

Table 16.1
Melanoma of the Skin (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2014 With up to Five Joinpoints, 1992-2014 With up to Four 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	2005-14	2010-14
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2014</u>														
All Races	1975-81	5.9*	1981-05	2.9*	2005-14	1.6*							1.6*	1.6*
White	1975-81	6.2*	1981-05	3.2*	2005-14	1.9*							1.9*	1.9*
Black	1975-14	-0.1											-0.1	-0.1
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2014</u>														
All Races	1992-96	4.8*	1996-14	1.8*									1.8*	1.8*
White	1992-08	2.9*	2008-12	-0.5	2012-14	6.1							2.1	2.7
Black	1992-95	30.3	1995-01	-6.5	2001-14	0.8							0.8	0.8
<u>SEER 9 Observed Incidence^a, 1975-2014</u>														
All Races	1975-81	5.9*	1981-05	2.9*	2005-14	1.4*							1.4*	1.4*
White	1975-81	6.2*	1981-05	3.3*	2005-14	1.5*							1.5*	1.5*
Black	1975-14	-0.2											-0.2	-0.2
<u>SEER 13 Observed Incidence^b, 1992-2014</u>														
All Races	1992-97	4.3*	1997-14	1.6*									1.6*	1.6*
White	1992-05	3.1*	2005-14	1.1*									1.1*	1.1*
White NH ^{ef}	1992-05	3.6*	2005-14	1.4*									1.4*	1.4*
Black	1992-95	29.3	1995-04	-5.9*	2004-07	14.6	2007-14	-4.5					-0.5	-4.5
Black NH ^{ef}	1992-95	30.9	1995-00	-7.6	2000-14	0.5							0.5	0.5
API ^e	1992-14	0.5											0.5	0.5
AI/AN ^{eg}	1992-14	1.9											1.9	1.9
Hispanic ^f	1992-14	0.9*											0.9*	0.9*
<u>U.S. Cancer Mortality^c, 1975-2014</u>														
Note- Alternate mortality trends adjusted for ICD-9/ICD-10 coding change available at: https://surveillance.cancer.gov/joinpoint/jump.html .														
All Races	1975-90	1.5*	1990-02	-0.3	2002-09	0.6	2009-14	-1.3*					-0.4	-1.3*
White	1975-89	1.7*	1989-02	-0.1	2002-09	0.7*	2009-14	-1.0*					-0.2	-1.0*
Black	1975-14	-0.8*											-0.8*	-0.8*
<u>U.S. Cancer Mortality^c, 1992-2014</u>														
All Races	1992-14	-0.1											-0.1	-0.1
White	1992-14	0.1											0.1	0.1
White NH ^{ef}	1992-14	0.4*											0.4*	0.4*
Black	1992-14	-1.1*											-1.1*	-1.1*
Black NH ^{ef}	1992-14	-1.0*											-1.0*	-1.0*
API ^e	1992-14	-0.9											-0.9	-0.9
AI/AN ^{eg}	1992-14	0.6											0.6	0.6
Hispanic ^f	1992-14	-0.3											-0.3	-0.3

Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute. (<https://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.

Table 16.2
Melanoma of the Skin (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2014 With up to Five Joinpoints, 1992-2014 With up to Four 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	2005-14	2010-14
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2014</u>														
All Races	1975-86	5.4*	1986-05	3.1*	2005-14	1.8*							1.8*	1.8*
White	1975-85	5.9*	1985-05	3.4*	2005-14	2.0*							2.0*	2.0*
Black	1975-14	-0.5											-0.5	-0.5
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2014</u>														
All Races	1992-96	5.0*	1996-14	2.0*									2.0*	2.0*
White	1992-05	3.2*	2005-14	1.6*									1.6*	1.6*
Black	1992-95	52.9*	1995-14	-2.6*									-2.6*	-2.6*
<u>SEER 9 Observed Incidence^a, 1975-2014</u>														
All Races	1975-85	5.6*	1985-05	3.2*	2005-14	1.5*							1.5*	1.5*
White	1975-85	5.9*	1985-05	3.5*	2005-14	1.6*							1.6*	1.6*
Black	1975-14	-0.5											-0.5	-0.5
<u>SEER 13 Observed Incidence^b, 1992-2014</u>														
All Races	1992-96	5.2*	1996-14	1.8*									1.8*	1.8*
White	1992-06	3.1*	2006-14	1.1*									1.3*	1.1*
White NH ^{ef}	1992-05	3.6*	2005-14	1.6*									1.6*	1.6*
Black	1992-95	53.3*	1995-14	-2.8*									-2.8*	-2.8*
Black NH ^{ef}	1992-95	53.6*	1995-14	-2.7*									-2.7*	-2.7*
API ^e	1992-14	1.2*											1.2*	1.2*
AI/AN ^{eg}	1992-14	1.5											1.5	1.5
Hispanic ^f	1992-14	1.4*											1.4*	1.4*
<u>U.S. Cancer Mortality^c, 1975-2014</u>														
Note- Alternate mortality trends adjusted for ICD-9/ICD-10 coding change available at: https://surveillance.cancer.gov/joinpoint/jump.html .														
All Races	1975-90	2.2*	1990-02	0.0	2002-09	0.9*	2009-14	-1.3*					-0.3	-1.3*
White	1975-87	2.5*	1987-97	1.0*	1997-00	-1.6	2000-09	1.1*	2009-14	-1.0*			-0.1	-1.0*
Black	1975-14	-0.8*											-0.8*	-0.8*
<u>U.S. Cancer Mortality^c, 1992-2014</u>														
All Races	1992-02	-0.1	2002-09	1.0	2009-14	-1.3*							-0.3	-1.3*
White	1992-02	0.0	2002-09	1.1*	2009-14	-1.1							-0.1	-1.1
White NH ^{ef}	1992-02	0.2	2002-09	1.4*	2009-14	-0.9							0.1	-0.9
Black	1992-14	-0.3											-0.3	-0.3
Black NH ^{ef}	1992-14	-0.2											-0.2	-0.2
API ^e	1992-14	-1.8*											-1.8*	-1.8*
AI/AN ^{eg}	1992-14	2.4											2.4	2.4
Hispanic ^f	1992-14	-0.2											-0.2	-0.2

Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute. (<https://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.

Table 16.3
Melanoma of the Skin (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2014 With up to Five Joinpoints, 1992-2014 With up to Four 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	2005-14	2010-14
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2014</u>														
All Races	1975-86	4.0*	1986-93	0.6	1993-96	5.4	1996-09	2.3*	2009-12	-1.3	2012-14	6.1	1.9	2.3
White	1975-81	6.2*	1981-93	2.1*	1993-05	3.5*	2005-12	0.8	2012-14	5.5			1.9*	3.2*
Black	1975-14	0.0											0.0	0.0
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2014</u>														
All Races	1992-97	4.1*	1997-14	1.5*									1.5*	1.5*
White	1992-06	3.0*	2006-12	0.1	2012-14	5.9							1.7	3.0
Black	1992-14	0.1											0.1	0.1
<u>SEER 9 Observed Incidence^a, 1975-2014</u>														
All Races	1975-86	4.0*	1986-93	0.6	1993-96	5.5	1996-09	2.3*	2009-12	-1.6	2012-14	5.3	1.6	1.8
White	1975-81	6.2*	1981-93	2.1*	1993-05	3.4*	2005-14	1.1*					1.1*	1.1*
Black	1975-14	-0.1											-0.1	-0.1
<u>SEER 13 Observed Incidence^b, 1992-2014</u>														
All Races	1992-97	4.3*	1997-14	1.4*									1.4*	1.4*
White	1992-05	3.0*	2005-14	0.8									0.8	0.8
White NH ^{ef}	1992-05	3.6*	2005-14	1.2*									1.2*	1.2*
Black	1992-14	0.0											0.0	0.0
Black NH ^{ef}	1992-14	0.2											0.2	0.2
API ^e	1992-14	-0.3											-0.3	-0.3
AI/AN ^{eg}	1992-14	1.8											1.8	1.8
Hispanic ^f	1992-14	0.6											0.6	0.6
<u>U.S. Cancer Mortality^c, 1975-2014</u>														
Note- Alternate mortality trends adjusted for ICD-9/ICD-10 coding change available at: https://surveillance.cancer.gov/joinpoint/jump.html .														
All Races	1975-88	0.8*	1988-14	-0.6*									-0.6*	-0.6*
White	1975-88	0.9*	1988-14	-0.4*									-0.4*	-0.4*
Black	1975-14	-0.9*											-0.9*	-0.9*
<u>U.S. Cancer Mortality^c, 1992-2014</u>														
All Races	1992-14	-0.6*											-0.6*	-0.6*
White	1992-14	-0.4*											-0.4*	-0.4*
White NH ^{ef}	1992-14	-0.1											-0.1	-0.1
Black	1992-14	-1.7*											-1.7*	-1.7*
Black NH ^{ef}	1992-14	-1.6*											-1.6*	-1.6*
API ^e	1992-14	-0.1											-0.1	-0.1
AI/AN ^{eg}	-	-											-	-
Hispanic ^f	1992-14	-0.5											-0.5	-0.5

Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute. (<https://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

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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.

Table 16.4
Melanoma of the Skin (Invasive)

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

Year of Diagnosis:	All Races			Whites		
	Total	Males	Females	Total	Males	Females
1975	7.89	8.55	7.44	8.71	9.42	8.22
1976	8.15	8.67	7.69	9.03	9.59	8.54
1977	8.87	9.78	8.16	9.89	10.87	9.15
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	11.08	12.07	10.44	12.57	13.54	12.00
1982	11.19	12.50	10.29	12.83	14.20	11.91
1983	11.08	12.67	10.01	12.64	14.40	11.49
1984	11.40	12.91	10.44	13.10	14.80	12.04
1985	12.77	15.16	11.15	14.56	17.28	12.76
1986	13.32	15.67	11.63	15.25	17.89	13.40
1987	13.67	15.94	12.14	15.66	18.18	13.99
1988	12.89	14.97	11.48	14.94	17.37	13.33
1989	13.74	16.38	11.92	15.94	18.94	13.91
1990	13.87	16.67	11.87	16.20	19.33	13.99
1991	14.63	17.60	12.54	17.13	20.50	14.79
1992	14.77	18.31	12.21	17.27	21.33	14.38
1993	14.64	18.21	12.06	17.09	21.10	14.22
1994	15.66	19.84	12.62	18.44	23.30	14.92
1995	16.49	20.33	13.81	19.42	23.62	16.54
1996	17.38	21.74	14.23	20.55	25.41	17.08
1997	17.76	21.75	14.88	21.03	25.35	17.96
1998	17.94	22.15	15.02	21.50	26.25	18.24
1999	18.34	22.93	15.13	21.99	27.09	18.45
2000	18.99	23.98	15.52	22.93	28.47	19.11
2001	19.72	24.60	16.31	23.97	29.39	20.22
2002	19.35	24.05	16.12	23.46	28.64	19.96
2003	19.57	24.27	16.25	23.89	29.03	20.29
2004	20.70	25.57	17.34	25.36	30.92	21.55
2005	22.50	28.23	18.45	27.82	34.27	23.27
2006	22.17	27.77	18.16	27.32	33.54	22.90
2007	21.90	27.72	17.87	27.09	33.60	22.62
2008	23.30	29.46	18.97	28.92	35.86	24.04
2009	23.25	29.60	18.73	28.77	36.00	23.56
2010	24.06	30.25	19.67	29.80	36.62	25.00
2011	23.10	29.33	18.68	28.72	35.74	23.72
2012	23.24	29.92	18.39	28.95	36.51	23.47
2013	24.51	31.35	19.52	30.62	38.23	25.07
2014	25.91	32.77	20.89	32.69	40.37	27.09

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 <https://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

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2014	17.43	21.73	14.51	20.66	25.50	17.43	1.01	1.16	0.92
1975	7.89	8.55	7.44	8.71	9.42	8.22	-	-	-
1976	8.15	8.67	7.69	9.03	9.59	8.54	1.69	-	-
1977	8.87	9.78	8.16	9.89	10.87	9.15	-	-	-
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	11.08	12.07	10.44	12.57	13.54	12.00	1.35	-	-
1982	11.19	12.50	10.29	12.83	14.20	11.91	-	-	-
1983	11.08	12.67	10.01	12.64	14.40	11.49	-	-	-
1984	11.40	12.91	10.44	13.10	14.80	12.04	-	-	-
1985	12.77	15.16	11.15	14.56	17.28	12.76	-	-	-
1986	13.32	15.67	11.63	15.25	17.89	13.40	-	-	-
1987	13.67	15.94	12.14	15.66	18.18	13.99	1.30	-	-
1988	12.89	14.97	11.48	14.94	17.37	13.33	1.12	-	-
1989	13.74	16.38	11.92	15.94	18.94	13.91	1.13	-	-
1990	13.87	16.67	11.87	16.20	19.33	13.99	1.22	-	-
1991	14.63	17.60	12.54	17.13	20.50	14.79	1.10	-	-
1992	14.77	18.31	12.21	17.27	21.33	14.38	-	-	-
1993	14.64	18.21	12.06	17.09	21.10	14.22	-	-	-
1994	15.66	19.84	12.62	18.44	23.30	14.92	1.03	-	-
1995	16.49	20.33	13.81	19.42	23.62	16.54	1.68	3.19	-
1996	17.38	21.74	14.23	20.55	25.41	17.08	1.11	-	-
1997	17.76	21.75	14.88	21.03	25.35	17.96	1.10	-	-
1998	17.94	22.15	15.02	21.50	26.25	18.24	1.19	-	-
1999	18.34	22.93	15.13	21.99	27.09	18.45	1.14	-	-
2000	18.99	23.98	15.52	22.93	28.47	19.11	0.88	-	-
2001	19.72	24.60	16.31	23.97	29.39	20.22	0.76	-	-
2002	19.35	24.05	16.12	23.46	28.64	19.96	1.11	-	-
2003	19.57	24.27	16.25	23.89	29.03	20.29	0.84	-	-
2004	20.70	25.57	17.34	25.36	30.92	21.55	0.85	-	-
2005	22.50	28.23	18.45	27.82	34.27	23.27	1.07	-	1.03
2006	22.14	27.73	18.14	27.27	33.47	22.86	0.98	-	-
2007	21.85	27.65	17.83	26.98	33.46	22.53	1.22	-	1.20
2008	23.21	29.35	18.89	28.74	35.64	23.89	1.22	1.33	-
2009	23.13	29.45	18.63	28.53	35.70	23.37	1.15	1.11	1.11
2010	23.90	30.06	19.55	29.49	36.24	24.75	1.09	-	0.97
2011	22.93	29.11	18.54	28.38	35.30	23.44	1.10	-	1.18
2012	22.99	29.61	18.20	28.48	35.90	23.10	0.84	-	-
2013	24.13	30.86	19.22	29.88	37.28	24.47	0.85	-	-
2014	25.23	31.91	20.35	31.45	38.81	26.08	0.96	-	0.91

^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

Year of Death:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2014	2.63	3.79	1.78	2.97	4.26	2.00	0.47	0.52	0.43
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
2013	2.66	4.01	1.63	3.09	4.60	1.91	0.40	0.51	0.31
2014	2.57	3.85	1.58	2.99	4.44	1.84	0.40	0.43	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).
- 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, 2010-2014									
All ages	22.3	29.2	17.3	26.6	34.4	20.9	1.1	1.1	1.0
Under 65	12.6	13.0	12.3	15.3	15.6	15.2	0.5	0.4	0.5
65 and over	89.7	141.4	51.9	104.8	164.2	60.6	5.0	5.9	4.4
All ages (WHO world std) ^c	17.2	21.3	14.1	20.6	25.2	17.2	0.8	0.8	0.8
Age-Specific Rates, 2010-2014									
<1	-	-	-	-	-	-	-	-	-
1-4	0.1	-	-	0.1	-	-	-	-	-
5-9	0.2	0.1	0.2	0.2	-	0.3	-	-	-
10-14	0.3	0.3	0.3	0.4	0.3	0.4	-	-	-
15-19	0.9	0.8	1.1	1.2	1.1	1.4	-	-	-
20-24	3.4	1.9	4.9	4.3	2.4	6.3	-	-	-
25-29	6.2	4.1	8.5	7.8	5.1	10.7	-	-	-
30-34	9.5	6.7	12.2	11.9	8.3	15.7	-	-	-
35-39	12.0	10.0	14.1	15.1	12.3	18.0	0.7	-	1.0
40-44	16.1	13.9	18.3	19.9	16.8	23.1	-	-	-
45-49	21.8	20.8	22.8	26.8	25.3	28.3	0.5	-	-
50-54	30.3	33.2	27.5	36.4	39.6	33.3	1.4	1.2	1.5
55-59	38.5	46.9	30.5	46.1	55.5	36.9	1.4	1.5	1.4
60-64	50.6	66.9	35.7	60.0	78.6	42.5	2.2	2.7	1.9
65-69	69.6	97.8	44.5	82.0	114.1	52.8	3.1	3.6	2.8
70-74	83.2	126.3	46.9	97.9	147.6	55.2	4.2	4.5	4.0
75-79	97.8	152.7	55.2	115.5	179.0	65.1	5.4	7.8	3.9
80-84	110.4	182.7	60.9	128.0	210.5	70.2	7.5	9.5	6.4
85+	109.5	201.3	62.4	124.1	229.4	69.9	7.3	-	7.7
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2010-2014									
All ages	2.7	4.0	1.7	3.1	4.6	1.9	0.4	0.5	0.4
Under 65	1.1	1.4	0.8	1.3	1.7	1.0	0.2	0.2	0.1
65 and over	13.5	21.7	7.7	15.2	24.3	8.6	2.1	2.5	1.9
All ages (WHO world std) ^c	1.9	2.7	1.2	2.2	3.2	1.4	0.3	0.3	0.2
Age-Specific Rates, 2010-2014									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	0.0	-	0.0	0.0	-	-	-	-	-
20-24	0.1	0.1	0.1	0.1	0.1	0.1	-	-	-
25-29	0.3	0.3	0.2	0.4	0.4	0.3	-	-	-
30-34	0.5	0.6	0.4	0.6	0.7	0.5	-	-	-
35-39	0.8	0.9	0.7	1.0	1.2	0.9	-	-	-
40-44	1.3	1.5	1.0	1.6	1.8	1.3	0.2	0.3	-
45-49	1.9	2.3	1.4	2.3	2.8	1.8	0.2	0.3	-
50-54	2.8	3.6	2.0	3.4	4.3	2.4	0.4	0.4	0.4
55-59	4.1	5.6	2.6	4.8	6.6	3.1	0.5	0.7	0.4
60-64	5.7	8.1	3.5	6.7	9.5	4.1	0.8	0.8	0.8
65-69	7.6	11.2	4.4	8.7	12.9	5.0	1.3	1.8	1.0
70-74	10.4	15.8	5.8	11.8	18.0	6.5	1.4	1.6	1.3
75-79	14.7	23.0	8.1	16.6	25.9	9.2	2.6	3.2	2.1
80-84	19.5	32.7	10.4	21.8	36.3	11.6	2.8	3.0	2.7
85+	23.9	41.7	15.0	26.4	46.0	16.4	3.8	3.9	3.8

^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 world (WHO 2000-2025) standard million.

- 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	77.5	86.3	82.0	77.7	86.2	56.7 ^g	-	-
1978-1980 ^b	82.8	77.7	87.7	82.9	77.9	87.9	59.8 ^h	-	-
1981-1983 ^b	82.8	78.4	87.3	82.7	78.4	87.2	61.9 ^g	-	-
1984-1986 ^b	86.6	82.6	91.0	86.4	82.2	91.0	72.3 ^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	87.0	91.8	89.3	87.1	91.8	59.6 ^g	-	-
1993-1995 ^b	89.7	87.3	92.6	89.6	87.1	92.6	69.5 ^g	66.6 ^g	-
1996-1998 ^b	91.0	89.5	92.7	90.9	89.3	92.7	73.9 ^g	68.0 ^h	78.6 ^g
1999-2001 ^b	92.2	90.1	94.6	92.2	90.2	94.6	73.2 ^g	69.6 ^g	76.1 ^g
2002-2006 ^b	93.1	91.3	95.2	93.2	91.4	95.4	72.9 ^g	70.0 ^g	74.5 ^g
2007-2013 ^b	93.6 ^f	92.0 ^f	95.7 ^f	93.6 ^f	91.9 ^f	95.7 ^f	69.0 ^g	59.5 ^g	74.9 ^g
5-Year Period Survival (Percent) ^{cd}									
2013	91.8	89.9	94.2	91.3	89.2	93.9	56.8	48.4	61.6
Stage Distribution (%) 2007-2013 ^{ce}									
All Stages									
Number of cases	99,169	55,971	43,198	92,350	52,435	39,915	464	199	265
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	84	82	86	83	81	86	53	45	60
Regional	9	10	7	9	10	8	26	32	21
Distant	4	5	3	4	5	3	16	16	15
Unstaged	3	3	4	3	3	3	5	8	3
5-Year Relative Survival (Percent), 2007-2013 ^c									
Age at Diagnosis:									
Ages <45	94.4	90.8	96.8	94.2	90.4	96.7	78.7 ^g	68.2 ^h	84.4 ^g
Ages 45-54	92.9	90.5	95.6	92.6	89.9	95.5	65.0 ^g	61.6 ^g	68.4 ^g
Ages 55-64	91.5	89.8	94.2	91.0	89.2	93.9	65.7 ^g	56.3 ^g	75.2 ^g
Ages 65-74	91.9	90.6	94.3	91.5	90.1	94.1	60.5 ^g	58.2 ^h	61.3 ^g
Ages 75+	86.7	86.4	87.2	85.8	85.4	86.4	50.0 ^g	32.6 ^h	55.6 ^g
Ages <65	92.8	90.2	95.7	92.5	89.7	95.5	69.8	61.7 ^g	76.4
Ages 65+	89.6	88.8	90.8	88.9	88.1	90.4	55.9 ^g	49.0 ^g	59.0 ^g
Stage ^e :									
All Stages	91.7	89.7	94.2	91.2	89.1	94.0	64.6	57.9	68.7
Localized	98.5	97.9	99.2	98.1	97.4	99.0	86.4	90.3 ^g	83.5
Regional	62.9	60.1	67.7	63.2	60.4	68.0	46.4 ^g	37.2 ^g	54.6 ^g
Distant	19.9	18.3	23.5	19.8	18.3	23.0	20.0 ^g	10.7 ^g	30.1 ^g
Unstaged	82.6	80.4	85.3	81.6	79.1	84.8	-	-	-

^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 2014.

^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 2014.

^d Period survival provides a 2013 estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2010-2012: 0-1 year survival), (2009-2011: 1-2 year survival), (2008-2010: 2-3 year survival), (2007-2009: 3-4 year survival), (2006-2008: 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 2007-2013 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

Survival Time	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	2012	2013
1-year	94.2	95.6	96.3	96.7	97.3	97.6	96.6	96.7	97.6	97.9	97.4	97.8	97.7	97.7	97.9	97.6	97.8	97.9	98.1	97.7	97.7	98.0	98.5
2-year	89.8	91.6	93.2	93.9	94.2	95.7	94.3	94.5	95.5	96.2	95.5	95.5	96.1	96.2	96.3	96.1	96.2	95.9	96.0	96.7	96.2	96.4	
3-year	86.1	88.0	90.7	91.9	92.6	93.8	92.3	92.7	94.0	94.5	94.0	94.3	94.9	94.6	95.0	94.7	94.7	94.7	94.7	94.7	95.1	94.8	
4-year	83.4	85.5	89.1	90.3	91.2	93.1	91.3	91.4	93.2	93.2	92.7	93.2	93.6	93.5	94.3	93.7	94.1	94.0	93.6	94.4			
5-year	82.0	83.5	87.7	89.3	90.2	92.3	89.8	90.9	92.3	92.1	92.1	92.9	93.3	93.1	93.3	93.0	93.3	93.4	93.1				
6-year	80.3	82.2	86.6	88.5	90.0	91.5	89.3	90.3	91.6	91.7	91.3	92.6	92.4	93.1	93.0	92.2	92.7	92.6					
7-year	78.9	81.7	85.8	87.8	90.0	91.1	88.6	90.2	91.6	91.4	91.1	92.0	91.9	92.4	92.9	91.9	92.6						
8-year	77.9	80.9	85.3	87.2	89.8	90.9	87.8	89.8	91.1	91.4	90.9	91.2	91.8	92.2	92.7	91.9							
9-year	77.1	80.3	85.0	87.0	89.4	90.4	87.6	89.6	90.9	91.4	90.7	90.7	91.8	92.1	92.7								
10-year	76.5	79.7	84.9	86.9	89.4	89.9	87.6	89.1	90.9	91.2	90.2	90.6	91.4	92.1									
11-year	76.0	79.3	84.4	86.6	89.1	89.6	87.6	89.1	90.9	90.8	90.0	90.4	91.4										
12-year	75.6	79.2	84.2	86.4	89.1	89.6	87.1	88.7	90.9	90.8	89.9	90.4											
13-year	75.2	78.8	84.0	86.4	88.6	89.5	86.8	88.6	90.9	90.8	89.9												
14-year	75.0	78.5	83.9	86.3	88.6	89.3	86.6	88.4	90.9	90.8													
15-year	74.6	78.3	83.9	86.3	88.6	89.3	86.5	88.2	90.9														
16-year	74.4	78.3	83.8	86.3	88.6	89.3	86.5	87.6															
17-year	74.4	78.0	83.8	86.3	88.6	89.0	86.5																
18-year	74.4	78.0	83.8	86.3	88.6	89.0																	
19-year	74.4	78.0	83.8	86.3	88.6																		
20-year	74.4	78.0	83.8	86.3																			

^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	2012	2013
Survival Time																							
1-year	92.3	94.0	95.2	96.1	96.3	96.6	96.3	96.3	97.1	97.4	96.5	96.8	97.0	97.5	97.6	97.1	97.5	97.0	97.4	97.3	97.1	97.2	98.2
2-year	86.6	88.7	91.4	92.6	92.0	94.4	93.4	93.8	94.3	95.5	93.8	94.1	94.8	95.6	95.9	95.4	95.4	94.6	94.5	96.0	95.2	95.3	
3-year	82.2	84.3	88.2	90.3	90.0	92.1	90.8	91.9	92.5	93.5	91.5	92.5	93.4	92.7	94.0	93.6	93.3	93.1	93.1	94.1	93.1		
4-year	78.9	81.2	86.2	88.3	88.0	91.2	89.9	90.4	91.4	92.1	89.8	90.8	91.8	91.8	92.8	92.6	92.7	92.2	91.9	93.5			
5-year	77.5	78.6	84.4	87.2	86.7	90.3	88.1	90.1	90.4	90.9	89.2	90.3	91.7	91.1	91.5	91.7	91.8	91.7	91.2				
6-year	75.5	77.2	83.2	86.2	86.4	89.6	87.3	89.5	89.1	90.3	88.2	90.0	90.7	91.1	91.0	90.9	91.0	90.4					
7-year	73.8	76.8	82.2	85.4	86.4	89.4	87.0	89.5	89.0	90.3	88.1	89.6	89.7	90.2	90.6	90.5	90.6						
8-year	72.6	76.0	81.6	84.6	86.1	88.9	86.2	89.2	88.7	90.1	88.0	88.5	89.4	89.8	90.1	90.5							
9-year	71.7	75.2	81.2	84.3	85.7	88.3	86.0	88.6	88.4	90.1	88.0	87.8	89.4	89.5	90.1								
10-year	71.2	74.7	81.2	84.1	85.6	87.8	85.6	88.2	88.4	90.0	87.4	87.8	89.3	89.5									
11-year	70.4	74.4	81.1	83.8	85.6	87.6	85.6	88.0	88.4	89.4	87.1	87.8	89.3										
12-year	69.9	74.2	80.9	83.8	85.6	87.6	84.8	87.4	88.4	89.3	87.1	87.8											
13-year	69.5	73.9	80.9	83.7	85.6	87.6	84.7	87.3	88.4	89.3	87.0												
14-year	69.5	73.6	80.4	83.6	85.6	87.6	84.2	87.1	88.4	89.3													
15-year	69.3	73.6	80.2	83.6	85.6	87.6	84.2	87.1	88.4														
16-year	69.0	73.6	80.0	83.6	85.4	87.6	84.2	86.8															
17-year	69.0	73.6	80.0	83.6	85.4	87.6	84.2																
18-year	69.0	73.6	80.0	83.6	85.4	87.6																	
19-year	69.0	73.6	80.0	83.6	85.4																		
20-year	69.0	73.6	80.0	83.6																			

^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	2012	2013
Survival Time																							
1-year	96.1	97.3	97.6	97.4	98.5	98.8	97.1	97.1	98.2	98.4	98.5	99.0	98.6	98.0	98.3	98.1	98.1	98.9	99.1	98.3	98.5	98.9	99.0
2-year	92.9	94.7	95.3	95.4	96.7	97.3	95.4	95.3	96.9	97.0	97.6	97.2	97.5	96.9	96.8	97.0	97.3	97.4	97.8	97.3	97.5	97.8	
3-year	89.9	91.9	93.5	93.9	95.7	95.9	94.0	93.6	95.7	95.7	97.1	96.4	96.6	96.5	96.1	95.9	96.4	96.6	96.6	96.4	96.8		
4-year	87.8	89.9	92.4	92.5	94.9	95.3	92.8	92.6	95.3	94.6	96.1	95.9	95.6	95.5	96.0	95.0	95.7	96.1	95.8	95.5			
5-year	86.4	88.6	91.3	91.8	94.1	94.6	91.8	91.7	94.6	93.4	95.6	95.7	95.1	95.4	95.3	94.5	95.3	95.5	95.5				
6-year	84.9	87.4	90.3	91.2	94.1	93.8	91.6	91.2	94.5	93.3	95.0	95.3	94.5	95.3	95.0	93.8	94.9	95.3					
7-year	83.9	86.6	89.8	90.7	94.1	93.3	90.4	91.0	94.4	92.8	94.6	94.7	94.3	95.0	95.0	93.7	94.9						
8-year	83.1	86.0	89.2	90.2	94.0	93.3	89.6	90.5	93.8	92.8	94.2	94.2	94.1	95.0	95.0	93.7							
9-year	82.4	85.4	89.0	90.1	93.6	92.9	89.4	90.5	93.7	92.8	93.7	93.9	94.0	94.8	95.0								
10-year	81.8	84.7	88.8	90.0	93.6	92.4	89.4	90.2	93.6	92.6	93.4	93.4	93.8	94.8									
11-year	81.5	84.4	88.0	89.8	92.9	92.0	89.4	90.1	93.6	92.5	93.4	93.2	93.7										
12-year	81.0	84.2	87.8	89.6	92.8	91.4	89.4	90.1	93.6	92.4	93.2	93.2											
13-year	80.8	83.7	87.5	89.6	91.9	91.4	89.0	89.9	93.6	92.4	93.2												
14-year	80.2	83.6	87.5	89.5	91.8	91.3	89.0	89.9	93.6	92.4													
15-year	79.9	83.0	87.5	89.5	91.8	90.5	88.7	89.5	93.6														
16-year	79.7	82.8	87.5	89.4	91.8	90.1	88.7	88.6															
17-year	79.7	82.6	87.5	89.4	91.8	89.7	88.7																
18-year	79.6	82.4	87.5	89.4	91.8	89.5																	
19-year	79.5	82.4	87.5	89.4	91.8																		
20-year	79.5	82.4	87.5	89.4																			

^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, 2012-2014 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	0.05	2.21	0.31	Asian/ Pacific Islander	0	0.00	0.00	0.00	0.17	0.06
	10	0.01	0.05	0.15	2.23	0.32		10	0.00	0.00	0.01	0.17	0.06
	20	0.05	0.15	0.32	2.23	0.32		20	0.00	0.01	0.02	0.17	0.06
	30	0.10	0.28	0.59	2.21	0.32		30	0.01	0.02	0.04	0.17	0.06
	40	0.18	0.49	0.98	2.13	0.31		40	0.01	0.03	0.06	0.17	0.06
	50	0.32	0.82	1.43	2.00	0.31		50	0.02	0.05	0.09	0.15	0.06
	60	0.53	1.18	1.66	1.79	0.29		60	0.03	0.08	0.11	0.14	0.06
	70	0.73	1.27	-	1.42	0.26		70	0.05	0.09	-	0.12	0.05
80	0.73	-	-	0.93	0.21	80	0.05	-	-	0.08	0.04		
White	0	0.00	0.01	0.07	2.60	0.36	American Indian/ Alaska Native ^a	0	0.00	0.00	0.01	0.47	0.09
	10	0.01	0.07	0.19	2.62	0.36		10	0.00	0.01	0.03	0.48	0.09
	20	0.06	0.18	0.40	2.62	0.36		20	0.01	0.03	0.05	0.48	0.09
	30	0.13	0.35	0.72	2.59	0.36		30	0.02	0.04	0.11	0.48	0.09
	40	0.22	0.60	1.18	2.49	0.36		40	0.02	0.09	0.18	0.47	0.09
	50	0.39	0.98	1.69	2.33	0.35		50	0.07	0.17	0.33	0.47	0.09
	60	0.63	1.38	1.93	2.06	0.33		60	0.10	0.27	0.40	0.42	0.09
	70	0.85	1.47	-	1.63	0.29		70	0.19	0.33	-	0.36	0.10
80	0.84	-	-	1.05	0.23	80	0.19	-	-	0.23	0.08		
Black	0	0.00	0.00	0.00	0.10	0.04	Hispanic ^b	0	0.00	0.00	0.01	0.58	0.11
	10	0.00	0.00	0.01	0.10	0.04		10	0.00	0.01	0.03	0.58	0.11
	20	0.00	0.01	0.01	0.10	0.04		20	0.01	0.03	0.07	0.58	0.11
	30	0.00	0.01	0.02	0.10	0.04		30	0.02	0.06	0.13	0.58	0.11
	40	0.01	0.02	0.04	0.10	0.04		40	0.04	0.11	0.22	0.56	0.11
	50	0.01	0.03	0.07	0.10	0.04		50	0.07	0.19	0.33	0.54	0.11
	60	0.02	0.06	0.08	0.09	0.04		60	0.12	0.27	0.40	0.48	0.10
	70	0.04	0.07	-	0.08	0.04		70	0.16	0.31	-	0.40	0.10
80	0.04	-	-	0.06	0.04	80	0.18	-	-	0.30	0.08		

Devcan 6.7.5, April 2017, National Cancer Institute (<https://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, 2012-2014 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	2.77	0.43	Asian/ Pacific Islander	0	0.00	0.00	0.00	0.19	0.06
	10	0.01	0.04	0.11	2.80	0.43		10	0.00	0.00	0.01	0.19	0.06
	20	0.03	0.11	0.27	2.80	0.43		20	0.00	0.01	0.02	0.19	0.06
	30	0.08	0.24	0.59	2.81	0.44		30	0.01	0.02	0.04	0.19	0.06
	40	0.17	0.52	1.17	2.78	0.44		40	0.01	0.03	0.07	0.18	0.06
	50	0.37	1.03	1.88	2.69	0.43		50	0.02	0.06	0.11	0.17	0.06
	60	0.71	1.63	2.33	2.51	0.42		60	0.04	0.10	0.14	0.16	0.06
	70	1.08	1.89	-	2.10	0.39		70	0.06	0.10	-	0.12	0.05
80	1.16	-	-	1.46	0.33	80	0.05	-	-	0.08	0.05		
White	0	0.00	0.01	0.04	3.22	0.49	American Indian/ Alaska Native ^a	0	0.00	0.00	0.00	0.46	0.11
	10	0.01	0.04	0.14	3.25	0.49		10	0.00	0.00	0.01	0.47	0.11
	20	0.04	0.13	0.33	3.25	0.50		20	0.00	0.01	0.03	0.47	0.11
	30	0.10	0.30	0.71	3.26	0.50		30	0.01	0.03	0.10	0.48	0.11
	40	0.20	0.63	1.38	3.21	0.50		40	0.03	0.09	0.20	0.49	0.11
	50	0.44	1.21	2.20	3.11	0.49		50	0.07	0.18	0.36	0.49	0.11
	60	0.83	1.90	2.69	2.88	0.47		60	0.12	0.32	0.39	0.45	0.12
	70	1.25	2.16	-	2.39	0.43		70	0.23	0.31	-	0.39	0.12
80	1.32	-	-	1.64	0.36	80	0.12	-	-	0.23	0.09		
Black	0	0.00	0.00	0.00	0.10	0.04	Hispanic ^b	0	0.00	0.00	0.01	0.62	0.14
	10	0.00	0.00	0.00	0.10	0.04		10	0.00	0.01	0.02	0.62	0.14
	20	0.00	0.00	0.01	0.10	0.04		20	0.00	0.02	0.04	0.63	0.14
	30	0.00	0.01	0.02	0.10	0.04		30	0.01	0.04	0.10	0.63	0.14
	40	0.00	0.02	0.04	0.10	0.04		40	0.03	0.09	0.22	0.62	0.14
	50	0.01	0.04	0.07	0.10	0.04		50	0.07	0.19	0.37	0.61	0.14
	60	0.03	0.06	0.09	0.10	0.04		60	0.13	0.31	0.47	0.57	0.13
	70	0.05	0.08	-	0.09	0.04		70	0.20	0.38	-	0.49	0.13
80	0.04	-	-	0.07	0.03	80	0.23	-	-	0.38	0.11		

Devcan 6.7.5, April 2017, National Cancer Institute (<https://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, 2012-2014 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	0.07	1.72	0.21	Asian/ Pacific Islander	0	0.00	0.00	0.00	0.16	0.06
	10	0.01	0.07	0.20	1.73	0.21		10	0.00	0.00	0.01	0.16	0.06
	20	0.06	0.19	0.38	1.73	0.21		20	0.00	0.01	0.02	0.16	0.06
	30	0.13	0.32	0.59	1.67	0.21		30	0.01	0.02	0.04	0.16	0.06
	40	0.19	0.46	0.81	1.56	0.21		40	0.01	0.03	0.05	0.15	0.06
	50	0.28	0.63	1.01	1.39	0.20		50	0.02	0.04	0.07	0.14	0.06
	60	0.37	0.77	1.08	1.17	0.18		60	0.02	0.06	0.10	0.13	0.06
	70	0.44	0.78	-	0.89	0.16		70	0.04	0.08	-	0.11	0.05
80	0.44	-	-	0.58	0.13	80	0.05	-	-	0.08	0.04		
White	0	0.00	0.01	0.09	2.04	0.24	American Indian/ Alaska Native ^a	0	0.00	0.00	0.02	0.49	0.07
	10	0.01	0.09	0.25	2.06	0.24		10	0.00	0.02	0.05	0.49	0.07
	20	0.08	0.24	0.48	2.05	0.24		20	0.02	0.05	0.07	0.49	0.07
	30	0.16	0.40	0.73	1.98	0.24		30	0.03	0.05	0.12	0.48	0.07
	40	0.24	0.57	0.98	1.84	0.23		40	0.02	0.08	0.17	0.46	0.07
	50	0.33	0.75	1.20	1.63	0.22		50	0.07	0.15	0.29	0.45	0.06
	60	0.44	0.90	1.25	1.35	0.21		60	0.09	0.24	0.40	0.41	0.06
	70	0.51	0.90	-	1.01	0.18		70	0.16	0.35	-	0.35	0.07
80	0.50	-	-	0.64	0.14	80	0.24	-	-	0.24	0.07		
Black	0	0.00	0.00	0.00	0.10	0.04	Hispanic ^b	0	0.00	0.00	0.02	0.56	0.09
	10	0.00	0.00	0.01	0.10	0.04		10	0.00	0.02	0.05	0.56	0.09
	20	0.00	0.01	0.01	0.10	0.04		20	0.01	0.05	0.09	0.56	0.09
	30	0.01	0.01	0.02	0.10	0.04		30	0.03	0.08	0.16	0.55	0.09
	40	0.01	0.02	0.04	0.10	0.04		40	0.04	0.12	0.23	0.52	0.09
	50	0.01	0.03	0.06	0.10	0.04		50	0.08	0.19	0.30	0.48	0.09
	60	0.02	0.05	0.08	0.09	0.04		60	0.11	0.22	0.34	0.41	0.08
	70	0.04	0.07	-	0.08	0.04		70	0.12	0.25	-	0.33	0.08
80	0.04	-	-	0.06	0.04	80	0.15	-	-	0.24	0.06		

Devcan 6.7.5, April 2017, National Cancer Institute (<https://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			SEER 13 Areas ^b			SEER 9 Areas ^b		
	Rate 2010-2014			Trend 2005-2014 ^c			Trend 2005-2014 ^d		
	Rate per 100,000 persons			AAPC (%)			AAPC (%)		
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females	Total	Males	Females
All Races	22.3	29.2	17.3	1.6*	1.8*	1.4*	1.4*	1.5*	1.6
White	26.6	34.4	20.9	1.1*	1.3*	0.8	1.5*	1.6*	1.1*
White Hispanic ^e	4.8	5.1	4.8	1.0*	1.4*	0.7	-	-	-
White Non-Hispanic ^e	31.6	40.1	25.3	1.4*	1.6*	1.2*	-	-	-
Black	1.1	1.1	1.0	-0.5	-2.8*	0.0	-0.2	-0.5	-0.1
Asian/Pacific Islander	1.4	1.6	1.2	0.5	1.2*	-0.3	-	-	-
Amer Ind/Alaska Nat ^f	4.5	4.3	4.9	1.9	1.5	1.8	-	-	-
Hispanic ^e	4.7	5.0	4.7	0.9*	1.4*	0.6	-	-	-
<u>U.S. Mortality^g</u>									
	Rate 2010-2014			Trend 2005-2014 ^h					
	Rate per 100,000 persons			AAPC (%)					
RACE/ETHNICITY	Total	Males	Females	Total	Males	Females			
All Races	2.7	4.0	1.7	-0.1	-0.3	-0.6*			
White	3.1	4.6	1.9	0.1	-0.1	-0.4*			
White Hispanic ^e	0.8	1.1	0.6	-0.2	-0.1	-0.5			
White Non-Hispanic ^e	3.3	4.9	2.1	0.4*	0.1	-0.1			
Black	0.4	0.5	0.4	-1.1*	-0.3	-1.7*			
Asian/Pacific Islander	0.4	0.4	0.3	-0.9	-1.8*	-0.1			
Amer Ind/Alaska Nat									
Total U.S.	0.7	1.0	0.4	0.0	1.1	-0.9			
CHSDA Counties	0.9	1.4	0.5	0.6	2.4	-			
Non-CHSDA Counties	0.4	-	-	0.2	-	-			
Hispanic ^e	0.8	1.0	0.6	-0.3	-0.2	-0.5			

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 4.3.0.0, April 2016, National Cancer Institute.

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

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

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

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

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

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

^c The 2005-2014 AAPC estimates are based on a Joinpoint analysis with up to 4 Joinpoints over diagnosis years 1992-2014.

^d The 2005-2014 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2014.

^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 2005-2014 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 2005-2014 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2014.

* 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, 2010-2014</u>									
California	21.58	28.93	16.00	25.33	33.82	18.82	1.08	1.29	0.95
Greater Bay Area	24.09	31.83	18.26	33.76	43.82	26.17	0.92	-	-
San Francisco-Oakland	24.25	32.45	18.11	35.17	46.12	26.90	0.97	-	-
San Jose-Monterey	23.83	30.71	18.59	31.36	39.86	24.92	-	-	-
Los Angeles	13.42	18.50	9.61	16.97	23.23	12.21	1.02	1.50	0.72
Greater California	24.48	32.60	18.26	26.29	35.09	19.49	1.24	1.15	1.32
Connecticut	21.22	27.41	16.90	23.00	29.34	18.58	1.40	-	-
Detroit	16.65	21.19	13.70	21.85	26.80	18.77	0.72	-	0.77
Georgia	25.26	33.86	19.27	34.56	44.24	27.64	1.07	1.15	1.02
Atlanta	26.92	36.64	20.46	44.33	56.23	36.22	0.96	1.25	0.82
Rural Georgia	21.25	30.43	14.78	31.37	41.65	23.32	-	-	-
Greater Georgia	24.60	32.79	18.79	31.01	40.10	24.36	1.12	1.02	1.16
Hawaii	20.03	26.50	14.78	61.14	77.15	46.11	-	-	-
Iowa	25.09	29.06	22.70	25.33	29.15	23.07	-	-	-
Kentucky	25.03	30.66	21.25	26.45	32.35	22.42	1.79	-	1.94
Louisiana	16.28	22.95	11.38	22.50	30.63	16.32	1.14	1.23	1.06
New Jersey	21.93	28.73	17.19	25.81	33.22	20.59	0.88	0.98	0.82
New Mexico	15.84	20.71	11.95	16.94	22.13	12.73	-	-	-
Seattle-Puget Sound	28.18	33.70	24.25	32.33	37.91	28.40	-	-	-
Utah	36.69	47.66	27.69	37.79	48.85	28.73	-	-	-
SEER 9 Areas ^b	23.86	30.35	19.18	29.56	36.74	24.38	0.96	0.98	0.96
SEER 13 Areas ^b	21.42	27.68	16.86	26.86	34.04	21.60	0.97	1.14	0.88
SEER 18 Areas ^b	22.33	29.22	17.29	26.64	34.36	20.95	1.06	1.13	1.01

^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 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.

- 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, 2010-2014</u>									
California	2.47	3.77	1.47	3.09	4.68	1.83	0.30	0.37	0.26
Greater Bay Area	2.24	3.50	1.25	3.17	4.94	1.74	-	-	-
San Francisco-Oakland	2.31	3.63	1.27	3.36	5.26	1.82	-	-	-
San Jose-Monterey	2.12	3.25	1.20	2.85	4.38	1.59	-	-	-
Los Angeles	1.77	2.73	1.05	2.37	3.64	1.39	-	-	-
Greater California	2.88	4.33	1.74	3.35	5.01	2.03	0.34	-	-
Connecticut	2.42	3.38	1.74	2.66	3.67	1.93	-	-	-
Detroit	2.18	3.21	1.42	2.78	4.05	1.81	0.36	-	-
Georgia	2.50	3.95	1.46	3.28	5.08	1.90	0.44	0.43	0.45
Atlanta	1.90	2.95	1.21	2.82	4.25	1.79	0.43	-	-
Rural Georgia	-	-	-	-	-	-	-	-	-
Greater Georgia	2.79	4.43	1.58	3.46	5.41	1.95	0.46	-	0.48
Hawaii	1.61	2.38	0.98	4.22	6.22	2.27	-	-	-
Iowa	2.88	4.15	1.89	2.93	4.22	1.94	-	-	-
Kentucky	3.28	4.73	2.20	3.53	5.04	2.38	-	-	-
Louisiana	2.22	3.38	1.36	2.85	4.35	1.70	0.59	-	0.60
New Jersey	2.40	3.62	1.51	2.85	4.27	1.81	0.26	-	-
New Mexico	2.51	3.62	1.64	2.71	3.95	1.73	-	-	-
Seattle-Puget Sound	2.77	4.07	1.73	3.13	4.55	1.96	-	-	-
Utah	3.59	5.56	1.94	3.75	5.77	2.04	-	-	-
SEER 9 Areas ^b	2.48	3.68	1.55	3.02	4.46	1.89	0.40	0.50	0.34
SEER 13 Areas ^b	2.29	3.44	1.42	2.87	4.27	1.77	0.36	0.48	0.30
SEER 18 Areas ^b	2.52	3.80	1.55	3.07	4.58	1.89	0.39	0.45	0.35
Total U.S.	2.66	3.99	1.65	3.08	4.57	1.92	0.40	0.46	0.36

^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 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.

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

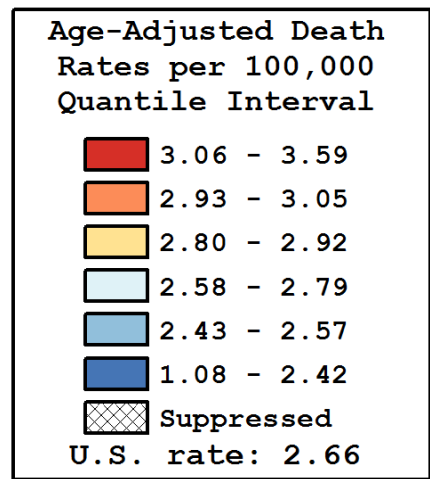
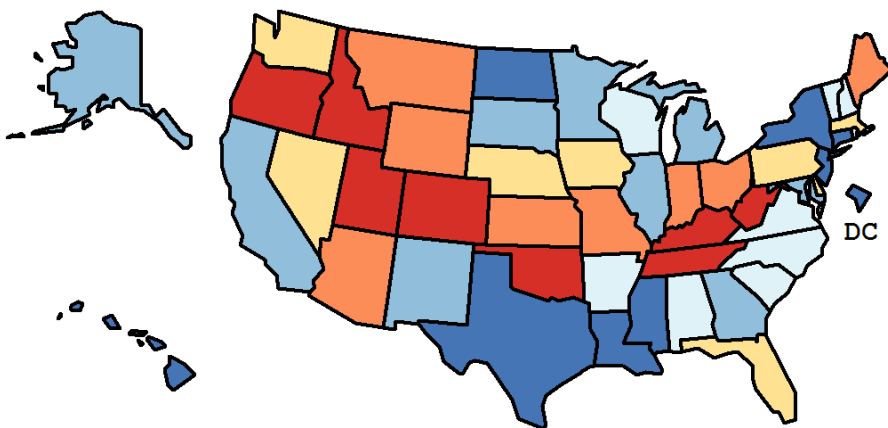
Table 16.18
Melanoma of the Skin (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2010-2014

Males and Females

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	2.66	0.01		
High Five States				
Utah	3.59	0.18	01(01,10)	34.95 ^c
Idaho	3.52	0.21	02(01,18)	32.05 ^c
West Virginia	3.32	0.17	03(01,24)	24.46 ^c
Kentucky	3.28	0.12	04(01,18)	23.19 ^c
Tennessee	3.12	0.09	05(02,24)	16.96 ^c
Low Five States				
North Dakota	2.25	0.24	47(10,50)	-15.40 ^c
Louisiana	2.22	0.10	48(35,49)	-16.74 ^c
New York	2.19	0.04	49(43,49)	-17.61 ^c
Hawaii	1.61	0.14	50(49,51)	-39.53 ^c
D.C.	1.08	0.19	51(50,51)	-59.29 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	2.72	0.10	30(11,42)	2.01	Montana	2.97	0.22	13(01,45)	11.67
Alaska	2.52	0.33	35(01,50)	-5.33	Nebraska	2.92	0.17	17(02,41)	9.67
Arizona	2.94	0.09	15(05,32)	10.26	Nevada	2.89	0.15	19(03,40)	8.51
Arkansas	2.78	0.13	26(06,43)	4.39	New Hampshire	2.72	0.19	29(03,48)	2.18
California	2.47	0.04	40(32,45)	-7.13	New Jersey	2.40	0.07	44(31,48)	-10.01
Colorado	3.09	0.11	06(02,27)	15.98 ^c	New Mexico	2.51	0.15	36(14,49)	-5.83
Connecticut	2.42	0.11	43(27,49)	-9.18	New York	2.19	0.04	49(43,49)	-17.61 ^c
Delaware	2.83	0.23	24(02,48)	6.27	North Carolina	2.76	0.07	27(12,36)	3.67
D.C.	1.08	0.19	51(50,51)	-59.29 ^c	North Dakota	2.25	0.24	47(10,50)	-15.40 ^c
Florida	2.90	0.05	18(09,28)	8.72	Ohio	2.94	0.07	16(06,30)	10.22
Georgia	2.50	0.07	37(27,47)	-6.08	Oklahoma	3.08	0.12	08(02,29)	15.80 ^c
Hawaii	1.61	0.14	50(49,51)	-39.53 ^c	Oregon	3.09	0.12	07(02,29)	15.86 ^c
Idaho	3.52	0.21	02(01,18)	32.05 ^c	Pennsylvania	2.85	0.06	23(09,31)	7.04
Illinois	2.47	0.06	39(29,46)	-7.11	Rhode Island	2.58	0.20	33(05,49)	-3.29
Indiana	2.95	0.09	14(04,31)	10.90	South Carolina	2.73	0.10	28(10,41)	2.43
Iowa	2.88	0.13	20(04,37)	7.93	South Dakota	2.44	0.23	42(06,49)	-8.23
Kansas	3.05	0.14	09(02,33)	14.51	Tennessee	3.12	0.09	05(02,24)	16.96 ^c
Kentucky	3.28	0.12	04(01,18)	23.19 ^c	Texas	2.31	0.04	45(38,49)	-13.32
Louisiana	2.22	0.10	48(35,49)	-16.74 ^c	Utah	3.59	0.18	01(01,10)	34.95 ^c
Maine	3.04	0.19	10(01,38)	14.11	Vermont	2.62	0.27	32(02,49)	-1.63
Maryland	2.48	0.09	38(26,48)	-6.91	Virginia	2.79	0.08	25(11,35)	4.58
Massachusetts	2.87	0.09	21(07,34)	7.60	Washington	2.86	0.09	22(06,34)	7.51
Michigan	2.46	0.07	41(29,47)	-7.76	West Virginia	3.32	0.17	03(01,24)	24.46 ^c
Minnesota	2.57	0.09	34(19,46)	-3.34	Wisconsin	2.62	0.09	31(18,44)	-1.54
Mississippi	2.30	0.12	46(28,49)	-13.58	Wyoming	3.03	0.32	11(01,49)	13.81
Missouri	3.01	0.09	12(03,29)	13.12					



^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 ($p < .0002$).

^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.

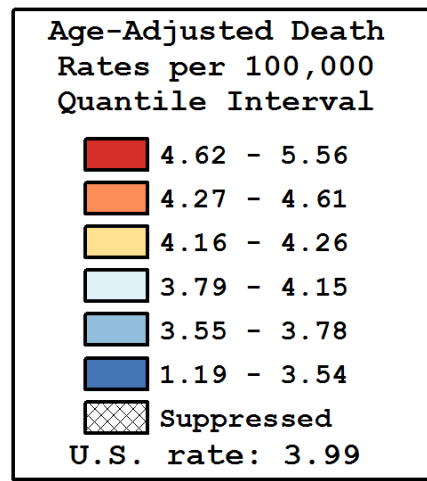
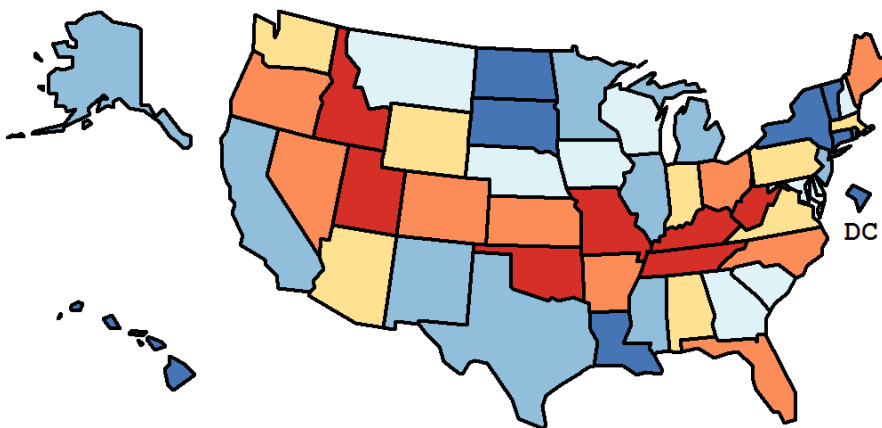
Table 16.19
Melanoma of the Skin (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2010-2014

Males

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	3.99	0.02		
High Five States				
Utah	5.56	0.33	01(01,09)	39.44 ^c
West Virginia	5.07	0.32	02(01,25)	27.17 ^c
Tennessee	5.03	0.19	03(01,12)	26.04 ^c
Idaho	4.84	0.36	04(01,34)	21.47 ^c
Kentucky	4.73	0.22	05(01,26)	18.70 ^c
Low Five States				
New York	3.21	0.08	47(41,49)	-19.37 ^c
North Dakota	3.16	0.42	48(09,50)	-20.67 ^c
South Dakota	3.13	0.39	49(14,50)	-21.62 ^c
Hawaii	2.38	0.26	50(46,51)	-40.35 ^c
D.C.	1.19	0.31	51(50,51)	-70.13 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	4.17	0.19	23(05,41)	4.58	Montana	4.15	0.38	26(01,49)	3.99
Alaska	3.63	0.62	37(01,50)	-8.95	Nebraska	4.10	0.30	27(03,47)	2.81
Arizona	4.24	0.16	18(06,36)	6.26	Nevada	4.33	0.26	14(02,42)	8.49
Arkansas	4.37	0.25	11(02,38)	9.70	New Hampshire	3.98	0.35	30(03,48)	-0.27
California	3.77	0.07	35(27,42)	-5.47	New Jersey	3.62	0.13	39(27,47)	-9.22
Colorado	4.34	0.20	12(03,36)	8.83	New Mexico	3.62	0.27	38(11,49)	-9.10
Connecticut	3.38	0.19	46(28,49)	-15.30 ^c	New York	3.21	0.08	47(41,49)	-19.37 ^c
Delaware	3.99	0.42	29(02,49)	0.04	North Carolina	4.30	0.14	16(05,33)	7.74
D.C.	1.19	0.31	51(50,51)	-70.13 ^c	North Dakota	3.16	0.42	48(09,50)	-20.67 ^c
Florida	4.32	0.09	15(07,29)	8.26	Ohio	4.33	0.12	13(06,31)	8.56
Georgia	3.95	0.15	32(11,43)	-0.87	Oklahoma	4.70	0.23	06(01,28)	17.78 ^c
Hawaii	2.38	0.26	50(46,51)	-40.35 ^c	Oregon	4.40	0.21	10(03,34)	10.38
Idaho	4.84	0.36	04(01,34)	21.47 ^c	Pennsylvania	4.16	0.11	24(10,34)	4.27
Illinois	3.64	0.11	36(27,46)	-8.60	Rhode Island	3.54	0.36	43(07,50)	-11.28
Indiana	4.22	0.17	20(05,37)	5.78	South Carolina	4.09	0.20	28(06,42)	2.64
Iowa	4.15	0.23	25(04,43)	4.05	South Dakota	3.13	0.39	49(14,50)	-21.62 ^c
Kansas	4.61	0.26	08(01,33)	15.74 ^c	Tennessee	5.03	0.19	03(01,12)	26.04 ^c
Kentucky	4.73	0.22	05(01,26)	18.70 ^c	Texas	3.60	0.09	41(31,46)	-9.81
Louisiana	3.38	0.19	45(28,49)	-15.15 ^c	Utah	5.56	0.33	01(01,09)	39.44 ^c
Maine	4.61	0.35	09(01,40)	15.51 ^c	Vermont	3.40	0.45	44(05,50)	-14.68
Maryland	3.90	0.18	33(11,45)	-2.19	Virginia	4.23	0.16	19(06,36)	6.09
Massachusetts	4.19	0.16	22(07,37)	5.11	Washington	4.20	0.16	21(06,36)	5.28
Michigan	3.61	0.12	40(28,47)	-9.34	West Virginia	5.07	0.32	02(01,25)	27.17 ^c
Minnesota	3.78	0.17	34(16,46)	-5.26	Wisconsin	3.96	0.17	31(11,43)	-0.56
Mississippi	3.56	0.24	42(16,49)	-10.61	Wyoming	4.26	0.56	17(01,49)	6.77
Missouri	4.64	0.18	07(02,26)	16.31 ^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 ($p < .0002$).

^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.

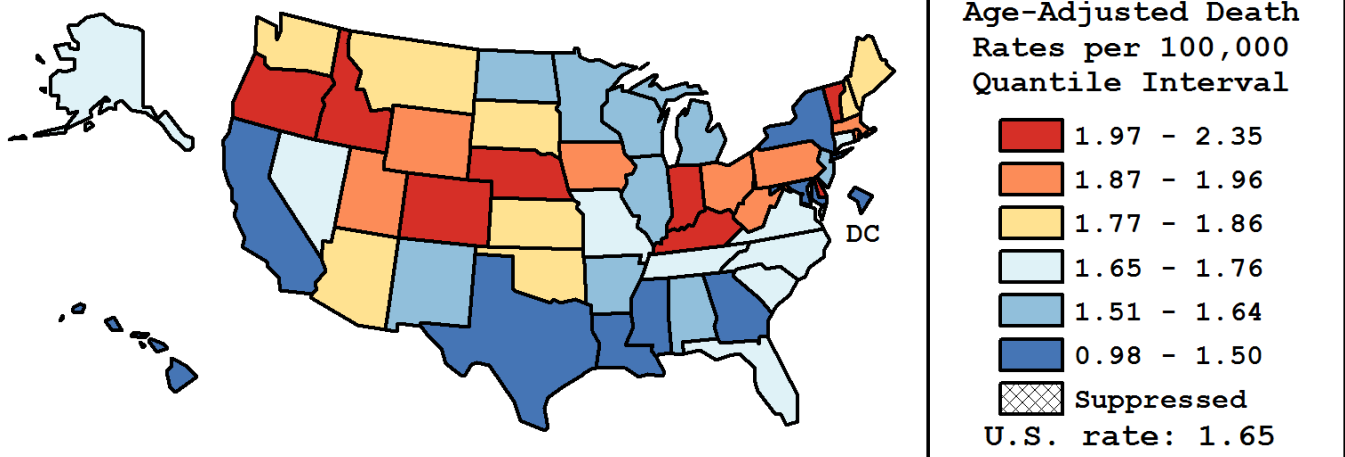
Table 16.20
Melanoma of the Skin (Invasive)

Age-Adjusted Cancer Death^a Rates By State, All Races, 2010-2014

Females

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	1.65	0.01		
High Five States				
Idaho	2.35	0.24	01(01,30)	42.39 ^c
Kentucky	2.20	0.13	02(01,21)	33.04 ^c
Colorado	2.11	0.13	03(01,24)	27.77 ^c
Oregon	2.04	0.13	04(01,32)	23.42 ^c
Vermont	2.01	0.32	05(01,50)	21.52 ^c
Low Five States				
Mississippi	1.43	0.13	47(18,51)	-13.40
Louisiana	1.36	0.10	48(28,51)	-17.47 ^c
Texas	1.32	0.05	49(42,50)	-20.42 ^c
D.C.	1.03	0.26	50(13,51)	-37.99 ^c
Hawaii	0.98	0.15	51(43,51)	-40.74 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	1.64	0.11	35(10,48)	-0.80	Montana	1.86	0.25	18(01,50)	12.43
Alaska	1.67	0.36	31(01,51)	1.27	Nebraska	1.97	0.19	08(01,45)	19.15 ^c
Arizona	1.86	0.10	17(03,38)	12.62	Nevada	1.66	0.15	33(05,49)	0.08
Arkansas	1.54	0.13	40(11,50)	-6.99	New Hampshire	1.84	0.22	20(01,49)	11.20
California	1.47	0.04	44(34,48)	-11.28	New Jersey	1.51	0.07	42(23,49)	-8.53
Colorado	2.11	0.13	03(01,24)	27.77 ^c	New Mexico	1.64	0.17	34(04,50)	-0.70
Connecticut	1.74	0.12	27(05,46)	5.19	New York	1.44	0.05	46(34,49)	-12.68
Delaware	1.99	0.27	06(01,49)	20.10 ^c	North Carolina	1.67	0.08	32(13,45)	0.71
D.C.	1.03	0.26	50(13,51)	-37.99 ^c	North Dakota	1.51	0.28	41(01,51)	-8.51
Florida	1.76	0.05	25(11,36)	6.61	Ohio	1.89	0.07	14(04,31)	14.47
Georgia	1.46	0.08	45(27,50)	-11.73	Oklahoma	1.80	0.13	23(03,45)	8.92
Hawaii	0.98	0.15	51(43,51)	-40.74 ^c	Oregon	2.04	0.13	04(01,32)	23.42 ^c
Idaho	2.35	0.24	01(01,30)	42.39 ^c	Pennsylvania	1.87	0.07	16(05,31)	13.34
Illinois	1.62	0.07	37(19,46)	-2.31	Rhode Island	1.95	0.23	10(01,48)	17.97 ^c
Indiana	1.98	0.10	07(02,31)	19.49 ^c	South Carolina	1.70	0.11	29(07,46)	2.53
Iowa	1.89	0.14	15(01,43)	14.40	South Dakota	1.84	0.28	21(01,50)	11.15
Kansas	1.83	0.15	22(02,46)	10.85	Tennessee	1.72	0.10	28(08,45)	3.90
Kentucky	2.20	0.13	02(01,21)	33.04 ^c	Texas	1.32	0.05	49(42,50)	-20.42 ^c
Louisiana	1.36	0.10	48(28,51)	-17.47 ^c	Utah	1.94	0.18	11(01,43)	17.59 ^c
Maine	1.85	0.20	19(01,48)	12.00	Vermont	2.01	0.32	05(01,50)	21.52 ^c
Maryland	1.50	0.09	43(20,50)	-9.58	Virginia	1.69	0.09	30(11,45)	2.49
Massachusetts	1.91	0.10	13(02,32)	15.70 ^c	Washington	1.77	0.10	24(06,42)	6.91
Michigan	1.55	0.07	39(21,48)	-6.15	West Virginia	1.91	0.18	12(01,46)	15.76 ^c
Minnesota	1.64	0.10	36(10,48)	-1.06	Wisconsin	1.56	0.10	38(17,49)	-5.82
Mississippi	1.43	0.13	47(18,51)	-13.40	Wyoming	1.96	0.36	09(01,50)	18.58 ^c
Missouri	1.75	0.10	26(05,42)	6.03					



^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 ($p < .0002$).

^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, 2014
By Race/Ethnicity, Sex and Years Since Diagnosis

WARNING: The Prevalence Estimates presented on this page utilize a different tumor selection criteria from previous CSR releases and are NOT directly comparable to estimates from previous CSR releases.
Please see the Prevalence Comparison Chapter of this CSR for more information.

Years Since Diagnosis		0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	25 to <30	0 to <22 ^a	0 to <39 ^e	>=39 ^g	Complete ^h
<u>Race</u>	<u>Sex</u>										
All Races ^b	Both Sexes	343,875	257,876	184,816	131,072	89,775	65,069	991,036	1,134,329	35,022	1,169,351
	Males	191,228	134,241	92,210	64,014	41,715	26,941	516,144	574,347	11,325	585,672
	Females	152,647	123,635	92,606	67,058	48,060	38,128	474,892	559,982	23,697	583,679
White ^b	Both Sexes	329,212	250,378	179,100	126,231	86,538	62,186	955,667	1,093,382	33,039	1,126,421
	Males	183,879	130,843	89,365	61,621	40,470	25,854	499,082	555,147	10,801	565,948
	Females	145,333	119,535	89,735	64,610	46,068	36,332	456,585	538,235	22,238	560,473
Black ^b	Both Sexes	1,198	780	590	479	328	177	3,282	3,733	94	3,827
	Males	483	283	281	267	143	12	1,423	1,531	35	1,566
	Females	715	497	309	212	185	165	1,859	2,202	59	2,261
Asian/ Pacific Islander ^c	Both Sexes	890	644	487	300	+	+	2,400	+	+	+
	Males	450	283	182	129	+	+	1,072	+	+	+
	Females	440	361	305	171	+	+	1,328	+	+	+
Hispanic ^d	Both Sexes	6,216	4,607	3,540	2,253	+	+	17,235	+	+	+
	Males	2,690	1,767	1,151	740	+	+	6,591	+	+	+
	Females	3,526	2,840	2,389	1,513	+	+	10,644	+	+	+

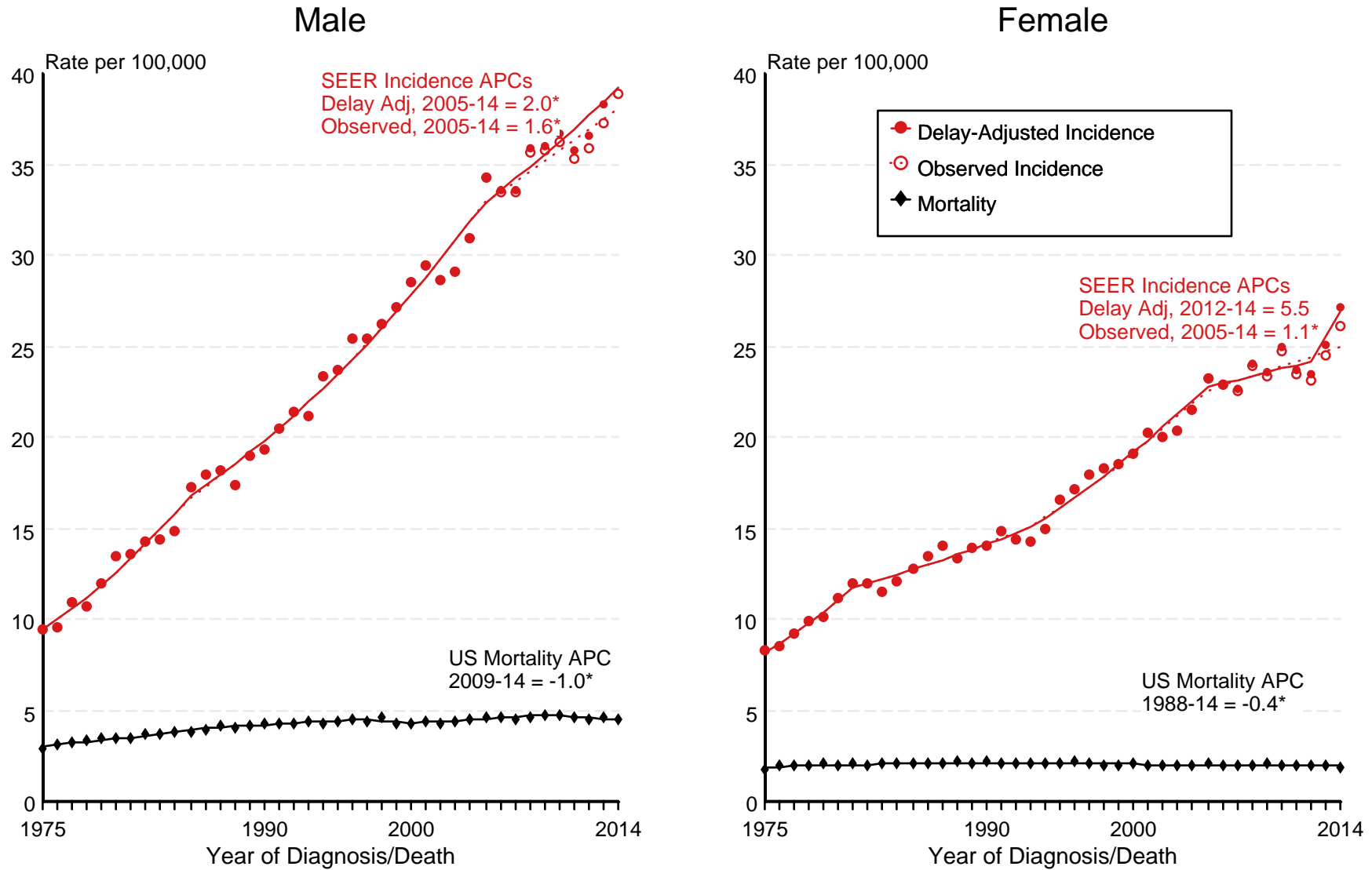
Estimated prevalence percent^a on January 1, 2014, of the SEER^c population diagnosed in the previous 22 years
By Age at Prevalence, Race/Ethnicity and Sex

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
<u>Race</u>	<u>Sex</u>											
All Races ^c	Both Sexes	0.2466%	0.0004%	0.0030%	0.0265%	0.0994%	0.2160%	0.3871%	0.6221%	0.9034%	1.0842%	0.2301%
	Males	0.2634%	0.0002%	0.0028%	0.0174%	0.0686%	0.1714%	0.3751%	0.7454%	1.2573%	1.7219%	0.2677%
	Females	0.2304%	0.0006%	0.0031%	0.0361%	0.1304%	0.2603%	0.3987%	0.5107%	0.6137%	0.6999%	0.2059%
White ^c	Both Sexes	0.3240%	0.0004%	0.0036%	0.0350%	0.1328%	0.2827%	0.4928%	0.7824%	1.1262%	1.3243%	0.2912%
	Males	0.3432%	0.0003%	0.0034%	0.0229%	0.0891%	0.2187%	0.4694%	0.9225%	1.5461%	2.0950%	0.3317%
	Females	0.3049%	0.0006%	0.0039%	0.0480%	0.1789%	0.3490%	0.5159%	0.6513%	0.7730%	0.8534%	0.2663%
Black ^c	Both Sexes	0.0072%	-	-	-	0.0031%	0.0065%	0.0112%	0.0175%	0.0421%	0.0595%	0.0086%
	Males	0.0069%	-	-	-	0.0021%	0.0049%	0.0106%	0.0209%	0.0525%	0.0895%	0.0100%
	Females	0.0074%	-	-	-	0.0040%	0.0079%	0.0118%	0.0149%	0.0349%	0.0446%	0.0080%
Asian/ Pacific Islander ^c	Both Sexes	0.0140%	0.0008%	0.0009%	0.0026%	0.0057%	0.0152%	0.0214%	0.0321%	0.0472%	0.0632%	0.0134%
	Males	0.0131%	-	-	0.0021%	0.0056%	0.0114%	0.0182%	0.0366%	0.0583%	0.0707%	0.0136%
	Females	0.0148%	-	-	0.0031%	0.0058%	0.0186%	0.0241%	0.0284%	0.0386%	0.0585%	0.0134%
Hispanic ^d	Both Sexes	0.0326%	0.0003%	0.0013%	0.0041%	0.0182%	0.0437%	0.0789%	0.1279%	0.1736%	0.2366%	0.0467%
	Males	0.0246%	-	0.0011%	0.0025%	0.0098%	0.0263%	0.0556%	0.1103%	0.1954%	0.3119%	0.0426%
	Females	0.0407%	-	0.0016%	0.0059%	0.0271%	0.0618%	0.1015%	0.1431%	0.1574%	0.1910%	0.0522%

- ^a US 2014 cancer prevalence counts are based on 2014 cancer prevalence proportions from the SEER registries and 1/1/2014 US population estimates based on the average of 2013 and 2014 population estimates from the US Bureau of the Census.
^{b c d} Prevalence was calculated using the first invasive tumor for each cancer site diagnosed during the previous 39/22 years. Statistics based on (b) SEER 9 Areas (c) SEER 13 Areas excluding the Alaska Native Registry
^e (d) NHIA for Hispanic for SEER 13 Areas excluding the Alaska Native Registry.
^f Maximum limited-duration prevalence: 39 years for 1975-2014 SEER 9 data; 22 years for 1992-2014 SEER 13 data (excluding the Alaska Native Registry) used to calculate prevalence for Hispanics and Asian Pacific Islanders.
^{g h i} Percentages are age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130) by 5-year age groups. (g) Cases diagnosed more than 39 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 <39 and >=39. (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 4.4, January 2017, 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.

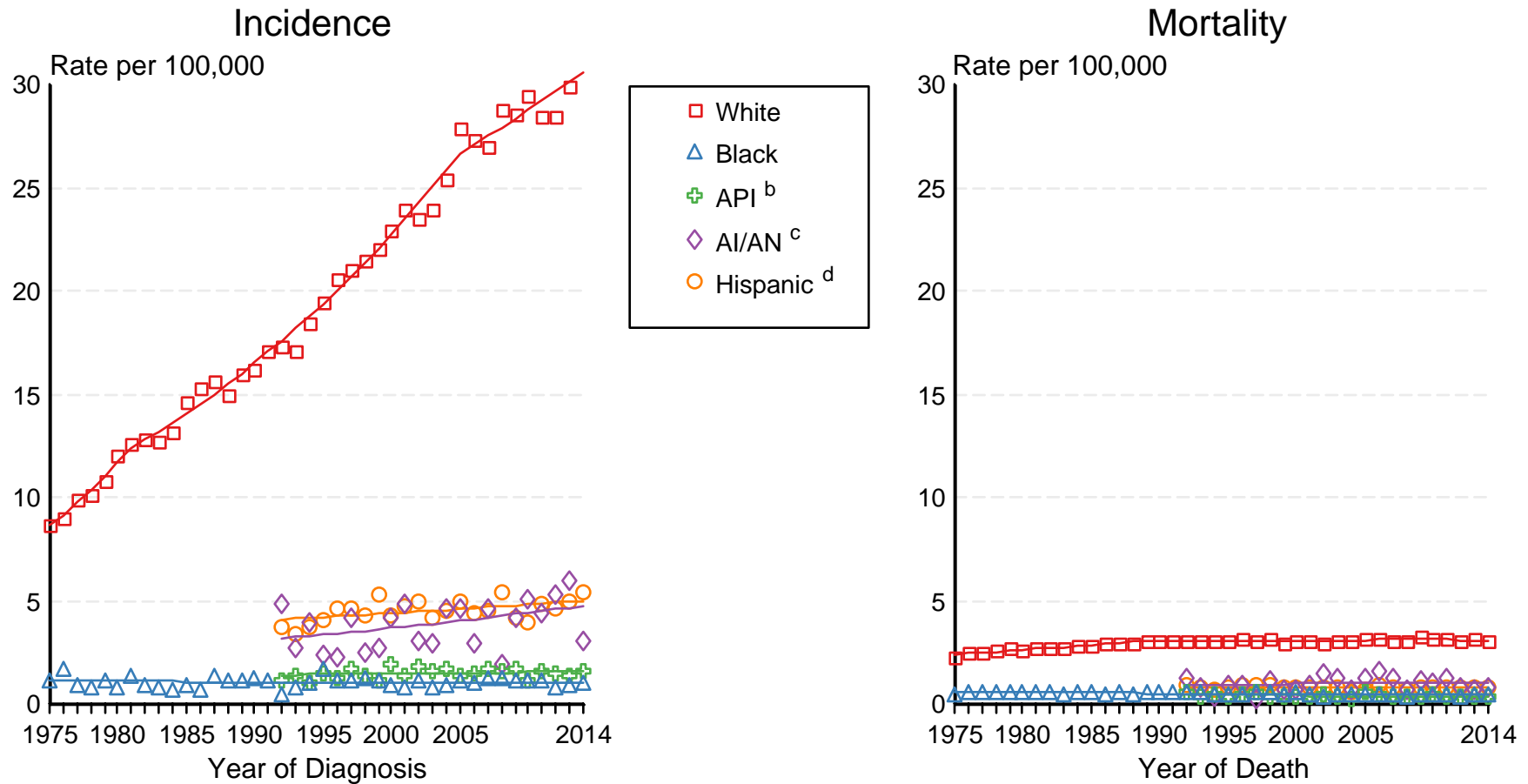
* The APC is significantly different from zero ($p < 0.05$).

Figure 16.2

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

Joinpoint Analyses for Whites and Blacks from 1975-2014

and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2014



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.

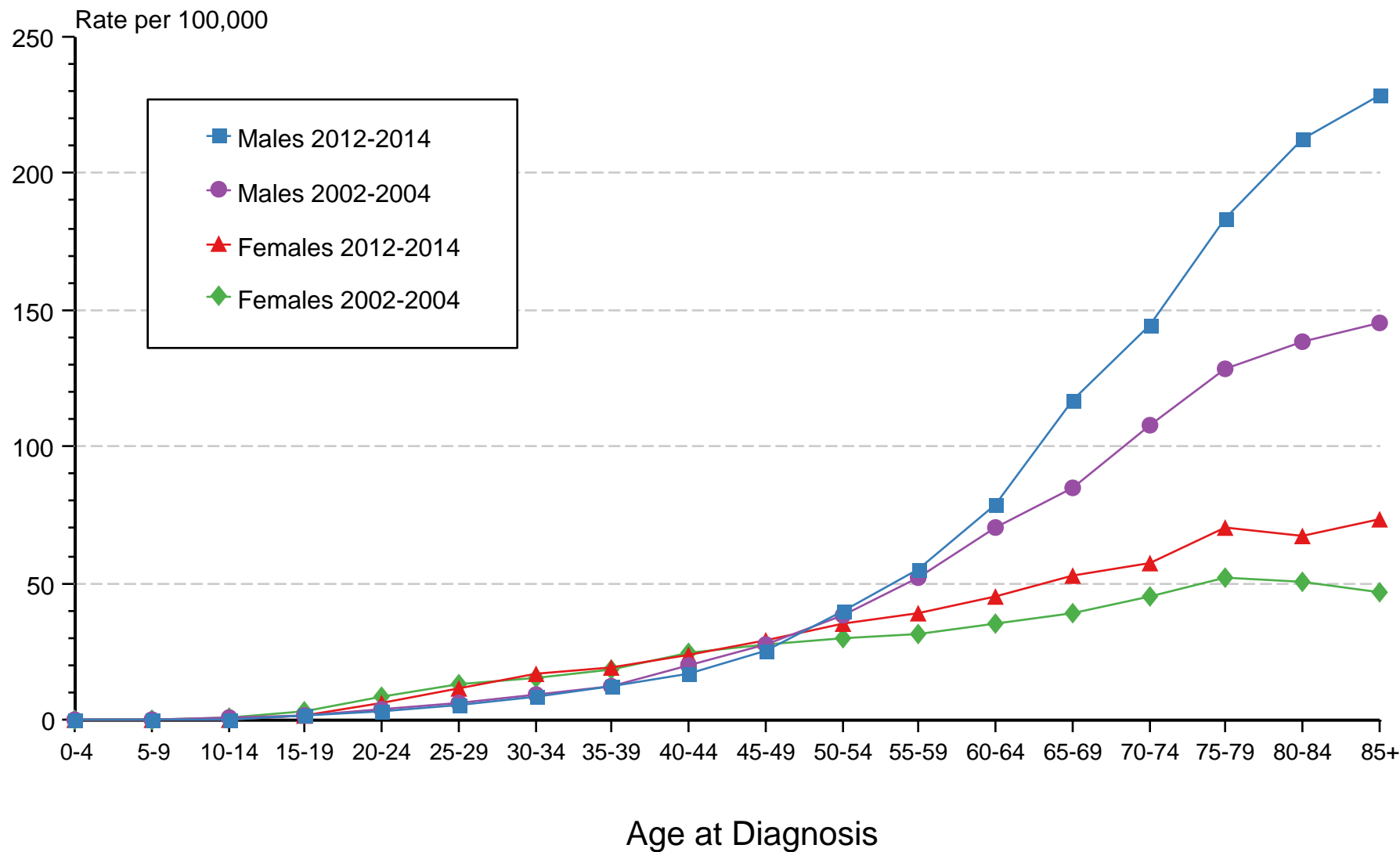
- ^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines are calculated using the Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2014 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2014 allow a maximum of 4 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 2002-2004 vs 2012-2014

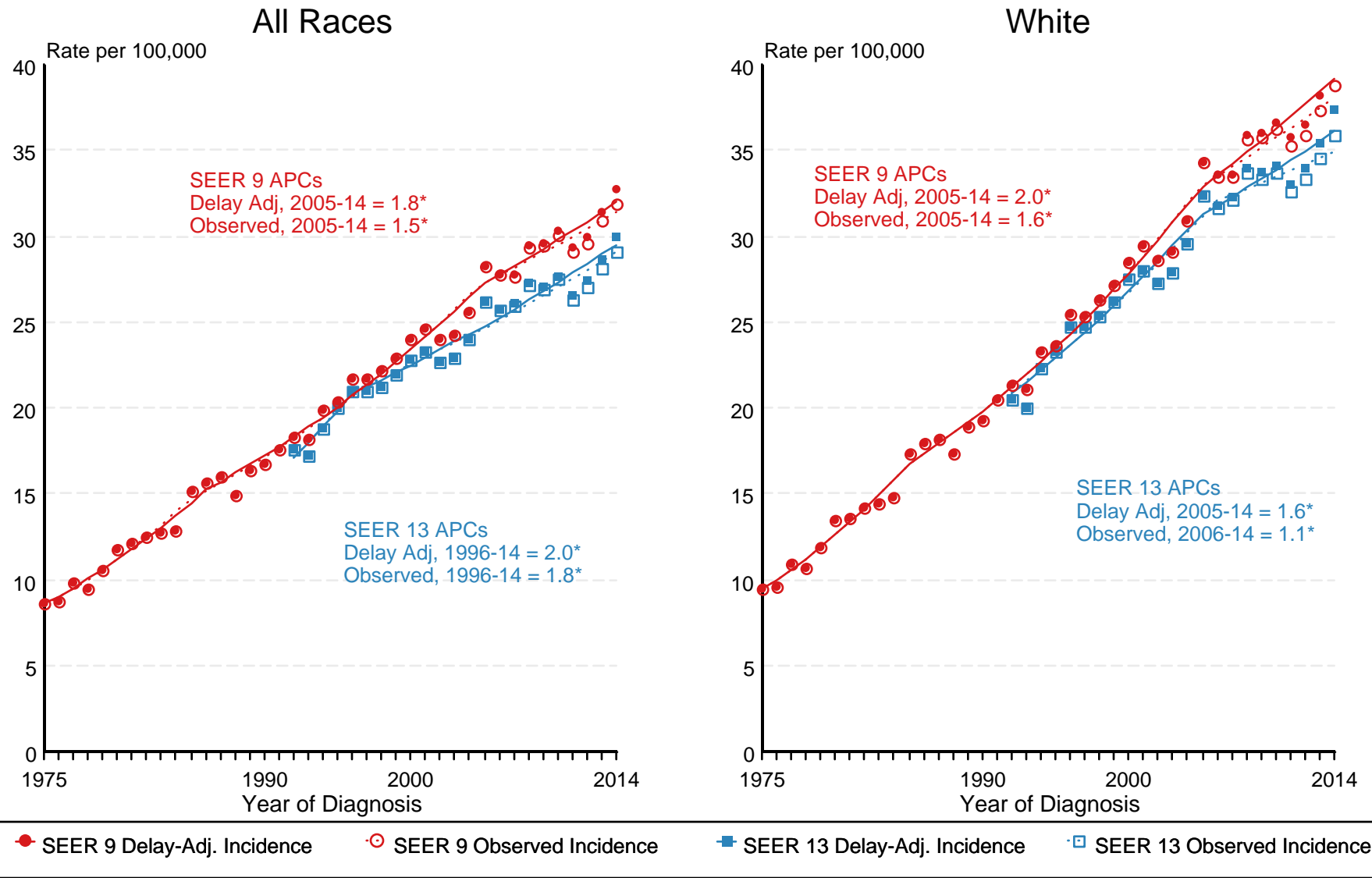
White, by Age and Sex



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).

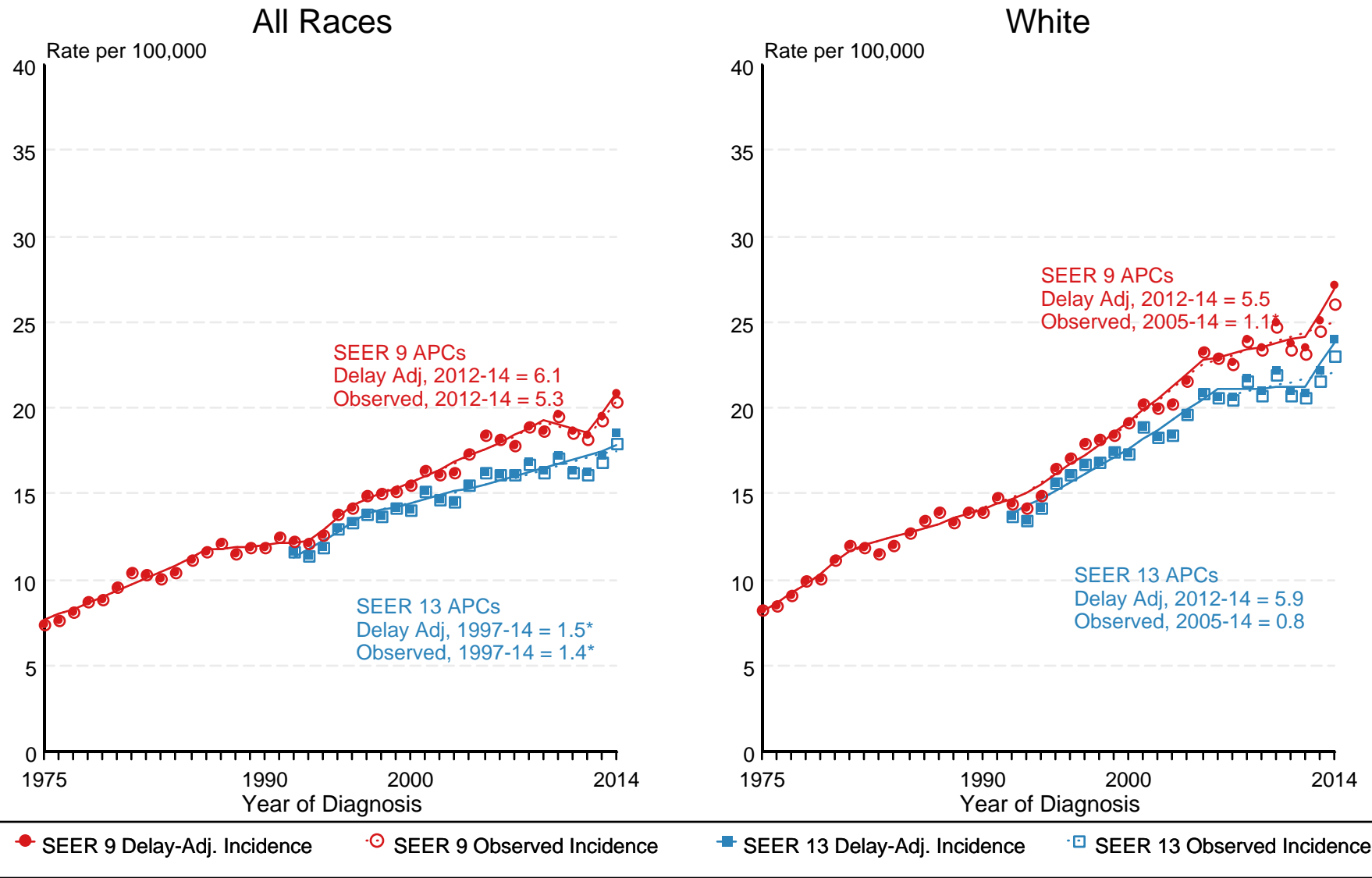
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.4, January 2017, National Cancer Institute.

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 4.4, January 2017, 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.

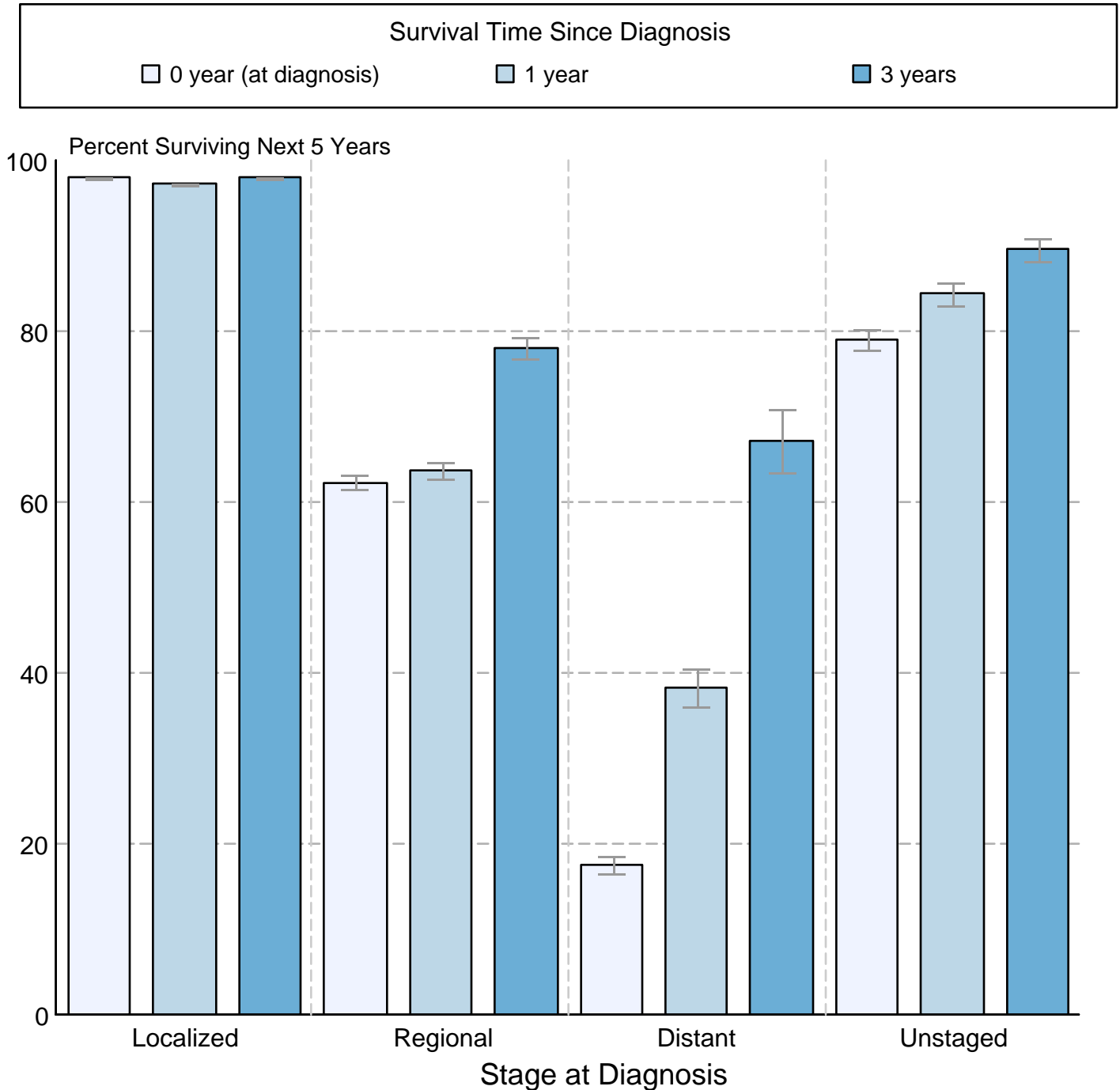
* The APC is significantly different from zero ($p < 0.05$).

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
1998-2013 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.