

Table 16.1  
Melanoma of the Skin (Invasive)

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2011 With up to Five Joinpoints, 1992-2011 With up to Three Joinpoints,  
Both Sexes by Race/Ethnicity

|  | JP Trend 1 |       | JP Trend 2 |      | JP Trend 3 |     | JP Trend 4 |     | JP Trend 5 |     | JP Trend 6 |     | AAPC <sup>d</sup> |         |
|--|------------|-------|------------|------|------------|-----|------------|-----|------------|-----|------------|-----|-------------------|---------|
|  | Years      | APC   | Years      | APC  | Years      | APC | Years      | APC | Years      | APC | Years      | APC | 2002-11           | 2007-11 |
| <u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2011</u>  |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| All Races  | 1975-85    | 4.7*  | 1985-11    | 2.6* |            |     |            |     |            |     |            |     | 2.6*              | 2.6*    |
| White  | 1975-81    | 6.3*  | 1981-06    | 3.2* | 2006-11    | 1.3 |            |     |            |     |            |     | 2.1*              | 1.3     |
| Black  | -          | -     |            |      |            |     |            |     |            |     |            |     | -                 | -       |
| <u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2011</u> |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| All Races  | 1992-96    | 4.8*  | 1996-11    | 1.8* |            |     |            |     |            |     |            |     | 1.8*              | 1.8*    |
| White  | 1992-08    | 2.9*  | 2008-11    | -0.9 |            |     |            |     |            |     |            |     | 1.6*              | 0.1     |
| Black  | -          | -     |            |      |            |     |            |     |            |     |            |     | -                 | -       |
| <u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2011</u>        |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| All Races  | 1975-81    | 6.0*  | 1981-06    | 2.9* | 2006-11    | 1.0 |            |     |            |     |            |     | 1.8*              | 1.0     |
| White  | 1975-81    | 6.3*  | 1981-06    | 3.2* | 2006-11    | 0.9 |            |     |            |     |            |     | 1.9*              | 0.9     |
| Black  | 1975-11    | 0.0   |            |      |            |     |            |     |            |     |            |     | 0.0               | 0.0     |
| <u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2011</u>       |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| All Races  | 1992-96    | 4.8*  | 1996-11    | 1.8* |            |     |            |     |            |     |            |     | 1.8*              | 1.8*    |
| White  | 1992-08    | 2.9*  | 2008-11    | -1.5 |            |     |            |     |            |     |            |     | 1.4*              | -0.4    |
| White NH <sup>ef</sup>   | 1992-06    | 3.5*  | 2006-11    | 0.7  |            |     |            |     |            |     |            |     | 1.9*              | 0.7     |
| Black  | 1992-95    | 37.1* | 1995-01    | -8.0 | 2001-11    | 1.9 |            |     |            |     |            |     | 1.9               | 1.9     |
| Black NH <sup>ef</sup>   | 1992-95    | 37.0* | 1995-01    | -8.1 | 2001-11    | 2.2 |            |     |            |     |            |     | 2.2               | 2.2     |
| API <sup>e</sup>   | 1992-11    | 0.7   |            |      |            |     |            |     |            |     |            |     | 0.7               | 0.7     |
| AI/AN <sup>eg</sup>  | 1992-11    | 1.0   |            |      |            |     |            |     |            |     |            |     | 1.0               | 1.0     |
| Hispanic <sup>f</sup>  | 1992-11    | 0.6   |            |      |            |     |            |     |            |     |            |     | 0.6               | 0.6     |
| <u>U.S. Cancer Mortality<sup>c</sup>, 1975-2011</u>            |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| All Races  |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| White  |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| Black  |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| <u>U.S. Cancer Mortality<sup>c</sup>, 1992-2011</u>            |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| All Races  |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| White  |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| White NH <sup>ef</sup>   |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| Black  |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| Black NH <sup>ef</sup>   |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| API <sup>e</sup>   |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| AI/AN <sup>eg</sup>  |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |
| Hispanic <sup>f</sup>  |            |       |            |      |            |     |            |     |            |     |            |     |                   |         |

Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. (<http://surveillance.cancer.gov/joinpoint/>).

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

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

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

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

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

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

Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska

Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

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

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

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

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

Table 16.2  
Melanoma of the Skin (Invasive)

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2011 With up to Five Joinpoints, 1992-2011 With up to Three Joinpoints,  
Males by Race/Ethnicity

|  | JP Trend 1 |       | JP Trend 2 |       | JP Trend 3 |      | JP Trend 4 |     | JP Trend 5 |     | JP Trend 6 |     | AAPC <sup>d</sup> |         |
|--|------------|-------|------------|-------|------------|------|------------|-----|------------|-----|------------|-----|-------------------|---------|
|  | Years      | APC   | Years      | APC   | Years      | APC  | Years      | APC | Years      | APC | Years      | APC | 2002-11           | 2007-11 |
| <u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2011</u>  |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| All Races  | 1975-86    | 5.7*  | 1986-11    | 2.9*  |            |      |            |     |            |     |            |     | 2.9*              | 2.9*    |
| White  | 1975-86    | 5.8*  | 1986-08    | 3.3*  | 2008-11    | 0.0  |            |     |            |     |            |     | 2.2*              | 0.8     |
| Black  | -          | -     |            |       |            |      |            |     |            |     |            |     | -                 | -       |
| <u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2011</u> |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| All Races  | 1992-11    | 2.3*  |            |       |            |      |            |     |            |     |            |     | 2.3*              | 2.3*    |
| White  | 1992-08    | 3.0*  | 2008-11    | -0.8  |            |      |            |     |            |     |            |     | 1.8*              | 0.2     |
| Black  | -          | -     |            |       |            |      |            |     |            |     |            |     | -                 | -       |
| <u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2011</u>        |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| All Races  | 1975-86    | 5.5*  | 1986-08    | 3.0*  | 2008-11    | -0.2 |            |     |            |     |            |     | 1.9*              | 0.6     |
| White  | 1975-86    | 5.7*  | 1986-08    | 3.3*  | 2008-11    | -0.6 |            |     |            |     |            |     | 2.0*              | 0.4     |
| Black  | 1975-11    | 0.0   |            |       |            |      |            |     |            |     |            |     | 0.0               | 0.0     |
| <u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2011</u>       |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| All Races  | 1992-08    | 2.6*  | 2008-11    | -0.8  |            |      |            |     |            |     |            |     | 1.4*              | 0.1     |
| White  | 1992-08    | 3.0*  | 2008-11    | -1.4  |            |      |            |     |            |     |            |     | 1.5*              | -0.3    |
| White NH <sup>ef</sup>   | 1992-08    | 3.4*  | 2008-11    | -1.1  |            |      |            |     |            |     |            |     | 1.9*              | 0.0     |
| Black  | 1992-95    | 75.1* | 1995-04    | -7.8* | 2004-11    | 3.2  |            |     |            |     |            |     | 0.6               | 3.2     |
| Black NH <sup>ef</sup>   | 1992-95    | 75.7* | 1995-04    | -7.6* | 2004-11    | 3.1  |            |     |            |     |            |     | 0.6               | 3.1     |
| API <sup>e</sup>   | 1992-11    | 1.4   |            |       |            |      |            |     |            |     |            |     | 1.4               | 1.4     |
| AI/AN <sup>eg</sup>  | 1992-11    | 1.4   |            |       |            |      |            |     |            |     |            |     | 1.4               | 1.4     |
| Hispanic <sup>f</sup>  | 1992-11    | 1.2*  |            |       |            |      |            |     |            |     |            |     | 1.2*              | 1.2*    |
| <u>U.S. Cancer Mortality<sup>c</sup>, 1975-2011</u>            |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| All Races  |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| White  |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| Black  |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| <u>U.S. Cancer Mortality<sup>c</sup>, 1992-2011</u>            |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| All Races  |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| White  |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| White NH <sup>ef</sup>   |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| Black  |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| Black NH <sup>ef</sup>   |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| API <sup>e</sup>   |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| AI/AN <sup>eg</sup>  |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |
| Hispanic <sup>f</sup>  |            |       |            |       |            |      |            |     |            |     |            |     |                   |         |

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

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

<sup>c</sup> Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

<sup>d</sup> The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

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

<sup>f</sup> Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska

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

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

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

Table 16.3  
Melanoma of the Skin (Invasive)

Trends in SEER Incidence<sup>ab</sup> and U.S. Mortality<sup>c</sup> Using the Joinpoint Regression Program,  
1975-2011 With up to Five Joinpoints, 1992-2011 With up to Three Joinpoints,  
Females by Race/Ethnicity

|  | JP Trend 1 |      | JP Trend 2 |      | JP Trend 3 |      | JP Trend 4 |     | JP Trend 5 |     | JP Trend 6 |     | AAPC <sup>d</sup> |         |
|--|------------|------|------------|------|------------|------|------------|-----|------------|-----|------------|-----|-------------------|---------|
|  | Years      | APC  | Years      | APC  | Years      | APC  | Years      | APC | Years      | APC | Years      | APC | 2002-11           | 2007-11 |
| <u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2011</u>  |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| All Races  | 1975-81    | 5.1* | 1981-11    | 2.3* |            |      |            |     |            |     |            |     | 2.3*              | 2.3*    |
| White  | 1975-81    | 6.2* | 1981-93    | 2.2* | 1993-05    | 3.5* | 2005-11    | 1.1 |            |     |            |     | 1.9*              | 1.1     |
| Black  | -          | -    |            |      |            |      |            |     |            |     |            |     | -                 | -       |
| <u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2011</u> |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| All Races  | 1992-97    | 4.1* | 1997-11    | 1.5* |            |      |            |     |            |     |            |     | 1.5*              | 1.5*    |
| White  | 1992-05    | 3.1* | 2005-11    | 0.7  |            |      |            |     |            |     |            |     | 1.5*              | 0.7     |
| Black  | -          | -    |            |      |            |      |            |     |            |     |            |     | -                 | -       |
| <u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2011</u>        |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| All Races  | 1975-80    | 5.5* | 1980-08    | 2.4* | 2008-11    | -0.1 |            |     |            |     |            |     | 1.6*              | 0.5     |
| White  | 1975-81    | 6.2* | 1981-93    | 2.1* | 1993-05    | 3.4* | 2005-11    | 0.8 |            |     |            |     | 1.7*              | 0.8     |
| Black  | 1975-11    | -0.1 |            |      |            |      |            |     |            |     |            |     | -0.1              | -0.1    |
| <u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2011</u>       |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| All Races  | 1992-97    | 4.1* | 1997-11    | 1.4* |            |      |            |     |            |     |            |     | 1.4*              | 1.4*    |
| White  | 1992-05    | 3.1* | 2005-11    | 0.4  |            |      |            |     |            |     |            |     | 1.3*              | 0.4     |
| White NH <sup>ef</sup>   | 1992-06    | 3.5* | 2006-11    | 0.4  |            |      |            |     |            |     |            |     | 1.8*              | 0.4     |
| Black  | 1992-11    | 0.5  |            |      |            |      |            |     |            |     |            |     | 0.5               | 0.5     |
| Black NH <sup>ef</sup>   | 1992-11    | 0.6  |            |      |            |      |            |     |            |     |            |     | 0.6               | 0.6     |
| API <sup>e</sup>   | 1992-11    | 0.1  |            |      |            |      |            |     |            |     |            |     | 0.1               | 0.1     |
| AI/AN <sup>eg</sup>  | 1992-11    | 0.8  |            |      |            |      |            |     |            |     |            |     | 0.8               | 0.8     |
| Hispanic <sup>f</sup>  | 1992-11    | 0.3  |            |      |            |      |            |     |            |     |            |     | 0.3               | 0.3     |
| <u>U.S. Cancer Mortality<sup>c</sup>, 1975-2011</u>            |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| All Races  |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| White  |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| Black  |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| <u>U.S. Cancer Mortality<sup>c</sup>, 1992-2011</u>            |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| All Races  |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| White  |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| White NH <sup>ef</sup>   |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| Black  |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| Black NH <sup>ef</sup>   |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| API <sup>e</sup>   |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| AI/AN <sup>eg</sup>  |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |
| Hispanic <sup>f</sup>  |            |      |            |      |            |      |            |     |            |     |            |     |                   |         |

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

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

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

<sup>c</sup> Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.

<sup>d</sup> The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.

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

<sup>f</sup> Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska

Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

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

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

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

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

Table 16.4  
Melanoma of the Skin (Invasive)

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

| Year of Diagnosis: | All Races |       |         | Whites |       |         |
|--------------------|-----------|-------|---------|--------|-------|---------|
|                    | Total     | Males | Females | Total  | Males | Females |
| 1975               | 7.89      | 8.54  | 7.44    | 8.70   | 9.40  | 8.22    |
| 1976               | 8.15      | 8.67  | 7.69    | 9.00   | 9.54  | 8.53    |
| 1977               | 8.86      | 9.78  | 8.15    | 9.87   | 10.85 | 9.14    |
| 1978               | 8.95      | 9.48  | 8.72    | 10.12  | 10.71 | 9.93    |
| 1979               | 9.55      | 10.56 | 8.91    | 10.79  | 11.93 | 10.10   |
| 1980               | 10.51     | 11.80 | 9.63    | 12.03  | 13.41 | 11.11   |
| 1981               | 11.09     | 12.09 | 10.44   | 12.57  | 13.55 | 12.00   |
| 1982               | 11.19     | 12.51 | 10.28   | 12.81  | 14.21 | 11.88   |
| 1983               | 11.09     | 12.66 | 10.03   | 12.66  | 14.42 | 11.50   |
| 1984               | 11.41     | 12.92 | 10.43   | 13.12  | 14.84 | 12.04   |
| 1985               | 12.79     | 15.18 | 11.16   | 14.55  | 17.28 | 12.73   |
| 1986               | 13.32     | 15.69 | 11.62   | 15.26  | 17.92 | 13.40   |
| 1987               | 13.68     | 15.94 | 12.17   | 15.67  | 18.19 | 14.02   |
| 1988               | 12.89     | 14.97 | 11.48   | 14.98  | 17.41 | 13.36   |
| 1989               | 13.75     | 16.39 | 11.93   | 15.98  | 18.98 | 13.94   |
| 1990               | 13.87     | 16.69 | 11.86   | 16.24  | 19.40 | 14.02   |
| 1991               | 14.64     | 17.62 | 12.55   | 17.19  | 20.57 | 14.85   |
| 1992               | 14.80     | 18.35 | 12.23   | 17.32  | 21.37 | 14.43   |
| 1993               | 14.65     | 18.21 | 12.09   | 17.15  | 21.14 | 14.29   |
| 1994               | 15.68     | 19.87 | 12.64   | 18.50  | 23.37 | 14.97   |
| 1995               | 16.49     | 20.30 | 13.83   | 19.45  | 23.64 | 16.59   |
| 1996               | 17.38     | 21.76 | 14.22   | 20.62  | 25.51 | 17.11   |
| 1997               | 17.77     | 21.75 | 14.89   | 21.07  | 25.39 | 18.02   |
| 1998               | 17.97     | 22.20 | 15.03   | 21.57  | 26.36 | 18.28   |
| 1999               | 18.34     | 22.96 | 15.12   | 22.07  | 27.22 | 18.50   |
| 2000               | 19.00     | 23.95 | 15.55   | 23.00  | 28.52 | 19.21   |
| 2001               | 19.73     | 24.62 | 16.32   | 24.07  | 29.52 | 20.30   |
| 2002               | 19.37     | 24.06 | 16.15   | 23.54  | 28.71 | 20.06   |
| 2003               | 19.60     | 24.30 | 16.28   | 23.97  | 29.15 | 20.36   |
| 2004               | 20.75     | 25.62 | 17.37   | 25.45  | 31.07 | 21.58   |
| 2005               | 22.54     | 28.27 | 18.51   | 27.94  | 34.39 | 23.40   |
| 2006               | 22.20     | 27.85 | 18.16   | 27.42  | 33.68 | 22.97   |
| 2007               | 21.90     | 27.74 | 17.86   | 27.10  | 33.66 | 22.58   |
| 2008               | 23.30     | 29.46 | 18.96   | 28.90  | 35.84 | 24.01   |
| 2009               | 23.15     | 29.52 | 18.61   | 28.65  | 35.87 | 23.46   |
| 2010               | 24.02     | 30.19 | 19.66   | 29.71  | 36.48 | 24.95   |
| 2011               | 23.21     | 29.51 | 18.73   | 28.62  | 35.72 | 23.54   |

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/>.

<sup>a</sup> SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta). Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

- Delay-adjusted rate is not shown for observed rates based on less than 16 cases for the time interval.

Table 16.5  
Melanoma of the Skin (Invasive)

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

| Year of Diagnosis: | All Races |       |         | Whites |       |         | Blacks |       |         |
|--------------------|-----------|-------|---------|--------|-------|---------|--------|-------|---------|
|                    | Total     | Males | Females | Total  | Males | Females | Total  | Males | Females |
| 1975-2011          | 16.62     | 20.57 | 13.96   | 19.59  | 24.01 | 16.64   | 1.02   | 1.20  | 0.91    |
| 1975               | 7.89      | 8.54  | 7.44    | 8.70   | 9.40  | 8.22    | -      | -     | -       |
| 1976               | 8.15      | 8.67  | 7.69    | 9.00   | 9.54  | 8.53    | 1.69   | -     | -       |
| 1977               | 8.86      | 9.78  | 8.15    | 9.87   | 10.85 | 9.14    | -      | -     | -       |
| 1978               | 8.95      | 9.48  | 8.72    | 10.12  | 10.71 | 9.93    | -      | -     | -       |
| 1979               | 9.55      | 10.56 | 8.91    | 10.79  | 11.93 | 10.10   | -      | -     | -       |
| 1980               | 10.51     | 11.80 | 9.63    | 12.03  | 13.41 | 11.11   | -      | -     | -       |
| 1981               | 11.09     | 12.09 | 10.44   | 12.57  | 13.55 | 12.00   | 1.35   | -     | -       |
| 1982               | 11.19     | 12.51 | 10.27   | 12.81  | 14.20 | 11.88   | -      | -     | -       |
| 1983               | 11.09     | 12.66 | 10.03   | 12.64  | 14.41 | 11.49   | -      | -     | -       |
| 1984               | 11.40     | 12.92 | 10.42   | 13.10  | 14.82 | 12.02   | -      | -     | -       |
| 1985               | 12.78     | 15.18 | 11.15   | 14.52  | 17.24 | 12.71   | -      | -     | -       |
| 1986               | 13.31     | 15.69 | 11.61   | 15.23  | 17.88 | 13.37   | -      | -     | -       |
| 1987               | 13.67     | 15.93 | 12.16   | 15.63  | 18.14 | 13.99   | 1.30   | -     | -       |
| 1988               | 12.88     | 14.96 | 11.47   | 14.94  | 17.37 | 13.33   | 1.07   | -     | -       |
| 1989               | 13.73     | 16.37 | 11.92   | 15.92  | 18.91 | 13.89   | 1.13   | -     | -       |
| 1990               | 13.86     | 16.68 | 11.85   | 16.18  | 19.33 | 13.96   | 1.16   | -     | -       |
| 1991               | 14.63     | 17.60 | 12.54   | 17.12  | 20.49 | 14.79   | 1.10   | -     | -       |
| 1992               | 14.78     | 18.33 | 12.22   | 17.24  | 21.27 | 14.37   | -      | -     | -       |
| 1993               | 14.64     | 18.19 | 12.08   | 17.07  | 21.05 | 14.22   | -      | -     | -       |
| 1994               | 15.66     | 19.84 | 12.62   | 18.41  | 23.26 | 14.90   | 1.03   | -     | -       |
| 1995               | 16.47     | 20.28 | 13.81   | 19.36  | 23.53 | 16.51   | 1.73   | 3.08  | -       |
| 1996               | 17.36     | 21.73 | 14.20   | 20.52  | 25.39 | 17.03   | 1.11   | -     | -       |
| 1997               | 17.74     | 21.72 | 14.87   | 20.97  | 25.26 | 17.93   | 1.10   | -     | -       |
| 1998               | 17.94     | 22.16 | 15.01   | 21.47  | 26.23 | 18.19   | 1.19   | -     | -       |
| 1999               | 18.31     | 22.92 | 15.09   | 21.94  | 27.06 | 18.39   | 1.14   | -     | -       |
| 2000               | 18.96     | 23.90 | 15.52   | 22.85  | 28.34 | 19.09   | 0.83   | -     | -       |
| 2001               | 19.69     | 24.57 | 16.28   | 23.91  | 29.33 | 20.17   | 0.81   | -     | -       |
| 2002               | 19.32     | 24.00 | 16.11   | 23.38  | 28.51 | 19.92   | 1.11   | -     | -       |
| 2003               | 19.54     | 24.23 | 16.23   | 23.80  | 28.94 | 20.21   | 0.84   | -     | -       |
| 2004               | 20.68     | 25.53 | 17.31   | 25.25  | 30.83 | 21.41   | 0.82   | -     | -       |
| 2005               | 22.45     | 28.16 | 18.43   | 27.70  | 34.10 | 23.20   | 1.07   | -     | 1.03    |
| 2006               | 22.09     | 27.72 | 18.07   | 27.17  | 33.37 | 22.77   | 0.98   | -     | -       |
| 2007               | 21.78     | 27.58 | 17.76   | 26.83  | 33.33 | 22.36   | 1.16   | -     | -       |
| 2008               | 23.14     | 29.26 | 18.83   | 28.58  | 35.45 | 23.75   | 1.25   | 1.42  | -       |
| 2009               | 22.96     | 29.27 | 18.45   | 28.27  | 35.39 | 23.15   | 1.10   | 1.11  | 1.03    |
| 2010               | 23.77     | 29.88 | 19.46   | 29.18  | 35.83 | 24.50   | 1.04   | -     | 0.97    |
| 2011               | 22.74     | 28.92 | 18.35   | 27.79  | 34.69 | 22.86   | 1.03   | -     | 1.08    |

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

Table 16.7  
Melanoma of the Skin (Invasive)SEER Incidence<sup>a</sup> and U.S. Death<sup>b</sup> Rates, Age-Adjusted and Age-Specific Rates, by Race and Sex

|  | All Races |       |         | Whites |       |         | Blacks |       |         |
|--|-----------|-------|---------|--------|-------|---------|--------|-------|---------|
|  | Total     | Males | Females | Total  | Males | Females | Total  | Males | Females |
| <u>SEER Incidence</u>                  |           |       |         |        |       |         |        |       |         |
| <u>Age at Diagnosis</u>                |           |       |         |        |       |         |        |       |         |
| Age-Adjusted Rates, 2007-2011          |           |       |         |        |       |         |        |       |         |
| All ages                               | 21.3      | 27.7  | 16.7    | 25.2   | 32.3  | 20.0    | 1.0    | 1.0   | 1.0     |
| Under 65                               | 12.6      | 13.2  | 12.2    | 15.3   | 15.7  | 15.0    | 0.5    | 0.5   | 0.5     |
| 65 and over                            | 81.1      | 128.2 | 47.5    | 93.6   | 147.2 | 54.8    | 4.5    | 4.6   | 4.4     |
| All ages (IARC world std) <sup>c</sup> | 14.9      | 18.1  | 12.4    | 17.7   | 21.2  | 15.0    | 0.7    | 0.7   | 0.6     |
| Age-Specific Rates, 2007-2011          |           |       |         |        |       |         |        |       |         |
| <1                                     | -         | -     | -       | -      | -     | -       | -      | -     | -       |
| 1-4                                    | 0.1       | -     | -       | 0.1    | -     | -       | -      | -     | -       |
| 5-9                                    | 0.1       | -     | 0.2     | 0.1    | -     | 0.2     | -      | -     | -       |
| 10-14                                  | 0.3       | 0.3   | 0.3     | 0.4    | 0.3   | 0.4     | -      | -     | -       |
| 15-19                                  | 1.1       | 0.9   | 1.4     | 1.4    | 1.1   | 1.8     | -      | -     | -       |
| 20-24                                  | 3.6       | 2.1   | 5.2     | 4.6    | 2.7   | 6.5     | -      | -     | -       |
| 25-29                                  | 6.7       | 4.2   | 9.2     | 8.2    | 5.2   | 11.4    | -      | -     | -       |
| 30-34                                  | 9.3       | 7.3   | 11.3    | 11.5   | 8.8   | 14.3    | -      | -     | -       |
| 35-39                                  | 12.7      | 10.3  | 15.2    | 15.9   | 12.6  | 19.2    | 0.6    | -     | -       |
| 40-44                                  | 16.5      | 14.8  | 18.2    | 20.2   | 18.0  | 22.5    | 0.4    | -     | -       |
| 45-49                                  | 22.7      | 22.1  | 23.2    | 27.5   | 26.5  | 28.6    | 0.8    | -     | 0.8     |
| 50-54                                  | 29.5      | 32.4  | 26.8    | 35.1   | 38.2  | 32.1    | 1.2    | 1.2   | 1.2     |
| 55-59                                  | 37.3      | 46.3  | 28.8    | 44.6   | 54.8  | 34.7    | 1.5    | 1.6   | 1.5     |
| 60-64                                  | 49.6      | 66.3  | 34.3    | 58.2   | 77.1  | 40.3    | 2.3    | 2.8   | 2.0     |
| 65-69                                  | 63.9      | 89.6  | 41.3    | 74.9   | 104.0 | 48.7    | 3.4    | 4.2   | 2.8     |
| 70-74                                  | 75.2      | 112.8 | 44.0    | 88.3   | 131.9 | 51.4    | 3.9    | -     | 4.3     |
| 75-79                                  | 88.6      | 140.0 | 49.7    | 103.1  | 161.4 | 57.9    | 4.2    | 5.6   | 3.4     |
| 80-84                                  | 99.0      | 165.3 | 55.5    | 112.4  | 187.2 | 62.4    | 5.7    | -     | 6.4     |
| 85+                                    | 97.1      | 181.7 | 55.3    | 107.8  | 203.1 | 60.8    | 7.6    | -     | 8.0     |
| <u>U.S. Mortality</u>                  |           |       |         |        |       |         |        |       |         |
| <u>Age at Death</u>                    |           |       |         |        |       |         |        |       |         |
| Age-Adjusted Rates, 2007-2011          |           |       |         |        |       |         |        |       |         |
| All ages                               |           |       |         |        |       |         |        |       |         |
| Under 65                               |           |       |         |        |       |         |        |       |         |
| 65 and over                            |           |       |         |        |       |         |        |       |         |
| All ages (IARC world std) <sup>c</sup> |           |       |         |        |       |         |        |       |         |
| Age-Specific Rates, 2007-2011          |           |       |         |        |       |         |        |       |         |
| <1                                     |           |       |         |        |       |         |        |       |         |
| 1-4                                    |           |       |         |        |       |         |        |       |         |
| 5-9                                    |           |       |         |        |       |         |        |       |         |
| 10-14                                  |           |       |         |        |       |         |        |       |         |
| 15-19                                  |           |       |         |        |       |         |        |       |         |
| 20-24                                  |           |       |         |        |       |         |        |       |         |
| 25-29                                  |           |       |         |        |       |         |        |       |         |
| 30-34                                  |           |       |         |        |       |         |        |       |         |
| 35-39                                  |           |       |         |        |       |         |        |       |         |
| 40-44                                  |           |       |         |        |       |         |        |       |         |
| 45-49                                  |           |       |         |        |       |         |        |       |         |
| 50-54                                  |           |       |         |        |       |         |        |       |         |
| 55-59                                  |           |       |         |        |       |         |        |       |         |
| 60-64                                  |           |       |         |        |       |         |        |       |         |
| 65-69                                  |           |       |         |        |       |         |        |       |         |
| 70-74                                  |           |       |         |        |       |         |        |       |         |
| 75-79                                  |           |       |         |        |       |         |        |       |         |
| 80-84                                  |           |       |         |        |       |         |        |       |         |
| 85+                                    |           |       |         |        |       |         |        |       |         |

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

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

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

- 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 <sup>a</sup>                                     | -                 | -                 | -                 | 60                | 51                | 68                | -                 | -                 | -                 |
| 1970-1973 <sup>a</sup>                                     | -                 | -                 | -                 | 68                | 62                | 75                | -                 | -                 | -                 |
| 1975-1977 <sup>b</sup>                                     | 81.9              | 77.5              | 86.3              | 82.0              | 77.7              | 86.2              | 56.7 <sup>g</sup> | -                 | -                 |
| 1978-1980 <sup>b</sup>                                     | 82.7              | 77.7              | 87.7              | 82.8              | 77.8              | 87.8              | 59.8 <sup>h</sup> | -                 | -                 |
| 1981-1983 <sup>b</sup>                                     | 82.7              | 78.3              | 87.2              | 82.7              | 78.4              | 87.1              | 61.9 <sup>g</sup> | -                 | -                 |
| 1984-1986 <sup>b</sup>                                     | 86.6              | 82.5              | 91.0              | 86.3              | 82.2              | 90.9              | 70.0 <sup>h</sup> | -                 | -                 |
| 1987-1989 <sup>b</sup>                                     | 88.0              | 84.8              | 91.5              | 87.9              | 84.7              | 91.3              | 78.6 <sup>g</sup> | -                 | 89.5 <sup>g</sup> |
| 1990-1992 <sup>b</sup>                                     | 89.2              | 86.9              | 91.7              | 89.2              | 86.9              | 91.7              | 59.6 <sup>g</sup> | -                 | -                 |
| 1993-1995 <sup>b</sup>                                     | 89.7              | 87.2              | 92.6              | 89.5              | 87.0              | 92.6              | 70.2 <sup>g</sup> | 65.3 <sup>g</sup> | 69.7 <sup>h</sup> |
| 1996-1998 <sup>b</sup>                                     | 90.9              | 89.5              | 92.7              | 90.8              | 89.2              | 92.7              | 73.9 <sup>g</sup> | 68.0 <sup>h</sup> | 78.6 <sup>g</sup> |
| 1999-2003 <sup>b</sup>                                     | 92.6              | 90.5              | 95.0              | 92.6              | 90.5              | 95.0              | 72.6 <sup>g</sup> | 73.7 <sup>g</sup> | 71.4 <sup>g</sup> |
| 2004-2010 <sup>b</sup>                                     | 92.9 <sup>f</sup> | 91.1 <sup>f</sup> | 95.0 <sup>f</sup> | 92.9 <sup>f</sup> | 91.1 <sup>f</sup> | 95.0 <sup>f</sup> | 75.1              | 64.6 <sup>g</sup> | 81.2 <sup>g</sup> |
| 5-Year Period Survival (Percent) <sup>cd</sup>             |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| 2010   | 91.3              | 89.3              | 93.9              | 90.9              | 88.8              | 93.7              | 72.9              | 71.0              | 73.5              |
| Stage Distribution (%) 2004-2010 <sup>ce</sup>             |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| All Stages   |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Number of cases  | 94,428            | 52,677            | 41,751            | 88,463            | 49,628            | 38,835            | 462               | 196               | 266               |
| Percent  | 100%              | 100%              | 100%              | 100%              | 100%              | 100%              | 100%              | 100%              | 100%              |
| Localized  | 84                | 82                | 86                | 84                | 82                | 86                | 55                | 46                | 62                |
| Regional   | 9                 | 10                | 7                 | 9                 | 10                | 8                 | 26                | 28                | 24                |
| Distant  | 4                 | 5                 | 3                 | 4                 | 5                 | 3                 | 14                | 20                | 10                |
| Unstaged   | 3                 | 3                 | 3                 | 3                 | 3                 | 3                 | 5                 | 6                 | 4                 |
| 5-Year Relative Survival (Percent), 2004-2010 <sup>c</sup> |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Age at Diagnosis:  |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| Ages <45   | 94.5              | 91.3              | 96.7              | 94.4              | 91.1              | 96.7              | 82.9              | 62.7 <sup>h</sup> | 90.7              |
| Ages 45-54   | 92.6              | 90.3              | 95.3              | 92.4              | 90.0              | 95.2              | 66.7 <sup>g</sup> | 59.3 <sup>h</sup> | 72.0 <sup>g</sup> |
| Ages 55-64   | 91.0              | 89.2              | 94.0              | 90.5              | 88.7              | 93.7              | 73.4 <sup>g</sup> | 63.7 <sup>g</sup> | 84.9 <sup>g</sup> |
| Ages 65-74   | 90.5              | 89.2              | 92.9              | 90.4              | 89.0              | 92.8              | 59.4 <sup>g</sup> | 51.0 <sup>g</sup> | 65.9 <sup>g</sup> |
| Ages 75+   | 85.6              | 86.3              | 84.7              | 85.2              | 85.8              | 84.2              | 64.8 <sup>g</sup> | 63.7 <sup>h</sup> | 62.7 <sup>h</sup> |
| Ages <65   | 92.7              | 90.1              | 95.6              | 92.4              | 89.7              | 95.4              | 75.4              | 62.4 <sup>g</sup> | 84.2              |
| Ages 65+   | 88.2              | 87.9              | 88.7              | 87.9              | 87.6              | 88.5              | 63.6 <sup>g</sup> | 58.3 <sup>g</sup> | 64.2 <sup>g</sup> |
| Stage <sup>e</sup> :                                       |                   |                   |                   |                   |                   |                   |                   |                   |                   |
| All Stages   | 91.3              | 89.3              | 93.7              | 91.0              | 89.0              | 93.5              | 71.1              | 60.8              | 76.9              |
| Localized  | 98.1              | 97.6              | 98.7              | 98.0              | 97.4              | 98.6              | 91.1              | 87.7 <sup>g</sup> | 91.2              |
| Regional   | 62.6              | 59.5              | 67.7              | 62.6              | 59.8              | 67.7              | 56.4 <sup>g</sup> | 49.2 <sup>g</sup> | 62.3 <sup>g</sup> |
| Distant  | 16.1              | 14.7              | 18.9              | 16.1              | 14.8              | 18.9              | 16.1 <sup>g</sup> | 14.7 <sup>g</sup> | -                 |
| Unstaged   | 78.4              | 75.5              | 81.9              | 77.3              | 74.5              | 80.9              | -                 | -                 | -                 |

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

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

Based on follow-up of patients into 2011.

<sup>c</sup> SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).

Based on follow-up of patients into 2011.

<sup>d</sup> Period survival provides a 2010 estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2007-2009: 0-1 year survival), (2006-2008: 1-2 year survival), (2005-2007: 2-3 year survival), (2004-2006: 3-4 year survival), (2003-2005: 4-5 years survival).

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

<sup>f</sup> The difference between 1975-1977 and 2004-2010 is statistically significant ( $p < .05$ ).

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

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

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

Table 16.9  
 Melanoma of the Skin (Invasive)  
 SEER<sup>a</sup> Relative Survival (Percent)  
 By Year of Diagnosis

All Races, Males and Females

Year of Diagnosis

|               | 1975-<br>1979 | 1980-<br>1984 | 1985-<br>1989 | 1990-<br>1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---------------|---------------|---------------|---------------|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Survival Time |               |               |               |               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 1-year        | 94.2          | 95.6          | 96.3          | 96.7          | 97.3 | 97.6 | 96.6 | 96.6 | 97.6 | 97.9 | 97.4 | 97.9 | 97.7 | 97.7 | 97.9 | 97.6 | 97.8 | 97.8 | 98.1 | 97.6 |
| 2-year        | 89.8          | 91.6          | 93.2          | 93.8          | 94.2 | 95.7 | 94.3 | 94.4 | 95.5 | 96.2 | 95.5 | 95.5 | 96.1 | 96.2 | 96.3 | 96.1 | 96.2 | 95.7 | 95.8 |      |
| 3-year        | 86.1          | 88.0          | 90.7          | 91.9          | 92.6 | 93.8 | 92.2 | 92.7 | 94.0 | 94.5 | 94.1 | 94.3 | 94.9 | 94.6 | 95.0 | 94.6 | 94.6 | 94.5 |      |      |
| 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 | 93.6 | 94.2 | 93.7 | 93.9 |      |      |      |
| 5-year        | 82.0          | 83.5          | 87.7          | 89.3          | 90.1 | 92.2 | 89.8 | 90.9 | 92.3 | 92.1 | 92.1 | 92.9 | 93.2 | 93.1 | 93.1 | 92.8 |      |      |      |      |
| 6-year        | 80.2          | 82.2          | 86.5          | 88.4          | 90.0 | 91.5 | 89.3 | 90.3 | 91.6 | 91.8 | 91.4 | 92.6 | 92.4 | 93.1 | 92.8 |      |      |      |      |      |
| 7-year        | 78.9          | 81.6          | 85.8          | 87.7          | 90.0 | 91.1 | 88.6 | 90.3 | 91.6 | 91.5 | 91.2 | 92.0 | 91.9 | 92.3 |      |      |      |      |      |      |
| 8-year        | 77.9          | 80.8          | 85.2          | 87.1          | 89.8 | 90.9 | 87.9 | 89.8 | 91.2 | 91.4 | 91.0 | 91.1 | 91.7 |      |      |      |      |      |      |      |
| 9-year        | 77.0          | 80.2          | 84.9          | 87.0          | 89.4 | 90.4 | 87.7 | 89.7 | 90.9 | 91.4 | 90.8 | 90.6 |      |      |      |      |      |      |      |      |
| 10-year       | 76.5          | 79.6          | 84.8          | 86.8          | 89.4 | 89.9 | 87.7 | 89.2 | 90.9 | 91.2 | 90.1 |      |      |      |      |      |      |      |      |      |
| 11-year       | 76.0          | 79.2          | 84.3          | 86.5          | 89.1 | 89.7 | 87.7 | 89.2 | 90.9 | 90.8 |      |      |      |      |      |      |      |      |      |      |
| 12-year       | 75.5          | 79.0          | 84.1          | 86.4          | 89.1 | 89.6 | 87.1 | 88.8 | 90.9 |      |      |      |      |      |      |      |      |      |      |      |
| 13-year       | 75.2          | 78.6          | 83.9          | 86.4          | 88.6 | 89.5 | 86.8 | 88.7 |      |      |      |      |      |      |      |      |      |      |      |      |
| 14-year       | 75.0          | 78.4          | 83.8          | 86.3          | 88.6 | 89.3 | 86.6 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 15-year       | 74.5          | 78.2          | 83.8          | 86.3          | 88.6 | 89.2 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 16-year       | 74.3          | 78.1          | 83.7          | 86.2          | 88.6 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 17-year       | 74.3          | 77.8          | 83.7          | 86.2          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 18-year       | 74.3          | 77.8          | 83.7          |               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 19-year       | 74.3          | 77.8          | 83.7          |               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 20-year       | 74.3          | 77.8          | 83.7          |               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

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

All Races, Males

Year of Diagnosis

|               | 1975-<br>1979 | 1980-<br>1984 | 1985-<br>1989 | 1990-<br>1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---------------|---------------|---------------|---------------|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Survival Time |               |               |               |               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 1-year        | 92.4          | 94.0          | 95.2          | 96.1          | 96.3 | 96.6 | 96.2 | 96.3 | 97.1 | 97.4 | 96.5 | 96.9 | 97.0 | 97.5 | 97.6 | 97.2 | 97.5 | 97.0 | 97.3 | 97.2 |
| 2-year        | 86.7          | 88.7          | 91.3          | 92.5          | 92.0 | 94.3 | 93.3 | 93.7 | 94.3 | 95.4 | 93.8 | 94.1 | 94.8 | 95.6 | 95.9 | 95.5 | 95.3 | 94.5 | 94.4 |      |
| 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 | 92.8 | 94.0 | 93.6 | 93.2 | 92.9 |      |      |
| 4-year        | 78.9          | 81.2          | 86.1          | 88.3          | 87.9 | 91.1 | 89.8 | 90.4 | 91.3 | 92.1 | 89.9 | 90.9 | 91.8 | 91.8 | 92.7 | 92.6 | 92.6 |      |      |      |
| 5-year        | 77.5          | 78.5          | 84.3          | 87.2          | 86.6 | 90.3 | 88.1 | 90.0 | 90.4 | 90.9 | 89.2 | 90.4 | 91.6 | 91.1 | 91.3 | 91.6 |      |      |      |      |
| 6-year        | 75.5          | 77.2          | 83.1          | 86.2          | 86.3 | 89.5 | 87.2 | 89.5 | 89.1 | 90.3 | 88.3 | 90.1 | 90.7 | 91.1 | 90.8 |      |      |      |      |      |
| 7-year        | 73.8          | 76.8          | 82.1          | 85.3          | 86.3 | 89.3 | 87.0 | 89.5 | 89.0 | 90.3 | 88.2 | 89.7 | 89.7 | 90.1 |      |      |      |      |      |      |
| 8-year        | 72.6          | 75.9          | 81.5          | 84.6          | 86.0 | 88.9 | 86.2 | 89.2 | 88.7 | 90.2 | 88.1 | 88.5 | 89.4 |      |      |      |      |      |      |      |
| 9-year        | 71.6          | 75.1          | 81.1          | 84.3          | 85.6 | 88.3 | 86.0 | 88.7 | 88.5 | 90.2 | 88.1 | 87.8 |      |      |      |      |      |      |      |      |
| 10-year       | 71.2          | 74.6          | 81.1          | 84.1          | 85.5 | 87.8 | 85.7 | 88.3 | 88.5 | 90.1 | 87.4 |      |      |      |      |      |      |      |      |      |
| 11-year       | 70.3          | 74.3          | 80.9          | 83.8          | 85.5 | 87.7 | 85.7 | 88.2 | 88.5 | 89.4 |      |      |      |      |      |      |      |      |      |      |
| 12-year       | 69.8          | 74.1          | 80.7          | 83.7          | 85.5 | 87.7 | 84.8 | 87.5 | 88.5 |      |      |      |      |      |      |      |      |      |      |      |
| 13-year       | 69.4          | 73.8          | 80.7          | 83.7          | 85.5 | 87.7 | 84.8 | 87.4 |      |      |      |      |      |      |      |      |      |      |      |      |
| 14-year       | 69.4          | 73.4          | 80.2          | 83.5          | 85.5 | 87.7 | 84.2 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 15-year       | 69.2          | 73.4          | 80.1          | 83.5          | 85.5 | 87.7 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 16-year       | 68.9          | 73.4          | 79.8          | 83.5          | 85.2 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 17-year       | 68.9          | 73.4          | 79.8          | 83.5          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 18-year       | 68.9          | 73.4          | 79.8          |               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 19-year       | 68.9          | 73.4          | 79.8          |               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 20-year       | 68.9          | 73.4          | 79.8          |               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

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

All Races, Females

Year of Diagnosis

|               | 1975-<br>1979 | 1980-<br>1984 | 1985-<br>1989 | 1990-<br>1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|---------------|---------------|---------------|---------------|---------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Survival Time |               |               |               |               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 1-year        | 96.1          | 97.3          | 97.6          | 97.4          | 98.5 | 98.8 | 97.0 | 97.0 | 98.2 | 98.4 | 98.5 | 99.0 | 98.6 | 98.0 | 98.3 | 98.1 | 98.1 | 98.9 | 99.0 | 98.1 |
| 2-year        | 92.9          | 94.7          | 95.3          | 95.3          | 96.7 | 97.3 | 95.4 | 95.2 | 96.9 | 97.0 | 97.6 | 97.2 | 97.5 | 96.9 | 96.8 | 96.9 | 97.2 | 97.3 | 97.7 |      |
| 3-year        | 89.9          | 91.9          | 93.5          | 93.8          | 95.7 | 95.9 | 94.0 | 93.6 | 95.6 | 95.7 | 97.1 | 96.4 | 96.5 | 96.5 | 96.1 | 95.9 | 96.3 | 96.4 |      |      |
| 4-year        | 87.8          | 89.8          | 92.3          | 92.5          | 94.9 | 95.3 | 92.8 | 92.6 | 95.3 | 94.7 | 96.2 | 95.9 | 95.6 | 95.6 | 96.0 | 94.9 | 95.5 |      |      |      |
| 5-year        | 86.3          | 88.5          | 91.3          | 91.8          | 94.1 | 94.6 | 91.8 | 91.7 | 94.6 | 93.5 | 95.6 | 95.7 | 95.0 | 95.4 | 95.3 | 94.3 |      |      |      |      |
| 6-year        | 84.9          | 87.3          | 90.3          | 91.1          | 94.1 | 93.8 | 91.6 | 91.2 | 94.4 | 93.4 | 95.1 | 95.2 | 94.4 | 95.3 | 95.0 |      |      |      |      |      |
| 7-year        | 83.9          | 86.5          | 89.8          | 90.6          | 94.1 | 93.3 | 90.5 | 91.0 | 94.3 | 92.9 | 94.7 | 94.6 | 94.2 | 94.8 |      |      |      |      |      |      |
| 8-year        | 83.0          | 85.9          | 89.2          | 90.2          | 94.1 | 93.3 | 89.7 | 90.5 | 93.8 | 92.9 | 94.2 | 94.0 | 93.9 |      |      |      |      |      |      |      |
| 9-year        | 82.3          | 85.4          | 89.0          | 90.0          | 93.7 | 92.9 | 89.5 | 90.5 | 93.7 | 92.8 | 93.6 | 93.6 |      |      |      |      |      |      |      |      |
| 10-year       | 81.7          | 84.6          | 88.7          | 90.0          | 93.7 | 92.3 | 89.5 | 90.3 | 93.6 | 92.6 | 93.2 |      |      |      |      |      |      |      |      |      |
| 11-year       | 81.4          | 84.3          | 88.0          | 89.7          | 92.9 | 92.0 | 89.5 | 90.2 | 93.6 | 92.4 |      |      |      |      |      |      |      |      |      |      |
| 12-year       | 80.9          | 84.1          | 87.8          | 89.5          | 92.9 | 91.4 | 89.5 | 90.2 | 93.6 |      |      |      |      |      |      |      |      |      |      |      |
| 13-year       | 80.7          | 83.6          | 87.5          | 89.5          | 92.0 | 91.4 | 88.9 | 90.0 |      |      |      |      |      |      |      |      |      |      |      |      |
| 14-year       | 80.2          | 83.4          | 87.4          | 89.4          | 91.7 | 91.2 | 88.9 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 15-year       | 79.7          | 82.9          | 87.4          | 89.4          | 91.7 | 90.3 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 16-year       | 79.6          | 82.6          | 87.4          | 89.3          | 91.7 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 17-year       | 79.6          | 82.4          | 87.4          | 89.3          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 18-year       | 79.5          | 82.2          | 87.4          |               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 19-year       | 79.4          | 82.2          | 87.4          |               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 20-year       | 79.4          | 82.2          | 87.4          |               |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

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

Table 16.15  
Melanoma of the Skin (Invasive)

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

| SEER Incidence                   | SEER 18 Areas <sup>b</sup> |       |         | SEER 13 Areas <sup>b</sup>   |       |         | SEER 9 Areas <sup>b</sup>    |       |         |
|----------------------------------|----------------------------|-------|---------|------------------------------|-------|---------|------------------------------|-------|---------|
|                                  | Rate 2007-2011             |       |         | Trend 2002-2011 <sup>c</sup> |       |         | Trend 2002-2011 <sup>d</sup> |       |         |
|                                  | Rate per 100,000 persons   |       |         | AAPC (%)                     |       |         | AAPC (%)                     |       |         |
| RACE/ETHNICITY                   | Total                      | Males | Females | Total                        | Males | Females | Total                        | Males | Females |
| All Races                        | 21.3                       | 27.7  | 16.7    | 1.8*                         | 1.4*  | 1.4*    | 1.8*                         | 1.9*  | 1.6*    |
| White                            | 25.2                       | 32.3  | 20.0    | 1.4*                         | 1.5*  | 1.3*    | 1.9*                         | 2.0*  | 1.7*    |
| White Hispanic <sup>e</sup>      | 4.7                        | 4.9   | 4.7     | 0.8                          | 1.5*  | 0.4     | -                            | -     | -       |
| White Non-Hispanic <sup>e</sup>  | 29.5                       | 37.2  | 23.8    | 1.9*                         | 1.9*  | 1.8*    | -                            | -     | -       |
| Black                            | 1.0                        | 1.0   | 1.0     | 1.9                          | -     | -       | 0.0                          | 0.0   | -0.1    |
| Asian/Pacific Islander           | 1.3                        | 1.5   | 1.2     | 0.7                          | 1.4   | 0.1     | -                            | -     | -       |
| Amer Ind/Alaska Nat <sup>f</sup> | 3.9                        | 4.1   | 3.9     | -                            | -     | -       | -                            | -     | -       |
| Hispanic <sup>e</sup>            | 4.6                        | 4.8   | 4.6     | 0.6                          | 1.2*  | 0.3     | -                            | -     | -       |

| U.S. Mortality <sup>g</sup>     | Rate 2007-2011           |       |         | Trend 2002-2011 <sup>h</sup> |       |         |
|---------------------------------|--------------------------|-------|---------|------------------------------|-------|---------|
|                                 | Rate per 100,000 persons |       |         | AAPC (%)                     |       |         |
|                                 | Total                    | Males | Females | Total                        | Males | Females |
| RACE/ETHNICITY                  | Total                    | Males | Females | Total                        | Males | Females |
| All Races                       |                          |       |         |                              |       |         |
| White                           |                          |       |         |                              |       |         |
| White Hispanic <sup>e</sup>     |                          |       |         |                              |       |         |
| White Non-Hispanic <sup>e</sup> |                          |       |         |                              |       |         |
| Black                           |                          |       |         |                              |       |         |
| Asian/Pacific Islander          |                          |       |         |                              |       |         |
| Amer Ind/Alaska Nat             |                          |       |         |                              |       |         |
| Total U.S.                      |                          |       |         |                              |       |         |
| CHSDA Counties                  |                          |       |         |                              |       |         |
| Non-CHSDA Counties              |                          |       |         |                              |       |         |
| Hispanic <sup>e</sup>           |                          |       |         |                              |       |         |

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

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

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

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

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

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

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

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

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

<sup>e</sup> Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The 2007-2011 Hispanic and Non-Hispanic death rates exclude deaths from the District of Columbia, North Dakota, and South Carolina. The 2002-2011 Hispanic and Non-Hispanic mortality trends exclude deaths from Connecticut, the District of Columbia, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma, South Carolina and Vermont.

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

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

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

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

Table 16.16  
Melanoma of the Skin (Invasive)

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

|  | All Races |       |         | Whites |       |         | Blacks |       |         |
|--|-----------|-------|---------|--------|-------|---------|--------|-------|---------|
|  | Total     | Males | Females | Total  | Males | Females | Total  | Males | Females |
| <u>SEER Incidence Rates<sup>a</sup>, 2007-2011</u> |           |       |         |        |       |         |        |       |         |
| California   | 20.79     | 27.65 | 15.65   | 24.15  | 31.96 | 18.24   | 0.91   | 0.82  | 0.93    |
| Greater Bay Area                                   | 21.92     | 28.52 | 17.11   | 30.70  | 39.29 | 24.42   | 0.96   | -     | -       |
| San Francisco-Oakland                              | 22.57     | 29.71 | 17.37   | 32.69  | 42.22 | 25.67   | 0.97   | -     | -       |
| San Jose-Monterey                                  | 20.70     | 26.25 | 16.64   | 27.24  | 34.14 | 22.25   | -      | -     | -       |
| Los Angeles  | 13.86     | 19.40 | 9.79    | 18.20  | 25.23 | 12.96   | 0.84   | 1.13  | 0.62    |
| Greater California                                 | 23.64     | 31.10 | 17.98   | 24.70  | 32.51 | 18.71   | 0.97   | -     | 1.31    |
| Connecticut  | 22.66     | 28.52 | 18.71   | 24.32  | 30.17 | 20.43   | 1.50   | -     | -       |
| Detroit  | 15.77     | 19.57 | 13.36   | 20.73  | 24.86 | 18.25   | 0.97   | 0.84  | 1.03    |
| Georgia  | 22.19     | 29.66 | 17.00   | 29.89  | 38.27 | 23.93   | 1.08   | 1.19  | 1.01    |
| Atlanta  | 25.03     | 33.78 | 19.09   | 39.79  | 50.29 | 32.45   | 1.17   | 1.48  | 0.99    |
| Rural Georgia                                      | 18.55     | 26.29 | 13.29   | 27.79  | 37.35 | 21.00   | -      | -     | -       |
| Greater Georgia                                    | 21.05     | 28.01 | 16.19   | 26.34  | 34.05 | 20.81   | 0.99   | 1.04  | 0.96    |
| Hawaii   | 19.98     | 26.98 | 14.28   | 62.78  | 81.71 | 44.96   | -      | -     | -       |
| Iowa   | 22.74     | 26.58 | 20.55   | 22.63  | 26.50 | 20.41   | -      | -     | -       |
| Kentucky   | 23.76     | 29.85 | 19.67   | 24.71  | 31.14 | 20.31   | 1.06   | -     | -       |
| Louisiana  | 14.52     | 19.65 | 10.89   | 20.01  | 26.10 | 15.62   | 1.02   | 1.09  | 0.95    |
| New Jersey   | 21.56     | 27.85 | 17.21   | 25.19  | 31.93 | 20.51   | 0.87   | 0.77  | 0.97    |
| New Mexico   | 18.06     | 23.57 | 13.78   | 18.72  | 24.78 | 13.87   | -      | -     | -       |
| Seattle-Puget Sound                                | 28.00     | 33.28 | 24.33   | 32.10  | 37.49 | 28.39   | -      | -     | -       |
| Utah   | 31.85     | 42.44 | 23.46   | 32.95  | 43.69 | 24.42   | -      | -     | -       |
| 9 SEER Areas <sup>b</sup>                          | 22.89     | 29.00 | 18.58   | 28.14  | 34.96 | 23.33   | 1.11   | 1.20  | 1.05    |
| 11 SEER Areas <sup>b</sup>                         | 20.67     | 26.68 | 16.39   | 25.85  | 32.80 | 20.87   | 1.04   | 1.18  | 0.94    |
| 13 SEER Areas <sup>b</sup>                         | 20.63     | 26.63 | 16.35   | 25.86  | 32.81 | 20.87   | 1.05   | 1.18  | 0.96    |
| 18 SEER Areas <sup>b</sup>                         | 21.29     | 27.72 | 16.68   | 25.16  | 32.30 | 19.99   | 1.00   | 1.01  | 0.99    |

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

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

The SEER 11 areas comprise the SEER 9 areas plus San Jose-Monterey and Los Angeles.

The SEER 13 areas comprise the SEER 11 areas plus the Alaska Native Registry and Rural Georgia.

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

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

Table 16.21  
Melanoma of the Skin (Invasive)

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

| Years Since Diagnosis                      |            | 0 to <5 | 5 to <10 | 10 to <15 | 15 to <20 | 20 to <25 | 25 to <30 | 0 to <19 <sup>e</sup> | 0 to <36 <sup>e</sup> | >=36 <sup>g</sup> | Complete <sup>h</sup> |
|--|------------|---------|----------|-----------|-----------|-----------|-----------|-----------------------|-----------------------|-------------------|-----------------------|
| <u>Race</u>                                | <u>Sex</u> |         |          |           |           |           |           |                       |                       |                   |                       |
| All Races <sup>b</sup>                     | Both Sexes | 282,028 | 208,237  | 155,229   | 107,755   | 79,776    | 53,373    | 771,284               | 924,397               | 35,834            | 960,231               |
|  | Males      | 151,313 | 105,989  | 77,824    | 52,347    | 35,218    | 22,168    | 395,832               | 459,686               | 11,534            | 471,220               |
|  | Females    | 130,715 | 102,248  | 77,405    | 55,408    | 44,558    | 31,205    | 375,452               | 464,711               | 24,300            | 489,011               |
| White <sup>b</sup>                         | Both Sexes | 270,630 | 201,635  | 149,586   | 103,407   | 76,509    | 51,407    | 742,777               | 889,700               | 33,779            | 923,479               |
|  | Males      | 145,767 | 102,885  | 74,988    | 50,377    | 34,052    | 21,320    | 382,176               | 443,630               | 10,979            | 454,609               |
|  | Females    | 124,863 | 98,750   | 74,598    | 53,030    | 42,457    | 30,087    | 360,601               | 446,070               | 22,800            | 468,870               |
| Black <sup>b</sup>                         | Both Sexes | 1,123   | 658      | 572       | 428       | 265       | 124       | 2,836                 | 3,280                 | 102               | 3,382                 |
|  | Males      | 477     | 277      | 262       | 240       | 59        | 25        | 1,269                 | 1,378                 | 43                | 1,421                 |
|  | Females    | 646     | 381      | 310       | 188       | 206       | 99        | 1,567                 | 1,902                 | 59                | 1,961                 |
| Asian/<br>Pacific<br>Islander <sup>c</sup> | Both Sexes | 686     | 539      | 383       | +         | +         | +         | 1,760                 | +                     | +                 | +                     |
|  | Males      | 327     | 228      | 159       | +         | +         | +         | 785                   | +                     | +                 | +                     |
|  | Females    | 359     | 311      | 224       | +         | +         | +         | 975                   | +                     | +                 | +                     |
| Hispanic <sup>d</sup>                      | Both Sexes | 4,793   | 3,797    | 2,672     | +         | +         | +         | 12,743                | +                     | +                 | +                     |
|  | Males      | 2,004   | 1,289    | 965       | +         | +         | +         | 4,783                 | +                     | +                 | +                     |
|  | Females    | 2,789   | 2,508    | 1,707     | +         | +         | +         | 7,960                 | +                     | +                 | +                     |

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

| Age at Prevalence                          |            | Age Specific (Crude) |         |         |         |         |         |         |         |         | Age-Adjusted <sup>f</sup> |          |
|--|------------|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------------------------|----------|
|  |            | All Ages             | 0-9     | 10-19   | 20-29   | 30-39   | 40-49   | 50-59   | 60-69   | 70-79   | 80+                       | All Ages |
| <u>Race</u>                                | <u>Sex</u> |                      |         |         |         |         |         |         |         |         |                           |          |
| All Races <sup>c</sup>                     | Both Sexes | 0.1944%              | 0.0003% | 0.0030% | 0.0287% | 0.0978% | 0.2026% | 0.3399% | 0.5105% | 0.6446% | 0.7067%                   | 0.1870%  |
|  | Males      | 0.2051%              | 0.0002% | 0.0027% | 0.0185% | 0.0694% | 0.1656% | 0.3440% | 0.6304% | 0.9005% | 1.0955%                   | 0.2132%  |
|  | Females    | 0.1841%              | 0.0003% | 0.0033% | 0.0393% | 0.1263% | 0.2393% | 0.3359% | 0.4020% | 0.4388% | 0.4790%                   | 0.1701%  |
| White <sup>c</sup>                         | Both Sexes | 0.2525%              | 0.0002% | 0.0037% | 0.0377% | 0.1288% | 0.2611% | 0.4308% | 0.6328% | 0.7985% | 0.8403%                   | 0.2345%  |
|  | Males      | 0.2642%              | -       | 0.0033% | 0.0242% | 0.0888% | 0.2094% | 0.4296% | 0.7704% | 1.1032% | 1.2982%                   | 0.2620%  |
|  | Females    | 0.2408%              | 0.0003% | 0.0042% | 0.0523% | 0.1709% | 0.3144% | 0.4321% | 0.5044% | 0.5474% | 0.5698%                   | 0.2179%  |
| Black <sup>c</sup>                         | Both Sexes | 0.0061%              | -       | -       | -       | 0.0042% | 0.0067% | 0.0087% | 0.0198% | 0.0310% | 0.0431%                   | 0.0075%  |
|  | Males      | 0.0059%              | -       | -       | -       | 0.0030% | 0.0043% | 0.0093% | 0.0224% | 0.0414% | 0.0730%                   | 0.0089%  |
|  | Females    | 0.0063%              | -       | -       | -       | 0.0052% | 0.0087% | 0.0081% | 0.0177% | 0.0238% | 0.0288%                   | 0.0069%  |
| Asian/<br>Pacific<br>Islander <sup>c</sup> | Both Sexes | 0.0112%              | -       | 0.0010% | 0.0023% | 0.0068% | 0.0143% | 0.0162% | 0.0286% | 0.0328% | 0.0449%                   | 0.0111%  |
|  | Males      | 0.0106%              | -       | -       | 0.0024% | 0.0068% | 0.0089% | 0.0147% | 0.0316% | 0.0452% | 0.0506%                   | 0.0113%  |
|  | Females    | 0.0119%              | -       | -       | 0.0021% | 0.0068% | 0.0191% | 0.0176% | 0.0262% | 0.0233% | 0.0414%                   | 0.0111%  |
| Hispanic <sup>d</sup>                      | Both Sexes | 0.0256%              | -       | 0.0011% | 0.0046% | 0.0173% | 0.0409% | 0.0694% | 0.1006% | 0.1261% | 0.1694%                   | 0.0379%  |
|  | Males      | 0.0188%              | -       | 0.0012% | 0.0020% | 0.0102% | 0.0251% | 0.0507% | 0.0845% | 0.1385% | 0.2372%                   | 0.0341%  |
|  | Females    | 0.0325%              | -       | 0.0011% | 0.0075% | 0.0248% | 0.0574% | 0.0872% | 0.1143% | 0.1169% | 0.1290%                   | 0.0430%  |

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

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

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

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

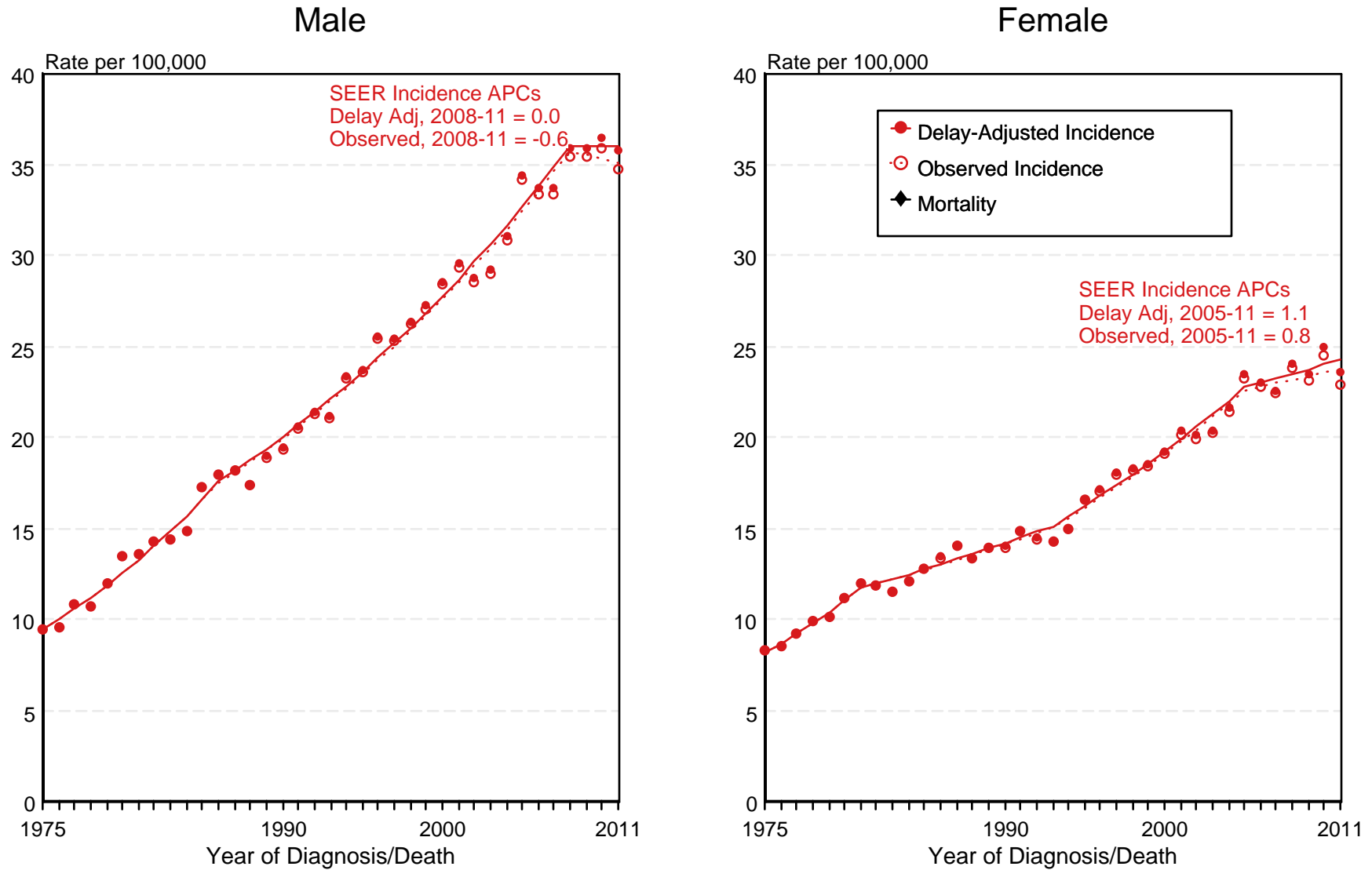
<sup>g h i</sup> (g) Cases diagnosed more than 36 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000). (h) Complete prevalence is obtained by summing 0 to <36 and >=36. (i) Age-specific completeness index was approximated using empirical data from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

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

+ Not available.

Figure 16.1

# SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates<sup>a</sup> Melanoma of the Skin, White, by Sex



<sup>a</sup> Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

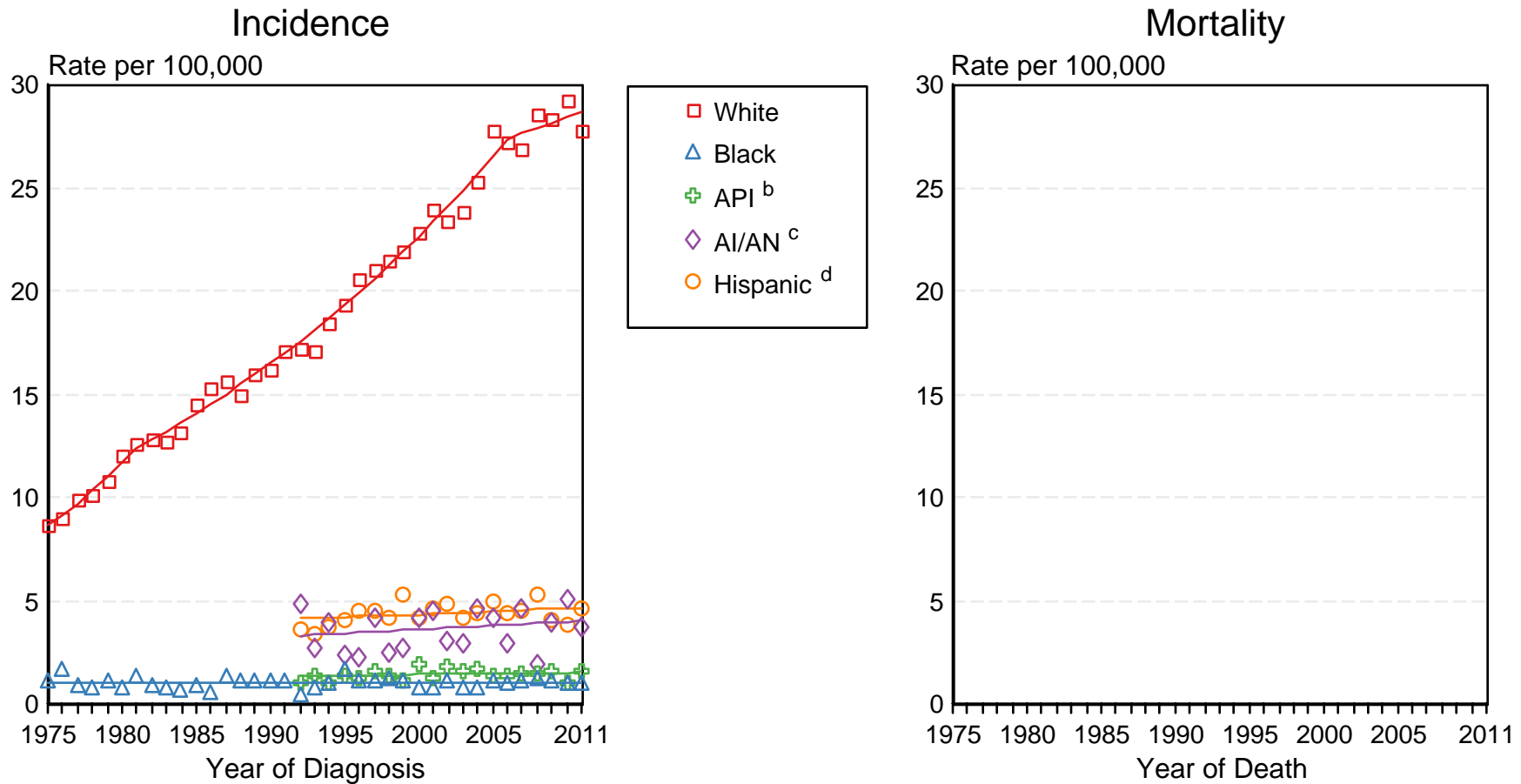
\* The APC is significantly different from zero ( $p < 0.05$ ).

Figure 16.2

# SEER Incidence and US Death Rates<sup>a</sup> Melanoma of the Skin, Both Sexes

Joinpoint Analyses for Whites and Blacks from 1975-2011

and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2011



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

<sup>a</sup> Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2011 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2011 allow a maximum of 3 joinpoints.

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

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

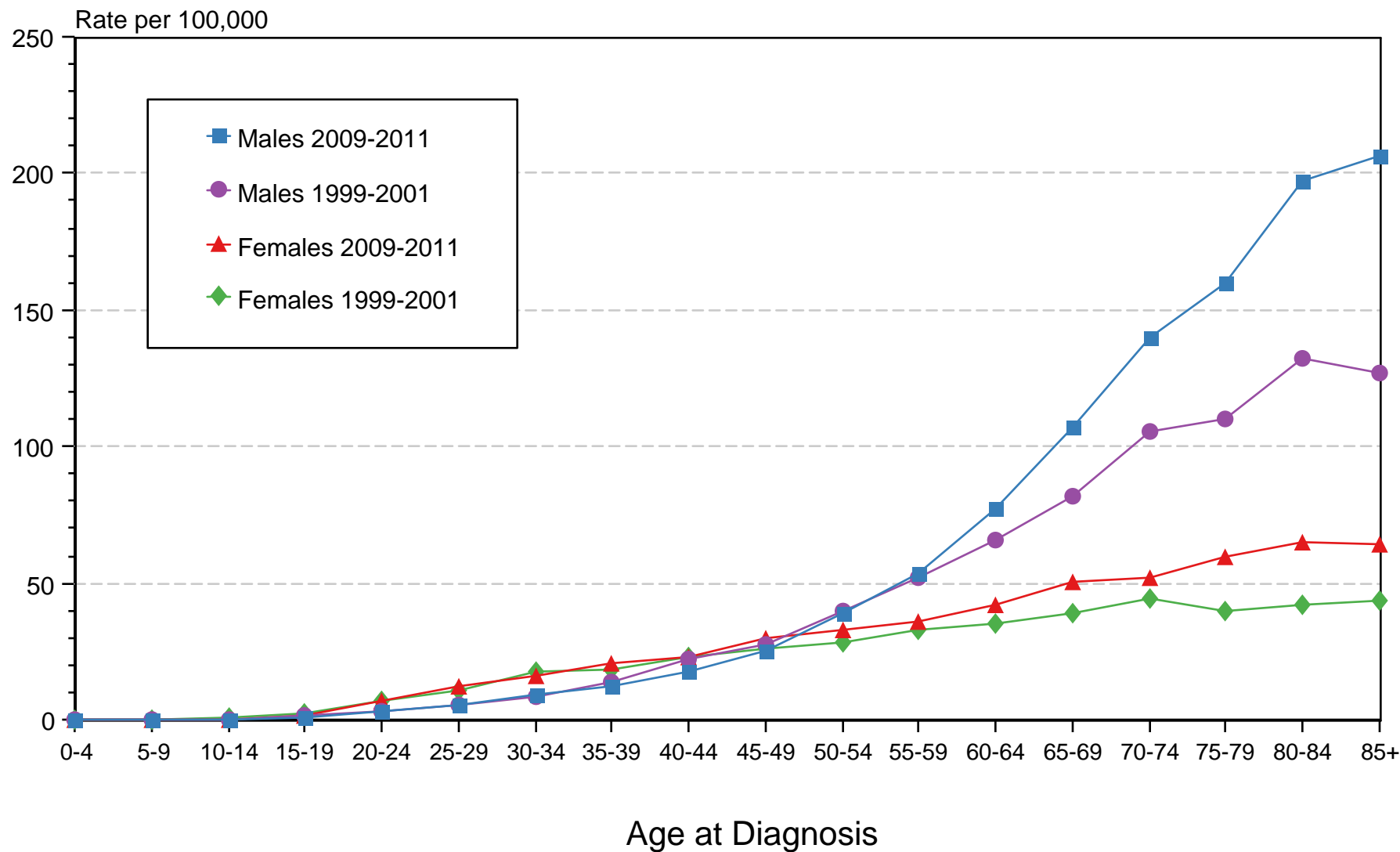
<sup>d</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Mortality data for Hispanics exclude cases from Connecticut, the District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

Figure 16.3

# Melanoma of the Skin

## SEER Incidence 1999-2001 vs 2009-2011

### White, by Age and Sex

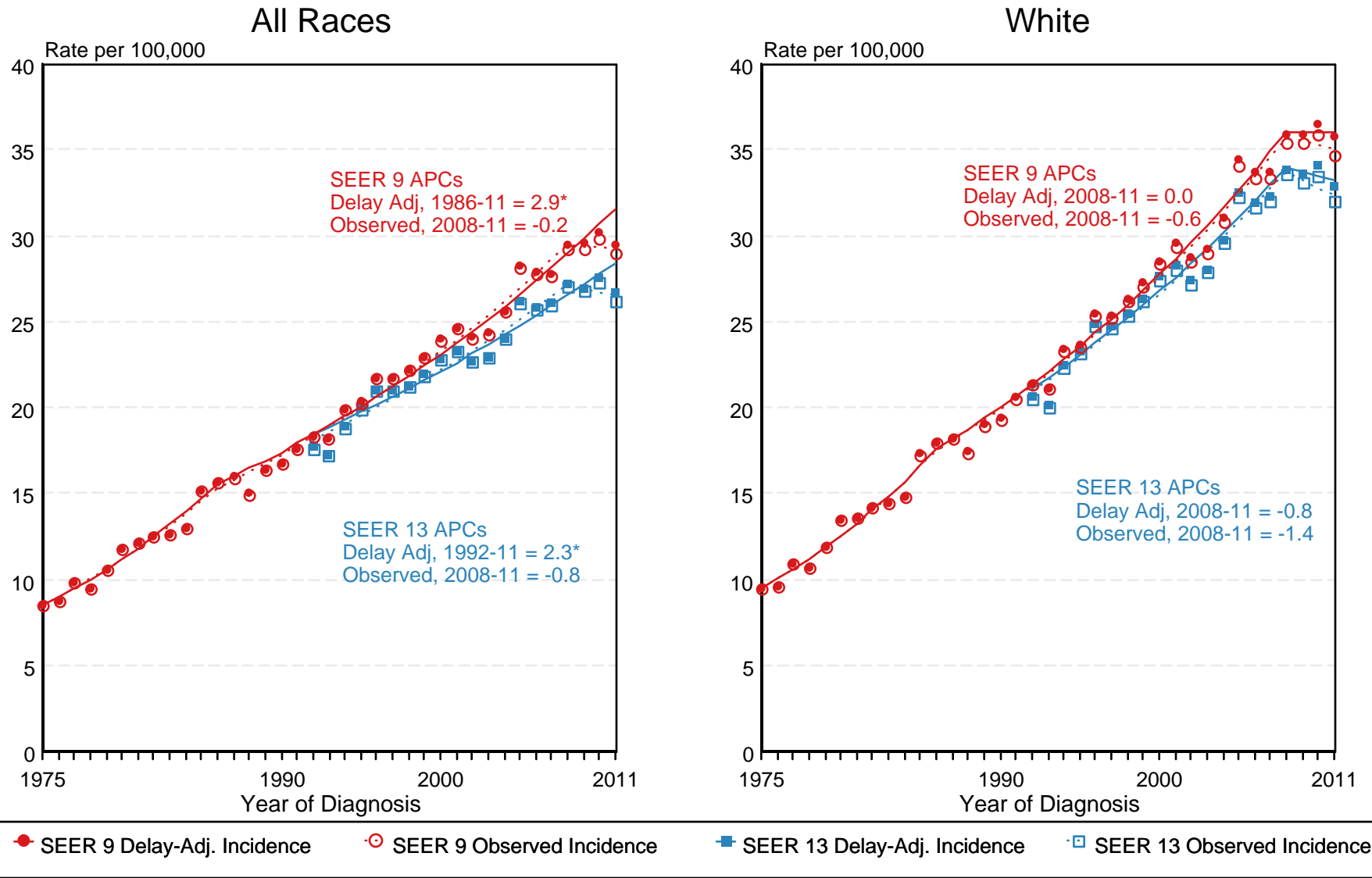


Source: SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Rates are age-adjusted as appropriate to the 2000 US Std Population (19 age groups - Census P25-1103).



Figure 16.4

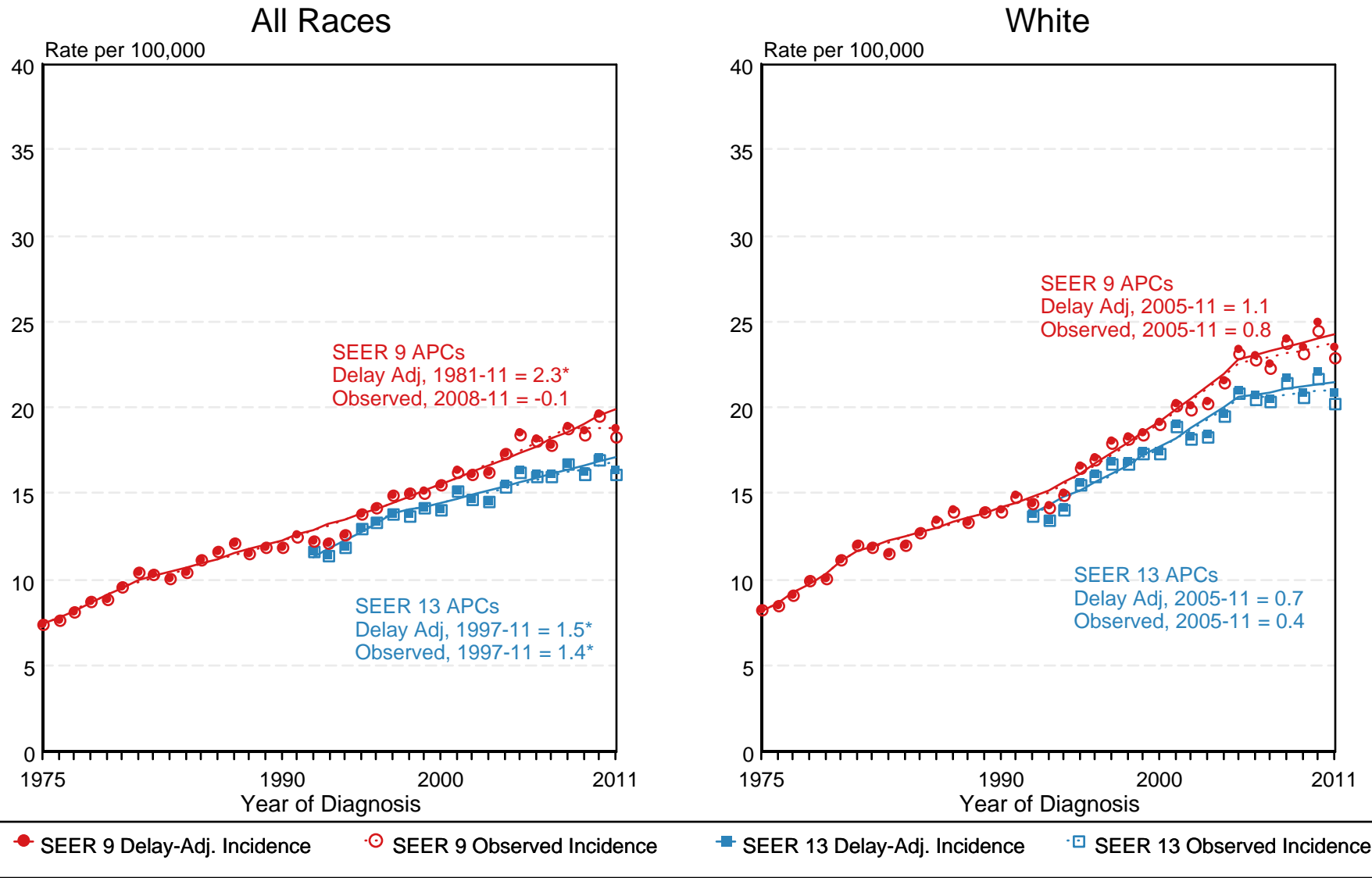
# SEER Observed Incidence and SEER Delay Adjusted Incidence Rates<sup>a</sup> SEER 9 Areas Compared to SEER 13 Areas Melanoma of the Skin, Male, by Race



<sup>a</sup> Source: SEER 9 areas and SEER 13 areas.  
Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).  
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute.  
The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.  
\* The APC is significantly different from zero ( $p < 0.05$ ).

Figure 16.5

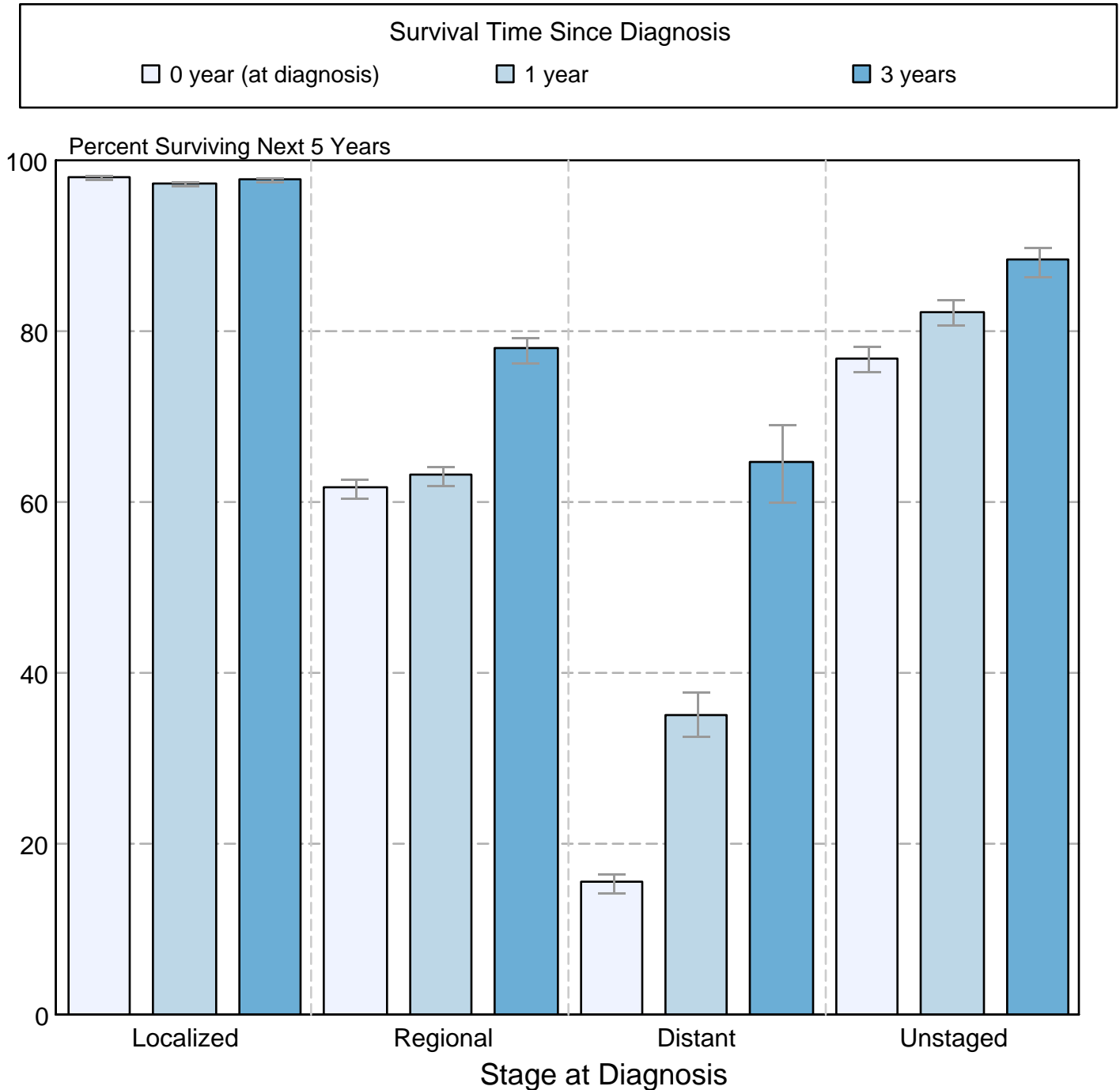
# SEER Observed Incidence and SEER Delay Adjusted Incidence Rates<sup>a</sup> SEER 9 Areas Compared to SEER 13 Areas Melanoma of the Skin, Female, by Race



<sup>a</sup> Source: SEER 9 areas and SEER 13 areas.  
Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).  
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute.  
The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.  
\* The APC is significantly different from zero ( $p < 0.05$ ).

Figure 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  
 1998-2010 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 2000-2009. The remaining 13 SEER Areas contribute cases for the entire period 1998-2010. 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.