

Table 13.1  
LeukemiaTrends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2011 With up to Five Joinpoints, 1992-2011 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	2002-11	2007-11
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2011</u>														
All Races	1975-98	0.2	1998-11	0.9*									0.9*	0.9*
White	1975-97	0.3*	1997-11	1.0*									1.0*	1.0*
Black	1975-11	0.2											0.2	0.2
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2011</u>														
All Races	1992-11	0.6*											0.6*	0.6*
White	1992-11	0.8*											0.8*	0.8*
Black	1992-11	0.6*											0.6*	0.6*
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2011</u>														
All Races	1975-11	0.2*											0.2*	0.2*
White	1975-11	0.3*											0.3*	0.3*
Black	1975-11	-0.1											-0.1	-0.1
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2011</u>														
All Races	1992-11	0.1											0.1	0.1
White	1992-11	0.2*											0.2*	0.2*
White NH <sup>ef</sup>	1992-11	0.3*											0.3*	0.3*
Black	1992-11	0.0											0.0	0.0
Black NH <sup>ef</sup>	1992-11	0.0											0.0	0.0
API <sup>e</sup>	1992-11	-0.3											-0.3	-0.3
AI/AN <sup>eg</sup>	1992-11	1.2											1.2	1.2
Hispanic <sup>f</sup>	1992-11	0.4											0.4	0.4
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2011</u>														
All Races	1975-80	0.6	1980-88	-0.6*	1988-91	0.7	1991-01	-0.6*	2001-11	-1.0*			-1.0*	-1.0*
White	1975-00	-0.3*	2000-11	-0.9*									-0.9*	-0.9*
Black	1975-91	0.7*	1991-11	-1.2*									-1.2*	-1.2*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2011</u>														
All Races	1992-01	-0.5*	2001-11	-1.0*									-1.0*	-1.0*
White	1992-01	-0.4*	2001-11	-0.9*									-0.9*	-0.9*
White NH <sup>ef</sup>	1992-01	-0.3*	2001-11	-0.8*									-0.8*	-0.8*
Black	1992-11	-1.2*											-1.2*	-1.2*
Black NH <sup>ef</sup>	1992-11	-1.1*											-1.1*	-1.1*
API <sup>e</sup>	1992-07	-1.4*	2007-11	3.0									0.5	3.0
AI/AN <sup>eg</sup>	1992-11	-0.2											-0.2	-0.2
Hispanic <sup>f</sup>	1992-96	2.3	1996-11	-0.9*									-0.9*	-0.9*

Joinpoint Regression Program Version 4.1.0, April 2014, 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 New Hampshire and Oklahoma.

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&lt;.05).

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

Table 13.2  
LeukemiaTrends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2011 With up to Five Joinpoints, 1992-2011 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	2002-11	2007-11
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2011</u>														
All Races	1975-09	0.2*	2009-11	4.9									1.2	2.5
White	1975-96	0.1	1996-11	0.8*									0.8*	0.8*
Black	1975-11	0.2											0.2	0.2
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2011</u>														
All Races	1992-06	0.2	2006-11	1.6*									0.9*	1.6*
White	1992-11	0.6*											0.6*	0.6*
Black	1992-11	0.7*											0.7*	0.7*
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2011</u>														
All Races	1975-11	0.1											0.1	0.1
White	1975-11	0.1*											0.1*	0.1*
Black	1975-11	0.0											0.0	0.0
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2011</u>														
All Races	1992-11	0.0											0.0	0.0
White	1992-11	0.0											0.0	0.0
White NH <sup>ef</sup>	1992-11	0.1											0.1	0.1
Black	1992-11	0.1											0.1	0.1
Black NH <sup>ef</sup>	1992-11	0.1											0.1	0.1
API <sup>e</sup>	1992-11	-0.2											-0.2	-0.2
AI/AN <sup>eg</sup>	1992-11	1.5											1.5	1.5
Hispanic <sup>f</sup>	1992-11	0.3											0.3	0.3
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2011</u>														
All Races	1975-80	0.5	1980-87	-0.7*	1987-95	0.1	1995-11	-0.9*					-0.9*	-0.9*
White	1975-80	0.4	1980-87	-0.8*	1987-95	0.2	1995-11	-0.8*					-0.8*	-0.8*
Black	1975-91	1.0*	1991-11	-1.2*									-1.2*	-1.2*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2011</u>														
All Races	1992-11	-0.8*											-0.8*	-0.8*
White	1992-11	-0.7*											-0.7*	-0.7*
White NH <sup>ef</sup>	1992-11	-0.6*											-0.6*	-0.6*
Black	1992-11	-1.2*											-1.2*	-1.2*
Black NH <sup>ef</sup>	1992-11	-1.1*											-1.1*	-1.1*
API <sup>e</sup>	1992-11	-0.6											-0.6	-0.6
AI/AN <sup>eg</sup>	1992-11	0.4											0.4	0.4
Hispanic <sup>f</sup>	1992-11	-0.6*											-0.6*	-0.6*

Joinpoint Regression Program Version 4.1.0, April 2014, 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 New Hampshire and Oklahoma.

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&lt;.05).

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

Table 13.3  
LeukemiaTrends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2011 With up to Five Joinpoints, 1992-2011 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	2002-11	2007-11
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2011</u>														
All Races	1975-11	0.4*											0.4*	0.4*
White	1975-11	0.6*											0.6*	0.6*
Black	1975-11	0.1											0.1	0.1
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2011</u>														
All Races	1992-11	0.6*											0.6*	0.6*
White	1992-11	0.9*											0.9*	0.9*
Black	1992-11	0.5											0.5	0.5
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2011</u>														
All Races	1975-11	0.2*											0.2*	0.2*
White	1975-11	0.3*											0.3*	0.3*
Black	1975-11	-0.1											-0.1	-0.1
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2011</u>														
All Races	1992-11	0.2											0.2	0.2
White	1992-11	0.3*											0.3*	0.3*
White NH <sup>ef</sup>	1992-11	0.4*											0.4*	0.4*
Black	1992-11	-0.1											-0.1	-0.1
Black NH <sup>ef</sup>	1992-11	-0.1											-0.1	-0.1
API <sup>e</sup>	1992-11	-0.4											-0.4	-0.4
AI/AN <sup>eg</sup>	1992-11	1.4											1.4	1.4
Hispanic <sup>f</sup>	1992-11	0.5											0.5	0.5
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2011</u>														
All Races	1975-80	0.7	1980-99	-0.4*	1999-11	-1.2*							-1.2*	-1.2*
White	1975-99	-0.3*	1999-11	-1.1*									-1.1*	-1.1*
Black	1975-93	0.4	1993-11	-1.2*									-1.2*	-1.2*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2011</u>														
All Races	1992-01	-0.4*	2001-04	-2.0	2004-11	-0.9*							-1.1*	-0.9*
White	1992-00	-0.4*	2000-11	-1.1*									-1.1*	-1.1*
White NH <sup>ef</sup>	1992-00	-0.3	2000-11	-1.1*									-1.1*	-1.1*
Black	1992-11	-1.1*											-1.1*	-1.1*
Black NH <sup>ef</sup>	1992-11	-1.0*											-1.0*	-1.0*
API <sup>e</sup>	1992-11	-0.7											-0.7	-0.7
AI/AN <sup>eg</sup>	1992-11	-0.9											-0.9	-0.9
Hispanic <sup>f</sup>	1992-11	-0.6*											-0.6*	-0.6*

Joinpoint Regression Program Version 4.1.0, April 2014, 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).

<sup>a</sup> Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).<sup>b</sup> Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).<sup>c</sup> Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.<sup>d</sup> The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.<sup>e</sup> API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic<sup>f</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 Hispanic and Non-Hispanic mortality trends exclude deaths from New Hampshire and Oklahoma.

<sup>g</sup> 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&lt;.05).

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

Table 13.4  
LeukemiaDelay-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Sex

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975	12.80	16.93	9.96	13.10	17.49	10.10	11.58	16.33	8.47
1976	13.54	18.48	10.20	13.83	19.12	10.30	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	12.93	17.36	9.85	13.28	17.91	10.12	12.18	16.11	9.47
1981	12.38	16.47	9.65	12.65	17.03	9.82	12.27	14.47	10.37
1982	13.15	18.24	9.70	13.50	18.79	9.94	10.75	15.16	7.91
1983	13.15	17.81	9.91	13.48	18.44	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	10.38	13.75	18.30	10.65	12.33	17.04	9.30
1986	12.85	17.55	9.51	13.41	18.40	9.94	10.24	13.21	8.09
1987	13.37	17.76	10.33	13.81	18.48	10.62	12.58	17.62	9.26
1988	12.98	17.53	9.71	13.44	18.32	10.00	11.56	14.05	9.43
1989	13.48	17.70	10.50	14.01	18.34	11.02	11.28	15.82	8.12
1990	12.93	17.36	9.80	13.55	18.30	10.25	11.42	14.94	8.91
1991	13.09	16.83	10.26	13.73	17.80	10.63	10.83	12.11	9.99
1992	13.09	17.59	9.84	13.68	18.75	10.06	10.70	13.95	8.44
1993	13.11	17.12	10.09	13.69	18.07	10.39	11.64	15.25	9.11
1994	13.12	17.05	10.22	13.82	17.99	10.76	9.90	12.75	7.81
1995	13.62	17.80	10.51	14.52	18.94	11.23	9.93	13.58	7.45
1996	13.21	17.09	10.43	13.82	17.93	10.89	10.75	13.92	8.77
1997	13.29	17.72	10.07	14.15	18.86	10.74	10.64	14.13	8.34
1998	13.27	17.30	10.29	14.11	18.24	11.03	9.91	14.55	7.01
1999	12.96	17.30	9.75	13.62	18.15	10.24	10.72	14.20	8.48
2000	13.83	17.96	10.73	14.58	18.98	11.28	11.88	13.94	10.34
2001	14.56	18.96	11.24	15.56	20.13	12.10	11.99	14.65	10.13
2002	13.76	18.19	10.42	14.91	19.67	11.28	9.08	12.02	7.03
2003	13.86	18.14	10.62	14.70	19.35	11.17	11.50	14.86	9.10
2004	14.10	18.34	10.89	14.89	19.26	11.51	13.04	17.94	9.97
2005	14.08	18.49	10.68	15.06	20.05	11.17	11.63	13.13	10.55
2006	14.13	17.69	11.47	15.24	18.91	12.48	11.46	15.60	8.62
2007	13.86	18.23	10.55	15.05	19.75	11.41	10.21	14.14	7.76
2008	14.44	18.72	11.08	15.41	19.97	11.76	11.57	15.87	8.44
2009	14.18	18.24	11.02	15.18	19.51	11.73	11.63	15.99	8.71
2010	14.96	19.55	11.47	16.10	20.96	12.30	11.46	15.24	9.15
2011	15.48	19.93	11.89	16.57	21.19	12.78	13.31	16.58	10.77

Additional information on the model used to delay-adjust SEER Incidence rates can be found at [\(http://surveillance.cancer.gov/delay/\)](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  
LeukemiaAge-adjusted SEER Incidence<sup>a</sup> Rates by Year, Race and Sex

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2011	13.25	17.44	10.19	13.88	18.34	10.63	10.95	14.25	8.69
1975	12.80	16.93	9.96	13.10	17.49	10.10	11.58	16.33	8.47
1976	13.54	18.48	10.20	13.83	19.12	10.30	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	12.93	17.36	9.85	13.28	17.91	10.12	12.18	16.11	9.47
1981	12.38	16.47	9.65	12.65	17.03	9.82	12.27	14.47	10.37
1982	13.15	18.24	9.70	13.50	18.79	9.94	10.75	15.16	7.91
1983	13.15	17.81	9.91	13.48	18.43	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	13.37	17.77	10.38	13.74	18.29	10.64	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	13.46	17.68	10.49	13.99	18.32	11.00	11.26	15.80	8.11
1990	12.91	17.34	9.79	13.52	18.27	10.23	11.40	14.91	8.89
1991	13.07	16.80	10.24	13.70	17.76	10.61	10.81	12.09	9.98
1992	13.06	17.55	9.82	13.65	18.71	10.03	10.68	13.91	8.42
1993	13.08	17.08	10.07	13.65	18.01	10.35	11.61	15.20	9.09
1994	13.08	17.00	10.19	13.76	17.93	10.72	9.86	12.71	7.78
1995	13.57	17.73	10.47	14.45	18.85	11.18	9.89	13.53	7.42
1996	13.16	17.02	10.39	13.75	17.83	10.83	10.70	13.85	8.73
1997	13.22	17.62	10.02	14.06	18.73	10.66	10.58	14.04	8.29
1998	13.19	17.19	10.23	14.00	18.10	10.95	9.84	14.45	6.96
1999	12.85	17.16	9.67	13.49	17.97	10.14	10.62	14.07	8.40
2000	13.69	17.79	10.63	14.40	18.75	11.14	11.75	13.78	10.23
2001	14.38	18.73	11.11	15.32	19.82	11.92	11.83	14.45	9.99
2002	13.56	17.92	10.26	14.64	19.31	11.08	8.92	11.82	6.91
2003	13.61	17.81	10.42	14.37	18.92	10.92	11.26	14.55	8.91
2004	13.78	17.93	10.65	14.48	18.73	11.19	12.71	17.49	9.72
2005	13.69	17.98	10.38	14.55	19.37	10.79	11.27	12.73	10.22
2006	13.65	17.10	11.09	14.61	18.13	11.96	11.02	15.01	8.29
2007	13.27	17.44	10.10	14.28	18.74	10.82	9.72	13.47	7.39
2008	13.67	17.72	10.49	14.44	18.71	11.02	10.89	14.93	7.94
2009	13.24	17.03	10.29	14.00	17.99	10.82	10.78	14.82	8.07
2010	13.72	17.93	10.52	14.54	18.93	11.11	10.41	13.85	8.31
2011	13.66	17.58	10.49	14.32	18.32	11.05	11.59	14.43	9.37

<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

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2011	1.36	1.57	1.16	1.44	1.67	1.23	0.84	0.94	0.75
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	1.52	1.08	1.39	1.64	1.18	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	1.42	1.76	1.16	1.52	1.85	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	1.62	1.31	1.58	1.72	1.44	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	1.47	1.69	1.27	0.78	0.97	-
2004	1.55	1.69	1.40	1.67	1.93	1.39	1.12	-	1.43
2005	1.58	1.88	1.29	1.68	1.96	1.38	0.97	1.18	-
2006	1.44	1.63	1.27	1.51	1.65	1.39	0.95	1.38	-
2007	1.52	1.68	1.38	1.60	1.73	1.49	0.95	1.06	-
2008	1.50	1.85	1.15	1.67	2.01	1.32	0.96	1.36	-
2009	1.46	1.59	1.34	1.56	1.73	1.41	0.96	1.08	0.85
2010	1.44	1.55	1.33	1.57	1.65	1.50	0.94	1.05	0.85
2011	1.77	1.90	1.63	1.92	2.03	1.83	1.33	1.54	1.06

<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

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2011	4.70	6.54	3.36	5.07	7.07	3.62	3.69	5.27	2.62
1975	4.35	5.92	3.27	4.48	6.12	3.39	4.82	7.06	3.23
1976	4.57	6.76	3.10	4.77	7.17	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	4.45	6.41	3.13	4.68	6.79	3.25	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	4.69	6.43	3.47	4.99	6.88	3.67	3.91	5.15	3.04
1990	4.60	6.30	3.41	4.90	6.76	3.60	4.51	6.13	3.43
1991	4.59	6.18	3.42	4.99	6.78	3.65	3.40	3.75	3.15
1992	4.61	6.73	3.16	5.05	7.42	3.43	3.21	4.96	2.08
1993	4.44	6.12	3.17	4.72	6.52	3.36	4.48	6.70	2.89
1994	4.58	6.11	3.43	5.02	6.68	3.80	3.19	4.13	2.32
1995	4.51	6.38	3.15	4.92	6.96	3.46	3.39	5.34	2.06
1996	4.69	6.33	3.51	5.12	6.85	3.88	3.52	5.36	2.26
1997	4.49	6.06	3.30	4.90	6.60	3.62	3.52	5.07	2.52
1998	4.20	5.94	2.94	4.62	6.49	3.24	2.80	3.73	2.21
1999	4.15	6.03	2.75	4.47	6.48	2.96	3.87	5.89	2.68
2000	4.58	6.45	3.17	5.07	7.18	3.43	3.35	4.31	2.72
2001	5.24	7.29	3.71	5.77	8.01	4.10	3.87	4.89	3.13
2002	5.02	7.06	3.48	5.63	7.90	3.91	2.97	4.29	2.02
2003	5.25	7.27	3.74	5.77	8.04	4.06	4.11	5.74	2.97
2004	5.35	7.39	3.82	5.81	7.82	4.28	4.75	7.96	2.63
2005	5.19	7.48	3.44	5.74	8.37	3.67	3.82	4.54	3.34
2006	5.51	7.27	4.21	6.07	7.94	4.66	4.33	6.41	2.98
2007	5.09	7.16	3.50	5.72	7.97	3.95	2.85	4.58	1.88
2008	5.17	6.89	3.85	5.67	7.46	4.28	3.76	5.77	2.28
2009	4.95	6.84	3.46	5.45	7.45	3.82	3.64	5.47	2.49
2010	5.04	7.05	3.51	5.51	7.61	3.87	3.15	4.53	2.27
2011	4.82	6.44	3.51	5.20	6.92	3.80	3.68	4.89	2.79

<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

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2011	3.51	4.36	2.92	3.57	4.45	2.96	3.09	3.70	2.70
1975	3.43	4.17	2.98	3.48	4.28	2.99	2.49	3.37	2.02
1976	3.50	4.43	2.86	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	3.41	4.79	2.59	3.47	4.90	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	4.94	3.19	4.06	5.06	3.32	3.05	4.64	2.11
1999	3.72	4.50	3.18	3.84	4.62	3.30	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	3.64	4.59	2.98	3.79	4.79	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	4.14	2.92	3.50	4.22	3.00	3.33	4.25	2.96
2005	3.59	4.24	3.17	3.64	4.37	3.19	3.52	3.47	3.64
2006	3.53	4.10	3.14	3.65	4.20	3.26	2.81	3.34	2.52
2007	3.54	4.39	2.96	3.66	4.51	3.07	3.35	4.37	2.72
2008	3.81	4.68	3.17	3.85	4.84	3.08	3.07	3.78	2.74
2009	3.63	4.42	3.07	3.78	4.66	3.11	3.12	3.96	2.55
2010	4.09	5.16	3.31	4.25	5.40	3.38	3.35	4.58	2.57
2011	4.05	4.97	3.32	4.06	4.93	3.36	4.02	4.52	3.67

<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

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2011	1.77	2.34	1.34	1.79	2.38	1.37	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	1.97	2.76	1.43	2.00	2.80	1.47	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	1.38	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	2.34	1.35	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	1.62	2.07	1.28	1.64	2.10	1.31	1.13	-	-
2003	1.63	2.20	1.19	1.72	2.31	1.24	1.44	2.11	-
2004	1.79	2.53	1.22	1.86	2.64	1.25	1.47	1.97	1.11
2005	1.67	2.25	1.21	1.75	2.34	1.28	1.69	2.44	1.20
2006	1.80	2.37	1.37	1.90	2.49	1.45	1.61	2.17	1.16
2007	1.67	2.25	1.20	1.77	2.43	1.22	1.44	1.83	1.20
2008	1.79	2.28	1.39	1.79	2.21	1.47	1.78	2.54	1.11
2009	1.76	2.34	1.31	1.75	2.25	1.35	1.81	2.80	1.16
2010	1.76	2.36	1.29	1.72	2.34	1.23	1.78	2.01	1.69
2011	1.81	2.42	1.30	1.89	2.56	1.32	1.50	1.78	1.24

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

Year of Death:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2011	7.70	10.33	5.90	7.89	10.60	6.03	6.78	8.97	5.37
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	9.26	5.20	7.16	9.58	5.37	5.75	7.46	4.60
2011	6.94	9.28	5.24	7.18	9.60	5.39	6.00	7.75	4.85

<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  
LeukemiaSEER 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
<u>SEER Incidence</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2007-2011									
All ages	13.0	16.7	10.2	13.7	17.5	10.7	10.0	12.9	8.0
Under 65	6.5	7.7	5.4	6.9	8.0	5.7	5.1	6.1	4.2
65 and over	58.1	79.1	43.1	61.1	83.1	45.1	44.3	59.7	35.0
All ages (IARC world std) <sup>c</sup>	9.4	11.6	7.6	10.0	12.2	8.0	7.1	8.8	5.8
Age-Specific Rates, 2007-2011									
<1	4.6	4.6	4.7	4.8	4.4	5.2	4.5	5.5	-
1-4	9.3	9.6	8.9	10.3	10.6	10.1	4.6	4.9	4.4
5-9	4.3	4.8	3.8	4.8	5.3	4.3	2.6	3.0	2.2
10-14	3.2	3.6	2.9	3.4	3.7	3.1	2.5	3.0	2.0
15-19	3.1	3.6	2.7	3.5	4.0	3.0	2.0	2.1	1.8
20-24	2.6	3.0	2.2	2.8	3.2	2.3	1.7	1.9	1.5
25-29	2.9	3.3	2.4	3.0	3.5	2.6	2.3	2.7	1.9
30-34	3.3	3.6	3.0	3.3	3.7	3.0	2.8	3.1	2.5
35-39	4.1	4.5	3.6	4.2	4.5	3.8	3.7	4.4	3.1
40-44	5.3	6.1	4.4	5.4	6.3	4.5	4.9	5.5	4.3
45-49	7.7	8.8	6.5	7.9	9.1	6.7	6.4	7.9	5.0
50-54	11.1	13.4	8.9	11.5	13.9	9.2	9.4	11.5	7.4
55-59	16.2	21.0	11.8	16.8	21.4	12.3	14.1	19.1	9.9
60-64	24.6	31.2	18.5	26.0	32.9	19.4	18.0	21.4	15.3
65-69	36.9	48.4	26.9	39.1	51.2	28.1	28.3	36.6	21.8
70-74	49.1	64.8	36.2	51.9	68.1	38.1	39.6	51.6	30.9
75-79	65.2	88.6	47.4	69.0	93.6	49.9	47.1	63.7	36.5
80-84	78.6	109.8	58.2	82.2	114.5	60.7	58.8	84.9	44.8
85+	86.9	124.1	68.6	90.4	129.7	71.0	67.8	91.7	58.2
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2007-2011									
All ages	7.0	9.4	5.3	7.3	9.7	5.4	6.0	8.0	4.8
Under 65	2.1	2.5	1.7	2.1	2.5	1.7	2.2	2.7	1.8
65 and over	41.2	57.5	30.1	42.8	59.8	31.1	32.7	44.7	25.8
All ages (IARC world std) <sup>c</sup>	4.0	5.3	3.1	4.2	5.4	3.2	3.7	4.8	2.9
Age-Specific Rates, 2007-2011									
<1	0.6	0.7	0.5	0.7	0.8	0.5	-	-	-
1-4	0.7	0.7	0.7	0.7	0.7	0.8	0.6	0.6	0.6
5-9	0.6	0.6	0.5	0.6	0.6	0.5	0.4	0.5	0.4
10-14	0.7	0.7	0.6	0.7	0.8	0.7	0.6	0.6	0.6
15-19	0.8	1.0	0.7	0.9	1.0	0.7	0.7	0.8	0.6
20-24	1.0	1.2	0.8	1.0	1.3	0.8	0.9	1.1	0.8
25-29	1.0	1.3	0.8	1.1	1.3	0.9	1.0	1.3	0.7
30-34	1.2	1.4	1.0	1.2	1.4	1.0	1.2	1.6	0.9
35-39	1.3	1.5	1.2	1.3	1.5	1.2	1.5	1.9	1.2
40-44	1.7	1.9	1.5	1.7	1.9	1.5	2.1	2.5	1.9
45-49	2.5	2.8	2.2	2.6	2.9	2.3	2.6	3.2	2.1
50-54	3.8	4.5	3.2	3.8	4.4	3.2	4.6	5.6	3.7
55-59	6.1	7.6	4.8	6.2	7.7	4.8	6.7	8.6	5.1
60-64	10.9	14.2	7.9	11.2	14.6	8.0	11.1	14.1	8.7
65-69	18.4	24.2	13.2	19.0	24.9	13.6	17.0	23.4	12.2
70-74	29.6	40.2	20.7	30.7	41.8	21.3	26.0	34.5	19.9
75-79	44.8	61.6	31.9	46.7	64.3	32.9	35.5	45.8	29.1
80-84	62.7	90.0	44.7	65.4	93.7	46.4	45.6	64.1	35.9
85+	84.4	121.8	66.5	87.7	126.4	69.0	61.0	88.4	50.4

<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.

<sup>c</sup> 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, 2007-2011									
All ages	1.7	1.9	1.5	1.9	2.1	1.7	1.0	1.2	0.8
Under 65	1.7	1.9	1.5	1.9	2.1	1.7	1.0	1.2	0.7
65 and over	1.6	1.9	1.4	1.6	2.0	1.4	1.2	0.9	1.3
All ages (IARC world std) <sup>b</sup>	2.1	2.3	1.9	2.3	2.6	2.1	1.1	1.4	0.9
Age-Specific Rates, 2007-2011									
<1	2.0	1.9	2.0	2.1	1.8	2.3	-	-	-
1-4	8.0	8.4	7.6	9.0	9.3	8.8	3.4	3.9	2.9
5-9	3.7	4.1	3.3	4.2	4.6	3.7	2.1	2.5	1.7
10-14	2.2	2.4	2.0	2.4	2.5	2.2	1.6	2.0	1.1
15-19	1.8	2.3	1.3	2.1	2.6	1.5	1.1	1.3	0.8
20-24	1.0	1.3	0.7	1.2	1.5	0.8	-	-	-
25-29	0.8	0.9	0.6	0.9	1.0	0.8	-	-	-
30-34	0.7	0.7	0.6	0.8	0.9	0.7	-	-	-
35-39	0.7	0.7	0.6	0.8	0.8	0.7	-	-	-
40-44	0.7	0.7	0.6	0.7	0.8	0.7	0.4	-	-
45-49	0.8	0.9	0.7	0.9	1.0	0.8	0.4	-	-
50-54	0.8	0.9	0.8	0.9	1.0	0.8	0.8	-	-
55-59	1.0	1.1	0.9	1.1	1.1	1.0	0.6	-	-
60-64	1.2	1.3	1.1	1.3	1.4	1.2	0.7	-	-
65-69	1.6	1.8	1.3	1.6	2.0	1.3	1.4	-	-
70-74	1.3	1.5	1.2	1.5	1.5	1.4	-	-	-
75-79	1.7	2.0	1.5	1.7	2.1	1.4	-	-	-
80-84	1.9	2.3	1.7	2.0	2.4	1.8	-	-	-
85+	1.5	2.2	1.2	1.6	2.4	1.2	-	-	-
<u>Chronic Lymphocytic Leukemia</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2007-2011									
All ages	4.4	6.0	3.1	4.7	6.4	3.4	3.0	4.2	2.1
Under 65	1.4	1.8	1.0	1.5	1.9	1.0	0.9	1.2	0.6
65 and over	25.3	35.0	18.3	27.0	37.1	19.5	17.3	24.9	12.7
All ages (IARC world std) <sup>b</sup>	2.6	3.6	1.9	2.8	3.8	2.0	1.8	2.5	1.2
Age-Specific Rates, 2007-2011									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-
30-34	0.1	0.1	-	0.1	-	-	-	-	-
35-39	0.3	0.3	0.2	0.3	0.4	0.2	-	-	-
40-44	0.7	1.0	0.5	0.8	1.0	0.5	0.6	0.9	-
45-49	1.9	2.4	1.4	2.0	2.6	1.5	1.1	1.5	0.8
50-54	3.7	4.8	2.7	3.9	5.0	2.9	2.6	3.5	1.7
55-59	6.8	9.5	4.2	7.2	9.9	4.5	4.4	6.8	2.3
60-64	10.7	14.0	7.7	11.5	14.9	8.4	6.3	8.1	4.9
65-69	16.7	22.9	11.3	17.8	24.3	12.0	11.4	16.0	7.8
70-74	22.1	30.2	15.4	23.5	31.8	16.6	15.7	22.2	11.1
75-79	28.1	37.9	20.8	30.3	40.5	22.4	16.6	22.8	12.6
80-84	33.0	46.6	24.1	34.8	49.1	25.2	23.3	35.4	16.9
85+	37.0	53.4	28.9	39.3	56.5	30.8	27.7	42.2	21.9

<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, 2007-2011									
All ages	3.8	4.6	3.2	3.9	4.8	3.3	3.3	3.8	2.9
Under 65	1.8	1.9	1.7	1.8	2.0	1.7	1.7	1.8	1.6
65 and over	17.5	23.2	13.6	18.3	24.3	14.0	14.0	17.3	12.0
All ages (IARC world std) <sup>b</sup>	2.6	3.0	2.3	2.7	3.1	2.3	2.3	2.5	2.1
Age-Specific Rates, 2007-2011									
<1	1.5	1.4	1.5	1.6	1.5	1.7	-	-	-
1-4	0.9	0.9	1.0	1.0	0.9	1.0	1.0	-	1.3
5-9	0.4	0.4	0.4	0.4	0.4	0.4	-	-	-
10-14	0.7	0.8	0.6	0.7	0.8	0.6	0.7	0.8	-
15-19	0.9	0.8	1.0	0.9	0.8	1.0	0.6	-	0.8
20-24	0.9	0.9	0.9	1.0	0.9	1.0	0.7	-	0.9
25-29	1.2	1.2	1.1	1.2	1.3	1.1	1.0	1.0	1.0
30-34	1.4	1.4	1.5	1.4	1.4	1.4	1.2	1.2	1.2
35-39	1.6	1.5	1.6	1.6	1.5	1.6	1.4	1.4	1.5
40-44	1.8	1.9	1.7	1.8	1.9	1.7	2.0	2.0	1.9
45-49	2.5	2.4	2.6	2.4	2.4	2.5	2.4	2.5	2.2
50-54	3.3	3.6	3.1	3.4	3.7	3.0	3.2	3.7	2.6
55-59	4.3	5.0	3.6	4.4	5.1	3.8	4.5	5.6	3.6
60-64	7.0	8.1	5.9	7.2	8.3	6.1	6.2	7.1	5.4
65-69	10.8	13.3	8.6	11.5	14.1	9.1	8.0	10.2	6.2
70-74	15.3	19.3	11.9	16.0	20.6	12.0	13.8	14.5	13.3
75-79	21.1	27.9	15.9	22.2	29.2	16.7	16.3	22.1	12.6
80-84	24.1	33.1	18.2	24.9	34.3	18.7	17.8	25.6	13.7
85+	23.4	33.4	18.4	23.7	34.3	18.5	19.6	20.7	19.2
<u>Chronic Myeloid Leukemia</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2007-2011									
All ages	1.7	2.2	1.2	1.7	2.2	1.2	1.6	1.9	1.3
Under 65	0.9	1.1	0.7	0.9	1.1	0.7	1.0	1.1	0.9
65 and over	6.8	9.5	4.9	7.1	9.8	5.1	5.6	7.5	4.4
All ages (IARC world std) <sup>b</sup>	1.1	1.5	0.9	1.1	1.5	0.9	1.1	1.3	0.9
Age-Specific Rates, 2007-2011									
<1	0.4	-	-	0.4	-	-	-	-	-
1-4	0.1	-	-	-	-	-	-	-	-
5-9	0.1	-	-	-	-	-	-	-	-
10-14	0.2	0.2	0.1	0.2	0.2	0.2	-	-	-
15-19	0.3	0.3	0.2	0.3	0.3	0.2	-	-	-
20-24	0.5	0.5	0.4	0.4	0.5	0.4	0.4	-	-
25-29	0.6	0.8	0.5	0.7	0.9	0.4	0.5	-	-
30-34	0.8	1.0	0.5	0.7	0.9	0.5	0.9	1.1	-
35-39	1.0	1.2	0.7	0.9	1.1	0.7	1.2	1.4	1.0
40-44	1.2	1.5	1.0	1.2	1.5	1.0	1.3	1.4	1.2
45-49	1.5	1.8	1.2	1.4	1.7	1.2	1.6	2.1	1.1
50-54	1.8	2.2	1.4	1.8	2.1	1.4	1.9	1.9	1.8
55-59	2.4	2.9	1.9	2.3	2.9	1.7	3.0	3.5	2.6
60-64	3.1	4.0	2.2	3.1	4.2	2.1	3.0	3.0	3.1
65-69	4.4	5.8	3.2	4.7	6.0	3.4	3.9	4.2	3.6
70-74	5.6	7.5	4.1	5.9	7.7	4.3	5.3	8.1	3.3
75-79	7.3	10.8	4.7	7.6	11.1	4.9	5.6	8.2	4.0
80-84	9.6	13.5	7.0	10.0	13.8	7.4	7.8	11.4	5.8
85+	10.2	14.8	7.9	10.6	15.6	8.1	7.2	-	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
5-Year Relative Survival (Percent)									
Year of Diagnosis:									
1960-1963 <sup>a</sup>	-	-	-	14	-	-	-	-	-
1970-1973 <sup>a</sup>	-	-	-	22	-	-	-	-	-
1975-1977 <sup>b</sup>	34.2	33.0	35.6	34.6	33.6	35.8	33.2	30.0	36.7
1978-1980 <sup>b</sup>	36.0	35.0	37.4	36.7	35.8	38.0	28.2	27.3	29.3
1981-1983 <sup>b</sup>	37.3	37.0	37.8	38.1	37.8	38.4	33.9	33.4	34.3
1984-1986 <sup>b</sup>	40.5	40.1	41.1	41.6	41.3	42.0	32.7	31.5	34.1
1987-1989 <sup>b</sup>	42.9	44.0	41.3	43.9	45.5	41.8	35.0	32.7	37.8
1990-1992 <sup>b</sup>	45.2	44.6	46.0	46.4	46.2	46.7	35.7	30.5	41.3
1993-1995 <sup>b</sup>	47.3	48.2	46.1	48.3	49.2	47.2	41.0	41.3	40.6
1996-1998 <sup>b</sup>	48.1	48.3	47.7	49.4	49.3	49.5	38.2	38.8	37.3
1999-2003 <sup>b</sup>	53.1	53.6	52.3	54.1	54.6	53.3	45.4	46.3	44.4
2004-2010 <sup>b</sup>	60.3 <sup>e</sup>	61.4 <sup>e</sup>	58.7 <sup>e</sup>	61.0 <sup>e</sup>	61.9 <sup>e</sup>	59.9 <sup>e</sup>	54.0 <sup>e</sup>	58.1 <sup>e</sup>	48.9 <sup>e</sup>
5-Year Period Survival (Percent) <sup>cd</sup>									
2010	57.7	58.5	56.6	57.8	58.4	57.1	51.1	52.0	50.0
5-Year Relative Survival (Percent), 2004-2010 <sup>c</sup>									
Age at Diagnosis:									
Ages <45	72.5	72.1	73.1	73.4	72.9	74.0	63.5	62.5	64.8
Ages 45-54	66.2	67.8	63.7	67.1	68.8	64.4	58.4	58.5	58.0
Ages 55-64	64.5	64.3	64.7	65.0	64.5	65.8	54.2	54.3	53.9
Ages 65-74	54.0	53.7	54.4	55.0	54.2	56.3	41.7	42.9	40.1
Ages 75+	36.8	36.6	37.0	37.4	37.3	37.5	28.0	27.0	28.5
Ages <65	68.5	68.5	68.6	69.2	69.1	69.4	59.8	59.3	60.4
Ages 65+	44.1	44.6	43.5	44.7	45.1	44.3	34.5	35.6	33.3

<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).

Based on follow-up of patients into 2011.

<sup>c</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 2011.

<sup>d</sup> Period survival provides a 2010 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>e</sup> The difference between 1975-1977 and 2004-2010 is statistically significant ( $p < .05$ ).

<sup>f</sup> The standard error is between 5 and 10 percentage points.

<sup>g</sup> The standard error is greater than 10 percentage points.

- 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
<u>Acute Lymphocytic Leukemia</u>									
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>	50.6	47.0	55.4	51.4	47.9	56.2	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>	58.0	54.5	63.1	57.7	54.9	62.0	57.1 <sup>e</sup>	50.4 <sup>e</sup>	63.3 <sup>e</sup>
1993-1995 <sup>a</sup>	60.1	57.8	63.3	59.7	57.9	62.3	52.6 <sup>e</sup>	44.6 <sup>e</sup>	63.8 <sup>e</sup>
1996-1998 <sup>b</sup>	65.4	64.3	66.9	66.1	63.8	68.9	56.2 <sup>e</sup>	60.3 <sup>e</sup>	50.2 <sup>e</sup>
1999-2003 <sup>a</sup>	64.8	63.2	67.0	65.6	64.2	67.3	58.0	48.6 <sup>e</sup>	68.8 <sup>e</sup>
2004-2010 <sup>a</sup>	70.0 <sup>d</sup>	70.1 <sup>d</sup>	70.0 <sup>d</sup>	70.7 <sup>d</sup>	70.4 <sup>d</sup>	70.9 <sup>d</sup>	64.7 <sup>d</sup>	69.3	57.0 <sup>e</sup>
5-Year Period Survival (Percent) <sup>bc</sup>									
2010	67.2	67.0	67.4	67.3	66.9	67.9	63.6	64.5	62.0
5-Year Relative Survival (Percent), 2004-2010 <sup>b</sup>									
Age at Diagnosis:									
Ages <45	77.8	76.4	79.9	78.0	76.6	79.9	74.1	73.0	75.8
Ages 45-54	32.8	36.7	27.4	31.7	35.0	26.8	31.3 <sup>e</sup>	-	-
Ages 55-64	24.2	22.4	26.0	24.7	22.4	26.9	22.1 <sup>e</sup>	-	-
Ages 65-74	16.8	18.8	14.9	17.6	18.6	16.0	0.0	-	-
Ages 75+	6.3	10.6	1.8	5.7	10.5	1.7	0.0	-	-
Ages <65	71.3	70.6	72.3	71.1	70.5	72.1	69.1	69.6	68.2
Ages 65+	12.2	15.5	9.4	12.2	15.4	9.5	0.0	-	0.0
<u>Chronic Lymphocytic Leukemia</u>									
5-Year Relative Survival (Percent)									
Year of Diagnosis:									
1975-1977 <sup>a</sup>	67.1	64.7	70.3	67.9	65.4	71.2	56.9 <sup>e</sup>	55.1 <sup>e</sup>	59.0 <sup>e</sup>
1978-1980 <sup>a</sup>	67.8	64.7	71.9	68.5	65.3	72.8	56.8 <sup>e</sup>	56.7 <sup>e</sup>	56.9 <sup>e</sup>
1981-1983 <sup>a</sup>	65.7	65.0	66.8	66.2	65.7	67.0	57.3 <sup>e</sup>	55.0 <sup>e</sup>	60.4 <sup>e</sup>
1984-1986 <sup>a</sup>	72.3	71.0	73.9	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	72.7	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>	74.0	71.7	77.2	75.2	73.0	78.2	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	63.0	63.6 <sup>e</sup>	62.1 <sup>e</sup>
1996-1998 <sup>b</sup>	75.2	73.6	77.4	76.2	74.7	78.2	58.1 <sup>e</sup>	52.1 <sup>e</sup>	65.3 <sup>e</sup>
1999-2003 <sup>b</sup>	79.9	79.4	80.7	80.7	80.0	81.6	66.3	63.5	69.1 <sup>e</sup>
2004-2010 <sup>a</sup>	83.5 <sup>d</sup>	83.1 <sup>d</sup>	84.2 <sup>d</sup>	83.6 <sup>d</sup>	83.1 <sup>d</sup>	84.2 <sup>d</sup>	79.3 <sup>d</sup>	79.9 <sup>d</sup>	77.7
5-Year Period Survival (Percent) <sup>bc</sup>									
2010	80.4	80.2	80.7	80.4	80.3	80.4	67.9	65.6	70.6
5-Year Relative Survival (Percent), 2004-2010 <sup>b</sup>									
Age at Diagnosis:									
Ages <45	91.4	88.8	95.5	91.2	88.6	95.4	84.3 <sup>e</sup>	83.5 <sup>f</sup>	-
Ages 45-54	91.8	91.9	91.3	92.5	92.6	92.2	78.0	79.7 <sup>e</sup>	74.6 <sup>e</sup>
Ages 55-64	88.5	86.6	92.0	88.7	86.9	92.0	76.9	71.9	86.8
Ages 65-74	83.1	80.8	86.9	83.8	81.0	88.2	66.1	64.4	68.0 <sup>e</sup>
Ages 75+	67.4	65.9	69.0	67.3	66.3	68.3	55.2	47.3 <sup>e</sup>	61.3 <sup>e</sup>
Ages <65	89.7	88.3	92.1	90.0	88.7	92.4	77.8	75.4	82.4
Ages 65+	74.5	73.3	75.9	74.6	73.5	75.9	60.6	56.9	64.1

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

Based on follow-up of patients into 2011.

<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 2011.

<sup>c</sup> Period survival provides a 2010 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 2004-2010 is statistically significant (p<.05).

<sup>d</sup> The standard error is between 5 and 10 percentage points.

<sup>e</sup> The standard error is greater than 10 percentage points.

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

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	12.6	15.1	13.4	12.2	14.9	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	18.2	15.6	14.4	17.1	22.1	25.2	18.2
1999-2003 <sup>a</sup>	20.5	19.2	22.1	20.2	18.4	22.2	21.4	26.2	16.3
2004-2010 <sup>a</sup>	25.4 <sup>d</sup>	24.5 <sup>d</sup>	26.4 <sup>d</sup>	24.9 <sup>d</sup>	23.9 <sup>d</sup>	26.0 <sup>d</sup>	24.8 <sup>d</sup>	24.2 <sup>d</sup>	25.4 <sup>d</sup>
5-Year Period Survival (Percent) <sup>bc</sup>									
2010	25.8	24.7	27.1	24.9	23.8	26.1	27.8	28.5	27.3
5-Year Relative Survival (Percent), 2004-2010 <sup>b</sup>									
Age at Diagnosis:									
Ages <45	55.6	54.1	57.2	56.6	55.2	58.2	46.7	43.0	50.1
Ages 45-54	39.0	36.0	42.5	39.5	36.7	42.8	37.4	33.9 <sup>e</sup>	41.2 <sup>e</sup>
Ages 55-64	27.1	25.6	29.1	27.4	25.5	29.9	20.6	19.6	21.0
Ages 65-74	11.1	10.1	12.3	11.2	10.0	12.7	9.3	7.2	10.8
Ages 75+	1.8	1.6	1.9	1.8	1.8	1.8	1.0	0.0	1.2
Ages <65	42.8	40.3	45.8	42.9	40.3	46.1	38.3	35.4	41.0
Ages 65+	5.6	5.4	5.7	5.6	5.4	5.7	5.1	4.7	5.2
<u>Chronic Myeloid Leukemia</u>									
5-Year Relative Survival (Percent)									
Year of Diagnosis:									
1975-1977 <sup>a</sup>	21.8	19.3	25.1	20.5	18.4	23.4	27.7 <sup>e</sup>	21.6 <sup>e</sup>	35.5 <sup>e</sup>
1978-1980 <sup>a</sup>	23.3	23.0	23.8	23.5	23.6	23.5	21.4 <sup>e</sup>	20.6 <sup>e</sup>	22.7 <sup>e</sup>
1981-1983 <sup>a</sup>	28.3	24.6	32.5	28.4	25.2	32.0	29.7	20.8 <sup>e</sup>	40.1 <sup>e</sup>
1984-1986 <sup>a</sup>	22.4	20.2	25.6	22.9	20.2	26.8	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>	30.7	29.6	32.2	30.3	30.0	30.6	34.9 <sup>e</sup>	25.5 <sup>e</sup>	44.9 <sup>e</sup>
1993-1995 <sup>a</sup>	35.3	35.0	35.7	35.0	34.9	35.2	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	38.0	28.3	27.6 <sup>e</sup>	28.9 <sup>e</sup>
1999-2003 <sup>a</sup>	49.3	48.1	51.0	47.9	46.4	50.0	52.3	54.8 <sup>e</sup>	49.0 <sup>e</sup>
2004-2010 <sup>a</sup>	59.9 <sup>d</sup>	59.0 <sup>d</sup>	61.3 <sup>d</sup>	58.7 <sup>d</sup>	57.7 <sup>d</sup>	60.3 <sup>d</sup>	61.2 <sup>d</sup>	62.8 <sup>de</sup>	58.8 <sup>e</sup>
5-Year Period Survival (Percent) <sup>bc</sup>									
2010	63.4	61.9	65.7	62.0	60.4	64.3	67.1	64.6	69.6
5-Year Relative Survival (Percent), 2004-2010 <sup>b</sup>									
Age at Diagnosis:									
Ages <45	86.4	85.5	87.8	87.8	86.7	89.1	75.3	74.2	76.6
Ages 45-54	81.8	80.0	84.3	81.7	81.4	82.0	78.4	71.1 <sup>e</sup>	86.0 <sup>e</sup>
Ages 55-64	70.1	67.4	74.5	70.2	67.8	74.4	66.6	63.9 <sup>e</sup>	69.0 <sup>e</sup>
Ages 65-74	50.8	47.3	56.3	50.1	46.4	56.0	52.2 <sup>e</sup>	54.7 <sup>f</sup>	49.6 <sup>f</sup>
Ages 75+	26.8	25.9	27.8	26.5	25.0	28.2	27.0 <sup>e</sup>	21.9 <sup>e</sup>	27.4 <sup>f</sup>
Ages <65	80.2	78.4	82.9	80.5	79.1	82.8	73.5	70.6	76.7
Ages 65+	37.1	35.9	38.7	36.5	34.9	38.5	39.2 <sup>e</sup>	40.6 <sup>e</sup>	37.7 <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 2011.

<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 2011.

<sup>c</sup> Period survival provides a 2010 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 2004-2010 is statistically significant (p<.05).

<sup>d</sup> The standard error is between 5 and 10 percentage points.

<sup>e</sup> The standard error is greater than 10 percentage points.

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



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- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Survival Time																				
1-year	60.8	62.6	64.8	66.8	67.9	68.1	67.8	66.5	65.8	66.6	70.3	71.8	72.8	74.5	73.6	75.6	76.1	75.5	76.2	76.6
2-year	50.1	52.5	55.3	57.4	58.6	59.7	59.6	57.7	58.1	58.5	62.6	64.4	65.6	67.0	67.6	69.4	69.5	68.8	69.1	
3-year	43.7	46.5	49.6	52.7	53.9	55.1	54.7	53.7	54.5	54.6	58.5	61.3	61.7	63.5	63.8	65.9	66.2	64.7		
4-year	38.8	41.7	45.5	48.9	50.3	51.6	50.7	49.9	51.4	51.4	56.2	59.0	58.7	61.0	61.6	63.1	63.6			
5-year	34.6	37.6	42.3	45.9	47.7	48.4	48.1	47.7	48.1	49.3	53.8	57.1	56.6	58.6	59.7	60.8				
6-year	31.4	35.0	39.9	43.4	45.3	46.2	45.6	45.6	46.0	47.9	51.8	55.2	54.6	56.0	57.8					
7-year	29.1	32.5	37.1	40.8	43.8	44.8	43.6	44.0	44.1	46.6	50.4	53.5	52.5	54.7						
8-year	27.0	30.3	34.9	38.6	41.2	43.5	42.9	42.6	42.7	44.9	48.9	52.5	50.6							
9-year	25.0	28.5	32.9	37.1	40.1	41.7	41.6	41.5	41.8	44.0	47.4	50.7								
10-year	23.7	26.9	31.6	35.8	38.5	40.3	40.3	40.4	40.2	42.8	46.2									
11-year	22.4	25.7	29.8	34.5	37.2	39.5	38.4	39.0	38.7	41.5										
12-year	21.2	24.5	28.8	33.4	36.6	38.3	37.3	38.1	37.8											
13-year	20.4	23.6	27.9	32.4	36.1	37.9	36.6	37.0												
14-year	19.7	22.9	27.2	31.6	34.9	36.7	36.4													
15-year	19.2	22.2	26.7	31.1	34.6	35.6														
16-year	18.5	21.4	26.0	30.4	34.2															
17-year	18.0	20.6	25.5	29.7																
18-year	17.6	20.1	25.2																	
19-year	17.1	19.4	24.7																	
20-year	16.6	19.0	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- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Survival Time																				
1-year	60.3	62.8	65.5	67.8	69.1	69.6	68.6	66.5	66.7	68.4	72.6	72.6	73.8	76.1	75.5	76.1	77.2	76.2	78.0	77.7
2-year	49.4	52.4	56.1	58.2	60.2	61.4	60.8	58.3	58.8	60.3	64.4	64.6	66.3	67.8	69.4	69.5	70.9	69.9	71.1	
3-year	42.7	46.0	49.9	53.1	55.3	57.1	54.9	54.4	55.1	56.7	60.4	61.7	62.0	64.5	65.6	66.0	67.7	65.8		
4-year	37.7	41.1	45.9	49.3	51.3	53.3	50.2	50.2	51.8	53.2	57.7	59.0	59.3	61.7	64.0	63.1	65.2			
5-year	33.4	37.1	42.9	46.1	47.9	49.3	47.5	48.1	47.7	51.6	54.7	56.6	56.8	59.0	61.9	60.7				
6-year	30.2	34.3	40.4	43.4	44.8	46.9	45.5	45.8	45.8	50.1	52.4	54.5	54.5	56.2	59.5					
7-year	27.6	31.8	37.3	40.7	43.5	45.5	43.4	44.0	43.6	49.0	50.8	52.1	52.4	55.0						
8-year	25.4	29.4	35.3	38.4	41.3	44.3	42.6	42.7	41.9	46.8	49.3	50.9	50.1							
9-year	23.2	27.5	33.2	36.9	40.0	42.1	41.6	41.5	41.1	45.3	47.8	49.5								
10-year	21.8	26.0	31.6	35.6	37.8	40.5	40.8	40.5	39.6	44.2	46.4									
11-year	20.5	24.9	30.1	34.4	37.2	39.5	38.5	38.8	37.8	43.1										
12-year	19.3	24.2	29.0	33.2	36.5	38.7	37.4	37.8	37.0											
13-year	18.6	23.4	28.3	32.3	36.2	38.7	36.7	36.2												
14-year	17.9	22.7	27.6	31.2	35.1	37.5	36.4													
15-year	17.4	22.1	26.9	30.7	34.7	36.7														
16-year	16.7	21.2	26.3	30.1	34.1															
17-year	16.3	20.4	25.9	29.3																
18-year	15.9	19.9	25.6																	
19-year	15.3	19.2	25.2																	
20-year	14.6	18.7	24.9																	

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

Table 13.19  
LeukemiaSEER<sup>a</sup> Relative Survival (Percent)  
By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Survival Time																				
1-year	61.3	62.3	63.8	65.4	66.3	66.1	66.6	66.3	64.5	64.1	67.1	70.6	71.5	72.5	70.8	75.0	74.6	74.6	73.7	75.2
2-year	51.0	52.7	54.2	56.3	56.5	57.4	58.0	56.8	57.2	56.1	60.1	64.1	64.7	65.9	65.1	69.3	67.6	67.3	66.3	
3-year	45.1	47.1	49.2	52.1	52.0	52.6	54.4	52.8	53.7	51.8	55.9	60.7	61.2	62.2	61.2	65.9	64.0	63.2		
4-year	40.2	42.4	44.9	48.4	49.0	49.4	51.4	49.3	51.0	48.9	54.3	58.9	58.0	60.1	58.1	63.0	61.3			
5-year	36.1	38.3	41.4	45.7	47.5	47.1	48.9	47.2	48.7	46.1	52.5	57.8	56.2	58.0	56.6	60.9				
6-year	32.8	36.0	39.2	43.4	45.9	45.3	45.6	45.4	46.1	44.9	51.0	56.0	54.6	55.8	55.3					
7-year	31.0	33.4	36.7	40.8	44.2	43.9	43.9	44.0	44.8	43.2	49.8	55.3	52.8	54.4						
8-year	29.1	31.5	34.4	38.9	41.1	42.4	43.3	42.4	43.6	42.2	48.3	54.6	51.4							
9-year	27.3	29.9	32.6	37.3	40.4	41.2	41.3	41.5	42.6	42.2	46.9	52.2								
10-year	26.0	28.1	31.5	36.1	39.3	40.1	39.6	39.9	41.1	40.8	45.9									
11-year	24.8	26.8	29.4	34.5	37.2	39.4	38.2	39.2	39.9	39.2										
12-year	23.5	24.9	28.4	33.6	36.5	37.8	37.2	38.6	38.8											
13-year	22.8	23.8	27.5	32.7	35.8	36.8	36.4	37.9												
14-year	22.1	23.1	26.6	32.1	34.6	35.6	36.0													
15-year	21.4	22.4	26.3	31.6	34.4	34.1														
16-year	20.7	21.6	25.7	30.7	34.3															
17-year	20.2	20.9	25.1	30.1																
18-year	19.8	20.4	24.7																	
19-year	19.3	19.7	24.1																	
20-year	19.0	19.4	23.7																	

<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, 2009-2011 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever				+10 yrs	+20 yrs	+30 yrs	Ever	
All Races	0	0.06	0.09	0.12	1.43	0.86	Asian/ Pacific Islander	0	0.05	0.07	0.09	0.96	0.66
	10	0.03	0.06	0.09	1.39	0.87		10	0.03	0.05	0.08	0.92	0.66
	20	0.03	0.06	0.13	1.36	0.86		20	0.02	0.05	0.10	0.89	0.65
	30	0.04	0.10	0.23	1.35	0.86		30	0.03	0.08	0.15	0.88	0.65
	40	0.06	0.20	0.46	1.32	0.86		40	0.05	0.12	0.26	0.85	0.64
	50	0.13	0.41	0.82	1.29	0.86		50	0.07	0.21	0.44	0.81	0.63
	60	0.29	0.73	1.11	1.23	0.86		60	0.14	0.38	0.66	0.76	0.61
	70	0.50	0.93	-	1.07	0.83		70	0.26	0.55	-	0.66	0.56
80	0.59	-	-	0.77	0.69	80	0.35	-	-	0.49	0.45		
White	0	0.07	0.10	0.13	1.50	0.90	American Indian/ Alaska Native <sup>a</sup>	0	0.04	0.07	0.10	0.78	0.50
	10	0.04	0.06	0.10	1.44	0.90		10	0.03	0.06	0.09	0.75	0.51
	20	0.03	0.06	0.13	1.41	0.90		20	0.03	0.06	0.09	0.72	0.50
	30	0.04	0.10	0.24	1.40	0.90		30	0.03	0.07	0.15	0.70	0.50
	40	0.07	0.20	0.48	1.38	0.89		40	0.03	0.11	0.25	0.69	0.50
	50	0.14	0.43	0.86	1.34	0.90		50	0.08	0.22	0.40	0.68	0.52
	60	0.30	0.76	1.16	1.28	0.90		60	0.15	0.34	0.53	0.64	0.52
	70	0.52	0.97	-	1.10	0.86		70	0.22	0.44	-	0.56	0.52
80	0.61	-	-	0.79	0.71	80	0.30	-	-	0.46	0.44		
Black	0	0.03	0.05	0.07	0.96	0.62	Hispanic <sup>b</sup>	0	0.07	0.11	0.14	1.21	0.68
	10	0.02	0.04	0.07	0.95	0.63		10	0.04	0.07	0.11	1.15	0.68
	20	0.02	0.05	0.11	0.93	0.63		20	0.03	0.07	0.12	1.11	0.67
	30	0.03	0.09	0.20	0.92	0.63		30	0.04	0.09	0.19	1.08	0.66
	40	0.06	0.17	0.36	0.91	0.62		40	0.06	0.16	0.35	1.06	0.65
	50	0.11	0.31	0.59	0.88	0.62		50	0.10	0.30	0.59	1.02	0.64
	60	0.22	0.52	0.76	0.85	0.63		60	0.20	0.51	0.84	0.96	0.63
	70	0.37	0.65	-	0.76	0.60		70	0.34	0.70	-	0.83	0.59
80	0.42	-	-	0.58	0.50	80	0.45	-	-	0.62	0.50		

Devcan 6.8.0, August 2014, 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.

- 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, 2009-2011 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever				+10 yrs	+20 yrs	+30 yrs	Ever	
All Races	0	0.06	0.10	0.13	1.70	1.03	Asian/ Pacific Islander	0	0.05	0.08	0.11	1.17	0.78
	10	0.04	0.07	0.11	1.66	1.03		10	0.03	0.06	0.09	1.13	0.77
	20	0.03	0.07	0.14	1.63	1.03		20	0.02	0.06	0.11	1.10	0.77
	30	0.04	0.11	0.27	1.62	1.03		30	0.03	0.09	0.17	1.08	0.76
	40	0.07	0.24	0.57	1.60	1.03		40	0.05	0.14	0.30	1.06	0.75
	50	0.17	0.51	1.03	1.58	1.04		50	0.09	0.25	0.57	1.02	0.75
	60	0.37	0.93	1.39	1.52	1.06		60	0.17	0.50	0.86	0.97	0.73
	70	0.65	1.19	-	1.34	1.04		70	0.36	0.75	-	0.87	0.69
80	0.78	-	-	0.99	0.88	80	0.49	-	-	0.64	0.55		
White	0	0.07	0.11	0.14	1.77	1.07	American Indian/ Alaska Native <sup>a</sup>	0	0.04	0.06	0.10	0.84	0.68
	10	0.04	0.07	0.11	1.72	1.08		10	0.02	0.06	0.08	0.81	0.69
	20	0.03	0.07	0.15	1.69	1.07		20	0.03	0.05	0.09	0.79	0.69
	30	0.04	0.12	0.28	1.68	1.07		30	0.02	0.06	0.15	0.78	0.69
	40	0.08	0.24	0.59	1.66	1.08		40	0.04	0.14	0.27	0.78	0.70
	50	0.17	0.53	1.07	1.64	1.09		50	0.10	0.25	0.50	0.78	0.73
	60	0.39	0.97	1.45	1.58	1.11		60	0.16	0.43	0.65	0.73	0.76
	70	0.68	1.24	-	1.39	1.08		70	0.32	0.58	-	0.68	0.83
80	0.81	-	-	1.02	0.91	80	0.36	-	-	0.51	0.85		
Black	0	0.04	0.06	0.08	1.07	0.69	Hispanic <sup>b</sup>	0	0.07	0.12	0.16	1.37	0.77
	10	0.02	0.05	0.08	1.05	0.70		10	0.05	0.08	0.12	1.31	0.78
	20	0.02	0.06	0.12	1.04	0.70		20	0.04	0.08	0.14	1.26	0.77
	30	0.04	0.10	0.24	1.04	0.70		30	0.04	0.10	0.21	1.24	0.76
	40	0.07	0.20	0.43	1.02	0.70		40	0.06	0.18	0.41	1.21	0.75
	50	0.14	0.38	0.71	1.00	0.71		50	0.12	0.35	0.70	1.18	0.75
	60	0.27	0.64	0.90	0.97	0.72		60	0.25	0.62	1.00	1.13	0.75
	70	0.47	0.81	-	0.89	0.70		70	0.41	0.84	-	0.99	0.72
80	0.55	-	-	0.68	0.61	80	0.58	-	-	0.77	0.63		

Devcan 6.8.0, August 2014, 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.

- 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, 2009-2011 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever				+10 yrs	+20 yrs	+30 yrs	Ever	
All Races	0	0.06	0.09	0.11	1.19	0.72	Asian/ Pacific Islander	0	0.04	0.06	0.08	0.78	0.57
	10	0.03	0.05	0.08	1.15	0.73		10	0.02	0.04	0.07	0.74	0.57
	20	0.02	0.05	0.11	1.12	0.72		20	0.02	0.05	0.09	0.72	0.56
	30	0.03	0.09	0.19	1.11	0.72		30	0.03	0.07	0.13	0.71	0.56
	40	0.06	0.16	0.36	1.08	0.71		40	0.05	0.10	0.22	0.68	0.55
	50	0.10	0.31	0.63	1.05	0.71		50	0.06	0.17	0.34	0.64	0.54
	60	0.22	0.55	0.87	0.99	0.70		60	0.12	0.28	0.50	0.60	0.52
	70	0.37	0.72	-	0.85	0.67		70	0.18	0.40	-	0.50	0.47
80	0.46	-	-	0.63	0.56	80	0.26	-	-	0.38	0.38		
White	0	0.07	0.10	0.12	1.24	0.75	American Indian/ Alaska Native <sup>a</sup>	0	0.03	0.07	0.10	0.73	0.36
	10	0.03	0.05	0.09	1.19	0.75		10	0.04	0.07	0.11	0.70	0.36
	20	0.02	0.06	0.11	1.16	0.75		20	0.02	0.07	0.10	0.66	0.36
	30	0.03	0.09	0.19	1.14	0.74		30	0.05	0.08	0.14	0.64	0.35
	40	0.06	0.16	0.37	1.12	0.74		40	0.03	0.09	0.23	0.61	0.36
	50	0.11	0.32	0.66	1.09	0.73		50	0.07	0.20	0.32	0.59	0.36
	60	0.23	0.58	0.91	1.02	0.72		60	0.14	0.26	0.44	0.56	0.35
	70	0.39	0.75	-	0.88	0.69		70	0.13	0.34	-	0.46	0.30
80	0.47	-	-	0.64	0.58	80	0.26	-	-	0.43	0.18		
Black	0	0.03	0.05	0.07	0.87	0.57	Hispanic <sup>b</sup>	0	0.07	0.11	0.13	1.07	0.60
	10	0.02	0.04	0.07	0.86	0.58		10	0.04	0.06	0.10	1.01	0.60
	20	0.02	0.05	0.10	0.84	0.57		20	0.03	0.06	0.11	0.97	0.59
	30	0.03	0.08	0.16	0.83	0.57		30	0.03	0.08	0.17	0.95	0.59
	40	0.05	0.13	0.29	0.81	0.57		40	0.05	0.14	0.29	0.93	0.58
	50	0.09	0.25	0.48	0.78	0.56		50	0.09	0.24	0.50	0.89	0.57
	60	0.17	0.42	0.64	0.75	0.56		60	0.16	0.42	0.70	0.82	0.55
	70	0.29	0.55	-	0.67	0.54		70	0.28	0.59	-	0.71	0.50
80	0.35	-	-	0.52	0.45	80	0.37	-	-	0.52	0.41		

Devcan 6.8.0, August 2014, 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.

- 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 2007-2011			Trend 2002-2011 <sup>c</sup>			Trend 2002-2011 <sup>d</sup>		
	Rate per 100,000 persons			AAPC (%)			AAPC (%)		
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Races	13.0	16.7	10.2	0.1	0.0	0.2	0.2*	0.1	0.2*
White	13.7	17.5	10.7	0.2*	0.0	0.3*	0.3*	0.1*	0.3*
White Hispanic <sup>e</sup>	10.7	12.9	9.0	0.4	0.3	0.4	-	-	-
White Non-Hispanic <sup>e</sup>	13.9	17.9	10.8	0.3*	0.1	0.4*	-	-	-
Black	10.0	12.9	8.0	0.0	0.1	-0.1	-0.1	0.0	-0.1
Asian/Pacific Islander	7.6	9.4	6.1	-0.3	-0.2	-0.4	-	-	-
Amer Ind/Alaska Nat <sup>f</sup>	7.3	8.6	6.5	1.2	-	-	-	-	-
Hispanic <sup>e</sup>	10.3	12.4	8.7	0.4	0.3	0.5	-	-	-
<u>U.S. Mortality<sup>g</sup></u>									
RACE/ETHNICITY	Rate 2007-2011			Trend 2002-2011 <sup>h</sup>					
	Rate per 100,000 persons			AAPC (%)					
	Total	Males	Females	Total	Males	Females			
All Races	7.0	9.4	5.3	-1.0*	-0.8*	-1.1*			
White	7.3	9.7	5.4	-0.9*	-0.7*	-1.1*			
White Hispanic <sup>e</sup>	5.1	6.4	4.2	-0.7*	-0.4*	-0.5*			
White Non-Hispanic <sup>e</sup>	7.4	9.9	5.5	-0.8*	-0.6*	-1.1*			
Black	6.0	8.0	4.8	-1.2*	-1.2*	-1.1*			
Asian/Pacific Islander	4.0	5.0	3.2	0.5	-0.6	-0.7			
Amer Ind/Alaska Nat									
Total U.S.	3.6	4.8	2.8	-1.2	-1.1	-1.6*			
CHSDA Counties	4.7	6.6	3.5	-0.2	0.4	-			
Non-CHSDA Counties	2.2	2.7	1.9	-2.6*	-	-			
Hispanic <sup>e</sup>	4.8	6.0	3.9	-0.9*	-0.6*	-0.6*			

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 4.1.0, April 2014, 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.

a 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).

b 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.

c The 2002-2011 AAPC estimates are based on a Joinpoint analysis with up to 3 Joinpoints over diagnosis years 1992-2011.

d The 2002-2011 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2011.

e 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 2002-2011 Hispanic and Non-Hispanic mortality trends exclude deaths from New Hampshire and Oklahoma.

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

g US Mortality Files, National Center for Health Statistics, CDC.

h The 2002-2011 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2011.

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

Table 13.24  
LeukemiaAge-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
<u>SEER Incidence Rates<sup>a</sup>, 2007-2011</u>									
California	12.42	15.76	9.76	13.29	16.77	10.47	10.00	13.47	7.43
Greater Bay Area	12.79	16.42	9.96	14.76	18.93	11.42	11.44	16.38	7.77
San Francisco-Oakland	12.47	16.22	9.56	14.39	18.72	10.94	11.82	17.04	8.04
San Jose-Monterey	13.34	16.73	10.66	15.30	19.17	12.20	8.86	12.36	-
Los Angeles	12.44	16.08	9.58	13.51	17.53	10.26	9.55	12.41	7.70
Greater California	12.28	15.37	9.77	12.78	15.84	10.28	9.64	12.75	6.96
Connecticut	13.82	18.21	10.47	14.17	18.54	10.82	9.48	12.17	7.33
Detroit	14.24	19.54	10.33	15.05	20.39	11.07	11.35	15.88	8.22
Georgia	11.86	15.01	9.59	12.63	16.00	10.10	9.80	11.86	8.51
Atlanta	11.29	14.37	9.15	12.34	15.82	9.76	9.73	11.82	8.48
Rural Georgia	12.15	13.47	11.61	12.90	14.36	11.78	11.03	-	-
Greater Georgia	12.09	15.29	9.75	12.73	16.10	10.19	9.77	11.81	8.40
Hawaii	11.73	14.59	9.45	15.47	19.12	12.13	-	-	-
Iowa	14.82	18.67	11.80	14.82	18.61	11.84	10.66	-	-
Kentucky	14.10	18.22	10.94	13.95	18.02	10.81	11.23	13.07	9.92
Louisiana	12.36	15.77	9.82	13.38	17.13	10.52	9.95	11.87	8.58
New Jersey	13.86	17.92	10.73	14.06	18.09	10.90	9.18	11.93	7.30
New Mexico	12.65	16.00	9.82	12.32	15.67	9.47	7.44	-	-
Seattle-Puget Sound	15.17	19.59	11.62	15.79	20.34	12.06	12.31	16.64	9.53
Utah	12.91	16.62	9.76	13.04	16.78	9.84	-	-	-
9 SEER Areas <sup>b</sup>	13.51	17.54	10.38	14.31	18.53	10.96	10.69	14.29	8.24
11 SEER Areas <sup>b</sup>	13.28	17.20	10.23	14.25	18.43	10.92	10.38	13.80	8.06
13 SEER Areas <sup>b</sup>	13.27	17.16	10.23	14.25	18.42	10.92	10.39	13.79	8.10
18 SEER Areas <sup>b</sup>	13.03	16.68	10.17	13.71	17.51	10.70	10.02	12.87	8.05

<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 13.25  
LeukemiaAge-Adjusted SEER Death Rates<sup>a</sup>  
By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER Death Rates<sup>a</sup>, 2007-2011</u>									
California	6.63	8.59	5.14	7.11	9.23	5.47	6.38	8.29	5.04
Greater Bay Area	6.07	8.05	4.64	6.68	8.92	5.04	7.11	9.68	5.26
San Francisco-Oakland	6.01	7.91	4.67	6.59	8.73	5.07	6.97	9.39	5.24
San Jose-Monterey	6.19	8.32	4.59	6.81	9.19	4.99	8.36	-	-
Los Angeles	6.59	8.53	5.17	7.13	9.32	5.48	6.43	8.29	5.35
Greater California	6.83	8.79	5.29	7.21	9.26	5.58	5.83	7.33	4.52
Connecticut	6.75	9.21	5.01	6.94	9.42	5.16	5.22	7.11	3.94
Detroit	7.39	9.96	5.64	7.64	10.38	5.73	6.75	8.51	5.60
Georgia	6.72	9.26	5.02	7.02	9.67	5.15	5.77	7.68	4.65
Atlanta	6.14	8.58	4.55	6.42	9.10	4.54	5.77	8.17	4.52
Rural Georgia	7.97	11.73	5.54	8.85	13.58	-	6.70	-	-
Greater Georgia	6.92	9.44	5.20	7.17	9.77	5.35	5.77	7.46	4.67
Hawaii	5.49	7.01	4.28	6.18	7.79	4.86	-	-	-
Iowa	7.15	9.73	5.36	7.24	9.81	5.46	-	-	-
Kentucky	7.49	10.41	5.42	7.59	10.62	5.43	5.95	6.55	5.52
Louisiana	7.40	10.16	5.48	7.55	10.53	5.40	6.83	8.75	5.61
New Jersey	6.66	9.07	5.02	7.09	9.70	5.28	5.07	6.67	4.07
New Mexico	6.17	7.82	4.84	6.35	8.11	4.91	-	-	-
Seattle-Puget Sound	7.11	9.75	5.19	7.43	10.19	5.41	6.50	7.95	5.67
Utah	6.50	8.84	4.66	6.60	8.90	4.80	-	-	-
9 SEER Areas <sup>b</sup>	6.65	8.95	5.00	6.99	9.44	5.21	6.25	8.29	4.92
11 SEER Areas <sup>b</sup>	6.62	8.84	5.02	7.04	9.44	5.27	6.31	8.34	5.03
13 SEER Areas <sup>b</sup>	6.63	8.85	5.02	7.04	9.45	5.27	6.32	8.35	5.03
18 SEER Areas <sup>b</sup>	6.79	9.05	5.14	7.16	9.58	5.37	6.09	7.91	4.89
Total U.S.	7.01	9.43	5.27	7.25	9.74	5.42	6.04	8.00	4.79

<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> 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.

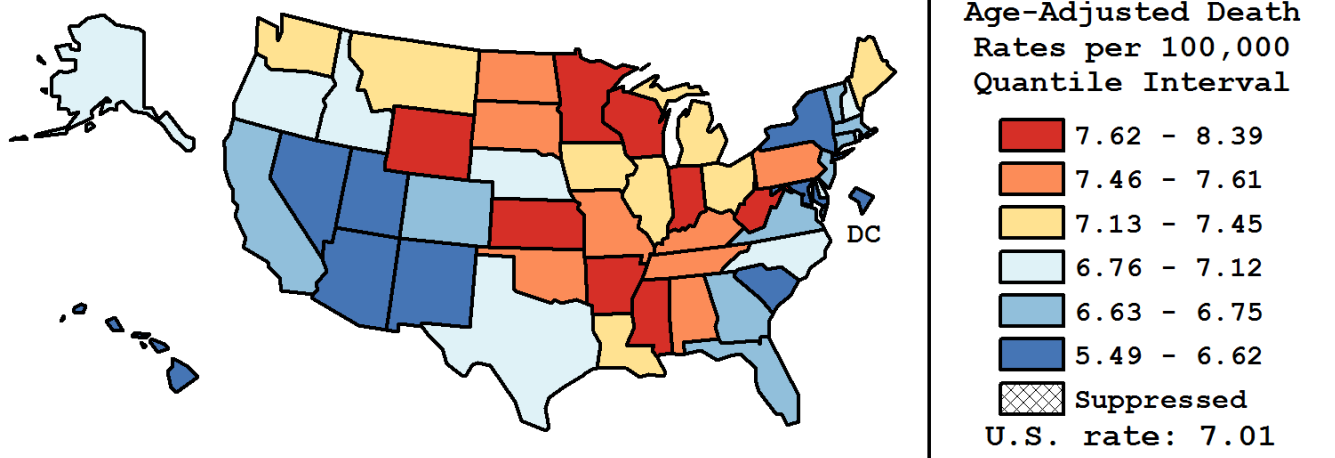
Table 13.26  
Leukemia

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2007-2011

Males and Females

State	Rate	SE	Rank	PD
TOTAL U.S.	7.01	0.02		
High Five States				
Wyoming	8.39	0.55	(01)	19.63 <sup>c</sup>
Wisconsin	7.97 <sup>b</sup>	0.16	(02)	13.61
Minnesota	7.96 <sup>b</sup>	0.17	(03)	13.43
West Virginia	7.94	0.27	(04)	13.24
Kansas	7.92 <sup>b</sup>	0.23	(05)	12.91
Low Five States				
Nevada	6.47	0.23	(47)	-7.71
Arizona	6.42 <sup>b</sup>	0.14	(48)	-8.50
New Mexico	6.17	0.24	(49)	-11.99
D.C.	5.67	0.45	(50)	-19.14 <sup>c</sup>
Hawaii	5.49 <sup>b</sup>	0.27	(51)	-21.70 <sup>c</sup>

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	7.53	0.17	(12)	7.40	Montana	7.22	0.36	(22)	2.88
Alaska	7.01	0.60	(27)	-0.04	Nebraska	6.82	0.26	(32)	-2.76
Arizona	6.42 <sup>b</sup>	0.14	(48)	-8.50	Nevada	6.47	0.23	(47)	-7.71
Arkansas	7.63	0.22	(08)	8.75	New Hampshire	6.91	0.31	(29)	-1.50
California	6.63 <sup>b</sup>	0.06	(42)	-5.54	New Jersey	6.66	0.12	(37)	-5.05
Colorado	6.64	0.18	(39)	-5.36	New Mexico	6.17	0.24	(49)	-11.99
Connecticut	6.75	0.18	(34)	-3.71	New York	6.62 <sup>b</sup>	0.08	(43)	-5.55
Delaware	6.80	0.37	(33)	-3.08	North Carolina	6.89	0.12	(30)	-1.75
D.C.	5.67	0.45	(50)	-19.14 <sup>c</sup>	North Dakota	7.58	0.44	(10)	8.12
Florida	6.63 <sup>b</sup>	0.07	(40)	-5.41	Ohio	7.44 <sup>b</sup>	0.11	(18)	6.13
Georgia	6.72	0.13	(35)	-4.20	Oklahoma	7.61	0.20	(09)	8.52
Hawaii	5.49 <sup>b</sup>	0.27	(51)	-21.70 <sup>c</sup>	Oregon	6.97	0.18	(28)	-0.67
Idaho	7.12	0.31	(25)	1.46	Pennsylvania	7.48 <sup>b</sup>	0.10	(16)	6.61
Illinois	7.32	0.11	(20)	4.39	Rhode Island	7.03	0.34	(26)	0.23
Indiana	7.77 <sup>b</sup>	0.15	(06)	10.82	South Carolina	6.62	0.17	(44)	-5.58
Iowa	7.15	0.20	(23)	1.91	South Dakota	7.56	0.41	(11)	7.79
Kansas	7.92 <sup>b</sup>	0.23	(05)	12.91	Tennessee	7.53	0.15	(13)	7.33
Kentucky	7.49	0.18	(15)	6.72	Texas	6.84	0.08	(31)	-2.48
Louisiana	7.40	0.18	(19)	5.47	Utah	6.50	0.26	(46)	-7.30
Maine	7.14	0.30	(24)	1.78	Vermont	6.63	0.44	(41)	-5.44
Maryland	6.57	0.15	(45)	-6.32	Virginia	6.71	0.13	(36)	-4.34
Massachusetts	6.64	0.14	(38)	-5.35	Washington	7.29	0.15	(21)	3.97
Michigan	7.45 <sup>b</sup>	0.12	(17)	6.23	West Virginia	7.94	0.27	(04)	13.24
Minnesota	7.96 <sup>b</sup>	0.17	(03)	13.43	Wisconsin	7.97 <sup>b</sup>	0.16	(02)	13.61
Mississippi	7.66	0.23	(07)	9.24	Wyoming	8.39	0.55	(01)	19.63 <sup>c</sup>
Missouri	7.50	0.15	(14)	6.90					



<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<=.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.

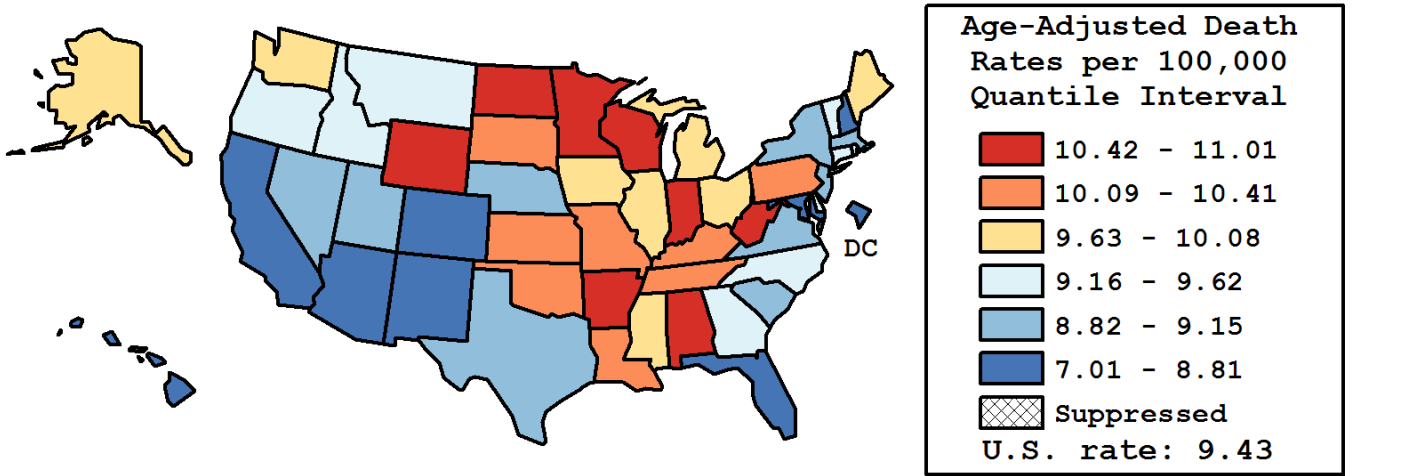
Table 13.27  
Leukemia

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2007-2011

Males

State	Rate	SE	Rank	PD
TOTAL U.S.	9.43	0.04		
High Five States				
Wisconsin	11.01 <sup>b</sup>	0.29	(01)	16.79 <sup>c</sup>
Wyoming	10.87	0.95	(02)	15.34 <sup>c</sup>
Minnesota	10.83 <sup>b</sup>	0.31	(03)	14.95
West Virginia	10.55	0.48	(04)	11.91
Indiana	10.53 <sup>b</sup>	0.28	(05)	11.77
Low Five States				
New Hampshire	8.54	0.54	(47)	-9.40
D.C.	8.39	0.88	(48)	-11.02
Arizona	8.35 <sup>b</sup>	0.24	(49)	-11.45
New Mexico	7.82 <sup>b</sup>	0.42	(50)	-16.99 <sup>c</sup>
Hawaii	7.01 <sup>b</sup>	0.46	(51)	-25.68 <sup>c</sup>

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	10.51	0.33	(07)	11.50	Montana	9.51	0.62	(28)	0.91
Alaska	9.81	1.10	(23)	4.07	Nebraska	9.15	0.47	(34)	-2.92
Arizona	8.35 <sup>b</sup>	0.24	(49)	-11.45	Nevada	8.88	0.42	(41)	-5.81
Arkansas	10.45	0.40	(08)	10.85	New Hampshire	8.54	0.54	(47)	-9.40
California	8.59 <sup>b</sup>	0.11	(46)	-8.87	New Jersey	9.07	0.22	(36)	-3.76
Colorado	8.81	0.31	(43)	-6.48	New Mexico	7.82 <sup>b</sup>	0.42	(50)	-16.99 <sup>c</sup>
Connecticut	9.21	0.33	(32)	-2.32	New York	9.00	0.14	(39)	-4.48
Delaware	9.62	0.68	(25)	2.05	North Carolina	9.59	0.23	(26)	1.76
D.C.	8.39	0.88	(48)	-11.02	North Dakota	10.53	0.79	(06)	11.69
Florida	8.81 <sup>b</sup>	0.13	(44)	-6.51	Ohio	10.06	0.20	(18)	6.75
Georgia	9.26	0.25	(31)	-1.77	Oklahoma	10.38	0.36	(10)	10.14
Hawaii	7.01 <sup>b</sup>	0.46	(51)	-25.68 <sup>c</sup>	Oregon	9.16	0.32	(33)	-2.80
Idaho	9.53	0.54	(27)	1.11	Pennsylvania	10.12 <sup>b</sup>	0.18	(16)	7.41
Illinois	9.93	0.19	(21)	5.31	Rhode Island	9.45	0.61	(30)	0.22
Indiana	10.53 <sup>b</sup>	0.28	(05)	11.77	South Carolina	9.03	0.31	(37)	-4.15
Iowa	9.73	0.36	(24)	3.19	South Dakota	10.26	0.72	(14)	8.88
Kansas	10.33	0.40	(13)	9.59	Tennessee	10.33	0.28	(12)	9.61
Kentucky	10.41	0.34	(09)	10.41	Texas	9.00	0.15	(38)	-4.47
Louisiana	10.16	0.34	(15)	7.75	Utah	8.84	0.45	(42)	-6.19
Maine	9.98	0.54	(20)	5.86	Vermont	9.46	0.80	(29)	0.37
Maryland	8.76	0.28	(45)	-7.08	Virginia	9.08	0.24	(35)	-3.63
Massachusetts	8.96	0.25	(40)	-4.98	Washington	9.90	0.27	(22)	5.09
Michigan	10.01	0.21	(19)	6.19	West Virginia	10.55	0.48	(04)	11.91
Minnesota	10.83 <sup>b</sup>	0.31	(03)	14.95	Wisconsin	11.01 <sup>b</sup>	0.29	(01)	16.79 <sup>c</sup>
Mississippi	10.08	0.42	(17)	7.00	Wyoming	10.87	0.95	(02)	15.34 <sup>c</sup>
Missouri	10.33	0.28	(11)	9.65					



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

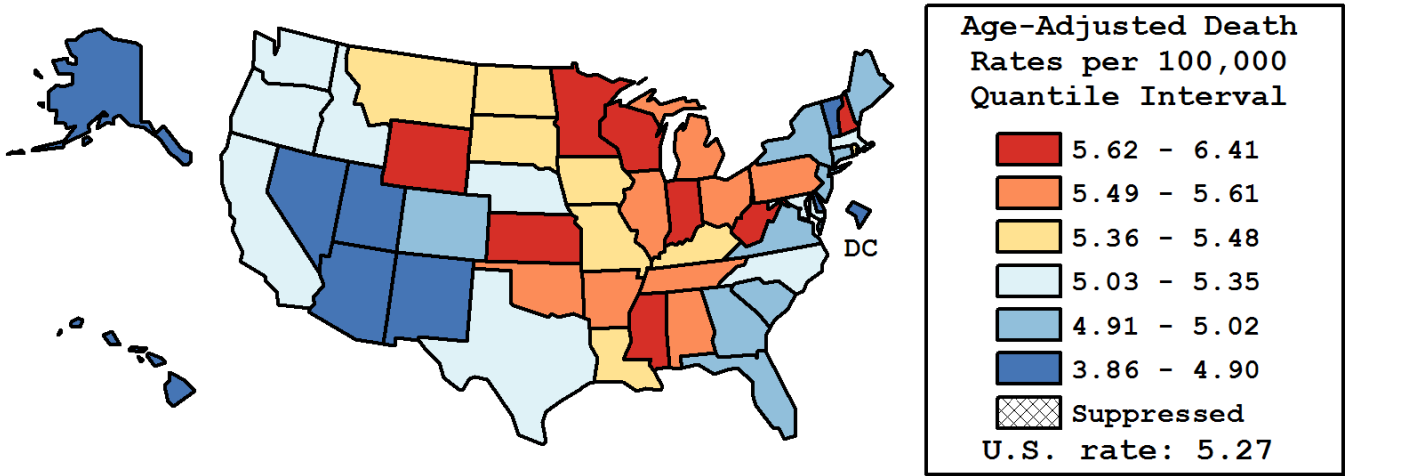
Table 13.28  
Leukemia

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2007-2011

Females

State	Rate	SE	Rank	PD
TOTAL U.S.	5.27	0.02		
High Five States				
Wyoming	6.41	0.66	(01)	21.54 <sup>c</sup>
Kansas	6.12	0.27	(02)	16.08 <sup>c</sup>
West Virginia	6.10	0.31	(03)	15.79 <sup>c</sup>
Mississippi	5.96	0.26	(04)	13.06
Indiana	5.92 <sup>b</sup>	0.18	(05)	12.39
Low Five States				
Delaware	4.56	0.40	(47)	-13.54
Vermont	4.53	0.49	(48)	-13.95
Nevada	4.53	0.26	(49)	-14.00
Hawaii	4.28	0.33	(50)	-18.83 <sup>c</sup>
D.C.	3.86	0.48	(51)	-26.76 <sup>c</sup>

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	5.53	0.20	(16)	4.98	Montana	5.45	0.43	(20)	3.37
Alaska	4.74	0.67	(45)	-10.10	Nebraska	5.12	0.31	(31)	-2.93
Arizona	4.90	0.17	(43)	-7.06	Nevada	4.53	0.26	(49)	-14.00
Arkansas	5.61	0.25	(09)	6.38	New Hampshire	5.78	0.39	(07)	9.58
California	5.14	0.07	(29)	-2.54	New Jersey	5.02	0.14	(34)	-4.67
Colorado	4.98	0.20	(39)	-5.60	New Mexico	4.84	0.29	(44)	-8.15
Connecticut	5.01	0.21	(36)	-5.00	New York	4.97	0.09	(40)	-5.72
Delaware	4.56	0.40	(47)	-13.54	North Carolina	5.08	0.14	(32)	-3.68
D.C.	3.86	0.48	(51)	-26.76 <sup>c</sup>	North Dakota	5.39	0.51	(23)	2.20
Florida	4.95 <sup>b</sup>	0.09	(41)	-6.16	Ohio	5.59	0.12	(11)	6.12
Georgia	5.02	0.15	(35)	-4.82	Oklahoma	5.60	0.23	(10)	6.19
Hawaii	4.28	0.33	(50)	-18.83 <sup>c</sup>	Oregon	5.34	0.22	(26)	1.24
Idaho	5.17	0.36	(28)	-1.83	Pennsylvania	5.58	0.11	(13)	5.86
Illinois	5.54	0.12	(15)	5.11	Rhode Island	5.41	0.40	(22)	2.70
Indiana	5.92 <sup>b</sup>	0.18	(05)	12.39	South Carolina	4.93	0.19	(42)	-6.45
Iowa	5.36	0.23	(24)	1.64	South Dakota	5.45	0.46	(18)	3.47
Kansas	6.12	0.27	(02)	16.08 <sup>c</sup>	Tennessee	5.58	0.17	(14)	5.86
Kentucky	5.42	0.21	(21)	2.85	Texas	5.26	0.09	(27)	-0.18
Louisiana	5.48	0.21	(17)	3.91	Utah	4.66	0.29	(46)	-11.61
Maine	4.98	0.33	(38)	-5.52	Vermont	4.53	0.49	(48)	-13.95
Maryland	5.05	0.18	(33)	-4.13	Virginia	4.99	0.15	(37)	-5.26
Massachusetts	5.13	0.16	(30)	-2.59	Washington	5.35	0.17	(25)	1.53
Michigan	5.59	0.14	(12)	6.12	West Virginia	6.10	0.31	(03)	15.79 <sup>c</sup>
Minnesota	5.83	0.20	(06)	10.68	Wisconsin	5.72	0.18	(08)	8.55
Mississippi	5.96	0.26	(04)	13.06	Wyoming	6.41	0.66	(01)	21.54 <sup>c</sup>
Missouri	5.45	0.17	(19)	3.42					



<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<=.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 13.29  
LeukemiaEstimated United States Cancer Prevalence Counts<sup>a</sup> on January 1, 2011  
By Race/Ethnicity, Sex and Years Since Diagnosis

Years Since Diagnosis		0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	25 to <30	0 to <19 <sup>e</sup>	0 to <36 <sup>e</sup>	>=36 <sup>g</sup>	Complete <sup>h</sup>
<u>Race</u>	<u>Sex</u>										
All Races <sup>b</sup>	Both Sexes	115,823	74,234	43,360	28,669	16,988	10,694	265,824	297,129	5,671	302,800
	Males	66,545	42,601	24,570	16,036	9,539	5,550	151,719	168,443	2,526	170,969
	Females	49,278	31,633	18,790	12,633	7,449	5,144	114,105	128,686	3,145	131,831
White <sup>b</sup>	Both Sexes	100,301	65,805	38,527	25,841	15,211	9,730	233,818	262,198	4,749	266,947
	Males	57,669	37,933	21,855	14,604	8,651	5,127	133,872	149,222	1,783	151,005
	Females	42,632	27,872	16,672	11,237	6,560	4,603	99,946	112,976	2,966	115,942
Black <sup>b</sup>	Both Sexes	8,436	4,907	2,701	1,585	856	499	17,800	19,316	745	20,061
	Males	4,923	2,654	1,404	753	386	235	9,791	10,473	352	10,825
	Females	3,513	2,253	1,297	832	470	264	8,009	8,843	393	9,236
Asian/ Pacific Islander <sup>c</sup>	Both Sexes	2,958	1,820	1,176	+	+	+	6,662	+	+	+
	Males	1,702	986	676	+	+	+	3,720	+	+	+
	Females	1,256	834	500	+	+	+	2,942	+	+	+
Hispanic <sup>d</sup>	Both Sexes	11,187	6,994	4,455	+	+	+	25,370	+	+	+
	Males	6,457	3,950	2,431	+	+	+	14,442	+	+	+
	Females	4,730	3,044	2,024	+	+	+	10,928	+	+	+

Estimated prevalence percent<sup>a</sup> on January 1, 2011, of the SEER<sup>c</sup> population diagnosed in the previous 19 years  
By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence		Age Specific (Crude)									Age-Adjusted <sup>f</sup>	
		All Ages	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	All Ages
<u>Race</u>	<u>Sex</u>											
All Races <sup>c</sup>	Both Sexes	0.0760%	0.0320%	0.0597%	0.0368%	0.0265%	0.0408%	0.0773%	0.1615%	0.2685%	0.3153%	0.0753%
	Males	0.0883%	0.0342%	0.0654%	0.0401%	0.0298%	0.0493%	0.0948%	0.2097%	0.3581%	0.4093%	0.0927%
	Females	0.0641%	0.0298%	0.0538%	0.0334%	0.0232%	0.0325%	0.0606%	0.1178%	0.1964%	0.2602%	0.0607%
White <sup>c</sup>	Both Sexes	0.0869%	0.0357%	0.0686%	0.0417%	0.0293%	0.0427%	0.0843%	0.1794%	0.3005%	0.3476%	0.0835%
	Males	0.1004%	0.0377%	0.0747%	0.0453%	0.0328%	0.0508%	0.1036%	0.2314%	0.4000%	0.4484%	0.1023%
	Females	0.0734%	0.0336%	0.0622%	0.0377%	0.0256%	0.0343%	0.0653%	0.1309%	0.2185%	0.2882%	0.0673%
Black <sup>c</sup>	Both Sexes	0.0403%	0.0174%	0.0257%	0.0232%	0.0176%	0.0317%	0.0501%	0.1007%	0.1685%	0.1791%	0.0459%
	Males	0.0460%	0.0202%	0.0282%	0.0233%	0.0200%	0.0395%	0.0608%	0.1306%	0.2166%	0.2424%	0.0567%
	Females	0.0351%	0.0145%	0.0231%	0.0231%	0.0154%	0.0248%	0.0409%	0.0771%	0.1350%	0.1488%	0.0380%
Asian/ Pacific Islander <sup>c</sup>	Both Sexes	0.0402%	0.0271%	0.0482%	0.0244%	0.0201%	0.0335%	0.0411%	0.0640%	0.0984%	0.1124%	0.0412%
	Males	0.0470%	0.0295%	0.0548%	0.0272%	0.0220%	0.0430%	0.0464%	0.0763%	0.1302%	0.1686%	0.0498%
	Females	0.0339%	0.0247%	0.0412%	0.0216%	0.0185%	0.0250%	0.0364%	0.0538%	0.0740%	0.0779%	0.0342%
Hispanic <sup>d</sup>	Both Sexes	0.0497%	0.0359%	0.0680%	0.0396%	0.0269%	0.0362%	0.0528%	0.0978%	0.1455%	0.1624%	0.0571%
	Males	0.0557%	0.0398%	0.0743%	0.0447%	0.0322%	0.0434%	0.0592%	0.1194%	0.1739%	0.2068%	0.0667%
	Females	0.0436%	0.0319%	0.0614%	0.0339%	0.0212%	0.0288%	0.0467%	0.0793%	0.1245%	0.1360%	0.0486%

<sup>a</sup> US 2011 cancer prevalence counts are based on 2011 cancer prevalence proportions from the SEER registries and 1/1/2011 US population estimates based on the average of 2010 and 2011 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

<sup>b c d</sup> Statistics based on (b) SEER 9 Areas (c) SEER 11 Areas and Rural Georgia (d) NHIA for Hispanic for SEER 11 Areas and Rural Georgia.

<sup>e</sup> Maximum limited-duration prevalence: 36 years for 1975-2011 SEER 9 data; 19 years for 1992-2011 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).

<sup>f</sup> Percentages are age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130) by 5-year age groups.

<sup>g h i</sup> (g) Cases diagnosed more than 36 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000). (h) Complete prevalence is obtained by summing 0 to <36 and >=36. (i) Age-specific completeness index was approximated using empirical data from historical Connecticut tumor registry.

- Statistic not shown. Statistic based on fewer than 5 cases estimated alive in SEER for the time interval.

+ Not available.

Table 13.30  
Acute Lymphocytic Leukemia

Estimated United States Cancer Prevalence Counts<sup>a</sup> on January 1, 2011  
By Race/Ethnicity, Sex and Years Since Diagnosis

Years Since Diagnosis		0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	25 to <30	0 to <19 <sup>e</sup>	0 to <36 <sup>e</sup>	>=36 <sup>g</sup>	Complete <sup>h</sup>
<u>Race</u>	<u>Sex</u>										
All Races <sup>b</sup>	Both Sexes	16,260	13,209	11,408	9,489	7,668	6,025	51,988	68,728	3,509	72,237
	Males	9,051	7,551	6,191	5,281	4,261	3,012	28,925	37,729	1,785	39,514
	Females	7,209	5,658	5,217	4,208	3,407	3,013	23,063	30,999	1,724	32,723
White <sup>b</sup>	Both Sexes	13,645	11,332	9,992	8,237	6,726	5,465	44,665	59,741	+	+
	Males	7,482	6,533	5,388	4,677	3,754	2,752	24,848	32,841	+	+
	Females	6,163	4,799	4,604	3,560	2,972	2,713	19,817	26,900	+	+
Black <sup>b</sup>	Both Sexes	1,384	888	726	679	444	268	3,734	4,539	+	+
	Males	884	471	385	295	225	140	2,071	2,461	+	+
	Females	500	417	341	384	219	128	1,663	2,078	+	+
Asian/ Pacific Islander <sup>c</sup>	Both Sexes	768	661	464	+	+	+	2,239	+	+	+
	Males	432	370	295	+	+	+	1,266	+	+	+
	Females	336	291	169	+	+	+	973	+	+	+
Hispanic <sup>d</sup>	Both Sexes	5,096	3,281	2,589	+	+	+	12,682	+	+	+
	Males	3,025	1,865	1,393	+	+	+	7,311	+	+	+
	Females	2,071	1,416	1,196	+	+	+	5,371	+	+	+

Estimated prevalence percent<sup>a</sup> on January 1, 2011, of the SEER<sup>c</sup> population diagnosed in the previous 19 years  
By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence		Age Specific (Crude)									Age-Adjusted <sup>f</sup>	
		All Ages	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	All Ages
<u>Race</u>	<u>Sex</u>											
All Races <sup>c</sup>	Both Sexes	0.0169%	0.0269%	0.0512%	0.0249%	0.0073%	0.0047%	0.0039%	0.0042%	0.0031%	0.0019%	0.0174%
	Males	0.0193%	0.0288%	0.0562%	0.0281%	0.0090%	0.0052%	0.0042%	0.0048%	0.0032%	0.0028%	0.0193%
	Females	0.0146%	0.0248%	0.0459%	0.0214%	0.0056%	0.0041%	0.0037%	0.0037%	0.0030%	0.0014%	0.0154%
White <sup>c</sup>	Both Sexes	0.0191%	0.0303%	0.0597%	0.0292%	0.0088%	0.0051%	0.0042%	0.0045%	0.0030%	0.0018%	0.0200%
	Males	0.0216%	0.0323%	0.0649%	0.0330%	0.0108%	0.0057%	0.0044%	0.0052%	0.0034%	0.0023%	0.0220%
	Females	0.0167%	0.0283%	0.0541%	0.0252%	0.0068%	0.0045%	0.0041%	0.0040%	0.0026%	0.0015%	0.0179%
Black <sup>c</sup>	Both Sexes	0.0083%	0.0127%	0.0200%	0.0125%	0.0026%	0.0023%	0.0018%	0.0017%	-	-	0.0076%
	Males	0.0096%	0.0157%	0.0220%	0.0133%	0.0028%	0.0025%	-	-	-	-	0.0083%
	Females	0.0071%	0.0096%	0.0178%	0.0118%	0.0025%	0.0022%	0.0022%	-	-	-	0.0068%
Asian/ Pacific Islander <sup>c</sup>	Both Sexes	0.0122%	0.0227%	0.0388%	0.0146%	0.0043%	0.0041%	0.0036%	0.0033%	0.0041%	0.0029%	0.0132%
	Males	0.0145%	0.0239%	0.0448%	0.0169%	0.0054%	0.0044%	0.0053%	0.0037%	-	0.0077%	0.0149%
	Females	0.0101%	0.0215%	0.0326%	0.0123%	0.0034%	0.0038%	0.0020%	0.0030%	0.0059%	-	0.0114%
Hispanic <sup>d</sup>	Both Sexes	0.0245%	0.0303%	0.0605%	0.0278%	0.0095%	0.0066%	0.0058%	0.0077%	0.0047%	-	0.0208%
	Males	0.0278%	0.0337%	0.0660%	0.0326%	0.0115%	0.0085%	0.0057%	0.0066%	-	-	0.0231%
	Females	0.0211%	0.0267%	0.0547%	0.0226%	0.0073%	0.0046%	0.0060%	0.0086%	0.0045%	-	0.0182%

<sup>a</sup> US 2011 cancer prevalence counts are based on 2011 cancer prevalence proportions from the SEER registries and 1/1/2011 US population estimates based on the average of 2010 and 2011 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

<sup>b c d</sup> Statistics based on (b) SEER 9 Areas (c) SEER 11 Areas and Rural Georgia (d) NHIA for Hispanic for SEER 11 Areas and Rural Georgia.

<sup>e</sup> Maximum limited-duration prevalence: 36 years for 1975-2011 SEER 9 data; 19 years for 1992-2011 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).

<sup>f</sup> Percentages are age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130) by 5-year age groups.

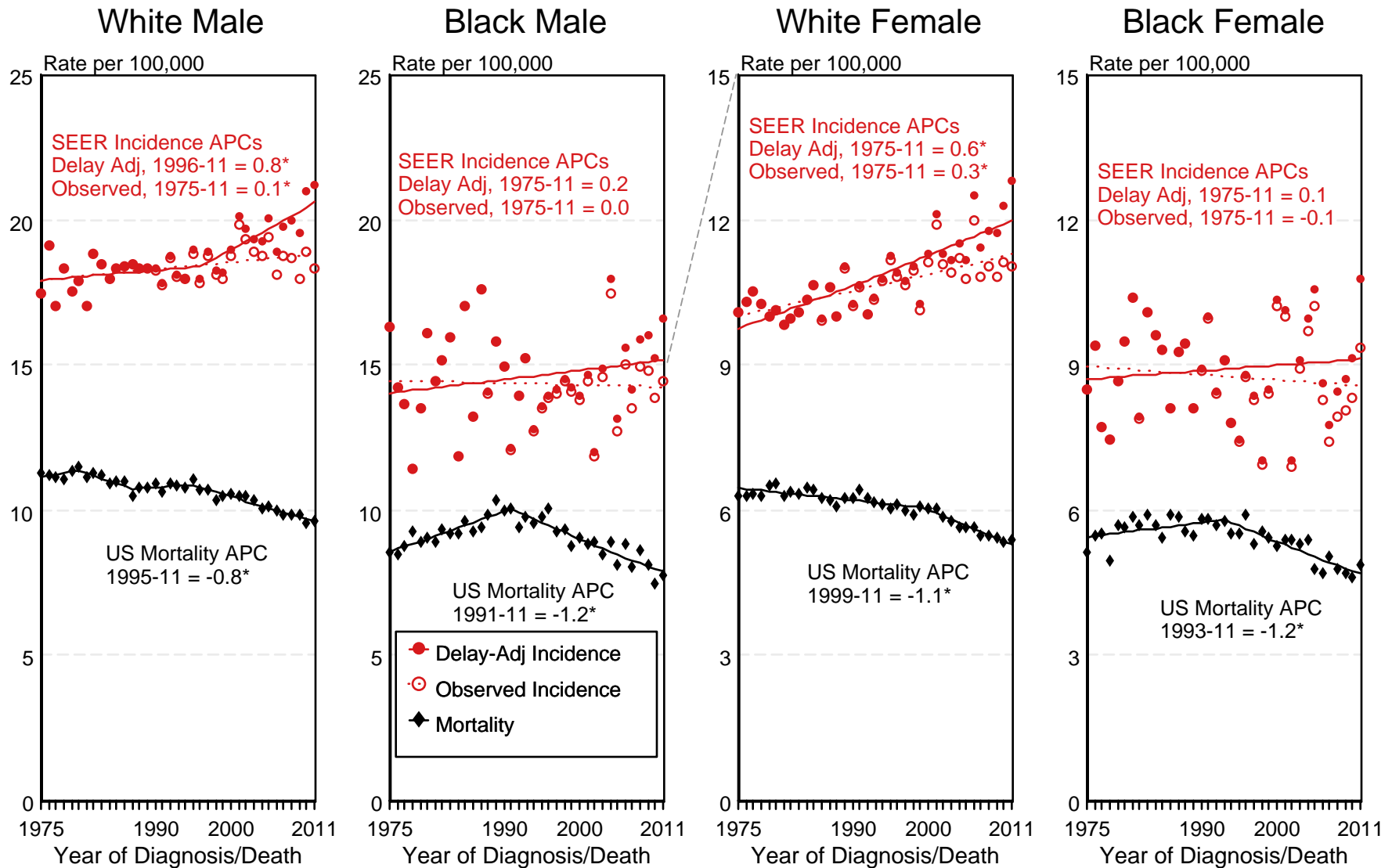
<sup>g h i</sup> (g) Cases diagnosed more than 36 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000). (h) Complete prevalence is obtained by summing 0 to <36 and >=36. (i) Age-specific completeness index was approximated using empirical data from historical Connecticut tumor registry.

- Statistic not shown. Statistic based on fewer than 5 cases estimated alive in SEER for the time interval.

+ Not available.

Figure 13.1

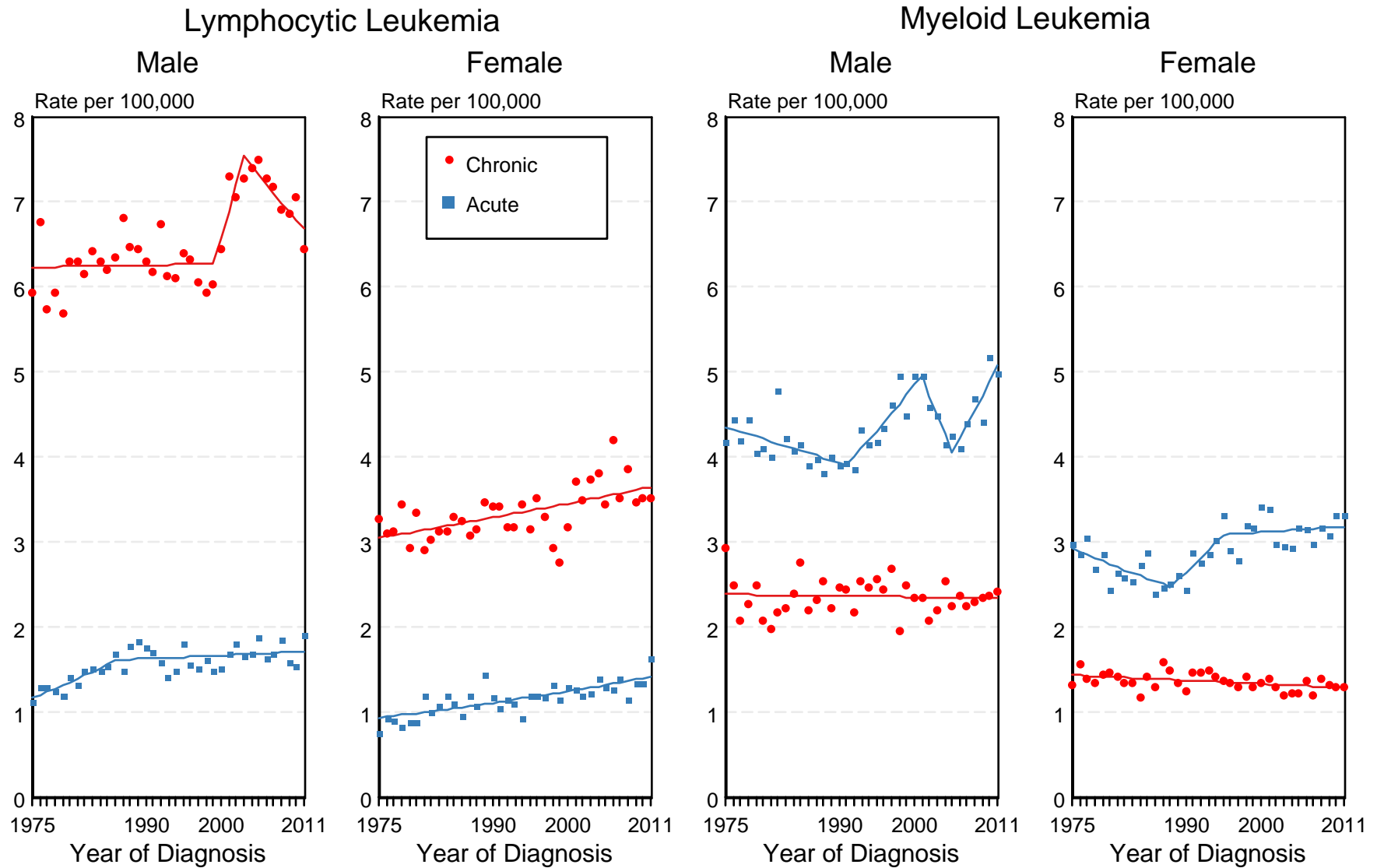
# SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates<sup>a</sup> Leukemia, by Race and Sex



<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 4.1.0, April 2014, 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



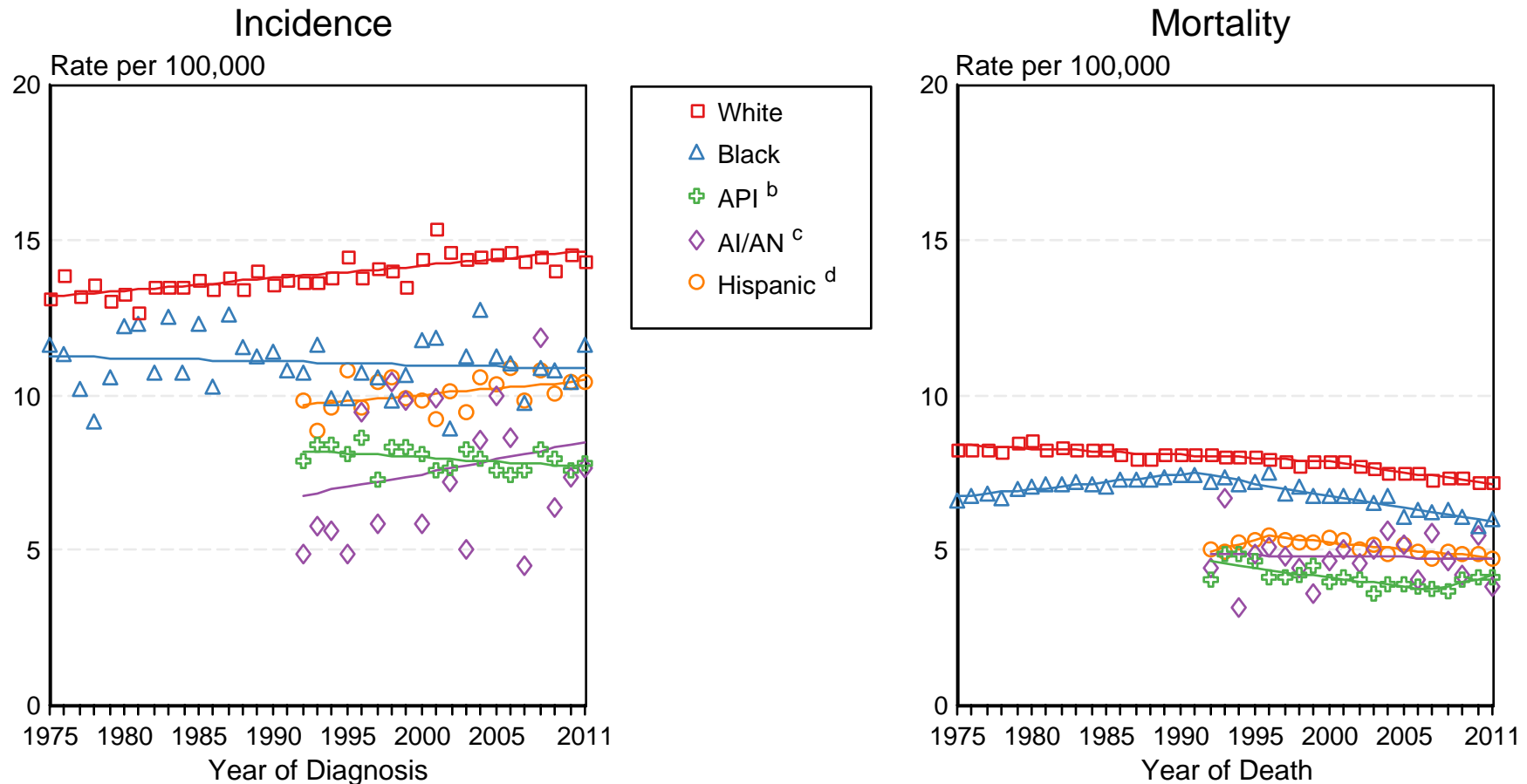
<sup>a</sup> Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute.



Figure 13.3

# SEER Incidence and US Death Rates<sup>a</sup> Leukemia, Both Sexes

Joinpoint Analyses for Whites and Blacks from 1975-2011  
and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2011



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,

<sup>a</sup> Los Angeles, Alaska Native Registry and Rural Georgia). Mortality data are from 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 are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. Joinpoint analyses for Whites and

<sup>b</sup> Blacks during the 1975-2011 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2011 allow a maximum of 3 joinpoints.

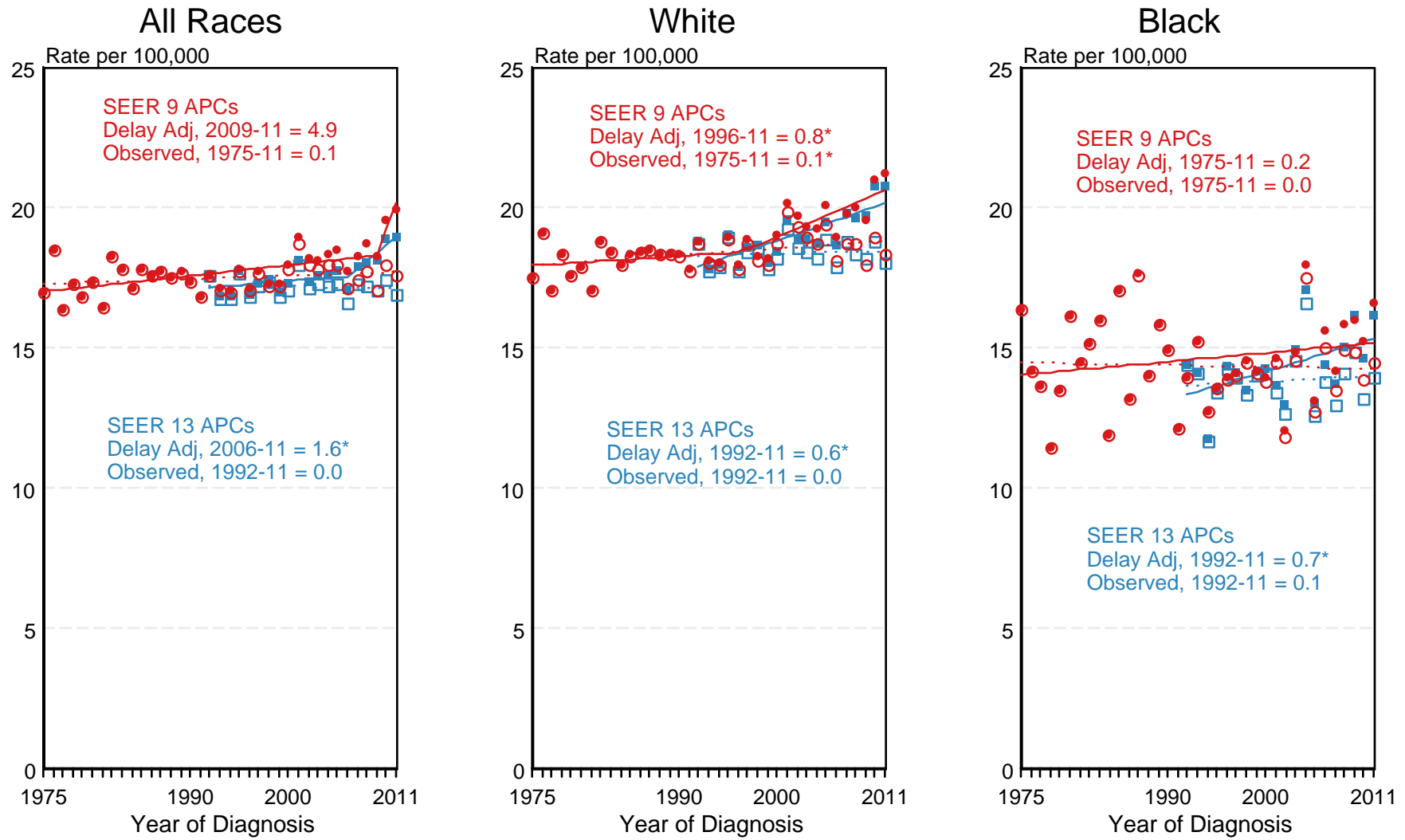
<sup>c</sup> API = Asian/Pacific Islander.

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

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 New Hampshire and Oklahoma.

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

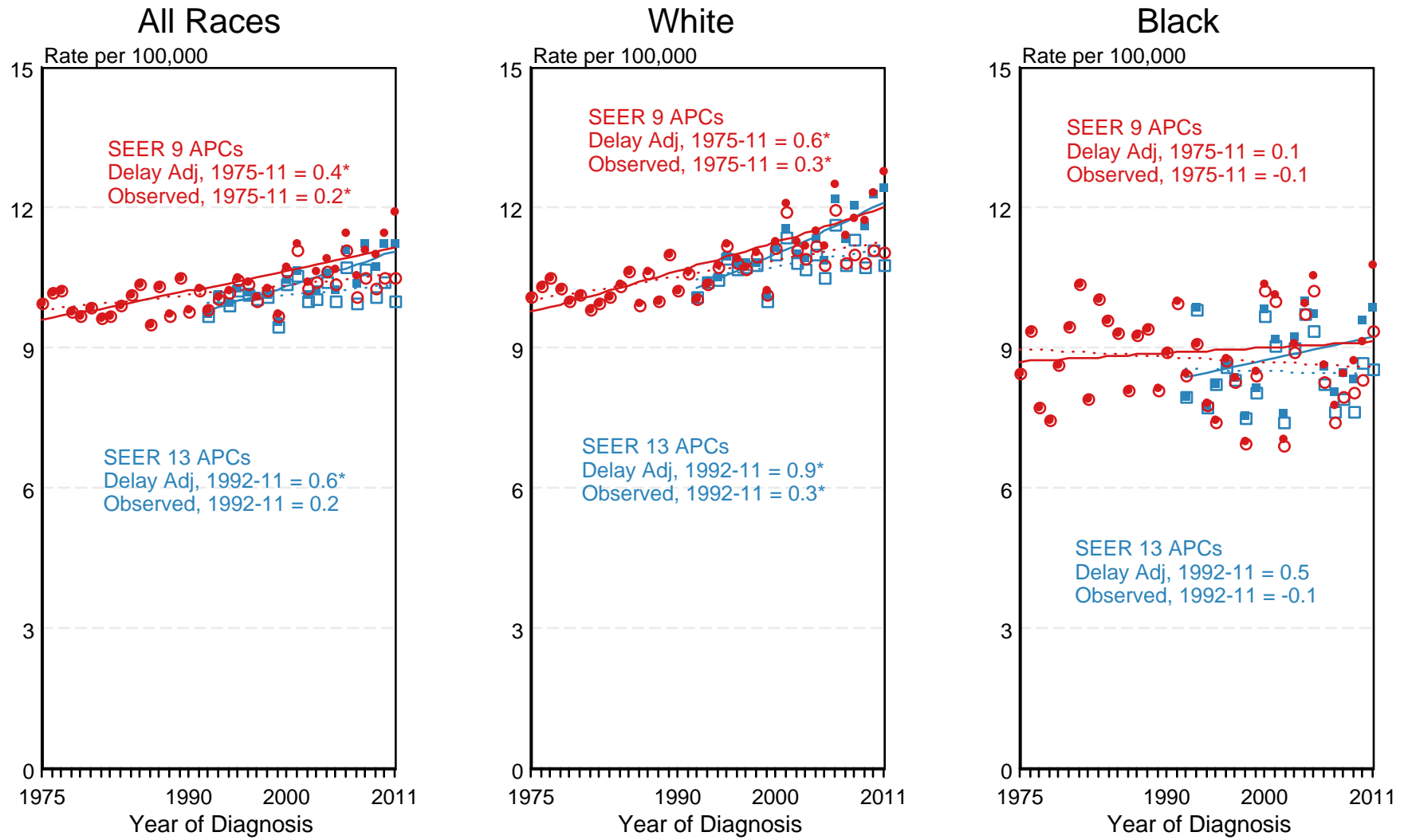


● SEER 9 Delay-Adj. Incidence   
 ○ SEER 9 Observed Incidence   
 ■ SEER 13 Delay-Adj. Incidence   
 □ SEER 13 Observed Incidence

<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 4.1.0, April 2014, 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



● SEER 9 Delay-Adj. Incidence   
 ○ SEER 9 Observed Incidence   
 ■ SEER 13 Delay-Adj. Incidence   
 □ SEER 13 Observed Incidence

<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 4.1.0, April 2014, 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).