

Table 4.1  
Cancer of the Female Breast (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,  
All Ages 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	1975-80	-0.5	1980-87	4.0*	1987-94	-0.2	1994-99	1.8*	1999-04	-2.3*	2004-11	0.3	-0.3	0.3
White	1975-80	-0.5	1980-87	4.1*	1987-94	-0.2	1994-99	2.0*	1999-04	-2.4*	2004-11	0.2	-0.4	0.2
Black	1975-91	2.3*	1991-11	0.3									0.3	0.3
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2011</u>														
All Races	1992-99	1.3*	1999-04	-2.2*	2004-11	0.3							-0.3	0.3
White	1992-99	1.5*	1999-04	-2.4*	2004-11	0.1							-0.4	0.1
Black	1992-11	0.3*											0.3*	0.3*
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2011</u>														
All Races	1975-80	-0.5	1980-87	4.0*	1987-94	-0.2	1994-99	1.8*	1999-04	-2.3*	2004-11	0.2	-0.3	0.2
White	1975-80	-0.5	1980-87	4.1*	1987-94	-0.2	1994-99	2.0*	1999-04	-2.4*	2004-11	0.0	-0.5	0.0
Black	1975-92	2.2*	1992-11	0.1									0.1	0.1
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2011</u>														
All Races	1992-99	1.3*	1999-04	-2.2*	2004-11	0.2							-0.4	0.2
White	1992-99	1.5*	1999-04	-2.4*	2004-11	0.0							-0.5	0.0
White NH <sup>ef</sup>	1992-99	1.7*	1999-04	-2.3*	2004-11	0.1							-0.4	0.1
Black	1992-11	0.2*											0.2*	0.2*
Black NH <sup>ef</sup>	1992-11	0.2*											0.2*	0.2*
API <sup>e</sup>	1992-94	-4.7	1994-97	6.9	1997-05	-0.8	2005-11	1.3					0.6	1.3
AI/AN <sup>eg</sup>	1992-11	0.0											0.0	0.0
Hispanic <sup>f</sup>	1992-11	0.1											0.1	0.1
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2011</u>														
All Races	1975-90	0.4*	1990-95	-1.8*	1995-98	-3.3*	1998-11	-1.9*					-1.9*	-1.9*
White	1975-90	0.3*	1990-95	-2.0*	1995-98	-3.5*	1998-11	-1.9*					-1.9*	-1.9*
Black	1975-92	1.5*	1992-11	-1.4*									-1.4*	-1.4*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2011</u>														
All Races	1992-95	-1.3*	1995-98	-3.4*	1998-11	-1.9*							-1.9*	-1.9*
White	1992-95	-1.5*	1995-98	-3.6*	1998-11	-1.9*							-1.9*	-1.9*
White NH <sup>ef</sup>	1992-95	-1.2*	1995-98	-3.6*	1998-11	-1.9*							-1.9*	-1.9*
Black	1992-95	0.3	1995-11	-1.5*									-1.5*	-1.5*
Black NH <sup>ef</sup>	1992-94	1.5	1994-11	-1.4*									-1.4*	-1.4*
API <sup>e</sup>	1992-11	-1.0*											-1.0*	-1.0*
AI/AN <sup>eg</sup>	1992-11	-0.5											-0.5	-0.5
Hispanic <sup>f</sup>	1992-96	1.4	1996-99	-4.0	1999-11	-1.5*							-1.5*	-1.5*

Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. (<http://surveillance.cancer.gov/joinpoint/>).  
<sup>a</sup> 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>b</sup> Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).  
<sup>c</sup> Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).  
<sup>d</sup> Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.  
<sup>e</sup> The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.  
<sup>f</sup> 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.  
<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 4.2  
Cancer of the Female Breast (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,  
Ages <50 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	1975-80	-1.3	1980-87	2.7*	1987-94	-0.8	1994-11	0.3*					0.3*	0.3*
White	1975-80	-1.1	1980-87	2.6*	1987-94	-0.8	1994-11	0.3*					0.3*	0.3*
Black	1975-91	1.5*	1991-01	-1.0	2001-11	1.0*							1.0*	1.0*
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2011</u>														
All Races	1992-11	0.2*											0.2*	0.2*
White	1992-11	0.2*											0.2*	0.2*
Black	1992-01	-1.1	2001-11	0.9*									0.9*	0.9*
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2011</u>														
All Races	1975-80	-1.4	1980-85	3.1*	1985-11	0.0							0.0	0.0
White	1975-80	-1.1	1980-87	2.6*	1987-94	-0.8	1994-11	0.2*					0.2*	0.2*
Black	1975-91	1.5*	1991-01	-1.0	2001-11	0.8							0.8	0.8
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2011</u>														
All Races	1992-11	0.2*											0.2*	0.2*
White	1992-11	0.1											0.1	0.1
White NH <sup>ef</sup>	1992-11	0.4*											0.4*	0.4*
Black	1992-01	-1.1	2001-11	0.8									0.8	0.8
Black NH <sup>ef</sup>	1992-01	-1.2*	2001-11	1.0*									1.0*	1.0*
API <sup>e</sup>	1992-11	0.8*											0.8*	0.8*
AI/AN <sup>eg</sup>	1992-11	0.0											0.0	0.0
Hispanic <sup>f</sup>	1992-11	0.0											0.0	0.0
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2011</u>														
All Races	1975-91	-0.4*	1991-99	-3.7*	1999-11	-2.6*							-2.6*	-2.6*
White	1975-91	-0.7*	1991-99	-4.3*	1999-11	-2.6*							-2.6*	-2.6*
Black	1975-87	1.8*	1987-95	-1.1*	1995-11	-2.5*							-2.5*	-2.5*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2011</u>														
All Races	1992-11	-3.0*											-3.0*	-3.0*
White	1992-11	-3.2*											-3.2*	-3.2*
White NH <sup>ef</sup>	1992-99	-4.2*	1999-11	-2.5*									-2.5*	-2.5*
Black	1992-11	-2.4*											-2.4*	-2.4*
Black NH <sup>ef</sup>	1992-11	-2.2*											-2.2*	-2.2*
API <sup>e</sup>	1992-01	-0.8	2001-09	-5.2*	2009-11	8.4							-2.4	1.3
AI/AN <sup>eg</sup>	1992-11	-2.2*											-2.2*	-2.2*
Hispanic <sup>f</sup>	1992-11	-2.9*											-2.9*	-2.9*

Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. (<http://surveillance.cancer.gov/joinpoint/>).  
<sup>a</sup> 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>b</sup> Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).  
<sup>c</sup> Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).  
<sup>d</sup> Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.  
<sup>e</sup> The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.  
<sup>f</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.  
<sup>g</sup> The Hispanic and Non-Hispanic mortality trends exclude deaths from New Hampshire and Oklahoma.  
<sup>g</sup> Data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.  
<sup>\*</sup> The APC/AAPC is significantly different from zero (p<.05).  
<sup>-</sup> Joinpoint regression line analysis could not be performed on data series.

Table 4.3  
Cancer of the Female Breast (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,  
Ages 50+ 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	1975-82	0.9	1982-87	5.4*	1987-93	-0.3	1993-99	1.9*	1999-05	-2.6*	2005-11	0.6	-0.5	0.6
White	1975-82	0.9	1982-87	5.6*	1987-93	-0.4	1993-99	2.1*	1999-05	-2.6*	2005-11	0.4	-0.6	0.4
Black	1975-92	2.6*	1992-11	0.3									0.3	0.3
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2011</u>														
All Races	1992-99	1.7*	1999-04	-2.9*	2004-11	0.2							-0.5	0.2
White	1992-00	1.5*	2000-04	-3.7*	2004-11	0.1							-0.7*	0.1
Black	1992-11	0.3*											0.3*	0.3*
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2011</u>														
All Races	1975-82	0.9	1982-87	5.3*	1987-93	-0.3	1993-99	1.9*	1999-05	-2.6*	2005-11	0.5	-0.5	0.5
White	1975-82	0.9*	1982-87	5.5*	1987-93	-0.3	1993-00	1.7*	2000-04	-3.8*	2004-11	0.1	-0.8*	0.1
Black	1975-92	2.6*	1992-11	0.2									0.2	0.2
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2011</u>														
All Races	1992-99	1.7*	1999-04	-2.9*	2004-11	0.1							-0.6	0.1
White	1992-00	1.4*	2000-04	-3.7*	2004-11	0.0							-0.8*	0.0
White NH <sup>ef</sup>	1992-01	1.3*	2001-04	-5.2	2004-11	0.2							-1.0	0.2
Black	1992-11	0.3*											0.3*	0.3*
Black NH <sup>ef</sup>	1992-11	0.3*											0.3*	0.3*
API <sup>e</sup>	1992-94	-5.5	1994-97	8.2	1997-04	-1.5	2004-11	1.2					0.6	1.2
AI/AN <sup>eg</sup>	1992-11	0.1											0.1	0.1
Hispanic <sup>f</sup>	1992-11	0.1											0.1	0.1
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2011</u>														
All Races	1975-90	0.6*	1990-11	-1.9*									-1.9*	-1.9*
White	1975-89	0.5*	1989-94	-1.2*	1994-97	-3.2*	1997-11	-1.9*					-1.9*	-1.9*
Black	1975-93	1.6*	1993-11	-1.2*									-1.2*	-1.2*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2011</u>														
All Races	1992-95	-1.2*	1995-98	-3.1*	1998-11	-1.8*							-1.8*	-1.8*
White	1992-94	-0.6	1994-97	-3.3*	1997-11	-1.8*							-1.8*	-1.8*
White NH <sup>ef</sup>	1992-94	-0.1	1994-97	-3.3*	1997-11	-1.8*							-1.8*	-1.8*
Black	1992-11	-1.1*											-1.1*	-1.1*
Black NH <sup>ef</sup>	1992-94	2.1	1994-11	-1.1*									-1.1*	-1.1*
API <sup>e</sup>	1992-11	-0.5*											-0.5*	-0.5*
AI/AN <sup>eg</sup>	1992-11	-0.2											-0.2	-0.2
Hispanic <sup>f</sup>	1992-11	-1.4*											-1.4*	-1.4*

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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).  
 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 4.4  
Cancer of the Female Breast (*In Situ*)

Trends in SEER Incidence<sup>ab</sup> Using the Joinpoint Regression Program,  
1975-2011 With up to Five Joinpoints, 1992-2011 With up to Three Joinpoints,  
All Ages 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	-3.1	1981-87	25.2*	1987-94	3.8*	1994-98	9.9*	1998-11	0.9*			0.9*	0.9*
White	1975-81	-2.9	1981-87	25.4*	1987-95	3.9*	1995-98	11.4	1998-11	0.7*			0.7*	0.7*
Black	1975-81	3.1	1981-88	18.4*	1988-98	7.9*	1998-11	1.7*					1.7*	1.7*
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2011</u>														
All Races	1992-99	7.1*	1999-11	0.6									0.6	0.6
White	1992-99	7.1*	1999-11	0.4									0.4	0.4
Black	1992-98	9.1*	1998-11	1.6*									1.6*	1.6*
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2011</u>														
All Races	1975-81	-3.1	1981-87	25.2*	1987-94	3.8*	1994-98	10.0*	1998-11	0.8*			0.8*	0.8*
White	1975-81	-2.9	1981-87	25.4*	1987-95	3.9*	1995-98	11.4	1998-11	0.7*			0.7*	0.7*
Black	1975-81	3.1	1981-88	18.4*	1988-98	7.9*	1998-11	1.6*					1.6*	1.6*
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2011</u>														
All Races	1992-99	7.1*	1999-11	0.6									0.6	0.6
White	1992-99	7.1*	1999-11	0.4									0.4	0.4
White NH <sup>ef</sup>	1992-99	7.3*	1999-11	0.5									0.5	0.5
Black	1992-98	8.6*	1998-09	2.1*	2009-11	-4.3							0.7	-1.1
Black NH <sup>ef</sup>	1992-98	9.0*	1998-11	1.7*									1.7*	1.7*
API <sup>e</sup>	1992-02	7.7*	2002-05	-5.3	2005-08	8.2	2008-11	-2.4					0.0	0.2
AI/AN <sup>eg</sup>	1992-11	1.5											1.5	1.5
Hispanic <sup>f</sup>	1992-98	8.8*	1998-11	1.5*									1.5*	1.5*

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<sup>a</sup> 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>b</sup> Trends are from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).  
<sup>c</sup> Trends are from the SEER 13 areas (SEER 9 Areas, Los Angeles, San Jose-Monterey, Rural Georgia, and the Alaska Native Registry).  
<sup>d</sup> Trends are from US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.  
<sup>e</sup> The AAPC is the Average Annual Percent Change and is based on the APCs calculated by Joinpoint.  
<sup>f</sup> API - Asian/Pacific Islander, AI/AN - American Indian/Alaska Native, NH - Non-Hispanic  
<sup>g</sup> Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska  
<sup>\*</sup> Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.  
<sup>-</sup> The Hispanic and Non-Hispanic mortality trends exclude deaths from New Hampshire and Oklahoma.  
<sup>g</sup> Data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.  
<sup>\*</sup> The APC/AAPC is significantly different from zero ( $p < .05$ ).  
<sup>-</sup> Joinpoint regression line analysis could not be performed on data series.

Table 4.5  
Cancer of the Breast (Invasive)

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

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Year of Diagnosis:									
1975-2011	68.90	1.10	125.66	70.64	1.10	129.53	66.69	1.67	116.02
1975	58.05	0.85	105.07	59.46	0.88	107.36	52.10	-	93.57
1976	56.44	1.10	101.92	58.11	1.12	104.79	48.16	-	85.57
1977	55.98	0.96	100.82	57.47	0.88	103.44	49.54	-	86.82
1978	55.85	0.90	100.64	57.57	0.89	103.66	48.24	-	86.03
1979	56.85	0.99	102.14	58.31	0.94	104.76	49.85	-	86.83
1980	56.92	0.90	102.26	58.54	0.93	105.13	50.60	-	89.51
1981	59.33	1.00	106.37	61.26	0.93	109.96	54.31	-	94.17
1982	59.24	0.98	106.50	61.09	0.94	109.99	53.88	-	93.47
1983	61.90	1.04	111.15	63.72	1.13	114.48	59.01	-	103.68
1984	64.49	0.93	116.00	66.60	0.94	119.94	58.32	-	102.27
1985	69.12	0.95	124.26	71.01	0.97	127.84	64.13	-	111.71
1986	70.47	0.95	126.86	72.31	0.96	130.42	66.22	-	114.97
1987	74.79	0.96	134.50	77.82	0.98	140.29	63.07	-	109.44
1988	73.10	1.24	131.33	75.63	1.16	136.33	68.99	2.76	118.65
1989	70.75	1.13	127.22	73.38	1.07	132.38	60.65	-	105.07
1990	73.18	1.13	131.86	75.35	1.15	136.26	68.63	-	118.75
1991	74.09	1.12	133.85	76.65	1.17	138.93	67.39	-	117.35
1992	73.04	1.04	132.05	74.76	1.02	135.78	71.59	-	124.02
1993	71.34	1.08	129.22	73.19	1.04	133.20	68.79	-	119.39
1994	72.10	1.13	131.00	74.28	1.08	135.69	70.70	-	122.64
1995	72.85	0.97	132.63	75.19	0.93	137.72	71.45	-	123.44
1996	73.35	1.31	133.70	75.37	1.32	138.19	71.64	-	124.26
1997	75.59	1.10	137.99	77.66	1.07	142.77	72.35	-	125.05
1998	77.33	1.07	141.39	79.73	1.14	146.76	71.27	-	124.20
1999	77.17	0.98	141.46	79.61	0.97	147.13	72.53	-	125.54
2000	74.36	1.16	136.48	77.25	1.14	142.98	68.27	2.86	117.66
2001	75.59	1.21	138.76	78.25	1.22	144.95	66.63	1.66	115.41
2002	73.67	1.15	135.73	75.97	1.13	141.32	70.94	1.95	123.07
2003	68.90	1.33	126.92	70.84	1.35	131.79	71.12	1.74	123.49
2004	69.35	1.21	128.03	70.85	1.25	132.11	71.27	1.61	123.90
2005	68.36	1.06	126.51	70.27	1.16	131.43	67.82	-	118.23
2006	68.14	1.19	126.14	69.61	1.22	130.32	71.48	1.54	124.56
2007	69.04	1.10	128.06	70.46	1.12	132.33	71.56	1.82	124.07
2008	68.94	1.17	128.11	69.78	1.20	131.23	73.16	1.37	127.55
2009	70.23	1.18	130.52	71.23	1.25	134.00	73.63	-	128.40
2010	67.95	1.24	126.46	69.04	1.14	130.24	70.12	2.92	121.62
2011	69.56	1.44	129.56	70.22	1.39	132.58	72.82	2.69	126.69

<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 4.6  
Cancer of the Breast (Invasive)

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

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Year of Death:									
1975-2011	16.12	0.32	28.42	15.96	0.30	28.24	20.00	0.55	33.97
1975	17.83	0.37	31.45	18.03	0.38	31.79	16.82	0.41	29.49
1976	18.06	0.38	31.80	18.25	0.36	32.17	17.61	0.60	30.47
1977	18.47	0.36	32.48	18.56	0.35	32.67	18.90	0.51	32.80
1978	18.05	0.36	31.73	18.12	0.35	31.90	18.63	0.60	32.14
1979	17.74	0.28	31.21	17.87	0.26	31.48	17.87	0.54	30.82
1980	18.04	0.30	31.68	18.15	0.30	31.93	18.37	0.42	31.68
1981	18.20	0.32	31.92	18.28	0.31	32.12	18.95	0.46	32.55
1982	18.39	0.33	32.19	18.42	0.32	32.31	19.68	0.56	33.75
1983	18.33	0.31	32.07	18.36	0.29	32.20	19.57	0.50	33.53
1984	18.79	0.29	32.90	18.76	0.28	32.90	20.97	0.47	35.94
1985	18.84	0.34	32.98	18.88	0.34	33.11	20.35	0.43	34.85
1986	18.76	0.28	32.87	18.76	0.27	32.93	20.69	0.42	35.44
1987	18.66	0.34	32.66	18.57	0.34	32.57	21.53	0.47	36.73
1988	18.98	0.33	33.20	18.85	0.28	33.09	22.35	0.88	37.78
1989	19.00	0.33	33.23	18.95	0.33	33.23	21.56	0.45	36.61
1990	18.93	0.28	33.14	18.79	0.26	33.02	22.49	0.52	38.00
1991	18.66	0.28	32.69	18.46	0.27	32.45	22.62	0.44	38.28
1992	18.07	0.31	31.64	17.89	0.30	31.43	21.88	0.45	37.09
1993	17.98	0.36	31.39	17.74	0.34	31.09	22.62	0.66	38.04
1994	17.67	0.35	30.92	17.40	0.34	30.56	22.44	0.60	37.74
1995	17.44	0.35	30.55	17.11	0.32	30.09	22.70	0.77	38.18
1996	16.83	0.34	29.49	16.52	0.31	29.05	22.09	0.72	37.13
1997	16.07	0.32	28.21	15.67	0.30	27.62	22.25	0.63	37.43
1998	15.67	0.32	27.54	15.32	0.31	27.01	21.08	0.56	35.53
1999	15.18	0.34	26.61	14.77	0.32	25.98	20.93	0.69	35.21
2000	15.19	0.37	26.64	14.86	0.35	26.17	20.48	0.63	34.36
2001	14.77	0.35	26.01	14.37	0.33	25.43	20.52	0.65	34.52
2002	14.54	0.31	25.62	14.13	0.29	25.02	20.32	0.61	34.14
2003	14.31	0.31	25.27	13.89	0.30	24.66	20.24	0.47	34.10
2004	13.82	0.29	24.49	13.44	0.28	23.94	19.11	0.56	32.29
2005	13.61	0.29	24.14	13.18	0.28	23.49	19.37	0.49	32.81
2006	13.25	0.29	23.56	12.87	0.29	23.02	18.73	0.47	31.62
2007	12.90	0.28	22.96	12.51	0.27	22.40	18.51	0.45	31.36
2008	12.66	0.31	22.55	12.26	0.29	21.99	18.37	0.60	30.96
2009	12.43	0.28	22.24	12.09	0.28	21.76	17.78	0.41	30.19
2010	12.26	0.30	21.92	11.85	0.28	21.33	17.78	0.59	30.16
2011	12.01	0.30	21.54	11.59	0.28	20.92	17.72	0.50	30.17

$$100 \times (21.54 - 33.23) / 33.23$$

$$= -35.17906$$

<sup>a</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.  
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 4.7  
Cancer of the Female Breast (Invasive)

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

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
Year of Diagnosis:									
1975	105.07	40.62	273.82	107.36	40.68	281.95	93.57	42.97	226.09
1976	101.92	40.03	263.98	104.79	40.83	272.27	85.57	37.85	210.55
1977	100.82	39.11	262.40	103.44	39.40	271.13	86.82	37.62	215.67
1978	100.64	38.86	262.41	103.66	39.35	272.07	86.03	40.01	206.55
1979	102.14	38.05	269.96	104.76	38.65	277.88	86.83	37.76	215.33
1980	102.26	37.80	271.07	105.13	38.29	280.16	89.51	37.69	225.20
1981	106.37	39.22	282.19	109.96	40.16	292.73	94.17	38.66	239.52
1982	106.51	40.57	279.16	110.00	41.29	289.93	93.48	38.02	238.72
1983	111.16	40.27	296.78	114.50	40.91	307.19	103.71	41.52	266.55
1984	116.02	42.39	308.80	119.97	43.17	321.07	102.32	44.68	253.26
1985	124.28	44.36	333.57	127.88	44.47	346.29	111.78	45.55	285.20
1986	126.89	44.53	342.58	130.46	45.31	353.45	115.06	45.68	296.73
1987	134.54	45.56	367.57	140.34	46.55	385.95	109.54	43.18	283.33
1988	131.37	44.01	360.13	136.38	45.05	375.55	118.77	42.83	317.61
1989	127.27	43.41	346.87	132.46	44.53	362.73	105.21	42.30	269.96
1990	131.93	45.61	357.95	136.36	45.39	374.56	118.95	48.98	302.15
1991	133.92	47.27	360.82	139.03	47.30	379.26	117.56	50.98	291.91
1992	132.14	43.47	364.32	135.90	43.66	377.44	124.27	47.14	326.22
1993	129.31	42.89	355.61	133.33	43.36	368.92	119.66	45.20	314.63
1994	131.10	42.46	363.19	135.84	42.83	379.41	122.94	47.66	320.09
1995	132.75	43.23	367.16	137.89	43.83	384.21	123.78	45.59	328.54
1996	133.83	43.60	370.10	138.39	44.08	385.33	124.65	44.41	334.76
1997	138.14	43.59	385.71	142.99	44.19	401.69	125.48	44.55	337.41
1998	141.55	45.50	393.06	147.00	45.80	411.99	124.65	46.74	328.67
1999	141.66	43.87	397.75	147.43	45.21	415.11	126.09	43.96	341.15
2000	136.69	43.55	380.60	143.32	44.08	403.18	118.23	44.93	310.17
2001	139.01	44.03	387.72	145.33	44.96	408.15	116.04	39.99	315.18
2002	136.00	42.93	379.72	141.74	43.68	398.50	123.81	41.46	339.47
2003	127.21	43.43	346.59	132.23	44.43	362.15	124.33	43.54	335.88
2004	128.36	45.01	346.63	132.61	45.05	361.91	124.83	47.94	326.18
2005	126.89	44.18	343.46	131.99	44.70	360.58	119.24	45.99	311.03
2006	126.57	44.25	342.12	130.97	45.30	355.30	125.75	45.59	335.67
2007	128.56	45.37	346.40	133.09	45.98	361.19	125.41	45.44	334.79
2008	128.69	45.56	346.38	132.09	45.84	357.95	129.12	45.24	348.75
2009	131.20	45.55	355.50	135.03	46.16	367.73	130.19	45.92	350.88
2010	127.24	44.28	344.48	131.41	45.27	356.96	123.56	44.91	329.50
2011	130.87	45.68	353.94	134.50	45.72	366.96	129.77	49.23	340.65

Additional information on the model used to delay-adjust SEER Incidence rates can be found at [\(http://surveillance.cancer.gov/delay/\)](http://surveillance.cancer.gov/delay/).

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

Table 4.8  
Cancer of the Female Breast (*In Situ*)

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

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
Year of Diagnosis:									
1975	5.83	3.80	11.15	5.90	3.84	11.28	3.94	-	8.31
1976	5.28	2.70	12.02	5.36	2.87	11.87	3.28	-	9.40
1977	4.25	2.56	8.67	4.32	2.59	8.85	3.03	-	-
1978	4.40	2.36	9.74	4.55	2.50	9.91	3.29	-	-
1979	4.58	2.81	9.21	4.65	2.85	9.37	4.78	-	9.55
1980	4.83	2.98	9.67	5.06	3.11	10.17	3.56	-	-
1981	4.96	2.64	11.05	4.93	2.52	11.26	4.08	-	8.72
1982	5.30	2.73	12.03	5.34	2.71	12.24	5.55	2.73	12.95
1983	6.09	3.03	14.09	6.22	3.03	14.57	5.41	-	13.20
1984	8.62	4.79	18.66	9.20	5.22	19.64	6.35	2.37	16.77
1985	11.53	5.93	26.20	12.10	6.27	27.39	8.21	3.49	20.58
1986	13.63	6.79	31.56	14.27	7.23	32.70	9.32	5.12	20.33
1987	17.38	7.82	42.40	18.22	8.24	44.35	12.30	5.64	29.74
1988	17.58	8.18	42.19	18.12	8.50	43.30	16.02	7.38	38.62
1989	16.55	7.02	41.49	17.09	7.26	42.86	14.67	5.52	38.62
1990	19.14	8.38	47.32	19.92	8.72	49.24	15.08	5.54	40.04
1991	19.80	8.79	48.66	20.51	8.90	50.89	15.42	7.30	36.70
1992	21.44	9.01	53.99	22.17	9.25	56.01	19.10	6.83	51.21
1993	20.72	8.37	53.05	21.37	8.80	54.29	16.64	6.06	44.32
1994	22.31	8.74	57.85	22.90	9.02	59.26	20.12	7.57	53.01
1995	24.73	9.64	64.24	25.12	10.02	64.64	22.83	6.51	65.57
1996	25.38	9.84	66.07	25.93	9.84	68.07	22.85	7.72	62.48
1997	28.32	11.04	73.57	28.97	11.25	75.39	28.24	11.32	72.55
1998	32.82	12.01	87.30	33.78	12.35	89.88	30.46	10.69	82.24
1999	32.78	11.99	87.23	33.25	12.25	88.25	29.55	10.33	79.87
2000	32.86	11.81	88.00	33.94	12.56	89.91	29.66	8.06	86.22
2001	33.71	11.59	91.66	34.30	12.05	92.56	31.97	9.11	91.85
2002	34.07	11.91	92.11	34.66	12.34	93.08	28.68	8.70	80.98
2003	32.50	12.04	86.07	33.55	12.58	88.47	30.07	9.44	84.07
2004	33.19	12.78	86.65	34.04	13.03	89.04	30.60	10.13	84.21
2005	32.70	12.51	85.57	33.69	13.04	87.76	32.09	10.29	89.15
2006	33.30	13.87	84.18	33.73	14.46	84.17	35.88	11.77	99.03
2007	35.41	14.40	90.44	35.96	14.90	91.11	33.58	10.96	92.81
2008	36.91	14.17	96.45	37.28	14.80	96.15	36.76	11.77	102.22
2009	37.04	14.46	96.17	37.84	15.09	97.43	35.90	11.43	99.97
2010	33.88	13.12	88.25	34.34	13.21	89.68	33.26	12.33	88.09
2011	35.72	14.45	91.42	36.20	14.88	92.05	34.30	10.95	95.44

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 4.9  
Cancer of the Female Breast (Invasive)

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

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
Year of Diagnosis:									
1975-2011	125.66	43.41	341.02	129.53	43.90	353.75	116.02	44.26	303.94
1975	105.07	40.62	273.82	107.36	40.68	281.95	93.57	42.97	226.09
1976	101.92	40.03	263.98	104.79	40.83	272.27	85.57	37.85	210.55
1977	100.82	39.11	262.40	103.44	39.40	271.13	86.82	37.62	215.67
1978	100.64	38.86	262.41	103.66	39.35	272.07	86.03	40.01	206.55
1979	102.14	38.05	269.96	104.76	38.65	277.88	86.83	37.76	215.33
1980	102.26	37.80	271.07	105.13	38.29	280.16	89.51	37.69	225.20
1981	106.37	39.22	282.19	109.96	40.16	292.73	94.17	38.66	239.52
1982	106.50	40.57	279.15	109.99	41.29	289.91	93.47	38.02	238.68
1983	111.15	40.27	296.75	114.48	40.91	307.15	103.68	41.51	266.47
1984	116.00	42.39	308.75	119.94	43.16	321.00	102.27	44.66	253.14
1985	124.26	44.35	333.50	127.84	44.46	346.19	111.71	45.52	285.02
1986	126.86	44.51	342.49	130.42	45.29	353.33	114.97	45.64	296.50
1987	134.50	45.54	367.46	140.29	46.53	385.80	109.44	43.13	283.06
1988	131.33	43.99	360.02	136.33	45.03	375.39	118.65	42.79	317.29
1989	127.22	43.39	346.72	132.38	44.50	362.50	105.07	42.24	269.58
1990	131.86	45.59	357.77	136.26	45.36	374.29	118.75	48.90	301.66
1991	133.85	47.24	360.62	138.93	47.26	378.96	117.35	50.89	291.38
1992	132.05	43.44	364.09	135.78	43.62	377.10	124.02	47.05	325.56
1993	129.22	42.86	355.36	133.20	43.32	368.55	119.39	45.10	313.92
1994	131.00	42.43	362.91	135.69	42.78	378.98	122.64	47.54	319.29
1995	132.63	43.19	366.84	137.72	43.77	383.73	123.44	45.46	327.63
1996	133.70	43.56	369.74	138.19	44.02	384.80	124.26	44.27	333.73
1997	137.99	43.55	385.29	142.77	44.13	401.06	125.05	44.39	336.26
1998	141.39	45.45	392.61	146.76	45.73	411.31	124.20	46.57	327.48
1999	141.46	43.80	397.19	147.13	45.11	414.26	125.54	43.77	339.66
2000	136.48	43.48	379.99	142.98	43.98	402.25	117.66	44.71	308.67
2001	138.76	43.96	387.03	144.95	44.84	407.09	115.41	39.77	313.48
2002	135.73	42.84	378.95	141.32	43.55	397.33	123.07	41.21	337.43
2003	126.92	43.33	345.80	131.79	44.28	360.95	123.49	43.24	333.63
2004	128.03	44.89	345.73	132.11	44.88	360.54	123.90	47.58	323.74
2005	126.51	44.05	342.44	131.43	44.51	359.03	118.23	45.61	308.41
2006	126.14	44.10	340.96	130.32	45.07	353.54	124.56	45.16	332.49
2007	128.06	45.19	345.05	132.33	45.72	359.13	124.07	44.96	331.22
2008	128.11	45.36	344.82	131.23	45.54	355.60	127.55	44.69	344.53
2009	130.52	45.31	353.64	134.00	45.81	364.93	128.40	45.28	346.04
2010	126.46	44.01	342.38	130.24	44.87	353.79	121.62	44.21	324.32
2011	129.56	45.23	350.39	132.58	45.07	361.73	126.69	48.07	332.57

<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 4.10  
Cancer of the Female Breast (Invasive)  
Age-adjusted U.S. Death<sup>a</sup> Rates by Year, Race and Age

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
Year of Death:									
1975-2011	28.42	6.78	85.06	28.24	6.42	85.37	33.97	10.44	95.58
1975	31.45	9.11	89.94	31.79	9.01	91.42	29.49	10.68	78.75
1976	31.80	8.74	92.21	32.17	8.64	93.80	30.47	10.22	83.50
1977	32.48	8.86	94.34	32.67	8.75	95.32	32.80	10.52	91.13
1978	31.73	8.69	92.08	31.90	8.46	93.29	32.14	11.37	86.53
1979	31.21	8.58	90.47	31.48	8.34	92.07	30.82	11.36	81.78
1980	31.68	8.57	92.22	31.93	8.39	93.56	31.68	10.82	86.31
1981	31.92	8.46	93.33	32.12	8.20	94.77	32.55	11.48	87.74
1982	32.19	8.42	94.43	32.31	8.19	95.46	33.75	11.19	92.83
1983	32.07	8.16	94.70	32.20	7.89	95.85	33.53	11.17	92.10
1984	32.90	8.58	96.57	32.90	8.22	97.55	35.94	12.55	97.21
1985	32.98	8.56	96.90	33.11	8.30	98.09	34.85	12.04	94.58
1986	32.87	8.64	96.32	32.93	8.26	97.53	35.44	12.86	94.58
1987	32.66	8.44	96.08	32.57	7.99	96.93	36.73	12.94	99.04
1988	33.20	8.39	98.18	33.09	8.01	98.78	37.78	12.71	103.42
1989	33.23	8.42	98.22	33.23	8.06	99.16	36.61	12.41	99.96
1990	33.14	8.32	98.14	33.02	7.99	98.55	38.00	11.99	106.13
1991	32.69	8.16	96.91	32.45	7.73	97.15	38.28	12.31	106.29
1992	31.64	7.77	94.15	31.43	7.37	94.45	37.09	12.03	102.73
1993	31.39	7.41	94.18	31.09	6.99	94.20	38.04	11.65	107.14
1994	30.92	7.37	92.58	30.56	6.92	92.47	37.74	11.70	105.91
1995	30.55	7.29	91.46	30.09	6.80	91.07	38.18	11.71	107.49
1996	29.49	6.95	88.53	29.05	6.40	88.35	37.13	11.74	103.61
1997	28.21	6.71	84.53	27.62	6.22	83.64	37.43	11.03	106.56
1998	27.54	6.34	83.05	27.01	5.82	82.50	35.53	10.65	100.68
1999	26.61	5.75	81.22	25.98	5.20	80.40	35.21	10.27	100.52
2000	26.64	5.89	80.99	26.17	5.37	80.64	34.36	9.94	98.31
2001	26.01	5.86	78.77	25.43	5.36	77.98	34.52	9.85	99.12
2002	25.62	5.63	77.97	25.02	5.07	77.28	34.14	10.02	97.31
2003	25.27	5.58	76.85	24.66	5.08	75.90	34.10	9.62	98.19
2004	24.49	5.21	74.99	23.94	4.67	74.38	32.29	9.26	92.60
2005	24.14	5.20	73.74	23.49	4.65	72.83	32.81	9.46	93.95
2006	23.56	5.05	72.01	23.02	4.58	71.32	31.62	8.88	91.17
2007	22.96	4.77	70.60	22.40	4.28	69.85	31.36	8.55	91.10
2008	22.55	4.74	69.20	21.99	4.32	68.23	30.96	8.23	90.47
2009	22.24	4.81	67.88	21.76	4.48	67.01	30.19	7.96	88.39
2010	21.92	4.53	67.47	21.33	4.08	66.53	30.16	8.02	88.15
2011	21.54	4.47	66.24	20.92	4.03	65.16	30.17	7.84	88.67

<sup>a</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention.  
Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 4.11  
Cancer of the Female Breast (*In Situ*)

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

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
Year of Diagnosis:									
1975-2011	23.32	9.61	59.19	23.34	9.75	58.92	22.58	8.01	60.73
1975	5.83	3.80	11.15	5.90	3.84	11.28	3.94	-	8.31
1976	5.28	2.70	12.02	5.36	2.87	11.87	3.28	-	9.40
1977	4.25	2.56	8.67	4.32	2.59	8.85	3.03	-	-
1978	4.40	2.36	9.74	4.55	2.50	9.91	3.29	-	-
1979	4.58	2.81	9.21	4.65	2.85	9.37	4.78	-	9.55
1980	4.83	2.98	9.67	5.06	3.11	10.17	3.56	-	-
1981	4.96	2.64	11.05	4.93	2.52	11.26	4.08	-	8.72
1982	5.30	2.73	12.03	5.34	2.71	12.24	5.55	2.73	12.94
1983	6.09	3.03	14.09	6.22	3.03	14.57	5.41	-	13.20
1984	8.62	4.79	18.66	9.20	5.21	19.64	6.35	2.37	16.77
1985	11.53	5.93	26.19	12.10	6.27	27.38	8.21	3.49	20.57
1986	13.63	6.79	31.56	14.27	7.23	32.69	9.32	5.12	20.32
1987	17.38	7.82	42.39	18.21	8.23	44.33	12.30	5.64	29.73
1988	17.58	8.18	42.18	18.11	8.50	43.28	16.01	7.38	38.60
1989	16.54	7.02	41.49	17.09	7.25	42.84	14.66	5.52	38.59
1990	19.14	8.38	47.31	19.91	8.72	49.21	15.06	5.54	40.01
1991	19.80	8.78	48.64	20.49	8.90	50.86	15.41	7.29	36.66
1992	21.43	9.01	53.98	22.15	9.24	55.97	19.08	6.83	51.16
1993	20.71	8.37	53.04	21.36	8.80	54.25	16.62	6.06	44.27
1994	22.31	8.74	57.84	22.89	9.01	59.22	20.10	7.56	52.96
1995	24.72	9.64	64.21	25.10	10.02	64.59	22.80	6.50	65.50
1996	25.37	9.84	66.05	25.91	9.83	68.01	22.83	7.71	62.41
1997	28.31	11.03	73.54	28.95	11.24	75.32	28.21	11.31	72.46
1998	32.80	12.00	87.27	33.75	12.34	89.80	30.43	10.68	82.14
1999	32.77	11.98	87.19	33.22	12.24	88.15	29.50	10.32	79.75
2000	32.84	11.80	87.95	33.90	12.54	89.81	29.61	8.04	86.08
2001	33.70	11.58	91.62	34.25	12.03	92.44	31.92	9.09	91.69
2002	34.05	11.90	92.05	34.61	12.33	92.96	28.62	8.69	80.83
2003	32.48	12.03	86.01	33.50	12.56	88.34	30.01	9.43	83.90
2004	33.17	12.77	86.58	33.98	13.01	88.90	30.53	10.11	84.03
2005	32.67	12.50	85.50	33.63	13.02	87.61	32.02	10.27	88.95
2006	33.27	13.86	84.10	33.67	14.44	84.02	35.80	11.74	98.79
2007	35.38	14.38	90.35	35.89	14.87	90.94	33.49	10.94	92.57
2008	36.87	14.16	96.34	37.20	14.77	95.95	36.66	11.73	101.94
2009	36.99	14.45	96.04	37.73	15.04	97.14	35.76	11.38	99.58
2010	33.83	13.10	88.12	34.17	13.14	89.23	33.05	12.25	87.52
2011	35.54	14.37	90.96	35.83	14.72	91.11	33.85	10.81	94.21

<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 4.12  
Cancer of the Breast (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	67.1	1.2	124.6	68.3	1.2	128.0	70.0	1.8	122.8
Under 65	41.9	0.5	81.7	42.0	0.4	83.1	44.5	0.7	82.7
65 and over	241.8	6.7	420.5	249.9	6.8	438.4	246.7	8.7	400.1
All ages (IARC world std) <sup>c</sup>	47.6	0.8	90.0	48.2	0.8	92.3	49.7	1.1	89.1
Age-Specific Rates, 2007-2011									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	0.1	-	0.2	-	-	-	-	-	-
20-24	0.7	-	1.5	0.7	-	1.4	1.0	-	2.0
25-29	4.3	-	8.6	4.0	-	8.2	6.3	-	12.1
30-34	13.3	-	26.7	12.8	-	26.3	18.2	-	34.4
35-39	29.9	0.2	59.5	29.2	0.2	59.2	35.7	-	67.5
40-44	61.7	0.5	122.5	60.6	0.5	122.3	66.2	-	125.2
45-49	95.5	0.7	188.6	96.2	0.6	192.3	95.7	1.0	181.0
50-54	114.6	1.2	224.0	115.4	1.1	228.6	117.6	2.3	220.7
55-59	138.3	1.9	266.4	139.3	2.0	271.7	148.8	2.4	273.4
60-64	182.1	3.1	346.7	186.0	2.9	358.7	187.5	5.5	336.1
65-69	225.4	4.8	420.2	232.1	4.9	437.1	225.3	6.5	394.6
70-74	239.9	6.1	433.8	249.0	6.2	454.5	240.3	7.9	407.9
75-79	255.5	7.7	443.3	265.5	7.9	465.3	257.7	10.9	414.7
80-84	257.0	7.6	420.6	265.1	7.8	436.8	267.0	9.8	404.4
85+	240.4	9.3	354.4	246.2	9.6	363.0	264.5	-	366.0
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2007-2011									
All ages	12.4	0.3	22.2	12.1	0.3	21.7	18.0	0.5	30.6
Under 65	5.6	0.1	10.9	5.2	0.1	10.2	9.4	0.2	17.3
65 and over	59.6	1.7	100.5	59.2	1.6	100.6	77.9	2.8	122.3
All ages (IARC world std) <sup>c</sup>	7.8	0.2	14.4	7.5	0.2	13.9	11.7	0.3	20.5
Age-Specific Rates, 2007-2011									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	0.0	-	0.1	0.0	-	0.1	0.1	-	0.2
25-29	0.3	-	0.7	0.3	-	0.6	0.7	-	1.4
30-34	1.4	-	2.7	1.2	-	2.4	2.9	-	5.4
35-39	3.4	0.0	6.8	3.0	-	6.1	6.6	-	12.3
40-44	6.7	0.1	13.3	6.0	0.1	12.0	12.4	-	23.3
45-49	10.6	0.1	20.8	9.7	0.1	19.2	18.3	-	34.4
50-54	16.1	0.2	31.4	15.0	0.2	29.5	26.5	0.4	49.3
55-59	21.9	0.4	42.1	20.6	0.4	40.0	35.9	0.8	65.6
60-64	29.1	0.7	55.3	28.2	0.7	54.1	42.6	1.3	76.2
65-69	37.0	0.9	69.0	36.4	0.8	68.6	51.6	2.2	89.4
70-74	44.5	1.2	80.8	43.9	1.2	80.5	61.2	2.2	103.1
75-79	57.0	1.6	99.3	56.9	1.6	100.0	72.9	2.3	117.0
80-84	77.8	2.4	127.4	77.5	2.4	127.9	100.9	3.8	152.0
85+	123.8	3.6	181.3	124.2	3.6	182.4	152.1	4.9	209.2

<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 4.13  
Cancer of the Female Breast(*In Situ*)

SEER Incidence<sup>a</sup> Rates, Age-Adjusted and Age-Specific Rates, by Race

	All Races, Females	White Females	Black Females
<u>Age-Adjusted Rates, 2007-2011</u>			
Age at Diagnosis:			
All ages	31.7	32.1	29.9
Under 65	23.6	23.9	20.9
65 and over	87.7	88.4	92.0
All ages (IARC world std) <sup>b</sup>	23.9	24.2	22.3
<u>Age-Specific Rates, 2007-2011</u>			
Age at Diagnosis:			
<1	-	-	-
1-4	-	-	-
5-9	-	-	-
10-14	-	-	-
15-19	-	-	-
20-24	0.1	-	-
25-29	0.7	0.6	0.9
30-34	2.7	2.5	3.3
35-39	10.9	10.9	10.5
40-44	40.4	40.9	32.6
45-49	61.4	63.2	46.5
50-54	74.0	75.8	60.7
55-59	74.8	75.4	73.4
60-64	89.5	89.5	96.4
65-69	105.4	106.2	104.1
70-74	100.2	101.0	108.6
75-79	92.6	93.4	95.3
80-84	70.0	71.0	78.3
85+	34.8	34.5	41.4

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

<sup>b</sup> 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 4.14  
Cancer of the Female Breast (Invasive)

5-Year Relative and Period Survival (Percent) by Race, Diagnosis Year, Stage and Age

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
5-Year Relative Survival (Percent)									
Year of Diagnosis:									
1960-1963 <sup>a</sup>	-	-	-	63	-	-	46	-	-
1970-1973 <sup>a</sup>	-	-	-	68	-	-	51	-	-
1975-1977 <sup>b</sup>	74.8	76.5	74.3	75.6	77.8	74.9	62.0	62.3	61.9
1978-1980 <sup>b</sup>	74.4	75.5	74.1	75.1	76.1	74.8	63.3	67.0	61.3
1981-1983 <sup>b</sup>	76.1	77.4	75.7	77.1	78.6	76.7	63.3	65.0	62.5
1984-1986 <sup>b</sup>	78.9	77.8	79.3	80.0	79.5	80.2	65.0	63.9	65.7
1987-1989 <sup>b</sup>	84.0	81.4	85.0	85.1	82.7	85.9	71.0	69.5	71.9
1990-1992 <sup>b</sup>	85.2	83.3	85.9	86.5	85.1	87.0	71.4	70.1	72.3
1993-1995 <sup>b</sup>	86.4	84.2	87.1	87.7	86.2	88.1	72.6	70.2	74.0
1996-1998 <sup>b</sup>	88.2	86.5	88.9	89.4	88.2	89.8	76.1	73.9	77.4
1999-2003 <sup>b</sup>	89.9	88.5	90.4	91.2	90.2	91.5	78.1	77.2	78.6
2004-2010 <sup>b</sup>	90.5 <sup>f</sup>	90.6 <sup>f</sup>	90.4 <sup>f</sup>	91.8 <sup>f</sup>	92.2 <sup>f</sup>	91.7 <sup>f</sup>	80.0 <sup>f</sup>	80.4 <sup>f</sup>	79.9 <sup>f</sup>
5-Year Period Survival (Percent) <sup>cd</sup>									
2010	89.4	89.5	89.4	90.5	90.6	90.5	80.0	80.9	79.6
Stage Distribution (%) 2004-2010 <sup>ce</sup>									
All Stages									
Number of cases	320,768	79,483	241,285	259,205	60,031	199,174	33,950	10,472	23,478
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	61	54	63	62	55	64	52	48	54
Regional	32	40	29	31	40	29	37	43	35
Distant	5	5	6	5	4	5	9	8	9
Unstaged	2	1	2	2	1	2	2	1	2
5-Year Relative Survival (Percent), 2004-2010 <sup>c</sup>									
Age at Diagnosis:									
Ages <45	88.0	-	-	89.4	-	-	78.6	-	-
Ages 45-54	90.3	-	-	91.7	-	-	80.3	-	-
Ages 55-64	90.0	-	-	91.1	-	-	80.7	-	-
Ages 65-74	90.4	-	-	91.4	-	-	80.8	-	-
Ages 75+	86.4	-	-	87.7	-	-	72.2	-	-
Ages <65	89.7	-	-	90.9	-	-	80.0	-	-
Ages 65+	88.5	-	-	89.6	-	-	77.2	-	-
Stage <sup>e</sup> :									
All Stages	89.2	89.4	89.2	90.4	90.7	90.3	79.1	79.7	78.9
Localized	98.5	96.6	99.0	99.1	97.1	99.6	94.0	93.0	94.4
Regional	84.6	86.4	83.8	86.0	88.1	85.1	74.6	75.7	74.0
Distant	25.0	33.8	22.6	26.2	36.2	23.8	16.4	22.7	13.8
Unstaged	49.8	73.0	44.9	48.1	74.6	43.2	45.6	56.8 <sup>g</sup>	42.1
In Situ <sup>j</sup>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0

<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.

<sup>j</sup> In situ cases are not included in the All Stages group.

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

Table 4.15  
Cancer of the Female Breast (Invasive)

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

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Survival Time																				
1-year	94.4	95.1	96.3	97.1	97.1	96.9	97.4	97.5	97.5	97.5	97.3	97.6	97.8	97.8	97.8	97.8	97.7	97.7	97.8	97.5
2-year	88.7	89.9	92.3	93.8	94.0	93.6	94.3	94.9	95.1	95.4	95.1	95.5	95.5	95.6	95.8	95.7	96.0	95.7	95.9	
3-year	83.1	84.6	88.3	90.4	91.3	90.9	92.0	92.9	93.1	93.5	92.9	93.6	93.3	93.3	93.8	93.7	93.9	93.6		
4-year	78.4	80.2	85.0	87.8	88.8	88.8	89.9	91.1	91.3	91.7	91.0	91.8	91.6	91.4	91.9	92.2	92.3			
5-year	74.6	76.3	82.2	85.6	86.8	86.7	88.4	89.5	89.7	90.3	89.5	90.3	89.8	89.9	90.5	90.6				
6-year	71.4	73.4	79.9	83.8	85.4	85.0	87.0	88.4	88.2	89.1	88.3	88.8	88.6	88.5	89.0					
7-year	68.7	70.6	77.8	82.1	83.8	83.9	85.9	87.2	87.1	87.8	86.9	87.6	87.4	87.2						
8-year	66.4	68.3	76.3	80.9	82.6	82.5	85.0	85.9	86.0	86.5	85.9	86.4	86.2							
9-year	64.2	66.4	74.6	79.8	81.4	81.5	83.8	84.8	85.1	85.3	85.2	85.4								
10-year	62.4	64.5	73.3	78.7	80.6	80.5	82.7	83.5	84.2	84.5	84.3									
11-year	60.8	62.7	72.1	77.7	79.6	79.6	81.8	82.7	82.9	83.5										
12-year	59.3	61.5	70.8	76.8	78.6	78.7	81.1	82.0	82.3											
13-year	58.1	60.4	69.8	75.9	77.5	77.6	80.0	80.9												
14-year	57.1	59.1	69.0	75.0	76.8	76.8	79.2													
15-year	56.0	58.2	68.1	74.2	75.8	76.0														
16-year	55.1	57.2	67.2	73.3	74.6															
17-year	54.1	56.2	66.5	72.3																
18-year	53.3	55.5	65.7																	
19-year	52.5	54.9	65.1																	
20-year	51.7	54.1	64.5																	
21-year	51.0	53.4	63.7																	
22-year	50.5	52.7	63.1																	
23-year	49.9	52.1																		
24-year	49.2	51.4																		
25-year	48.5	51.0																		
26-year	48.2	50.6																		
27-year	47.8	49.9																		
28-year	47.3																			
29-year	46.8																			
30-year	46.4																			

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

Table 4.16  
Cancer of the Female Breast (Ages <50, Invasive)

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

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Survival Time																				
1-year	96.6	97.4	97.9	98.0	97.9	97.7	98.0	98.3	98.6	98.4	98.2	98.5	98.8	98.5	98.8	98.8	99.0	98.7	98.8	98.6
2-year	90.7	91.2	92.5	93.8	93.6	93.7	94.7	95.1	95.0	95.6	94.6	95.7	96.1	95.9	96.0	96.7	97.1	96.3	96.4	
3-year	84.5	85.5	87.3	89.7	90.0	90.7	91.6	92.1	92.2	92.9	91.6	93.2	93.7	93.2	93.8	94.7	95.0	93.9		
4-year	79.9	80.9	83.3	86.3	86.6	88.1	88.7	89.4	90.0	90.5	89.3	90.6	91.8	91.1	92.1	93.0	93.3			
5-year	76.0	77.0	80.1	83.7	84.1	85.5	86.7	87.3	88.1	88.9	87.3	88.6	89.8	89.3	90.6	91.0				
6-year	73.2	74.1	77.9	81.7	82.2	83.3	84.7	85.3	86.1	87.3	85.2	86.7	88.1	87.7	89.2					
7-year	70.8	71.5	75.8	80.0	80.2	81.7	83.2	83.6	84.8	85.6	83.5	85.2	86.8	86.1						
8-year	68.9	69.5	74.1	78.4	78.7	80.0	81.4	82.2	83.5	83.7	82.1	84.0	85.6							
9-year	67.0	67.7	72.6	77.3	77.5	79.0	80.4	80.7	82.5	82.5	80.9	83.0								
10-year	65.5	66.3	71.4	76.3	76.3	77.6	79.2	79.7	81.5	81.5	80.1									
11-year	64.2	65.0	70.3	75.3	75.5	76.6	78.1	78.8	80.3	80.6										
12-year	62.8	64.0	69.3	74.4	74.5	75.9	77.3	78.0	79.8											
13-year	61.6	63.0	68.3	73.4	73.6	74.6	76.3	77.4												
14-year	60.9	61.9	67.5	72.7	72.9	73.9	75.3													
15-year	60.1	61.1	66.8	72.0	72.1	73.2														
16-year	59.4	60.4	66.1	71.3	71.3															
17-year	58.8	59.7	65.5	70.7																
18-year	58.3	59.1	64.9																	
19-year	57.6	58.6	64.3																	
20-year	56.9	58.1	63.9																	
21-year	56.3	57.3	63.3																	
22-year	55.7	56.6	62.8																	
23-year	55.1	56.0																		
24-year	54.5	55.4																		
25-year	53.9	54.9																		
26-year	53.5	54.4																		
27-year	52.9	53.8																		
28-year	52.6																			
29-year	52.2																			
30-year	51.8																			

<sup>a</sup>

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



Table 4.17  
Cancer of the Female Breast (Ages 50+, Invasive)

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

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Survival Time																				
1-year	93.7	94.4	95.8	96.8	96.8	96.7	97.1	97.2	97.2	97.2	97.0	97.3	97.5	97.5	97.4	97.4	97.3	97.3	97.5	97.2
2-year	88.0	89.6	92.3	93.8	94.1	93.6	94.2	94.9	95.2	95.3	95.3	95.4	95.3	95.5	95.7	95.3	95.7	95.5	95.7	
3-year	82.6	84.3	88.6	90.7	91.8	91.0	92.1	93.1	93.4	93.7	93.3	93.7	93.2	93.3	93.8	93.4	93.6	93.5		
4-year	77.9	79.9	85.6	88.4	89.6	89.1	90.3	91.6	91.8	92.1	91.7	92.2	91.5	91.5	91.8	91.9	91.9			
5-year	74.1	76.1	83.0	86.3	87.8	87.1	89.0	90.4	90.2	90.8	90.3	90.9	89.9	90.1	90.4	90.4				
6-year	70.8	73.1	80.5	84.5	86.6	85.7	87.8	89.6	88.9	89.7	89.4	89.6	88.9	88.8	89.0					
7-year	67.9	70.4	78.5	82.9	85.2	84.8	86.9	88.5	87.9	88.6	88.2	88.5	87.6	87.7						
8-year	65.6	68.0	77.0	81.9	84.2	83.5	86.4	87.3	86.9	87.5	87.4	87.2	86.4							
9-year	63.3	65.9	75.3	80.7	82.9	82.5	85.0	86.3	86.0	86.4	86.8	86.3								
10-year	61.3	63.8	73.9	79.7	82.3	81.6	84.0	85.0	85.2	85.6	85.8									
11-year	59.5	61.8	72.6	78.5	81.1	80.8	83.3	84.2	83.9	84.5										
12-year	58.0	60.6	71.3	77.7	80.1	79.8	82.6	83.6	83.1											
13-year	56.7	59.4	70.3	76.8	78.9	78.8	81.4	82.3												
14-year	55.6	58.1	69.4	75.9	78.3	77.9	80.7													
15-year	54.4	57.2	68.4	75.0	77.2	77.1														
16-year	53.3	55.9	67.5	74.0	75.9															
17-year	52.1	54.8	66.7	72.8																
18-year	51.2	54.0	65.9																	
19-year	50.3	53.3	65.2																	
20-year	49.5	52.4	64.5																	
21-year	48.7	51.7	63.6																	
22-year	48.2	51.0	62.8																	
23-year	47.6	50.4																		
24-year	46.9	49.6																		
25-year	46.0	49.1																		
26-year	45.6	48.8																		
27-year	45.3	47.9																		
28-year	44.9																			
29-year	44.2																			
30-year	43.6																			

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

Table 4.18  
Cancer of the Female Breast (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, 2009-2011 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever				+10 yrs	+20 yrs	+30 yrs	Ever	
All Races	0	0.00	0.00	0.06	12.33	2.72	Asian/ Pacific Islander	0	0.00	0.00	0.05	9.93	1.75
	10	0.00	0.06	0.50	12.46	2.75		10	0.00	0.05	0.43	10.00	1.77
	20	0.06	0.50	1.92	12.48	2.76		20	0.05	0.43	1.78	10.01	1.77
	30	0.44	1.88	4.07	12.49	2.77		30	0.39	1.74	3.65	9.99	1.77
	40	1.45	3.67	6.83	12.20	2.74		40	1.36	3.28	5.65	9.67	1.75
	50	2.29	5.56	8.76	11.10	2.63		50	1.96	4.39	6.61	8.49	1.66
	60	3.48	6.89	8.90	9.39	2.38		60	2.52	4.83	6.28	6.79	1.47
	70	3.88	6.16	-	6.72	1.99		70	2.48	4.05	-	4.60	1.20
White	80	3.05	-	-	3.79	1.55	American Indian/ Alaska Native <sup>a</sup>	80	1.85	-	-	2.51	0.95
	0	0.00	0.00	0.06	12.70	2.69		0	0.00	0.00	0.04	7.92	1.73
	10	0.00	0.06	0.49	12.81	2.71		10	0.00	0.04	0.27	7.99	1.76
	20	0.06	0.49	1.93	12.84	2.72		20	0.04	0.27	1.06	8.02	1.77
	30	0.43	1.89	4.12	12.84	2.73		30	0.24	1.03	2.47	8.06	1.78
	40	1.47	3.73	7.01	12.56	2.71		40	0.81	2.28	4.51	7.97	1.78
	50	2.34	5.73	9.08	11.46	2.60		50	1.52	3.85	6.08	7.44	1.74
	60	3.61	7.18	9.24	9.71	2.37		60	2.48	4.87	5.82	6.32	1.59
Black	70	4.06	6.41	-	6.95	1.99	Hispanic <sup>b</sup>	70	2.72	3.79	-	4.36	1.37
	80	3.16	-	-	3.88	1.54		80	1.43	-	-	2.19	1.15
	0	0.00	0.00	0.08	10.99	3.26		0	0.00	0.00	0.05	9.76	2.05
	10	0.00	0.08	0.59	11.20	3.33		10	0.00	0.05	0.37	9.84	2.07
	20	0.08	0.59	1.98	11.22	3.34		20	0.05	0.37	1.46	9.86	2.07
	30	0.51	1.91	4.03	11.23	3.35		30	0.32	1.42	3.17	9.85	2.07
	40	1.42	3.58	6.45	10.91	3.30		40	1.10	2.87	5.28	9.61	2.05
	50	2.25	5.25	7.95	9.91	3.12		50	1.80	4.27	6.64	8.70	1.95
	60	3.29	6.25	7.91	8.39	2.76		60	2.59	5.06	6.60	7.22	1.76
	70	3.52	5.50	-	6.08	2.31		70	2.72	4.41	-	5.10	1.48
	80	2.81	-	-	3.62	1.83		80	2.10	-	-	2.95	1.16

Devcan 6.8.0, August 2014, National Cancer Institute (<http://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey, and Georgia excluding ATL/RG). Mortality data are from the NCHS public use data file for the total US.

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

<sup>b</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives.

- Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

- Statistic could not be calculated.

A percent of 0.00 represents a value that is below 0.005.

Table 4.19  
Cancer of the Female Breast (Invasive)

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

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	Females	Females	Females
All Races	124.6	-0.4	-0.3
White	128.0	-0.5	-0.5
White Hispanic <sup>e</sup>	95.1	0.1	-
White Non-Hispanic <sup>e</sup>	134.1	-0.4	-
Black	122.8	0.2*	0.1
Asian/Pacific Islander	93.6	0.6	-
Amer Ind/Alaska Nat <sup>f</sup>	79.3	0.0	-
Hispanic <sup>e</sup>	91.3	0.1	-
<u>U.S. Mortality<sup>g</sup></u>			
	Rate 2007-2011	Trend 2002-2011 <sup>h</sup>	
	Rate per 100,000 persons	AAPC (%)	
RACE/ETHNICITY	Females	Females	
All Races	22.2	-1.9*	
White	21.7	-1.9*	
White Hispanic <sup>e</sup>	15.4	-1.5*	
White Non-Hispanic <sup>e</sup>	22.2	-1.9*	
Black	30.6	-1.5*	
Asian/Pacific Islander	11.3	-1.0*	
Amer Ind/Alaska Nat			
Total U.S.	12.0	-1.4*	
CHSDA Counties	15.2	-0.5	
Non-CHSDA Counties	8.4	-2.9*	
Hispanic <sup>e</sup>	14.5	-1.5*	

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

<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 4.20  
Cancer of the Female Breast (*In Situ*)

SEER Incidence  
Age-Adjusted Rates and Trends<sup>a</sup>  
By Race/Ethnicity

SEER Incidence RACE/ETHNICITY	SEER 18 Areas <sup>b</sup> Rate 2007-2011 Rate per 100,000 persons	SEER 13 Areas <sup>b</sup> Trend 2002-2011 <sup>c</sup> AAPC (%)	SEER 9 Areas <sup>b</sup> Trend 2002-2011 <sup>d</sup> AAPC (%)
	Females	Females	Females
All Races	31.7	0.6	0.8*
White	32.1	0.4	0.7*
White Hispanic <sup>e</sup>	21.1	1.6*	-
White Non-Hispanic <sup>e</sup>	34.4	0.5	-
Black	29.9	0.7	1.6*
Asian/Pacific Islander	29.7	0.0	-
Amer Ind/Alaska Nat <sup>f</sup>	15.0	1.5	-
Hispanic <sup>e</sup>	20.5	1.5*	-

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.

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

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

Table 4.21  
Cancer of the Female Breast (Invasive)

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

	All Races			Whites			Blacks		
	All Ages	Ages <50	Ages 50+	All Ages	Ages <50	Ages 50+	All Ages	Ages <50	Ages 50+
<u>SEER Incidence Rates<sup>a</sup>, 2007-2011</u>									
California	122.36	40.80	335.94	128.04	41.34	355.07	122.15	40.28	336.53
Greater Bay Area	126.65	44.28	342.34	137.74	45.83	378.42	122.35	38.99	340.63
San Francisco-Oakland	128.57	44.68	348.22	139.43	45.99	384.12	124.66	39.60	347.41
San Jose-Monterey	122.96	43.57	330.86	134.86	45.59	368.62	106.79	35.23	294.18
Los Angeles	117.08	40.26	318.23	121.06	39.42	334.84	126.34	42.46	345.98
Greater California	123.30	39.81	341.94	128.06	40.92	356.25	117.67	38.78	324.24
Connecticut	136.65	50.58	362.02	139.30	51.98	367.96	110.58	41.50	291.47
Detroit	127.46	45.34	342.52	128.58	45.74	345.50	126.62	45.00	340.37
Georgia	123.78	43.75	333.35	124.61	42.03	340.86	123.64	48.09	321.46
Atlanta	132.92	48.50	353.98	138.15	49.11	371.31	132.00	49.74	347.42
Rural Georgia	125.79	48.47	328.24	134.28	51.55	350.93	107.85	45.18	271.94
Greater Georgia	119.06	40.82	323.92	119.27	38.89	329.75	118.34	46.59	306.23
Hawaii	125.99	48.66	328.50	133.52	50.30	351.42	128.62	50.92	332.10
Iowa	124.75	42.86	339.19	125.47	43.33	340.56	104.43	34.52	287.49
Kentucky	120.67	40.54	330.51	120.43	40.26	330.35	127.09	42.66	348.19
Louisiana	121.30	41.43	330.45	120.34	39.81	331.24	126.55	46.19	336.99
New Jersey	129.53	47.93	343.23	133.37	49.39	353.28	118.26	43.92	312.93
New Mexico	109.97	37.26	300.38	114.16	39.36	310.04	85.19	35.88	214.33
Seattle-Puget Sound	138.94	45.36	384.00	143.92	45.74	401.00	126.35	42.68	345.44
Utah	112.03	36.50	309.81	113.13	37.14	312.12	101.46	-	284.81
9 SEER Areas <sup>b</sup>	128.54	45.02	347.26	132.06	45.41	358.97	125.65	45.45	335.65
11 SEER Areas <sup>b</sup>	125.62	43.78	339.93	129.83	43.99	354.60	125.65	44.72	337.56
13 SEER Areas <sup>b</sup>	125.64	43.81	339.92	129.84	44.01	354.61	125.39	44.73	336.61
18 SEER Areas <sup>b</sup>	124.56	42.84	338.55	127.98	43.07	350.35	122.83	44.41	328.19

<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 4.22  
Cancer of the Female Breast (Invasive)

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

	All Races			Whites			Blacks		
	All Ages	Ages <50	Ages 50+	All Ages	Ages <50	Ages 50+	All Ages	Ages <50	Ages 50+
<u>SEER Death Rates<sup>a</sup>, 2007-2011</u>									
California	21.46	4.34	66.31	22.32	4.24	69.67	32.10	8.47	93.97
Greater Bay Area	20.02	3.72	62.71	21.67	3.46	69.37	29.17	8.78	82.57
San Francisco-Oakland	20.18	3.84	62.98	21.42	3.22	69.07	29.83	9.11	84.09
San Jose-Monterey	19.72	3.52	62.13	22.11	3.85	69.93	23.02	-	65.51
Los Angeles	21.89	4.55	67.30	22.14	4.29	68.86	35.82	9.13	105.71
Greater California	21.76	4.45	67.11	22.56	4.43	70.05	29.42	7.75	86.16
Connecticut	20.77	4.24	64.08	20.56	4.02	63.86	25.36	6.66	74.33
Detroit	25.78	5.73	78.30	23.77	4.64	73.86	33.79	9.12	98.37
Georgia	23.15	5.12	70.35	21.20	3.87	66.59	29.16	7.88	84.86
Atlanta	24.59	5.43	74.76	21.53	3.62	68.40	31.65	8.11	93.29
Rural Georgia	28.98	-	86.89	25.26	-	75.31	36.31	-	110.38
Greater Georgia	22.41	4.90	68.27	21.10	3.95	66.00	27.26	7.68	78.52
Hawaii	15.16	4.50	43.05	19.10	6.60	51.83	-	-	-
Iowa	20.72	4.34	63.60	20.75	4.37	63.66	26.43	-	82.12
Kentucky	22.83	4.58	70.63	22.28	4.37	69.20	32.46	7.66	97.40
Louisiana	25.03	5.36	76.54	21.81	3.98	68.48	33.94	8.39	100.85
New Jersey	24.61	4.70	76.74	24.45	4.48	76.76	30.94	7.41	92.56
New Mexico	20.84	4.83	62.79	21.70	5.27	64.74	21.97	-	72.21
Seattle-Puget Sound	21.18	3.80	66.69	22.02	3.76	69.84	24.96	4.74	77.91
Utah	20.83	4.04	64.79	21.27	4.18	66.01	-	-	-
9 SEER Areas <sup>b</sup>	21.54	4.51	66.11	21.55	4.10	67.22	30.69	7.99	90.14
11 SEER Areas <sup>b</sup>	21.51	4.46	66.16	21.71	4.14	67.71	31.80	8.20	93.60
13 SEER Areas <sup>b</sup>	21.54	4.44	66.30	21.71	4.12	67.76	31.85	8.16	93.88
18 SEER Areas <sup>b</sup>	22.27	4.56	68.65	22.25	4.23	69.43	31.14	7.95	91.86
Total U.S.	22.23	4.67	68.24	21.67	4.24	67.31	30.55	8.12	89.30

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

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

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

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

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

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

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

Table 4.23  
Cancer of the Female Breast (*In Situ*)

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

	All Races			Whites			Blacks		
	All Ages	Ages <50	Ages 50+	All Ages	Ages <50	Ages 50+	All Ages	Ages <50	Ages 50+
<u>SEER Incidence Rates<sup>a</sup>, 2007-2011</u>									
California	29.08	10.71	77.19	29.11	10.49	77.85	27.48	8.32	77.66
Greater Bay Area	35.00	13.98	90.05	36.04	14.02	93.71	28.52	9.08	79.43
San Francisco-Oakland	36.83	14.84	94.42	38.00	15.08	98.04	29.45	9.27	82.30
San Jose-Monterey	31.57	12.44	81.64	32.69	12.23	86.28	21.67	-	57.49
Los Angeles	25.49	9.34	67.76	25.07	8.91	67.37	27.00	8.33	75.88
Greater California	28.71	10.23	77.08	28.79	10.20	77.49	27.57	7.97	78.89
Connecticut	46.50	19.69	116.71	47.49	20.53	118.11	39.17	14.25	104.41
Detroit	37.09	14.65	95.85	37.15	15.80	93.07	37.59	11.74	105.28
Georgia	30.53	11.27	80.96	31.49	11.79	83.10	29.66	10.64	79.47
Atlanta	36.43	13.49	96.48	40.95	15.76	106.94	32.68	11.53	88.05
Rural Georgia	22.05	-	66.59	22.74	-	68.97	20.82	-	61.87
Greater Georgia	27.82	10.07	74.29	28.09	10.21	74.94	27.79	9.98	74.41
Hawaii	36.48	14.45	94.17	33.02	13.58	83.94	-	-	-
Iowa	29.66	11.23	77.92	29.64	11.32	77.60	29.76	-	82.03
Kentucky	25.20	9.26	66.96	24.95	9.21	66.17	30.20	10.39	82.10
Louisiana	24.74	8.07	68.39	25.14	8.39	68.99	24.94	7.65	70.23
New Jersey	40.59	18.45	98.57	42.44	19.76	101.83	30.52	10.78	82.22
New Mexico	19.91	7.29	52.95	20.82	7.81	54.90	-	-	-
Seattle-Puget Sound	40.24	15.64	104.63	40.69	15.62	106.32	37.53	10.52	108.26
Utah	23.97	8.54	64.38	24.26	8.72	64.96	-	-	-
9 SEER Areas <sup>b</sup>	35.72	14.09	92.35	36.17	14.51	92.87	34.54	11.42	95.07
11 SEER Areas <sup>b</sup>	33.15	12.85	86.28	33.58	13.07	87.29	32.62	10.72	89.95
13 SEER Areas <sup>b</sup>	33.10	12.84	86.16	33.55	13.05	87.23	32.46	10.67	89.53
18 SEER Areas <sup>b</sup>	31.68	12.24	82.59	32.06	12.46	83.41	29.90	9.91	82.23

<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.

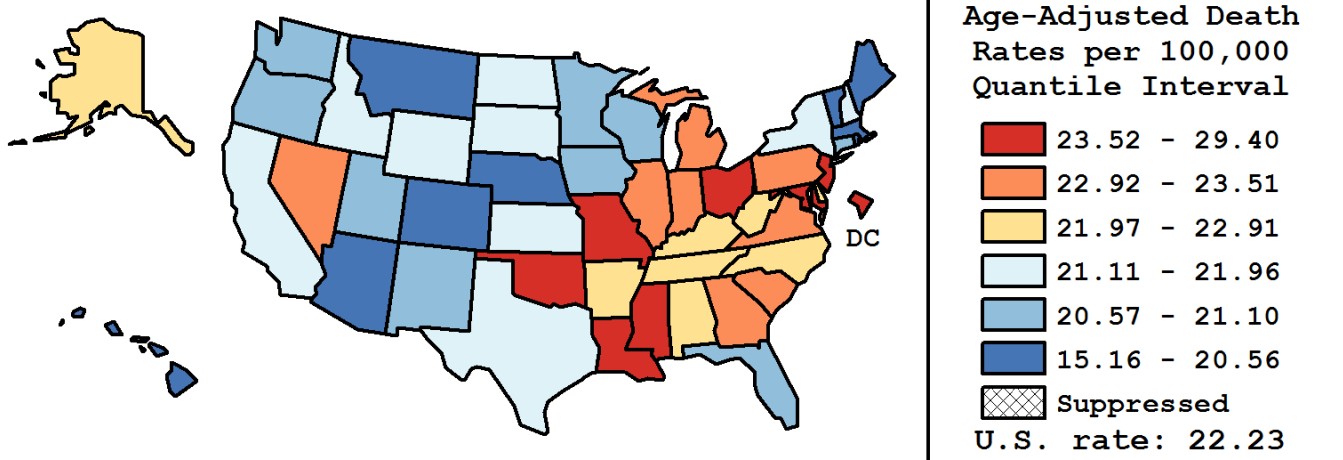
Table 4.24  
Cancer of the Female Breast (Invasive)

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

Females

State	Rate	SE	Rank	PD
TOTAL U.S.	22.23	0.05		
High Five States				
D.C.	29.40 <sup>b</sup>	1.36	(01)	32.22 <sup>c</sup>
Louisiana	25.03 <sup>b</sup>	0.45	(02)	12.59 <sup>c</sup>
New Jersey	24.61 <sup>b</sup>	0.30	(03)	10.68 <sup>c</sup>
Ohio	24.22 <sup>b</sup>	0.26	(04)	8.92
Mississippi	24.18 <sup>b</sup>	0.54	(05)	8.77
Low Five States				
Maine	19.99	0.67	(47)	-10.10 <sup>c</sup>
Nebraska	19.78 <sup>b</sup>	0.61	(48)	-11.02 <sup>c</sup>
Vermont	19.69	1.00	(49)	-11.42 <sup>c</sup>
Colorado	19.35 <sup>b</sup>	0.39	(50)	-12.97 <sup>c</sup>
Hawaii	15.16 <sup>b</sup>	0.62	(51)	-31.83 <sup>c</sup>

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	22.88	0.40	(18)	2.92	Montana	20.09	0.82	(45)	-9.65
Alaska	22.70	1.38	(23)	2.08	Nebraska	19.78 <sup>b</sup>	0.61	(48)	-11.02 <sup>c</sup>
Arizona	20.07 <sup>b</sup>	0.34	(46)	-9.72	Nevada	23.51	0.59	(09)	5.74
Arkansas	22.83	0.51	(19)	2.70	New Hampshire	21.16	0.73	(30)	-4.83
California	21.46 <sup>b</sup>	0.15	(27)	-3.47	New Jersey	24.61 <sup>b</sup>	0.30	(03)	10.68 <sup>c</sup>
Colorado	19.35 <sup>b</sup>	0.39	(50)	-12.97 <sup>c</sup>	New Mexico	20.84	0.60	(38)	-6.24
Connecticut	20.77	0.43	(40)	-6.56	New York	21.96	0.19	(25)	-1.21
Delaware	22.91	0.92	(17)	3.05	North Carolina	22.74	0.29	(22)	2.27
D.C.	29.40 <sup>b</sup>	1.36	(01)	32.22 <sup>c</sup>	North Dakota	21.12	1.02	(32)	-5.02
Florida	21.04 <sup>b</sup>	0.18	(37)	-5.38	Ohio	24.22 <sup>b</sup>	0.26	(04)	8.92
Georgia	23.15	0.31	(16)	4.10	Oklahoma	23.53	0.47	(08)	5.85
Hawaii	15.16 <sup>b</sup>	0.62	(51)	-31.83 <sup>c</sup>	Oregon	21.05	0.43	(35)	-5.30
Idaho	21.90	0.74	(26)	-1.50	Pennsylvania	23.47 <sup>b</sup>	0.24	(13)	5.55
Illinois	23.38 <sup>b</sup>	0.25	(14)	5.18	Rhode Island	20.56	0.78	(43)	-7.53
Indiana	23.20	0.35	(15)	4.37	South Carolina	23.49	0.42	(12)	5.64
Iowa	20.72	0.47	(41)	-6.82	South Dakota	21.13	0.93	(31)	-4.96
Kansas	21.41	0.51	(28)	-3.71	Tennessee	22.74	0.35	(21)	2.29
Kentucky	22.83	0.42	(20)	2.70	Texas	21.35 <sup>b</sup>	0.19	(29)	-3.99
Louisiana	25.03 <sup>b</sup>	0.45	(02)	12.59 <sup>c</sup>	Utah	20.83	0.62	(39)	-6.31
Maine	19.99	0.67	(47)	-10.10 <sup>c</sup>	Vermont	19.69	1.00	(49)	-11.42 <sup>c</sup>
Maryland	23.90 <sup>b</sup>	0.38	(06)	7.48	Virginia	23.51 <sup>b</sup>	0.32	(10)	5.74
Massachusetts	20.44 <sup>b</sup>	0.32	(44)	-8.06	Washington	21.10	0.34	(34)	-5.08
Michigan	23.49 <sup>b</sup>	0.28	(11)	5.66	West Virginia	22.52	0.61	(24)	1.30
Minnesota	20.66 <sup>b</sup>	0.37	(42)	-7.07	Wisconsin	21.05	0.35	(36)	-5.32
Mississippi	24.18 <sup>b</sup>	0.54	(05)	8.77	Wyoming	21.11	1.18	(33)	-5.04
Missouri	23.77 <sup>b</sup>	0.36	(07)	6.89					



<sup>a</sup> US Mortality Files, National Center for Health Statistics, Centers for Disease Control and Prevention. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

<sup>b</sup> Difference between state rate and total U.S. rate is statistically significant ( $p \leq .0002$ ).

<sup>c</sup> Absolute percent difference between state rate and total U.S. rate is 10% or more.

SE Standard error of the rate.

PD Percent difference between state rate and total U.S. rate.

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



Table 4.25  
Cancer of the Breast (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	861,388	681,999	539,624	352,387	226,061	119,480	2,489,129	2,861,883	52,714	2,914,597
	Males	5,977	3,716	2,395	1,156	775	443	13,456	14,737	134	14,871
	Females	855,411	678,283	537,229	351,231	225,286	119,037	2,475,673	2,847,146	52,580	2,899,726
White <sup>b</sup>	Both Sexes	726,636	595,024	477,668	314,850	205,071	108,022	2,162,558	2,501,069	46,544	2,547,613
	Males	4,987	3,184	2,123	1,006	666	399	11,475	12,626	4 <sup>i</sup>	12,630
	Females	721,649	591,840	475,545	313,844	204,405	107,623	2,151,083	2,488,443	46,540	2,534,983
Black <sup>b</sup>	Both Sexes	89,371	57,364	40,770	25,643	14,540	8,189	216,841	240,800	+	+
	Males	795	429	194	86	109	36	1,541	1,662	+	+
	Females	88,576	56,935	40,576	25,557	14,431	8,153	215,300	239,138	3,993	243,131
Asian/ Pacific Islander <sup>c</sup>	Both Sexes	32,843	23,025	15,781	+	+	+	79,088	+	+	+
	Males	151	76	38	+	+	+	301	+	+	+
	Females	32,692	22,949	15,743	+	+	+	78,787	+	+	+
Hispanic <sup>d</sup>	Both Sexes	58,348	40,516	27,038	+	+	+	139,463	+	+	+
	Males	268	142	78	+	+	+	510	+	+	+
	Females	58,080	40,374	26,960	+	+	+	138,953	+	+	+

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	0.6995%	-	0.0001%	0.0061%	0.0850%	0.4724%	1.1895%	2.1765%	2.9663%	3.4430%	0.6663%
	Males	0.0076%	-	-	-	0.0005%	0.0027%	0.0085%	0.0257%	0.0464%	0.0671%	0.0083%
	Females	1.3735%	-	0.0002%	0.0124%	0.1696%	0.9381%	2.3183%	4.1219%	5.3144%	5.4192%	1.2223%
White <sup>c</sup>	Both Sexes	0.7707%	-	-	0.0060%	0.0836%	0.4761%	1.2281%	2.3039%	3.1836%	3.6666%	0.7001%
	Males	0.0083%	-	-	-	0.0004%	0.0022%	0.0076%	0.0267%	0.0501%	0.0716%	0.0086%
	Females	1.5296%	-	-	0.0123%	0.1710%	0.9647%	2.4332%	4.4294%	5.7661%	5.7904%	1.3002%
Black <sup>c</sup>	Both Sexes	0.4978%	-	-	0.0067%	0.0992%	0.4767%	1.0759%	1.8870%	2.5237%	2.8899%	0.5929%
	Males	0.0072%	-	-	-	-	0.0051%	0.0155%	0.0339%	0.0414%	0.0680%	0.0101%
	Females	0.9444%	-	-	0.0128%	0.1849%	0.8942%	1.9965%	3.3509%	4.2467%	4.2399%	1.0261%
Asian/ Pacific Islander <sup>c</sup>	Both Sexes	0.5218%	-	-	0.0060%	0.0816%	0.4548%	1.0681%	1.6229%	2.0067%	2.1857%	0.5109%
	Males	0.0043%	-	-	-	-	0.0020%	0.0074%	0.0109%	0.0263%	0.0341%	0.0048%
	Females	0.9955%	-	-	0.0117%	0.1539%	0.8567%	1.9783%	2.9593%	3.5278%	3.5077%	0.9160%
Hispanic <sup>d</sup>	Both Sexes	0.2815%	-	-	0.0039%	0.0622%	0.3214%	0.8555%	1.5098%	1.9869%	2.2772%	0.4605%
	Males	0.0020%	-	-	-	-	0.0013%	0.0042%	0.0144%	0.0238%	0.0282%	0.0042%
	Females	0.5677%	-	-	0.0082%	0.1282%	0.6547%	1.6660%	2.7842%	3.4354%	3.6146%	0.8359%

- <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.
- <sup>b c d</sup> Prevalence was calculated using the First Malignant Primary Only for a person. Statistics based on (b) SEER 9 Areas (c) SEER 11 Areas and Rural Georgia (d) NHIA for Hispanic for SEER 11 Areas and Rural Georgia.
- <sup>e</sup> Maximum limited-duration prevalence: 36 years for 1975-2011 SEER 9 data; 19 years for 1992-2011 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).
- <sup>f</sup> Percentages are age-adjusted to the 2000 US Standard Population (19 age groups - Census P25-1130) by 5-year age groups.
- <sup>g h i</sup> (g) Cases diagnosed more than 36 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000). (h) Complete prevalence is obtained by summing 0 to <36 and >=36. (i) Age-specific completeness index was approximated using empirical data from historical Connecticut tumor registry.
- Statistic not shown. Statistic based on fewer than 5 cases estimated alive in SEER for the time interval.
- + Not available.

Table 4.26

## Cancer of the Female Breast (Invasive)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2007-2011  
Females by Race

Histology <sup>a</sup>	All Races		White		Black		Asian/Pacific Islander		American Indian/ Alaska Native <sup>b</sup>		Hispanic <sup>c</sup>	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Carcinoma	287,321	99.4%	231,745	99.4%	30,532	99.3%	21,283	99.3%	1,138	99.3%	28,427	99.2%
Epidermoid carcinoma <sup>d</sup> (8051-8131)	137	0.0%	112	0.0%	18	0.1%	-	-	-	-	-	-
Adenocarcinoma <sup>e</sup>	281,422	97.4%	227,241	97.5%	29,570	96.2%	20,945	97.7%	1,109	96.8%	27,799	97.0%
Adenocarcinoma, NOS (8140)	2,270	0.8%	1,778	0.8%	297	1.0%	144	0.7%	-	-	239	0.8%
Infiltrating duct carcinoma (8500)	210,966	73.0%	168,328	72.2%	23,155	75.3%	16,705	78.0%	879	76.7%	21,128	73.8%
Lobular carcinoma, NOS (8520)	25,603	8.9%	22,003	9.4%	2,143	7.0%	1,144	5.3%	75	6.5%	2,098	7.3%
Inflammatory adenocarcinoma (8530)	1,055	0.4%	812	0.3%	182	0.6%	47	0.2%	-	-	145	0.5%
Infiltrating duct mixed and infiltrating lobular mixed (8522-8524)	27,154	9.4%	22,931	9.8%	2,224	7.2%	1,686	7.9%	85	7.4%	2,824	9.9%
Mucinous adenocarcinoma (8480,8482)	5,850	2.0%	4,589	2.0%	600	2.0%	576	2.7%	23	2.0%	519	1.8%
Mucin-producing adenocarcinoma (8481)	69	0.0%	51	0.0%	-	-	-	-	-	-	-	-
Tubular adenocarcinoma (8211)	2,051	0.7%	1,830	0.8%	119	0.4%	92	0.4%	-	-	151	0.5%
Papillary adenocarcinoma (8050,8260,8503,8504)	1,689	0.6%	1,203	0.5%	286	0.9%	183	0.9%	-	-	183	0.6%
Paget disease (8540-8543)	1,352	0.5%	1,075	0.5%	144	0.5%	111	0.5%	-	-	156	0.5%
Other adenocarcinomas <sup>f</sup>	3,363	1.2%	2,641	1.1%	408	1.3%	252	1.2%	-	-	349	1.2%
Other specific carcinomas <sup>g</sup>	2,420	0.8%	1,802	0.8%	464	1.5%	125	0.6%	-	-	294	1.0%
Medullary adenocarcinoma (8510-8513)	876	0.3%	590	0.3%	229	0.7%	48	0.2%	-	-	143	0.5%
Other <sup>h</sup>	1,544	0.5%	1,212	0.5%	235	0.8%	77	0.4%	-	-	151	0.5%
Unspecified, Carcinoma, NOS (8010-8011,8020-8022)	3,342	1.2%	2,590	1.1%	480	1.6%	207	1.0%	17	1.5%	320	1.1%

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).

Percents may not sum to 100 due to rounding.

<sup>a</sup> Excludes Kaposi Sarcoma, mesothelioma, lymphomas, leukemias, myelomas, lymphoreticular, and immunoproliferative diseases.

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

<sup>c</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives.

<sup>d</sup> Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

<sup>e</sup> Epidermoid carcinoma includes squamous, basal, and transitional cell carcinomas.

<sup>f</sup> Adenocarcinoma includes histologies 8050, 8140-8147, 8160-8162, 8180-8221, 8250-8507, 8514, 8520-8551, 8560, 8570-8574, 8576, 8940-8941.

<sup>g</sup> Other adenocarcinomas include histologies 8141-8147, 8160-8162, 8180-8210, 8212-8221, 8250-8259, 8261-8479, 8483-8499, 8501-8502, 8505-8507, 8514, 8521, 8525-8529, 8531-8539, 8544-8551, 8560, 8570-8574, 8576, 8940-8941.

<sup>h</sup> Other specific carcinomas include histologies 8012-8015, 8030-8046, 8150-8155, 8170-8175, 8230-8249, 8508, 8510-8513, 8561-8562, 8575, 8580-8671.

<sup>-</sup> Other includes histologies 8012-8015, 8030-8046, 8150-8155, 8170-8175, 8230-8249, 8508, 8561-8562, 8575, 8580-8671.

- Statistic not shown due to fewer than 16 cases during the time period.

Table 4.26 - continued

## Cancer of the Female Breast (Invasive)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2007-2011  
Females by Race

Histology <sup>a</sup>	All Races		White		Black		Asian/Pacific Islander		American Indian/ Alaska Native <sup>b</sup>		Hispanic <sup>c</sup>	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Sarcoma and other soft tissue tumors (8680-8713,8800-8921, 9040-9044,9120-9136, 9150-9252,9370-9373, 9540-9582)	324	0.1%	256	0.1%	39	0.1%	25	0.1%	-	-	24	0.1%
Hemangiosarcomas (9120-9126,9170)	165	0.1%	142	0.1%	-	-	-	-	-	-	-	-
Other sarcomas <sup>d</sup>	159	0.1%	114	0.0%	29	0.1%	-	-	-	-	-	-
Other specific types (8720-8790,8930-8936, 8950-9030,9060-9110, 9260-9365,9380-9539)	736	0.3%	554	0.2%	87	0.3%	86	0.4%	-	-	133	0.5%
Phyllodes tumor, malignant (9020)	614	0.2%	463	0.2%	63	0.2%	81	0.4%	-	-	116	0.4%
Other <sup>e</sup>	122	0.0%	91	0.0%	24	0.1%	-	-	-	-	17	0.1%
Unspecified (8000-8005)	638	0.2%	483	0.2%	92	0.3%	34	0.2%	-	-	62	0.2%
Total <sup>f</sup>	289,019	100.0%	233,038	100.0%	30,750	100.0%	21,428	100.0%	1,146	100.0%	28,646	100.0%

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).

Percents may not sum to 100 due to rounding.

<sup>a</sup> Excludes Kaposi Sarcoma, mesothelioma, lymphomas, leukemias, myelomas, lymphoreticular, and immunoproliferative diseases.

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

<sup>c</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives.

Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

<sup>d</sup> Other sarcomas include histologies 8680-8713, 8800-8921, 9040-9044, 9127-9136, 9150-9169, 9171-9252, 9370-9373, 9540-9582.

<sup>e</sup> Other includes histologies 8720-8790, 8930-8936, 8950-9019, 9021-9030, 9060-9110, 9260-9365, 9380-9539.

<sup>f</sup> Total includes carcinoma cases from the previous page.

- Statistic not shown due to fewer than 16 cases during the time period.

Table 4.27

Cancer of the Female Breast(*In Situ*)Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2007-2011  
Females by Race

Histology <sup>a</sup>	All Races		White		Black		Asian/Pacific Islander		American Indian/ Alaska Native <sup>b</sup>		Hispanic <sup>c</sup>	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Adenocarcinoma <sup>d</sup>	73,901	99.8%	58,202	99.8%	7,667	99.7%	6,873	100.0%	231	100.0%	6,603	99.9%
Adenocarcinoma <i>in situ</i> NOS (8140/2)	-	-	-	-	-	-	-	-	-	-	-	-
Ductal carcinoma <i>in situ</i> <sup>e</sup>	62,662	84.6%	48,798	83.7%	6,728	87.5%	6,225	90.5%	197	85.3%	5,641	85.3%
Cribiform carcinoma <i>in situ</i> (8201/2)	6,254	8.4%	4,764	8.2%	700	9.1%	676	9.8%	21	9.1%	591	8.9%
Ductal carcinoma <i>in situ</i> , solid type(8230/2)	4,819	6.5%	3,891	6.7%	426	5.5%	440	6.4%	-	-	385	5.8%
Ductal carcinoma <i>in situ</i> , NOS (8500/2)	23,004	31.1%	18,193	31.2%	2,508	32.6%	1,959	28.5%	65	28.1%	2,009	30.4%
Comedocarcinoma <i>in situ</i> (8501/2)	5,867	7.9%	4,613	7.9%	596	7.8%	568	8.3%	33	14.3%	525	7.9%
Ductal carcinoma <i>in situ</i> papillary(8503/2)	1,183	1.6%	810	1.4%	205	2.7%	142	2.1%	-	-	109	1.6%
Noninfiltrating intracystic carcinoma(8504/2)	293	0.4%	190	0.3%	44	0.6%	54	0.8%	-	-	28	0.4%
Ductal carcinoma <i>in situ</i> micropapillary(8507/2)	1,448	2.0%	1,146	2.0%	174	2.3%	106	1.5%	-	-	129	2.0%
Intraductal with other types of carcinoma <i>in situ</i> (8523/2)	19,612	26.5%	15,052	25.8%	2,063	26.8%	2,251	32.7%	55	23.8%	1,848	27.9%
Lobular carcinoma <i>in situ</i> (8520/2-8521/2, 8524/2)	8,436	11.4%	7,161	12.3%	670	8.7%	397	5.8%	26	11.3%	725	11.0%
Lobular carcinoma <i>in situ</i> , NOS (8520/2)	8,410	11.4%	7,139	12.2%	666	8.7%	397	5.8%	26	11.3%	725	11.0%
Lobular CIS <sup>f</sup> with other CIS <sup>f</sup> (8524/2)	25	0.0%	22	0.0%	-	-	-	-	-	-	-	-
Intraductal and lobular <i>in situ</i> carcinoma (8522/2)	2,326	3.1%	1,883	3.2%	221	2.9%	187	2.7%	-	-	195	2.9%
Other adenocarcinomas <sup>g</sup>	470	0.6%	354	0.6%	48	0.6%	63	0.9%	-	-	42	0.6%
Other <i>in situ</i> histologies <sup>h</sup>	154	0.2%	126	0.2%	23	0.3%	-	-	-	-	-	-
Total	74,055	100.0%	58,328	100.0%	7,690	100.0%	6,875	100.0%	231	100.0%	6,612	100.0%

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).

Percents may not sum to 100 due to rounding.

<sup>a</sup> Excludes Kaposi Sarcoma, mesothelioma, lymphomas, leukemias, myelomas, lymphoreticular, and immunoproliferative diseases.

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

<sup>c</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives.

<sup>d</sup> Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

<sup>e</sup> Adenocarcinoma includes histologies 8050,8140-8147,8160-8162,8180-8221,8230,8250-8507,8514,8520-8551,8560,8570-8574,8576,8940-8941.

<sup>f</sup> Ductal carcinoma includes histologies 8201, 8230, 8401, 8500-8507, 8523.

<sup>g</sup> CIS = Carcinoma *in situ*.

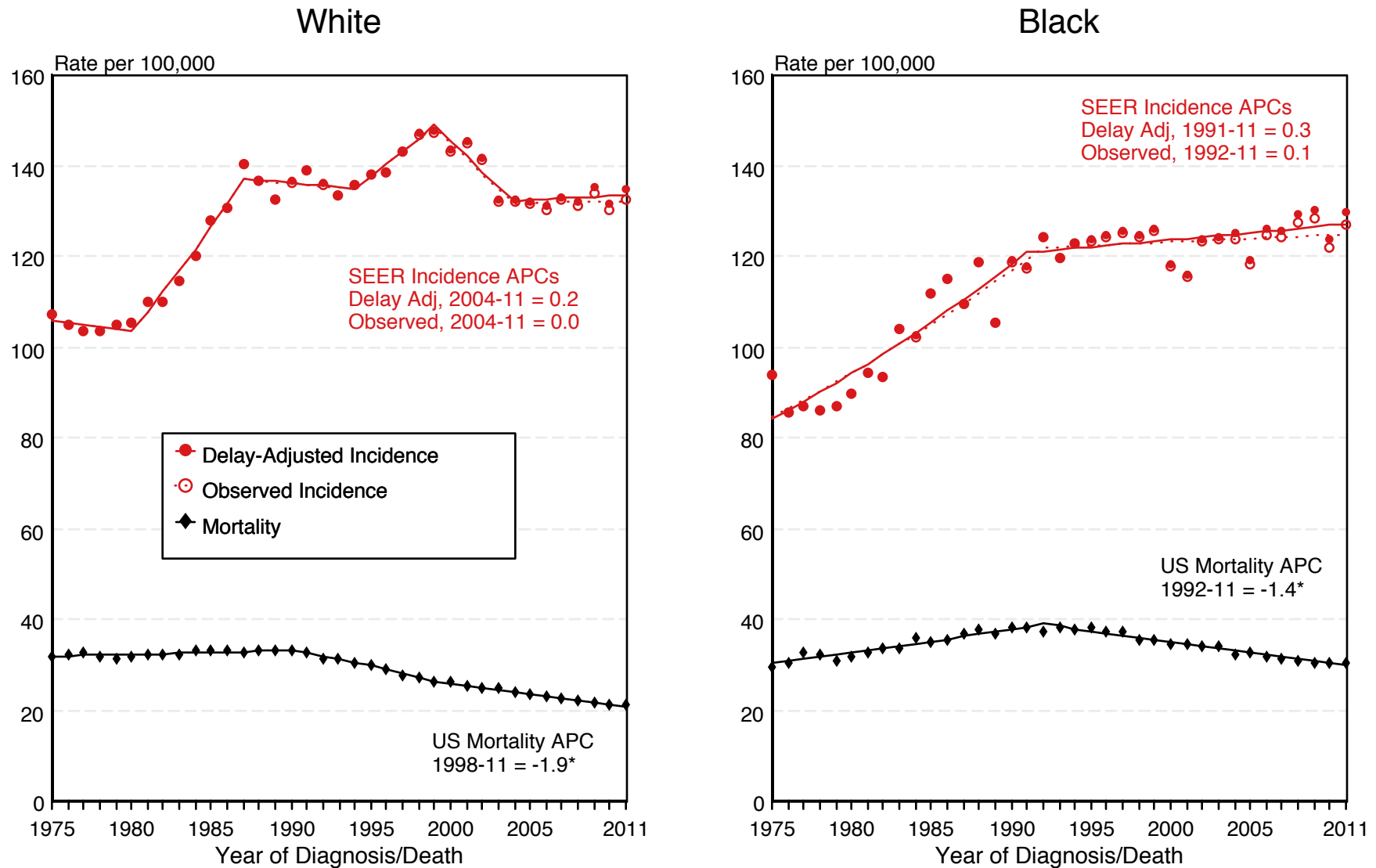
<sup>h</sup> Other adenocarcinomas include 8050, 8141-8147, 8160-8162, 8180-8200, 8202-8221, 8250-8400, 8402-8499, 8514, 8525-8551, 8560, 8570-8574, 8576, 8940-8941.

<sup>i</sup> Other histologies include 8000-8049, 8051-8139, 8148-8159, 8163-8179, 8222-8229, 8231-8249, 8508-8513, 8515-8519, 8552-8559, 8561-8569, 8575, 8577-8939, 8942-9989.

- Statistic not shown due to fewer than 16 cases during the time period.

Figure 4.1

# SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates<sup>a</sup> Cancer of the Female Breast, by Race

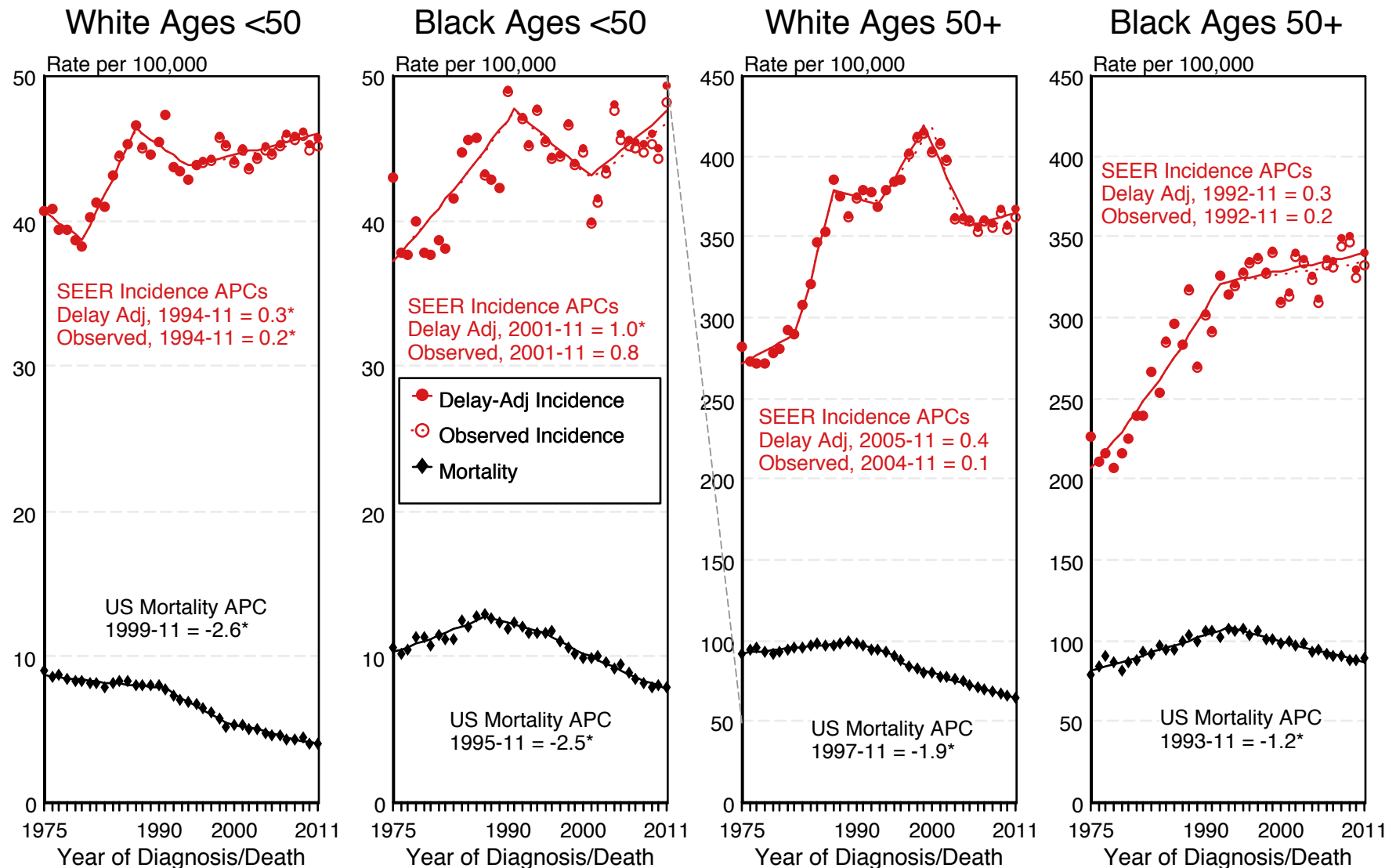


<sup>a</sup> Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National 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 4.2

# SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates<sup>a</sup> Cancer of the Female Breast, by Age and Race

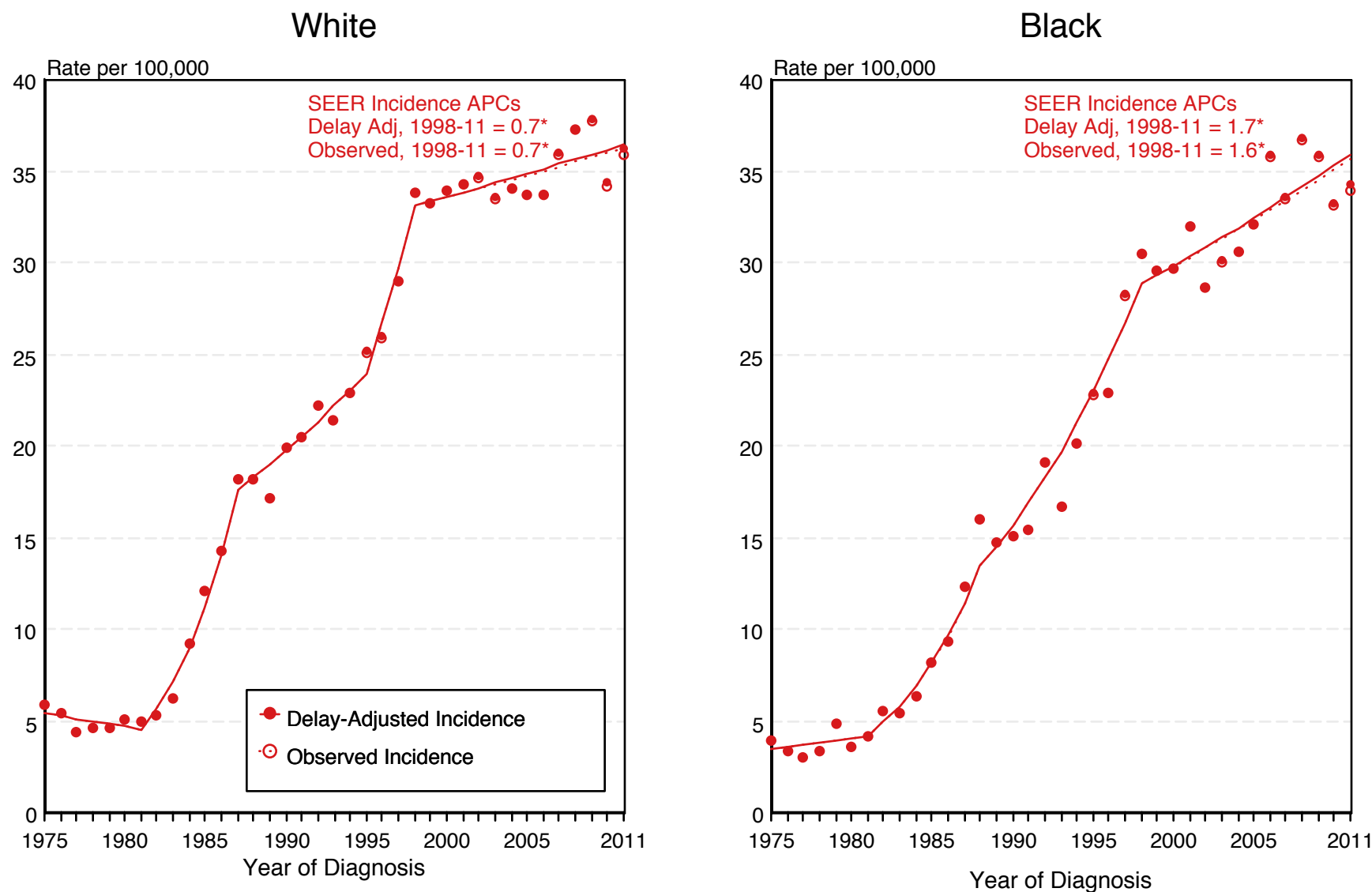


<sup>a</sup> Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National 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 4.3

# SEER Observed Incidence and Delay Adjusted Incidence Rates<sup>a</sup> Cancer of the Female Breast (*In Situ*), by Race



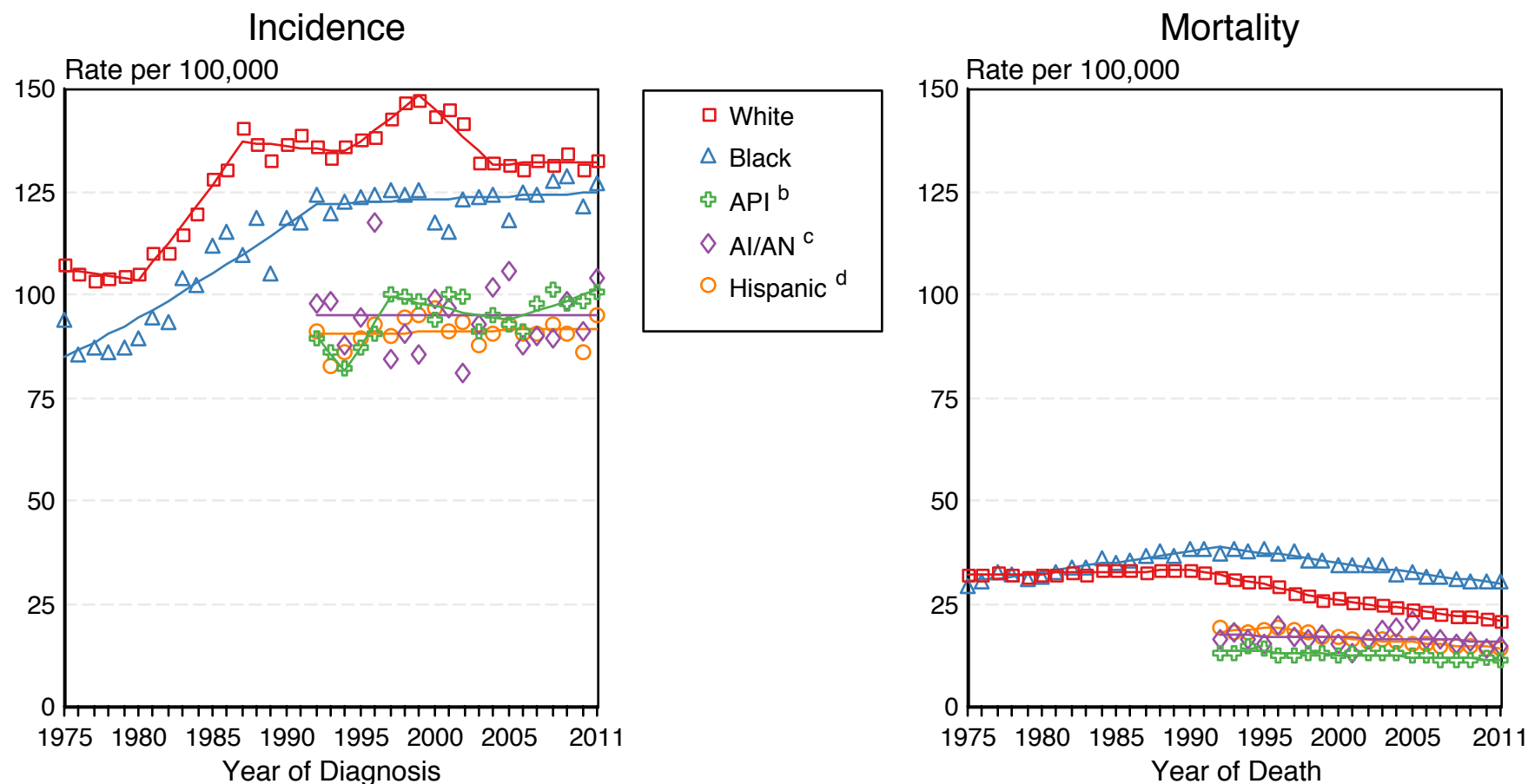
<sup>a</sup> Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. The APC is the Annual Percent Change for the 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 4.4

# SEER Incidence and US Death Rates<sup>a</sup> Cancer of the Female Breast

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



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

Incidence data for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics are from the SEER 13 Areas (SEER 9 Areas, San Jose-Monterey,

<sup>a</sup> Los Angeles, Alaska Native Registry and Rural Georgia). Mortality data are from US Mortality Files, National Center for Health Statistics, CDC.

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

Regression lines are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2011 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2011 allow a maximum of 3 joinpoints.

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

<sup>d</sup> AI/AN = American Indian/Alaska Native. Rates for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties. Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Mortality data for Hispanics exclude cases from New Hampshire and Oklahoma.

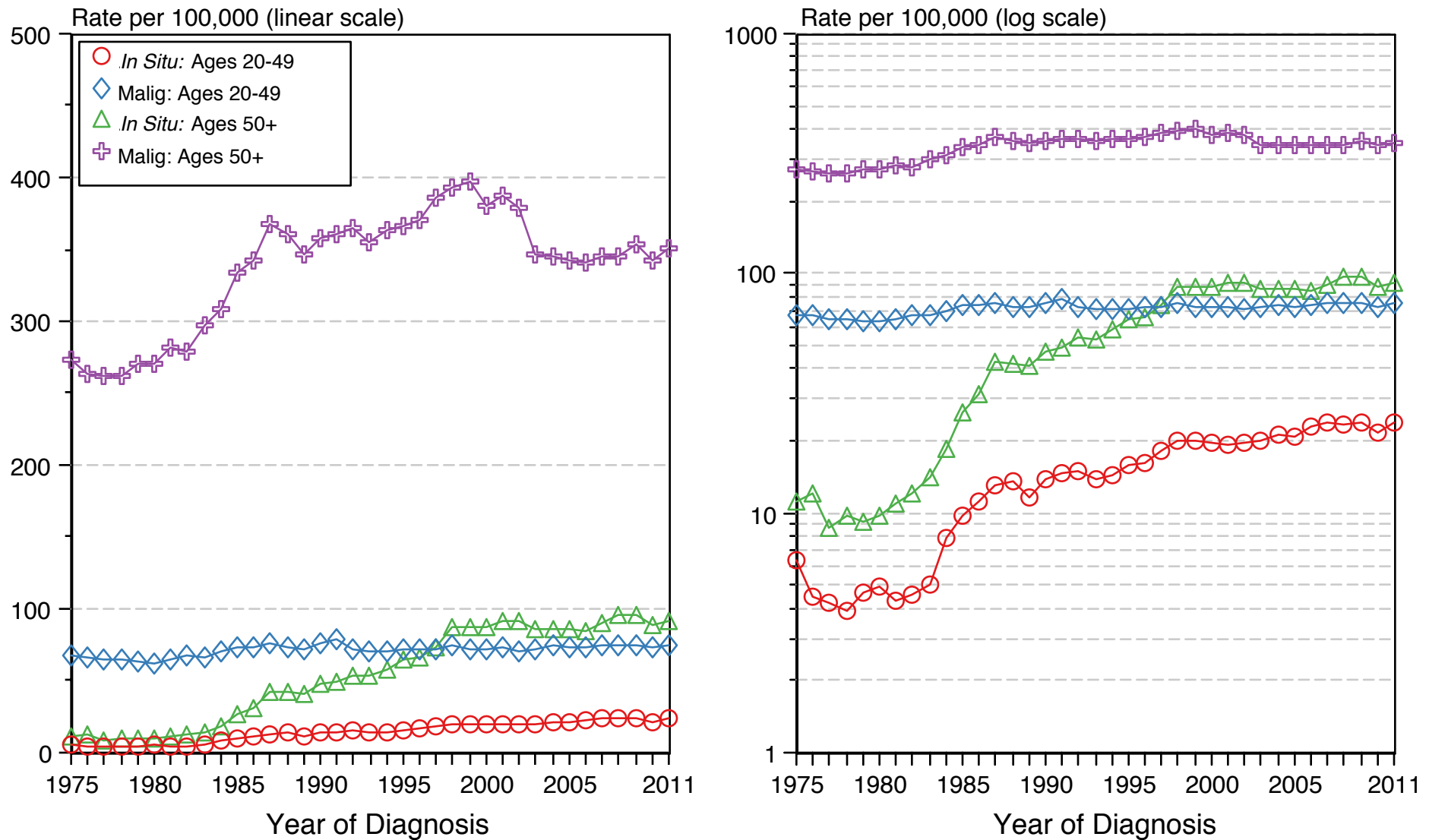


Figure 4.5

# Cancer of Female Breast, Incidence Rates, 1975-2011

## *In Situ* vs Malignant, by Age

### All Races, Females

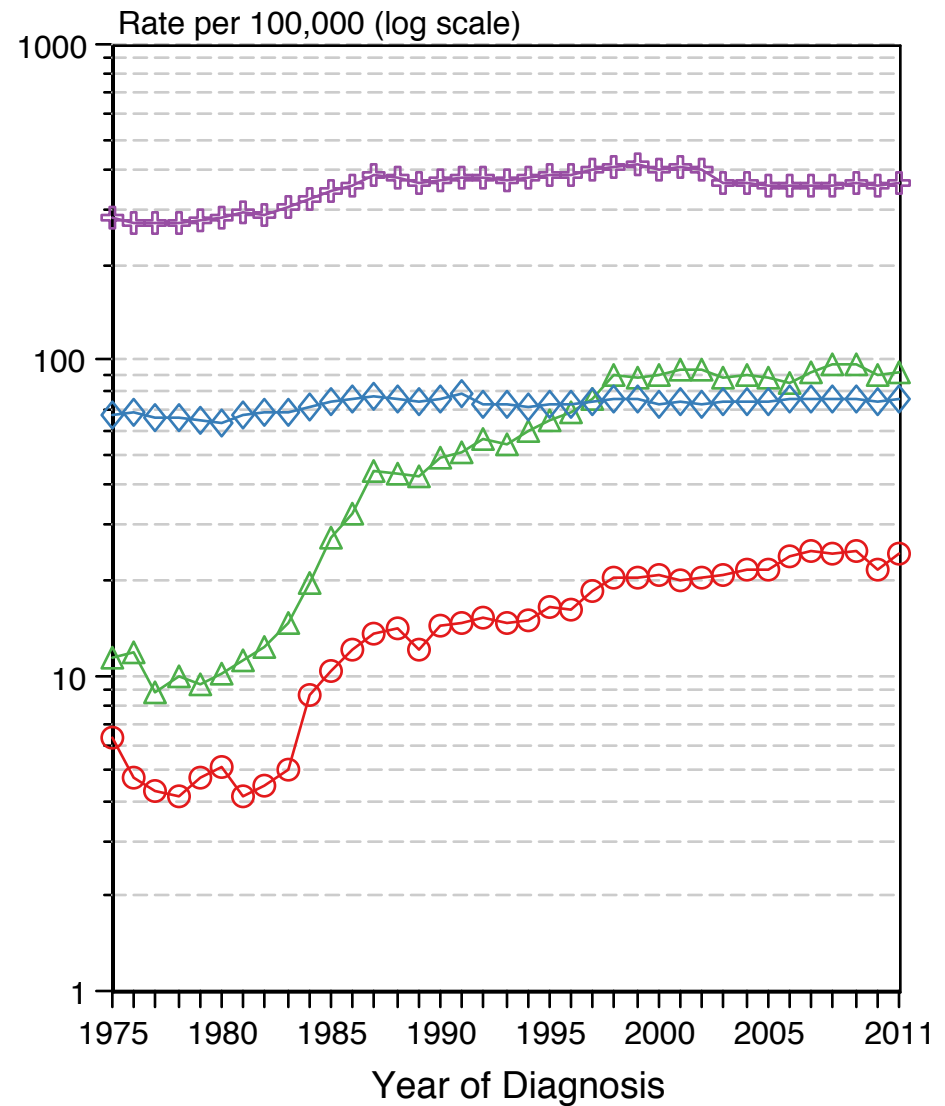
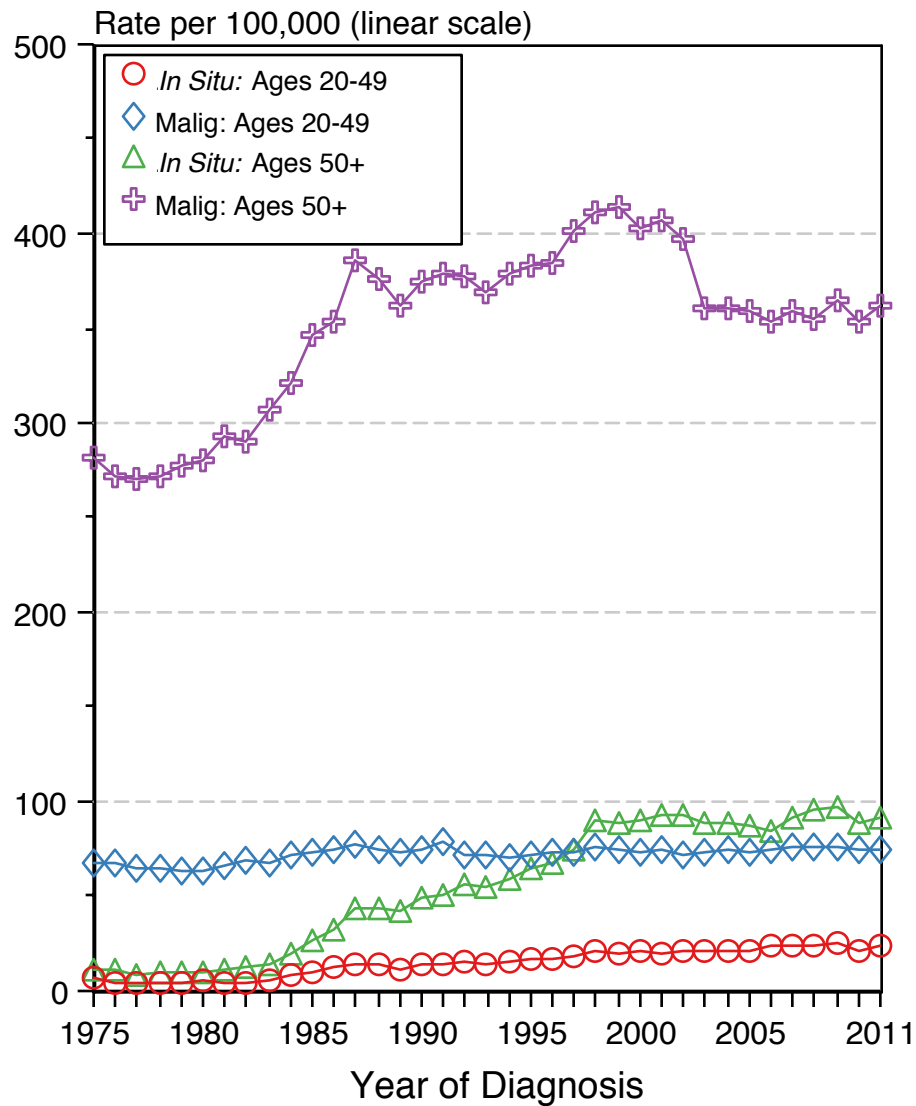


Source: SEER 9 areas. Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

# Cancer of Female Breast, Incidence Rates, 1975-2011

## *In Situ* vs Malignant, by Age

### White, Females



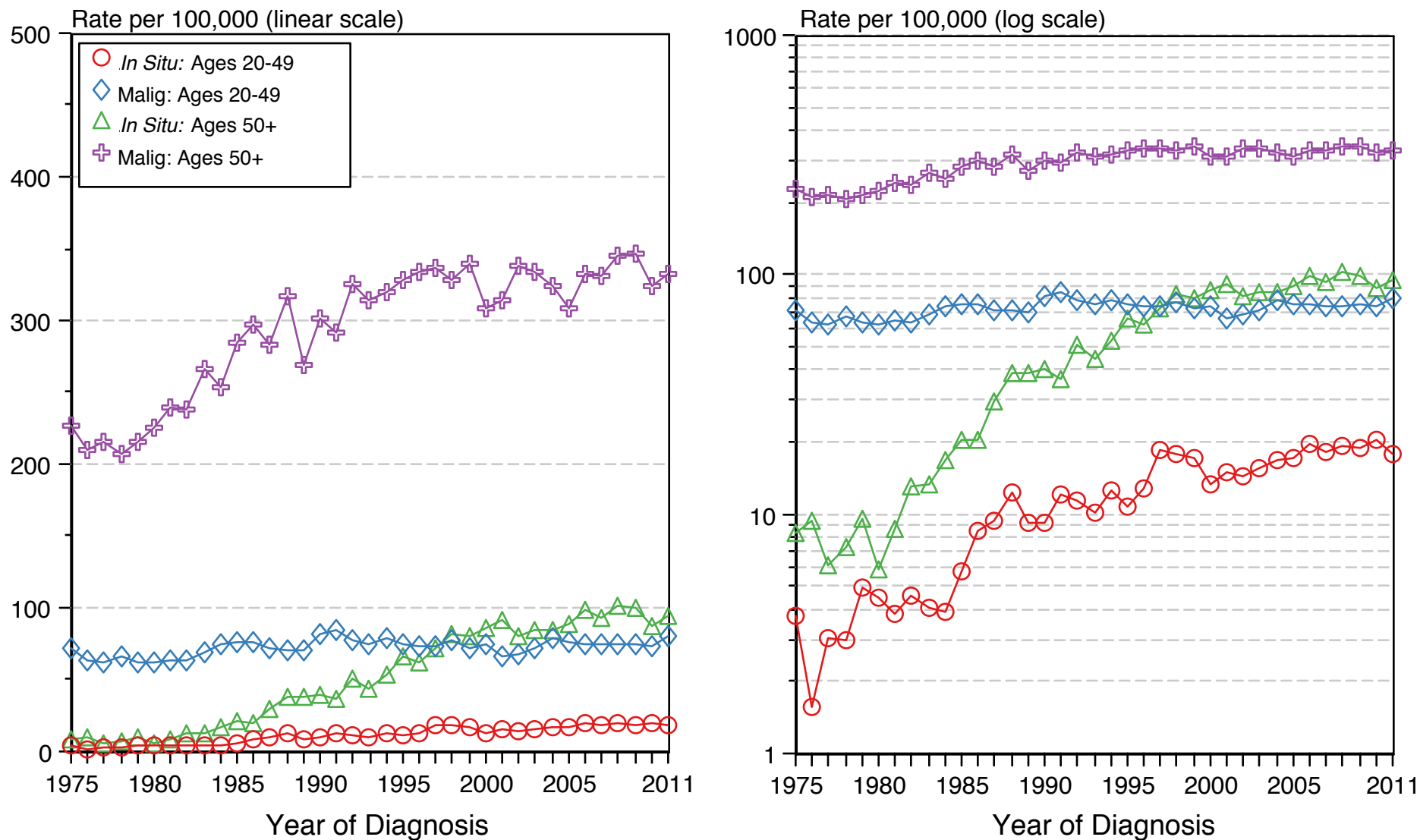
Source: SEER 9 areas. Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Figure 4.7

# Cancer of Female Breast, Incidence Rates, 1975-2011

## *In Situ* vs Malignant, by Age

### Black, Females



Source: SEER 9 areas. Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

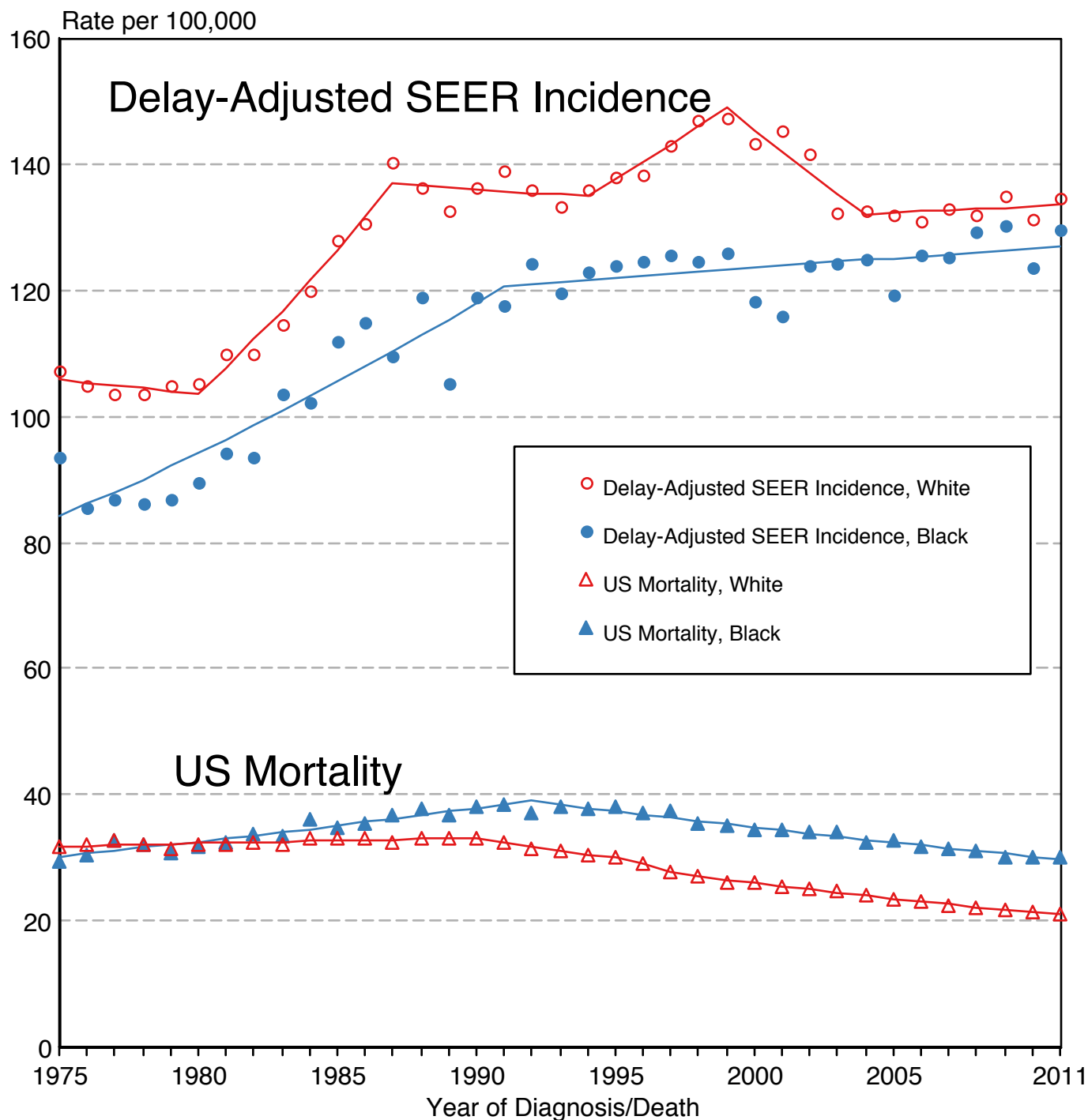
Figure 4.8

# Cancer of the Breast

## Delay-Adjusted SEER Incidence & US Mortality

### White Females vs Black Females

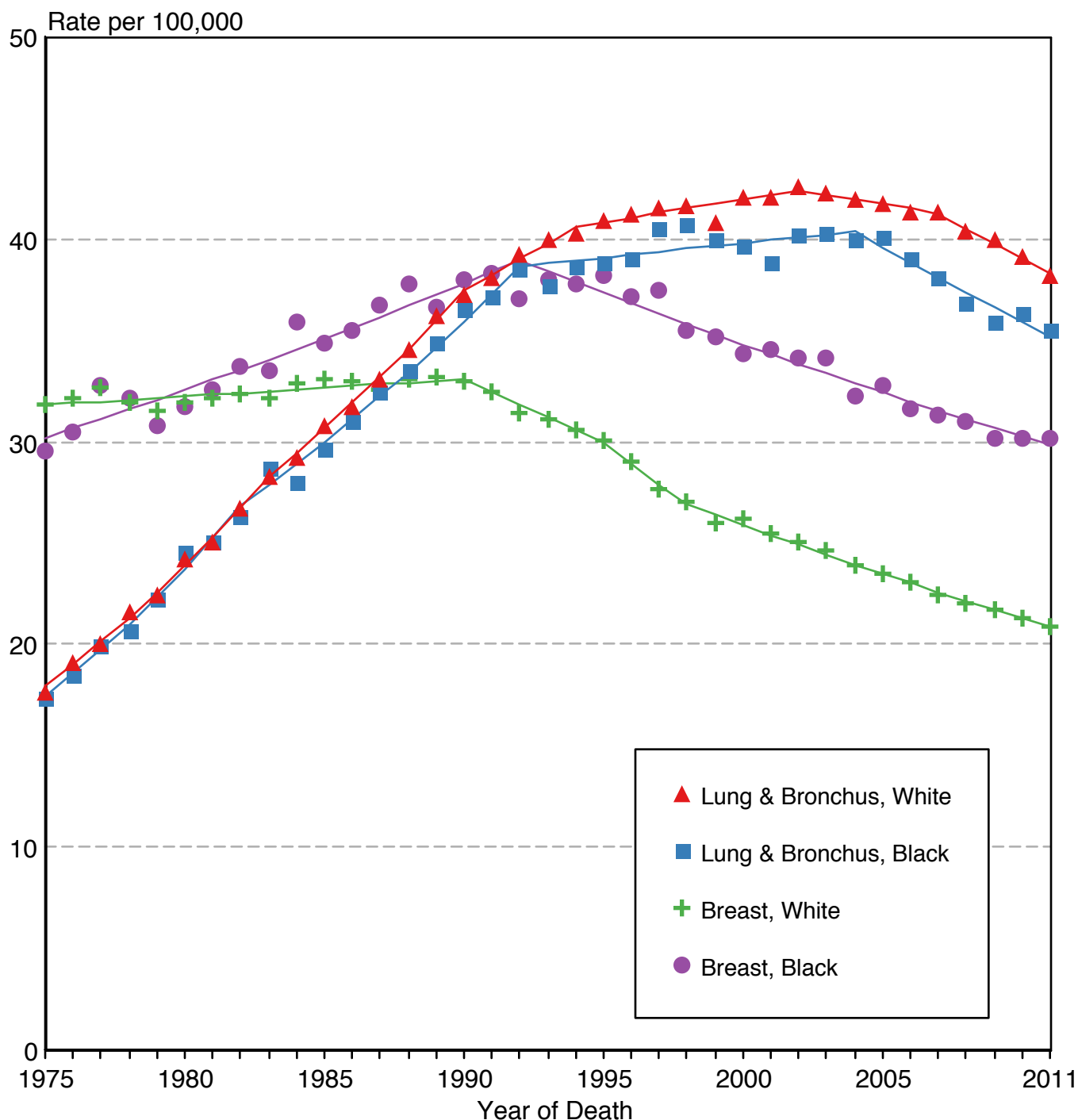
### 1975-2011



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 are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014,  
 National Cancer Institute.

Figure 4.9

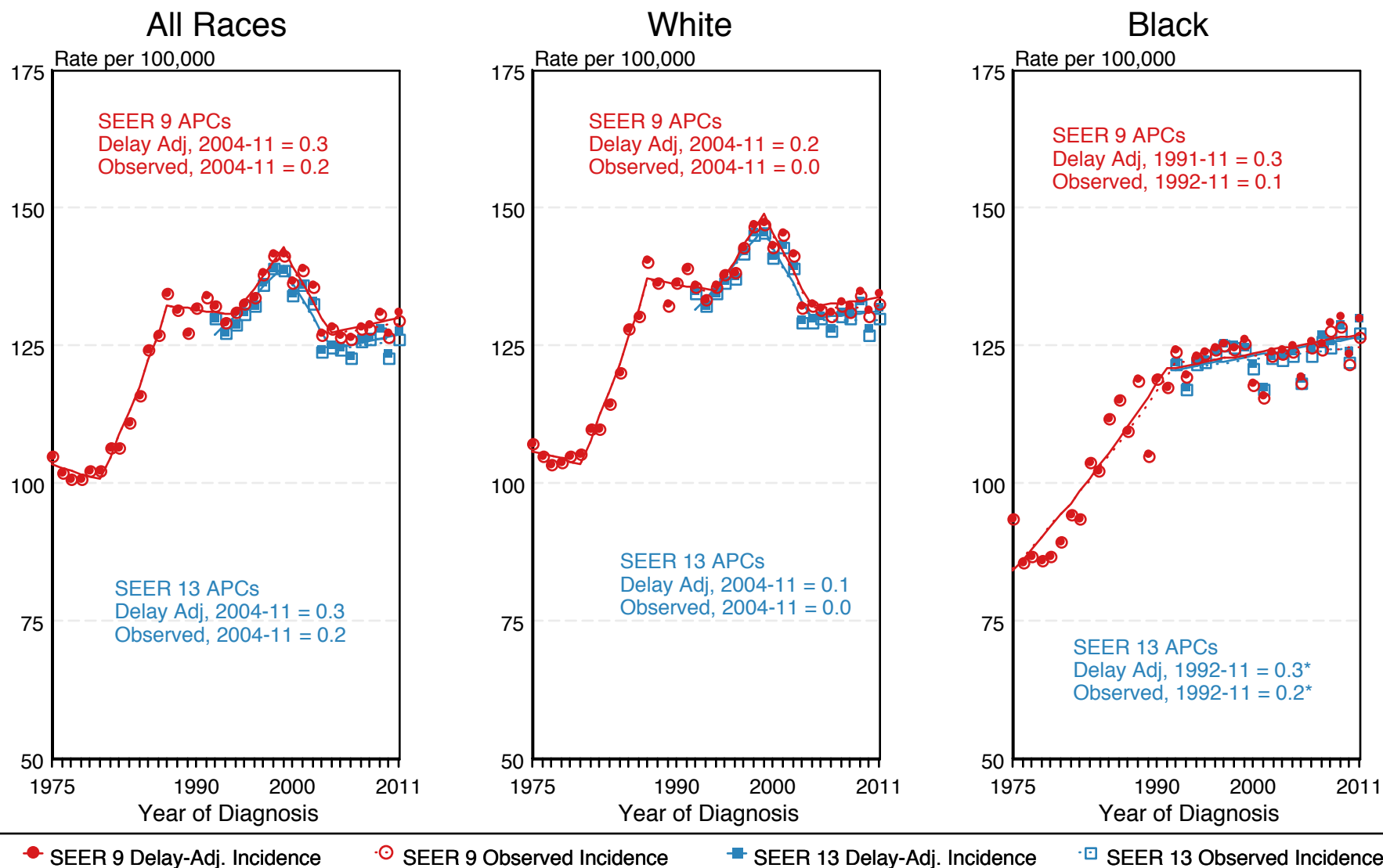
# US Death Rates for Cancer of the Breast and Cancer of the Lung and Bronchus White Females vs Black Females 1975-2011



Source: US Mortality Files, National Center for Health Statistics, CDC.  
Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).  
Regression lines are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014,  
National Cancer Institute.

Figure 4.10

# SEER Observed Incidence and SEER Delay Adjusted Incidence Rates<sup>a</sup> SEER 9 Areas Compared to SEER 13 Areas Cancer of the Female Breast, 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).

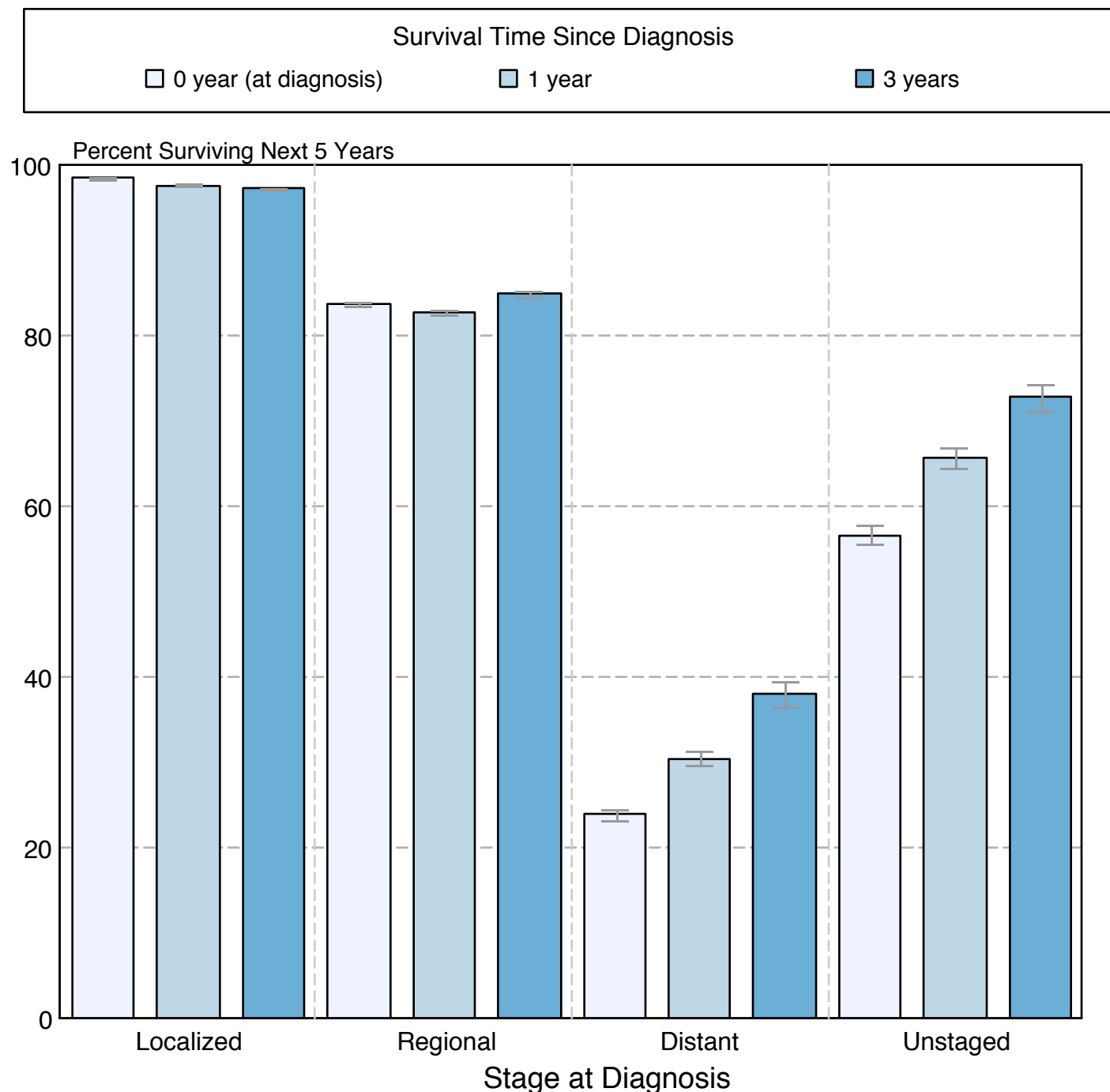
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.1.0, April 2014, National Cancer Institute.

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 4.11

**Cancer of the Female Breast**  
**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.