

Table 16.1
Melanoma of the Skin (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2012 With up to Five Joinpoints, 1992-2012 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 ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2003-12	2008-12
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2012</u>														
All Races	1975-81	6.0*	1981-08	2.8*	2008-12	0.2							1.6*	0.2
White	1975-81	6.4*	1981-08	3.2*	2008-12	0.1							1.8*	0.1
Black	1975-12	0.0											0.0	0.0
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2012</u>														
All Races	1992-96	4.9*	1996-12	1.8*									1.8*	1.8*
White	1992-06	3.1*	2006-12	0.7									1.5*	0.7
Black	1992-95	31.2	1995-01	-7.4	2001-12	2.1							2.1	2.1
<u>SEER 9 Observed Incidence^a, 1975-2012</u>														
All Races	1975-81	6.1*	1981-08	2.8*	2008-12	-0.4							1.4*	-0.4
White	1975-81	6.4*	1981-08	3.2*	2008-12	-0.6							1.5*	-0.6
Black	1975-12	0.0											0.0	0.0
<u>SEER 13 Observed Incidence^b, 1992-2012</u>														
All Races	1992-08	2.4*	2008-12	-0.6									1.0*	-0.6
White	1992-08	2.9*	2008-12	-1.1									1.1*	-1.1
White NH ^{ef}	1992-08	3.4*	2008-12	-0.8									1.5*	-0.8
Black	1992-95	31.1	1995-01	-7.3	2001-12	1.8							1.8	1.8
Black NH ^{ef}	1992-94	35.9	1994-12	-0.7									-0.7	-0.7
API ^e	1992-12	0.6											0.6	0.6
AI/AN ^{eg}	1992-12	1.6											1.6	1.6
Hispanic ^f	1992-12	0.7											0.7	0.7
<u>U.S. Cancer Mortality^c, 1975-2012</u>														
All Races	1975-88	1.6*	1988-12	0.0									0.0	0.0
White	1975-88	1.8*	1988-12	0.2*									0.2*	0.2*
Black	1975-12	-0.8*											-0.8*	-0.8*
<u>U.S. Cancer Mortality^c, 1992-2012</u>														
All Races	1992-12	0.0											0.0	0.0
White	1992-12	0.2*											0.2*	0.2*
White NH ^{ef}	1992-12	0.4*											0.4*	0.4*
Black	1992-12	-1.0*											-1.0*	-1.0*
Black NH ^{ef}	1992-12	-1.0*											-1.0*	-1.0*
API ^e	1992-12	-0.8											-0.8	-0.8
AI/AN ^{eg}	1992-12	1.7											1.7	1.7
Hispanic ^f	1992-12	-0.2											-0.2	-0.2

Joinpoint Regression Program Version 4.2.0, April 2015, National Cancer Institute. (<http://surveillance.cancer.gov/joinpoint/>).
^a The APC is the Annual Percent Change based on rates age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).
^b Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).
^c Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).
^d Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.
^e The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.
^f 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.
^g Data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.
 * The APC/AAPC is significantly different from zero (p<.05).
 - Joinpoint regression line analysis could not be performed on data series.

Table 16.2
Melanoma of the Skin (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2012 With up to Five Joinpoints, 1992-2012 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 ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2003-12	2008-12
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2012</u>														
All Races	1975-86	5.5*	1986-08	3.0*	2008-12	0.6							2.0*	0.6
White	1975-85	5.9*	1985-06	3.4*	2006-12	1.5*							2.1*	1.5*
Black	1975-12	-0.2											-0.2	-0.2
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2012</u>														
All Races	1992-96	5.0*	1996-12	2.0*									2.0*	2.0*
White	1992-08	3.0*	2008-12	0.0									1.7*	0.0
Black	1992-95	52.7*	1995-12	-2.6*									-2.6*	-2.6*
<u>SEER 9 Observed Incidence^a, 1975-2012</u>														
All Races	1975-86	5.5*	1986-08	3.0*	2008-12	-0.1							1.6*	-0.1
White	1975-86	5.7*	1986-08	3.3*	2008-12	-0.3							1.7*	-0.3
Black	1975-12	-0.2											-0.2	-0.2
<u>SEER 13 Observed Incidence^b, 1992-2012</u>														
All Races	1992-08	2.6*	2008-12	-0.4									1.2*	-0.4
White	1992-08	3.0*	2008-12	-0.8									1.3*	-0.8
White NH ^{ef}	1992-08	3.4*	2008-12	-0.5									1.6*	-0.5
Black	1992-95	53.1*	1995-12	-2.7*									-2.7*	-2.7*
Black NH ^{ef}	1992-95	53.0	1995-12	-2.6*									-2.6*	-2.6*
API ^e	1992-12	1.4											1.4	1.4
AI/AN ^{eg}	1992-12	0.8											0.8	0.8
Hispanic ^f	1992-12	1.1*											1.1*	1.1*
<u>U.S. Cancer Mortality^c, 1975-2012</u>														
All Races	1975-90	2.2*	1990-02	0.0	2002-09	1.0*	2009-12	-1.6					0.1	-0.9
White	1975-87	2.5*	1987-97	1.0*	1997-00	-1.6	2000-09	1.1*	2009-12	-1.3			0.3	-0.7
Black	1975-12	-0.8*											-0.8*	-0.8*
<u>U.S. Cancer Mortality^c, 1992-2012</u>														
All Races	1992-12	0.3*											0.3*	0.3*
White	1992-12	0.4*											0.4*	0.4*
White NH ^{ef}	1992-12	0.6*											0.6*	0.6*
Black	1992-12	-0.2											-0.2	-0.2
Black NH ^{ef}	1992-12	-0.2											-0.2	-0.2
API ^e	1992-12	-1.3											-1.3	-1.3
AI/AN ^{eg}	1992-12	4.0*											4.0*	4.0*
Hispanic ^f	1992-12	0.0											0.0	0.0

Joinpoint Regression Program Version 4.2.0, April 2015, 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 ($p < .05$).

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

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Table 16.3
Melanoma of the Skin (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2012 With up to Five Joinpoints, 1992-2012 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 ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2003-12	2008-12
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2012</u>														
All Races	1975-86	4.0*	1986-93	0.6	1993-96	5.6	1996-10	2.2*	2010-12	-2.9			1.1	-0.4
White	1975-81	6.2*	1981-93	2.1*	1993-05	3.5*	2005-12	0.9					1.4*	0.9
Black	1975-12	0.1											0.1	0.1
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2012</u>														
All Races	1992-05	2.4*	2005-12	0.5									0.9*	0.5
White	1992-05	3.1*	2005-12	0.5									1.1*	0.5
Black	1992-12	0.5											0.5	0.5
<u>SEER 9 Observed Incidence^a, 1975-2012</u>														
All Races	1975-86	4.0*	1986-93	0.6	1993-96	5.6	1996-10	2.2*	2010-12	-3.7			0.8	-0.8
White	1975-81	6.2*	1981-93	2.1*	1993-05	3.5*	2005-12	0.6					1.2*	0.6
Black	1975-12	0.0											0.0	0.0
<u>SEER 13 Observed Incidence^b, 1992-2012</u>														
All Races	1992-97	4.0*	1997-10	1.6*	2010-12	-3.1							0.5	-0.8
White	1992-06	3.0*	2006-12	-0.2									0.9	-0.2
White NH ^{ef}	1992-06	3.6*	2006-12	0.2									1.3*	0.2
Black	1992-12	0.4											0.4	0.4
Black NH ^{ef}	1992-12	0.5											0.5	0.5
API ^e	1992-12	0.0											0.0	0.0
AI/AN ^{eg}	1992-12	2.1											2.1	2.1
Hispanic ^f	1992-12	0.3											0.3	0.3
<u>U.S. Cancer Mortality^c, 1975-2012</u>														
All Races	1975-88	0.8*	1988-12	-0.5*									-0.5*	-0.5*
White	1975-86	1.1*	1986-12	-0.3*									-0.3*	-0.3*
Black	1975-12	-0.8*											-0.8*	-0.8*
<u>U.S. Cancer Mortality^c, 1992-2012</u>														
All Races	1992-12	-0.5*											-0.5*	-0.5*
White	1992-12	-0.3*											-0.3*	-0.3*
White NH ^{ef}	1992-12	0.0											0.0	0.0
Black	1992-12	-1.7*											-1.7*	-1.7*
Black NH ^{ef}	1992-12	-1.6*											-1.6*	-1.6*
API ^e	1992-12	-0.3											-0.3	-0.3
AI/AN ^{eg}	-	-											-	-
Hispanic ^f	1992-12	-0.4											-0.4	-0.4

Joinpoint Regression Program Version 4.2.0, April 2015, 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 ($p < .05$).

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

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Table 16.4
Melanoma of the Skin (Invasive)

Delay-adjusted SEER Incidence^a Rates by Year, Race and Sex

	All Races			Whites		
	Total	Males	Females	Total	Males	Females
Year of Diagnosis:						
1975	7.89	8.54	7.44	8.70	9.40	8.22
1976	8.15	8.67	7.69	9.02	9.57	8.54
1977	8.86	9.78	8.15	9.88	10.87	9.14
1978	8.95	9.49	8.72	10.12	10.73	9.92
1979	9.54	10.56	8.90	10.78	11.93	10.09
1980	10.51	11.80	9.63	12.03	13.41	11.11
1981	11.09	12.09	10.44	12.58	13.55	12.01
1982	11.19	12.50	10.29	12.82	14.20	11.90
1983	11.09	12.66	10.02	12.64	14.41	11.48
1984	11.40	12.92	10.42	13.10	14.82	12.02
1985	12.78	15.18	11.15	14.54	17.25	12.73
1986	13.32	15.67	11.63	15.23	17.88	13.38
1987	13.67	15.94	12.15	15.64	18.15	13.99
1988	12.89	14.97	11.48	14.95	17.37	13.35
1989	13.74	16.38	11.93	15.94	18.93	13.91
1990	13.87	16.69	11.85	16.21	19.37	13.97
1991	14.63	17.60	12.54	17.13	20.49	14.81
1992	14.79	18.34	12.22	17.26	21.30	14.39
1993	14.63	18.20	12.06	17.08	21.07	14.22
1994	15.66	19.84	12.62	18.43	23.27	14.92
1995	16.47	20.29	13.80	19.37	23.53	16.54
1996	17.36	21.73	14.20	20.52	25.39	17.04
1997	17.75	21.73	14.88	21.00	25.30	17.95
1998	17.95	22.17	15.01	21.49	26.25	18.21
1999	18.33	22.94	15.12	21.98	27.10	18.43
2000	19.00	23.96	15.53	22.91	28.42	19.13
2001	19.72	24.60	16.32	23.98	29.41	20.23
2002	19.38	24.08	16.14	23.49	28.65	20.01
2003	19.60	24.32	16.27	23.93	29.10	20.32
2004	20.73	25.60	17.36	25.38	30.96	21.54
2005	22.53	28.28	18.46	27.86	34.33	23.30
2006	22.18	27.83	18.15	27.31	33.56	22.87
2007	21.91	27.75	17.86	27.02	33.57	22.52
2008	23.29	29.49	18.93	28.83	35.79	23.93
2009	23.20	29.58	18.63	28.65	35.92	23.41
2010	24.12	30.37	19.71	29.78	36.63	24.96
2011	23.25	29.63	18.71	28.74	35.96	23.56
2012	23.56	30.45	18.55	29.13	36.87	23.51

Note: Delay-adjusted melanoma of the skin rates cannot be calculated for the SEER 9 Black population due to low case counts. Additional information on the model used to delay-adjust SEER Incidence rates can be found at <http://surveillance.cancer.gov/delay/>.

^a 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 16.5
Melanoma of the Skin (Invasive)

Age-adjusted SEER Incidence^a Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Year of Diagnosis:									
1975-2012	16.87	20.93	14.11	19.92	24.48	16.88	1.02	1.19	0.92
1975	7.89	8.54	7.44	8.70	9.40	8.22	-	-	-
1976	8.15	8.67	7.69	9.02	9.57	8.54	1.69	-	-
1977	8.86	9.78	8.15	9.88	10.87	9.14	-	-	-
1978	8.95	9.49	8.72	10.12	10.73	9.92	-	-	-
1979	9.54	10.56	8.90	10.78	11.93	10.09	-	-	-
1980	10.51	11.80	9.63	12.03	13.41	11.11	-	-	-
1981	11.09	12.09	10.44	12.58	13.55	12.01	1.35	-	-
1982	11.19	12.50	10.29	12.82	14.20	11.90	-	-	-
1983	11.09	12.66	10.02	12.64	14.41	11.48	-	-	-
1984	11.40	12.92	10.42	13.10	14.82	12.02	-	-	-
1985	12.78	15.18	11.15	14.54	17.25	12.73	-	-	-
1986	13.32	15.67	11.63	15.23	17.88	13.38	-	-	-
1987	13.67	15.94	12.15	15.64	18.15	13.99	1.30	-	-
1988	12.89	14.97	11.48	14.95	17.37	13.35	1.12	-	-
1989	13.74	16.38	11.93	15.94	18.93	13.91	1.13	-	-
1990	13.87	16.69	11.85	16.21	19.37	13.97	1.16	-	-
1991	14.63	17.60	12.54	17.13	20.49	14.81	1.10	-	-
1992	14.79	18.34	12.22	17.26	21.30	14.39	-	-	-
1993	14.63	18.20	12.06	17.08	21.07	14.22	-	-	-
1994	15.66	19.84	12.62	18.43	23.27	14.92	1.03	-	-
1995	16.47	20.29	13.80	19.37	23.53	16.54	1.68	3.19	-
1996	17.36	21.73	14.20	20.52	25.39	17.04	1.11	-	-
1997	17.75	21.73	14.88	21.00	25.30	17.95	1.10	-	-
1998	17.94	22.16	15.01	21.47	26.23	18.20	1.19	-	-
1999	18.32	22.92	15.10	21.95	27.06	18.41	1.14	-	-
2000	18.97	23.93	15.52	22.87	28.36	19.09	0.88	-	-
2001	19.69	24.56	16.29	23.92	29.34	20.19	0.76	-	-
2002	19.34	24.03	16.12	23.43	28.57	19.96	1.11	-	-
2003	19.56	24.26	16.23	23.85	29.00	20.26	0.84	-	-
2004	20.68	25.53	17.32	25.29	30.84	21.47	0.85	-	-
2005	22.46	28.19	18.42	27.76	34.20	23.22	1.07	-	1.03
2006	22.11	27.72	18.10	27.21	33.42	22.80	0.98	-	-
2007	21.82	27.63	17.80	26.90	33.40	22.43	1.22	-	1.20
2008	23.17	29.32	18.84	28.66	35.56	23.80	1.25	1.42	-
2009	23.03	29.34	18.53	28.41	35.58	23.24	1.15	1.11	1.11
2010	23.85	29.96	19.53	29.38	36.07	24.69	1.09	-	0.97
2011	22.86	29.05	18.47	28.13	35.09	23.15	1.09	-	1.18
2012	22.87	29.42	18.14	28.06	35.35	22.79	0.84	-	-

^a 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 16.6
Melanoma of the Skin (Invasive)

Age-adjusted U.S. Death^a Rates by Year, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Year of Death:									
1975-2012	2.63	3.78	1.79	2.96	4.23	2.01	0.48	0.53	0.44
1975	2.07	2.64	1.60	2.25	2.88	1.74	0.50	0.56	0.44
1976	2.24	2.86	1.76	2.45	3.10	1.94	0.55	0.74	0.39
1977	2.27	2.91	1.76	2.48	3.17	1.93	0.53	0.69	0.41
1978	2.31	3.04	1.74	2.53	3.32	1.90	0.52	0.61	0.46
1979	2.42	3.16	1.84	2.66	3.46	2.02	0.53	0.64	0.47
1980	2.34	3.10	1.74	2.57	3.41	1.90	0.54	0.55	0.56
1981	2.43	3.13	1.88	2.68	3.45	2.07	0.58	0.56	0.57
1982	2.46	3.31	1.81	2.71	3.64	1.99	0.52	0.56	0.49
1983	2.48	3.29	1.85	2.74	3.63	2.04	0.50	0.63	0.40
1984	2.53	3.42	1.85	2.80	3.79	2.03	0.51	0.45	0.54
1985	2.56	3.46	1.86	2.83	3.82	2.06	0.53	0.58	0.49
1986	2.59	3.55	1.88	2.88	3.92	2.09	0.47	0.70	0.31
1987	2.65	3.73	1.83	2.93	4.13	2.02	0.55	0.57	0.54
1988	2.65	3.67	1.90	2.95	4.07	2.13	0.45	0.53	0.40
1989	2.69	3.74	1.89	2.99	4.15	2.10	0.55	0.57	0.53
1990	2.75	3.80	1.97	3.06	4.21	2.20	0.52	0.65	0.45
1991	2.71	3.89	1.82	3.01	4.31	2.02	0.59	0.65	0.54
1992	2.71	3.85	1.85	3.01	4.27	2.06	0.51	0.57	0.44
1993	2.71	3.86	1.86	3.03	4.31	2.06	0.53	0.42	0.59
1994	2.66	3.82	1.81	2.98	4.26	2.03	0.45	0.44	0.43
1995	2.70	3.89	1.81	3.03	4.35	2.02	0.46	0.51	0.42
1996	2.80	4.04	1.90	3.14	4.50	2.14	0.44	0.51	0.38
1997	2.73	3.94	1.84	3.06	4.41	2.05	0.56	0.49	0.58
1998	2.75	4.09	1.77	3.10	4.59	1.98	0.51	0.45	0.54
1999	2.63	3.81	1.74	2.97	4.27	1.98	0.40	0.52	0.33
2000	2.66	3.82	1.81	3.00	4.28	2.04	0.54	0.59	0.50
2001	2.66	3.89	1.75	3.02	4.38	1.99	0.42	0.35	0.45
2002	2.61	3.79	1.73	2.96	4.25	1.97	0.39	0.50	0.32
2003	2.67	3.90	1.75	3.03	4.40	1.98	0.45	0.43	0.45
2004	2.67	3.97	1.71	3.05	4.48	1.95	0.45	0.56	0.39
2005	2.76	4.03	1.81	3.13	4.54	2.07	0.45	0.49	0.41
2006	2.74	4.10	1.73	3.12	4.63	1.98	0.45	0.62	0.36
2007	2.68	4.01	1.69	3.06	4.54	1.93	0.47	0.53	0.45
2008	2.69	4.05	1.65	3.08	4.61	1.90	0.39	0.44	0.35
2009	2.81	4.20	1.78	3.24	4.77	2.06	0.43	0.54	0.35
2010	2.74	4.10	1.71	3.15	4.67	1.96	0.42	0.49	0.38
2011	2.69	4.04	1.67	3.11	4.61	1.93	0.41	0.42	0.41
2012	2.66	3.95	1.68	3.07	4.52	1.95	0.39	0.44	0.34

^a 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 16.7
Melanoma of the Skin (Invasive)

SEER Incidence^a and U.S. Death^b 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, 2008-2012									
All ages	21.6	28.2	16.8	25.6	33.0	20.2	1.1	1.2	1.0
Under 65	12.6	13.1	12.1	15.2	15.6	15.0	0.5	0.5	0.5
65 and over	83.7	132.5	48.7	97.3	153.0	56.5	5.0	5.9	4.5
All ages (IARC world std) ^c	15.0	18.3	12.5	17.9	21.6	15.1	0.7	0.7	0.7
Age-Specific Rates, 2008-2012									
<1	-	-	-	-	-	-	-	-	-
1-4	0.1	-	-	0.1	-	-	-	-	-
5-9	0.1	-	0.1	0.1	-	0.2	-	-	-
10-14	0.3	0.3	0.2	0.3	0.3	0.3	-	-	-
15-19	1.1	0.9	1.3	1.3	1.1	1.6	-	-	-
20-24	3.5	1.9	5.1	4.4	2.5	6.5	-	-	-
25-29	6.4	4.1	8.8	7.9	5.0	11.0	-	-	-
30-34	9.2	7.0	11.4	11.5	8.6	14.6	-	-	-
35-39	12.4	10.3	14.5	15.6	12.8	18.5	0.7	-	0.9
40-44	16.3	14.6	17.9	20.0	17.6	22.4	0.6	-	-
45-49	22.6	22.0	23.1	27.5	26.5	28.6	0.8	-	0.8
50-54	29.7	32.5	27.1	35.6	38.5	32.6	1.2	1.2	1.2
55-59	37.2	46.1	28.9	44.6	54.7	34.8	1.5	1.7	1.4
60-64	49.8	66.0	35.0	58.8	77.3	41.4	2.6	2.9	2.4
65-69	66.3	93.7	42.1	78.0	109.1	49.8	3.2	3.8	2.6
70-74	77.6	116.5	45.1	91.7	137.1	53.0	4.1	4.0	4.2
75-79	91.0	143.7	50.7	106.6	167.0	59.4	5.3	7.7	3.7
80-84	101.9	169.6	56.8	116.5	193.0	64.6	8.0	10.6	6.6
85+	101.1	188.4	57.5	113.3	212.0	63.9	7.3	-	8.0
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2008-2012									
All ages	2.7	4.1	1.7	3.1	4.6	2.0	0.4	0.5	0.4
Under 65	1.2	1.5	0.8	1.4	1.8	1.0	0.1	0.2	0.1
65 and over	13.5	21.7	7.7	15.1	24.3	8.6	2.2	2.5	2.0
All ages (IARC world std) ^c	1.7	2.4	1.1	2.0	2.8	1.3	0.2	0.3	0.2
Age-Specific Rates, 2008-2012									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	0.0	-	-	0.0	-	-	-	-	-
20-24	0.1	0.2	0.1	0.2	0.2	0.1	-	-	-
25-29	0.3	0.4	0.2	0.4	0.5	0.3	-	-	-
30-34	0.6	0.6	0.5	0.7	0.8	0.6	-	-	-
35-39	0.8	0.9	0.7	1.0	1.1	0.9	0.1	-	-
40-44	1.3	1.6	1.1	1.6	1.9	1.3	0.2	-	-
45-49	2.0	2.5	1.5	2.4	3.1	1.8	0.2	0.3	-
50-54	2.9	3.7	2.1	3.5	4.5	2.6	0.4	0.4	0.4
55-59	4.3	5.9	2.8	5.0	6.9	3.3	0.6	0.8	0.5
60-64	6.0	8.5	3.6	6.9	9.9	4.2	0.9	0.9	0.9
65-69	8.0	11.7	4.6	9.1	13.3	5.3	1.4	1.7	1.2
70-74	10.6	16.1	5.9	12.0	18.2	6.7	1.7	2.0	1.4
75-79	14.9	23.6	8.1	16.8	26.4	9.1	2.6	3.4	2.2
80-84	18.8	31.6	10.3	20.9	34.9	11.4	2.6	3.0	2.4
85+	23.2	40.9	14.7	25.5	44.9	16.0	3.7	3.2	3.9

^a 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.

^b US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

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

- 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 16.8
Melanoma of the Skin (Invasive)

5-Year Relative and Period Survival (Percent) by Race, Sex, Diagnosis Year, Stage 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 ^a	-	-	-	60	51	68	-	-	-
1970-1973 ^a	-	-	-	68	62	75	-	-	-
1975-1977 ^b	81.9	77.6	86.3	82.0	77.8	86.2	56.7 ^g	-	-
1978-1980 ^b	82.7	77.7	87.7	82.8	77.8	87.8	59.8 ^h	-	-
1981-1983 ^b	82.8	78.4	87.2	82.7	78.4	87.2	61.9 ^g	-	-
1984-1986 ^b	86.5	82.5	91.0	86.3	82.1	90.9	71.2 ^h	-	-
1987-1989 ^b	88.1	84.9	91.5	87.9	84.9	91.3	78.6 ^g	-	89.5 ^g
1990-1992 ^b	89.2	86.9	91.7	89.2	86.9	91.7	59.6 ^g	-	-
1993-1995 ^b	89.7	87.2	92.6	89.5	86.9	92.6	69.5 ^g	66.6 ^g	-
1996-1998 ^b	90.9	89.5	92.6	90.8	89.2	92.6	73.9 ^g	68.0 ^h	78.6 ^g
1999-2001 ^b	92.1	90.1	94.5	92.2	90.2	94.6	73.2 ^g	69.6 ^g	76.1 ^g
2002-2004 ^b	93.1	91.1	95.4	93.1	91.0	95.5	72.0 ^g	-	70.4 ^g
2005-2011 ^b	93.1 ^f	91.5 ^f	95.0 ^f	93.1 ^f	91.6 ^f	95.0 ^f	69.8	57.0 ^g	78.1 ^g
5-Year Period Survival (Percent)^{cd}									
2011	91.5	89.5	94.0	91.2	89.1	93.8	70.5	64.9	73.7
Stage Distribution (%) 2005-2011^{ce}									
All Stages									
Number of cases	95,820	53,606	42,214	89,722	50,478	39,244	468	200	268
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	84	82	86	84	82	86	55	47	61
Regional	9	10	7	9	10	8	25	29	23
Distant	4	5	3	4	5	3	15	19	12
Unstaged	3	3	3	3	3	3	5	6	4
5-Year Relative Survival (Percent), 2005-2011^c									
Age at Diagnosis:									
Ages <45	94.7	91.6	96.7	94.5	91.4	96.6	85.4	70.0 ^g	92.1
Ages 45-54	92.7	90.3	95.3	92.4	89.9	95.2	66.0 ^g	59.1 ^h	70.7 ^g
Ages 55-64	91.1	89.6	93.6	90.8	89.3	93.3	66.8 ^g	59.5 ^g	78.4 ^g
Ages 65-74	91.1	89.8	93.6	91.0	89.6	93.7	61.6 ^g	56.5 ^g	65.5 ^g
Ages 75+	86.5	86.9	85.7	86.1	86.7	85.2	62.6 ^g	59.8 ^h	61.9 ^g
Ages <65	92.8	90.3	95.4	92.5	90.0	95.3	73.8	62.5 ^g	82.6
Ages 65+	88.9	88.5	89.6	88.7	88.3	89.4	62.1 ^g	57.9 ^g	63.8 ^g
Stage^e:									
All Stages	91.5	89.7	93.8	91.2	89.4	93.6	69.4	60.9	75.0
Localized	98.3	97.9	98.8	98.1	97.7	98.7	90.9	91.0	89.9
Regional	63.0	60.5	67.2	63.3	61.0	67.3	49.5 ^g	38.4 ^g	59.7 ^g
Distant	16.6	15.2	19.6	16.5	15.1	19.5	23.3 ^g	21.8 ^g	28.9 ^g
Unstaged	80.2	77.4	83.7	79.3	76.2	83.2	-	-	-

^a Based on End Results data from a series of hospital registries and one population-based registry.

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

Based on follow-up of patients into 2012.

^c 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 2012.

^d Period survival provides a 2011 estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2009-2011: 0-1 year survival), (2008-2010: 1-2 year survival), (2007-2009: 2-3 year survival), (2006-2008: 3-4 year survival), (2005-2007: 4-5 years survival).

^e Stage at diagnosis is classified using SEER Summary Stage 2000. Stage distribution percentages may not sum to 100 due to rounding.

^f The difference between 1975-1977 and 2005-2011 is statistically significant ($p < .05$).

^g The standard error is between 5 and 10 percentage points.

^h 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 16.9
Melanoma of the Skin (Invasive)

SEER^a 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	2011
Survival Time																					
1-year	94.3	95.6	96.3	96.7	97.3	97.6	96.6	96.6	97.6	97.8	97.4	97.8	97.8	97.6	97.9	97.6	97.8	97.8	98.1	97.7	97.6
2-year	89.8	91.6	93.2	93.8	94.2	95.6	94.2	94.5	95.6	96.1	95.5	95.5	96.0	96.1	96.3	96.2	96.2	95.8	95.8	96.6	
3-year	86.1	88.0	90.7	91.9	92.6	93.7	92.2	92.7	94.0	94.4	94.0	94.3	94.8	94.5	95.0	94.6	94.6	94.5	94.6		
4-year	83.4	85.5	89.1	90.2	91.2	93.1	91.2	91.4	93.2	93.2	92.7	93.2	93.6	93.5	94.2	93.6	93.9	93.9			
5-year	82.0	83.5	87.7	89.3	90.1	92.2	89.7	90.8	92.3	92.0	92.0	92.9	93.2	93.0	93.1	92.8	93.2				
6-year	80.2	82.2	86.6	88.4	90.0	91.5	89.2	90.3	91.6	91.7	91.2	92.5	92.3	93.0	92.8	92.1					
7-year	78.9	81.6	85.8	87.8	90.0	91.0	88.6	90.2	91.5	91.4	91.0	91.9	91.8	92.3	92.7						
8-year	77.9	80.9	85.2	87.1	89.8	90.8	87.8	89.8	91.1	91.4	90.8	91.1	91.6	92.1							
9-year	77.0	80.2	84.9	86.9	89.3	90.3	87.6	89.6	90.8	91.3	90.6	90.5	91.6								
10-year	76.5	79.6	84.8	86.7	89.3	89.8	87.5	89.1	90.8	91.1	90.0	90.3									
11-year	76.0	79.2	84.3	86.5	89.0	89.6	87.5	89.1	90.8	90.7	89.8										
12-year	75.5	79.0	84.1	86.3	89.0	89.4	87.0	88.6	90.8	90.7											
13-year	75.2	78.6	84.0	86.3	88.5	89.4	86.7	88.5	90.8												
14-year	75.0	78.4	83.8	86.2	88.5	89.2	86.4	88.4													
15-year	74.6	78.2	83.8	86.2	88.5	89.2	86.2														
16-year	74.4	78.1	83.7	86.1	88.5	89.1															
17-year	74.4	77.9	83.7	86.1	88.5																
18-year	74.3	77.8	83.7	86.1																	
19-year	74.3	77.8	83.7																		
20-year	74.3	77.8	83.7																		

^a

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

Table 16.10
Melanoma of the Skin (Invasive)

SEER^a 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	2011
Survival Time																					
1-year	92.5	94.0	95.2	96.1	96.3	96.6	96.2	96.2	97.1	97.4	96.5	96.8	97.0	97.5	97.5	97.1	97.5	97.0	97.3	97.2	97.0
2-year	86.6	88.7	91.3	92.6	92.0	94.3	93.3	93.8	94.3	95.4	93.7	94.1	94.8	95.5	95.8	95.4	95.4	94.5	94.4	95.9	
3-year	82.3	84.2	88.2	90.2	89.9	92.0	90.7	91.9	92.5	93.5	91.5	92.5	93.4	92.7	94.0	93.6	93.2	93.0	93.1		
4-year	79.0	81.3	86.1	88.3	87.9	91.2	89.9	90.4	91.3	92.0	89.8	90.8	91.7	91.7	92.7	92.6	92.6	92.0			
5-year	77.6	78.5	84.4	87.2	86.6	90.3	88.0	90.0	90.3	90.9	89.1	90.3	91.6	91.0	91.3	91.6	91.6				
6-year	75.5	77.2	83.1	86.1	86.3	89.5	87.2	89.5	89.0	90.3	88.1	90.0	90.6	91.0	90.8	90.7					
7-year	73.8	76.8	82.1	85.3	86.3	89.2	87.0	89.5	88.9	90.2	88.0	89.6	89.6	90.0	90.4						
8-year	72.6	76.0	81.5	84.6	86.0	88.8	86.1	89.1	88.7	90.1	87.9	88.5	89.3	89.6							
9-year	71.7	75.1	81.1	84.2	85.6	88.2	85.9	88.6	88.3	90.1	87.9	87.7	89.3								
10-year	71.2	74.7	81.1	84.0	85.4	87.8	85.5	88.1	88.3	89.9	87.2	87.7									
11-year	70.3	74.2	80.9	83.7	85.4	87.6	85.5	88.0	88.3	89.3	87.0										
12-year	69.9	74.1	80.8	83.7	85.4	87.6	84.6	87.3	88.3	89.1											
13-year	69.4	73.8	80.8	83.6	85.4	87.6	84.6	87.3	88.3												
14-year	69.4	73.4	80.3	83.4	85.4	87.6	83.9	87.1													
15-year	69.2	73.4	80.1	83.4	85.4	87.6	83.9														
16-year	69.0	73.4	79.9	83.4	85.1	87.6															
17-year	68.9	73.4	79.9	83.4	85.1																
18-year	68.9	73.4	79.9	83.4																	
19-year	68.9	73.4	79.9																		
20-year	68.9	73.4	79.9																		

^a

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

Table 16.11
Melanoma of the Skin (Invasive)
SEER^a 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	2011
Survival Time																					
1-year	96.1	97.3	97.6	97.4	98.5	98.8	97.0	97.0	98.2	98.3	98.5	99.0	98.7	97.8	98.3	98.1	98.1	98.8	99.0	98.2	98.4
2-year	92.9	94.6	95.3	95.4	96.7	97.2	95.3	95.3	97.0	97.0	97.6	97.2	97.5	96.9	96.8	97.0	97.2	97.3	97.7	97.3	
3-year	89.9	91.9	93.5	93.9	95.7	95.8	94.0	93.6	95.8	95.7	97.1	96.4	96.5	96.5	96.1	95.9	96.3	96.5	96.5		
4-year	87.7	89.9	92.3	92.5	94.9	95.3	92.8	92.6	95.4	94.5	96.1	95.9	95.6	95.5	95.9	94.8	95.6	96.0			
5-year	86.3	88.5	91.3	91.8	94.1	94.6	91.8	91.6	94.6	93.4	95.5	95.6	95.0	95.3	95.3	94.3	95.1				
6-year	84.9	87.3	90.3	91.1	94.1	93.8	91.5	91.2	94.4	93.3	95.0	95.2	94.3	95.3	94.9	93.6					
7-year	83.9	86.5	89.8	90.6	94.1	93.2	90.4	90.9	94.3	92.8	94.6	94.6	94.2	94.8	94.9						
8-year	83.0	85.9	89.2	90.2	94.0	93.2	89.7	90.4	93.7	92.8	94.1	94.0	93.9	94.8							
9-year	82.3	85.4	89.0	90.0	93.6	92.8	89.5	90.4	93.6	92.8	93.5	93.6	93.8								
10-year	81.7	84.6	88.7	89.9	93.6	92.3	89.5	90.1	93.5	92.5	93.1	93.0									
11-year	81.4	84.3	88.0	89.7	92.8	91.9	89.5	90.1	93.5	92.4	93.1										
12-year	80.9	84.1	87.8	89.5	92.7	91.3	89.5	90.0	93.5	92.2											
13-year	80.7	83.5	87.5	89.5	91.8	91.3	88.9	89.8	93.5												
14-year	80.2	83.4	87.5	89.4	91.6	91.1	88.9	89.8													
15-year	79.8	82.9	87.5	89.4	91.6	90.3	88.5														
16-year	79.6	82.6	87.5	89.3	91.6	89.7															
17-year	79.6	82.4	87.5	89.3	91.6																
18-year	79.5	82.2	87.5	89.3																	
19-year	79.4	82.2	87.5																		
20-year	79.4	82.2	87.5																		

^a

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

Table 16.12
Melanoma of the Skin (Invasive)

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, 2010-2012 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	0.00	0.01	0.06	2.09	0.31	Asian/ Pacific Islander	0	0.00	0.00	0.01	0.16	0.06
	10	0.01	0.06	0.16	2.11	0.32		10	0.00	0.00	0.01	0.16	0.06
	20	0.05	0.15	0.33	2.11	0.32		20	0.00	0.01	0.02	0.16	0.06
	30	0.10	0.28	0.58	2.08	0.32		30	0.01	0.02	0.03	0.16	0.06
	40	0.18	0.48	0.94	2.01	0.32		40	0.01	0.02	0.05	0.15	0.06
	50	0.31	0.78	1.35	1.87	0.31		50	0.01	0.04	0.09	0.15	0.06
	60	0.51	1.10	1.55	1.66	0.29		60	0.03	0.07	0.11	0.14	0.05
	70	0.68	1.18	-	1.31	0.26		70	0.05	0.09	-	0.12	0.05
White	80	0.68	-	-	0.86	0.20	American Indian/ Alaska Native ^a	80	0.05	-	-	0.08	0.03
	0	0.00	0.01	0.07	2.45	0.36		0	0.00	0.00	0.01	0.39	0.10
	10	0.01	0.07	0.20	2.47	0.36		10	0.00	0.01	0.04	0.40	0.11
	20	0.06	0.19	0.40	2.47	0.36		20	0.01	0.04	0.08	0.40	0.11
	30	0.13	0.35	0.70	2.43	0.36		30	0.03	0.07	0.13	0.39	0.11
	40	0.22	0.58	1.12	2.33	0.36		40	0.04	0.10	0.17	0.37	0.11
	50	0.37	0.92	1.58	2.17	0.35		50	0.06	0.13	0.23	0.34	0.11
	60	0.59	1.29	1.79	1.91	0.33		60	0.08	0.19	0.30	0.30	0.09
Black	70	0.80	1.36	-	1.50	0.29	Hispanic ^b	70	0.13	0.26	-	0.26	0.09
	80	0.76	-	-	0.95	0.22		80	0.18	-	-	0.18	0.07
	0	0.00	0.00	0.00	0.11	0.04		0	0.00	0.00	0.01	0.51	0.11
	10	0.00	0.00	0.01	0.11	0.04		10	0.00	0.01	0.03	0.52	0.11
	20	0.00	0.01	0.01	0.11	0.04		20	0.01	0.03	0.06	0.52	0.11
	30	0.01	0.01	0.02	0.11	0.04		30	0.02	0.06	0.11	0.51	0.11
	40	0.01	0.02	0.04	0.10	0.04		40	0.04	0.09	0.19	0.49	0.11
	50	0.01	0.04	0.07	0.10	0.04		50	0.06	0.16	0.29	0.47	0.11
	60	0.03	0.06	0.09	0.10	0.04		60	0.11	0.24	0.36	0.43	0.11
	70	0.04	0.07	-	0.08	0.04		70	0.15	0.28	-	0.35	0.10
	80	0.06	-	-	0.07	0.03		80	0.16	-	-	0.25	0.08

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.

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

^b 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 16.13
Melanoma of the Skin (Invasive)

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, 2010-2012 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	0.00	0.01	0.04	2.62	0.43	Asian/ Pacific Islander	0	0.00	0.00	0.00	0.20	0.07
	10	0.01	0.04	0.12	2.65	0.44		10	0.00	0.00	0.01	0.21	0.07
	20	0.03	0.11	0.28	2.65	0.44		20	0.00	0.01	0.02	0.21	0.07
	30	0.08	0.25	0.59	2.65	0.44		30	0.01	0.02	0.03	0.20	0.07
	40	0.17	0.51	1.12	2.61	0.44		40	0.01	0.02	0.06	0.20	0.07
	50	0.36	0.98	1.78	2.53	0.43		50	0.02	0.05	0.11	0.19	0.07
	60	0.67	1.53	2.17	2.34	0.42		60	0.04	0.10	0.14	0.18	0.06
	70	1.01	1.75	-	1.95	0.38		70	0.07	0.12	-	0.16	0.06
White	80	1.08	-	-	1.36	0.31	American Indian/ Alaska Native ^a	80	0.06	-	-	0.12	0.05
	0	0.00	0.01	0.04	3.03	0.49		0	0.00	0.00	0.00	0.29	0.15
	10	0.01	0.04	0.14	3.06	0.50		10	0.00	0.00	0.01	0.30	0.15
	20	0.04	0.14	0.33	3.06	0.50		20	0.00	0.01	0.03	0.30	0.15
	30	0.10	0.30	0.70	3.06	0.50		30	0.01	0.03	0.09	0.31	0.15
	40	0.20	0.61	1.31	3.01	0.50		40	0.02	0.08	0.15	0.30	0.16
	50	0.42	1.15	2.08	2.90	0.49		50	0.06	0.14	0.22	0.30	0.16
	60	0.78	1.79	2.50	2.67	0.47		60	0.08	0.17	0.25	0.26	0.14
Black	70	1.17	2.00	-	2.21	0.42	Hispanic ^b	70	0.10	0.20	-	0.20	0.15
	80	1.21	-	-	1.50	0.34		80	0.14	-	-	0.15	0.13
	0	0.00	0.00	0.00	0.10	0.04		0	0.00	0.00	0.01	0.51	0.15
	10	0.00	0.00	0.00	0.10	0.04		10	0.00	0.01	0.02	0.51	0.15
	20	0.00	0.00	0.01	0.10	0.04		20	0.01	0.02	0.04	0.52	0.15
	30	0.00	0.01	0.02	0.10	0.04		30	0.01	0.04	0.09	0.52	0.15
	40	0.00	0.02	0.04	0.10	0.04		40	0.03	0.08	0.18	0.51	0.15
	50	0.01	0.04	0.07	0.10	0.04		50	0.06	0.16	0.31	0.49	0.15
	60	0.03	0.06	0.09	0.10	0.04		60	0.11	0.27	0.41	0.46	0.15
	70	0.04	0.08	-	0.08	0.04		70	0.18	0.34	-	0.40	0.14
	80	0.05	-	-	0.07	0.02		80	0.21	-	-	0.29	0.12

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.

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

^b 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 16.14
Melanoma of the Skin (Invasive)

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, 2010-2012 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	0.00	0.01	0.08	1.63	0.21	Asian/ Pacific Islander	0	0.00	0.00	0.01	0.13	0.05
	10	0.01	0.08	0.20	1.65	0.21		10	0.00	0.01	0.01	0.13	0.05
	20	0.07	0.19	0.38	1.64	0.21		20	0.01	0.01	0.02	0.13	0.05
	30	0.12	0.32	0.57	1.58	0.21		30	0.01	0.02	0.03	0.12	0.05
	40	0.19	0.45	0.78	1.47	0.21		40	0.01	0.02	0.04	0.12	0.05
	50	0.26	0.60	0.95	1.31	0.20		50	0.01	0.03	0.06	0.11	0.05
	60	0.35	0.72	1.01	1.10	0.18		60	0.02	0.05	0.09	0.10	0.05
	70	0.41	0.73	-	0.82	0.16		70	0.04	0.07	-	0.08	0.04
White	80	0.41	-	-	0.53	0.13	American Indian/ Alaska Native ^a	80	0.04	-	-	0.05	0.02
	0	0.00	0.01	0.10	1.93	0.24		0	0.00	0.00	0.02	0.49	0.07
	10	0.01	0.10	0.25	1.94	0.24		10	0.00	0.02	0.07	0.49	0.07
	20	0.08	0.24	0.48	1.93	0.24		20	0.02	0.07	0.13	0.49	0.07
	30	0.16	0.39	0.70	1.86	0.24		30	0.05	0.11	0.17	0.48	0.07
	40	0.24	0.55	0.93	1.72	0.24		40	0.06	0.12	0.18	0.43	0.07
	50	0.31	0.71	1.12	1.51	0.23		50	0.06	0.12	0.24	0.38	0.06
	60	0.41	0.84	1.16	1.26	0.21		60	0.07	0.20	0.34	0.34	0.05
Black	70	0.48	0.83	-	0.93	0.18	Hispanic ^b	70	0.14	0.30	-	0.31	0.05
	80	0.46	-	-	0.59	0.14		80	0.21	-	-	0.21	0.02
	0	0.00	0.00	0.00	0.11	0.05		0	0.00	0.00	0.01	0.52	0.09
	10	0.00	0.00	0.01	0.12	0.05		10	0.00	0.01	0.04	0.52	0.09
	20	0.00	0.01	0.01	0.12	0.05		20	0.01	0.04	0.09	0.52	0.09
	30	0.01	0.01	0.03	0.11	0.05		30	0.03	0.07	0.14	0.51	0.09
	40	0.01	0.02	0.04	0.11	0.05		40	0.05	0.11	0.21	0.49	0.09
	50	0.01	0.04	0.06	0.11	0.05		50	0.06	0.17	0.28	0.45	0.08
	60	0.03	0.05	0.09	0.10	0.05		60	0.11	0.22	0.32	0.40	0.08
	70	0.03	0.07	-	0.08	0.04		70	0.13	0.23	-	0.31	0.07
	80	0.06	-	-	0.07	0.03		80	0.13	-	-	0.22	0.05

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.

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

^b 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 16.15
Melanoma of the Skin (Invasive)

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

SEER Incidence	SEER 18 Areas ^b Rate 2008-2012 Rate per 100,000 persons			SEER 13 Areas ^b Trend 2003-2012 ^c AAPC (%)			SEER 9 Areas ^b Trend 2003-2012 ^d AAPC (%)		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
	RACE/ETHNICITY								
All Races	21.6	28.2	16.8	1.0*	1.2*	0.5	1.4*	1.6*	0.8
White	25.6	33.0	20.2	1.1*	1.3*	0.9	1.5*	1.7*	1.2*
White Hispanic ^e	4.6	5.0	4.5	0.9*	1.4*	0.5	-	-	-
White Non-Hispanic ^e	30.2	38.2	24.2	1.5*	1.6*	1.3*	-	-	-
Black	1.1	1.2	1.0	1.8	-2.7*	0.4	0.0	-0.2	0.0
Asian/Pacific Islander	1.3	1.6	1.1	0.6	1.4	0.0	-	-	-
Amer Ind/Alaska Nat ^f	4.0	3.4	4.5	1.6	0.8	2.1	-	-	-
Hispanic ^e	4.5	4.8	4.5	0.7	1.1*	0.3	-	-	-
 <u>U.S. Mortality^g</u>									
	Rate 2008-2012 Rate per 100,000 persons			Trend 2003-2012 ^h AAPC (%)					
	Total	Males	Females	Total	Males	Females			
	RACE/ETHNICITY								
All Races	2.7	4.1	1.7	0.0	0.3*	-0.5*			
White	3.1	4.6	2.0	0.2*	0.4*	-0.3*			
White Hispanic ^e	0.8	1.1	0.6	-0.2	0.0	-0.4			
White Non-Hispanic ^e	3.4	5.0	2.1	0.4*	0.6*	0.0			
Black	0.4	0.5	0.4	-1.0*	-0.2	-1.7*			
Asian/Pacific Islander	0.4	0.4	0.3	-0.8	-1.3	-0.3			
Amer Ind/Alaska Nat									
Total U.S.	0.7	1.0	0.6	1.2	2.3	0.4			
CHSDA Counties	1.0	1.5	0.7	1.7	4.0*	-			
Non-CHSDA Counties	0.5	-	-	1.7	-	-			
Hispanic ^e	0.8	1.0	0.6	-0.2	0.0	-0.4			

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 4.2.0, April 2015, National Cancer Institute.

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

a 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).

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 2003-2012 AAPC estimates are based on a Joinpoint analysis with up to 3 Joinpoints over diagnosis years 1992-2012.

d The 2003-2012 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2012.

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 2003-2012 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 2003-2012 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2012.

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

Table 16.16
Melanoma of the Skin (Invasive)

Age-Adjusted SEER Incidence Rates^a
By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER Incidence Rates^a, 2008-2012</u>									
California	20.90	27.91	15.63	24.38	32.39	18.28	1.21	1.42	1.06
Greater Bay Area	22.58	29.64	17.35	31.88	41.14	24.98	0.86	-	-
San Francisco-Oakland	23.16	30.73	17.59	33.76	44.04	26.11	0.84	-	-
San Jose-Monterey	21.51	27.59	16.93	28.59	36.08	23.00	-	-	-
Los Angeles	13.45	18.73	9.53	17.47	24.08	12.51	1.03	1.70	-
Greater California	23.80	31.44	17.97	25.04	33.14	18.80	1.59	1.47	1.70
Connecticut	21.99	28.21	17.76	23.55	29.77	19.33	1.67	-	-
Detroit	16.08	20.09	13.55	21.11	25.49	18.47	0.92	-	1.04
Georgia	23.40	31.45	17.77	31.80	40.93	25.24	1.13	1.28	1.03
Atlanta	25.62	34.98	19.35	41.25	52.65	33.40	1.15	1.49	0.97
Rural Georgia	20.41	29.12	13.99	30.62	41.54	21.93	-	-	-
Greater Georgia	22.49	30.05	17.12	28.35	36.82	22.16	1.11	1.18	1.05
Hawaii	20.24	27.51	14.22	62.94	82.19	44.63	-	-	-
Iowa	23.68	27.55	21.43	23.80	27.67	21.55	-	-	-
Kentucky	24.03	30.30	19.79	25.21	31.81	20.69	1.29	-	-
Louisiana	15.31	21.04	11.22	21.14	27.98	16.15	1.00	1.10	0.88
New Jersey	21.42	27.92	16.90	25.49	32.61	20.49	0.87	0.80	0.97
New Mexico	18.26	23.59	14.08	19.10	24.95	14.39	-	-	-
Seattle-Puget Sound	27.62	32.70	24.09	31.43	36.53	27.96	-	-	-
Utah	32.80	43.49	24.15	34.03	44.95	25.18	-	-	-
9 SEER Areas ^b	23.16	29.43	18.70	28.54	35.54	23.54	1.08	1.12	1.05
11 SEER Areas ^b	20.83	26.92	16.44	26.06	33.10	20.96	1.07	1.28	0.93
13 SEER Areas ^b	20.80	26.89	16.41	26.08	33.13	20.97	1.07	1.27	0.94
18 SEER Areas ^b	21.55	28.17	16.76	25.61	33.00	20.20	1.09	1.18	1.03

^a Rates are per 100,000 and are 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 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 16.17
Melanoma of the Skin (Invasive)

Age-Adjusted SEER Death Rates^a
By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER Death Rates^a, 2008-2012</u>									
California	2.57	3.86	1.56	3.18	4.74	1.93	0.33	0.41	0.26
Greater Bay Area	2.39	3.51	1.51	3.31	4.86	2.05	-	-	-
San Francisco-Oakland	2.40	3.49	1.54	3.41	4.95	2.15	-	-	-
San Jose-Monterey	2.39	3.55	1.45	3.14	4.70	1.87	-	-	-
Los Angeles	1.87	2.87	1.12	2.48	3.79	1.48	0.36	-	-
Greater California	2.96	4.43	1.80	3.42	5.09	2.08	-	-	-
Connecticut	2.45	3.40	1.80	2.66	3.66	1.96	-	-	-
Detroit	2.12	3.06	1.42	2.70	3.85	1.81	-	-	-
Georgia	2.43	3.85	1.43	3.16	4.86	1.88	0.44	0.56	0.37
Atlanta	1.90	2.86	1.25	2.81	4.13	1.83	-	-	-
Rural Georgia	2.13	-	-	-	-	-	-	-	-
Greater Georgia	2.68	4.28	1.54	3.29	5.12	1.92	0.48	-	-
Hawaii	1.48	2.33	0.77	3.87	6.02	1.86	-	-	-
Iowa	2.94	4.38	1.84	3.01	4.45	1.90	-	-	-
Kentucky	3.22	4.60	2.16	3.44	4.89	2.32	-	-	-
Louisiana	2.28	3.47	1.42	2.92	4.44	1.79	0.55	-	0.56
New Jersey	2.48	3.66	1.62	2.91	4.24	1.92	0.40	0.65	-
New Mexico	2.71	3.96	1.71	2.95	4.33	1.84	-	-	-
Seattle-Puget Sound	2.94	4.24	1.93	3.29	4.68	2.20	-	-	-
Utah	3.62	5.62	1.99	3.77	5.82	2.09	-	-	-
9 SEER Areas ^b	2.53	3.72	1.62	3.07	4.47	1.98	0.39	0.49	0.33
11 SEER Areas ^b	2.37	3.52	1.50	2.95	4.33	1.87	0.38	0.48	0.32
13 SEER Areas ^b	2.37	3.51	1.50	2.94	4.31	1.87	0.39	0.47	0.34
18 SEER Areas ^b	2.58	3.85	1.62	3.11	4.59	1.96	0.41	0.52	0.33
Total U.S.	2.72	4.07	1.70	3.13	4.64	1.96	0.41	0.47	0.37

^a 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).

^b 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.

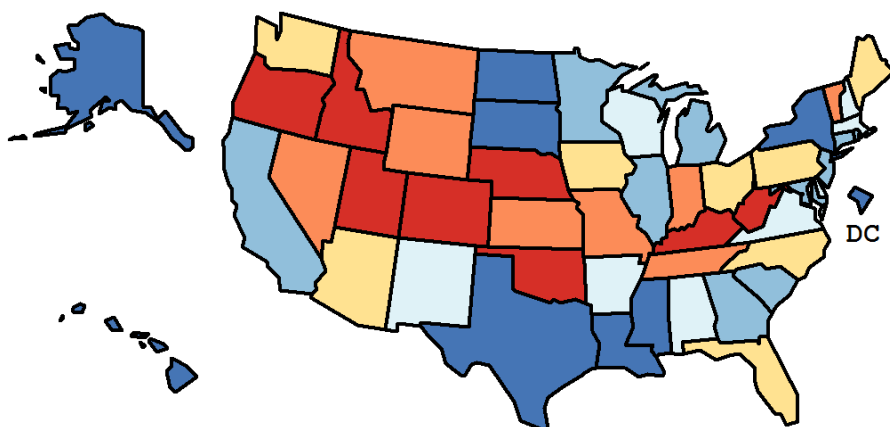
Table 16.18
Melanoma of the Skin (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2008-2012

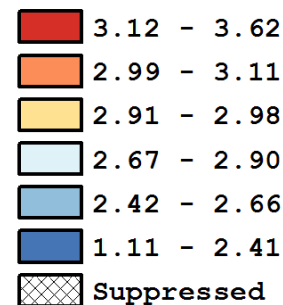
Males and Females

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	2.72	0.01		
High Five States				
Utah	3.62 ^b	0.18	01(01,12)	33.27 ^c
Idaho	3.45	0.21	02(01,26)	26.85 ^c
Oregon	3.35 ^b	0.13	03(01,19)	23.11 ^c
West Virginia	3.32	0.17	04(01,28)	22.13 ^c
Colorado	3.27 ^b	0.12	05(01,23)	20.45 ^c
Low Five States				
New York	2.23 ^b	0.05	47(42,49)	-18.01 ^c
Alaska	2.17	0.31	48(07,50)	-20.34 ^c
North Dakota	2.14	0.24	49(24,50)	-21.40 ^c
Hawaii	1.48 ^b	0.14	50(49,51)	-45.55 ^c
D.C.	1.11 ^b	0.20	51(50,51)	-59.06 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	2.87	0.11	27(08,36)	5.76	Montana	3.02	0.23	14(01,43)	11.24
Alaska	2.17	0.31	48(07,50)	-20.34 ^c	Nebraska	3.15	0.18	08(01,34)	15.78 ^c
Arizona	2.94	0.09	21(06,33)	8.27	Nevada	3.05	0.16	13(02,35)	12.24
Arkansas	2.83	0.13	29(06,41)	4.21	New Hampshire	2.84	0.20	28(02,45)	4.53
California	2.57 ^b	0.04	35(30,41)	-5.51	New Jersey	2.48	0.07	36(30,47)	-8.75
Colorado	3.27 ^b	0.12	05(01,23)	20.45 ^c	New Mexico	2.71	0.16	32(08,47)	-0.44
Connecticut	2.45	0.11	38(28,49)	-9.70	New York	2.23 ^b	0.05	47(42,49)	-18.01 ^c
Delaware	2.83	0.24	30(02,48)	4.01	North Carolina	2.91	0.08	24(09,33)	7.07
D.C.	1.11 ^b	0.20	51(50,51)	-59.06 ^c	North Dakota	2.14	0.24	49(24,50)	-21.40 ^c
Florida	2.94 ^b	0.05	20(10,30)	8.31	Ohio	2.95 ^b	0.07	19(08,31)	8.66
Georgia	2.43 ^b	0.08	40(31,48)	-10.43	Oklahoma	3.21 ^b	0.13	07(01,27)	18.13 ^c
Hawaii	1.48 ^b	0.14	50(49,51)	-45.55 ^c	Oregon	3.35 ^b	0.13	03(01,19)	23.11 ^c
Idaho	3.45	0.21	02(01,26)	26.85 ^c	Pennsylvania	2.92	0.06	23(10,31)	7.49
Illinois	2.44 ^b	0.06	39(32,47)	-10.30	Rhode Island	2.43	0.20	42(13,49)	-10.72
Indiana	3.06 ^b	0.09	12(03,30)	12.43	South Carolina	2.66	0.10	33(15,44)	-1.99
Iowa	2.94	0.13	22(04,36)	8.12	South Dakota	2.32	0.23	44(13,49)	-14.78
Kansas	2.99	0.14	16(02,36)	10.18	Tennessee	3.08 ^b	0.10	11(03,29)	13.43
Kentucky	3.22 ^b	0.12	06(01,26)	18.46 ^c	Texas	2.41 ^b	0.05	43(34,47)	-11.16
Louisiana	2.28 ^b	0.10	45(34,49)	-16.21 ^c	Utah	3.62 ^b	0.18	01(01,12)	33.27 ^c
Maine	2.98	0.19	17(02,42)	9.73	Vermont	3.01	0.29	15(01,47)	10.91
Maryland	2.66	0.10	34(19,44)	-2.23	Virginia	2.90	0.09	25(08,34)	6.80
Massachusetts	2.90	0.09	26(07,34)	6.79	Washington	2.96	0.09	18(06,33)	8.74
Michigan	2.43 ^b	0.07	41(32,47)	-10.60	West Virginia	3.32	0.17	04(01,28)	22.13 ^c
Minnesota	2.48	0.09	37(29,48)	-8.83	Wisconsin	2.73	0.09	31(14,40)	0.29
Mississippi	2.27 ^b	0.12	46(33,49)	-16.39 ^c	Wyoming	3.11	0.33	09(01,48)	14.57
Missouri	3.09 ^b	0.10	10(03,29)	13.53					



Age-Adjusted Death
Rates per 100,000
Quantile Interval



U.S. rate: 2.72

- ^a 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).
- ^b Difference between state rate and total U.S. rate is statistically significant ($p \leq .0002$).
- ^c Absolute percent difference between state rate and total U.S. rate is 15% or more.
- ^d Rank of state level death rate and the 95% confidence intervals (low, high) for the rank.
- 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.

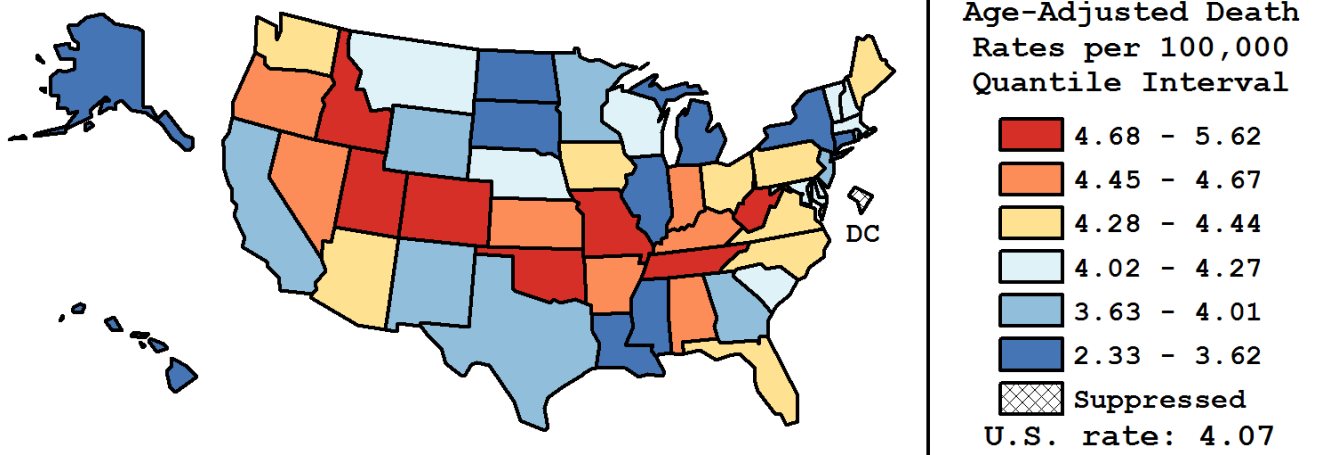
Table 16.19
Melanoma of the Skin (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2008-2012

Males

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	4.07	0.02		
High Five States				
Utah	5.62 ^b	0.35	01(01,11)	38.17 ^c
West Virginia	5.04	0.32	02(01,29)	23.85 ^c
Tennessee	4.95 ^b	0.19	03(01,20)	21.74 ^c
Idaho	4.89	0.37	04(01,38)	20.24 ^c
Oklahoma	4.87	0.24	05(01,27)	19.72 ^c
Low Five States				
North Dakota	3.25	0.44	46(08,50)	-20.10 ^c
New York	3.22 ^b	0.08	47(42,49)	-20.80 ^c
South Dakota	2.90	0.38	48(29,50)	-28.55 ^c
Alaska	2.76	0.55	49(12,50)	-32.16 ^c
Hawaii	2.33 ^b	0.26	50(47,50)	-42.67 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	4.47	0.20	13(02,35)	9.82	Montana	4.05	0.39	31(02,48)	-0.33
Alaska	2.76	0.55	49(12,50)	-32.16 ^c	Nebraska	4.27	0.31	24(02,45)	5.08
Arizona	4.41	0.17	18(04,34)	8.41	Nevada	4.67	0.29	08(01,36)	14.89
Arkansas	4.48	0.25	12(02,38)	10.21	New Hampshire	4.15	0.37	29(02,47)	1.99
California	3.86	0.07	35(28,41)	-5.13	New Jersey	3.66	0.13	40(29,47)	-9.92
Colorado	4.72	0.22	07(01,31)	16.05 ^c	New Mexico	3.96	0.29	34(06,47)	-2.53
Connecticut	3.40	0.20	45(31,49)	-16.33 ^c	New York	3.22 ^b	0.08	47(42,49)	-20.80 ^c
Delaware	4.02	0.43	32(02,49)	-1.16	North Carolina	4.44	0.15	15(04,32)	9.14
D.C.	-	-	-(-,-)	-	North Dakota	3.25	0.44	46(08,50)	-20.10 ^c
Florida	4.41 ^b	0.09	17(07,30)	8.49	Ohio	4.35	0.13	21(07,33)	6.94
Georgia	3.85	0.15	37(21,45)	-5.42	Oklahoma	4.87	0.24	05(01,27)	19.72 ^c
Hawaii	2.33 ^b	0.26	50(47,50)	-42.67 ^c	Oregon	4.53	0.22	10(02,34)	11.38
Idaho	4.89	0.37	04(01,38)	20.24 ^c	Pennsylvania	4.30	0.11	23(09,33)	5.78
Illinois	3.62 ^b	0.11	42(31,47)	-10.98	Rhode Island	3.85	0.38	36(03,49)	-5.37
Indiana	4.50	0.17	11(03,32)	10.69	South Carolina	4.17	0.20	28(06,42)	2.64
Iowa	4.38	0.24	19(02,39)	7.70	South Dakota	2.90	0.38	48(29,50)	-28.55 ^c
Kansas	4.46	0.26	14(02,39)	9.63	Tennessee	4.95 ^b	0.19	03(01,20)	21.74 ^c
Kentucky	4.60	0.22	09(01,33)	13.11	Texas	3.70 ^b	0.09	39(30,45)	-9.00
Louisiana	3.47	0.19	44(28,49)	-14.56	Utah	5.62 ^b	0.35	01(01,11)	38.17 ^c
Maine	4.44	0.35	16(01,44)	9.10	Vermont	4.27	0.53	25(01,49)	5.05
Maryland	4.21	0.19	26(05,39)	3.66	Virginia	4.35	0.16	20(05,35)	7.10
Massachusetts	4.20	0.16	27(07,39)	3.29	Washington	4.31	0.17	22(05,36)	5.96
Michigan	3.59 ^b	0.12	43(31,47)	-11.58	West Virginia	5.04	0.32	02(01,29)	23.85 ^c
Minnesota	3.72	0.17	38(22,47)	-8.63	Wisconsin	4.11	0.17	30(09,41)	1.11
Mississippi	3.62	0.24	41(17,49)	-10.92	Wyoming	4.01	0.56	33(01,50)	-1.36
Missouri	4.78 ^b	0.18	06(01,26)	17.54 ^c					



- ^a 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).
- ^b Difference between state rate and total U.S. rate is statistically significant ($p \leq .0002$).
- ^c Absolute percent difference between state rate and total U.S. rate is 15% or more.
- ^d Rank of state level death rate and the 95% confidence intervals (low, high) for the rank.
- 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.

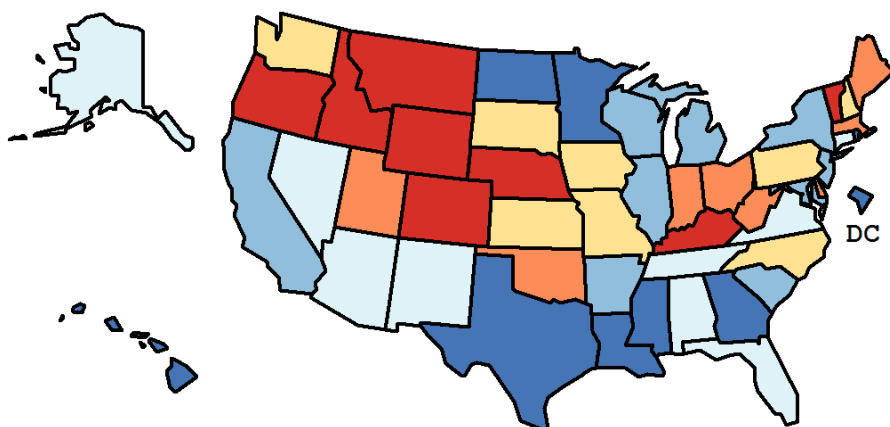
Table 16.20
Melanoma of the Skin (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2008-2012

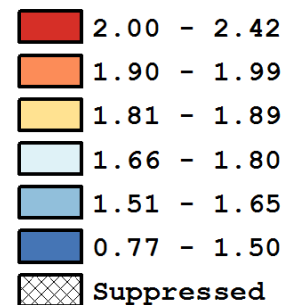
Females

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	1.70	0.01		
High Five States				
Oregon	2.42 ^b	0.15	01(01,11)	42.29 ^c
Wyoming	2.33	0.40	02(01,49)	37.21 ^c
Nebraska	2.24	0.21	03(01,33)	32.04 ^c
Idaho	2.20	0.23	04(01,40)	29.87 ^c
Colorado	2.16 ^b	0.13	05(01,25)	27.31 ^c
Low Five States				
Louisiana	1.42	0.11	47(27,50)	-16.40 ^c
Mississippi	1.36	0.13	48(27,50)	-20.14 ^c
North Dakota	1.17	0.23	49(13,51)	-30.84 ^c
D.C.	1.14	0.27	50(07,51)	-32.58 ^c
Hawaii	0.77 ^b	0.13	51(48,51)	-54.43 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	1.71	0.11	32(08,47)	0.70	Montana	2.11	0.28	07(01,47)	24.45 ^c
Alaska	1.74	0.37	29(01,51)	2.42	Nebraska	2.24	0.21	03(01,33)	32.04 ^c
Arizona	1.72	0.10	30(10,45)	1.29	Nevada	1.67	0.16	33(05,49)	-1.76
Arkansas	1.58	0.14	37(10,50)	-6.93	New Hampshire	1.86	0.22	20(01,49)	9.76
California	1.56 ^b	0.04	40(29,46)	-7.88	New Jersey	1.62	0.08	35(18,47)	-4.51
Colorado	2.16 ^b	0.13	05(01,25)	27.31 ^c	New Mexico	1.71	0.17	31(04,49)	0.94
Connecticut	1.80	0.13	25(05,46)	5.94	New York	1.52 ^b	0.05	42(30,48)	-10.66
Delaware	1.98	0.27	10(01,48)	16.50 ^c	North Carolina	1.83	0.08	23(07,37)	8.02
D.C.	1.14	0.27	50(07,51)	-32.58 ^c	North Dakota	1.17	0.23	49(13,51)	-30.84 ^c
Florida	1.78	0.05	27(13,35)	4.85	Ohio	1.92	0.07	14(05,31)	13.18
Georgia	1.43	0.08	45(30,50)	-15.54 ^c	Oklahoma	1.91	0.13	15(02,42)	12.33
Hawaii	0.77 ^b	0.13	51(48,51)	-54.43 ^c	Oregon	2.42 ^b	0.15	01(01,11)	42.29 ^c
Idaho	2.20	0.23	04(01,40)	29.87 ^c	Pennsylvania	1.88	0.07	18(06,32)	11.00
Illinois	1.59	0.07	36(23,47)	-6.62	Rhode Island	1.49	0.21	44(06,50)	-12.05
Indiana	1.98	0.10	11(03,32)	16.36 ^c	South Carolina	1.57	0.11	38(14,49)	-7.37
Iowa	1.84	0.15	22(03,46)	8.13	South Dakota	1.84	0.28	21(01,50)	8.37
Kansas	1.86	0.15	19(03,46)	9.83	Tennessee	1.75	0.10	28(08,45)	2.88
Kentucky	2.16	0.13	06(01,26)	27.09 ^c	Texas	1.42 ^b	0.05	46(36,50)	-16.14 ^c
Louisiana	1.42	0.11	47(27,50)	-16.40 ^c	Utah	1.99	0.19	09(01,44)	17.38 ^c
Maine	1.91	0.21	16(01,48)	12.27	Vermont	2.08	0.32	08(01,49)	22.62 ^c
Maryland	1.57	0.10	39(18,49)	-7.37	Virginia	1.78	0.09	26(07,42)	5.05
Massachusetts	1.95	0.10	12(03,33)	14.95	Washington	1.89	0.10	17(04,37)	11.51
Michigan	1.53	0.07	41(25,49)	-10.17	West Virginia	1.94	0.19	13(01,46)	14.25
Minnesota	1.50	0.10	43(22,50)	-11.53	Wisconsin	1.65	0.10	34(12,48)	-2.56
Mississippi	1.36	0.13	48(27,50)	-20.14 ^c	Wyoming	2.33	0.40	02(01,49)	37.21 ^c
Missouri	1.81	0.10	24(05,42)	6.62					



Age-Adjusted Death
Rates per 100,000
Quantile Interval



- ^a 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).
- ^b Difference between state rate and total U.S. rate is statistically significant ($p \leq .0002$).
- ^c Absolute percent difference between state rate and total U.S. rate is 15% or more.
- ^d Rank of state level death rate and the 95% confidence intervals (low, high) for the rank.
- 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 16.21
Melanoma of the Skin (Invasive)

Estimated United States Cancer Prevalence Counts^a on January 1, 2012
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 <20 ^e	0 to <37 ^e	>=37 ^g	Complete ^h
<u>Race</u>	<u>Sex</u>										
All Races ^b	Both Sexes	285,569	216,879	161,838	112,858	82,325	56,741	813,687	962,438	34,149	996,587
	Males	153,364	110,812	80,586	55,278	36,818	23,816	417,183	478,737	10,877	489,614
	Females	132,205	106,067	81,252	57,580	45,507	32,925	396,504	483,701	23,272	506,973
White ^b	Both Sexes	273,641	210,027	156,380	108,243	79,323	54,316	783,649	926,489	32,186	958,675
	Males	147,752	107,549	77,889	53,080	35,829	22,752	402,978	462,226	10,357	472,583
	Females	125,889	102,478	78,491	55,163	43,494	31,564	380,671	464,263	21,829	486,092
Black ^b	Both Sexes	1,174	655	609	390	324	146	2,978	3,420	99	3,519
	Males	489	228	276	242	106	37	1,307	1,417	40	1,457
	Females	685	427	333	148	218	109	1,671	2,003	59	2,062
Asian/ Pacific Islander ^c	Both Sexes	744	543	399	+	+	+	1,902	+	+	+
	Males	363	244	149	+	+	+	853	+	+	+
	Females	381	299	250	+	+	+	1,049	+	+	+
Hispanic ^d	Both Sexes	5,092	3,745	2,916	+	+	+	13,681	+	+	+
	Males	2,032	1,303	1,049	+	+	+	5,073	+	+	+
	Females	3,060	2,442	1,867	+	+	+	8,608	+	+	+

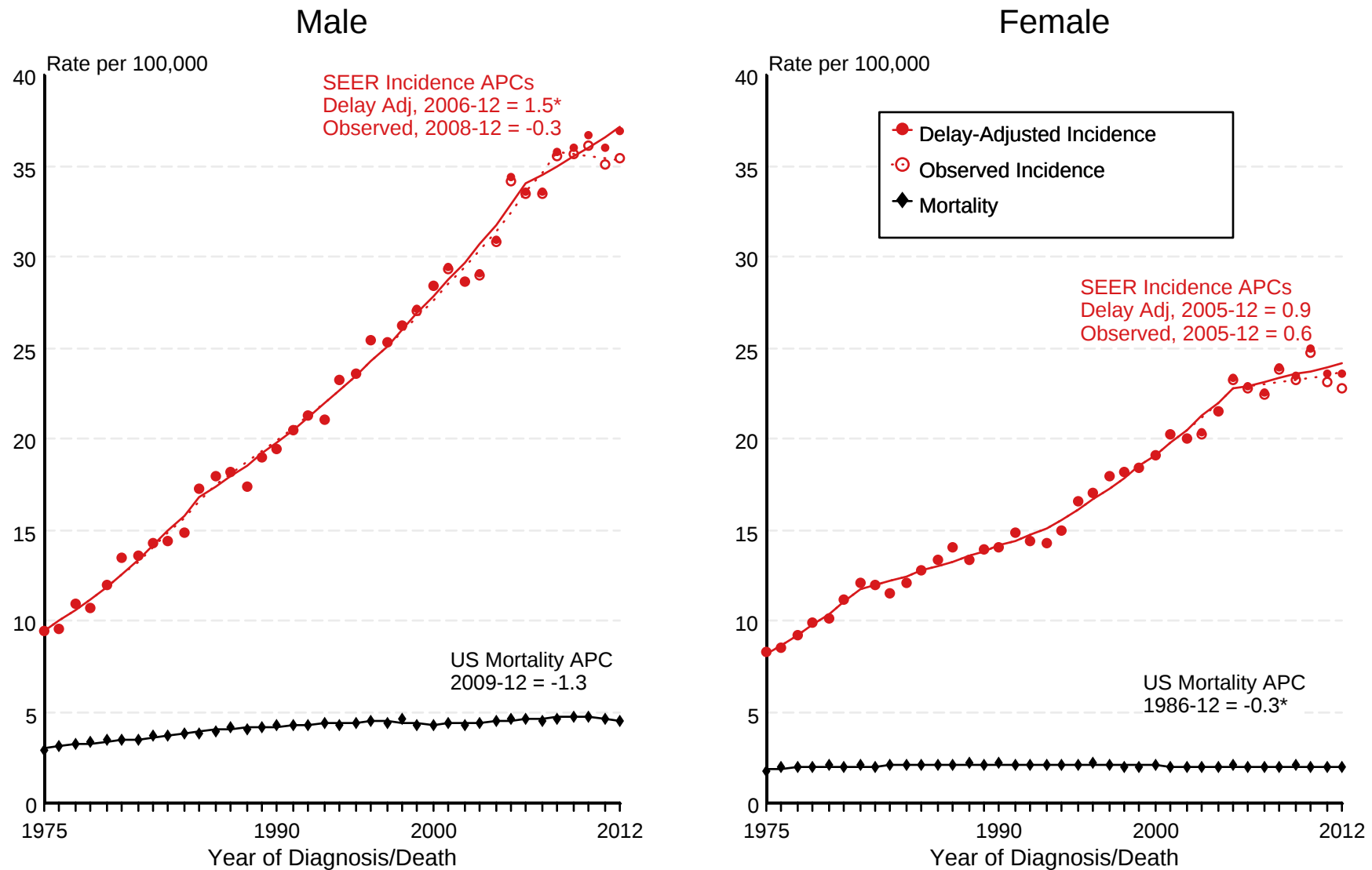
Estimated prevalence percent^a on January 1, 2012, of the SEER^c population diagnosed in the previous 20 years
By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence		Age Specific (Crude)										Age-Adjusted ^f
		All Ages	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	All Ages
Race	Sex											
All Races ^c	Both Sexes	0.2036%	0.0003%	0.0031%	0.0279%	0.0980%	0.2044%	0.3527%	0.5300%	0.6791%	0.7522%	0.1937%
	Males	0.2142%	0.0002%	0.0029%	0.0184%	0.0689%	0.1635%	0.3528%	0.6487%	0.9461%	1.1560%	0.2199%
	Females	0.1933%	0.0005%	0.0032%	0.0378%	0.1273%	0.2449%	0.3526%	0.4227%	0.4627%	0.5134%	0.1770%
White ^c	Both Sexes	0.2650%	0.0003%	0.0038%	0.0367%	0.1296%	0.2642%	0.4469%	0.6594%	0.8445%	0.9001%	0.2436%
	Males	0.2766%	-	0.0037%	0.0241%	0.0882%	0.2071%	0.4404%	0.7946%	1.1641%	1.3783%	0.2710%
	Females	0.2534%	0.0003%	0.0039%	0.0503%	0.1731%	0.3231%	0.4533%	0.5331%	0.5790%	0.6142%	0.2273%
Black ^c	Both Sexes	0.0065%	-	-	-	0.0044%	0.0063%	0.0096%	0.0186%	0.0324%	0.0569%	0.0081%
	Males	0.0062%	-	-	-	0.0027%	0.0043%	0.0105%	0.0209%	0.0433%	0.0834%	0.0093%
	Females	0.0068%	-	-	-	0.0058%	0.0081%	0.0089%	0.0169%	0.0247%	0.0441%	0.0074%
Asian/ Pacific Islander ^c	Both Sexes	0.0118%	0.0008%	0.0010%	0.0028%	0.0065%	0.0137%	0.0181%	0.0288%	0.0356%	0.0461%	0.0115%
	Males	0.0111%	-	-	0.0028%	0.0064%	0.0091%	0.0162%	0.0337%	0.0459%	0.0519%	0.0116%
	Females	0.0124%	-	-	0.0028%	0.0067%	0.0177%	0.0197%	0.0248%	0.0276%	0.0425%	0.0115%
Hispanic ^d	Both Sexes	0.0269%	0.0003%	0.0013%	0.0043%	0.0175%	0.0415%	0.0710%	0.1068%	0.1332%	0.1737%	0.0392%
	Males	0.0196%	-	0.0011%	0.0021%	0.0107%	0.0236%	0.0499%	0.0932%	0.1417%	0.2337%	0.0344%
	Females	0.0344%	-	0.0014%	0.0068%	0.0247%	0.0601%	0.0912%	0.1184%	0.1269%	0.1378%	0.0451%

- ^a US 2012 cancer prevalence counts are based on 2012 cancer prevalence proportions from the SEER registries and 1/1/2012 US population estimates based on the average of 2011 and 2012 population estimates from the US Bureau of the Census.
- ^{b c d} Prevalence was calculated using the First Malignant Primary Only for a person. 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.
- ^e Maximum limited-duration prevalence: 37 years for 1975-2012 SEER 9 data; 20 years for 1992-2012 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).
- ^f Percentages are age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130) by 5-year age groups.
- ^{g h i} (g) Cases diagnosed more than 37 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 <37 and >=37. (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 16.1

SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates^a Melanoma of the Skin, White, by Sex



Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC).

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

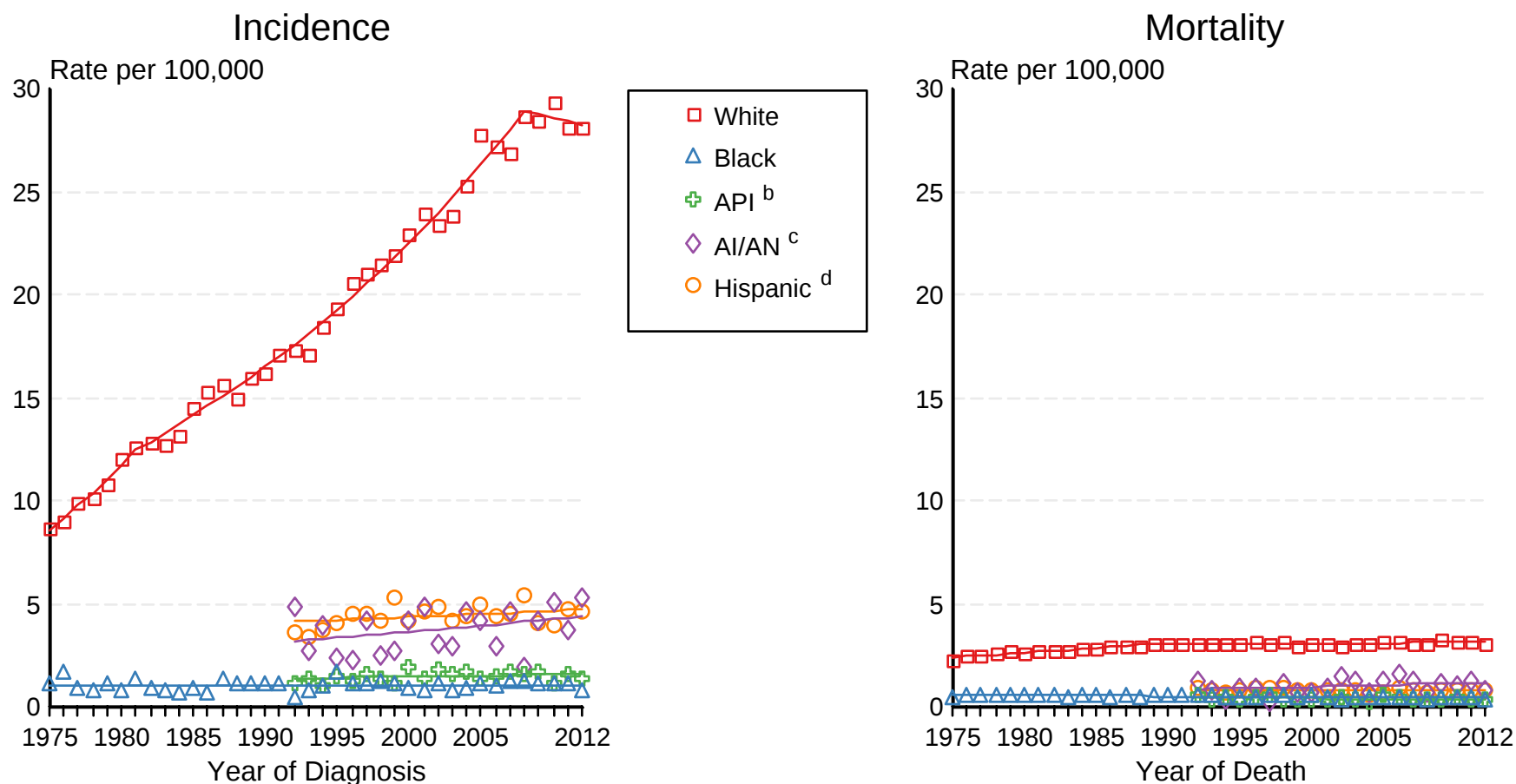
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.2.0, April 2015, National Cancer Institute. The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

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

Figure 16.2

SEER Incidence and US Death Rates^a Melanoma of the Skin, Both Sexes

Joinpoint Analyses for Whites and Blacks from 1975-2012
and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2012



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.

^a 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 4.2.0, April 2015, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2012 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2012 allow a maximum of 3 joinpoints.

^b API = Asian/Pacific Islander.

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

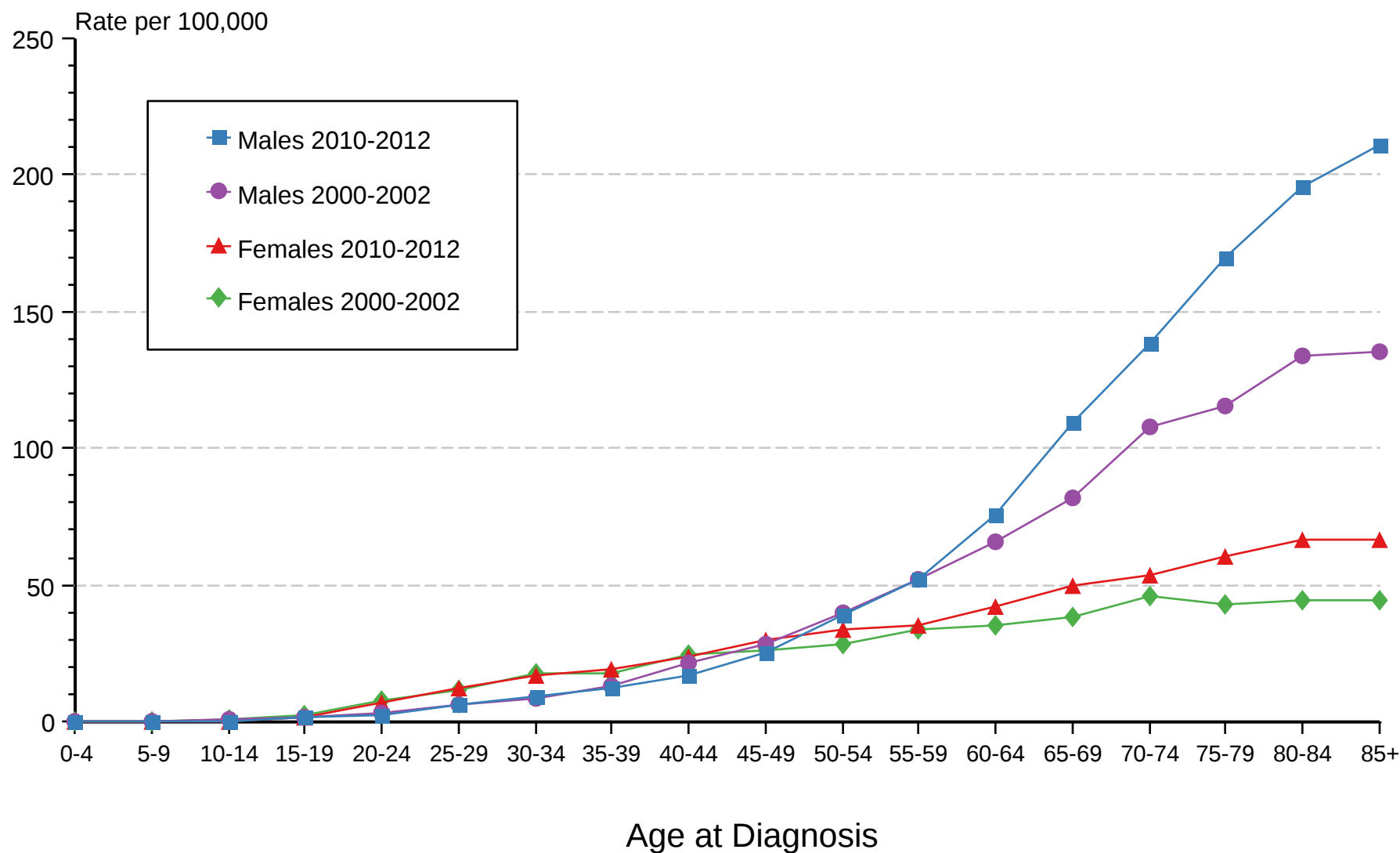
^d Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Mortality data for Hispanics exclude cases from New Hampshire and Oklahoma.

Figure 16.3

Melanoma of the Skin

SEER Incidence 2000-2002 vs 2010-2012

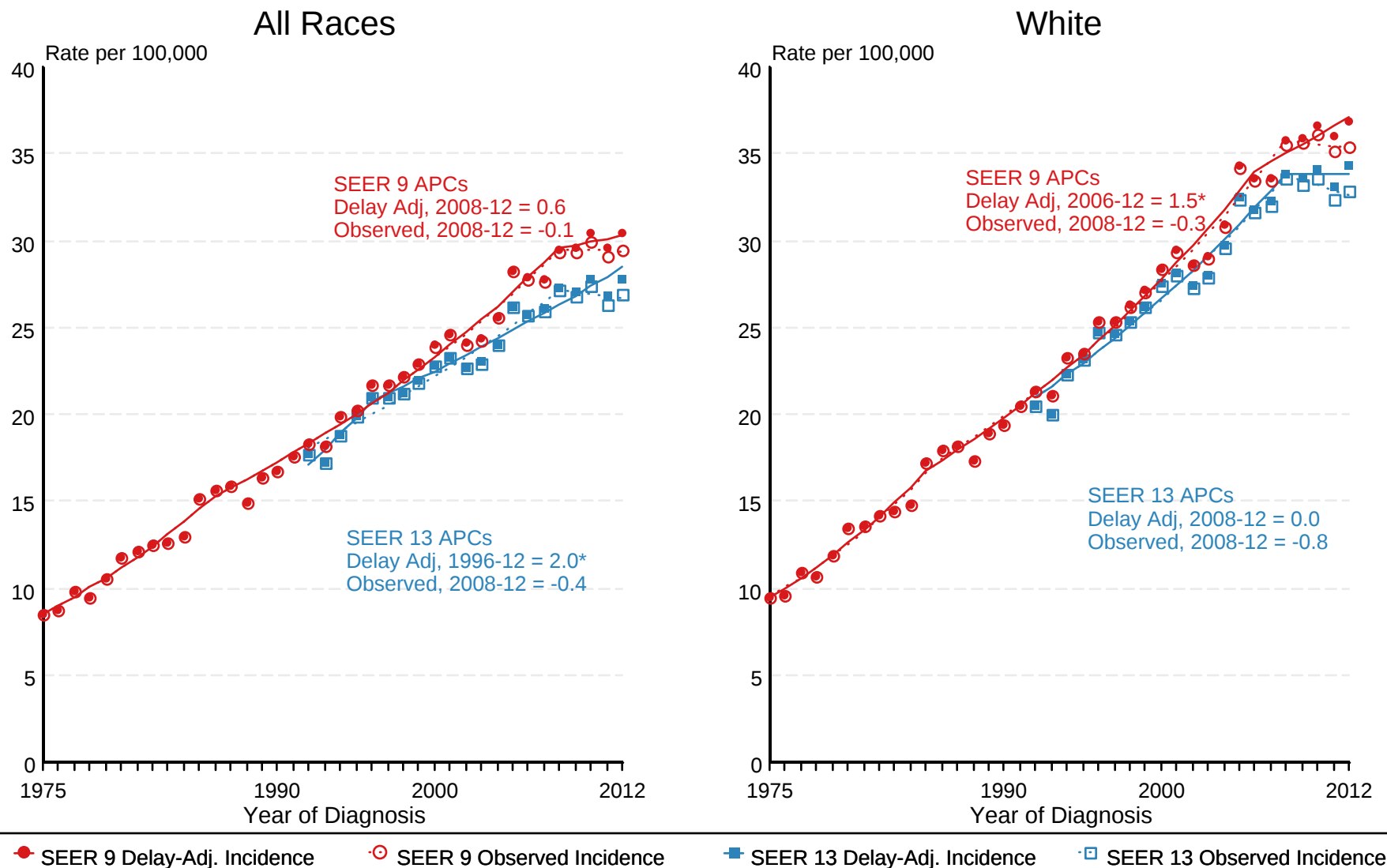
White, by Age and Sex



Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Rates are age-adjusted as appropriate to the 2000 US Std Population (19 age groups - Census P25-1103).

Figure 16.4

SEER Observed Incidence and SEER Delay Adjusted Incidence Rates^a SEER 9 Areas Compared to SEER 13 Areas Melanoma of the Skin, Male, by Race



Source: SEER 9 areas and SEER 13 areas.

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

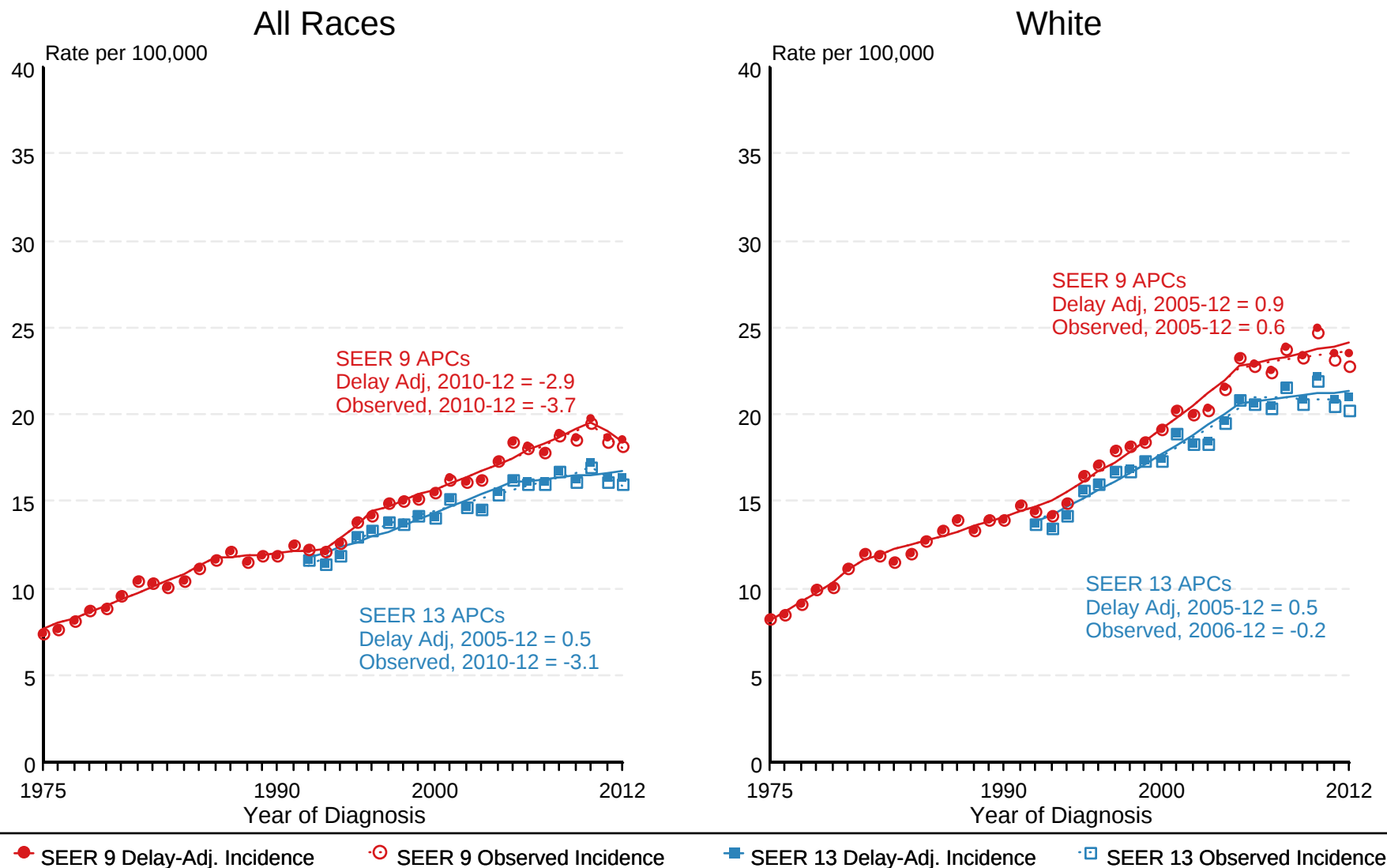
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.2.0, April 2015, National Cancer Institute.

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 16.5

SEER Observed Incidence and SEER Delay Adjusted Incidence Rates^a SEER 9 Areas Compared to SEER 13 Areas Melanoma of the Skin, Female, by Race



Source: SEER 9 areas and SEER 13 areas.

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

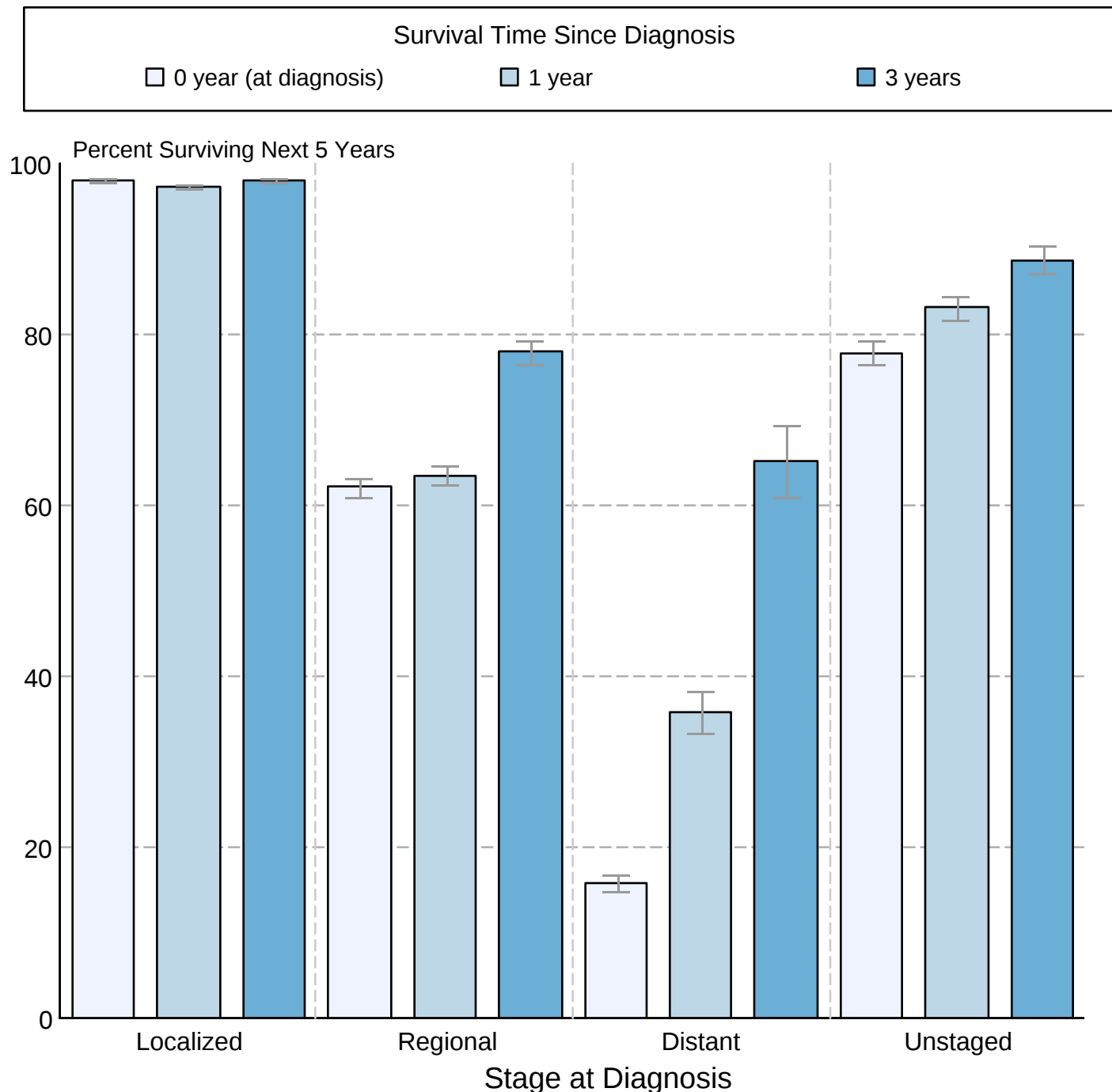
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.2.0, April 2015, National Cancer Institute.

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 16.6

Melanoma of the Skin
5-Year SEER Conditional Relative Survival and
95% Confidence Intervals
 Probability of surviving the next 5 years given the cohort
 has already survived 0, 1, or 3 years
 1998-2011 by stage at diagnosis



Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG). California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG contribute cases for diagnosis years 2000 and later. The remaining 13 SEER Areas contribute cases for the entire time period. Percent surviving is not shown if based on less than 25 cases. Confidence intervals are not shown if length of the confidence interval is greater than 5 times the standard error.