

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,  
1975-2008 With up to Five Joinpoints, 1992-2008 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	1999-08	2004-08
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2008</u>														
All Races	1975-80	-0.5	1980-87	4.0*	1987-94	-0.1	1994-99	1.7*	1999-05	-2.1*	2005-08	0.9	-1.1*	0.1
White	1975-80	-0.5	1980-87	4.1*	1987-94	-0.2	1994-99	2.0*	1999-04	-2.4*	2004-08	-0.2	-1.4*	-0.2
Black	1975-92	2.2*	1992-08	0.1									0.1	0.1
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2008</u>														
All Races	1992-99	1.3*	1999-05	-2.0*	2005-08	1.1							-1.0	0.3
White	1992-99	1.5*	1999-04	-2.4*	2004-08	0.0							-1.4*	0.0
Black	1992-08	0.1											0.1	0.1
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2008</u>														
All Races	1975-80	-0.5	1980-87	4.0*	1987-94	-0.2	1994-99	1.7*	1999-05	-2.1*	2005-08	0.7	-1.2*	0.0
White	1975-80	-0.5	1980-87	4.1*	1987-94	-0.2	1994-99	2.0*	1999-04	-2.4*	2004-08	-0.4	-1.5*	-0.4
Black	1975-92	2.2*	1992-08	0.0									0.0	0.0
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2008</u>														
All Races	1992-99	1.3*	1999-05	-2.1*	2005-08	0.9							-1.1*	0.1
White	1992-99	1.5*	1999-04	-2.5*	2004-08	-0.2							-1.5*	-0.2
White NH <sup>ef</sup>	1992-99	1.7*	1999-04	-2.4*	2004-08	-0.2							-1.4*	-0.2
Black	1992-08	0.0											0.0	0.0
Black NH <sup>ef</sup>	1992-08	0.0											0.0	0.0
API <sup>e</sup>	1992-94	-4.8	1994-97	6.8	1997-06	-0.4	2006-08	5.0					0.7	2.2
AI/AN <sup>eg</sup>	1992-08	-0.3											-0.3	-0.3
Hispanic <sup>f</sup>	1992-08	0.2											0.2	0.2
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2008</u>														
All Races	1975-90	0.4*	1990-08	-2.2*									-2.2*	-2.2*
White	1975-90	0.3*	1990-08	-2.3*									-2.3*	-2.3*
Black	1975-92	1.5*	1992-08	-1.4*									-1.4*	-1.4*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2008</u>														
All Races	1992-95	-1.2*	1995-98	-3.6*	1998-03	-1.7*	2003-08	-2.3*					-2.0*	-2.3*
White	1992-95	-1.5*	1995-98	-3.6*	1998-08	-2.0*							-2.0*	-2.0*
White NH <sup>ef</sup>	1992-94	-0.8	1994-97	-3.6*	1997-08	-1.9*							-1.9*	-1.9*
Black	1992-08	-1.3*											-1.3*	-1.3*
Black NH <sup>ef</sup>	1992-08	-1.1*											-1.1*	-1.1*
API <sup>e</sup>	1992-08	-0.7*											-0.7*	-0.7*
AI/AN <sup>eg</sup>	1992-08	-0.1											-0.1	-0.1
Hispanic <sup>f</sup>	1992-08	-1.8*											-1.8*	-1.8*

Joinpoint Regression Program Version 3.5, April 2011, National Cancer Institute. (<http://surveillance.cancer.gov/joinpoint/>).

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

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

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

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

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

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

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

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

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

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

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

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

Table 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,  
1975-2008 With up to Five Joinpoints, 1992-2008 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	1999-08	2004-08
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2008</u>														
All Races	1975-80	-1.5	1980-85	3.2*	1985-08	0.0							0.0	0.0
White	1975-80	-1.1	1980-86	2.6*	1986-08	-0.1							-0.1	-0.1
Black	1975-91	1.3*	1991-08	-0.4									-0.4	-0.4
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2008</u>														
All Races	1992-08	0.1											0.1	0.1
White	1992-94	-1.0	1994-98	1.3	1998-02	-1.1	2002-08	0.5					0.0	0.5
Black	1992-01	-1.2*	2001-08	1.0									0.5	1.0
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2008</u>														
All Races	1975-80	-1.5	1980-85	3.3*	1985-08	0.0							0.0	0.0
White	1975-80	-1.1	1980-86	2.6*	1986-08	-0.1							-0.1	-0.1
Black	1975-91	1.3*	1991-08	-0.5*									-0.5*	-0.5*
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2008</u>														
All Races	1992-08	0.1											0.1	0.1
White	1992-94	-1.0	1994-98	1.3	1998-02	-1.1	2002-08	0.3					-0.1	0.3
White NH <sup>ef</sup>	1992-08	0.2*											0.2*	0.2*
Black	1992-08	-0.4											-0.4	-0.4
Black NH <sup>ef</sup>	1992-01	-1.4*	2001-08	1.1									0.5	1.1
API <sup>e</sup>	1992-08	1.3*											1.3*	1.3*
AI/AN <sup>eg</sup>	1992-08	0.8											0.8	0.8
Hispanic <sup>f</sup>	1992-94	-5.8	1994-00	2.2*	2000-04	-2.5	2004-08	2.7*					0.3	2.7*
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2008</u>														
All Races	1975-90	-0.4*	1990-08	-3.2*									-3.2*	-3.2*
White	1975-90	-0.6*	1990-08	-3.5*									-3.5*	-3.5*
Black	1975-88	1.8*	1988-08	-2.0*									-2.0*	-2.0*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2008</u>														
All Races	1992-08	-3.1*											-3.1*	-3.1*
White	1992-08	-3.5*											-3.5*	-3.5*
White NH <sup>ef</sup>	1992-08	-3.4*											-3.4*	-3.4*
Black	1992-96	-0.5	1996-99	-4.3	1999-05	-1.3*	2005-08	-4.0*					-2.2*	-3.4*
Black NH <sup>ef</sup>	1992-96	-0.5	1996-99	-4.3*	1999-05	-1.0*	2005-08	-4.7*					-2.3*	-3.8*
API <sup>e</sup>	1992-08	-2.3*											-2.3*	-2.3*
AI/AN <sup>eg</sup>	1992-08	-1.8											-1.8	-1.8
Hispanic <sup>f</sup>	1992-08	-2.8*											-2.8*	-2.8*

Joinpoint Regression Program Version 3.5, April 2011, National Cancer Institute. (<http://surveillance.cancer.gov/joinpoint/>).

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

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

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

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

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

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

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

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

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

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

Table 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,  
1975-2008 With up to Five Joinpoints, 1992-2008 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	1999-08	2004-08
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2008</u>														
All Races	1975-82	0.9	1982-87	5.4*	1987-93	-0.3	1993-99	1.9*	1999-05	-2.6*	2005-08	0.7	-1.5*	-0.1
White	1975-82	0.9*	1982-87	5.5*	1987-93	-0.3	1993-00	1.7*	2000-04	-3.8*	2004-08	-0.2	-1.6*	-0.2
Black	1975-92	2.6*	1992-08	0.2									0.2	0.2
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2008</u>														
All Races	1992-99	1.6*	1999-05	-2.6*	2005-08	1.0							-1.4*	0.1
White	1992-00	1.5*	2000-04	-3.8*	2004-08	0.0							-1.5*	0.0
Black	1992-08	0.2											0.2	0.2
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2008</u>														
All Races	1975-82	0.9	1982-87	5.3*	1987-93	-0.3	1993-99	1.9*	1999-05	-2.7*	2005-08	0.5	-1.6*	-0.3
White	1975-82	0.9*	1982-87	5.5*	1987-93	-0.3	1993-00	1.7*	2000-04	-3.8*	2004-08	-0.4	-1.7*	-0.4
Black	1975-92	2.6*	1992-08	0.1									0.1	0.1
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2008</u>														
All Races	1992-99	1.7*	1999-04	-2.9*	2004-08	0.0							-1.6*	0.0
White	1992-00	1.4*	2000-04	-3.9*	2004-08	-0.2							-1.6*	-0.2
White NH <sup>ef</sup>	1992-01	1.3*	2001-04	-5.4	2004-08	0.2							-1.4	0.2
Black	1992-08	0.1											0.1	0.1
Black NH <sup>ef</sup>	1992-08	0.1											0.1	0.1
API <sup>e</sup>	1992-94	-5.5	1994-97	7.9	1997-05	-1.0	2005-08	3.2					0.3	2.1
AI/AN <sup>eg</sup>	1992-08	-0.7											-0.7	-0.7
Hispanic <sup>f</sup>	1992-08	0.1											0.1	0.1
<u>U.S. Cancer Mortality<sup>c</sup>, 1975-2008</u>														
All Races	1975-90	0.6*	1990-08	-2.0*									-2.0*	-2.0*
White	1975-90	0.5*	1990-08	-2.1*									-2.1*	-2.1*
Black	1975-93	1.6*	1993-08	-1.2*									-1.2*	-1.2*
<u>U.S. Cancer Mortality<sup>c</sup>, 1992-2008</u>														
All Races	1992-95	-1.1*	1995-98	-3.3*	1998-03	-1.5*	2003-08	-2.1*					-1.8*	-2.1*
White	1992-94	-0.6	1994-97	-3.3*	1997-08	-1.9*							-1.9*	-1.9*
White NH <sup>ef</sup>	1992-94	-0.5	1994-97	-3.4*	1997-08	-1.7*							-1.7*	-1.7*
Black	1992-08	-1.1*											-1.1*	-1.1*
Black NH <sup>ef</sup>	1992-08	-0.9*											-0.9*	-0.9*
API <sup>e</sup>	1992-08	-0.3											-0.3	-0.3
AI/AN <sup>eg</sup>	1992-08	0.3											0.3	0.3
Hispanic <sup>f</sup>	1992-08	-1.6*											-1.6*	-1.6*

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

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

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

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

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

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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,  
1975-2008 With up to Five Joinpoints, 1992-2008 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	1999-08	2004-08
<u>SEER 9 Delay-Adjusted Incidence<sup>a</sup>, 1975-2008</u>														
All Races	1975-81	-3.0	1981-87	24.9*	1987-95	4.2*	1995-98	11.8*	1998-06	0.2	2006-08	5.6	1.4	2.9
White	1975-81	-2.9	1981-87	25.4*	1987-95	3.9*	1995-98	11.4*	1998-08	0.7			0.7	0.7
Black	1975-83	6.2*	1983-88	23.3*	1988-93	3.5	1993-98	11.4*	1998-03	-0.5	2003-08	4.3*	2.1	4.3*
<u>SEER 13 Delay-Adjusted Incidence<sup>b</sup>, 1992-2008</u>														
All Races	1992-94	0.3	1994-98	10.7*	1998-06	0.3	2006-08	4.9					1.3*	2.6*
White	1992-94	-0.6	1994-98	10.9*	1998-06	0.1	2006-08	4.0					0.9	2.0
Black	1992-98	8.6*	1998-08	2.0*									2.0*	2.0*
<u>SEER 9 Observed Incidence<sup>a</sup>, 1975-2008</u>														
All Races	1975-81	-3.1	1981-87	25.2*	1987-94	3.8*	1994-98	9.8*	1998-08	0.9*			0.9*	0.9*
White	1975-81	-2.9	1981-87	25.4*	1987-95	3.9*	1995-98	11.4*	1998-08	0.6			0.6	0.6
Black	1975-83	6.2*	1983-88	23.3*	1988-93	3.5	1993-98	11.4*	1998-03	-0.6	2003-08	4.1*	2.0	4.1*
<u>SEER 13 Observed Incidence<sup>b</sup>, 1992-2008</u>														
All Races	1992-94	0.3	1994-98	10.7*	1998-06	0.3	2006-08	4.6					1.2*	2.4*
White	1992-94	-0.4	1994-98	10.4*	1998-08	0.5							0.5	0.5
White NH <sup>ef</sup>	1992-94	0.8	1994-99	9.1*	1999-06	-0.6	2006-08	5.0					0.6	2.2
Black	1992-98	8.6*	1998-08	2.0*									2.0*	2.0*
Black NH <sup>ef</sup>	1992-98	8.5*	1998-08	2.0*									2.0*	2.0*
API <sup>e</sup>	1992-02	7.9*	2002-05	-4.6	2005-08	8.8*							3.8	5.3*
AI/AN <sup>eg</sup>	1992-08	1.6											1.6	1.6
Hispanic <sup>f</sup>	1992-98	8.0*	1998-08	2.1*									2.1*	2.1*

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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 CT, DC, ME, MD, MN, NH, NY, ND, OK and VT.  
 Data for American Indian/Alaska Native are based on the CHSDA (Contract Health Service Delivery Area) counties.  
 \* The APC/AAPC is significantly different from zero ( $p < .05$ ).  
 - Joinpoint regression line analysis could not be performed on data series.

Table 4.5  
Cancer of the Breast (Invasive)

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

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975	58.05	0.85	105.06	59.44	0.88	107.32	52.11	-	93.59
1976	56.43	1.10	101.90	58.13	1.12	104.82	48.03	-	85.34
1977	55.98	0.96	100.82	57.47	0.88	103.44	49.67	-	87.03
1978	55.86	0.90	100.64	57.57	0.89	103.66	48.27	-	86.09
1979	56.85	0.99	102.13	58.33	0.94	104.79	49.86	-	86.85
1980	56.91	0.90	102.26	58.56	0.95	105.15	50.55	-	89.40
1981	59.32	1.00	106.33	61.24	0.93	109.90	54.41	-	94.35
1982	59.23	0.98	106.48	61.08	0.94	109.98	54.02	-	93.73
1983	61.91	1.03	111.16	63.73	1.12	114.51	58.95	-	103.58
1984	64.47	0.93	115.98	66.59	0.94	119.92	58.42	-	102.47
1985	69.10	0.95	124.23	71.02	0.97	127.87	64.11	-	111.65
1986	70.44	0.94	126.81	72.29	0.95	130.39	66.22	-	114.97
1987	74.78	0.96	134.48	77.83	0.98	140.30	63.03	-	109.37
1988	73.05	1.23	131.25	75.62	1.17	136.32	68.99	2.76	118.64
1989	70.73	1.13	127.18	73.38	1.08	132.37	60.53	-	104.94
1990	73.12	1.13	131.74	75.32	1.15	136.20	68.35	-	118.26
1991	74.08	1.12	133.82	76.62	1.17	138.87	67.47	-	117.52
1992	73.00	1.04	131.98	74.75	1.02	135.77	71.45	-	123.76
1993	71.31	1.08	129.16	73.19	1.04	133.20	68.82	-	119.44
1994	72.07	1.14	130.93	74.28	1.09	135.68	70.63	-	122.50
1995	72.79	0.97	132.52	75.10	0.93	137.56	71.58	-	123.66
1996	73.29	1.32	133.58	75.33	1.33	138.11	71.27	-	123.60
1997	75.53	1.12	137.87	77.62	1.09	142.67	72.31	-	125.01
1998	77.24	1.07	141.24	79.65	1.12	146.62	70.91	-	123.56
1999	77.08	0.99	141.27	79.51	0.99	146.91	72.42	-	125.31
2000	74.26	1.17	136.29	77.20	1.15	142.89	67.74	2.86	116.66
2001	75.42	1.22	138.49	78.05	1.22	144.63	66.28	1.66	114.69
2002	73.46	1.17	135.41	75.70	1.13	140.89	70.61	2.11	122.21
2003	68.61	1.32	126.52	70.50	1.34	131.27	70.49	1.73	122.17
2004	68.97	1.22	127.48	70.37	1.24	131.36	70.29	1.62	121.91
2005	67.91	1.15	125.82	69.61	1.26	130.31	67.17	-	116.64
2006	67.62	1.22	125.40	68.82	1.27	129.00	70.48	1.33	122.55
2007	68.35	1.15	127.04	69.09	1.18	129.93	70.44	1.70	121.93
2008	68.29	1.22	127.25	68.70	1.22	129.48	72.39	1.71	125.64
1975-2008	68.73	1.09	125.10	70.52	1.09	128.95	65.66	1.61	114.12

<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

Year of Death:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
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	20.49	0.63	34.38
2001	14.76	0.35	26.00	14.36	0.33	25.40	20.57	0.65	34.56
2002	14.51	0.31	25.59	14.09	0.29	24.97	20.39	0.61	34.20
2003	14.28	0.31	25.23	13.85	0.30	24.58	20.36	0.48	34.19
2004	13.79	0.29	24.45	13.39	0.28	23.85	19.26	0.57	32.42
2005	13.58	0.29	24.09	13.12	0.28	23.39	19.57	0.50	32.99
2006	13.22	0.29	23.50	12.82	0.29	22.92	18.93	0.47	31.80
2007	12.86	0.28	22.90	12.45	0.27	22.28	18.75	0.45	31.58
2008	12.63	0.32	22.49	12.19	0.29	21.85	18.64	0.62	31.22
1975-2008	16.58	0.32	29.18	16.42	0.31	28.99	20.38	0.56	34.55

<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

Year of Diagnosis:	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
1975	105.06	40.62	273.82	107.32	40.68	281.82	93.59	42.99	226.09
1976	101.90	40.05	263.86	104.82	40.88	272.26	85.34	37.82	209.77
1977	100.82	39.12	262.39	103.44	39.43	271.07	87.03	37.62	216.41
1978	100.64	38.85	262.45	103.66	39.32	272.14	86.09	40.24	206.14
1979	102.13	38.03	269.95	104.79	38.65	277.97	86.85	37.78	215.34
1980	102.26	37.82	271.00	105.15	38.31	280.16	89.40	37.69	224.82
1981	106.33	39.24	282.02	109.90	40.16	292.53	94.35	38.86	239.64
1982	106.48	40.59	279.03	109.99	41.33	289.77	93.75	38.21	239.18
1983	111.18	40.27	296.86	114.53	40.91	307.32	103.62	41.39	266.58
1984	116.00	42.36	308.83	119.96	43.13	321.14	102.53	44.69	253.99
1985	124.26	44.35	333.50	127.92	44.51	346.32	111.75	45.49	285.26
1986	126.85	44.45	342.61	130.45	45.24	353.60	115.09	45.69	296.81
1987	134.53	45.52	367.63	140.38	46.55	386.08	109.51	43.19	283.16
1988	131.30	44.02	359.86	136.40	45.09	375.51	118.80	43.01	317.26
1989	127.26	43.42	346.81	132.50	44.57	362.74	105.14	42.09	270.24
1990	131.84	45.58	357.72	136.35	45.38	374.55	118.53	48.94	300.78
1991	133.93	47.27	360.87	139.03	47.28	379.30	117.82	51.13	292.44
1992	132.10	43.48	364.18	135.95	43.71	377.50	124.11	47.11	325.74
1993	129.30	42.88	355.59	133.40	43.37	369.15	119.82	45.46	314.54
1994	131.08	42.42	363.24	135.92	42.83	379.69	122.94	47.53	320.41
1995	132.69	43.19	367.06	137.83	43.82	384.03	124.15	45.55	330.00
1996	133.78	43.57	370.00	138.42	44.07	385.49	124.15	44.31	333.24
1997	138.10	43.57	385.64	143.03	44.24	401.75	125.63	44.34	338.51
1998	141.49	45.46	392.96	147.01	45.75	412.17	124.22	46.67	327.30
1999	141.60	43.82	397.64	147.41	45.16	415.15	126.13	43.80	341.73
2000	136.65	43.51	380.53	143.44	44.08	403.64	117.52	44.69	308.24
2001	138.90	43.91	387.64	145.27	44.82	408.28	115.64	39.69	314.51
2002	135.87	42.82	379.54	141.60	43.52	398.44	123.35	41.10	338.73
2003	127.02	43.30	346.24	132.04	44.21	362.02	123.46	43.17	333.70
2004	128.06	44.85	345.97	132.25	44.80	361.23	123.37	46.76	323.97
2005	126.48	43.91	342.71	131.32	44.28	359.24	118.24	45.01	309.98
2006	126.17	44.02	341.30	130.17	44.75	353.82	124.46	44.39	334.13
2007	127.96	45.03	345.10	131.30	45.13	356.95	124.11	44.50	332.57
2008	128.78	45.49	346.87	131.68	45.40	357.62	129.07	44.59	350.30

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

Year of Diagnosis:	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
1975	5.83	3.78	11.19	5.89	3.81	11.32	3.94	-	8.31
1976	5.28	2.72	11.98	5.36	2.89	11.83	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	9.22	4.65	2.85	9.38	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	8.63	4.79	18.66	9.18	5.19	19.61	6.35	2.37	16.78
1985	11.53	5.93	26.20	12.11	6.27	27.39	8.21	3.49	20.58
1986	13.63	6.78	31.56	14.28	7.23	32.74	9.32	5.12	20.33
1987	17.38	7.83	42.40	18.22	8.24	44.36	12.31	5.64	29.75
1988	17.58	8.20	42.13	18.15	8.54	43.32	16.00	7.38	38.56
1989	16.54	7.02	41.46	17.11	7.28	42.88	14.55	5.52	38.18
1990	19.15	8.40	47.29	19.94	8.76	49.21	15.08	5.55	40.05
1991	19.78	8.77	48.62	20.48	8.88	50.87	15.43	7.30	36.71
1992	21.42	9.00	53.96	22.19	9.26	56.06	19.12	6.84	51.29
1993	20.71	8.36	53.05	21.36	8.79	54.27	16.75	6.07	44.72
1994	22.31	8.75	57.82	22.92	9.05	59.22	20.18	7.49	53.40
1995	24.72	9.64	64.20	25.10	9.99	64.65	22.76	6.51	65.30
1996	25.39	9.82	66.14	25.95	9.79	68.25	22.74	7.79	61.87
1997	28.34	11.06	73.58	29.00	11.25	75.48	28.24	11.42	72.28
1998	32.80	12.00	87.27	33.81	12.36	89.98	30.47	10.79	82.01
1999	32.76	11.97	87.20	33.21	12.22	88.15	29.72	10.42	80.27
2000	32.83	11.77	87.99	33.92	12.53	89.93	29.67	8.06	86.26
2001	33.72	11.58	91.69	34.32	12.06	92.61	31.74	9.01	91.28
2002	34.07	11.90	92.13	34.64	12.32	93.08	28.59	8.66	80.78
2003	32.50	12.00	86.17	33.51	12.52	88.45	29.85	9.37	83.49
2004	33.18	12.74	86.71	33.98	12.97	89.01	30.38	9.93	83.95
2005	32.68	12.42	85.73	33.62	12.93	87.80	31.66	9.96	88.48
2006	33.29	13.78	84.37	33.59	14.27	84.18	35.67	11.50	98.97
2007	35.41	14.34	90.60	35.45	14.55	90.19	33.55	10.93	92.79
2008	37.03	14.16	96.93	37.08	14.57	96.03	36.66	11.65	102.14

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 4.9  
Cancer of the Female Breast (Invasive)

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

Year of Diagnosis:	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
1975	105.06	40.62	273.82	107.32	40.68	281.82	93.59	42.99	226.09
1976	101.90	40.05	263.86	104.82	40.88	272.26	85.34	37.82	209.77
1977	100.82	39.12	262.39	103.44	39.43	271.07	87.03	37.62	216.41
1978	100.64	38.85	262.45	103.66	39.32	272.14	86.09	40.24	206.14
1979	102.13	38.03	269.95	104.79	38.65	277.97	86.85	37.78	215.34
1980	102.26	37.82	271.00	105.15	38.31	280.16	89.40	37.69	224.82
1981	106.33	39.24	282.02	109.90	40.16	292.53	94.35	38.86	239.64
1982	106.48	40.59	279.01	109.98	41.33	289.75	93.73	38.20	239.13
1983	111.16	40.26	296.82	114.51	40.90	307.26	103.58	41.37	266.47
1984	115.98	42.35	308.77	119.92	43.12	321.04	102.47	44.66	253.83
1985	124.23	44.34	333.41	127.87	44.49	346.19	111.65	45.45	285.02
1986	126.81	44.44	342.50	130.39	45.21	353.42	114.97	45.64	296.50
1987	134.48	45.50	367.48	140.30	46.53	385.85	109.37	43.13	282.80
1988	131.25	44.00	359.71	136.32	45.06	375.28	118.64	42.95	316.83
1989	127.18	43.39	346.60	132.37	44.53	362.41	104.94	42.01	269.72
1990	131.74	45.54	357.47	136.20	45.33	374.14	118.26	48.83	300.10
1991	133.82	47.23	360.58	138.87	47.22	378.85	117.52	51.00	291.72
1992	131.98	43.44	363.84	135.77	43.65	376.99	123.76	46.98	324.83
1993	129.16	42.83	355.23	133.20	43.31	368.58	119.44	45.31	313.55
1994	130.93	42.37	362.82	135.68	42.75	379.03	122.50	47.36	319.27
1995	132.52	43.13	366.58	137.56	43.73	383.27	123.66	45.36	328.68
1996	133.58	43.51	369.45	138.11	43.97	384.63	123.60	44.11	331.76
1997	137.87	43.49	384.99	142.67	44.12	400.73	125.01	44.12	336.82
1998	141.24	45.38	392.26	146.62	45.63	411.06	123.56	46.42	325.57
1999	141.27	43.72	396.73	146.91	45.01	413.74	125.31	43.51	339.50
2000	136.29	43.40	379.54	142.89	43.91	402.08	116.66	44.36	305.98
2001	138.49	43.78	386.49	144.63	44.63	406.48	114.69	39.36	311.92
2002	135.41	42.67	378.25	140.89	43.30	396.43	122.21	40.72	335.58
2003	126.52	43.13	344.88	131.27	43.95	359.92	122.17	42.72	330.21
2004	127.48	44.64	344.40	131.36	44.50	358.82	121.91	46.21	320.13
2005	125.82	43.68	340.91	130.31	43.94	356.47	116.64	44.40	305.80
2006	125.40	43.75	339.21	129.00	44.35	350.65	122.55	43.71	329.00
2007	127.04	44.71	342.63	129.93	44.66	353.22	121.93	43.72	326.73
2008	127.25	44.95	342.74	129.48	44.64	351.65	125.64	43.40	341.00
1975-2008	125.10	43.15	339.70	128.95	43.60	352.44	114.12	43.69	298.57

<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

Year of Death:	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
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	80.98	26.17	5.37	80.63	34.38	9.94	98.36
2001	26.00	5.87	78.71	25.40	5.36	77.89	34.56	9.87	99.22
2002	25.59	5.64	77.84	24.97	5.06	77.10	34.20	10.05	97.45
2003	25.23	5.58	76.67	24.58	5.08	75.67	34.19	9.67	98.41
2004	24.45	5.22	74.79	23.85	4.66	74.11	32.42	9.32	92.93
2005	24.09	5.21	73.51	23.39	4.64	72.50	32.99	9.54	94.39
2006	23.50	5.07	71.78	22.92	4.57	70.98	31.80	8.98	91.57
2007	22.90	4.79	70.32	22.28	4.27	69.45	31.58	8.65	91.61
2008	22.49	4.76	68.93	21.85	4.30	67.81	31.22	8.35	91.09
1975-2008	29.18	7.03	87.18	28.99	6.65	87.51	34.55	10.78	96.79

<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

Year of Diagnosis:	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
1975	5.83	3.78	11.19	5.89	3.81	11.32	3.94	-	8.31
1976	5.28	2.72	11.98	5.36	2.89	11.83	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	9.22	4.65	2.85	9.38	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	9.18	5.19	19.61	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	6.78	31.56	14.27	7.23	32.73	9.32	5.12	20.32
1987	17.38	7.83	42.39	18.21	8.24	44.33	12.30	5.64	29.73
1988	17.57	8.20	42.12	18.14	8.54	43.29	15.99	7.38	38.53
1989	16.53	7.02	41.44	17.10	7.27	42.84	14.53	5.52	38.14
1990	19.14	8.40	47.27	19.92	8.76	49.16	15.06	5.54	40.01
1991	19.78	8.77	48.61	20.46	8.87	50.82	15.41	7.29	36.66
1992	21.42	8.99	53.95	22.16	9.25	55.99	19.09	6.83	51.21
1993	20.70	8.36	53.04	21.33	8.78	54.21	16.73	6.06	44.66
1994	22.31	8.75	57.80	22.89	9.04	59.14	20.14	7.47	53.32
1995	24.71	9.64	64.18	25.06	9.98	64.56	22.72	6.50	65.19
1996	25.37	9.82	66.12	25.91	9.78	68.15	22.69	7.78	61.76
1997	28.32	11.05	73.54	28.95	11.24	75.35	28.18	11.40	72.13
1998	32.78	11.99	87.21	33.76	12.34	89.84	30.42	10.77	81.85
1999	32.74	11.96	87.14	33.13	12.20	87.95	29.64	10.39	80.05
2000	32.80	11.76	87.91	33.84	12.50	89.71	29.59	8.04	86.01
2001	33.69	11.57	91.61	34.23	12.03	92.36	31.64	8.98	90.98
2002	34.02	11.88	92.00	34.53	12.28	92.81	28.49	8.63	80.49
2003	32.44	11.98	86.02	33.39	12.48	88.16	29.73	9.33	83.16
2004	33.12	12.71	86.54	33.86	12.92	88.68	30.25	9.88	83.58
2005	32.59	12.39	85.51	33.48	12.87	87.43	31.50	9.91	88.04
2006	33.19	13.74	84.12	33.43	14.21	83.79	35.47	11.43	98.42
2007	35.28	14.29	90.27	35.26	14.47	89.71	33.34	10.87	92.20
2008	36.62	14.00	95.85	36.66	14.40	94.95	36.19	11.50	100.83
1975-2008	21.85	9.11	55.22	21.90	9.25	55.02	20.84	7.51	55.73

<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, 2004-2008									
All ages	67.0	1.2	124.0	68.2	1.2	127.3	68.8	1.6	119.9
Under 65	42.3	0.4	82.9	42.4	0.4	84.1	44.6	0.8	82.1
65 and over	237.5	6.5	408.6	246.2	6.7	426.3	236.3	7.5	381.1
All ages (IARC world std) <sup>c</sup>	47.6	0.8	89.9	48.2	0.7	92.1	49.0	1.1	87.1
Age-Specific Rates, 2004-2008									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	0.1	-	0.2	0.1	-	0.2	-	-	-
20-24	0.8	-	1.6	0.7	-	1.5	1.1	-	2.3
25-29	4.0	-	8.1	3.6	-	7.6	5.9	-	11.5
30-34	13.0	-	26.4	12.5	-	25.8	16.6	-	31.8
35-39	29.7	0.1	60.0	29.1	-	59.7	34.0	-	64.8
40-44	61.2	0.3	122.3	60.4	0.3	122.4	65.2	-	123.6
45-49	95.4	0.7	188.8	95.2	0.6	190.8	96.0	1.4	180.0
50-54	115.9	1.2	226.6	116.9	1.1	231.5	119.4	2.1	220.2
55-59	144.3	2.0	278.5	145.4	2.0	284.2	152.7	3.0	276.3
60-64	186.0	3.3	353.3	189.6	3.2	364.2	190.5	6.6	336.1
65-69	218.7	4.7	405.9	226.3	5.0	423.7	214.1	5.8	372.1
70-74	230.7	5.3	414.1	239.6	5.2	434.1	225.0	7.9	379.8
75-79	252.1	7.2	432.3	263.1	7.7	454.2	241.0	6.8	390.0
80-84	260.5	7.6	420.9	270.5	7.9	437.8	248.0	-	378.8
85+	241.2	10.1	347.6	246.7	10.5	354.2	286.3	-	390.8
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2004-2008									
All ages	13.2	0.3	23.5	12.8	0.3	22.8	19.0	0.5	32.0
Under 65	6.1	0.1	11.9	5.7	0.1	11.1	10.4	0.2	18.9
65 and over	62.3	1.7	103.7	62.1	1.7	104.1	78.9	2.9	122.3
All ages (IARC world std) <sup>c</sup>	8.3	0.2	15.3	8.0	0.2	14.8	12.5	0.3	21.7
Age-Specific Rates, 2004-2008									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	0.1	-	0.1	0.0	-	0.1	0.1	-	0.3
25-29	0.3	-	0.7	0.3	-	0.6	0.8	-	1.5
30-34	1.5	-	2.9	1.2	-	2.6	3.0	-	5.8
35-39	3.7	-	7.5	3.2	-	6.5	7.6	-	14.2
40-44	7.0	0.1	13.9	6.3	0.0	12.6	12.8	-	24.1
45-49	11.4	0.1	22.5	10.2	0.1	20.3	21.2	0.2	39.5
50-54	17.3	0.3	33.6	15.9	0.2	31.3	29.2	0.5	53.5
55-59	24.4	0.4	47.0	23.0	0.4	44.8	39.9	0.9	72.0
60-64	32.0	0.7	60.7	31.0	0.6	59.4	46.8	1.2	82.5
65-69	39.1	0.9	72.4	38.5	0.8	72.0	53.6	2.3	91.4
70-74	47.5	1.4	85.1	47.3	1.3	85.5	59.8	2.4	99.5
75-79	61.2	1.8	105.0	61.4	1.7	106.2	72.6	2.6	115.4
80-84	81.1	2.4	130.6	81.5	2.4	132.0	96.2	2.7	145.2
85+	124.0	3.3	177.6	123.7	3.2	177.4	164.7	5.9	222.5

<sup>a</sup> SEER 17 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

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

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

- 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, 2004-2008</u>			
Age at Diagnosis:			
All ages	30.9	31.4	28.8
Under 65	23.2	23.6	19.9
65 and over	84.2	85.1	90.3
All ages (IARC world std) <sup>b</sup>	23.3	23.7	21.4
<u>Age-Specific Rates, 2004-2008</u>			
Age at Diagnosis:			
<1	-	-	-
1-4	-	-	-
5-9	-	-	-
10-14	-	-	-
15-19	-	-	-
20-24	0.1	-	-
25-29	0.7	0.7	1.0
30-34	2.7	2.6	2.3
35-39	10.8	10.7	10.6
40-44	37.9	38.4	29.2
45-49	60.5	62.3	43.3
50-54	71.2	72.4	58.1
55-59	77.4	78.1	75.8
60-64	90.1	91.2	90.1
65-69	99.4	100.5	101.2
70-74	93.8	95.0	103.7
75-79	90.8	91.8	95.5
80-84	70.4	71.9	70.0
85+	35.1	34.2	53.3

<sup>a</sup> SEER 17 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

<sup>b</sup> Rates are per 100,000 and are age-adjusted to the IARC world standard population.

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

Table 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>	75.1	76.7	74.6	75.9	77.9	75.2	62.2	62.4	62.1
1978-1980 <sup>b</sup>	74.6	75.6	74.3	75.3	76.3	75.0	63.4	67.2	61.5
1981-1983 <sup>b</sup>	76.4	77.5	76.0	77.3	78.7	77.0	63.8	65.4	63.0
1984-1986 <sup>b</sup>	79.2	77.9	79.6	80.2	79.7	80.4	65.2	64.0	65.9
1987-1989 <sup>b</sup>	84.2	81.5	85.2	85.3	82.9	86.1	71.3	69.6	72.3
1990-1992 <sup>b</sup>	85.4	83.4	86.1	86.6	85.2	87.1	71.7	70.4	72.5
1993-1995 <sup>b</sup>	86.5	84.3	87.3	87.8	86.3	88.4	72.7	70.2	74.1
1996-2000 <sup>b</sup>	89.1	87.4	89.7	90.2	89.1	90.5	77.5	75.7	78.6
2001-2007 <sup>b</sup>	90.0 <sup>e</sup>	89.2 <sup>e</sup>	90.3 <sup>e</sup>	91.4 <sup>e</sup>	91.0 <sup>e</sup>	91.6 <sup>e</sup>	77.4 <sup>e</sup>	76.8 <sup>e</sup>	77.7 <sup>e</sup>
5-Year Period Survival (Percent) <sup>cd</sup>									
2007	89.2	88.8	89.4	90.5	90.3	90.5	77.7	77.4	77.9
Stage Distribution (%) 2001-2007 <sup>c</sup>									
All Stages									
Number of cases	292,714	73,750	218,964	241,734	56,867	184,867	26,966	8,735	18,231
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	60	53	63	61	54	63	51	47	53
Regional	33	41	30	32	41	30	38	44	35
Distant	5	4	5	5	4	5	8	7	9
Unstaged	2	1	2	2	1	2	2	2	3
5-Year Relative Survival (Percent), 2001-2007 <sup>c</sup>									
Age at Diagnosis:									
Ages <45	86.9	-	-	88.3	-	-	76.0	-	-
Ages 45-54	89.8	-	-	91.2	-	-	78.2	-	-
Ages 55-64	90.1	-	-	91.2	-	-	78.9	-	-
Ages 65-74	90.5	-	-	91.5	-	-	80.0	-	-
Ages 75+	87.2	-	-	88.9	-	-	68.8	-	-
Ages <65	89.2	-	-	90.6	-	-	77.8	-	-
Ages 65+	88.9	-	-	90.2	-	-	75.2	-	-
Stage:									
All Stages	89.1	88.4	89.3	90.4	89.9	90.5	77.0	77.0	77.0
Localized	98.6	96.2	99.3	99.3	96.7	100.0	92.6	91.3	93.1
Regional	83.8	84.6	83.4	85.2	86.3	84.7	72.0	72.8	71.6
Distant	23.3	30.6	21.3	24.7	34.7	22.4	14.8	15.7	14.4
Unstaged	52.4	71.9	47.5	52.0	74.9	47.0	45.2	50.9	43.5
<i>In Situ</i> <sup>h</sup>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.3	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 2008.

<sup>c</sup> SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

Based on follow-up of patients into 2008.

<sup>d</sup> Period survival provides a 2007 estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three year calendar blocks (2005-2007: 0-1 year survival), (2004-2006: 1-2 year survival), (2003-2005: 2-3 year survival), (2002-2004: 3-4 year survival), (2001-2003: 4-5 years survival).

<sup>e</sup> The difference between 1975-1977 and 2001-2007 is statistically significant ( $p < .05$ ).

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

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

<sup>h</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	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Survival Time																					
1-year	94.7	95.4	96.6	97.0	97.3	97.4	97.2	97.5	97.3	97.1	97.5	97.7	97.6	97.7	97.5	97.7	98.0	97.9	97.9	98.0	97.9
2-year	89.0	90.3	92.6	93.4	93.8	94.4	94.1	94.3	94.1	93.9	94.5	95.1	95.3	95.6	95.3	95.7	95.7	95.8	95.8	95.8	95.7
3-year	83.4	84.8	88.5	89.8	90.2	91.1	91.0	91.1	91.5	91.1	92.2	93.0	93.3	93.7	93.0	93.7	93.4	93.4	93.4	93.9	
4-year	78.7	80.4	85.3	87.0	87.7	88.2	88.3	88.7	88.9	89.0	90.1	91.1	91.4	91.8	91.1	91.9	91.7	91.4			
5-year	74.8	76.6	82.4	84.8	85.4	86.0	85.9	86.7	86.9	86.8	88.5	89.6	89.7	90.4	89.6	90.4	89.9				
6-year	71.6	73.6	80.0	82.7	83.5	84.2	84.0	85.1	85.5	85.1	87.2	88.5	88.1	89.2	88.4	88.9					
7-year	68.8	70.8	78.0	80.8	81.7	82.6	82.3	83.6	83.9	84.0	86.1	87.2	87.1	87.9	87.0						
8-year	66.6	68.5	76.5	79.5	80.2	81.7	80.7	82.9	82.7	82.6	85.2	86.0	86.0	86.6							
9-year	64.4	66.5	74.8	78.2	78.9	80.8	79.7	81.8	81.5	81.6	84.0	84.8	85.1								
10-year	62.6	64.6	73.5	77.2	77.8	79.8	78.7	80.6	80.7	80.5	82.9	83.6									
11-year	61.0	62.8	72.2	76.1	77.2	78.8	77.4	79.2	79.6	79.6	82.0										
12-year	59.4	61.6	71.0	75.3	76.1	77.8	76.8	78.1	78.6	78.7											
13-year	58.2	60.5	70.0	74.3	75.2	76.8	76.0	77.4	77.6												
14-year	57.2	59.2	69.1	73.2	74.5	76.1	75.0	76.5													
15-year	56.1	58.4	68.2	72.0	73.8	75.1	74.1														
16-year	55.2	57.3	67.4	70.8	73.1	74.3															
17-year	54.3	56.3	66.6	69.9	72.0																
18-year	53.5	55.6	65.8	69.0																	
19-year	52.6	55.0	65.2																		
20-year	51.9	54.2																			

<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	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Survival Time																					
1-year	96.8	97.6	98.0	97.6	98.5	98.4	98.0	98.5	98.0	97.8	98.1	98.4	98.7	98.5	98.4	98.6	98.9	98.5	98.9	98.9	99.0
2-year	91.0	91.5	92.8	93.1	94.0	94.6	94.3	93.6	93.8	93.8	94.8	95.2	95.2	95.7	94.9	95.9	96.1	96.0	96.0	96.7	
3-year	84.7	85.7	87.5	88.5	90.2	90.8	90.3	89.4	90.0	90.7	91.8	92.2	92.3	93.1	91.6	93.4	93.6	93.2	93.7		
4-year	80.1	81.0	83.5	85.0	86.9	86.5	87.2	86.3	86.7	88.2	88.8	89.5	90.0	90.6	89.3	90.7	91.8	91.2			
5-year	76.2	77.2	80.3	82.4	84.0	83.9	84.8	84.1	84.2	85.5	86.8	87.4	88.1	89.0	87.2	88.7	89.7				
6-year	73.4	74.2	77.9	80.2	81.8	81.7	83.0	82.0	82.3	83.3	84.8	85.5	86.1	87.4	85.2	86.7					
7-year	70.9	71.6	75.8	78.6	79.6	80.3	81.3	80.3	80.3	81.7	83.2	83.7	84.8	85.8	83.4						
8-year	69.0	69.5	74.2	76.6	78.2	78.6	79.7	79.0	78.7	80.0	81.4	82.4	83.5	83.8							
9-year	67.1	67.7	72.6	75.5	77.3	77.6	78.5	77.6	77.6	78.9	80.4	80.7	82.4								
10-year	65.6	66.3	71.4	74.4	76.3	76.8	77.3	76.5	76.3	77.6	79.1	79.7									
11-year	64.2	65.0	70.4	73.4	75.3	75.7	76.6	75.6	75.4	76.5	78.1										
12-year	62.8	64.0	69.3	72.5	73.9	75.1	76.0	74.2	74.5	75.8											
13-year	61.7	63.0	68.3	71.4	73.2	74.0	75.3	73.4	73.6												
14-year	61.0	61.8	67.6	70.8	72.4	73.4	74.2	72.6													
15-year	60.2	61.1	66.8	70.1	71.8	72.6	73.3														
16-year	59.5	60.3	66.1	69.7	70.7	72.1															
17-year	58.9	59.7	65.5	69.0	70.1																
18-year	58.3	59.1	64.9	68.6																	
19-year	57.7	58.6	64.3																		
20-year	57.0	58.0																			

<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	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Survival Time																					
1-year	94.0	94.8	96.1	96.8	96.9	97.1	96.9	97.2	97.1	96.9	97.4	97.4	97.3	97.4	97.3	97.4	97.6	97.7	97.6	97.6	97.5
2-year	88.3	89.9	92.5	93.5	93.8	94.3	94.0	94.6	94.3	93.9	94.5	95.0	95.4	95.5	95.4	95.6	95.5	95.7	95.8	95.4	
3-year	83.0	84.6	88.9	90.3	90.2	91.2	91.2	91.7	92.0	91.2	92.3	93.3	93.6	93.9	93.4	93.8	93.4	93.4	94.0		
4-year	78.2	80.2	85.9	87.6	88.0	88.9	88.6	89.5	89.8	89.4	90.5	91.8	91.9	92.3	91.8	92.3	91.6	91.6			
5-year	74.3	76.4	83.2	85.6	85.9	86.7	86.4	87.7	87.9	87.3	89.2	90.5	90.3	90.9	90.4	91.0	90.0				
6-year	71.1	73.4	80.8	83.6	84.1	85.1	84.3	86.2	86.7	85.8	88.0	89.6	88.9	89.8	89.6	89.7					
7-year	68.1	70.5	78.8	81.6	82.6	83.5	82.6	84.8	85.3	84.9	87.1	88.6	87.9	88.7	88.3						
8-year	65.7	68.2	77.3	80.6	81.0	82.9	81.1	84.4	84.3	83.6	86.6	87.3	86.9	87.7							
9-year	63.5	66.1	75.5	79.2	79.5	82.0	80.2	83.3	83.0	82.6	85.3	86.3	86.1								
10-year	61.6	64.0	74.2	78.2	78.4	81.0	79.3	82.1	82.4	81.6	84.3	85.1									
11-year	59.7	62.0	72.8	77.2	77.9	80.0	77.7	80.5	81.2	80.8	83.5										
12-year	58.1	60.7	71.5	76.3	76.9	78.8	77.1	79.5	80.2	79.8											
13-year	56.9	59.6	70.5	75.4	76.1	77.8	76.2	78.8	79.1												
14-year	55.8	58.2	69.6	74.1	75.3	77.1	75.2	77.9													
15-year	54.5	57.3	68.6	72.6	74.7	76.0	74.4														
16-year	53.5	56.1	67.7	71.0	74.1	75.0															
17-year	52.3	55.0	66.8	69.9	72.8																
18-year	51.4	54.1	66.0	68.7																	
19-year	50.4	53.4	65.4																		
20-year	49.6	52.5																			

<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, 2006-2008 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	12.29	2.78	Asian/ Pacific Islander	0	0.00	0.00	0.06	9.91	1.69
	10	0.00	0.06	0.50	12.42	2.81		10	0.00	0.06	0.46	9.98	1.71
	20	0.06	0.50	1.94	12.45	2.82		20	0.06	0.46	1.83	10.00	1.71
	30	0.44	1.89	4.16	12.46	2.83		30	0.40	1.77	3.70	9.97	1.71
	40	1.46	3.76	6.96	12.17	2.80		40	1.38	3.33	5.76	9.65	1.69
	50	2.37	5.68	8.76	11.06	2.68		50	1.99	4.48	6.63	8.46	1.59
	60	3.53	6.82	8.78	9.28	2.41		60	2.60	4.84	6.25	6.75	1.38
	70	3.77	6.00	-	6.58	2.00		70	2.44	3.96	-	4.50	1.08
80	3.01	-	-	3.79	1.54	80	1.84	-	-	2.49	0.78		
White	0	0.00	0.00	0.06	12.67	2.76	American Indian/ Alaska Native <sup>a</sup>	0	0.00	0.00	0.04	7.04	1.82
	10	0.00	0.06	0.49	12.78	2.79		10	0.00	0.04	0.33	7.12	1.85
	20	0.05	0.49	1.94	12.81	2.79		20	0.04	0.33	1.30	7.16	1.86
	30	0.44	1.89	4.21	12.82	2.80		30	0.30	1.28	2.63	7.19	1.87
	40	1.47	3.82	7.14	12.53	2.78		40	1.00	2.38	4.42	7.04	1.88
	50	2.42	5.85	9.08	11.42	2.67		50	1.44	3.57	5.10	6.30	1.83
	60	3.66	7.10	9.10	9.59	2.41		60	2.29	3.93	4.85	5.21	1.65
	70	3.94	6.24	-	6.79	2.00		70	1.89	2.95	-	3.37	1.36
80	3.11	-	-	3.86	1.53	80	1.43	-	-	2.00	1.19		
Black	0	0.00	0.00	0.08	10.58	3.25	Hispanic <sup>b</sup>	0	0.00	0.00	0.05	9.73	2.03
	10	0.00	0.08	0.55	10.80	3.32		10	0.00	0.05	0.41	9.82	2.05
	20	0.08	0.55	1.91	10.83	3.33		20	0.05	0.41	1.54	9.84	2.06
	30	0.47	1.85	4.00	10.84	3.34		30	0.36	1.50	3.30	9.83	2.06
	40	1.40	3.59	6.37	10.56	3.29		40	1.15	2.97	5.36	9.56	2.03
	50	2.30	5.21	7.69	9.61	3.10		50	1.86	4.32	6.63	8.62	1.93
	60	3.21	5.96	7.58	8.07	2.73		60	2.58	5.01	6.47	7.10	1.71
	70	3.31	5.27	-	5.86	2.26		70	2.70	4.32	-	5.01	1.41
80	2.83	-	-	3.67	1.84	80	2.05	-	-	2.92	1.09		

Devcan Version 6.6.0, October 2011, National Cancer Institute (<http://surveillance.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey). 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.

Underlying mortality data for Hispanics exclude deaths from the District of Columbia, Minnesota, New Hampshire and North Dakota.

- 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 17 Areas <sup>b</sup>	SEER 13 Areas <sup>b</sup>	SEER 9 Areas <sup>b</sup>
	Rate 2004-2008	Trend 1999-2008 <sup>c</sup>	Trend 1999-2008 <sup>d</sup>
	Rate per 100,000 persons	AAPC (%)	AAPC (%)
	Females	Females	Females
RACE/ETHNICITY			
All Races	124.0	-1.1*	-1.2*
White	127.3	-1.5*	-1.5*
White Hispanic <sup>e</sup>	94.1	0.0	-
White Non-Hispanic <sup>e</sup>	133.2	-1.4*	-
Black	119.9	0.0	0.0
Asian/Pacific Islander	93.7	0.7	-
Amer Ind/Alaska Nat <sup>f</sup>	77.9	-0.3	-
Hispanic <sup>e</sup>	92.1	0.2	-
U.S. Mortality <sup>g</sup>	Rate 2004-2008	Trend 1999-2008 <sup>h</sup>	
	Rate per 100,000 persons	AAPC (%)	
	Females	Females	
RACE/ETHNICITY			
All Races	23.5	-2.0*	
White	22.8	-2.0*	
White Hispanic <sup>e</sup>	15.7	-1.8*	
White Non-Hispanic <sup>e</sup>	23.4	-1.9*	
Black	32.0	-1.3*	
Asian/Pacific Islander	12.2	-0.7*	
Amer Ind/Alaska Nat			
Total U.S.	13.8	-0.9	
CHSDA Counties	17.2	-0.1	
Non-CHSDA Counties	9.8	-2.2*	
Hispanic <sup>e</sup>	15.1	-1.8*	

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 3.5, April 2011, National Cancer Institute.

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

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

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

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

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

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

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

c The 1999-2008 AAPC estimates are based on a Joinpoint analysis with up to 3 Joinpoints over diagnosis years 1992-2008.

d The 1999-2008 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2008.

e Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The 2004-2008 Hispanic and Non-Hispanic death rates exclude deaths from the District of Columbia and North Dakota.

The 1999-2008 Hispanic and Non-Hispanic mortality trends exclude deaths from Connecticut, the District of Columbia, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma and Vermont.

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

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

h The 1999-2008 mortality AAPCs are based on a Joinpoint analysis using years of death 1992-2008.

\* 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 17 Areas <sup>b</sup> Rate 2004-2008 Rate per 100,000 persons	SEER 13 Areas <sup>b</sup> Trend 1999-2008 <sup>c</sup> AAPC (%)	SEER 9 Areas <sup>b</sup> Trend 1999-2008 <sup>d</sup> AAPC (%)
	Females	Females	Females
All Races	30.9	1.2*	0.9*
White	31.4	0.5	0.6
White Hispanic <sup>e</sup>	20.8	2.0*	-
White Non-Hispanic <sup>e</sup>	33.5	0.6	-
Black	28.8	2.0*	2.0
Asian/Pacific Islander	28.3	3.8	-
Amer Ind/Alaska Nat <sup>f</sup>	13.3	1.6	-
Hispanic <sup>e</sup>	20.5	2.1*	-

The AAPC is the Average Annual Percent Change over the time interval. The AAPCs are calculated by the Joinpoint Regression Program Version 3.5, April 2011, 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 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.

<sup>c</sup> The 1999-2008 AAPC estimates are based on a Joinpoint analysis with up to 3 Joinpoints over diagnosis years 1992-2008.

<sup>d</sup> The 1999-2008 AAPC estimates are based on a Joinpoint analysis with up to 5 Joinpoints over diagnosis years 1975-2008.

<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>, 2004-2008</u>									
Atlanta & Rural Georgia	122.72	44.27	328.16	124.80	43.61	337.40	123.51	46.14	326.10
Atlanta	123.04	44.20	329.50	124.65	43.42	337.36	125.23	46.29	331.93
Rural Georgia	118.88	47.49	305.81	128.10	49.87	332.96	101.08	44.06	250.40
California	122.45	41.08	335.51	127.12	41.06	352.48	121.02	42.17	327.51
Greater Bay Area	128.27	44.99	346.34	138.24	45.26	381.73	121.34	45.87	318.95
San Francisco-Oakland	130.73	46.71	350.75	141.01	46.96	387.27	126.11	47.00	333.28
San Jose-Monterey	123.54	41.82	337.53	133.37	42.32	371.79	83.27	38.47	200.60
Los Angeles	117.17	40.22	318.67	120.43	39.17	333.20	122.41	44.07	327.53
Greater California	122.88	40.11	339.62	126.60	40.67	351.62	120.46	38.59	334.84
Connecticut	136.15	49.24	363.75	138.55	50.48	369.17	112.82	40.00	303.51
Detroit	125.22	44.49	336.63	126.33	45.03	339.20	122.82	43.24	331.20
Hawaii	122.38	47.72	317.89	134.99	46.56	366.55	78.92	-	222.33
Iowa	122.51	43.13	330.37	123.09	43.27	332.10	110.26	40.06	294.11
Kentucky	120.48	42.00	325.99	119.70	41.18	325.31	128.30	45.28	345.69
Louisiana	118.21	41.81	318.29	117.43	39.64	321.14	122.33	47.44	318.44
New Jersey	129.71	47.54	344.86	133.94	49.08	356.16	111.92	41.32	296.81
New Mexico	110.51	38.79	298.32	115.17	40.48	310.75	73.20	34.52	174.50
Seattle-Puget Sound	137.10	44.40	379.84	141.35	44.31	395.43	123.19	45.35	327.04
Utah	109.50	35.18	304.12	111.17	35.77	308.60	75.65	-	234.06
9 SEER Areas <sup>b</sup>	126.61	44.34	342.02	130.01	44.42	354.15	121.86	44.28	325.01
11 SEER Areas <sup>b</sup>	124.29	43.21	336.62	128.13	43.08	350.83	121.53	44.17	324.12
13 SEER Areas <sup>b</sup>	124.29	43.23	336.54	128.13	43.09	350.80	121.21	44.15	322.99
17 SEER Areas <sup>b</sup>	124.04	42.83	336.70	127.34	42.90	348.46	119.90	43.52	319.91

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

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

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

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

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

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

Table 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>, 2004-2008</u>									
Atlanta & Rural Georgia	24.92	5.64	75.43	21.75	3.77	68.85	32.78	8.46	96.45
Atlanta	24.83	5.57	75.28	21.78	3.72	69.07	32.56	8.37	95.90
Rural Georgia	26.98	8.21	76.15	22.20	-	66.23	34.95	-	95.72
California	22.53	4.62	69.42	23.21	4.44	72.35	33.01	8.93	96.06
Greater Bay Area	21.78	4.25	67.71	23.61	4.00	74.94	29.60	9.56	82.09
San Francisco-Oakland	22.26	4.33	69.19	23.87	3.68	76.72	30.13	10.04	82.72
San Jose-Monterey	20.83	4.08	64.70	23.12	4.56	71.73	25.62	-	75.59
Los Angeles	22.98	4.99	70.08	23.06	4.72	71.09	35.84	9.30	105.35
Greater California	22.57	4.57	69.72	23.14	4.45	72.08	31.84	8.30	93.50
Connecticut	23.25	4.63	72.00	23.22	4.55	72.10	26.42	5.84	80.30
Detroit	27.08	6.08	82.07	24.83	4.95	76.86	35.54	9.63	103.38
Hawaii	17.80	4.84	51.76	22.30	5.03	67.51	-	-	-
Iowa	22.12	4.49	68.31	22.11	4.54	68.10	32.45	-	104.87
Kentucky	23.53	5.06	71.91	23.22	4.89	71.21	31.24	7.68	92.94
Louisiana	26.81	6.66	79.57	23.29	4.55	72.37	35.85	11.15	100.53
New Jersey	26.45	5.18	82.15	26.33	4.75	82.83	31.60	8.72	91.51
New Mexico	21.45	4.47	65.92	22.27	4.62	68.49	18.14	-	-
Seattle-Puget Sound	22.14	3.90	69.93	22.91	3.75	73.09	28.35	7.55	82.83
Utah	22.09	4.29	68.70	22.40	4.32	69.72	-	-	-
9 SEER Areas <sup>b</sup>	23.05	4.76	70.94	23.02	4.26	72.13	31.87	8.47	93.16
11 SEER Areas <sup>b</sup>	22.92	4.78	70.43	23.05	4.39	71.91	32.77	8.62	96.03
13 SEER Areas <sup>b</sup>	22.91	4.77	70.42	23.03	4.37	71.89	32.76	8.64	95.92
17 SEER Areas <sup>b</sup>	23.54	4.89	72.38	23.51	4.48	73.36	32.89	8.95	95.59
Total U.S.	23.47	5.01	71.80	22.85	4.49	70.91	31.98	8.97	92.26

<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 17 areas comprise the SEER 13 areas plus California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey.  
- Statistic not shown. Rate based on less than 16 cases for the time interval.

Table 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>, 2004-2008</u>									
Atlanta & Rural Georgia	33.25	12.25	88.22	35.42	13.47	92.90	31.90	11.02	86.59
Atlanta	33.95	12.53	90.04	35.99	13.67	94.43	33.13	11.44	89.93
Rural Georgia	19.55	-	60.17	24.66	-	69.33	12.22	-	44.20
California	28.42	10.23	76.03	28.69	10.08	77.41	26.73	7.78	76.35
Greater Bay Area	33.17	13.07	85.81	33.73	12.98	88.06	26.86	6.77	79.45
San Francisco-Oakland	34.15	13.48	88.28	35.32	13.94	91.30	26.95	6.32	80.98
San Jose-Monterey	31.27	12.33	80.87	30.97	11.35	82.32	24.65	-	63.82
Los Angeles	25.67	9.17	68.88	25.79	8.93	69.94	26.42	7.79	75.22
Greater California	28.05	9.76	75.94	28.43	9.76	77.30	27.00	8.24	76.10
Connecticut	45.62	19.40	114.29	46.17	19.87	115.05	40.99	13.87	112.02
Detroit	36.30	14.41	93.62	36.33	15.23	91.58	36.40	11.74	100.98
Hawaii	37.02	14.87	95.02	31.76	12.55	82.08	-	-	-
Iowa	28.66	10.63	75.88	28.57	10.61	75.61	22.09	-	65.38
Kentucky	24.20	8.91	64.22	23.92	8.85	63.37	27.36	9.49	74.14
Louisiana	23.58	7.39	65.96	24.34	7.80	67.64	22.68	6.81	64.25
New Jersey	38.42	17.37	93.53	39.96	18.60	95.91	27.86	8.91	77.47
New Mexico	20.02	7.74	52.17	21.49	8.68	55.05	-	-	-
Seattle-Puget Sound	37.09	14.28	96.81	38.18	14.66	99.77	27.25	7.48	79.01
Utah	22.72	7.99	61.28	23.20	8.13	62.66	-	-	-
9 SEER Areas <sup>b</sup>	34.19	13.42	88.56	34.55	13.77	88.97	33.43	10.73	92.86
11 SEER Areas <sup>b</sup>	32.08	12.35	83.76	32.46	12.52	84.70	31.62	10.08	88.02
13 SEER Areas <sup>b</sup>	32.04	12.32	83.66	32.44	12.51	84.65	31.35	9.96	87.35
17 SEER Areas <sup>b</sup>	30.93	11.87	80.85	31.36	12.08	81.84	28.84	9.13	80.43

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

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

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

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

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

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

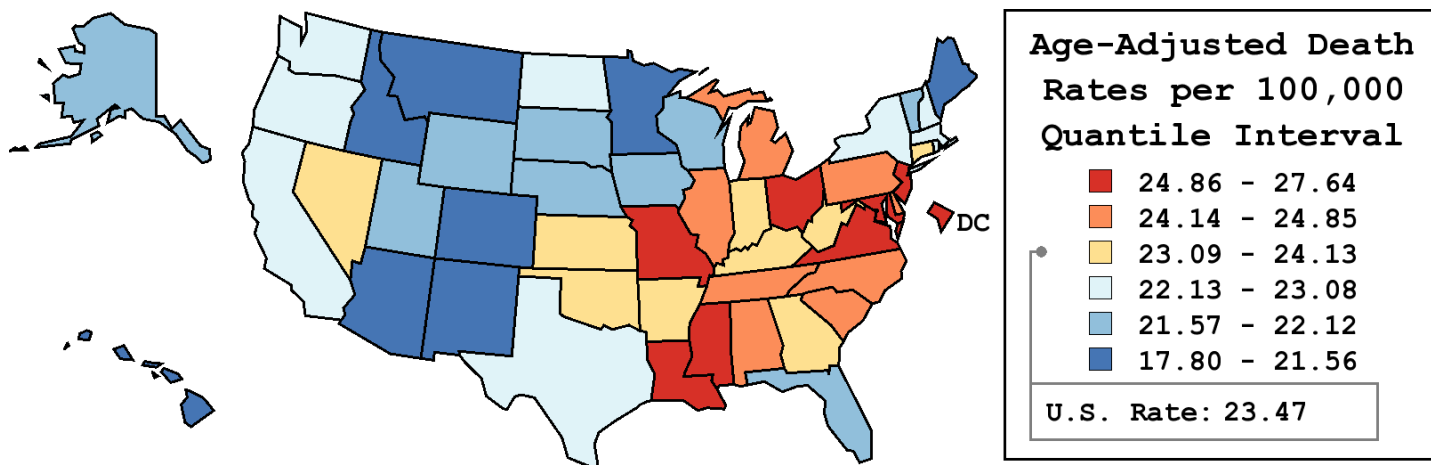
Table 4.24  
Cancer of the Female Breast (Invasive)

Age-Adjusted Cancer Death<sup>a</sup> Rates By State, All Races, 2004-2008

Females

State	Rate	SE	Rank	PD
TOTAL U.S.	23.47	0.05		
High Five States				
D.C.	27.64	1.28	(01)	17.79 <sup>c</sup>
Louisiana	26.81 <sup>b</sup>	0.47	(02)	14.23 <sup>c</sup>
New Jersey	26.45 <sup>b</sup>	0.32	(03)	12.71 <sup>c</sup>
Ohio	25.95 <sup>b</sup>	0.27	(04)	10.56 <sup>c</sup>
Maryland	25.57 <sup>b</sup>	0.40	(05)	8.96
Low Five States				
Idaho	21.19	0.75	(47)	-9.72
Arizona	20.97 <sup>b</sup>	0.35	(48)	-10.66 <sup>c</sup>
Montana	20.72	0.86	(49)	-11.71 <sup>c</sup>
Colorado	20.49 <sup>b</sup>	0.42	(50)	-12.69 <sup>c</sup>
Hawaii	17.80 <sup>b</sup>	0.69	(51)	-24.14 <sup>c</sup>

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	24.46	0.42	(11)	4.24	Montana	20.72	0.86	(49)	-11.71 <sup>c</sup>
Alaska	21.67	1.37	(43)	-7.65	Nebraska	21.98	0.66	(39)	-6.34
Arizona	20.97 <sup>b</sup>	0.35	(48)	-10.66 <sup>c</sup>	Nevada	23.54	0.62	(21)	0.29
Arkansas	23.96	0.53	(19)	2.11	New Hampshire	22.82	0.77	(27)	-2.76
California	22.53 <sup>b</sup>	0.16	(29)	-4.00	New Jersey	26.45 <sup>b</sup>	0.32	(03)	12.71 <sup>c</sup>
Colorado	20.49 <sup>b</sup>	0.42	(50)	-12.69 <sup>c</sup>	New Mexico	21.45	0.63	(46)	-8.60
Connecticut	23.25	0.46	(23)	-0.93	New York	23.08	0.20	(26)	-1.66
Delaware	24.26	0.98	(15)	3.37	North Carolina	24.35	0.31	(13)	3.77
D.C.	27.64	1.28	(01)	17.79 <sup>c</sup>	North Dakota	22.35	1.08	(32)	-4.78
Florida	21.89 <sup>b</sup>	0.19	(40)	-6.73	Ohio	25.95 <sup>b</sup>	0.27	(04)	10.56 <sup>c</sup>
Georgia	23.24	0.32	(24)	-0.99	Oklahoma	24.13	0.48	(17)	2.84
Hawaii	17.80 <sup>b</sup>	0.69	(51)	-24.14 <sup>c</sup>	Oregon	22.47	0.46	(30)	-4.24
Idaho	21.19	0.75	(47)	-9.72	Pennsylvania	24.85 <sup>b</sup>	0.25	(09)	5.88
Illinois	24.73 <sup>b</sup>	0.26	(10)	5.39	Rhode Island	22.18	0.81	(34)	-5.48
Indiana	24.04	0.36	(18)	2.42	South Carolina	24.26	0.44	(16)	3.36
Iowa	22.12	0.49	(35)	-5.73	South Dakota	21.78	0.96	(41)	-7.20
Kansas	23.10	0.54	(25)	-1.58	Tennessee	24.45	0.37	(12)	4.20
Kentucky	23.53	0.44	(22)	0.28	Texas	22.59 <sup>b</sup>	0.20	(28)	-3.74
Louisiana	26.81 <sup>b</sup>	0.47	(02)	14.23 <sup>c</sup>	Utah	22.09	0.65	(36)	-5.86
Maine	21.50	0.70	(45)	-8.37	Vermont	21.69	1.06	(42)	-7.59
Maryland	25.57 <sup>b</sup>	0.40	(05)	8.96	Virginia	25.06 <sup>b</sup>	0.34	(08)	6.77
Massachusetts	22.25 <sup>b</sup>	0.33	(33)	-5.18	Washington	22.43	0.36	(31)	-4.41
Michigan	24.35	0.29	(14)	3.77	West Virginia	23.93	0.63	(20)	1.99
Minnesota	21.56 <sup>b</sup>	0.39	(44)	-8.13	Wisconsin	22.07 <sup>b</sup>	0.37	(38)	-5.97
Mississippi	25.49 <sup>b</sup>	0.56	(06)	8.62	Wyoming	22.09	1.26	(37)	-5.88
Missouri	25.42 <sup>b</sup>	0.38	(07)	8.32					



<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<=.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, 2008  
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 <18 <sup>e</sup>	0 to <33 <sup>e</sup>	>=33 <sup>g</sup>	Complete <sup>h</sup>
<u>Race</u>	<u>Sex</u>										
All Races <sup>b</sup>	Both Sexes	800,302	665,332	449,100	306,246	170,735	97,423	2,135,402	2,572,603	73,018	2,645,621
	Males	5,477	3,417	1,917	1,062	738	394	11,712	13,420	196	13,616
	Females	794,825	661,915	447,183	305,184	169,997	97,029	2,123,690	2,559,183	72,822	2,632,005
White <sup>b</sup>	Both Sexes	691,124	589,133	401,493	278,454	155,119	88,902	1,874,734	2,273,204	64,753	2,337,957
	Males	4,680	2,929	1,712	949	676	368	10,063	11,653	9 <sup>i</sup>	11,662
	Females	686,444	586,204	399,781	277,505	154,443	88,534	1,864,671	2,261,551	64,744	2,326,295
Black <sup>b</sup>	Both Sexes	74,195	49,574	32,572	19,149	11,047	6,010	173,643	200,823	+	+
	Males	630	354	130	110	46	26	1,262	1,369	+	+
	Females	73,565	49,220	32,442	19,039	11,001	5,984	172,381	199,454	5,158	204,612
Asian/ Pacific Islander <sup>c</sup>	Both Sexes	27,344	20,106	11,917	+	+	+	64,172	+	+	+
	Males	119	69	50	+	+	+	252	+	+	+
	Females	27,225	20,037	11,867	+	+	+	63,920	+	+	+
Hispanic <sup>d</sup>	Both Sexes	50,835	35,260	21,053	+	+	+	116,395	+	+	+
	Males	258	117	40	+	+	+	431	+	+	+
	Females	50,577	35,143	21,013	+	+	+	115,964	+	+	+

Estimated prevalence percent<sup>a</sup> on January 1, 2008, of the SEER 11 population diagnosed in the previous 18 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	0.5908%	-	0.0002%	0.0055%	0.0835%	0.4464%	1.1167%	1.9788%	2.4655%	2.8427%	0.5895%
	Males	0.0066%	-	-	-	0.0004%	0.0027%	0.0087%	0.0244%	0.0430%	0.0569%	0.0077%
	Females	1.1652%	-	0.0004%	0.0112%	0.1691%	0.8917%	2.1769%	3.7494%	4.3758%	4.3846%	1.0815%
White <sup>c</sup>	Both Sexes	0.6442%	-	0.0001%	0.0050%	0.0834%	0.4462%	1.1456%	2.0863%	2.6395%	3.0204%	0.6163%
	Males	0.0071%	-	-	-	0.0003%	0.0025%	0.0082%	0.0240%	0.0454%	0.0610%	0.0078%
	Females	1.2832%	-	0.0003%	0.0103%	0.1726%	0.9079%	2.2718%	4.0083%	4.7337%	4.6515%	1.1434%
Black <sup>c</sup>	Both Sexes	0.4146%	-	-	0.0084%	0.0911%	0.4484%	1.0108%	1.7045%	1.9968%	2.4437%	0.5201%
	Males	0.0065%	-	-	-	-	0.0033%	0.0148%	0.0441%	0.0408%	0.0565%	0.0098%
	Females	0.7850%	-	-	0.0166%	0.1705%	0.8375%	1.8396%	2.9829%	3.3373%	3.5544%	0.8934%
Asian/ Pacific Islander <sup>c</sup>	Both Sexes	0.4480%	-	-	0.0060%	0.0777%	0.4391%	1.0148%	1.4717%	1.6779%	1.6701%	0.4541%
	Males	0.0038%	-	-	-	-	0.0019%	0.0058%	0.0120%	0.0273%	0.0262%	0.0045%
	Females	0.8642%	-	-	0.0115%	0.1506%	0.8395%	1.8924%	2.7140%	2.9119%	2.7033%	0.8220%
Hispanic <sup>d</sup>	Both Sexes	-	-	-	-	-	-	-	-	-	-	-
	Males	-	-	-	-	-	-	-	-	-	-	-
	Females	-	-	-	-	-	-	-	-	-	-	-

<sup>a</sup> US 2008 cancer prevalence counts are based on 2008 cancer prevalence proportions from the SEER registries and 1/1/2008 US population estimates based on the average of 2007 and 2008 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

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

<sup>e</sup> Maximum limited-duration prevalence: 33 years for 1975-2008 SEER 9 data; 18 years for 1990-2008 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 33 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 <33 and >=33. (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, 2004-2008  
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	250,124	99.4%	205,618	99.4%	23,187	99.3%	18,041	99.3%	959	99.4%	24,514	99.2%
Epidermoid carcinoma <sup>d</sup> (8051-8131)	158	0.1%	122	0.1%	24	0.1%	-	-	-	-	17	0.1%
Adenocarcinoma <sup>e</sup>	244,659	97.2%	201,440	97.4%	22,335	95.7%	17,705	97.5%	935	96.9%	23,875	96.6%
Adenocarcinoma, NOS (8140)	2,268	0.9%	1,828	0.9%	255	1.1%	144	0.8%	-	-	224	0.9%
Infiltrating duct carcinoma (8500)	177,564	70.6%	144,325	69.8%	17,160	73.5%	13,735	75.6%	709	73.5%	17,748	71.8%
Lobular carcinoma, NOS (8520)	20,768	8.3%	18,270	8.8%	1,395	6.0%	866	4.8%	66	6.8%	1,659	6.7%
Inflammatory adenocarcinoma (8530)	1,485	0.6%	1,168	0.6%	235	1.0%	65	0.4%	-	-	201	0.8%
Infiltrating duct mixed and infiltrating lobular mixed (8522-8524)	27,483	10.9%	23,587	11.4%	1,924	8.2%	1,638	9.0%	98	10.2%	2,623	10.6%
Mucinous adenocarcinoma (8480,8482)	5,911	2.3%	4,735	2.3%	502	2.2%	588	3.2%	20	2.1%	510	2.1%
Mucin-producing adenocarcinoma (8481)	104	0.0%	84	0.0%	-	-	-	-	-	-	-	-
Tubular adenocarcinoma (8211)	2,808	1.1%	2,552	1.2%	123	0.5%	100	0.6%	-	-	185	0.7%
Papillary adenocarcinoma (8050,8260,8503,8504)	1,448	0.6%	1,036	0.5%	225	1.0%	164	0.9%	-	-	178	0.7%
Paget disease (8540-8543)	1,434	0.6%	1,165	0.6%	138	0.6%	113	0.6%	-	-	179	0.7%
Other adenocarcinomas <sup>f</sup>	3,386	1.3%	2,690	1.3%	364	1.6%	287	1.6%	-	-	361	1.5%
Other specific carcinomas <sup>g</sup>	2,459	1.0%	1,822	0.9%	457	2.0%	153	0.8%	-	-	318	1.3%
Medullary adenocarcinoma (8510-8513)	1,148	0.5%	793	0.4%	262	1.1%	78	0.4%	-	-	183	0.7%
Other <sup>h</sup>	1,311	0.5%	1,029	0.5%	195	0.8%	75	0.4%	-	-	135	0.5%
Unspecified, Carcinoma, NOS (8010-8011,8020-8022)	2,848	1.1%	2,234	1.1%	371	1.6%	175	1.0%	-	-	304	1.2%

Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey). 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>e</sup> Adenocarcinoma includes histologies 8050, 8140-8147, 8160-8162, 8180-8221, 8250-8507, 8514, 8520-8551, 8560, 8570-8574, 8576, 8940-8941.

<sup>f</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>g</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>h</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, 2004-2008  
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)	306	0.1%	244	0.1%	35	0.1%	22	0.1%	-	-	23	0.1%
Hemangiosarcomas (9120-9126,9170)	160	0.1%	140	0.1%	-	-	-	-	-	-	-	-
Other sarcomas <sup>d</sup>	146	0.1%	104	0.1%	27	0.1%	-	-	-	-	-	-
Other specific types (8720-8790,8930-8936, 8950-9030,9060-9110, 9260-9365,9380-9539)	676	0.3%	520	0.3%	71	0.3%	73	0.4%	-	-	137	0.6%
Phyllodes tumor, malignant (9020)	542	0.2%	418	0.2%	48	0.2%	66	0.4%	-	-	117	0.5%
Other <sup>e</sup>	134	0.1%	102	0.0%	23	0.1%	-	-	-	-	20	0.1%
Unspecified (8000-8005)	483	0.2%	378	0.2%	56	0.2%	25	0.1%	-	-	50	0.2%
Total <sup>f</sup>	251,589	100.0%	206,760	100.0%	23,349	100.0%	18,161	100.0%	965	100.0%	24,724	100.0%

Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey). 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, 2004-2008  
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>	62,981	99.7%	50,790	99.7%	5,690	99.6%	5,523	99.8%	170	100.0%	5,592	99.8%
Adenocarcinoma <i>in situ</i> , NOS (8140/2)	-	-	-	-	-	-	-	-	-	-	-	-
Ductal carcinoma <i>in situ</i> <sup>f</sup>	52,948	83.8%	42,266	83.0%	4,925	86.2%	5,023	90.8%	138	81.2%	4,771	85.1%
Cribriform carcinoma <i>in situ</i> (8201/2)	5,151	8.2%	4,069	8.0%	456	8.0%	534	9.7%	20	11.8%	481	8.6%
Ductal carcinoma <i>in situ</i> , solid type(8230/2)	3,550	5.6%	2,962	5.8%	255	4.5%	300	5.4%	-	-	297	5.3%
Ductal carcinoma <i>in situ</i> , NOS (8500/2)	21,147	33.5%	17,147	33.7%	1,925	33.7%	1,775	32.1%	58	34.1%	1,817	32.4%
Comedocarcinoma <i>in situ</i> (8501/2)	4,606	7.3%	3,736	7.3%	424	7.4%	388	7.0%	-	-	431	7.7%
Ductal carcinoma <i>in situ</i> papillary(8503/2)	1,079	1.7%	781	1.5%	154	2.7%	114	2.1%	-	-	107	1.9%
Noninfiltrating intracystic carcinoma(8504/2)	301	0.5%	208	0.4%	42	0.7%	44	0.8%	-	-	25	0.4%
Ductal carcinoma <i>in situ</i> micropapillary(8507/2)	1,607	2.5%	1,292	2.5%	179	3.1%	114	2.1%	-	-	145	2.6%
Intraductal with other types of carcinoma <i>in situ</i> (8523/2)	15,305	24.2%	11,904	23.4%	1,478	25.9%	1,734	31.3%	26	15.3%	1,446	25.8%
Lobular carcinoma <i>in situ</i> (8520/2-8521/2, 8524/2)	7,227	11.4%	6,214	12.2%	506	8.9%	301	5.4%	19	11.2%	582	10.4%
Lobular carcinoma <i>in situ</i> , NOS (8520/2)	7,202	11.4%	6,193	12.2%	503	8.8%	300	5.4%	19	11.2%	582	10.4%
Lobular CIS <sup>f</sup> with other CIS <sup>f</sup> (8524/2)	25	0.0%	21	0.0%	-	-	-	-	-	-	-	-
Intraductal and lobular <i>in situ</i> carcinoma (8522/2)	2,370	3.8%	1,976	3.9%	212	3.7%	154	2.8%	-	-	207	3.7%
Other adenocarcinomas <sup>g</sup>	422	0.7%	321	0.6%	47	0.8%	44	0.8%	-	-	32	0.6%
Other <i>in situ</i> histologies <sup>h</sup>	188	0.3%	150	0.3%	25	0.4%	-	-	-	-	-	-
Total	63,169	100.0%	50,940	100.0%	5,715	100.0%	5,532	100.0%	170	100.0%	5,604	100.0%

Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

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

<sup>g</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>h</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.

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

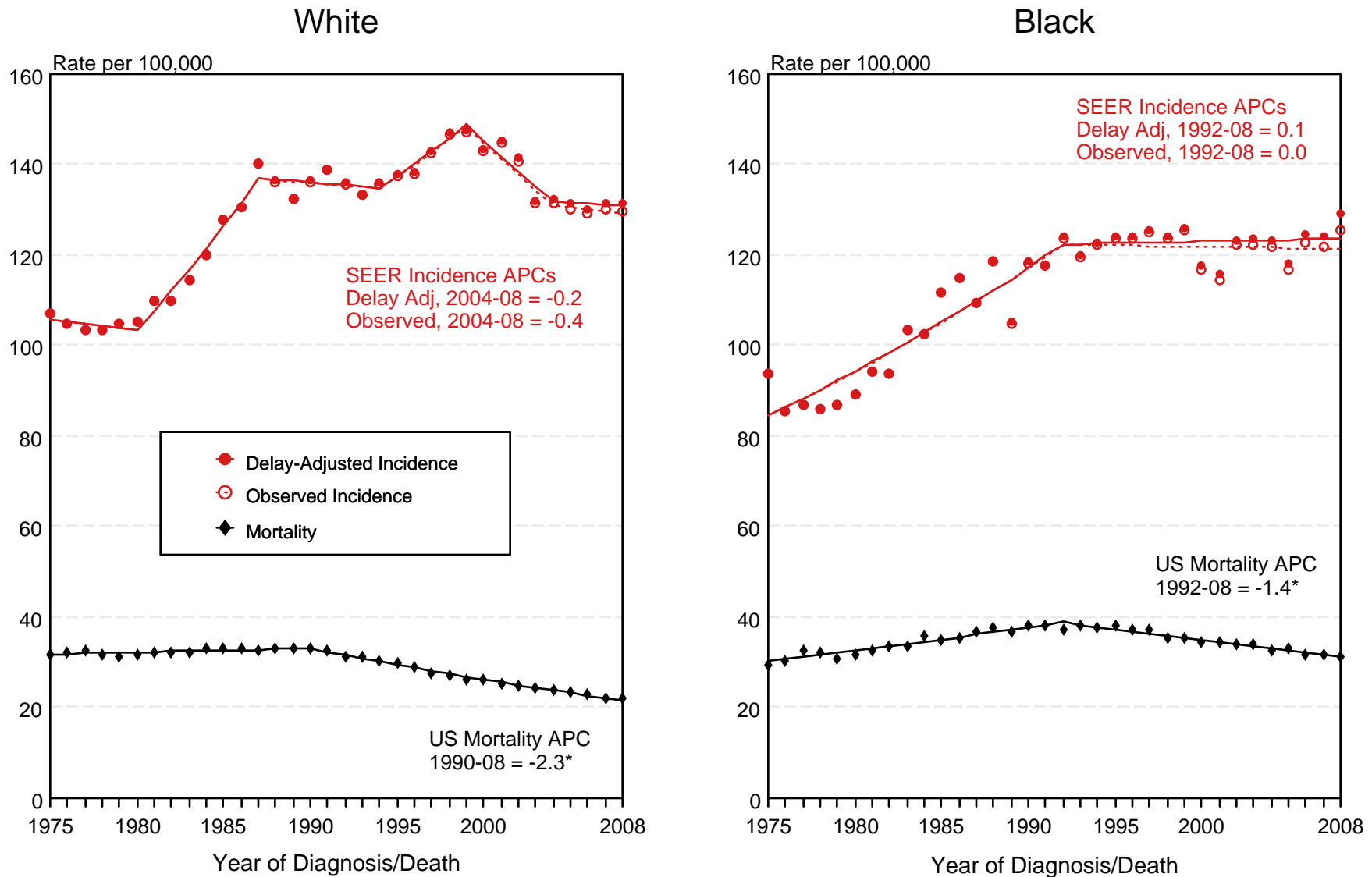


Figure 4.1

<sup>a</sup> Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.5, April 2011, National Cancer Institute. The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

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

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

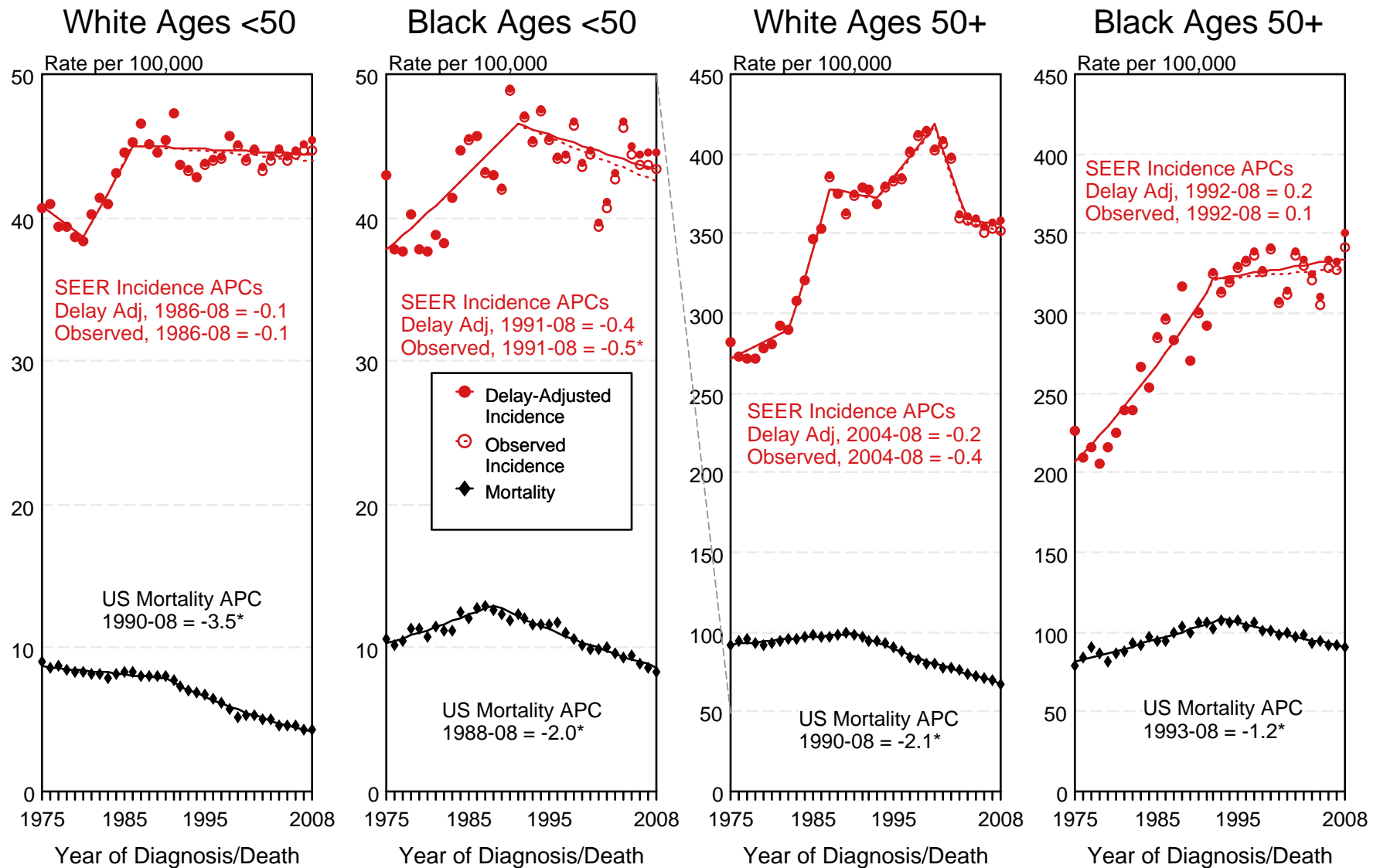


Figure 4.2

<sup>a</sup> Source: SEER 9 areas and US Mortality Files (National Center for Health Statistics, CDC). Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.5, April 2011, National Cancer Institute. The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.  
\* The APC is significantly different from zero ( $p < 0.05$ ).

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

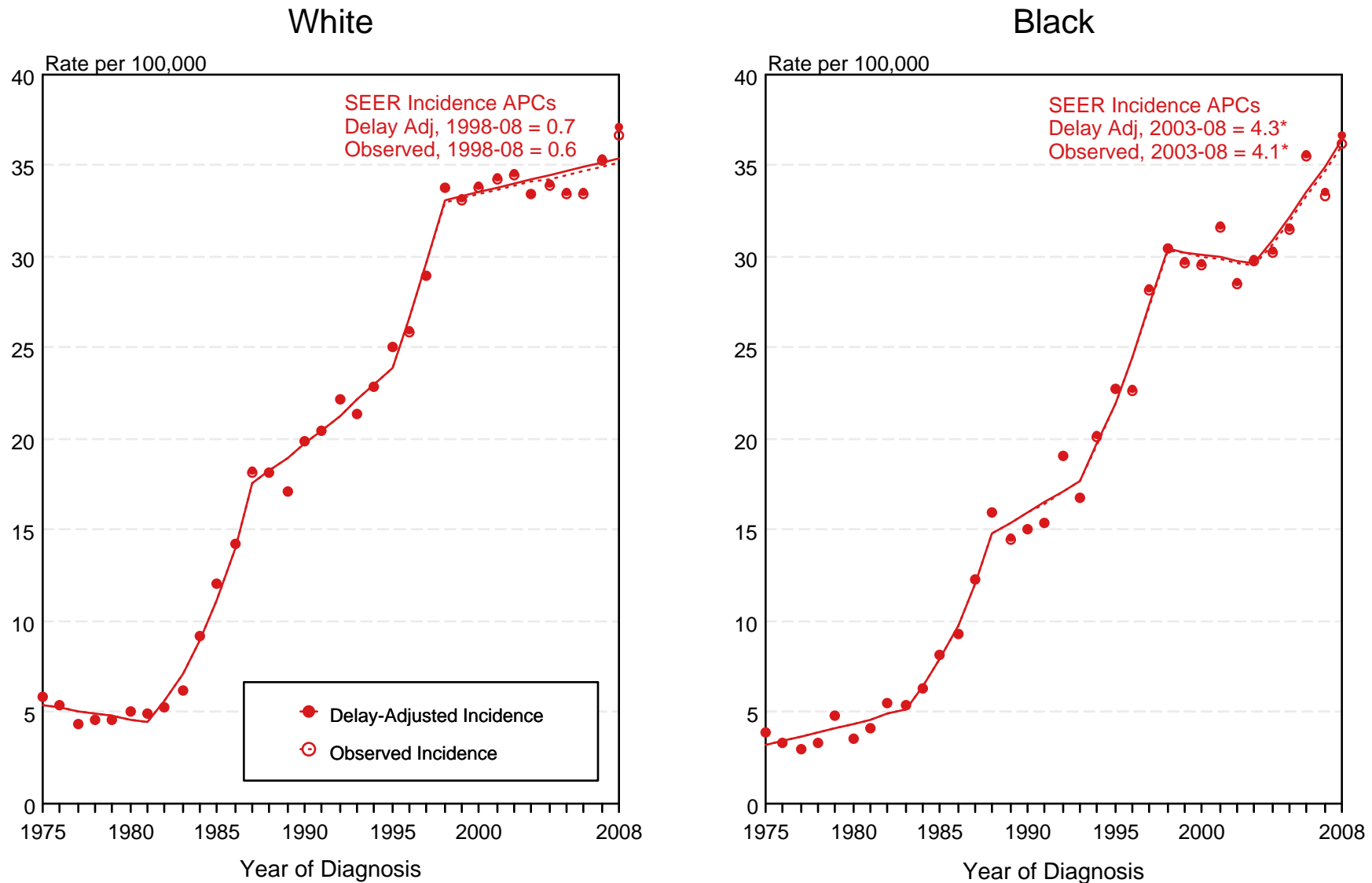


Figure 4.3

<sup>a</sup> Source: SEER 9 areas. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.5, April 2011, National Cancer Institute. The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

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

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

Joinpoint Analyses for Whites and Blacks from 1975-2008

and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2008

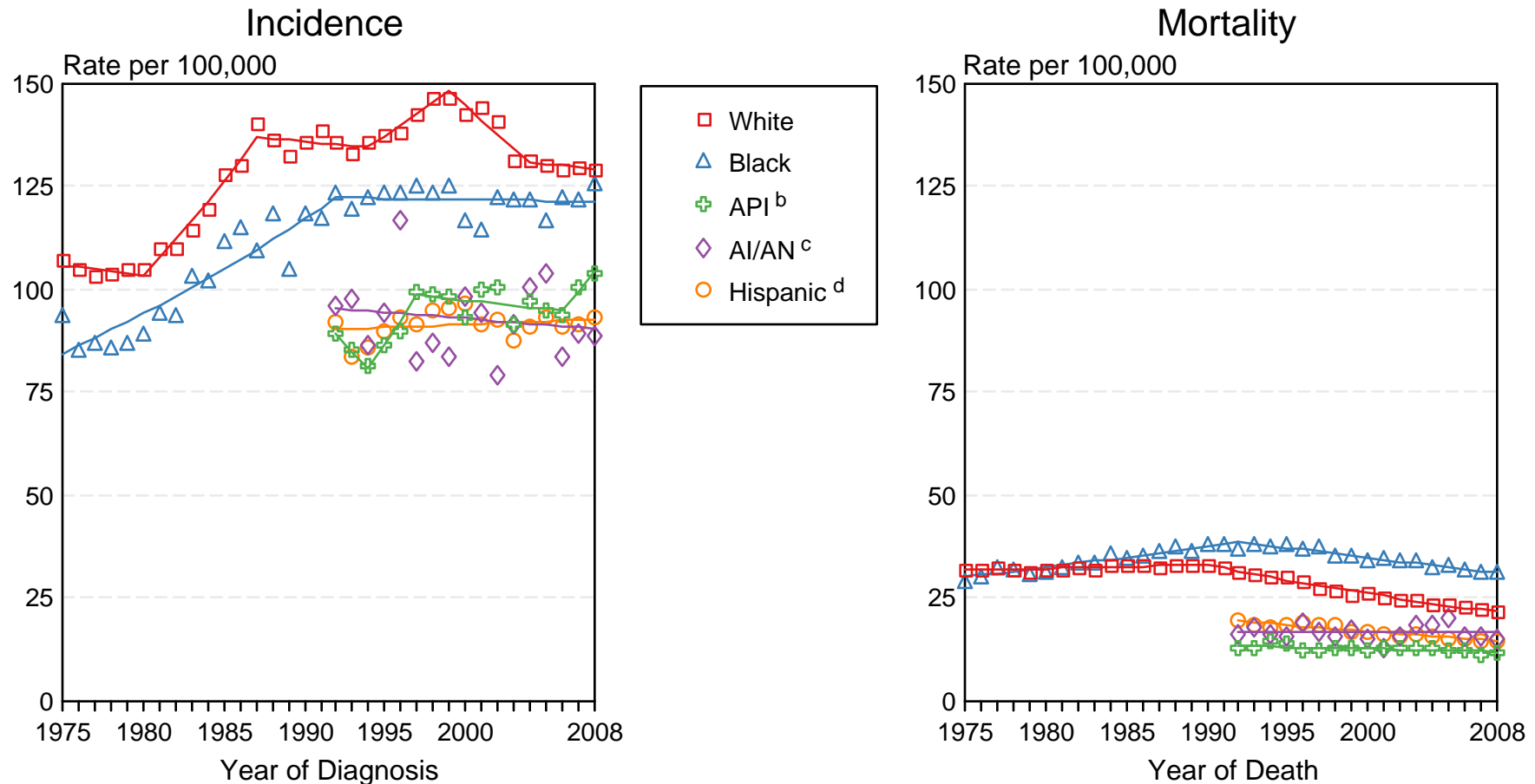


Figure 4.4

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

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

Regression lines are calculated using the Joinpoint Regression Program Version 3.5, April 2011, National Cancer Institute. Joinpoint analyses for Whites and Blacks during the 1975-2008 period allow a maximum of 5 joinpoints. Analyses for other ethnic groups during the period 1992-2008 allow a maximum of 3 joinpoints.

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

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

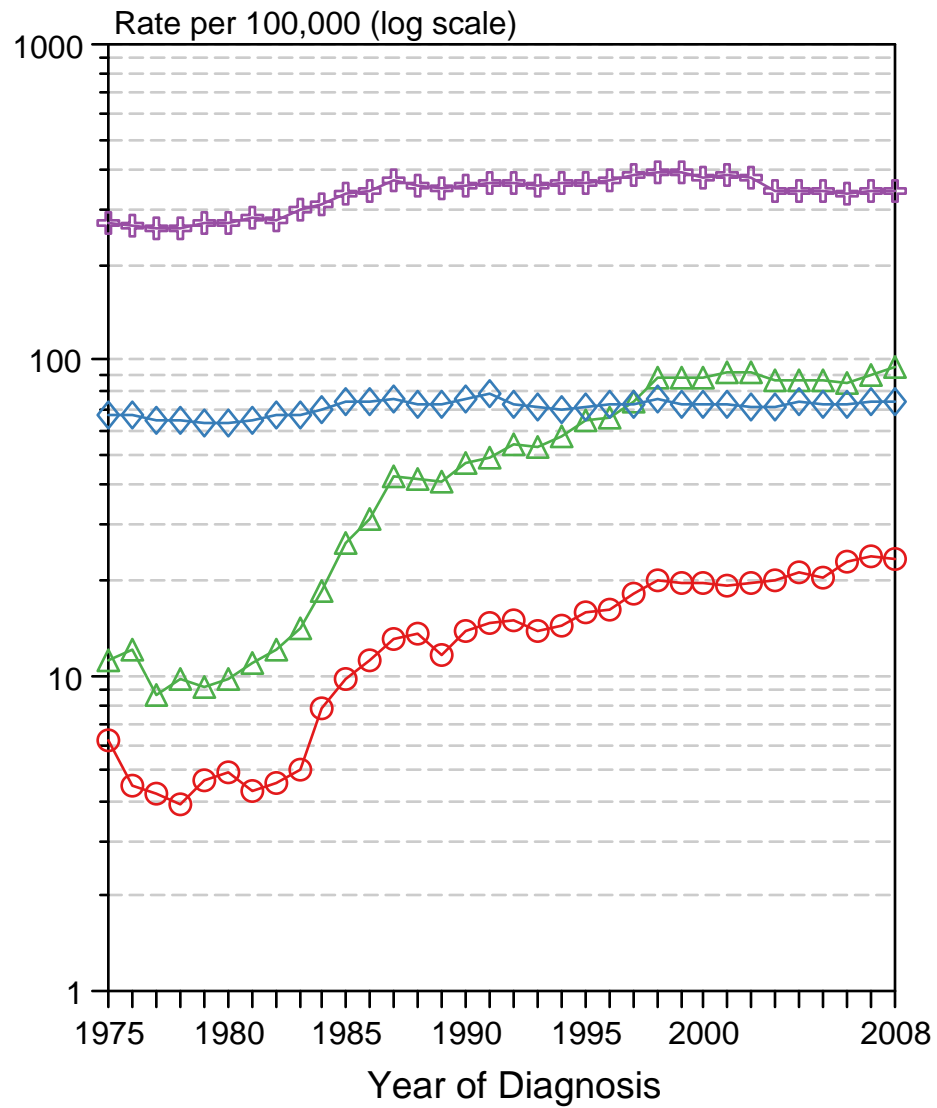
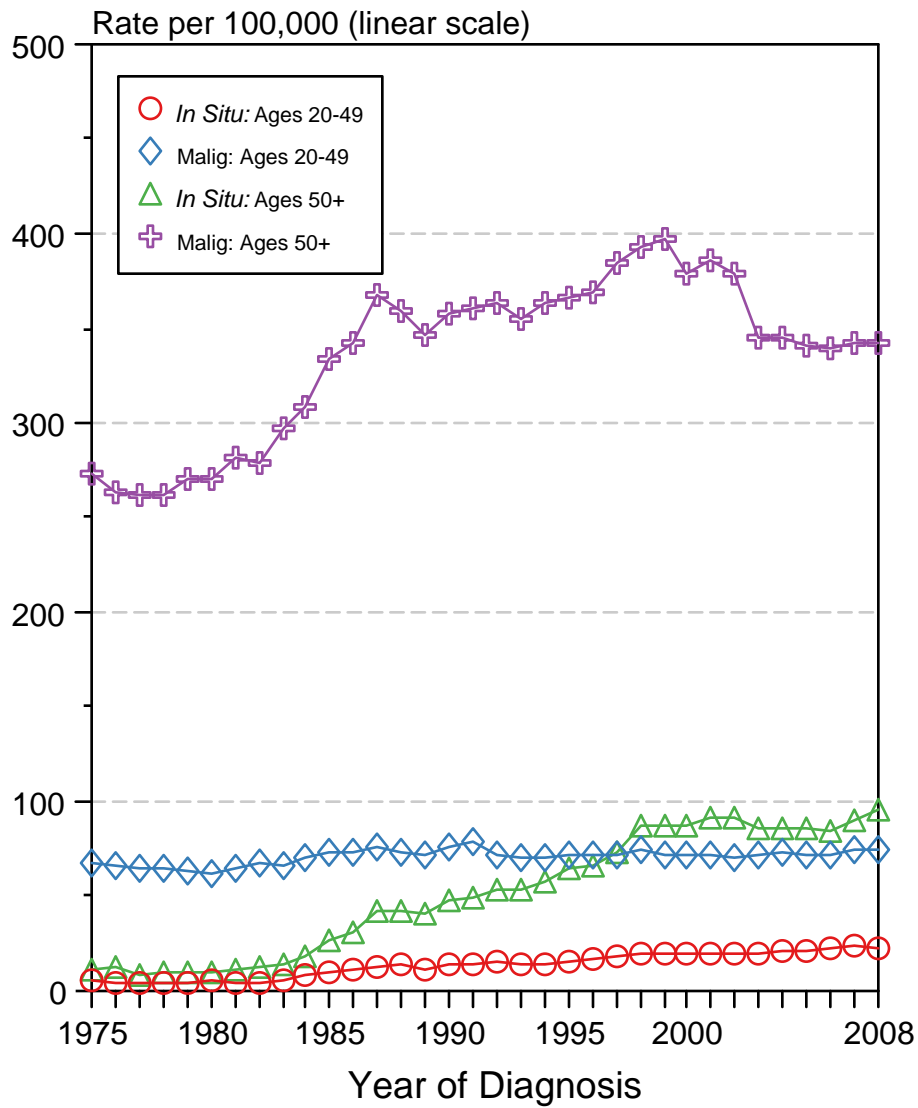
<sup>d</sup> Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Mortality data for Hispanics exclude cases from Connecticut, the District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



# Cancer of Female Breast, Incidence Rates, 1975-2008

## *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).

Figure 4.5

# Cancer of Female Breast, Incidence Rates, 1975-2008

## *In Situ* vs Malignant, by Age

### White, Females

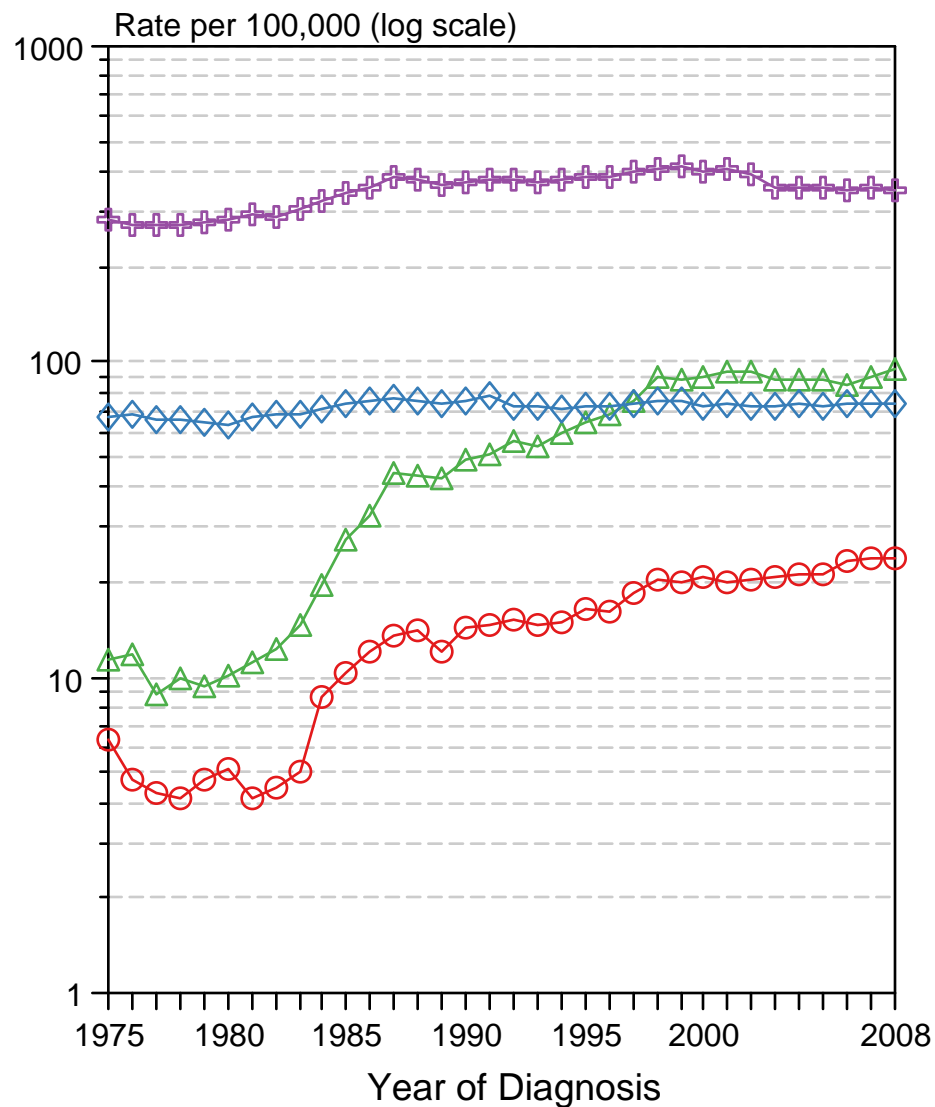
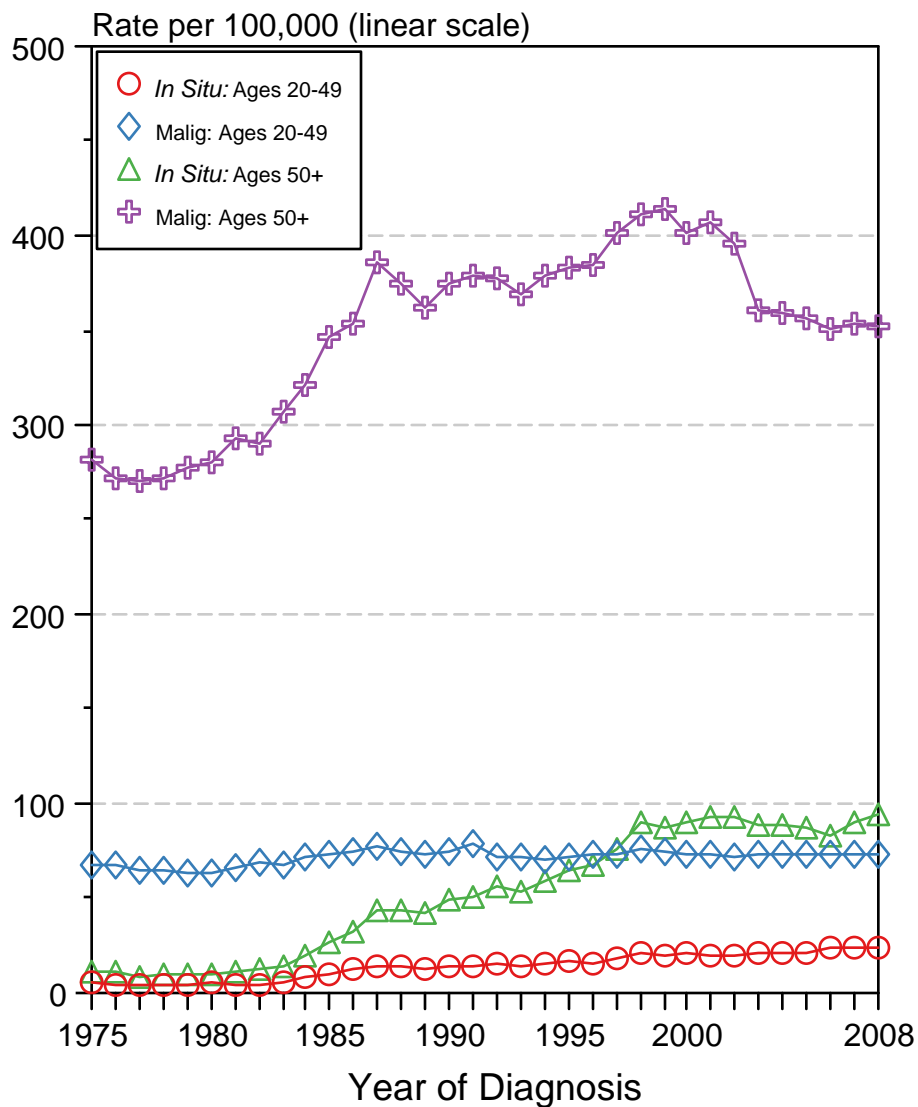


Figure 4.6

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, 1975-2008

## *In Situ* vs Malignant, by Age

### Black, Females

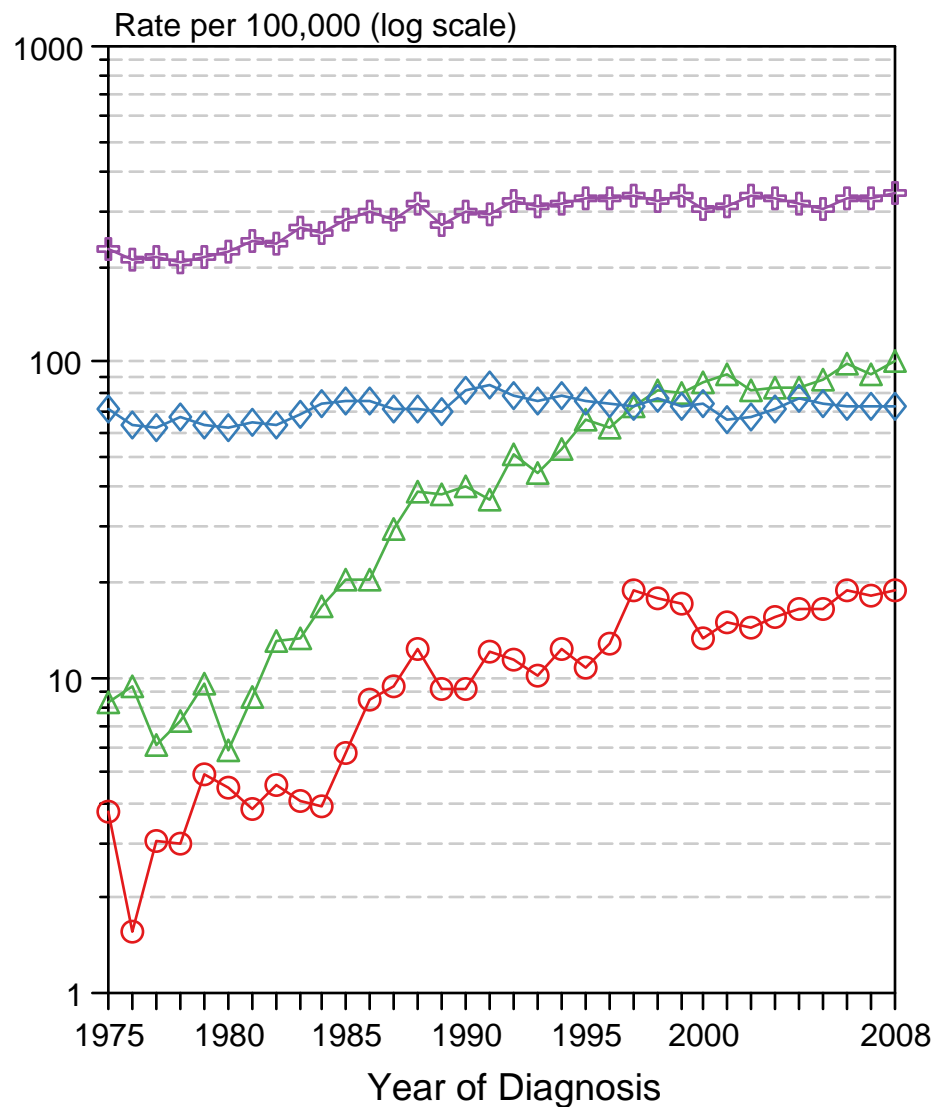
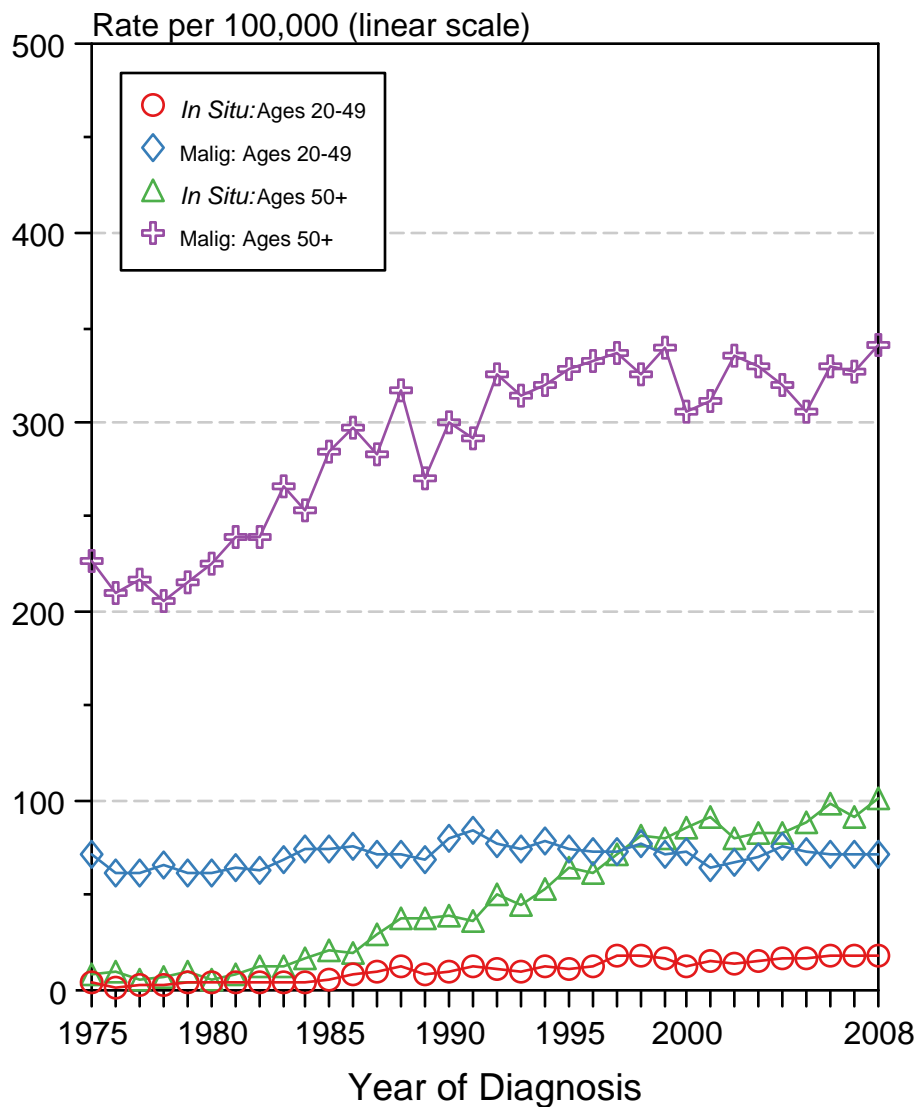


Figure 4.7

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

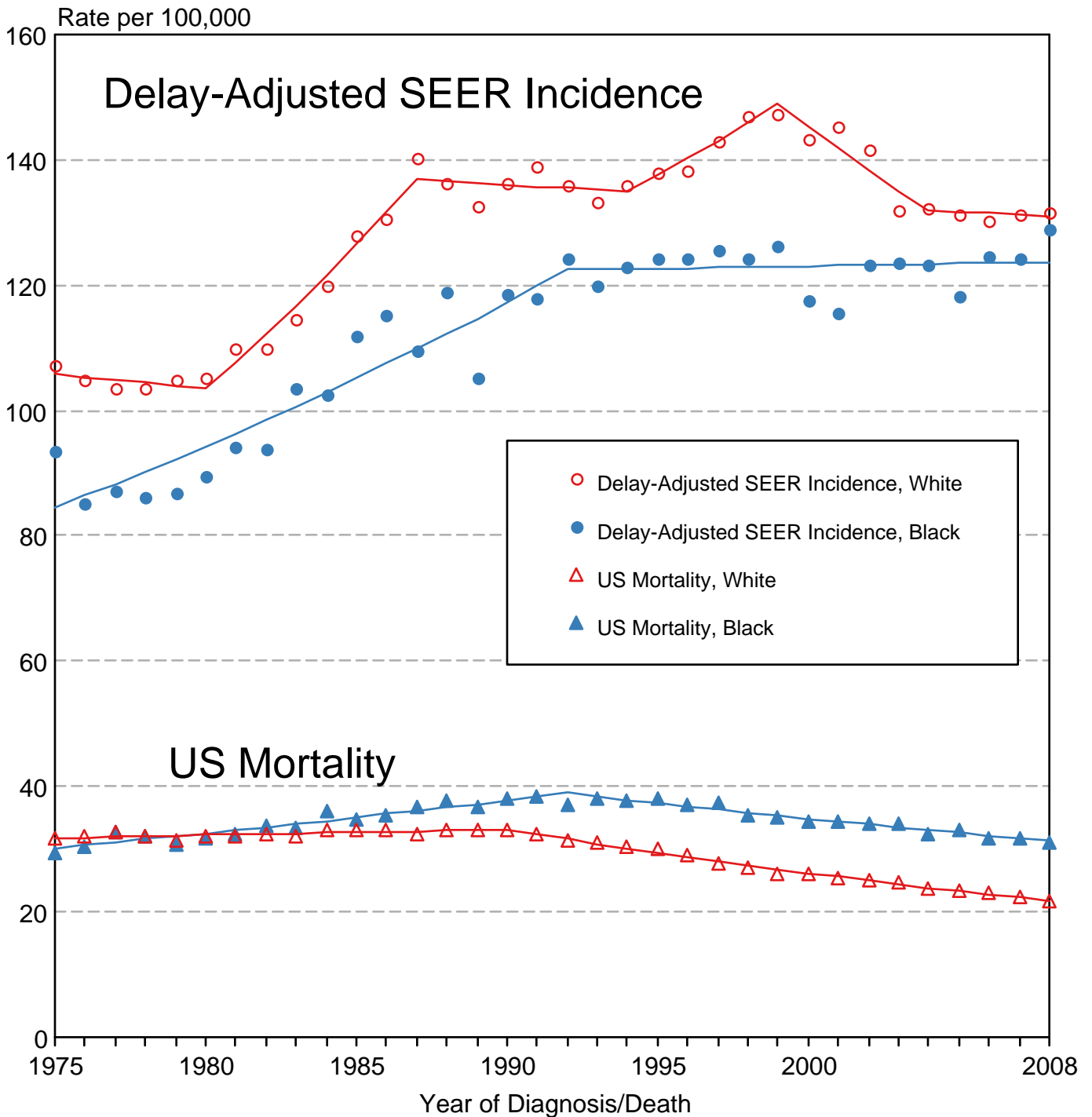
Figure 4.8

# Cancer of the Breast

## Delay-Adjusted SEER Incidence & US Mortality

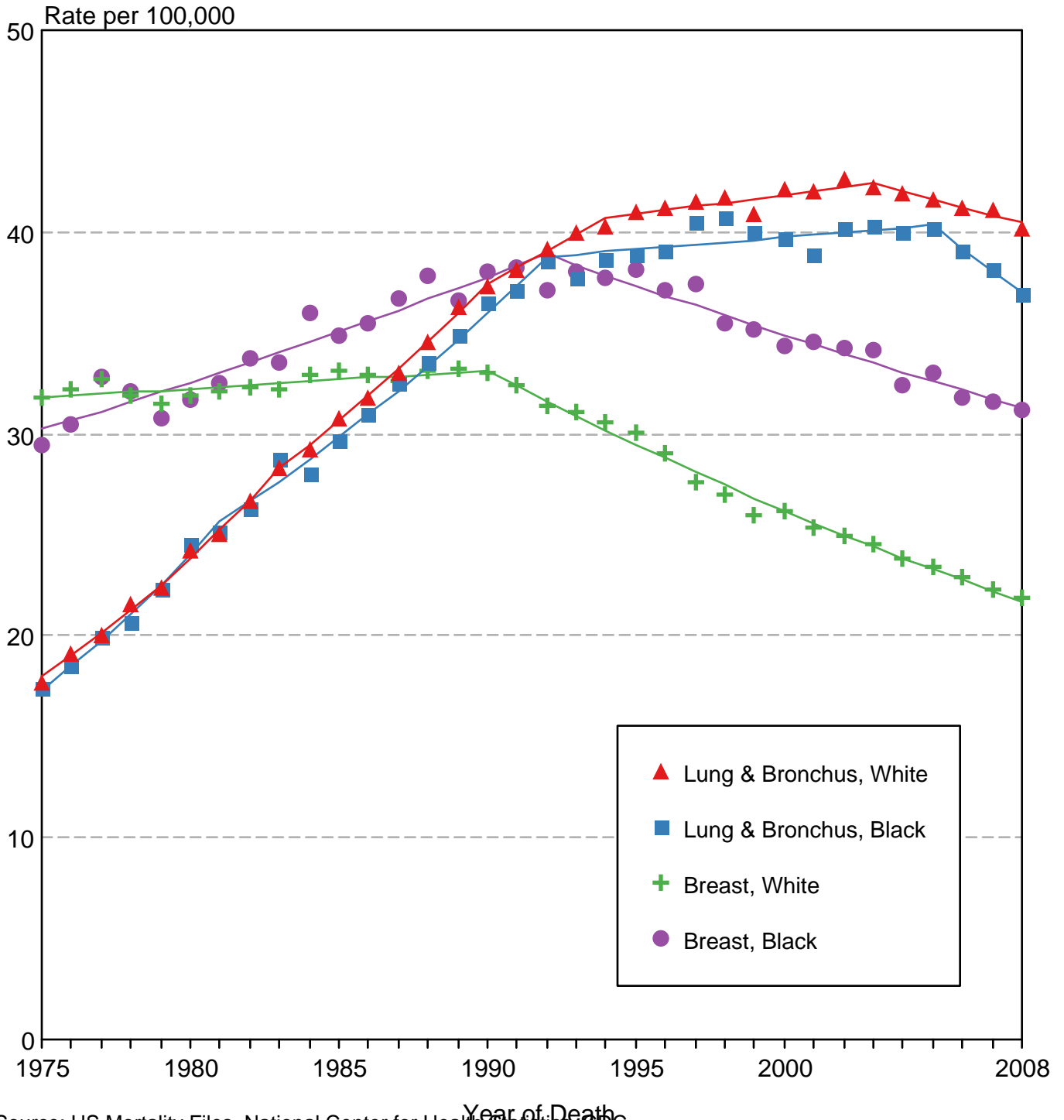
### White Females vs Black Females

### 1975-2008



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 3.5, April 2011, National Cancer Institute.

# US Death Rates for Cancer of the Breast and Cancer of the Lung and Bronchus White Females vs Black Females 1975-2008



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 3.5, April 2011,  
 National Cancer Institute.

# 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

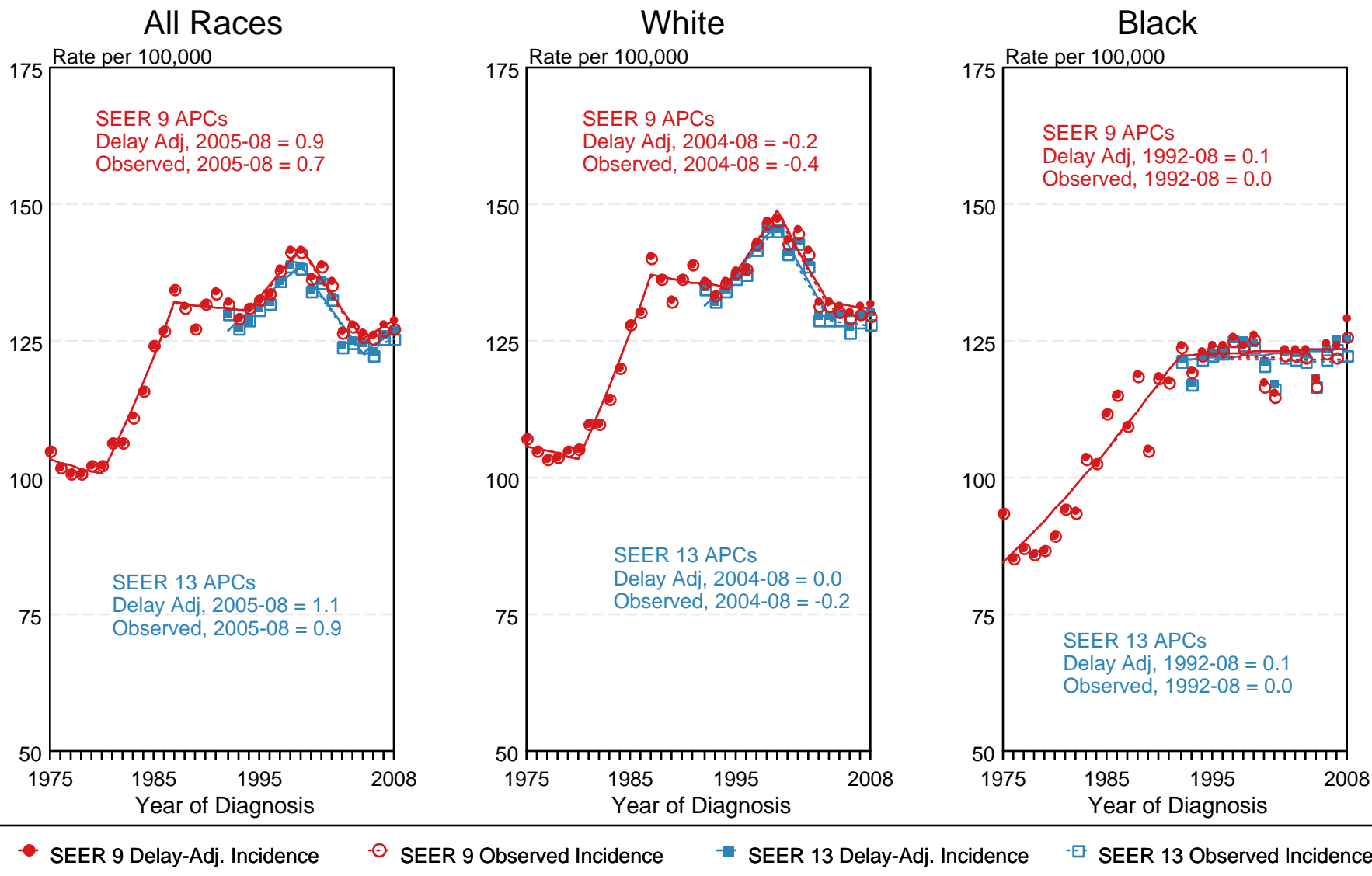


Figure 4.10

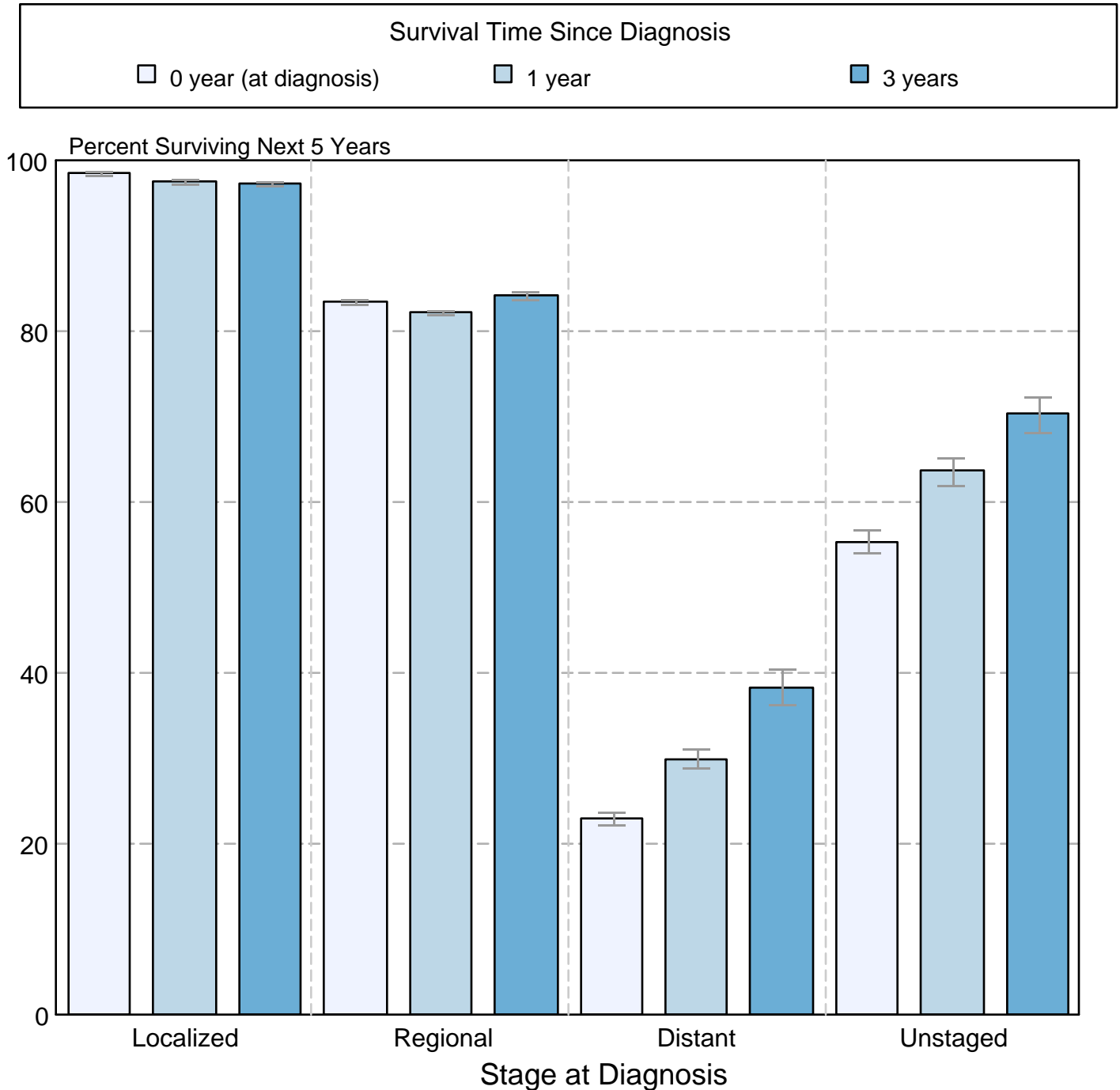
<sup>a</sup> Source: SEER 9 areas and SEER 13 areas.  
Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).  
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 3.5, April 2011, National Cancer Institute.  
The APC is the Annual 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  
1998-2007 by stage at diagnosis



Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey). California excluding SF/SJM/LA, Kentucky, Louisiana, and New Jersey contribute cases for diagnosis years 2000-2007. The remaining 13 SEER Areas contribute cases for the entire period 1998-2007.

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.