

Table 13.1  
LeukemiaTrends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2006 With up to Four Joinpoints, 1992-2006 With up to Two Joinpoints,  
Both Sexes by Race/Ethnicity

	<u>Joinpoint Trend 1</u>		<u>Joinpoint Trend 2</u>		<u>Joinpoint Trend 3</u>		<u>Joinpoint Trend 4</u>		<u>Joinpoint Trend 5</u>		<u>AAPC<sup>d</sup></u>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	1997-2006	2002-2006
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2006</u>												
All Races	1975-2006	0.3*									0.3*	0.3*
White	1975-2006	0.4*									0.4*	0.4*
Black	1975-2006	-0.1									-0.1	-0.1
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2006</u>												
All Races	1992-2006	0.2									0.2	0.2
White	1992-2006	0.3*									0.3*	0.3*
Black	1992-2006	0.2									0.2	0.2
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2006</u>												
All Races	1975-2003	0.1	2003-2006	-3.1*							-1.0*	-2.3*
White	1975-2002	0.2*	2002-2006	-2.3*							-0.9*	-2.3*
Black	1975-2006	-0.4*									-0.4*	-0.4*
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2006</u>												
All Races	1992-2004	-0.2	2004-2006	-4.3							-1.2	-2.3
White	1992-2001	0.2	2001-2006	-1.9*							-1.0*	-1.9*
White NH <sup>ef</sup>	1992-2001	0.4	2001-2006	-2.2*							-1.0*	-2.2*
Black	1992-2006	-0.5									-0.5	-0.5
Black NH <sup>ef</sup>	1992-2006	-0.6									-0.6	-0.6
API <sup>e</sup>	1992-2006	-0.9*									-0.9*	-0.9*
AI/AN <sup>eg</sup>	1992-2006	3.1									3.1*	3.1*
Hispanic <sup>e</sup>	1992-2006	-0.1									-0.1	-0.1
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2006</u>												
All Races												
White												
Black												
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2006</u>												
All Races												
White												
White NH <sup>ef</sup>												
Black												
Black NH <sup>ef</sup>												
API <sup>e</sup>												
AI/AN <sup>eg</sup>												
Hispanic <sup>e</sup>												

Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. (<http://srab.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 CT, ME, MD, MN, NH, NY, ND, OK and VT.

<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 13.2  
LeukemiaTrends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2006 With up to Four Joinpoints, 1992-2006 With up to Two Joinpoints,  
Males by Race/Ethnicity

	<u>Joinpoint Trend 1</u>		<u>Joinpoint Trend 2</u>		<u>Joinpoint Trend 3</u>		<u>Joinpoint Trend 4</u>		<u>Joinpoint Trend 5</u>		<u>AAPC<sup>d</sup></u>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	1997-2006	2002-2006
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2006</u>												
All Races	1975-2006	0.1*									0.1*	0.1*
White	1975-2006	0.2*									0.2*	0.2*
Black	1975-2006	-0.1									-0.1	-0.1
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2006</u>												
All Races	1992-2006	0.0									0.0	0.0
White	1992-2006	0.0									0.0	0.0
Black	1992-2006	0.1									0.1	0.1
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2006</u>												
All Races	1975-2004	-0.1	2004-2006	-6.6							-1.6*	-3.4
White	1975-2003	0.1	2003-2006	-4.4*							-1.4*	-3.3*
Black	1975-2006	-0.5*									-0.5*	-0.5*
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2006</u>												
All Races	1992-2004	-0.4	2004-2006	-6.1							-1.7*	-3.3*
White	1992-2003	-0.2	2003-2006	-4.0							-1.5*	-3.0*
White NH <sup>ef</sup>	1992-2003	-0.1	2003-2006	-4.7							-1.6*	-3.6*
Black	1992-2006	-0.6									-0.6	-0.6
Black NH <sup>ef</sup>	1992-2006	-0.6									-0.6	-0.6
API <sup>e</sup>	1992-2006	-0.8									-0.8	-0.8
AI/AN <sup>eg</sup>	1992-2006	3.8									3.8	3.8
Hispanic <sup>e</sup>	1992-2006	-0.1									-0.1	-0.1
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2006</u>												
All Races												
White												
Black												
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2006</u>												
All Races												
White												
White NH <sup>ef</sup>												
Black												
Black NH <sup>ef</sup>												
API <sup>e</sup>												
AI/AN <sup>eg</sup>												
Hispanic <sup>e</sup>												

Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. (<http://srab.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 CT, ME, MD, MN, NH, NY, ND, OK and VT.

<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 13.3  
LeukemiaTrends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2006 With up to Four Joinpoints, 1992-2006 With up to Two Joinpoints,  
Females by Race/Ethnicity

	<u>Joinpoint Trend 1</u>		<u>Joinpoint Trend 2</u>		<u>Joinpoint Trend 3</u>		<u>Joinpoint Trend 4</u>		<u>Joinpoint Trend 5</u>		<u>AAPC<sup>d</sup></u>	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	1997-2006	2002-2006
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2006</u>												
All Races	1975-2006	0.3*									0.3*	0.3*
White	1975-2006	0.4*									0.4*	0.4*
Black	1975-2006	0.0									0.0	0.0
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2006</u>												
All Races	1992-2006	0.4*									0.4*	0.4*
White	1992-2006	0.5*									0.5*	0.5*
Black	1992-2006	0.4									0.4	0.4
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2006</u>												
All Races	1975-2006	0.0									0.0	0.0
White	1975-2006	0.1									0.1*	0.1*
Black	1975-2006	-0.4									-0.4	-0.4
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2006</u>												
All Races	1992-2006	-0.3									-0.3	-0.3
White	1992-2006	-0.2									-0.2	-0.2
White NH <sup>ef</sup>	1992-2006	-0.1									-0.1	-0.1
Black	1992-2006	-0.4									-0.4	-0.4
Black NH <sup>ef</sup>	1992-2006	-0.4									-0.4	-0.4
API <sup>e</sup>	1992-2006	-0.9									-0.9*	-0.9*
AI/AN <sup>eg</sup>	1992-2006	2.6									2.6	2.6
Hispanic <sup>e</sup>	1992-2006	-0.2									-0.2	-0.2
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2006</u>												
All Races												
White												
Black												
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2006</u>												
All Races												
White												
White NH <sup>ef</sup>												
Black												
Black NH <sup>ef</sup>												
API <sup>e</sup>												
AI/AN <sup>eg</sup>												
Hispanic <sup>e</sup>												

Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. (<http://srab.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

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<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  
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	12.78	16.91	9.95	13.09	17.48	10.10	11.52	16.21	8.47
1976	13.55	18.48	10.21	13.84	19.13	10.31	11.30	14.19	9.39
1977	12.74	16.34	10.22	13.20	17.04	10.52	10.15	13.61	7.72
1978	12.87	17.25	9.78	13.54	18.30	10.24	9.16	11.42	7.47
1979	12.56	16.80	9.69	13.02	17.55	10.01	10.63	13.59	8.64
1980	12.91	17.35	9.84	13.26	17.90	10.10	12.18	16.04	9.54
1981	12.38	16.49	9.64	12.65	17.05	9.81	12.24	14.47	10.34
1982	13.17	18.25	9.72	13.52	18.80	9.96	10.75	15.16	7.91
1983	13.15	17.82	9.91	13.49	18.44	10.07	12.48	15.95	10.06
1984	12.99	17.08	10.10	13.44	17.94	10.34	10.68	11.87	9.61
1985	13.35	17.71	10.38	13.72	18.22	10.65	12.23	16.82	9.30
1986	12.83	17.53	9.50	13.39	18.37	9.92	10.23	13.20	8.09
1987	13.34	17.72	10.31	13.77	18.44	10.58	12.57	17.60	9.26
1988	12.94	17.47	9.68	13.38	18.25	9.96	11.55	14.03	9.42
1989	13.41	17.63	10.42	13.92	18.26	10.93	11.26	15.91	8.02
1990	12.85	17.25	9.74	13.47	18.20	10.18	11.31	14.78	8.82
1991	13.03	16.76	10.20	13.64	17.70	10.54	10.81	11.97	10.06
1992	12.99	17.48	9.75	13.56	18.61	9.95	10.68	13.91	8.42
1993	12.99	16.97	9.99	13.54	17.89	10.25	11.57	15.12	9.09
1994	12.96	16.85	10.09	13.61	17.75	10.57	9.82	12.61	7.78
1995	13.45	17.62	10.35	14.31	18.71	11.04	9.82	13.35	7.42
1996	13.02	16.85	10.28	13.58	17.60	10.72	10.75	13.91	8.79
1997	13.06	17.47	9.85	13.87	18.56	10.45	10.44	13.88	8.19
1998	13.01	16.97	10.09	13.79	17.85	10.78	9.73	14.20	6.96
1999	12.61	16.88	9.45	13.22	17.64	9.94	10.19	13.69	7.93
2000	13.28	17.19	10.36	13.93	18.07	10.84	11.30	13.07	9.97
2001	13.86	18.04	10.70	14.71	19.03	11.44	11.42	13.97	9.64
2002	13.00	17.11	9.88	13.99	18.43	10.60	8.39	11.10	6.54
2003	12.87	16.82	9.85	13.55	17.85	10.28	10.57	13.43	8.46
2004	12.92	16.72	10.04	13.51	17.42	10.47	11.25	15.38	8.70
2005	12.46	16.19	9.57	13.17	17.36	9.91	10.15	11.37	9.25
2006	11.89	14.83	9.70	12.59	15.56	10.38	9.18	12.90	6.67
1975-2006	12.93	17.04	9.95	13.51	17.89	10.35	10.71	13.85	8.55

<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 13.5  
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	0.93	1.12	0.76	1.00	1.23	0.79	-	-	-
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	1.41	0.88	1.16	1.47	0.90	0.73	-	-
1981	1.24	1.31	1.18	1.30	1.39	1.23	0.95	-	-
1982	1.23	1.50	0.99	1.30	1.56	1.05	-	-	-
1983	1.29	1.53	1.08	1.39	1.65	1.17	0.80	-	-
1984	1.32	1.49	1.20	1.35	1.50	1.24	0.92	-	-
1985	1.30	1.55	1.09	1.35	1.62	1.12	-	-	-
1986	1.30	1.67	0.96	1.38	1.82	0.97	0.77	-	-
1987	1.32	1.48	1.19	1.35	1.55	1.19	0.89	-	1.15
1988	1.40	1.78	1.07	1.44	1.83	1.12	0.98	-	-
1989	1.62	1.81	1.44	1.69	1.89	1.50	1.03	-	-
1990	1.41	1.75	1.16	1.52	1.85	1.28	0.57	-	-
1991	1.38	1.73	1.05	1.52	1.95	1.09	0.86	-	-
1992	1.35	1.59	1.14	1.39	1.72	1.09	0.91	-	-
1993	1.26	1.41	1.09	1.37	1.57	1.13	0.82	-	-
1994	1.19	1.48	0.94	1.29	1.59	1.02	0.68	-	-
1995	1.49	1.80	1.20	1.60	1.87	1.34	0.96	1.27	-
1996	1.38	1.56	1.20	1.46	1.65	1.25	0.85	-	-
1997	1.34	1.52	1.16	1.45	1.63	1.28	0.75	0.89	-
1998	1.47	1.63	1.30	1.58	1.74	1.41	0.93	1.16	-
1999	1.31	1.49	1.13	1.40	1.58	1.23	0.68	-	-
2000	1.39	1.49	1.30	1.52	1.59	1.46	0.85	-	-
2001	1.45	1.64	1.26	1.58	1.80	1.37	0.65	-	-
2002	1.49	1.78	1.20	1.64	1.99	1.28	0.61	-	-
2003	1.41	1.63	1.21	1.47	1.68	1.27	0.72	-	-
2004	1.53	1.67	1.37	1.63	1.90	1.36	1.06	-	1.34
2005	1.55	1.85	1.25	1.65	1.95	1.34	0.89	1.00	-
2006	1.42	1.58	1.26	1.46	1.59	1.34	0.95	1.35	-
1975-2006	1.32	1.54	1.12	1.40	1.63	1.18	0.79	0.86	0.72

<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  
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	4.33	5.90	3.26	4.47	6.11	3.37	4.76	6.94	3.23
1976	4.57	6.77	3.10	4.77	7.18	3.17	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	3.43	4.75	6.43	3.61	3.33	3.64	3.07
1979	4.05	5.69	2.93	4.31	6.09	3.12	3.06	4.16	-
1980	4.51	6.30	3.32	4.68	6.54	3.45	4.51	7.06	2.89
1981	4.26	6.30	2.88	4.46	6.63	3.03	3.79	5.41	2.44
1982	4.31	6.16	3.02	4.52	6.42	3.19	3.77	6.65	-
1983	4.46	6.40	3.14	4.68	6.77	3.26	4.21	6.11	3.03
1984	4.41	6.27	3.11	4.70	6.79	3.28	3.45	4.46	2.65
1985	4.45	6.14	3.30	4.75	6.53	3.52	4.11	6.15	2.87
1986	4.49	6.31	3.23	4.85	6.82	3.53	2.79	4.18	-
1987	4.63	6.77	3.05	4.92	7.21	3.26	4.03	6.14	2.45
1988	4.51	6.42	3.11	4.72	6.83	3.22	4.43	5.32	3.53
1989	4.64	6.39	3.40	4.93	6.84	3.59	3.91	5.26	2.95
1990	4.55	6.25	3.36	4.85	6.72	3.54	4.51	6.13	3.43
1991	4.55	6.13	3.39	4.94	6.74	3.59	3.40	3.63	3.24
1992	4.55	6.65	3.11	4.97	7.32	3.37	3.21	4.96	2.08
1993	4.37	6.03	3.12	4.63	6.42	3.29	4.44	6.61	2.89
1994	4.48	5.99	3.33	4.87	6.52	3.65	3.19	4.13	2.32
1995	4.42	6.30	3.06	4.80	6.84	3.34	3.34	5.22	2.06
1996	4.56	6.17	3.41	4.96	6.64	3.76	3.55	5.36	2.31
1997	4.36	5.95	3.15	4.74	6.46	3.45	3.39	4.96	2.37
1998	4.07	5.76	2.84	4.45	6.28	3.13	2.72	3.56	2.21
1999	3.96	5.80	2.60	4.27	6.23	2.81	3.56	5.61	2.35
2000	4.23	5.95	2.93	4.67	6.61	3.18	2.95	3.61	2.54
2001	4.82	6.76	3.37	5.27	7.38	3.70	3.56	4.60	2.82
2002	4.56	6.42	3.15	5.09	7.17	3.51	2.63	3.77	1.82
2003	4.75	6.57	3.36	5.19	7.23	3.64	3.69	5.15	2.64
2004	4.66	6.45	3.31	5.04	6.82	3.68	3.52	6.22	1.76
2005	4.32	6.20	2.88	4.74	6.88	3.06	3.16	3.71	2.78
2006	4.29	5.79	3.19	4.65	6.23	3.49	3.12	5.03	1.91
1975-2006	4.43	6.19	3.15	4.76	6.68	3.38	3.54	5.05	2.51

<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  
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	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	2.77	2.70	3.47	2.13
1979	3.32	4.05	2.85	3.36	4.17	2.85	3.43	3.47	3.37
1980	3.14	4.10	2.43	3.16	4.11	2.48	2.88	3.28	2.53
1981	3.16	3.99	2.64	3.22	4.11	2.69	3.07	3.22	2.89
1982	3.42	4.80	2.59	3.47	4.91	2.62	2.50	3.22	2.09
1983	3.21	4.22	2.53	3.18	4.29	2.41	2.93	3.02	2.92
1984	3.30	4.06	2.73	3.35	4.16	2.77	2.35	2.10	2.44
1985	3.33	4.15	2.87	3.25	4.02	2.84	3.71	4.91	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	2.45	3.03	4.01	2.46	3.01	4.73	2.04
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	3.89	2.43	3.11	4.03	2.47	2.51	3.02	2.12
1991	3.32	3.91	2.88	3.37	3.89	2.98	3.28	4.38	2.59
1992	3.22	3.86	2.76	3.28	4.05	2.74	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	3.45	4.14	3.00	3.48	4.25	2.96	2.88	3.24	2.67
1995	3.66	4.16	3.31	3.81	4.31	3.45	2.60	2.56	2.73
1996	3.47	4.33	2.90	3.46	4.27	2.94	3.24	4.10	2.73
1997	3.52	4.59	2.78	3.66	4.81	2.85	3.02	3.78	2.60
1998	3.90	4.92	3.18	4.04	5.04	3.31	3.05	4.64	2.11
1999	3.72	4.51	3.18	3.84	4.62	3.29	3.03	3.45	2.76
2000	4.04	4.93	3.40	4.04	4.95	3.37	4.40	4.87	4.00
2001	4.03	4.91	3.38	4.17	4.96	3.59	3.43	4.07	2.98
2002	3.61	4.54	2.96	3.75	4.74	3.08	2.88	3.24	2.65
2003	3.56	4.47	2.91	3.64	4.59	2.98	3.26	3.44	2.93
2004	3.36	4.05	2.90	3.45	4.13	2.97	3.25	4.04	2.90
2005	3.51	4.12	3.13	3.56	4.25	3.14	3.41	3.34	3.51
2006	3.38	3.85	3.06	3.47	3.95	3.13	2.72	3.18	2.46
1975-2006	3.43	4.25	2.86	3.48	4.33	2.90	2.99	3.53	2.64

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

Table 13.8  
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	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	1.72	2.26	1.34	1.74	2.28	1.39	1.43	-	-
1979	1.87	2.48	1.43	1.89	2.49	1.45	1.94	2.80	-
1980	1.70	2.05	1.46	1.73	2.09	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	1.36	1.66	2.19	1.32	1.75	-	1.79
1983	1.69	2.23	1.33	1.64	2.15	1.32	2.51	3.44	1.85
1984	1.67	2.40	1.18	1.62	2.40	1.10	2.58	2.61	2.59
1985	1.98	2.76	1.44	2.01	2.80	1.48	2.06	2.89	-
1986	1.68	2.20	1.29	1.71	2.26	1.31	1.54	-	-
1987	1.88	2.32	1.58	1.90	2.38	1.58	2.14	2.88	-
1988	1.91	2.54	1.50	1.92	2.59	1.49	2.08	2.88	-
1989	1.69	2.22	1.34	1.67	2.18	1.34	2.21	3.12	-
1990	1.75	2.46	1.24	1.75	2.50	1.20	2.57	3.53	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	2.46	1.42	1.90	2.48	1.50	1.65	2.47	-
1995	1.89	2.55	1.37	1.96	2.69	1.39	1.54	1.98	-
1996	1.81	2.45	1.35	1.81	2.53	1.28	1.99	2.39	1.83
1997	1.86	2.67	1.27	1.92	2.73	1.34	1.67	2.53	-
1998	1.63	1.92	1.41	1.71	1.94	1.54	1.48	2.31	-
1999	1.78	2.45	1.28	1.76	2.41	1.27	1.68	2.20	1.26
2000	1.77	2.31	1.35	1.79	2.32	1.38	1.55	1.72	1.33
2001	1.75	2.28	1.36	1.79	2.30	1.41	1.87	2.58	1.35
2002	1.57	2.01	1.24	1.61	2.07	1.28	1.00	-	-
2003	1.54	2.08	1.12	1.63	2.21	1.16	1.36	1.92	-
2004	1.73	2.42	1.20	1.79	2.52	1.23	1.39	1.84	1.08
2005	1.52	2.04	1.11	1.60	2.11	1.18	1.47	2.30	-
2006	1.55	2.03	1.17	1.64	2.13	1.26	1.18	1.63	-
1975-2006	1.75	2.31	1.34	1.77	2.35	1.36	1.75	2.30	1.35

<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  
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, 2002-2006									
All ages	12.2	15.8	9.5	12.8	16.5	9.9	9.8	12.7	7.8
Under 65	6.0	7.2	4.9	6.3	7.5	5.1	5.1	6.2	4.1
65 and over	54.8	75.0	40.9	57.6	79.2	42.7	42.7	57.6	33.6
All ages (IARC world std) <sup>c</sup>	8.8	11.0	7.0	9.2	11.5	7.3	7.0	8.9	5.6
Age-Specific Rates, 2002-2006									
<1	4.8	5.1	4.3	5.0	5.4	4.6	3.6	-	-
1-4	9.1	10.2	8.0	9.7	10.8	8.6	4.7	6.0	3.4
5-9	3.9	4.2	3.7	4.2	4.5	3.8	2.3	2.2	2.3
10-14	3.1	3.4	2.7	3.3	3.6	2.9	2.3	2.5	2.1
15-19	3.1	3.9	2.2	3.4	4.3	2.3	2.0	2.0	1.9
20-24	2.5	3.0	2.0	2.7	3.2	2.1	2.2	2.4	2.0
25-29	2.3	2.7	1.9	2.4	2.7	2.0	2.0	2.7	1.3
30-34	2.9	3.3	2.6	2.9	3.3	2.6	3.1	3.6	2.7
35-39	3.6	4.2	3.0	3.7	4.2	3.1	3.2	4.2	2.3
40-44	4.8	5.4	4.2	4.8	5.4	4.2	4.4	5.2	3.8
45-49	7.0	8.4	5.6	7.1	8.4	5.8	6.5	7.8	5.5
50-54	10.1	11.9	8.3	10.4	12.3	8.6	8.5	10.3	7.1
55-59	15.1	19.0	11.5	15.6	19.6	11.7	13.8	17.4	10.7
60-64	23.3	29.9	17.2	24.3	31.1	17.9	21.6	29.4	15.5
65-69	34.7	44.8	26.0	36.8	47.2	27.5	27.6	35.0	21.9
70-74	46.5	62.9	33.4	48.9	66.5	34.5	38.7	51.9	29.5
75-79	62.6	86.0	45.8	65.7	89.8	48.2	46.1	66.3	33.6
80-84	73.8	104.3	54.7	77.6	110.3	57.2	54.8	73.6	44.5
85+	80.7	113.9	65.2	84.3	121.4	67.2	64.2	86.0	55.2
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2002-2006									
All ages									
Under 65									
65 and over									
All ages (IARC world std) <sup>c</sup>									
Age-Specific Rates, 2002-2006									
<1									
1-4									
5-9									
10-14									
15-19									
20-24									
25-29									
30-34									
35-39									
40-44									
45-49									
50-54									
55-59									
60-64									
65-69									
70-74									
75-79									
80-84									
85+									

<sup>a</sup> SEER 17 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 13.11  
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, 2002-2006									
All ages	1.6	1.9	1.4	1.7	2.0	1.5	0.9	1.1	0.8
Under 65	1.6	1.9	1.4	1.8	2.0	1.5	0.9	1.1	0.8
65 and over	1.5	1.7	1.3	1.5	1.7	1.4	0.9	-	0.8
All ages (IARC world std) <sup>b</sup>	2.0	2.3	1.7	2.2	2.5	1.8	1.1	1.2	0.9
Age-Specific Rates, 2002-2006									
<1	2.0	2.1	1.8	2.1	2.1	2.0	-	-	-
1-4	7.8	8.7	6.8	8.5	9.5	7.5	3.3	4.4	2.3
5-9	3.3	3.5	3.1	3.6	3.8	3.3	1.7	1.7	1.7
10-14	2.1	2.5	1.8	2.4	2.7	2.0	1.2	1.4	1.0
15-19	1.7	2.4	1.0	2.0	2.8	1.1	0.7	-	-
20-24	1.0	1.3	0.6	1.1	1.5	0.6	0.7	0.9	-
25-29	0.7	0.8	0.5	0.7	0.9	0.6	-	-	-
30-34	0.7	0.8	0.6	0.7	0.9	0.6	-	-	-
35-39	0.6	0.8	0.5	0.7	0.9	0.5	-	-	-
40-44	0.7	0.8	0.6	0.7	0.8	0.6	0.6	-	-
45-49	0.7	0.8	0.5	0.7	0.8	0.6	0.5	-	-
50-54	0.8	0.9	0.8	0.9	1.0	0.8	0.6	-	-
55-59	1.0	0.9	1.0	1.0	1.0	1.1	-	-	-
60-64	1.0	1.1	1.0	1.0	1.1	1.0	-	-	-
65-69	1.4	1.3	1.4	1.5	1.4	1.5	-	-	-
70-74	1.5	1.9	1.1	1.5	2.0	1.0	-	-	-
75-79	1.6	1.8	1.4	1.6	1.7	1.5	-	-	-
80-84	1.4	1.5	1.3	1.5	1.6	1.4	-	-	-
85+	1.6	1.9	1.5	1.7	2.0	1.5	-	-	-
<u>Chronic Lymphocytic Leukemia</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2002-2006									
All ages	4.1	5.6	2.9	4.3	6.0	3.1	3.0	4.4	2.1
Under 65	1.3	1.7	0.9	1.3	1.8	0.9	1.0	1.5	0.6
65 and over	23.4	32.6	17.0	25.0	35.0	18.0	17.2	24.4	13.0
All ages (IARC world std) <sup>b</sup>	2.4	3.3	1.7	2.6	3.5	1.8	1.9	2.7	1.3
Age-Specific Rates, 2002-2006									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-
30-34	0.1	0.1	-	0.1	-	-	-	-	-
35-39	0.2	0.3	0.2	0.2	0.3	0.2	-	-	-
40-44	0.6	0.8	0.5	0.6	0.8	0.5	-	-	-
45-49	1.7	2.4	1.1	1.9	2.6	1.2	1.2	1.8	-
50-54	3.3	4.3	2.4	3.5	4.4	2.6	2.7	4.0	1.6
55-59	5.9	8.0	4.0	6.2	8.3	4.3	4.2	6.3	2.5
60-64	10.5	14.5	6.9	11.0	15.0	7.3	9.1	14.6	4.8
65-69	15.6	20.9	11.0	16.7	22.4	11.7	12.2	15.4	9.7
70-74	20.0	27.5	13.9	21.5	29.5	14.8	14.8	20.0	11.1
75-79	27.0	37.9	19.2	28.7	40.3	20.3	20.8	31.4	14.2
80-84	30.4	42.9	22.6	32.3	46.1	23.7	21.8	30.8	16.9
85+	33.2	48.2	26.2	35.3	52.1	27.5	22.1	33.7	17.4

<sup>a</sup> SEER 17 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 13.12  
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, 2002-2006									
All ages	3.5	4.3	2.9	3.6	4.5	3.0	3.0	3.6	2.6
Under 65	1.7	1.8	1.6	1.7	1.9	1.6	1.6	1.7	1.5
65 and over	16.0	21.6	12.1	16.5	22.5	12.5	12.7	16.4	10.3
All ages (IARC world std) <sup>b</sup>	2.4	2.8	2.1	2.5	2.9	2.1	2.1	2.5	1.9
Age-Specific Rates, 2002-2006									
<1	1.5	1.6	1.5	1.6	1.6	1.5	-	-	-
1-4	0.9	1.0	0.8	0.8	0.9	0.8	0.9	1.1	-
5-9	0.4	0.4	0.4	0.4	0.4	0.3	-	-	-
10-14	0.7	0.7	0.7	0.6	0.6	0.7	0.9	0.9	0.9
15-19	0.9	0.9	0.8	0.9	1.0	0.9	0.7	-	-
20-24	0.9	0.9	1.0	1.0	1.0	1.0	0.9	-	1.0
25-29	0.9	0.9	0.9	0.9	0.9	0.9	0.6	-	-
30-34	1.2	1.2	1.2	1.2	1.1	1.2	1.3	1.4	1.1
35-39	1.3	1.3	1.2	1.3	1.3	1.2	1.3	1.5	1.1
40-44	1.7	1.8	1.5	1.7	1.8	1.6	1.5	1.7	1.3
45-49	2.3	2.4	2.1	2.2	2.4	2.1	2.4	2.5	2.4
50-54	3.1	3.3	2.9	3.2	3.4	2.9	2.6	2.6	2.6
55-59	4.4	4.8	3.9	4.5	5.0	3.9	4.4	4.6	4.2
60-64	6.5	7.9	5.3	6.9	8.5	5.4	5.7	5.9	5.6
65-69	9.7	12.0	7.8	10.2	12.4	8.3	7.7	10.4	5.7
70-74	14.0	18.3	10.5	14.4	18.9	10.7	13.0	17.9	9.6
75-79	18.5	25.4	13.5	19.1	26.1	14.0	11.8	14.9	10.0
80-84	22.9	32.6	16.8	23.8	34.2	17.2	16.4	20.1	14.3
85+	21.6	30.5	17.4	22.1	32.2	17.5	19.9	25.2	17.8
<u>Chronic Myeloid Leukemia</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2002-2006									
All ages	1.5	1.9	1.1	1.5	1.9	1.2	1.4	1.8	1.1
Under 65	0.7	0.9	0.6	0.7	0.9	0.6	0.8	1.0	0.7
65 and over	6.5	9.0	4.9	6.8	9.3	5.1	5.1	7.3	3.8
All ages (IARC world std) <sup>b</sup>	1.0	1.2	0.8	1.0	1.2	0.8	1.0	1.2	0.8
Age-Specific Rates, 2002-2006									
<1	0.3	-	-	0.4	-	-	-	-	-
1-4	0.1	-	-	0.1	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	0.1	-	-	0.1	-	-	-	-	-
15-19	0.2	0.2	0.2	0.2	0.2	-	-	-	-
20-24	0.4	0.4	0.3	0.4	0.4	0.3	-	-	-
25-29	0.4	0.5	0.3	0.4	0.5	0.3	0.6	-	-
30-34	0.6	0.7	0.5	0.6	0.7	0.4	0.9	-	1.1
35-39	0.9	1.1	0.7	0.9	1.1	0.7	1.0	1.3	-
40-44	1.0	1.1	0.9	0.9	1.0	0.8	1.3	1.8	-
45-49	1.2	1.4	1.0	1.2	1.4	1.1	1.3	1.4	1.1
50-54	1.4	1.6	1.2	1.3	1.6	1.1	1.2	-	1.2
55-59	1.9	2.5	1.4	1.9	2.4	1.3	2.4	3.4	1.5
60-64	2.6	3.1	2.1	2.6	3.2	2.1	2.9	3.7	2.3
65-69	4.0	5.2	2.9	3.9	5.1	2.9	3.4	4.8	-
70-74	5.6	7.8	3.9	5.9	8.2	4.0	4.9	6.3	4.0
75-79	7.8	10.4	5.9	8.3	10.9	6.5	5.4	8.5	-
80-84	9.0	13.0	6.5	9.5	13.5	7.0	6.2	-	-
85+	9.2	12.6	7.6	9.5	13.1	7.9	7.6	-	6.9

<sup>a</sup> SEER 17 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  
Leukemia

## Survival Rates, by Race, Sex, Diagnosis Year and Age

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
5-Year Relative Survival Rates									
Year of Diagnosis:									
1960-1963 <sup>a</sup>	-	-	-	14	-	-	-	-	-
1970-1973 <sup>a</sup>	-	-	-	22	-	-	-	-	-
1975-1977 <sup>b</sup>	35.4	34.4	36.7	36.0	35.1	37.1	33.5	30.4	36.7
1978-1980 <sup>b</sup>	37.8	36.8	39.1	38.5	37.6	39.7	29.4	28.5	30.5
1981-1983 <sup>b</sup>	39.2	38.9	39.6	40.2	40.0	40.5	34.2	33.4	35.0
1984-1986 <sup>b</sup>	42.0	41.4	42.6	43.2	42.8	43.8	33.8	32.7	35.0
1987-1989 <sup>b</sup>	44.5	46.0	42.5	45.6	47.6	43.0	36.7	35.0	38.7
1990-1992 <sup>b</sup>	46.8	46.5	47.3	48.2	48.3	48.0	37.2	31.6	43.1
1993-1995 <sup>b</sup>	48.7	49.3	47.8	49.7	50.3	48.8	42.3	41.6	43.1
1996-1998 <sup>b</sup>	49.4	49.6	49.2	50.8	50.6	51.1	39.1	39.5	38.4
1999-2005 <sup>b</sup>	54.0 <sup>e</sup>	54.7 <sup>e</sup>	53.1 <sup>e</sup>	54.8 <sup>e</sup>	55.6 <sup>e</sup>	53.8 <sup>e</sup>	46.3 <sup>e</sup>	46.8 <sup>e</sup>	45.5
5-Year Period Survival Rates <sup>cd</sup>									
Year of Diagnosis:									
1999-2005	55.0	55.4	54.3	55.1	55.7	54.3	48.2	47.5	49.2
5-Year Relative Survival Rates, 1999-2005 <sup>c</sup>									
Age at Diagnosis:									
Ages <45	68.3	67.6	69.4	69.6	69.2	70.2	56.8	53.2	61.6
Ages 45-54	60.1	61.7	57.8	61.5	62.9	59.3	48.7	51.0	44.6
Ages 55-64	56.2	56.4	55.9	57.2	57.2	57.3	42.1	42.5	41.8
Ages 65-74	46.5	44.8	49.1	47.1	45.1	50.1	40.8	37.9	43.7
Ages 75+	32.7	32.6	32.9	33.3	33.1	33.4	25.3	23.7	25.1
Ages <65	63.1	62.9	63.3	64.1	64.0	64.3	51.4	50.2	53.0
Ages 65+	39.3	39.1	39.7	39.7	39.4	40.2	34.2	33.4	34.5

<sup>a</sup> Rates are based on End Results data from a series of hospital registries and one population-based registry.

<sup>b</sup> Rates are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).

Rates are based on follow-up of patients into 2006.

<sup>c</sup> Rates are from the SEER 17 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 and New Jersey). California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2005.

The remaining 13 SEER Areas contribute cases for the entire period 1999-2005. Rates are based on follow-up of patients into 2006.

<sup>d</sup> Period survival provides a more up-to-date estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2003-2005: 0-1 year survival),

(2002-2004: 1-2 year survival), (2001-2003: 2-3 year survival), (2000-2002: 3-4 year survival), (1999-2001: 4-5 years survival).

<sup>e</sup> The difference in rates between 1975-1977 and 1999-2005 is statistically significant (p<.05).

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

<sup>g</sup> The standard error of the survival rate is greater than 10 percentage points.

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

Table 13.14  
Lymphocytic Leukemia

Survival Rates, 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 Rates									
Year of Diagnosis:									
1975-1977 <sup>a</sup>	42.4	38.6	47.4	42.8	39.2	47.9	34.5 <sup>e</sup>	-	-
1978-1980 <sup>a</sup>	50.4	46.8	55.6	50.8	47.4	55.7	31.7 <sup>e</sup>	31.4 <sup>e</sup>	-
1981-1983 <sup>a</sup>	51.9	48.6	56.4	52.8	49.5	57.3	43.4 <sup>e</sup>	37.6 <sup>e</sup>	49.1 <sup>e</sup>
1984-1986 <sup>a</sup>	53.7	50.5	58.0	54.6	50.8	60.1	36.4 <sup>e</sup>	44.2 <sup>e</sup>	27.4 <sup>e</sup>
1987-1989 <sup>a</sup>	56.1	55.7	56.7	56.9	57.0	56.6	46.1 <sup>e</sup>	43.1 <sup>e</sup>	48.0 <sup>e</sup>
1990-1992 <sup>a</sup>	59.9	56.5	64.8	59.8	57.1	63.7	57.8 <sup>e</sup>	51.0 <sup>e</sup>	63.8 <sup>e</sup>
1993-1995 <sup>a</sup>	61.6	58.7	65.4	61.1	58.7	64.3	53.9 <sup>e</sup>	45.7 <sup>e</sup>	65.0 <sup>e</sup>
1996-1998 <sup>b</sup>	66.6	65.4	68.1	67.4	65.1	70.3	56.4 <sup>e</sup>	60.4 <sup>e</sup>	50.6 <sup>e</sup>
1999-2005 <sup>a</sup>	66.3 <sup>d</sup>	65.0 <sup>d</sup>	67.9 <sup>d</sup>	66.9 <sup>d</sup>	65.9 <sup>d</sup>	68.4 <sup>d</sup>	59.7 <sup>d</sup>	55.1 <sup>e</sup>	63.8 <sup>e</sup>
5-Year Period Survival Rates <sup>bc</sup>									
Year of Diagnosis:									
1999-2005	65.4	64.8	66.2	65.3	65.0	65.7	63.4	55.7	71.5
5-Year Relative Survival Rates, 1999-2005 <sup>b</sup>									
Age at Diagnosis:									
Ages <45	75.1	73.3	77.5	75.6	74.0	77.8	68.6	61.8	76.7
Ages 45-54	25.5	24.1	27.0	25.8	23.7	28.6	14.5 <sup>e</sup>	-	-
Ages 55-64	17.9	16.3	20.0	17.3	15.9	19.3	-	-	-
Ages 65-74	11.0	9.4	13.3	11.6	10.6	12.9	-	-	-
Ages 75+	4.7	-	5.3	2.8	-	2.9	-	-	-
Ages <65	69.1	67.7	71.1	69.6	68.2	71.4	63.1	57.1	70.0
Ages 65+	8.7	7.7	9.1	8.5	8.3	8.2	13.4 <sup>e</sup>	-	-
<u>Chronic Lymphocytic Leukemia</u>									
5-Year Relative Survival Rates									
Year of Diagnosis:									
1975-1977 <sup>a</sup>	69.0	66.8	71.8	69.8	67.5	72.8	57.2 <sup>e</sup>	56.3 <sup>e</sup>	57.9 <sup>e</sup>
1978-1980 <sup>a</sup>	70.7	67.9	74.3	71.4	68.4	75.3	59.2 <sup>e</sup>	59.6 <sup>e</sup>	58.4 <sup>e</sup>
1981-1983 <sup>a</sup>	68.4	67.8	69.2	69.1	68.9	69.5	57.6 <sup>e</sup>	54.3 <sup>e</sup>	62.9 <sup>e</sup>
1984-1986 <sup>a</sup>	74.0	72.6	75.9	74.3	72.9	76.2	70.1 <sup>e</sup>	67.3 <sup>e</sup>	70.5 <sup>e</sup>
1987-1989 <sup>a</sup>	74.6	74.6	74.6	75.7	75.8	75.4	60.4	59.0 <sup>e</sup>	62.5 <sup>e</sup>
1990-1992 <sup>a</sup>	75.7	74.4	77.6	76.9	75.7	78.5	54.0 <sup>e</sup>	45.3 <sup>e</sup>	62.7 <sup>e</sup>
1993-1995 <sup>a</sup>	77.8	77.3	78.5	78.7	78.1	79.4	64.4	63.0 <sup>e</sup>	66.4 <sup>e</sup>
1996-1998 <sup>b</sup>	75.8	73.8	78.6	76.7	74.8	79.4	57.7 <sup>e</sup>	50.3 <sup>e</sup>	66.9 <sup>e</sup>
1999-2005 <sup>a</sup>	78.8 <sup>d</sup>	78.6 <sup>d</sup>	79.2 <sup>d</sup>	79.3 <sup>d</sup>	79.1 <sup>d</sup>	79.6 <sup>d</sup>	65.9	63.3 <sup>e</sup>	68.5 <sup>e</sup>
5-Year Period Survival Rates <sup>bc</sup>									
Year of Diagnosis:									
1999-2005	77.7	76.3	79.8	77.8	76.6	79.7	65.5	61.7	70.6
5-Year Relative Survival Rates, 1999-2005 <sup>b</sup>									
Age at Diagnosis:									
Ages <45	90.2	88.6	93.2	92.1	90.2	95.8	67.5 <sup>e</sup>	-	-
Ages 45-54	88.3	86.8	91.2	89.3	87.5	92.9	73.5 <sup>e</sup>	73.8 <sup>e</sup>	71.7 <sup>f</sup>
Ages 55-64	84.2	81.5	89.8	84.9	82.5	89.9	65.1	58.0 <sup>e</sup>	78.2 <sup>e</sup>
Ages 65-74	79.9	76.5	85.3	80.3	76.8	85.9	69.3	64.2 <sup>e</sup>	74.0 <sup>e</sup>
Ages 75+	63.9	62.5	65.3	64.0	62.4	65.6	47.5 <sup>e</sup>	38.4 <sup>e</sup>	53.8 <sup>e</sup>
Ages <65	86.0	83.8	90.5	86.9	84.7	91.3	68.0	64.4	75.3 <sup>e</sup>
Ages 65+	71.8	70.2	73.8	71.9	70.1	74.1	60.6	56.3	65.0

<sup>a</sup> Rates are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta). Rates are based on follow-up of patients into 2006.

<sup>b</sup> Rates are from the SEER 17 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 and New Jersey). California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2005. The remaining 13 SEER Areas contribute cases for the entire period 1999-2005. Rates are based on follow-up of patients into 2006.

<sup>c</sup> Period survival provides a more up-to-date estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2003-2005: 0-1 year survival), (2002-2004: 1-2 year survival), (2001-2003: 2-3 year survival), (2000-2002: 3-4 year survival), (1999-2001: 4-5 years survival).

<sup>d</sup> The difference in rates between 1975-1977 and 1999-2005 is statistically significant (p<.05).

<sup>e</sup> The standard error of the survival rate is between 5 and 10 percentage points.

<sup>f</sup> The standard error of the survival rate is greater than 10 percentage points.

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

Table 13.15  
Myeloid Leukemia

Survival Rates, 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 Rates									
Year of Diagnosis:									
1975-1977 <sup>a</sup>	6.6	6.1	7.1	6.3	6.1	6.5	10.6	8.5 <sup>e</sup>	12.1 <sup>e</sup>
1978-1980 <sup>a</sup>	8.4	7.9	9.0	7.8	6.9	8.8	10.2	7.2	13.2
1981-1983 <sup>a</sup>	9.5	8.3	10.8	8.7	7.3	10.4	12.5	16.4 <sup>e</sup>	8.8
1984-1986 <sup>a</sup>	11.9	10.5	13.5	11.7	10.4	13.1	10.2	6.8	13.3
1987-1989 <sup>a</sup>	12.8	10.4	15.4	12.7	11.1	14.5	10.1	4.7	16.9 <sup>e</sup>
1990-1992 <sup>a</sup>	15.3	13.8	17.0	15.1	13.5	16.8	14.6	14.3	14.7
1993-1995 <sup>a</sup>	18.0	16.6	19.6	17.3	15.9	19.0	23.6	22.7 <sup>e</sup>	23.5 <sup>e</sup>
1996-1998 <sup>b</sup>	19.0	17.9	20.2	17.7	16.6	18.9	24.6	26.7 <sup>e</sup>	21.4 <sup>e</sup>
1999-2005 <sup>a</sup>	23.4 <sup>d</sup>	21.8 <sup>d</sup>	25.1 <sup>d</sup>	23.0 <sup>d</sup>	21.0 <sup>d</sup>	25.4 <sup>d</sup>	24.0 <sup>d</sup>	27.6 <sup>d</sup>	18.7
5-Year Period Survival Rates <sup>bc</sup>									
Year of Diagnosis:									
1999-2005	23.8	22.9	24.9	22.9	22.2	23.8	27.1	27.7	25.0
5-Year Relative Survival Rates, 1999-2005 <sup>b</sup>									
Age at Diagnosis:									
Ages <45	51.3	49.2	53.7	52.6	50.8	54.6	41.7	41.9	40.3 <sup>e</sup>
Ages 45-54	31.0	30.5	31.5	31.6	31.0	32.3	27.6	27.0 <sup>e</sup>	28.3 <sup>e</sup>
Ages 55-64	18.4	16.0	21.5	18.1	15.6	21.5	16.9	18.9	13.9 <sup>e</sup>
Ages 65-74	8.0	6.5	10.0	7.9	6.4	10.0	8.2	5.0	9.9
Ages 75+	1.7	1.4	1.9	1.7	1.4	1.9	1.1	0.0	1.5
Ages <65	36.9	34.7	39.6	37.1	34.8	40.0	32.7	33.4	30.9
Ages 65+	4.7	4.1	5.3	4.6	4.1	5.2	5.1	3.4	5.6
<u>Chronic Myeloid Leukemia</u>									
5-Year Relative Survival Rates									
Year of Diagnosis:									
1975-1977 <sup>a</sup>	23.9	21.5	27.1	22.6	20.5	25.5	28.7 <sup>e</sup>	22.6 <sup>e</sup>	36.0 <sup>e</sup>
1978-1980 <sup>a</sup>	25.1	24.1	26.2	25.2	24.7	25.7	22.0 <sup>e</sup>	20.9 <sup>e</sup>	23.6 <sup>e</sup>
1981-1983 <sup>a</sup>	30.5	26.5	35.2	31.1	27.5	35.0	30.2	20.6 <sup>e</sup>	41.3 <sup>e</sup>
1984-1986 <sup>a</sup>	23.9	21.5	27.2	24.5	21.5	28.7	22.2	21.4 <sup>e</sup>	22.6 <sup>e</sup>
1987-1989 <sup>a</sup>	32.2	32.9	31.1	32.1	33.4	30.4	35.7 <sup>e</sup>	30.3 <sup>e</sup>	43.8 <sup>e</sup>
1990-1992 <sup>a</sup>	32.5	31.2	34.2	32.2	32.0	32.5	35.3 <sup>e</sup>	24.3 <sup>e</sup>	47.0 <sup>e</sup>
1993-1995 <sup>a</sup>	37.3	36.9	37.9	37.2	37.2	37.2	35.7 <sup>e</sup>	32.8 <sup>e</sup>	40.5 <sup>e</sup>
1996-1998 <sup>b</sup>	38.8	39.0	38.4	40.0	39.0	40.9	29.7 <sup>e</sup>	29.0 <sup>e</sup>	30.1 <sup>e</sup>
1999-2005 <sup>a</sup>	53.3 <sup>d</sup>	51.3 <sup>d</sup>	55.7 <sup>d</sup>	51.9 <sup>d</sup>	50.1 <sup>d</sup>	53.9 <sup>d</sup>	55.2 <sup>d</sup>	54.0 <sup>de</sup>	56.6 <sup>e</sup>
5-Year Period Survival Rates <sup>bc</sup>									
Year of Diagnosis:									
1999-2005	60.8	60.4	61.3	59.3	58.7	60.0	61.8	60.1	63.1
5-Year Relative Survival Rates, 1999-2005 <sup>b</sup>									
Age at Diagnosis:									
Ages <45	77.2	75.8	79.4	77.4	75.7	80.2	71.3	69.2	74.6 <sup>e</sup>
Ages 45-54	76.5	73.7	79.9	76.7	75.2	78.4	68.3 <sup>e</sup>	58.4 <sup>e</sup>	80.1 <sup>e</sup>
Ages 55-64	62.3	60.2	65.6	62.3	59.0	67.4	55.6 <sup>e</sup>	61.1 <sup>e</sup>	48.2 <sup>f</sup>
Ages 65-74	38.7	34.8	44.5	37.5	32.6	45.1	34.7 <sup>e</sup>	33.3 <sup>e</sup>	35.6 <sup>f</sup>
Ages 75+	23.9	22.2	25.6	24.1	22.2	25.9	12.7 <sup>e</sup>	8.6 <sup>e</sup>	13.0 <sup>f</sup>
Ages <65	73.1	71.1	76.0	73.0	70.8	76.2	67.2	65.3	70.0
Ages 65+	30.9	29.0	33.2	30.2	27.7	33.1	26.9	24.6 <sup>e</sup>	27.1 <sup>e</sup>

<sup>a</sup> Rates are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta). Rates are based on follow-up of patients into 2006.

<sup>b</sup> Rates are from the SEER 17 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 and New Jersey). California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2005. The remaining 13 SEER Areas contribute cases for the entire period 1999-2005. Rates are based on follow-up of patients into 2006.

<sup>c</sup> Period survival provides a more up-to-date estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2003-2005: 0-1 year survival), (2002-2004: 1-2 year survival), (2001-2003: 2-3 year survival), (2000-2002: 3-4 year survival), (1999-2001: 4-5 years survival).

<sup>d</sup> The difference in rates between 1975-1977 and 1999-2005 is statistically significant (p<.05).

<sup>e</sup> The standard error of the survival rate is between 5 and 10 percentage points.

<sup>f</sup> The standard error of the survival rate is greater than 10 percentage points.

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

Table 13.16  
LeukemiaSurvival Rates<sup>a</sup>  
By Year of Diagnosis

All Races, Males and Females

	Year of Diagnosis																		
	1975- 1979	1980- 1984	1985- 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Relative Survival Rates (SEER <sup>b</sup> )																			
1-year	61.6	63.8	65.6	67.5	66.8	68.0	68.1	67.4	68.5	68.8	68.4	66.7	65.9	66.4	70.0	71.4	72.7	73.9	72.1
2-year	51.1	53.6	56.1	57.0	57.5	59.0	58.9	58.7	59.3	60.1	60.2	58.2	58.6	58.2	62.4	63.7	65.1	66.2	
3-year	44.8	47.9	50.5	52.4	52.1	54.3	55.3	54.4	54.6	55.6	55.7	54.4	55.0	54.6	58.6	60.9	60.9		
4-year	40.1	43.2	46.8	49.1	48.0	50.8	51.8	51.2	51.2	52.4	52.0	50.9	52.1	51.7	56.3	58.7			
5-year	36.1	39.4	43.8	46.8	45.7	48.0	48.6	48.6	48.7	49.3	49.6	49.3	49.2	49.9	54.2				
6-year	33.0	36.9	41.6	43.3	43.7	45.6	46.5	46.3	46.7	47.6	47.7	47.5	47.2	49.2					
7-year	30.9	34.6	39.1	40.9	41.3	43.0	44.0	44.4	45.7	46.8	46.0	46.5	46.0						
8-year	28.8	32.6	37.1	39.0	39.0	41.1	43.2	42.1	43.4	45.8	45.9	45.6							
9-year	27.1	31.1	35.4	37.6	37.8	39.6	41.8	41.0	42.6	44.4	45.1								
10-year	25.8	29.7	34.2	36.3	36.9	38.9	41.0	40.6	41.3	43.4									
11-year	24.6	28.7	32.7	34.9	35.7	37.6	40.6	39.7	40.3										
12-year	23.5	27.8	31.9	33.5	35.3	37.1	40.1	38.9											
13-year	22.9	27.0	31.4	32.5	35.2	37.0	39.5												
14-year	22.3	26.7	31.1	32.3	34.8	36.3													
15-year	21.8	26.1	30.8	32.3	34.7														
16-year	21.2	25.5	30.5	32.3															
17-year	20.9	24.9	30.4																
18-year	20.6	24.7																	
19-year	20.3	24.2																	
20-year	19.8	24.2																	

<sup>a</sup> Survival rates are relative rates expressed as percents.  
<sup>b</sup> Rates are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).

Table 13.17  
LeukemiaSurvival Rates<sup>a</sup>  
By Year of Diagnosis

All Races, Males

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Relative Survival Rates (SEER <sup>b</sup> )																			
1-year	61.4	64.1	66.3	68.2	68.0	68.5	69.3	69.3	70.1	70.3	69.2	66.8	66.8	67.9	72.1	72.3	73.7	75.6	74.3
2-year	50.6	53.6	57.0	57.0	58.6	59.4	60.5	59.9	60.8	61.9	61.3	58.6	59.4	59.9	64.3	63.7	65.7	66.9	
3-year	43.9	47.5	51.0	51.8	52.8	54.3	56.9	54.7	56.1	57.5	55.9	55.1	55.6	56.5	60.2	61.1	61.3		
4-year	39.2	42.6	47.3	48.3	47.7	51.0	53.5	52.2	52.2	54.1	51.4	51.2	52.3	53.0	57.5	58.5			
5-year	35.0	38.8	44.6	45.0	45.6	48.7	49.8	49.3	48.9	50.3	49.0	49.5	48.6	51.9	55.1				
6-year	32.0	36.2	42.2	41.2	43.9	45.9	47.8	46.3	46.3	48.4	47.5	47.5	46.9	51.1					
7-year	29.7	33.9	39.6	38.9	41.2	42.8	45.0	44.5	45.3	47.4	45.9	46.2	45.2						
8-year	27.3	31.6	37.6	36.5	39.0	41.2	44.0	41.6	43.7	46.7	45.7	45.3							
9-year	25.4	30.0	35.8	35.5	37.8	39.9	42.8	39.9	42.7	44.8	45.2								
10-year	24.0	28.8	34.3	33.6	36.6	39.5	42.1	39.5	41.0	43.5									
11-year	22.7	27.7	33.1	32.5	35.2	38.6	41.7	38.6	40.7										
12-year	21.7	27.4	32.2	31.1	34.3	38.0	40.9	38.0											
13-year	21.2	26.7	31.8	30.4	33.9	38.0	40.0												
14-year	20.5	26.4	31.6	30.4	33.0	36.9													
15-year	20.2	25.9	31.0	30.4	32.4														
16-year	19.6	25.1	30.7	30.4															
17-year	19.3	24.4	30.7																
18-year	18.9	24.1																	
19-year	18.5	23.8																	
20-year	17.6	23.5																	

<sup>a</sup>

Survival rates are relative rates expressed as percents.

<sup>b</sup>

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



Table 13.18  
LeukemiaSurvival Rates<sup>a</sup>  
By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Relative Survival Rates (SEER <sup>b</sup> )																			
1-year	61.9	63.5	64.6	66.6	65.3	67.3	66.5	64.9	66.3	66.9	67.3	66.6	64.6	64.5	67.1	70.2	71.4	71.7	68.9
2-year	51.7	53.7	55.0	57.0	56.1	58.5	56.9	57.2	57.2	57.8	58.8	57.5	57.5	56.1	59.9	63.7	64.3	65.3	
3-year	45.9	48.5	50.0	53.2	51.3	54.2	53.1	54.1	52.6	53.2	55.5	53.6	54.1	52.0	56.2	60.6	60.4		
4-year	41.3	44.0	46.1	50.0	48.4	50.4	49.7	49.9	49.8	50.2	52.8	50.5	51.7	49.8	54.7	59.0			
5-year	37.4	40.1	42.7	49.2	45.8	46.9	47.2	47.8	48.5	48.1	50.5	49.0	49.9	47.2	53.0				
6-year	34.3	37.8	40.7	46.1	43.6	45.2	44.9	46.3	47.2	46.7	48.0	47.4	47.7	46.8					
7-year	32.5	35.5	38.5	43.6	41.4	43.2	42.8	44.4	46.0	45.7	46.2	46.6	47.0						
8-year	30.7	33.9	36.4	42.2	39.1	41.1	41.9	42.8	43.0	44.6	46.2	45.6							
9-year	29.2	32.5	34.8	40.5	37.9	39.1	40.5	42.6	42.5	43.8	44.6								
10-year	27.9	30.9	34.0	39.8	37.3	38.1	39.7	41.9	41.7	43.3									
11-year	26.8	29.8	32.3	38.0	36.4	36.0	39.2	41.1	39.7										
12-year	25.7	28.3	31.6	36.6	36.2	35.4	38.9	40.1											
13-year	24.9	27.3	30.9	35.1	36.2	35.4	38.5												
14-year	24.3	27.0	30.4	34.2	36.2	35.2													
15-year	23.8	26.4	30.4	34.2	36.2														
16-year	23.2	25.9	30.2	34.2															
17-year	22.8	25.4	29.9																
18-year	22.6	25.3																	
19-year	22.3	24.8																	
20-year	22.3	24.8																	

<sup>a</sup>

Survival rates are relative rates expressed as percents.

<sup>b</sup>

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

Table 13.20  
Leukemia

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

SEER Incidence	SEER 17 Areas <sup>b</sup>			SEER 13 Areas <sup>b</sup>			SEER 9 Areas <sup>b</sup>		
	Rate 2002-2006			Trend 1997-2006 <sup>c</sup>			Trend 1997-2006 <sup>d</sup>		
	Rate per 100,000 persons			AAPC (%)			AAPC (%)		
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Races	12.2	15.8	9.5	-1.2	-1.7*	-0.3	-1.0*	-1.6*	0.0
White	12.8	16.5	9.9	-1.0*	-1.5*	-0.2	-0.9*	-1.4*	0.1*
White Hispanic <sup>e</sup>	9.9	12.1	8.2	-0.2	-0.2	-0.4	-	-	-
White Non-Hispanic <sup>e</sup>	13.0	16.9	9.9	-1.0*	-1.6*	-0.1	-	-	-
Black	9.8	12.7	7.8	-0.5	-0.6	-0.4	-0.4*	-0.5*	-0.4
Asian/Pacific Islander	7.3	8.9	6.1	-0.9*	-0.8	-0.9*	-	-	-
Amer Ind/Alaska Nat <sup>f</sup>	7.0	7.9	6.1	3.1*	-	-	-	-	-
Hispanic <sup>e</sup>	9.7	11.8	8.1	-0.1	-0.1	-0.2	-	-	-
<u>U.S. Mortality<sup>g</sup></u>									
	Rate 2002-2006			Trend 1997-2006 <sup>h</sup>					
	Rate per 100,000 persons			AAPC (%)					
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females			
All Races									
White									
White Hispanic <sup>e</sup>									
White Non-Hispanic <sup>e</sup>									
Black									
Asian/Pacific Islander									
Amer Ind/Alaska Nat									
Total U.S.									
CHSDA Counties									
Non-CHSDA Counties									
Hispanic <sup>e</sup>									

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 3.3, April 2008, 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.

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).

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 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

The 1997-2006 AAPC estimates are based on a Joinpoint analysis with up to 2 Joinpoints over diagnosis years 1992-2006.

The 1997-2006 AAPC estimates are based on a Joinpoint analysis with up to 4 Joinpoints over diagnosis years 1975-2006.

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 2002-2006 Hispanic and Non-Hispanic death rates exclude deaths from Minnesota, New Hampshire and North Dakota. The 1997-2006 Hispanic and Non-Hispanic mortality trends exclude deaths from Connecticut, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma and Vermont.

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

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

The 1997-2006 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2006.

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

Table 13.21  
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>, 2002-2006</u>									
Atlanta & Rural Georgia	11.26	15.53	8.33	12.12	16.43	9.06	9.80	14.50	6.90
Atlanta	11.34	15.60	8.39	12.21	16.45	9.20	9.78	14.69	6.74
Rural Georgia	9.91	14.13	7.30	10.09	16.21	-	10.03	-	-
California	11.41	14.60	8.91	11.97	15.35	9.31	9.52	12.06	7.67
Greater Bay Area	10.75	13.94	8.27	11.68	15.31	8.82	8.68	10.35	7.58
San Francisco-Oakland	10.50	13.31	8.33	11.58	14.80	9.02	8.72	10.35	7.70
San Jose-Monterey	11.23	15.14	8.17	11.85	16.17	8.50	8.54	-	-
Los Angeles	11.32	14.20	9.08	12.11	15.25	9.65	9.99	12.64	8.14
Greater California	11.68	15.01	9.05	11.99	15.38	9.32	9.53	12.55	7.15
Connecticut	11.68	15.46	8.91	12.00	15.76	9.22	8.49	11.84	6.48
Detroit	14.13	18.16	11.22	14.76	19.06	11.61	11.27	14.39	9.08
Hawaii	10.04	12.44	8.08	12.24	16.39	8.53	-	-	-
Iowa	14.58	18.92	11.32	14.49	18.87	11.22	9.03	-	-
Kentucky	12.60	16.47	9.70	12.64	16.58	9.70	9.28	11.61	7.51
Louisiana	11.73	15.45	8.96	12.47	16.39	9.52	10.00	13.21	7.69
New Jersey	13.03	16.96	10.08	13.38	17.55	10.17	9.67	12.62	7.83
New Mexico	13.16	16.57	10.32	13.77	17.48	10.63	10.20	-	-
Seattle-Puget Sound	14.27	18.37	11.11	14.80	19.02	11.52	10.73	12.65	9.27
Utah	12.15	15.58	9.35	12.39	15.86	9.54	-	-	-
9 SEER Areas <sup>b</sup>	12.62	16.31	9.81	13.35	17.30	10.32	9.91	12.82	7.93
11 SEER Areas <sup>b</sup>	12.26	15.79	9.56	13.03	16.85	10.09	9.92	12.76	7.97
13 SEER Areas <sup>b</sup>	12.25	15.78	9.55	13.03	16.84	10.08	9.92	12.74	7.99
17 SEER Areas <sup>b</sup>	12.21	15.77	9.48	12.76	16.52	9.86	9.81	12.69	7.80

<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 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

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

Table 13.26  
LeukemiaEstimated United States Cancer Prevalence Counts<sup>a</sup> on January 1, 2006  
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 <16 <sup>e</sup>	0 to <31 <sup>e</sup>	>=31 <sup>g</sup>	Complete <sup>h</sup>
<u>Race</u>	<u>Sex</u>										
All Races <sup>b</sup>	Both Sexes	96,231	52,982	34,771	20,681	12,556	7,615	188,645	225,790	6,066	231,856
	Males	55,777	30,114	19,599	11,630	6,635	3,703	108,018	127,972	2,774	130,746
	Females	40,454	22,868	15,172	9,051	5,921	3,912	80,627	97,818	3,292	101,110
White <sup>b</sup>	Both Sexes	84,636	47,391	31,462	18,751	11,467	7,015	167,739	201,609	5,119	206,728
	Males	49,605	26,911	17,900	10,695	6,088	3,475	96,770	115,154	2,014	117,168
	Females	35,031	20,480	13,562	8,056	5,379	3,540	70,969	86,455	3,105	89,560
Black <sup>b</sup>	Both Sexes	6,915	3,168	1,861	1,018	585	356	12,148	13,959	677	14,636
	Males	3,571	1,635	894	463	323	114	6,180	7,033	308	7,341
	Females	3,344	1,533	967	555	262	242	5,968	6,926	369	7,295
Asian/ Pacific Islander <sup>c</sup>	Both Sexes	2,180	1,258	820	+	+	+	4,422	+	+	+
	Males	1,200	736	428	+	+	+	2,451	+	+	+
	Females	980	522	392	+	+	+	1,971	+	+	+
Hispanic <sup>d</sup>	Both Sexes	8,258	4,586	3,263	+	+	+	16,552	+	+	+
	Males	4,751	2,481	1,852	+	+	+	9,380	+	+	+
	Females	3,507	2,105	1,411	+	+	+	7,172	+	+	+

Estimated prevalence percent<sup>a</sup> on January 1, 2006, of the SEER 11 population diagnosed in the previous 16 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	0.0565%	0.0294%	0.0501%	0.0216%	0.0210%	0.0307%	0.0604%	0.1297%	0.2050%	0.2279%	0.0582%
	Males	0.0656%	0.0321%	0.0537%	0.0236%	0.0238%	0.0369%	0.0761%	0.1700%	0.2779%	0.3075%	0.0724%
	Females	0.0475%	0.0266%	0.0464%	0.0195%	0.0181%	0.0245%	0.0453%	0.0933%	0.1488%	0.1837%	0.0464%
White <sup>c</sup>	Both Sexes	0.0634%	0.0322%	0.0562%	0.0241%	0.0222%	0.0321%	0.0644%	0.1437%	0.2277%	0.2500%	0.0637%
	Males	0.0735%	0.0353%	0.0597%	0.0264%	0.0252%	0.0388%	0.0809%	0.1877%	0.3083%	0.3389%	0.0793%
	Females	0.0533%	0.0291%	0.0524%	0.0217%	0.0190%	0.0252%	0.0481%	0.1029%	0.1640%	0.2012%	0.0507%
Black <sup>c</sup>	Both Sexes	0.0304%	0.0136%	0.0235%	0.0146%	0.0170%	0.0223%	0.0459%	0.0734%	0.1338%	0.1220%	0.0357%
	Males	0.0339%	0.0142%	0.0244%	0.0154%	0.0177%	0.0272%	0.0579%	0.0962%	0.1654%	0.1690%	0.0433%
	Females	0.0272%	0.0129%	0.0226%	0.0138%	0.0165%	0.0180%	0.0360%	0.0556%	0.1128%	0.0993%	0.0302%
Asian/ Pacific Islander <sup>c</sup>	Both Sexes	0.0312%	0.0286%	0.0428%	0.0137%	0.0179%	0.0249%	0.0331%	0.0548%	0.0675%	0.0610%	0.0325%
	Males	0.0357%	0.0314%	0.0484%	0.0150%	0.0213%	0.0278%	0.0390%	0.0636%	0.0855%	0.0859%	0.0381%
	Females	0.0269%	0.0257%	0.0368%	0.0124%	0.0147%	0.0223%	0.0279%	0.0474%	0.0543%	0.0446%	0.0276%
Hispanic <sup>d</sup>	Both Sexes	0.0375%	0.0310%	0.0590%	0.0233%	0.0208%	0.0268%	0.0404%	0.0801%	0.0942%	0.1097%	0.0432%
	Males	0.0409%	0.0340%	0.0614%	0.0274%	0.0233%	0.0312%	0.0472%	0.0879%	0.1254%	0.1374%	0.0498%
	Females	0.0339%	0.0279%	0.0565%	0.0185%	0.0180%	0.0222%	0.0339%	0.0735%	0.0715%	0.0936%	0.0375%

<sup>a</sup> US 2006 cancer prevalence counts are based on 2006 cancer prevalence proportions from the SEER registries and 1/1/2006 US population estimates based on the average of 2005 and 2006 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: 31 years for 1975-2006 SEER 9 data; 16 years for 1990-2006 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 31 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 <31 and >=31. (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 13.27  
Acute Lymphocytic Leukemia

Estimated United States Cancer Prevalence Counts<sup>a</sup> on January 1, 2006  
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 <16 <sup>e</sup>	0 to <31 <sup>e</sup>	>=31 <sup>g</sup>	Complete <sup>h</sup>
<u>Race</u>	<u>Sex</u>										
All Races <sup>b</sup>	Both Sexes	15,118	11,509	9,569	8,046	6,316	4,302	37,886	55,306	3,550	58,856
	Males	8,660	6,303	5,361	4,490	3,194	2,206	21,220	30,447	1,808	32,255
	Females	6,458	5,206	4,208	3,556	3,122	2,096	16,666	24,859	1,742	26,601
White <sup>b</sup>	Both Sexes	13,060	10,055	8,321	7,067	5,743	3,997	32,962	48,661	+	+
	Males	7,590	5,471	4,777	3,984	2,928	2,086	18,662	27,047	+	+
	Females	5,470	4,584	3,544	3,083	2,815	1,911	14,300	21,614	+	+
Black <sup>b</sup>	Both Sexes	1,025	778	696	497	278	143	2,565	3,439	+	+
	Males	517	432	291	243	147	55	1,274	1,708	+	+
	Females	508	346	405	254	131	88	1,291	1,731	+	+
Asian/ Pacific Islander <sup>c</sup>	Both Sexes	691	455	370	+	+	+	1,604	+	+	+
	Males	384	288	180	+	+	+	896	+	+	+
	Females	307	167	190	+	+	+	708	+	+	+
Hispanic <sup>d</sup>	Both Sexes	3,777	2,536	1,937	+	+	+	8,519	+	+	+
	Males	2,150	1,358	1,121	+	+	+	4,795	+	+	+
	Females	1,627	1,178	816	+	+	+	3,724	+	+	+

Estimated prevalence percent<sup>a</sup> on January 1, 2006, of the SEER 11 population diagnosed in the previous 16 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	0.0132%	0.0249%	0.0429%	0.0128%	0.0051%	0.0029%	0.0028%	0.0028%	0.0018%	0.0014%	0.0134%
	Males	0.0149%	0.0270%	0.0465%	0.0148%	0.0063%	0.0033%	0.0030%	0.0029%	0.0019%	0.0019%	0.0148%
	Females	0.0114%	0.0226%	0.0392%	0.0108%	0.0038%	0.0025%	0.0026%	0.0027%	0.0016%	0.0012%	0.0120%
White <sup>c</sup>	Both Sexes	0.0146%	0.0276%	0.0490%	0.0149%	0.0056%	0.0032%	0.0030%	0.0031%	0.0018%	0.0015%	0.0152%
	Males	0.0165%	0.0302%	0.0528%	0.0171%	0.0072%	0.0035%	0.0032%	0.0033%	0.0021%	0.0020%	0.0168%
	Females	0.0127%	0.0249%	0.0451%	0.0124%	0.0039%	0.0029%	0.0027%	0.0028%	0.0015%	0.0013%	0.0135%
Black <sup>c</sup>	Both Sexes	0.0064%	0.0098%	0.0174%	0.0070%	0.0029%	0.0013%	-	-	-	-	0.0058%
	Males	0.0068%	0.0103%	0.0176%	0.0075%	0.0021%	0.0015%	-	-	-	-	0.0058%
	Females	0.0061%	0.0093%	0.0172%	0.0066%	0.0035%	-	-	-	-	-	0.0058%
Asian/ Pacific Islander <sup>c</sup>	Both Sexes	0.0102%	0.0240%	0.0342%	0.0070%	0.0042%	0.0028%	0.0025%	0.0031%	-	-	0.0111%
	Males	0.0119%	0.0248%	0.0398%	0.0085%	0.0047%	0.0033%	0.0028%	-	-	-	0.0123%
	Females	0.0087%	0.0231%	0.0283%	0.0055%	0.0037%	0.0023%	0.0023%	0.0042%	-	-	0.0098%
Hispanic <sup>d</sup>	Both Sexes	0.0193%	0.0269%	0.0521%	0.0144%	0.0064%	0.0043%	0.0049%	0.0051%	0.0038%	-	0.0162%
	Males	0.0210%	0.0294%	0.0548%	0.0172%	0.0071%	0.0055%	0.0041%	-	-	-	0.0175%
	Females	0.0175%	0.0243%	0.0494%	0.0110%	0.0057%	0.0031%	0.0055%	0.0068%	-	-	0.0148%

<sup>a</sup> US 2006 cancer prevalence counts are based on 2006 cancer prevalence proportions from the SEER registries and 1/1/2006 US population estimates based on the average of 2005 and 2006 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: 31 years for 1975-2006 SEER 9 data; 16 years for 1990-2006 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 31 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 <31 and >=31. (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.

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

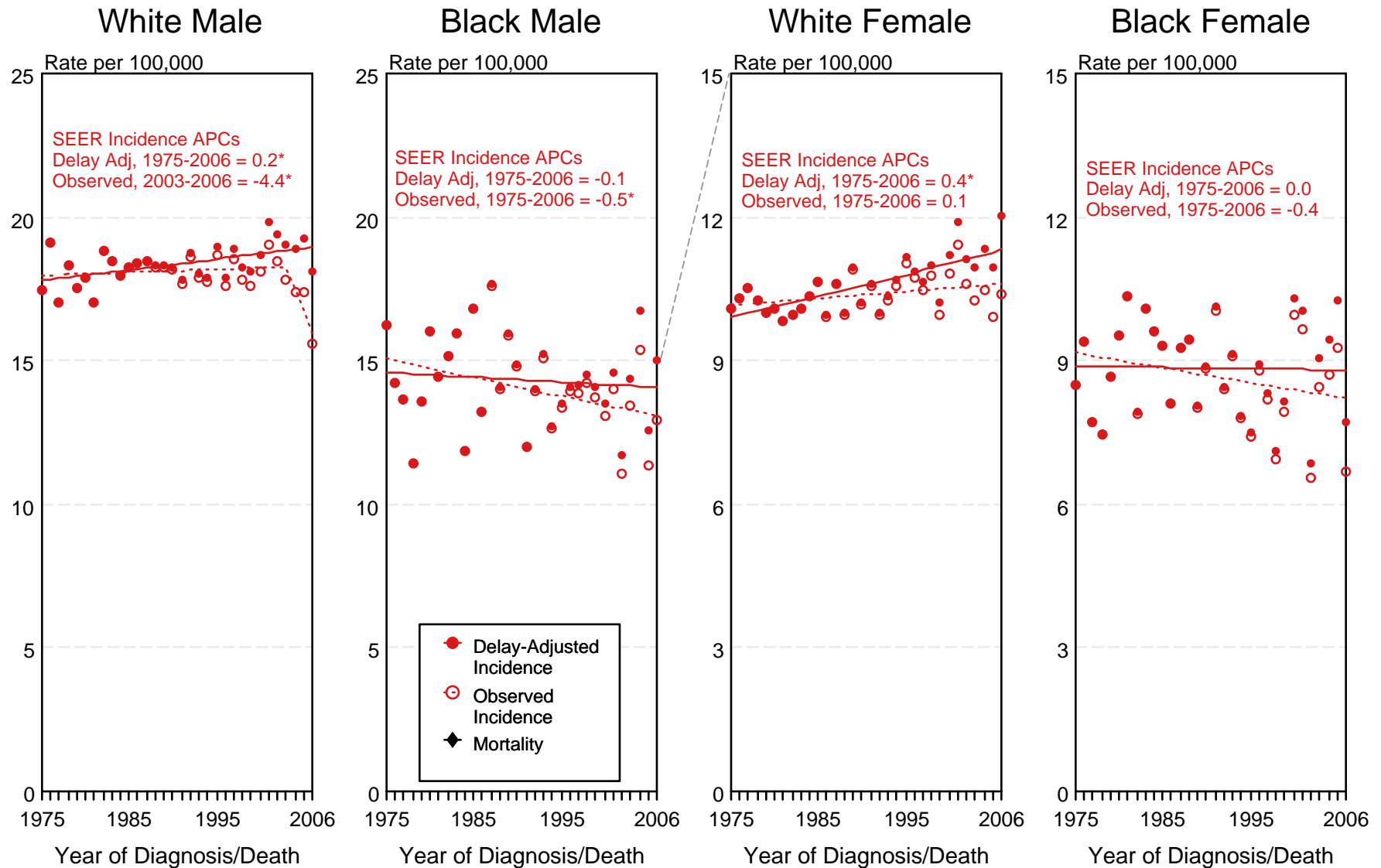


Figure 13.1

<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 3.3.1, April 2008, 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 ( $p < 0.05$ ).

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

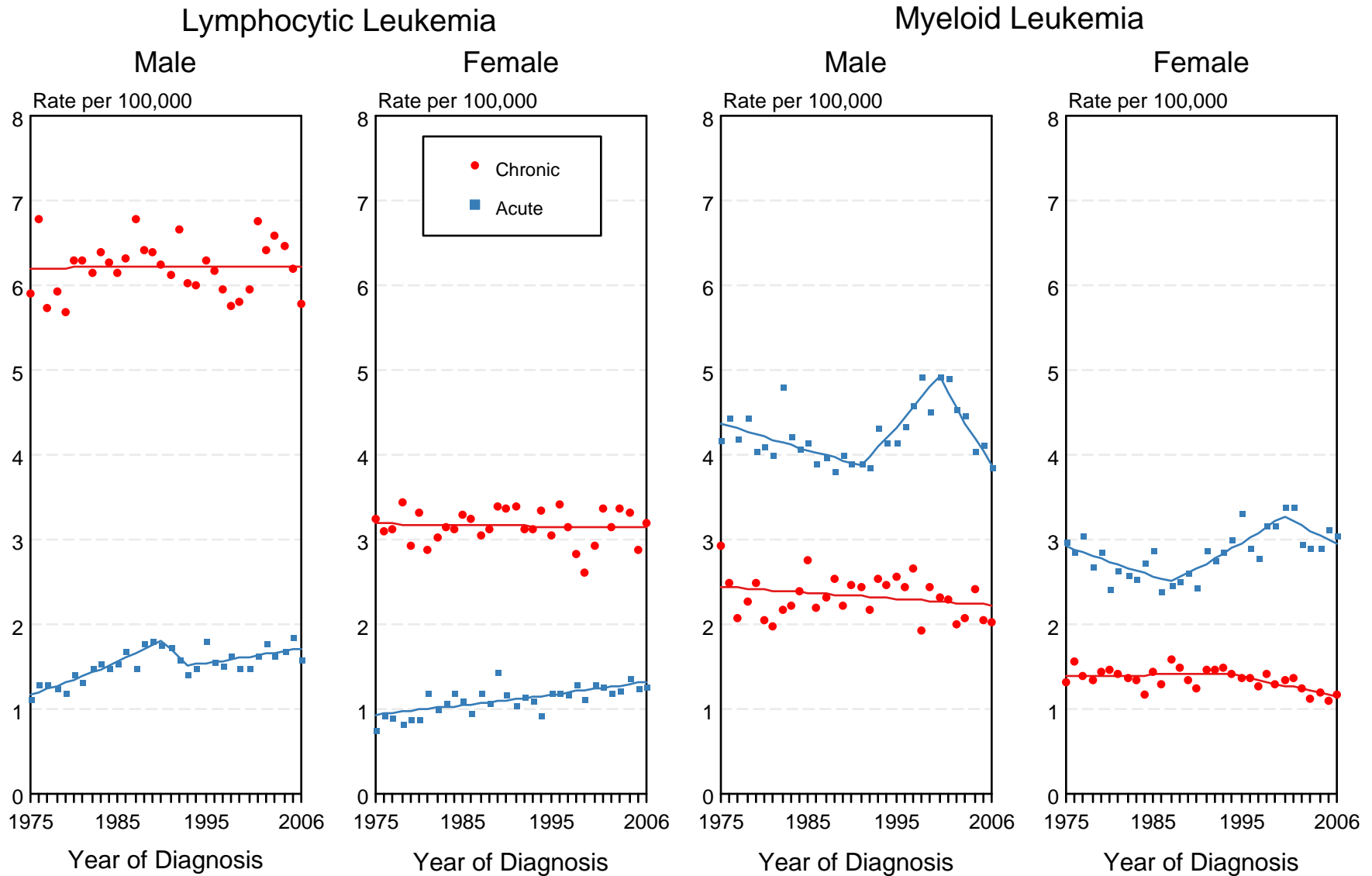


Figure 13.2

<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 3.3.1, April 2008, National Cancer Institute.

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

Joinpoint Analyses for Whites and Blacks from 1975-2006  
and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2006

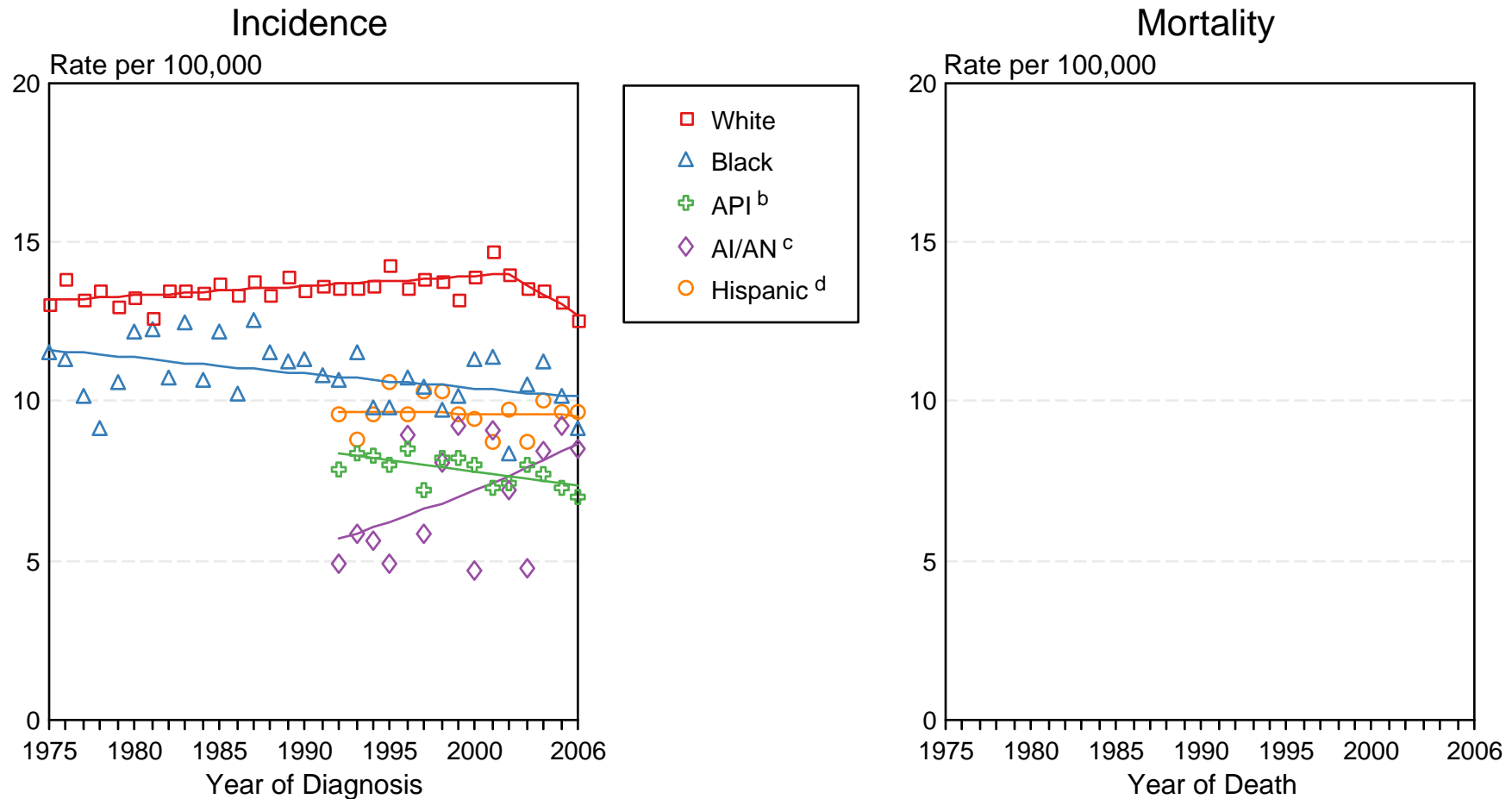


Figure 13.3

Source: Incidence data for whites and blacks are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta).

Incidence data for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics are from the SEER 13 Areas (SEER 9 Areas, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Mortality data are from US Mortality Files, National Center for Health Statistics, CDC.

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

Regression lines are calculated using the Joinpoint Regression Program Version 3.3.1, April 2008, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2006 period allow a maximum of 4 joinpoints. Analyses for other ethnic groups during the period 1992-2006 allow a maximum of 2 joinpoints.

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

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

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