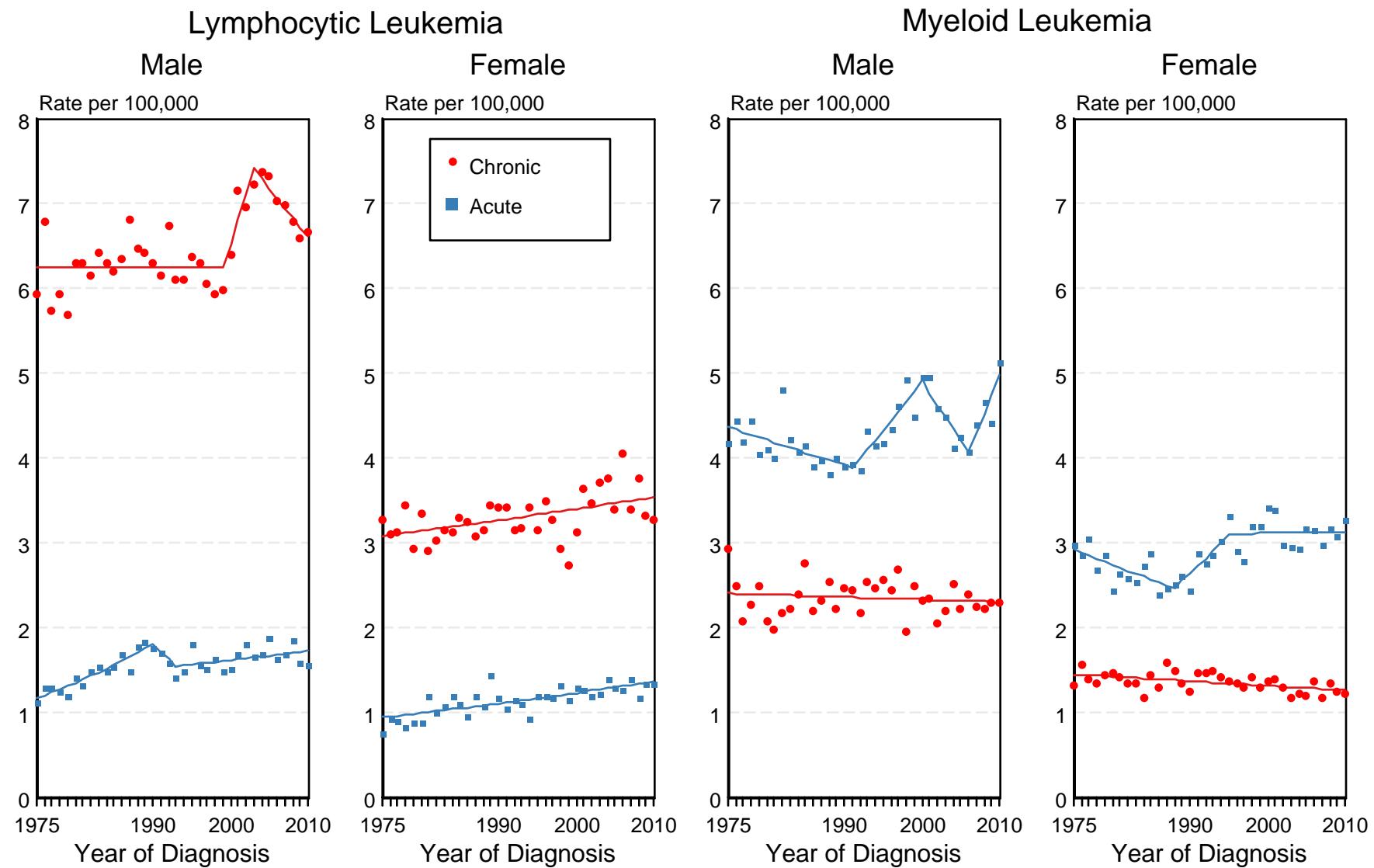
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.0.3, April 2013, National Cancer Institute.

The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

\* The APC is significantly different from zero ( $p < 0.05$ ).

Figure 13.2

# SEER Observed Incidence Rates<sup>a</sup> Lymphocytic and Myeloid Leukemia (Acute and Chronic), by Sex



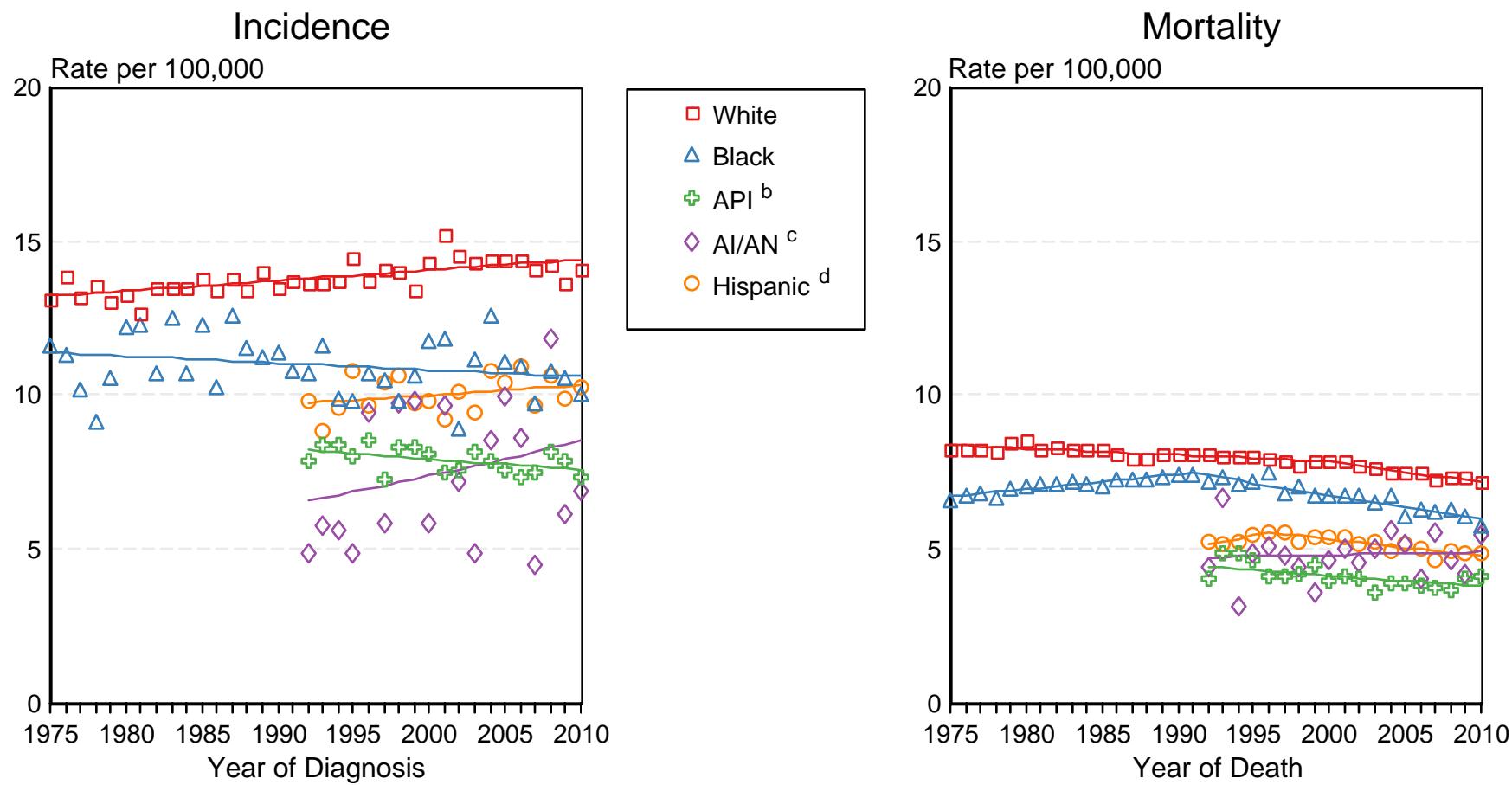
<sup>a</sup> Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.0.3, April 2013, National Cancer Institute.

Figure 13.3

# SEER Incidence and US Death Rates<sup>a</sup>

## Leukemia, Both Sexes

Joinpoint Analyses for Whites and Blacks from 1975-2010  
and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2010



Source: Incidence data for whites and blacks are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta). Incidence data for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics are from the SEER 13 Areas (SEER 9 Areas, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Mortality data are from US Mortality Files, National Center for Health Statistics, CDC.

<sup>a</sup> Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Regression lines are calculated using the Joinpoint Regression Program Version 4.0.3, April 2013, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2010 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2010 allow a maximum of 3 joinpoints.

<sup>b</sup> API = Asian/Pacific Islander.

<sup>c</sup> AI/AN = American Indian/Alaska Native. Rates for American Indian/Alaska Native are based on the CHSDA(Contract Health Service Delivery Area) counties.

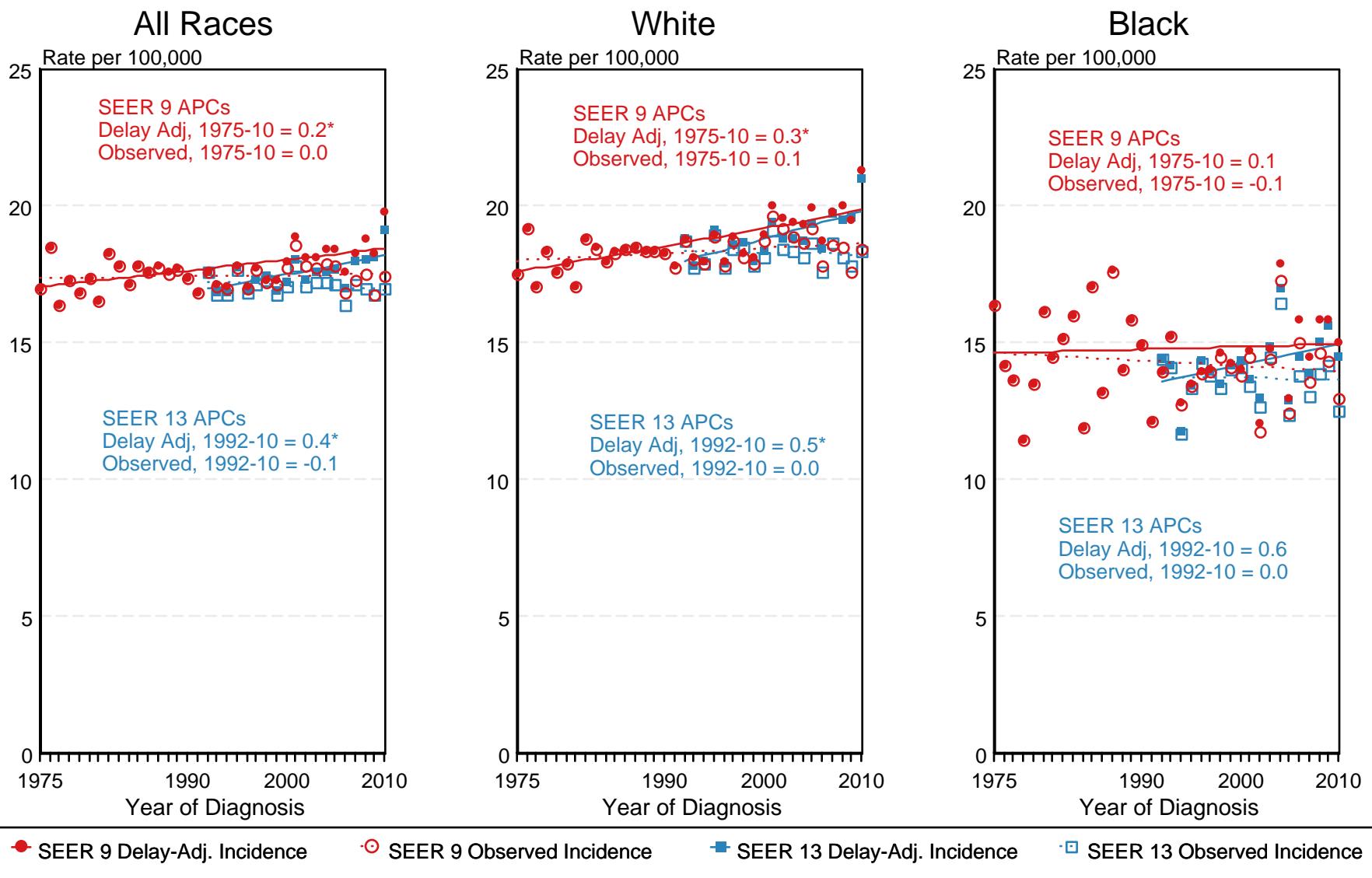
<sup>d</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Mortality data for Hispanics exclude cases from Connecticut, the District of Columbia, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, South Carolina, Oklahoma, and Vermont.

Figure 13.4

# SEER Observed Incidence and SEER Delay Adjusted Incidence Rates<sup>a</sup>

## SEER 9 Areas Compared to SEER 13 Areas

### Leukemia, Male, by Race



<sup>a</sup> Source: SEER 9 areas and SEER 13 areas.

Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.0.3, April 2013, National Cancer Institute.

The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

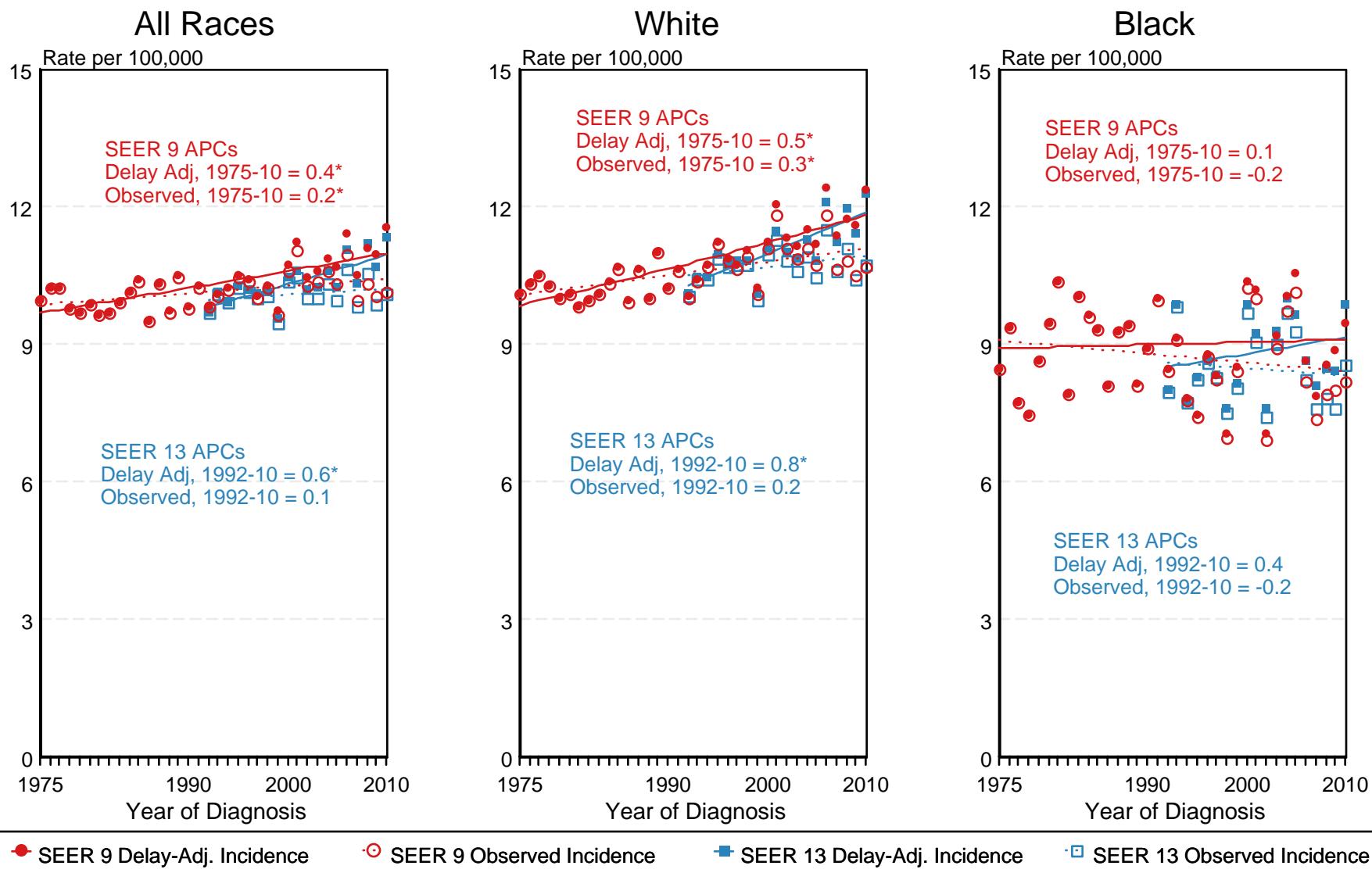
\* The APC is significantly different from zero ( $p < 0.05$ ).

Figure 13.5

# SEER Observed Incidence and SEER Delay Adjusted Incidence Rates<sup>a</sup>

## SEER 9 Areas Compared to SEER 13 Areas

### Leukemia, Female, by Race



<sup>a</sup> Source: SEER 9 areas and SEER 13 areas.

Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.0.3, April 2013, National Cancer Institute.

The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

\* The APC is significantly different from zero ( $p < 0.05$ ).