

Table 4.1
Cancer of the Female Breast (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2012 With up to Five Joinpoints, 1992-2012 With up to Three Joinpoints,
All Ages by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2003-12	2008-12
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2012</u>														
All Races	1975-80	-0.5	1980-87	4.0*	1987-94	-0.2	1994-99	1.8*	1999-04	-2.3*	2004-12	0.4	0.1	0.4
White	1975-80	-0.5	1980-87	4.1*	1987-94	-0.2	1994-99	2.0*	1999-04	-2.4*	2004-12	0.3	0.0	0.3
Black	1975-79	-1.5	1979-86	4.4*	1986-12	0.5*							0.5*	0.5*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2012</u>														
All Races	1992-99	1.3*	1999-04	-2.2*	2004-12	0.3							0.0	0.3
White	1992-99	1.5*	1999-04	-2.3*	2004-12	0.2							-0.1	0.2
Black	1992-12	0.3*											0.3*	0.3*
<u>SEER 9 Observed Incidence^a, 1975-2012</u>														
All Races	1975-80	-0.5	1980-87	4.0*	1987-94	-0.2	1994-99	1.8*	1999-04	-2.3*	2004-12	0.3	0.0	0.3
White	1975-80	-0.5	1980-87	4.1*	1987-94	-0.2	1994-99	2.0*	1999-04	-2.4*	2004-12	0.1	-0.2	0.1
Black	1975-79	-1.5	1979-86	4.5*	1986-12	0.4*							0.4*	0.4*
<u>SEER 13 Observed Incidence^b, 1992-2012</u>														
All Races	1992-99	1.3*	1999-04	-2.2*	2004-12	0.2							-0.1	0.2
White	1992-99	1.5*	1999-04	-2.4*	2004-12	0.0							-0.2	0.0
White NH ^{ef}	1992-99	1.7*	1999-04	-2.3*	2004-12	0.1							-0.2	0.1
Black	1992-12	0.2*											0.2*	0.2*
Black NH ^{ef}	1992-12	0.3*											0.3*	0.3*
API ^e	1992-94	-4.6	1994-97	6.9	1997-05	-0.7	2005-12	1.2*					0.8	1.2*
AI/AN ^{eg}	1992-12	0.1											0.1	0.1
Hispanic ^f	1992-12	0.1											0.1	0.1
<u>U.S. Cancer Mortality^c, 1975-2012</u>														
All Races	1975-90	0.4*	1990-95	-1.8*	1995-98	-3.3*	1998-12	-1.9*					-1.9*	-1.9*
White	1975-90	0.3*	1990-95	-2.0*	1995-98	-3.5*	1998-12	-1.9*					-1.9*	-1.9*
Black	1975-92	1.5*	1992-12	-1.4*									-1.4*	-1.4*
<u>U.S. Cancer Mortality^c, 1992-2012</u>														
All Races	1992-95	-1.3*	1995-98	-3.5*	1998-12	-1.9*							-1.9*	-1.9*
White	1992-95	-1.5*	1995-98	-3.7*	1998-12	-1.9*							-1.9*	-1.9*
White NH ^{ef}	1992-95	-1.2*	1995-98	-3.6*	1998-12	-1.8*							-1.8*	-1.8*
Black	1992-94	1.3	1994-12	-1.5*									-1.5*	-1.5*
Black NH ^{ef}	1992-94	1.5	1994-12	-1.4*									-1.4*	-1.4*
API ^e	1992-12	-1.0*											-1.0*	-1.0*
AI/AN ^{eg}	1992-12	-0.6											-0.6	-0.6
Hispanic ^f	1992-12	-1.5*											-1.5*	-1.5*

Joinpoint Regression Program Version 4.2.0, April 2015, National Cancer Institute. (<http://surveillance.cancer.gov/joinpoint/>).

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

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

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

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

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

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

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

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

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

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

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

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

Table 4.2
Cancer of the Female Breast (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2012 With up to Five Joinpoints, 1992-2012 With up to Three Joinpoints,
Ages <50 by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2003-12	2008-12
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2012</u>														
All Races	1975-80	-1.4	1980-85	3.1*	1985-12	0.1							0.1	0.1
White	1975-80	-1.1	1980-87	2.7*	1987-94	-0.8	1994-12	0.3*					0.3*	0.3*
Black	1975-90	1.3*	1990-12	-0.1									-0.1	-0.1
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2012</u>														
All Races	1992-12	0.2*											0.2*	0.2*
White	1992-12	0.2*											0.2*	0.2*
Black	1992-02	-1.3*	2002-05	3.9	2005-12	-0.8							0.3	-0.8
<u>SEER 9 Observed Incidence^a, 1975-2012</u>														
All Races	1975-80	-1.5	1980-85	3.1*	1985-12	0.0							0.0	0.0
White	1975-80	-1.1	1980-87	2.7*	1987-93	-1.0	1993-12	0.2*					0.2*	0.2*
Black	1975-91	1.2*	1991-12	-0.2									-0.2	-0.2
<u>SEER 13 Observed Incidence^b, 1992-2012</u>														
All Races	1992-12	0.1*											0.1*	0.1*
White	1992-12	0.1*											0.1*	0.1*
White NH ^{ef}	1992-12	0.4*											0.4*	0.4*
Black	1992-02	-1.3*	2002-05	3.9	2005-12	-1.0							0.1	-1.0
Black NH ^{ef}	1992-02	-1.4*	2002-05	4.3	2005-12	-0.8							0.3	-0.8
API ^e	1992-12	0.8*											0.8*	0.8*
AI/AN ^{eg}	1992-12	-0.2											-0.2	-0.2
Hispanic ^f	1992-12	0.1											0.1	0.1
<u>U.S. Cancer Mortality^c, 1975-2012</u>														
All Races	1975-90	-0.4*	1990-07	-3.2*	2007-12	-1.2							-2.1*	-1.2
White	1975-91	-0.7*	1991-99	-4.3*	1999-12	-2.5*							-2.5*	-2.5*
Black	1975-87	1.8*	1987-95	-1.2*	1995-12	-2.4*							-2.4*	-2.4*
<u>U.S. Cancer Mortality^c, 1992-2012</u>														
All Races	1992-07	-3.2*	2007-12	-1.3									-2.1*	-1.3
White	1992-99	-4.4*	1999-12	-2.5*									-2.5*	-2.5*
White NH ^{ef}	1992-99	-4.2*	1999-12	-2.4*									-2.4*	-2.4*
Black	1992-12	-2.3*											-2.3*	-2.3*
Black NH ^{ef}	1992-12	-2.2*											-2.2*	-2.2*
API ^e	1992-01	-0.8	2001-09	-5.2*	2009-12	7.8							-1.1	4.4
AI/AN ^{eg}	1992-12	-2.3*											-2.3*	-2.3*
Hispanic ^f	1992-10	-3.0*	2010-12	6.7									-0.9	1.7

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

Table 4.3
Cancer of the Female Breast (Invasive)

Trends in SEER Incidence^{ab} and U.S. Mortality^c Using the Joinpoint Regression Program,
1975-2012 With up to Five Joinpoints, 1992-2012 With up to Three Joinpoints,
Ages 50+ by Race/Ethnicity

	JP Trend 1		JP Trend 2		JP Trend 3		JP Trend 4		JP Trend 5		JP Trend 6		AAPC ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2003-12	2008-12
<u>SEER 9 Delay-Adjusted Incidence^a, 1975-2012</u>														
All Races	1975-82	0.9	1982-87	5.3*	1987-93	-0.3	1993-99	1.9*	1999-05	-2.6*	2005-12	0.7*	0.0	0.7*
White	1975-82	0.9*	1982-87	5.5*	1987-93	-0.3	1993-00	1.7*	2000-04	-3.8*	2004-12	0.3	-0.1	0.3
Black	1975-88	3.2*	1988-12	0.6*									0.6*	0.6*
<u>SEER 13 Delay-Adjusted Incidence^b, 1992-2012</u>														
All Races	1992-99	1.7*	1999-04	-2.9*	2004-12	0.3							-0.1	0.3
White	1992-00	1.5*	2000-04	-3.7*	2004-12	0.2							-0.2	0.2
Black	1992-12	0.5*											0.5*	0.5*
<u>SEER 9 Observed Incidence^a, 1975-2012</u>														
All Races	1975-82	0.9	1982-87	5.3*	1987-93	-0.3	1993-99	1.9*	1999-05	-2.6*	2005-12	0.5	-0.2	0.5
White	1975-82	0.9*	1982-87	5.5*	1987-93	-0.3	1993-00	1.7*	2000-04	-3.8*	2004-12	0.1	-0.3	0.1
Black	1975-92	2.6*	1992-12	0.4*									0.4*	0.4*
<u>SEER 13 Observed Incidence^b, 1992-2012</u>														
All Races	1992-99	1.7*	1999-04	-2.9*	2004-12	0.1							-0.2	0.1
White	1992-00	1.4*	2000-04	-3.7*	2004-12	0.0							-0.4	0.0
White NH ^{ef}	1992-01	1.3*	2001-04	-5.1	2004-12	0.2							-0.4	0.2
Black	1992-12	0.4*											0.4*	0.4*
Black NH ^{ef}	1992-12	0.4*											0.4*	0.4*
API ^e	1992-94	-5.5	1994-97	8.2	1997-04	-1.4	2004-12	1.3*					1.0*	1.3*
AI/AN ^{eg}	1992-12	0.2											0.2	0.2
Hispanic ^f	1992-12	0.1											0.1	0.1
<u>U.S. Cancer Mortality^c, 1975-2012</u>														
All Races	1975-90	0.6*	1990-12	-1.9*									-1.9*	-1.9*
White	1975-89	0.5*	1989-95	-1.4*	1995-98	-3.2*	1998-12	-1.8*					-1.8*	-1.8*
Black	1975-93	1.6*	1993-12	-1.2*									-1.2*	-1.2*
<u>U.S. Cancer Mortality^c, 1992-2012</u>														
All Races	1992-95	-1.2*	1995-98	-3.1*	1998-12	-1.8*							-1.8*	-1.8*
White	1992-94	-0.6	1994-97	-3.3*	1997-12	-1.8*							-1.8*	-1.8*
White NH ^{ef}	1992-94	-0.1	1994-97	-3.3*	1997-12	-1.8*							-1.8*	-1.8*
Black	1992-12	-1.1*											-1.1*	-1.1*
Black NH ^{ef}	1992-94	2.2	1994-12	-1.2*									-1.2*	-1.2*
API ^e	1992-12	-0.6*											-0.6*	-0.6*
AI/AN ^{eg}	1992-12	-0.2											-0.2	-0.2
Hispanic ^f	1992-12	-1.3*											-1.3*	-1.3*

Joinpoint Regression Program Version 4.2.0, April 2015, National Cancer Institute. (<http://surveillance.cancer.gov/joinpoint/>).

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

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

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

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

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

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

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

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

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

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

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

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

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

Trends in SEER Incidence^{ab} Using the Joinpoint Regression Program,
1975-2012 With up to Five Joinpoints, 1992-2012 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 ^d	
	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	Years	APC	2003-12	2008-12
SEER 9 Observed Incidence^a, 1975-2012														
All Races	1975-81	-3.1	1981-87	25.2*	1987-94	3.8*	1994-98	10.2*	1998-12	0.7*			0.7*	0.7*
White	1975-81	-2.9	1981-87	25.4*	1987-95	3.9*	1995-98	11.8	1998-12	0.5			0.5	0.5
Black	1975-83	6.0	1983-87	23.8*	1987-98	8.2*	1998-12	1.5*					1.5*	1.5*
SEER 13 Observed Incidence^b, 1992-2012														
All Races	1992-99	7.2*	1999-12	0.5									0.5	0.5
White	1992-99	7.2*	1999-12	0.2									0.2	0.2
White NH ^{ef}	1992-99	7.4*	1999-12	0.3									0.3	0.3
Black	1992-98	9.2*	1998-12	1.6*									1.6*	1.6*
Black NH ^{ef}	1992-98	9.0*	1998-12	1.7*									1.7*	1.7*
API ^e	1992-99	9.6*	1999-12	1.7*									1.7*	1.7*
AI/AN ^{eg}	1992-12	1.4											1.4	1.4
Hispanic ^f	1992-98	8.8*	1998-12	1.5*									1.5*	1.5*

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

Table 4.5
Cancer of the Breast (Invasive)

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

Year of Diagnosis:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2012	68.95	1.11	125.85	70.59	1.11	129.56	67.31	1.70	117.10
1975	58.06	0.85	105.07	59.46	0.88	107.36	52.10	-	93.57
1976	56.47	1.11	101.95	58.13	1.13	104.80	48.24	-	85.72
1977	55.99	0.96	100.83	57.45	0.88	103.39	49.71	-	87.14
1978	55.84	0.90	100.62	57.53	0.89	103.60	48.31	-	86.16
1979	56.84	0.99	102.11	58.29	0.94	104.71	49.91	-	86.94
1980	56.92	0.90	102.26	58.53	0.93	105.11	50.66	-	89.61
1981	59.34	1.00	106.37	61.25	0.93	109.92	54.41	-	94.35
1982	59.24	0.98	106.49	61.06	0.94	109.92	53.93	-	93.58
1983	61.90	1.04	111.13	63.69	1.13	114.43	59.08	-	103.82
1984	64.48	0.93	115.98	66.58	0.94	119.89	58.39	-	102.41
1985	69.12	0.95	124.26	70.99	0.97	127.81	64.03	-	111.54
1986	70.47	0.95	126.86	72.29	0.96	130.38	66.32	-	115.13
1987	74.79	0.96	134.51	77.80	0.98	140.25	63.12	-	109.53
1988	73.10	1.24	131.34	75.60	1.16	136.27	69.13	2.76	118.90
1989	70.76	1.13	127.24	73.39	1.07	132.40	60.70	-	105.15
1990	73.18	1.13	131.86	75.33	1.15	136.22	68.68	-	118.86
1991	74.10	1.12	133.86	76.63	1.17	138.89	67.59	-	117.72
1992	73.06	1.04	132.09	74.74	1.02	135.75	71.60	-	124.03
1993	71.33	1.08	129.20	73.15	1.04	133.11	68.82	-	119.45
1994	72.11	1.13	131.01	74.28	1.08	135.69	70.74	-	122.72
1995	72.88	0.96	132.70	75.14	0.92	137.64	71.66	-	123.80
1996	73.36	1.31	133.72	75.33	1.32	138.12	71.68	-	124.34
1997	75.61	1.10	138.03	77.60	1.07	142.66	72.75	-	125.77
1998	77.34	1.07	141.42	79.59	1.13	146.47	71.95	-	125.45
1999	77.18	0.98	141.48	79.56	0.97	147.03	72.87	-	126.15
2000	74.41	1.16	136.56	77.23	1.14	142.95	68.79	2.86	118.53
2001	75.61	1.22	138.80	78.21	1.22	144.86	66.77	1.66	115.68
2002	73.70	1.15	135.79	75.91	1.13	141.20	71.34	1.95	123.78
2003	68.93	1.33	126.98	70.80	1.34	131.72	71.35	1.85	123.82
2004	69.39	1.21	128.10	70.75	1.23	131.93	71.48	1.61	124.28
2005	68.42	1.06	126.63	70.20	1.15	131.30	68.04	-	118.61
2006	68.22	1.16	126.32	69.58	1.19	130.30	71.78	1.54	125.07
2007	69.09	1.11	128.16	70.43	1.14	132.26	71.76	1.82	124.45
2008	69.04	1.18	128.29	69.79	1.20	131.24	73.49	1.43	128.08
2009	70.34	1.19	130.72	71.29	1.25	134.11	74.05	-	129.15
2010	68.14	1.24	126.82	69.19	1.13	130.52	70.56	2.93	122.32
2011	69.76	1.42	129.96	70.48	1.37	133.08	73.38	2.74	127.60
2012	69.53	1.35	129.62	69.79	1.34	131.89	75.98	2.10	132.17

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

Table 4.6
Cancer of the Breast (Invasive)

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

Year of Death:	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
1975-2012	15.97	0.32	28.16	15.81	0.30	27.99	19.89	0.54	33.79
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	20.93	17.71	0.50	30.17
2012	11.83	0.26	21.28	11.44	0.25	20.71	17.25	0.42	29.43

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

Table 4.7
Cancer of the Female Breast (Invasive)

Delay-adjusted SEER Incidence^a 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	105.07	40.63	273.82	107.36	40.68	281.95	93.57	42.97	226.09
1976	101.95	40.05	264.06	104.80	40.81	272.35	85.72	38.05	210.55
1977	100.83	39.12	262.44	103.39	39.34	271.12	87.14	37.87	216.14
1978	100.62	38.85	262.38	103.60	39.27	272.03	86.16	40.19	206.55
1979	102.11	38.01	269.97	104.71	38.59	277.85	86.94	37.76	215.71
1980	102.26	37.78	271.10	105.11	38.27	280.13	89.61	37.69	225.58
1981	106.37	39.22	282.19	109.92	40.10	292.77	94.35	38.86	239.64
1982	106.49	40.57	279.11	109.92	41.22	289.82	93.58	38.02	239.06
1983	111.13	40.23	296.79	114.43	40.82	307.17	103.82	41.70	266.47
1984	115.98	42.39	308.70	119.89	43.14	320.88	102.41	44.66	253.62
1985	124.26	44.33	333.55	127.81	44.39	346.25	111.54	45.52	284.41
1986	126.86	44.48	342.57	130.38	45.25	353.28	115.13	45.64	297.07
1987	134.51	45.54	367.47	140.25	46.50	385.75	109.53	43.28	283.01
1988	131.34	44.01	360.02	136.27	44.99	375.29	118.90	43.00	317.67
1989	127.24	43.42	346.76	132.40	44.53	362.49	105.15	42.18	270.03
1990	131.86	45.60	357.74	136.22	45.35	374.17	118.86	49.05	301.66
1991	133.86	47.26	360.65	138.89	47.23	378.93	117.72	51.15	292.05
1992	132.09	43.46	364.18	135.75	43.62	376.99	124.03	46.91	325.96
1993	129.20	42.85	355.33	133.11	43.25	368.43	119.45	45.19	313.93
1994	131.01	42.43	362.95	135.69	42.79	378.99	122.72	47.65	319.29
1995	132.70	43.20	367.06	137.64	43.74	383.52	123.80	45.56	328.68
1996	133.72	43.59	369.73	138.12	44.00	384.58	124.34	44.37	333.76
1997	138.03	43.53	385.46	142.66	44.07	400.82	125.77	44.67	338.15
1998	141.45	45.47	392.78	146.53	45.47	411.14	125.49	47.12	330.71
1999	141.54	43.85	397.35	147.14	45.13	414.26	126.23	44.05	341.42
2000	136.66	43.52	380.54	143.13	44.02	402.66	118.66	44.93	311.72
2001	138.94	44.01	387.54	145.11	44.81	407.75	115.86	39.91	314.74
2002	135.98	42.94	379.61	141.53	43.61	397.93	124.05	41.52	340.17
2003	127.21	43.45	346.53	132.11	44.39	361.81	124.16	43.52	335.33
2004	128.41	45.03	346.74	132.43	44.99	361.40	124.71	48.06	325.43
2005	127.01	44.25	343.71	131.91	44.68	360.34	119.12	45.96	310.71
2006	126.79	44.31	342.75	131.03	45.32	355.48	125.73	45.46	335.92
2007	128.74	45.44	346.88	133.16	45.96	361.49	125.28	45.56	334.03
2008	129.01	45.72	347.11	132.31	45.85	358.71	129.12	45.48	348.14
2009	131.62	45.65	356.75	135.44	46.29	368.92	130.38	45.79	351.89
2010	127.92	44.46	346.46	132.15	45.50	359.04	123.83	44.81	330.75
2011	131.36	45.82	355.37	135.18	45.92	368.90	129.67	49.08	340.68
2012	131.81	44.67	359.98	135.04	45.50	369.52	135.23	42.48	378.11

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/).

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

Table 4.8
Cancer of the Female Breast (Invasive)

Age-adjusted SEER Incidence^a 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:									
1975-2012	125.85	43.46	341.59	129.56	43.89	353.89	117.10	44.32	307.69
1975	105.07	40.63	273.82	107.36	40.68	281.95	93.57	42.97	226.09
1976	101.95	40.05	264.06	104.80	40.81	272.35	85.72	38.05	210.55
1977	100.83	39.12	262.44	103.39	39.34	271.12	87.14	37.87	216.14
1978	100.62	38.85	262.38	103.60	39.27	272.03	86.16	40.19	206.55
1979	102.11	38.01	269.97	104.71	38.59	277.85	86.94	37.76	215.71
1980	102.26	37.78	271.10	105.11	38.27	280.13	89.61	37.69	225.58
1981	106.37	39.22	282.19	109.92	40.10	292.77	94.35	38.86	239.64
1982	106.49	40.57	279.11	109.92	41.22	289.82	93.58	38.02	239.06
1983	111.13	40.23	296.79	114.43	40.82	307.17	103.82	41.70	266.47
1984	115.98	42.39	308.70	119.89	43.14	320.88	102.41	44.66	253.62
1985	124.26	44.33	333.55	127.81	44.39	346.25	111.54	45.52	284.41
1986	126.86	44.48	342.57	130.38	45.25	353.28	115.13	45.64	297.07
1987	134.51	45.54	367.47	140.25	46.50	385.75	109.53	43.28	283.01
1988	131.34	44.01	360.02	136.27	44.99	375.29	118.90	43.00	317.67
1989	127.24	43.42	346.76	132.40	44.53	362.49	105.15	42.18	270.03
1990	131.86	45.60	357.74	136.22	45.35	374.17	118.86	49.05	301.66
1991	133.86	47.26	360.65	138.89	47.23	378.93	117.72	51.15	292.05
1992	132.09	43.46	364.18	135.75	43.62	376.99	124.03	46.91	325.96
1993	129.20	42.85	355.33	133.11	43.25	368.43	119.45	45.19	313.93
1994	131.01	42.43	362.95	135.69	42.79	378.99	122.72	47.65	319.29
1995	132.70	43.20	367.06	137.64	43.74	383.52	123.80	45.56	328.68
1996	133.72	43.59	369.73	138.12	44.00	384.58	124.34	44.37	333.76
1997	138.03	43.53	385.46	142.66	44.07	400.82	125.77	44.67	338.15
1998	141.42	45.46	392.69	146.47	45.46	410.99	125.45	47.10	330.60
1999	141.48	43.84	397.16	147.03	45.10	413.93	126.15	44.03	341.18
2000	136.56	43.49	380.26	142.95	43.96	402.16	118.53	44.88	311.38
2001	138.80	43.97	387.12	144.86	44.74	407.03	115.68	39.85	314.24
2002	135.79	42.88	379.07	141.20	43.51	397.02	123.78	41.43	339.43
2003	126.98	43.38	345.88	131.72	44.26	360.74	123.82	43.40	334.40
2004	128.10	44.94	345.88	131.93	44.83	360.02	124.28	47.89	324.29
2005	126.63	44.14	342.64	131.30	44.48	358.65	118.61	45.76	309.35
2006	126.32	44.16	341.44	130.30	45.07	353.46	125.07	45.23	334.11
2007	128.16	45.26	345.24	132.26	45.67	358.99	124.45	45.26	331.82
2008	128.29	45.48	345.13	131.24	45.48	355.78	128.08	45.12	345.32
2009	130.72	45.37	354.20	134.11	45.85	365.23	129.15	45.35	348.57
2010	126.82	44.12	343.36	130.52	44.96	354.54	122.32	44.28	326.68
2011	129.96	45.39	351.41	133.08	45.25	363.08	127.60	48.32	335.20
2012	129.62	44.03	353.73	131.89	44.51	360.69	132.17	41.56	369.43

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

Table 4.9
Cancer of the Female Breast (Invasive)
Age-adjusted U.S. Death^a 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+
1975-2012	28.16	6.72	84.33	27.99	6.36	84.63	33.79	10.35	95.16
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	66.25	20.93	4.03	65.17	30.17	7.84	88.65
2012	21.28	4.59	64.97	20.71	4.16	64.07	29.43	7.90	85.79

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

Table 4.10
Cancer of the Female Breast (*In Situ*)

Age-adjusted SEER Incidence^a 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:									
1975-2012	23.67	9.74	60.15	23.64	9.86	59.71	23.19	8.19	62.49
1975	5.83	3.78	11.19	5.89	3.82	11.33	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	4.31	2.58	8.85	3.17	-	-
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	5.05	3.09	10.17	3.71	-	-
1981	4.97	2.64	11.05	4.93	2.52	11.26	4.11	-	8.84
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	5.94	26.19	12.09	6.27	27.31	8.21	3.49	20.57
1986	13.63	6.79	31.56	14.25	7.21	32.69	9.32	5.12	20.32
1987	17.38	7.82	42.39	18.22	8.25	44.33	12.30	5.64	29.73
1988	17.58	8.18	42.18	18.11	8.52	43.22	16.02	7.22	39.06
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	19.87	8.70	49.10	15.15	5.54	40.32
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	8.81	54.22	16.62	6.06	44.27
1994	22.31	8.74	57.84	22.84	8.98	59.14	20.10	7.56	52.96
1995	24.72	9.63	64.24	25.10	10.02	64.58	22.80	6.50	65.50
1996	25.36	9.84	66.02	25.91	9.83	68.02	22.93	7.71	62.80
1997	28.32	11.03	73.59	28.88	11.18	75.21	28.44	11.39	73.11
1998	32.79	12.00	87.22	33.72	12.31	89.78	30.49	10.77	82.14
1999	32.75	11.97	87.16	33.17	12.20	88.08	29.68	10.56	79.75
2000	32.84	11.79	87.95	33.85	12.48	89.81	29.60	8.04	86.06
2001	33.71	11.59	91.62	34.23	12.03	92.35	31.92	9.09	91.69
2002	34.05	11.90	92.05	34.57	12.29	92.92	28.88	8.85	81.32
2003	32.49	12.04	86.04	33.48	12.53	88.32	30.17	9.43	84.48
2004	33.19	12.79	86.61	33.95	13.00	88.82	30.71	10.26	84.24
2005	32.66	12.49	85.47	33.59	13.00	87.49	32.28	10.35	89.70
2006	33.28	13.86	84.13	33.65	14.42	83.99	35.95	11.74	99.34
2007	35.38	14.39	90.34	35.83	14.87	90.71	33.76	11.01	93.34
2008	36.87	14.13	96.41	37.17	14.74	95.89	36.80	11.73	102.44
2009	36.98	14.41	96.06	37.70	14.98	97.19	35.71	11.38	99.40
2010	33.87	13.12	88.22	34.19	13.14	89.30	33.08	12.23	87.69
2011	35.61	14.41	91.10	35.96	14.81	91.34	34.03	10.86	94.72
2012	33.41	13.64	85.18	33.02	13.98	82.87	35.05	11.58	96.52

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

Table 4.11
Cancer of the Breast (Invasive)SEER Incidence^a and U.S. Death^b Rates, Age-Adjusted and Age-Specific Rates, by Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER Incidence</u>									
<u>Age at Diagnosis</u>									
Age-Adjusted Rates, 2008-2012									
All ages	67.2	1.2	124.8	68.1	1.2	127.9	70.8	1.7	124.4
Under 65	41.8	0.5	81.6	41.7	0.4	82.6	44.9	0.7	83.6
65 and over	242.6	6.5	423.5	250.4	6.6	441.1	249.8	8.8	406.3
All ages (IARC world std) ^c	47.6	0.8	90.1	48.1	0.8	92.1	50.3	1.1	90.2
Age-Specific Rates, 2008-2012									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	0.1	-	0.2	0.1	-	0.2	-	-	-
20-24	0.7	-	1.4	0.6	-	1.3	1.0	-	2.0
25-29	4.3	-	8.8	4.1	-	8.5	6.1	-	11.8
30-34	13.6	-	27.2	13.0	-	26.6	18.1	-	34.3
35-39	30.3	0.2	60.2	29.3	0.2	59.4	36.1	-	68.2
40-44	61.3	0.5	121.7	60.4	0.5	122.0	65.2	-	123.4
45-49	95.6	0.8	188.6	95.9	0.7	191.8	97.0	1.0	183.5
50-54	114.7	1.2	224.3	114.7	1.1	227.2	120.1	2.5	225.4
55-59	137.6	1.9	265.2	137.7	1.9	268.8	151.1	2.6	278.2
60-64	180.5	3.0	343.6	183.3	2.9	353.6	190.0	4.5	341.6
65-69	226.5	5.0	422.6	232.2	5.0	437.9	227.4	7.4	397.8
70-74	243.0	6.0	440.6	251.4	6.1	460.1	248.6	8.1	422.8
75-79	256.6	7.1	447.1	266.9	7.3	469.9	260.2	9.9	420.8
80-84	255.5	7.6	420.5	264.2	7.8	438.2	268.3	9.6	408.1
85+	238.4	8.7	353.1	244.3	9.0	362.1	262.2	-	364.0
<u>U.S. Mortality</u>									
<u>Age at Death</u>									
Age-Adjusted Rates, 2008-2012									
All ages	12.2	0.3	21.9	11.8	0.3	21.3	17.8	0.5	30.2
Under 65	5.5	0.1	10.7	5.1	0.1	10.1	9.2	0.2	17.0
65 and over	58.5	1.7	99.0	58.2	1.6	99.2	77.0	2.7	121.3
All ages (IARC world std) ^c	7.6	0.2	14.1	7.3	0.2	13.7	11.5	0.3	20.2
Age-Specific Rates, 2008-2012									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	0.0	-	0.1	0.0	-	0.1	-	-	-
25-29	0.3	-	0.7	0.3	-	0.6	0.7	-	1.3
30-34	1.4	-	2.7	1.1	-	2.3	2.9	-	5.5
35-39	3.4	0.0	6.7	3.0	-	6.0	6.4	-	11.8
40-44	6.7	0.1	13.2	6.0	0.0	12.0	12.4	-	23.3
45-49	10.5	0.1	20.6	9.6	0.1	19.1	18.0	0.2	33.8
50-54	15.8	0.2	30.8	14.7	0.2	28.9	26.0	0.4	48.5
55-59	21.5	0.4	41.3	20.1	0.4	39.0	35.5	0.7	65.0
60-64	28.4	0.7	53.9	27.5	0.7	52.7	41.4	1.4	74.0
65-69	36.1	0.9	67.4	35.5	0.9	66.9	50.4	1.9	87.6
70-74	44.0	1.3	80.1	43.3	1.2	79.5	61.4	2.4	103.4
75-79	56.0	1.6	98.0	56.0	1.6	98.8	72.0	2.1	116.1
80-84	75.7	2.3	124.8	75.4	2.2	125.2	99.7	3.9	150.6
85+	122.2	3.4	180.0	122.6	3.4	181.2	150.1	4.5	207.4

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

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

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

- Rates are per 100,000 and are age-adjusted to the IARC world standard population.

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

Table 4.12
Cancer of the Female Breast (*In Situ*)

SEER Incidence^a Rates, Age-Adjusted and Age-Specific Rates, by Race

	All Races, Females	White Females	Black Females
<u>Age-Adjusted Rates, 2008-2012</u>			
Age at Diagnosis:			
All ages	31.7	31.9	30.6
Under 65	23.5	23.7	21.2
65 and over	88.1	88.3	95.5
All ages (IARC world std) ^b	23.9	24.0	22.9
<u>Age-Specific Rates, 2008-2012</u>			
Age at Diagnosis:			
<1	-	-	-
1-4	-	-	-
5-9	-	-	-
10-14	-	-	-
15-19	-	-	-
20-24	0.2	0.1	-
25-29	0.7	0.6	0.9
30-34	2.7	2.5	3.8
35-39	10.8	10.9	10.2
40-44	40.7	41.1	32.9
45-49	61.6	62.9	48.0
50-54	73.1	74.6	61.1
55-59	74.7	74.8	74.2
60-64	88.5	87.9	97.9
65-69	107.5	107.6	110.5
70-74	101.0	100.8	113.5
75-79	93.1	93.8	100.4
80-84	68.4	69.6	75.2
85+	32.9	32.4	40.0

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

^b 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 (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 ^a	-	-	-	63	-	-	46	-	-
1970-1973 ^a	-	-	-	68	-	-	51	-	-
1975-1977 ^b	74.8	76.5	74.3	75.6	77.7	74.9	62.1	62.4	62.0
1978-1980 ^b	74.4	75.5	74.1	75.1	76.1	74.8	63.3	67.1	61.4
1981-1983 ^b	76.1	77.4	75.7	77.1	78.5	76.7	63.4	65.1	62.6
1984-1986 ^b	78.9	77.8	79.3	80.0	79.5	80.2	65.0	63.9	65.8
1987-1989 ^b	84.0	81.4	85.0	85.1	82.7	85.9	71.1	69.6	71.9
1990-1992 ^b	85.2	83.4	85.9	86.5	85.1	87.0	71.5	70.1	72.3
1993-1995 ^b	86.3	84.3	87.1	87.6	86.2	88.1	72.7	70.3	74.1
1996-1998 ^b	88.2	86.5	88.8	89.3	88.2	89.7	76.1	73.9	77.5
1999-2001 ^b	89.7	88.1	90.2	90.8	89.9	91.1	78.7	76.8	79.9
2002-2004 ^b	89.9	89.2	90.2	91.4	91.1	91.5	77.8	77.4	78.0
2005-2011 ^b	90.7 ^f	91.0 ^f	90.6 ^f	92.0 ^f	92.4 ^f	91.9 ^f	80.5 ^f	81.8 ^f	79.9 ^f
5-Year Period Survival (Percent) ^{cd}									
2011	89.6	89.7	89.7	90.8	90.9	90.8	80.4	81.0	80.3
Stage Distribution (%) 2005-2011 ^{ce}									
All Stages									
Number of cases	325,952	79,410	246,542	261,587	59,419	202,168	35,116	10,606	24,510
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	61	54	63	62	55	64	53	47	55
Regional	32	40	29	31	39	29	37	43	34
Distant	6	5	6	5	4	5	9	8	9
Unstaged	2	1	2	2	1	2	2	1	2
5-Year Relative Survival (Percent), 2005-2011 ^c									
Age at Diagnosis:									
Ages <45	88.2	-	-	89.6	-	-	78.6	-	-
Ages 45-54	90.5	-	-	91.7	-	-	81.2	-	-
Ages 55-64	90.0	-	-	91.1	-	-	80.6	-	-
Ages 65-74	90.9	-	-	91.9	-	-	81.6	-	-
Ages 75+	86.6	-	-	87.9	-	-	72.9	-	-
Ages <65	89.8	-	-	91.0	-	-	80.3	-	-
Ages 65+	88.9	-	-	90.0	-	-	78.0	-	-
Stage ^e :									
All Stages	89.4	89.5	89.4	90.6	90.8	90.6	79.6	80.3	79.3
Localized	98.6	96.7	99.1	99.2	97.1	99.7	94.3	93.6	94.6
Regional	84.9	86.6	84.2	86.3	88.2	85.5	74.9	76.2	74.2
Distant	25.9	35.6	23.1	27.1	38.6	24.3	17.1	23.7	14.4
Unstaged	51.7	74.2	46.8	49.5	75.1	44.6	50.6	65.1	46.1
<i>In Situ</i> ^j	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0

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

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

Based on follow-up of patients into 2012.

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

Based on follow-up of patients into 2012.

^d Period survival provides a 2011 estimate of survival by piecing together the most recent conditional survival estimates

from several cohorts. It is computed here using three year calendar blocks (2009-2011: 0-1 year survival), (2008-2010: 1-2 year survival), (2007-2009: 2-3 year survival), (2006-2008: 3-4 year survival), (2005-2007: 4-5 years survival).

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

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

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

^h The standard error is greater than 10 percentage points.

^j *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 4.14
Cancer of the Female Breast (Invasive)

SEER^a Relative Survival (Percent)
By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Survival Time																					
1-year	94.4	95.1	96.3	97.1	97.1	96.9	97.3	97.5	97.5	97.5	97.3	97.5	97.8	97.7	97.7	97.7	97.7	97.7	97.8	97.6	97.7
2-year	88.7	89.9	92.3	93.8	94.0	93.6	94.3	94.9	95.1	95.3	95.0	95.4	95.5	95.6	95.7	95.6	96.0	95.7	95.9	95.7	
3-year	83.1	84.6	88.3	90.5	91.4	90.9	92.0	92.9	93.1	93.4	92.8	93.5	93.3	93.2	93.8	93.8	94.0	93.7	93.9		
4-year	78.4	80.2	85.1	87.8	88.8	88.9	89.9	91.0	91.3	91.6	91.0	91.7	91.5	91.3	91.9	92.2	92.3	92.2			
5-year	74.6	76.3	82.2	85.6	86.8	86.6	88.3	89.5	89.6	90.1	89.4	90.2	89.7	89.9	90.4	90.6	91.0				
6-year	71.4	73.4	79.9	83.8	85.4	84.9	86.9	88.3	88.0	89.0	88.2	88.7	88.5	88.5	89.0	89.5					
7-year	68.7	70.6	77.8	82.1	83.8	83.8	85.8	87.1	86.9	87.6	86.8	87.6	87.3	87.3	87.8						
8-year	66.4	68.4	76.3	80.9	82.6	82.4	84.9	85.8	85.8	86.4	85.8	86.4	86.2	86.3							
9-year	64.2	66.4	74.6	79.7	81.3	81.3	83.6	84.5	84.9	85.2	85.1	85.4	85.7								
10-year	62.4	64.5	73.3	78.7	80.5	80.3	82.5	83.4	84.0	84.4	84.2	84.8									
11-year	60.8	62.7	72.1	77.6	79.5	79.4	81.7	82.5	82.8	83.4	83.3										
12-year	59.3	61.5	70.8	76.7	78.5	78.6	80.9	82.0	82.2	82.4											
13-year	58.0	60.4	69.8	75.7	77.3	77.4	79.8	80.8	81.5												
14-year	57.1	59.1	68.9	74.9	76.7	76.7	79.1	80.1													
15-year	56.0	58.2	68.0	74.1	75.8	76.0	78.1														
16-year	55.1	57.2	67.2	73.2	74.7	75.3															
17-year	54.1	56.2	66.4	72.2	73.9																
18-year	53.3	55.5	65.6	71.4																	
19-year	52.5	54.9	65.0																		
20-year	51.8	54.1	64.4																		
21-year	51.0	53.4	63.6																		
22-year	50.5	52.7	63.0																		
23-year	49.9	52.0	62.3																		
24-year	49.2	51.3																			
25-year	48.5	50.9																			
26-year	48.2	50.5																			
27-year	47.7	49.8																			
28-year	47.3	49.1																			
29-year	46.7																				
30-year	46.3																				

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

Table 4.15
Cancer of the Female Breast (Ages <50, Invasive)

SEER^a Relative Survival (Percent)
By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Survival Time																					
1-year	96.5	97.4	97.8	98.0	97.9	97.6	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	99.0
2-year	90.7	91.2	92.5	93.8	93.6	93.7	94.6	95.1	95.0	95.6	94.6	95.7	96.1	95.9	96.1	96.7	97.1	96.4	96.4	96.2	
3-year	84.5	85.5	87.3	89.7	90.0	90.7	91.6	92.1	92.2	93.0	91.6	93.3	93.6	93.2	93.8	94.7	95.0	94.0	94.2		
4-year	80.0	80.9	83.3	86.3	86.6	88.1	88.7	89.4	90.0	90.6	89.3	90.6	91.8	91.2	92.1	93.0	93.4	92.4			
5-year	76.0	77.0	80.1	83.7	84.1	85.5	86.7	87.2	88.1	89.0	87.3	88.6	89.7	89.3	90.7	91.1	91.8				
6-year	73.2	74.1	77.9	81.7	82.2	83.3	84.7	85.3	86.1	87.4	85.2	86.8	88.0	87.8	89.3	89.5					
7-year	70.8	71.5	75.8	80.0	80.2	81.7	83.2	83.7	84.8	85.6	83.5	85.3	86.8	86.2	88.1						
8-year	68.9	69.5	74.1	78.5	78.7	80.0	81.4	82.2	83.6	83.8	82.1	84.1	85.6	85.1							
9-year	67.0	67.7	72.6	77.3	77.6	78.9	80.4	80.7	82.5	82.5	80.9	83.1	84.8								
10-year	65.5	66.3	71.4	76.3	76.4	77.6	79.2	79.7	81.5	81.6	80.1	82.3									
11-year	64.2	65.0	70.3	75.3	75.5	76.6	78.2	78.8	80.3	80.7	79.2										
12-year	62.8	64.0	69.3	74.4	74.6	76.0	77.3	78.1	79.8	80.0											
13-year	61.6	62.9	68.3	73.4	73.7	74.6	76.3	77.4	79.2												
14-year	60.9	61.9	67.6	72.7	73.0	73.9	75.3	77.1													
15-year	60.1	61.1	66.8	72.1	72.2	73.2	74.7														
16-year	59.4	60.4	66.1	71.3	71.3	72.8															
17-year	58.8	59.7	65.5	70.7	70.4																
18-year	58.3	59.1	64.9	70.1																	
19-year	57.6	58.6	64.3																		
20-year	57.0	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	62.3																		
24-year	54.5	55.4																			
25-year	53.9	55.0																			
26-year	53.6	54.4																			
27-year	53.0	53.8																			
28-year	52.6	53.2																			
29-year	52.2																				
30-year	51.9																				

^a 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^a Relative Survival (Percent)
By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985- 1989	1990- 1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Survival Time																					
1-year	93.7	94.4	95.8	96.8	96.9	96.7	97.1	97.2	97.2	97.2	97.0	97.2	97.5	97.4	97.4	97.3	97.3	97.3	97.5	97.2	97.3
2-year	88.0	89.6	92.3	93.8	94.1	93.6	94.2	94.9	95.2	95.2	95.2	95.4	95.3	95.5	95.6	95.3	95.7	95.5	95.8	95.6	
3-year	82.7	84.3	88.7	90.7	91.9	91.0	92.1	93.2	93.4	93.6	93.2	93.7	93.1	93.2	93.8	93.4	93.6	93.6	93.6	93.7	
4-year	78.0	80.0	85.6	88.4	89.6	89.2	90.3	91.6	91.7	92.0	91.6	92.1	91.4	91.4	91.8	92.0	92.0	92.0	92.2		
5-year	74.1	76.1	82.9	86.3	87.8	87.1	88.9	90.3	90.1	90.6	90.1	90.7	89.8	90.1	90.4	90.5	90.7				
6-year	70.8	73.1	80.5	84.6	86.6	85.6	87.7	89.4	88.7	89.5	89.2	89.4	88.8	88.8	89.0	89.5					
7-year	67.9	70.4	78.6	82.9	85.2	84.6	86.8	88.4	87.7	88.4	88.0	88.4	87.6	87.7	87.7						
8-year	65.6	68.0	77.1	81.9	84.1	83.3	86.2	87.1	86.6	87.3	87.2	87.2	86.4	86.8							
9-year	63.3	65.9	75.3	80.6	82.7	82.3	84.9	86.0	85.8	86.2	86.7	86.2	86.0								
10-year	61.3	63.8	73.9	79.6	82.2	81.4	83.8	84.8	85.0	85.4	85.8	85.8									
11-year	59.5	61.8	72.7	78.5	81.0	80.6	83.0	84.0	83.7	84.4	84.8										
12-year	58.0	60.6	71.4	77.6	79.9	79.6	82.3	83.5	83.1	83.3											
13-year	56.7	59.4	70.3	76.6	78.7	78.5	81.2	82.1	82.3												
14-year	55.6	58.1	69.4	75.7	78.2	77.8	80.6	81.3													
15-year	54.4	57.1	68.4	74.8	77.2	77.1	79.3														
16-year	53.4	55.9	67.5	73.8	75.9	76.3															
17-year	52.1	54.8	66.6	72.6	75.2																
18-year	51.2	54.0	65.7	71.8																	
19-year	50.3	53.3	65.0																		
20-year	49.5	52.4	64.3																		
21-year	48.7	51.6	63.4																		
22-year	48.2	50.9	62.7																		
23-year	47.6	50.2	61.9																		
24-year	46.9	49.5																			
25-year	45.9	49.0																			
26-year	45.6	48.6																			
27-year	45.2	47.8																			
28-year	44.7	47.1																			
29-year	44.0																				
30-year	43.4																				

^a 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 (Invasive)

Risk of Being Diagnosed With Cancer in 10, 20 and 30 Years,
Lifetime Risk of Being Diagnosed with Cancer Given Alive and Cancer-Free at Current Age, and
Lifetime Risk of Dying from Cancer Given Alive at Current Age
Females, 2010-2012 By Race/Ethnicity

Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer	Race/ Ethnicity	Current Age	Risk of Being Diagnosed with Cancer				Risk of Dying from Cancer
		+10 yrs	+20 yrs	+30 yrs	Ever				+10 yrs	+20 yrs	+30 yrs	Ever	
All Races	0	0.00	0.00	0.06	12.32	2.69	Asian/ Pacific Islander	0	0.00	0.00	0.05	10.25	1.74
	10	0.00	0.06	0.50	12.44	2.72		10	0.00	0.05	0.46	10.32	1.75
	20	0.06	0.50	1.92	12.46	2.73		20	0.05	0.46	1.82	10.33	1.75
	30	0.44	1.87	4.05	12.47	2.74		30	0.41	1.77	3.72	10.31	1.75
	40	1.44	3.65	6.80	12.17	2.71		40	1.37	3.33	5.84	9.98	1.73
	50	2.28	5.53	8.75	11.08	2.60		50	2.00	4.57	6.85	8.80	1.63
	60	3.46	6.89	8.89	9.38	2.36		60	2.68	5.05	6.54	7.07	1.44
	70	3.89	6.16	-	6.72	1.98		70	2.55	4.16	-	4.74	1.18
80	3.02	-	-	3.76	1.54	80	1.90	-	-	2.58	0.93		
White	0	0.00	0.00	0.06	12.64	2.66	American Indian/ Alaska Native ^a	0	0.00	0.00	0.03	8.15	1.66
	10	0.00	0.06	0.49	12.75	2.68		10	0.00	0.03	0.30	8.22	1.68
	20	0.06	0.49	1.92	12.77	2.69		20	0.03	0.30	1.11	8.25	1.69
	30	0.44	1.88	4.09	12.78	2.70		30	0.28	1.10	2.49	8.30	1.71
	40	1.46	3.69	6.94	12.49	2.68		40	0.83	2.26	4.52	8.18	1.70
	50	2.31	5.66	9.02	11.39	2.58		50	1.48	3.82	6.08	7.63	1.66
	60	3.56	7.14	9.19	9.67	2.35		60	2.50	4.89	6.04	6.55	1.51
	70	4.07	6.40	-	6.94	1.97		70	2.72	4.02	-	4.59	1.31
80	3.12	-	-	3.84	1.53	80	1.73	-	-	2.50	1.05		
Black	0	0.00	0.00	0.08	11.14	3.26	Hispanic ^b	0	0.00	0.00	0.05	9.81	2.08
	10	0.00	0.08	0.58	11.33	3.32		10	0.00	0.05	0.38	9.90	2.10
	20	0.08	0.58	1.97	11.36	3.33		20	0.05	0.38	1.48	9.91	2.10
	30	0.50	1.90	4.05	11.36	3.35		30	0.34	1.44	3.19	9.90	2.10
	40	1.42	3.62	6.52	11.05	3.30		40	1.11	2.88	5.32	9.64	2.08
	50	2.29	5.32	8.05	10.05	3.11		50	1.81	4.30	6.66	8.73	1.98
	60	3.32	6.31	8.00	8.49	2.76		60	2.61	5.08	6.61	7.24	1.78
	70	3.55	5.56	-	6.14	2.30		70	2.71	4.40	-	5.09	1.50
80	2.83	-	-	3.66	1.83	80	2.08	-	-	2.94	1.21		

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

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

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

^b Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Underlying incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

- Statistic could not be calculated.

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

Table 4.18
Cancer of the Female Breast (Invasive)

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

SEER Incidence	SEER 18 Areas ^b	SEER 13 Areas ^b	SEER 9 Areas ^b
	Rate 2008-2012	Trend 2003-2012 ^c	Trend 2003-2012 ^d
	Rate per 100,000 persons	AAPC (%)	AAPC (%)
RACE/ETHNICITY	Females	Females	Females
All Races	124.8	-0.1	0.0
White	127.9	-0.2	-0.2
White Hispanic ^e	95.7	0.2	-
White Non-Hispanic ^e	134.0	-0.2	-
Black	124.4	0.2*	0.4*
Asian/Pacific Islander	96.3	0.8	-
Amer Ind/Alaska Nat ^f	82.0	0.1	-
Hispanic ^e	92.1	0.1	-
<u>U.S. Mortality^g</u>			
	Rate 2008-2012	Trend 2003-2012 ^h	
	Rate per 100,000 persons	AAPC (%)	
RACE/ETHNICITY	Females	Females	
All Races	21.9	-1.9*	
White	21.3	-1.9*	
White Hispanic ^e	15.4	-1.4*	
White Non-Hispanic ^e	21.9	-1.8*	
Black	30.2	-1.5*	
Asian/Pacific Islander	11.4	-1.0*	
Amer Ind/Alaska Nat			
Total U.S.	11.6	-1.6*	
CHSDA Counties	15.0	-0.6	
Non-CHSDA Counties	7.7	-3.3*	
Hispanic ^e	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 4.2.0, April 2015, National Cancer Institute.

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

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

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

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

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

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

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

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

^e Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. The 2003-2012 Hispanic and Non-Hispanic mortality trends exclude deaths from New Hampshire and Oklahoma.

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

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

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

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

Table 4.19
Cancer of the Female Breast (*In Situ*)

SEER Incidence
Age-Adjusted Rates and Trends^a
By Race/Ethnicity

SEER Incidence RACE/ETHNICITY	SEER 18 Areas ^b Rate 2008-2012 Rate per 100,000 persons	SEER 13 Areas ^b Trend 2003-2012 ^c AAPC (%)	SEER 9 Areas ^b Trend 2003-2012 ^d AAPC (%)
	Females	Females	Females
All Races	31.7	0.5	0.7*
White	31.9	0.2	0.5
White Hispanic ^e	21.4	1.6*	-
White Non-Hispanic ^e	34.2	0.3	-
Black	30.6	1.6*	1.5*
Asian/Pacific Islander	30.5	1.7*	-
Amer Ind/Alaska Nat ^f	15.6	1.4	-
Hispanic ^e	20.8	1.5*	-

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

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

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

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

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

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

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

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

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

^e Hispanic and Non-Hispanic are not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics are based on NHIA and exclude cases from the Alaska Native Registry.

^f 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 4.20
Cancer of the Female Breast (Invasive)

Age-Adjusted SEER Incidence Rates^a
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^a, 2008-2012</u>									
California	122.09	40.90	334.69	126.97	41.20	351.59	123.71	40.55	341.46
Greater Bay Area	125.52	44.51	337.65	134.99	45.75	368.65	126.01	38.18	355.99
San Francisco-Oakland	127.68	44.71	344.93	136.35	45.26	374.86	128.72	38.81	364.16
San Jose-Monterey	121.33	44.16	323.40	132.64	46.61	357.90	107.38	34.33	298.67
Los Angeles	116.93	40.21	317.83	120.16	39.21	332.13	127.07	42.50	348.53
Greater California	123.25	39.92	341.46	127.41	40.79	354.26	118.78	39.77	325.69
Connecticut	137.14	50.99	362.74	139.69	52.79	367.24	116.20	40.09	315.47
Detroit	129.29	45.85	347.76	130.23	46.14	350.41	129.15	45.95	347.03
Georgia	123.49	43.33	333.40	124.52	41.55	341.76	123.31	47.72	321.24
Atlanta	132.37	47.03	355.84	137.74	47.41	374.25	131.63	48.52	349.27
Rural Georgia	127.99	49.55	333.41	132.79	50.15	349.19	116.82	49.59	292.88
Greater Georgia	118.88	40.96	322.95	119.34	38.94	329.89	117.66	46.82	303.16
Hawaii	130.23	49.85	340.72	140.07	52.39	369.65	125.75	57.22	305.21
Iowa	123.05	41.35	336.98	123.65	41.64	338.42	109.71	40.95	289.74
Kentucky	121.31	40.85	332.00	120.83	40.58	331.00	132.18	43.67	363.95
Louisiana	121.88	41.57	332.18	120.28	39.74	331.19	129.34	46.92	345.14
New Jersey	130.19	48.20	344.89	134.55	49.89	356.23	119.41	43.85	317.27
New Mexico	112.08	37.28	307.96	116.84	39.81	318.56	95.81	26.12	278.31
Seattle-Puget Sound	139.85	45.47	386.98	144.14	46.03	401.06	130.82	40.83	366.46
Utah	113.77	36.55	315.96	114.79	37.16	318.07	101.61	-	282.70
9 SEER Areas ^b	129.10	44.89	349.60	132.16	45.23	359.82	127.94	44.94	345.30
11 SEER Areas ^b	125.90	43.71	341.12	129.60	43.86	354.11	127.50	44.32	345.34
13 SEER Areas ^b	125.93	43.74	341.16	129.61	43.88	354.11	127.35	44.37	344.62
18 SEER Areas ^b	124.82	42.89	339.34	127.88	43.04	350.06	124.43	44.50	333.72

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

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

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

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

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

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

Table 4.21
Cancer of the Female Breast (Invasive)

Age-Adjusted SEER Death Rates^a
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^a, 2008-2012</u>									
California	21.24	4.37	65.41	22.14	4.33	68.78	31.40	8.10	92.41
Greater Bay Area	19.75	3.69	61.79	21.52	3.51	68.67	28.45	7.85	82.40
San Francisco-Oakland	19.91	3.75	62.24	21.24	3.27	68.29	29.18	8.06	84.46
San Jose-Monterey	19.42	3.58	60.91	22.02	3.93	69.39	22.26	-	63.43
Los Angeles	21.63	4.50	66.50	22.00	4.25	68.50	34.30	8.74	101.22
Greater California	21.58	4.54	66.19	22.36	4.59	68.89	29.80	7.62	87.87
Connecticut	20.31	4.11	62.72	20.15	3.87	62.78	23.05	6.59	66.16
Detroit	25.10	5.45	76.58	23.20	4.49	72.20	32.64	8.50	95.86
Georgia	22.87	5.10	69.40	20.82	3.87	65.20	29.15	7.87	84.89
Atlanta	23.88	5.24	72.67	20.62	3.51	65.45	31.22	7.88	92.35
Rural Georgia	29.14	-	85.75	26.70	-	80.27	33.57	-	97.19
Greater Georgia	22.31	4.98	67.70	20.84	3.99	64.96	27.73	7.83	79.84
Hawaii	15.06	4.66	42.28	18.19	5.87	50.43	-	-	-
Iowa	20.67	4.30	63.54	20.69	4.27	63.71	25.08	-	71.56
Kentucky	22.57	4.37	70.21	21.97	4.11	68.74	32.43	7.89	96.68
Louisiana	25.01	5.32	76.58	21.58	3.95	67.75	34.54	8.35	103.11
New Jersey	23.92	4.66	74.33	23.73	4.40	74.34	30.45	7.54	90.44
New Mexico	20.39	4.77	61.31	21.21	5.16	63.24	26.23	-	84.29
Seattle-Puget Sound	20.44	3.63	64.46	21.23	3.58	67.44	24.76	6.21	73.33
Utah	20.79	3.86	65.13	21.19	3.98	66.24	-	-	-
9 SEER Areas ^b	21.09	4.37	64.88	21.11	3.97	66.00	29.82	7.74	87.62
11 SEER Areas ^b	21.12	4.35	65.02	21.35	4.04	66.70	30.78	7.94	90.57
13 SEER Areas ^b	21.13	4.33	65.13	21.34	4.01	66.74	30.77	7.92	90.63
18 SEER Areas ^b	21.93	4.51	67.53	21.90	4.20	68.24	30.77	7.87	90.73
Total U.S.	21.90	4.63	67.11	21.33	4.22	66.16	30.17	7.99	88.23

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

^b The SEER 9 areas are San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah and Atlanta. The SEER 11 areas comprise the SEER 9 areas plus San Jose-Monterey and Los Angeles.

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

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

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

Table 4.22
Cancer of the Female Breast (*In Situ*)

Age-Adjusted SEER Incidence Rates^a
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^a, 2008-2012</u>									
California	29.06	10.77	76.93	28.70	10.37	76.69	28.60	8.49	81.27
Greater Bay Area	34.33	13.50	88.89	34.56	13.21	90.46	27.87	8.54	78.48
San Francisco-Oakland	35.78	13.99	92.82	36.06	13.98	93.88	29.56	9.23	82.80
San Jose-Monterey	31.60	12.60	81.32	32.00	11.90	84.63	16.00	-	46.12
Los Angeles	25.52	9.49	67.50	24.64	8.94	65.74	28.42	8.32	81.07
Greater California	28.87	10.44	77.12	28.69	10.21	77.09	29.07	8.63	82.59
Connecticut	46.33	20.39	114.25	47.26	21.46	114.83	40.69	13.58	111.69
Detroit	36.54	14.13	95.22	36.58	15.25	92.43	36.95	11.37	103.92
Georgia	30.25	11.34	79.76	31.00	11.77	81.38	29.75	10.85	79.23
Atlanta	36.24	13.59	95.53	40.27	15.61	104.85	32.82	11.95	87.48
Rural Georgia	23.23	-	70.52	23.55	-	73.73	21.34	-	63.43
Greater Georgia	27.45	10.10	72.88	27.66	10.25	73.27	27.66	9.95	74.02
Hawaii	35.63	14.50	90.94	32.68	14.10	81.33	-	-	-
Iowa	29.11	10.73	77.27	29.09	10.78	77.04	33.88	-	90.08
Kentucky	25.37	9.17	67.79	24.94	9.14	66.30	32.49	9.72	92.12
Louisiana	25.57	8.41	70.52	26.12	8.85	71.35	25.45	7.78	71.70
New Jersey	41.18	18.75	99.92	43.25	20.14	103.77	31.74	11.54	84.62
New Mexico	20.07	7.15	53.89	21.01	7.69	55.88	17.84	-	-
Seattle-Puget Sound	40.00	15.45	104.26	39.99	15.31	104.63	41.55	11.66	119.83
Utah	24.31	9.13	64.06	24.56	9.23	64.71	-	-	-
9 SEER Areas ^b	35.33	13.95	91.30	35.58	14.34	91.22	34.92	11.56	96.07
11 SEER Areas ^b	32.87	12.79	85.45	33.02	12.92	85.65	33.21	10.79	91.92
13 SEER Areas ^b	32.83	12.78	85.33	32.99	12.90	85.60	33.06	10.74	91.49
18 SEER Areas ^b	31.68	12.30	82.40	31.88	12.44	82.78	30.61	10.11	84.28

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

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

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

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

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

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

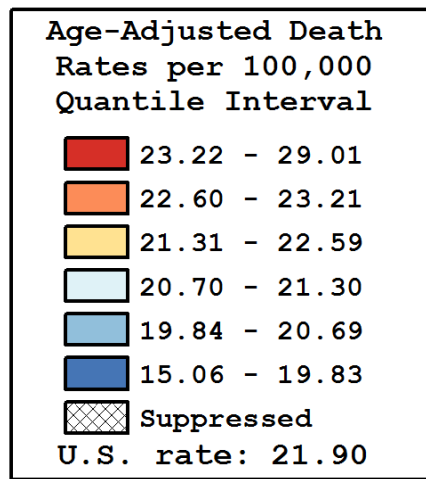
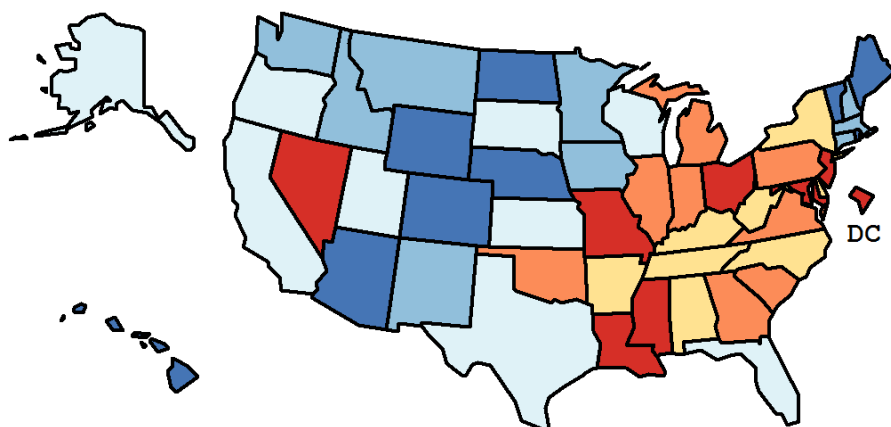
Table 4.23
Cancer of the Female Breast (Invasive)

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

Females

State	Rate	SE	Rank(CI) ^d	PD
TOTAL U.S.	21.90	0.05		
High Five States				
D.C.	29.01 ^b	1.34	01(01,02)	32.51 ^c
Louisiana	25.01 ^b	0.44	02(01,07)	14.24 ^c
Mississippi	24.45 ^b	0.54	03(02,15)	11.68 ^c
New Jersey	23.92 ^b	0.30	04(02,13)	9.23
Ohio	23.76 ^b	0.26	05(03,14)	8.50
Low Five States				
Colorado	19.67 ^b	0.39	47(32,50)	-10.15 ^c
Wyoming	19.47	1.12	48(11,50)	-11.10 ^c
Maine	19.40 ^b	0.66	49(26,50)	-11.40 ^c
Vermont	18.68	0.97	50(25,50)	-14.68 ^c
Hawaii	15.06 ^b	0.62	51(51,51)	-31.24 ^c

State	Rate	SE	Rank(CI) ^d	PD	State	Rate	SE	Rank(CI) ^d	PD
Alabama	22.59	0.40	17(05,27)	3.17	Montana	20.30	0.82	39(15,50)	-7.29
Alaska	20.98	1.30	28(02,50)	-4.16	Nebraska	19.77	0.61	45(24,50)	-9.70
Arizona	19.68 ^b	0.33	46(32,50)	-10.14 ^c	Nevada	23.27	0.58	08(02,25)	6.26
Arkansas	22.28	0.50	21(05,34)	1.77	New Hampshire	20.36	0.71	37(18,50)	-7.03
California	21.24 ^b	0.15	26(23,35)	-3.02	New Jersey	23.92 ^b	0.30	04(02,13)	9.23
Colorado	19.67 ^b	0.39	47(32,50)	-10.15 ^c	New Mexico	20.39	0.59	36(21,50)	-6.86
Connecticut	20.31 ^b	0.42	38(24,49)	-7.26	New York	21.52	0.19	24(21,33)	-1.72
Delaware	22.10	0.89	23(02,47)	0.95	North Carolina	22.19	0.28	22(11,27)	1.36
D.C.	29.01 ^b	1.34	01(01,02)	32.51 ^c	North Dakota	19.83	0.98	43(13,50)	-9.44
Florida	20.95 ^b	0.18	30(24,39)	-4.31	Ohio	23.76 ^b	0.26	05(03,14)	8.50
Georgia	22.87	0.30	14(05,23)	4.45	Oklahoma	23.21	0.46	09(02,24)	6.00
Hawaii	15.06 ^b	0.62	51(51,51)	-31.24 ^c	Oregon	20.87	0.43	31(21,46)	-4.67
Idaho	20.69	0.71	34(15,50)	-5.52	Pennsylvania	23.21 ^b	0.24	10(04,19)	5.99
Illinois	23.05 ^b	0.25	13(05,22)	5.25	Rhode Island	19.80	0.77	44(21,50)	-9.59
Indiana	22.74	0.35	16(05,25)	3.85	South Carolina	23.20	0.41	11(03,23)	5.97
Iowa	20.67	0.47	35(22,48)	-5.60	South Dakota	20.73	0.92	33(07,50)	-5.34
Kansas	21.30	0.51	25(15,44)	-2.74	Tennessee	22.57	0.34	19(06,26)	3.06
Kentucky	22.57	0.42	18(05,28)	3.06	Texas	21.04 ^b	0.18	27(24,38)	-3.89
Louisiana	25.01 ^b	0.44	02(01,07)	14.24 ^c	Utah	20.79	0.61	32(17,49)	-5.03
Maine	19.40 ^b	0.66	49(26,50)	-11.40 ^c	Vermont	18.68	0.97	50(25,50)	-14.68 ^c
Maryland	23.71 ^b	0.38	06(02,19)	8.29	Virginia	22.78	0.32	15(05,24)	4.05
Massachusetts	20.26 ^b	0.31	41(27,48)	-7.46	Washington	20.27 ^b	0.33	40(27,48)	-7.42
Michigan	23.10 ^b	0.28	12(04,22)	5.52	West Virginia	22.55	0.61	20(03,34)	2.98
Minnesota	20.05 ^b	0.36	42(28,49)	-8.45	Wisconsin	20.98	0.35	29(21,44)	-4.17
Mississippi	24.45 ^b	0.54	03(02,15)	11.68 ^c	Wyoming	19.47	1.12	48(11,50)	-11.10 ^c
Missouri	23.40 ^b	0.36	07(03,21)	6.87					



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

^b Difference between state rate and total U.S. rate is statistically significant ($p < .0002$).

^c Absolute percent difference between state rate and total U.S. rate is 10% or more.

^d Rank of state level death rate and the 95% confidence intervals (low, high) for the rank.

SE Standard error of the rate.

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

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

Table 4.24
Cancer of the Breast (Invasive)

Estimated United States Cancer Prevalence Counts^a on January 1, 2012
By Race/Ethnicity, Sex and Years Since Diagnosis

Years Since Diagnosis		0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	25 to <30	0 to <20 ^e	0 to <37 ^e	>=37 ^g	Complete ^h
<u>Race</u>	<u>Sex</u>										
All Races ^b	Both Sexes	878,837	683,310	557,489	364,603	237,790	129,315	2,592,173	2,943,928	46,885	2,990,813
	Males	6,296	3,718	2,470	1,306	799	439	14,190	15,382	117	15,499
	Females	872,541	679,592	555,019	363,297	236,991	128,876	2,577,983	2,928,546	46,768	2,975,314
White ^b	Both Sexes	737,273	592,066	492,299	324,516	214,831	116,791	2,242,861	2,561,799	41,301	2,603,100
	Males	5,175	3,215	2,089	1,155	689	394	11,988	13,049	0 ⁱ	13,049
	Females	732,098	588,851	490,210	323,361	214,142	116,397	2,230,873	2,548,750	41,301	2,590,051
Black ^b	Both Sexes	93,078	60,161	42,176	27,086	15,700	8,741	230,141	252,947	+	+
	Males	915	388	281	97	110	36	1,729	1,851	+	+
	Females	92,163	59,773	41,895	26,989	15,590	8,705	228,412	251,096	3,636	254,732
Asian/ Pacific Islander ^c	Both Sexes	35,590	24,237	17,511	+	+	+	87,126	+	+	+
	Males	145	98	39	+	+	+	322	+	+	+
	Females	35,445	24,139	17,472	+	+	+	86,804	+	+	+
Hispanic ^d	Both Sexes	61,983	42,773	29,054	+	+	+	151,046	+	+	+
	Males	296	179	78	+	+	+	580	+	+	+
	Females	61,687	42,594	28,976	+	+	+	150,466	+	+	+

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

Age at Prevalence		Age Specific (Crude)									Age-Adjusted ^f	
		All Ages	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	All Ages
<u>Race</u>	<u>Sex</u>											
All Races ^c	Both Sexes	0.7268%	-	0.0001%	0.0067%	0.0852%	0.4759%	1.2094%	2.2244%	3.0789%	3.5556%	0.6832%
	Males	0.0080%	-	-	-	0.0006%	0.0030%	0.0084%	0.0266%	0.0478%	0.0683%	0.0086%
	Females	1.4276%	-	0.0003%	0.0136%	0.1702%	0.9449%	2.3596%	4.2110%	5.5356%	5.6177%	1.2548%
White ^c	Both Sexes	0.7971%	-	0.0001%	0.0065%	0.0835%	0.4748%	1.2416%	2.3391%	3.2974%	3.7883%	0.7149%
	Males	0.0086%	-	-	-	0.0005%	0.0025%	0.0077%	0.0277%	0.0508%	0.0733%	0.0088%
	Females	1.5829%	-	0.0003%	0.0133%	0.1709%	0.9628%	2.4625%	4.4982%	5.9954%	6.0098%	1.3295%
Black ^c	Both Sexes	0.5266%	-	-	0.0076%	0.0988%	0.4898%	1.1052%	1.9877%	2.6319%	3.0335%	0.6170%
	Males	0.0078%	-	-	-	-	0.0055%	0.0161%	0.0341%	0.0493%	0.0720%	0.0106%
	Females	0.9991%	-	-	0.0148%	0.1844%	0.9169%	2.0545%	3.5208%	4.4394%	4.4716%	1.0684%
Asian/ Pacific Islander ^c	Both Sexes	0.5562%	-	-	0.0067%	0.0828%	0.4764%	1.1203%	1.7076%	2.1247%	2.2900%	0.5370%
	Males	0.0044%	-	-	-	-	0.0025%	0.0058%	0.0129%	0.0275%	0.0329%	0.0049%
	Females	1.0616%	-	-	0.0132%	0.1563%	0.8958%	2.0786%	3.1083%	3.7465%	3.6687%	0.9632%
Hispanic ^d	Both Sexes	0.2989%	-	-	0.0045%	0.0623%	0.3287%	0.8821%	1.5670%	2.0875%	2.3259%	0.4763%
	Males	0.0022%	-	-	-	-	0.0017%	0.0043%	0.0153%	0.0247%	0.0327%	0.0045%
	Females	0.6026%	-	-	0.0093%	0.1286%	0.6700%	1.7232%	2.8993%	3.6157%	3.6983%	0.8667%

^a US 2012 cancer prevalence counts are based on 2012 cancer prevalence proportions from the SEER registries and 1/1/2012 US population estimates based on the average of 2011 and 2012 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.

^{b c d} Statistics based on (b) SEER 9 Areas (c) SEER 11 Areas and Rural Georgia (d) NHIA for Hispanic for SEER 11 Areas and Rural Georgia.

^e Maximum limited-duration prevalence: 37 years for 1975-2012 SEER 9 data; 20 years for 1992-2012 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).

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

^{g h i} (g) Cases diagnosed more than 37 years ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000). (h) Complete prevalence is obtained by summing 0 to <37 and >=37. (i) Age-specific completeness index was approximated using empirical data from historical Connecticut tumor registry.

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

+ Not available.

Table 4.25

Cancer of the Female Breast (Invasive)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2008-2012
Females by Race

Histology ^a	All Races		White		Black		Asian/Pacific Islander		American Indian/ Alaska Native ^b		Hispanic ^c	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Carcinoma	293,300	99.4%	234,974	99.5%	31,773	99.3%	22,742	99.2%	1,207	99.3%	29,953	99.3%
Epidermoid carcinoma ^d (8051-8131)	145	0.0%	117	0.0%	21	0.1%	-	-	-	-	-	-
Adenocarcinoma ^e	287,384	97.4%	230,473	97.6%	30,801	96.3%	22,407	97.7%	1,181	97.1%	29,328	97.2%
Adenocarcinoma, NOS (8140)	2,176	0.7%	1,709	0.7%	296	0.9%	130	0.6%	-	-	229	0.8%
Infiltrating duct carcinoma (8500)	216,104	73.2%	171,202	72.5%	24,088	75.3%	17,955	78.3%	932	76.6%	22,451	74.4%
Lobular carcinoma, NOS (8520)	26,726	9.1%	22,815	9.7%	2,319	7.2%	1,289	5.6%	90	7.4%	2,264	7.5%
Inflammatory adenocarcinoma (8530)	1,003	0.3%	780	0.3%	159	0.5%	52	0.2%	-	-	140	0.5%
Infiltrating duct mixed and infiltrating lobular mixed (8522-8524)	27,371	9.3%	22,952	9.7%	2,372	7.4%	1,762	7.7%	84	6.9%	2,892	9.6%
Mucinous adenocarcinoma (8480,8482)	5,737	1.9%	4,469	1.9%	624	2.0%	563	2.5%	24	2.0%	532	1.8%
Mucin-producing adenocarcinoma (8481)	68	0.0%	48	0.0%	-	-	-	-	-	-	-	-
Tubular adenocarcinoma (8211)	1,850	0.6%	1,636	0.7%	110	0.3%	92	0.4%	-	-	143	0.5%
Papillary adenocarcinoma (8050,8260,8503,8504)	1,754	0.6%	1,252	0.5%	288	0.9%	190	0.8%	-	-	187	0.6%
Paget disease (8540-8543)	1,259	0.4%	998	0.4%	132	0.4%	107	0.5%	-	-	146	0.5%
Other adenocarcinomas ^f	3,336	1.1%	2,612	1.1%	399	1.2%	262	1.1%	-	-	339	1.1%
Other specific carcinomas ^g	2,415	0.8%	1,797	0.8%	455	1.4%	136	0.6%	-	-	288	1.0%
Medullary adenocarcinoma (8510-8513)	815	0.3%	549	0.2%	212	0.7%	46	0.2%	-	-	136	0.5%
Other ^h	1,600	0.5%	1,248	0.5%	243	0.8%	90	0.4%	-	-	152	0.5%
Unspecified, Carcinoma, NOS (8010-8011,8020-8022)	3,356	1.1%	2,587	1.1%	496	1.6%	193	0.8%	-	-	324	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.

^a Excludes Kaposi Sarcoma, mesothelioma, lymphomas, leukemias, myelomas, lymphoreticular, and immunoproliferative diseases.

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

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

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

^e Epidermoid carcinoma includes squamous, basal, and transitional cell carcinomas.

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

^f 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.

^g Other specific carcinomas include histologies 8012-8015, 8030-8046, 8150-8155, 8170-8175, 8230-8249, 8508, 8510-8513, 8561-8562, 8575, 8580-8671.

^h 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 4.25 - continued

Cancer of the Female Breast (Invasive)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2008-2012
Females by Race

Histology ^a	All Races		White		Black		Asian/Pacific Islander		American Indian/ Alaska Native ^b		Hispanic ^c	
	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)	325	0.1%	243	0.1%	46	0.1%	31	0.1%	-	-	25	0.1%
Hemangiosarcomas (9120-9126,9170)	157	0.1%	133	0.1%	-	-	-	-	-	-	-	-
Other sarcomas ^d	168	0.1%	110	0.0%	37	0.1%	18	0.1%	-	-	19	0.1%
Other specific types (8720-8790,8930-8936, 8950-9030,9060-9110, 9260-9365,9380-9539)	741	0.3%	532	0.2%	89	0.3%	109	0.5%	-	-	122	0.4%
Phyllodes tumor, malignant (9020)	622	0.2%	442	0.2%	69	0.2%	101	0.4%	-	-	106	0.4%
Other ^e	119	0.0%	90	0.0%	20	0.1%	-	-	-	-	16	0.1%
Unspecified (8000-8005)	657	0.2%	495	0.2%	90	0.3%	41	0.2%	-	-	70	0.2%
Total ^f	295,023	100.0%	236,244	100.0%	31,998	100.0%	22,923	100.0%	1,216	100.0%	30,170	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.

^a Excludes Kaposi Sarcoma, mesothelioma, lymphomas, leukemias, myelomas, lymphoreticular, and immunoproliferative diseases.

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

^c 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.

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

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

^f Total includes carcinoma cases from the previous page.

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

Table 4.26

Cancer of the Female Breast(In Situ)

Percent Distribution and Counts by Histology among Histologically Confirmed Cases, 2008-2012
Females by Race

Histology ^a	All Races		White		Black		Asian/Pacific Islander		American Indian/ Alaska Native ^b		Hispanic ^c	
	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent	Count	Percent
Adenocarcinoma ^d	75,183	99.8%	58,643	99.8%	8,059	99.8%	7,338	100.0%	246	100.0%	7,005	99.8%
Adenocarcinoma <i>in situ</i> , NOS (8140/2)	-	-	-	-	-	-	-	-	-	-	-	-
Ductal carcinoma <i>in situ</i> ^e	63,846	84.8%	49,203	83.7%	7,070	87.5%	6,658	90.7%	215	87.4%	6,014	85.7%
Cribriform carcinoma <i>in situ</i> (8201/2)	6,409	8.5%	4,826	8.2%	748	9.3%	735	10.0%	21	8.5%	615	8.8%
Ductal carcinoma <i>in situ</i> , solid type(8230/2)	5,073	6.7%	4,042	6.9%	477	5.9%	479	6.5%	18	7.3%	419	6.0%
Ductal carcinoma <i>in situ</i> , NOS (8500/2)	22,740	30.2%	17,793	30.3%	2,508	31.0%	2,074	28.3%	78	31.7%	2,106	30.0%
Comedocarcinoma <i>in situ</i> (8501/2)	6,030	8.0%	4,689	8.0%	614	7.6%	641	8.7%	34	13.8%	562	8.0%
Ductal carcinoma <i>in situ</i> papillary(8503/2)	1,156	1.5%	790	1.3%	202	2.5%	142	1.9%	-	-	114	1.6%
Noninfiltrating intracystic carcinoma(8504/2)	264	0.4%	171	0.3%	38	0.5%	52	0.7%	-	-	27	0.4%
Ductal carcinoma <i>in situ</i> micropapillary(8507/2)	1,352	1.8%	1,064	1.8%	168	2.1%	105	1.4%	-	-	130	1.9%
Intraductal with other types of carcinoma <i>in situ</i> (8523/2)	20,649	27.4%	15,703	26.7%	2,305	28.5%	2,395	32.6%	58	23.6%	2,028	28.9%
Lobular carcinoma <i>in situ</i> (8520/2-8521/2, 8524/2)	8,560	11.4%	7,239	12.3%	686	8.5%	441	6.0%	26	10.6%	755	10.8%
Lobular carcinoma <i>in situ</i> , NOS (8520/2)	8,538	11.3%	7,220	12.3%	683	8.5%	441	6.0%	26	10.6%	754	10.7%
Lobular CIS ^f with other CIS ^f (8524/2)	22	0.0%	19	0.0%	-	-	-	-	-	-	-	-
Intraductal and lobular <i>in situ</i> carcinoma (8522/2)	2,261	3.0%	1,819	3.1%	239	3.0%	175	2.4%	-	-	188	2.7%
Other adenocarcinomas ^g	510	0.7%	378	0.6%	64	0.8%	62	0.8%	-	-	48	0.7%
Other <i>in situ</i> histologies ^h	137	0.2%	108	0.2%	20	0.2%	-	-	-	-	-	-
Total	75,320	100.0%	58,751	100.0%	8,079	100.0%	7,341	100.0%	246	100.0%	7,018	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.

^a Excludes Kaposi Sarcoma, mesothelioma, lymphomas, leukemias, myelomas, lymphoreticular, and immunoproliferative diseases.

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

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

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

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

^f Ductal carcinoma includes histologies 8201, 8230, 8401, 8500-8507, 8523.

^g CIS = Carcinoma *in situ*.

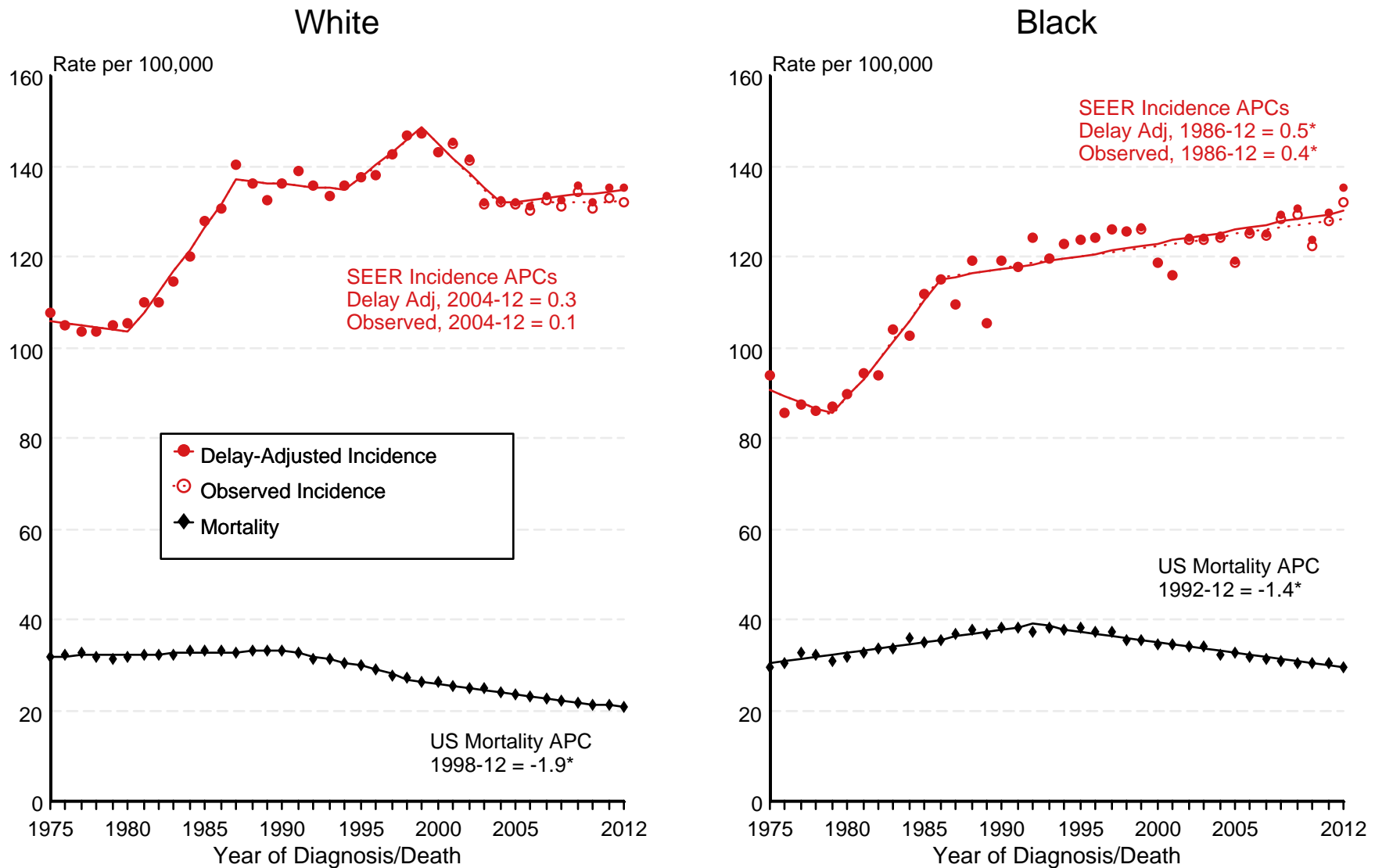
^h Other adenocarcinomas include 8050, 8141-8147, 8160-8162, 8180-8200, 8202-8221, 8250-8400, 8402-8499, 8514, 8525-8551, 8560, 8570-8574, 8576, 8940-8941.

ⁱ 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^a Cancer of the Female Breast, by Race



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

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

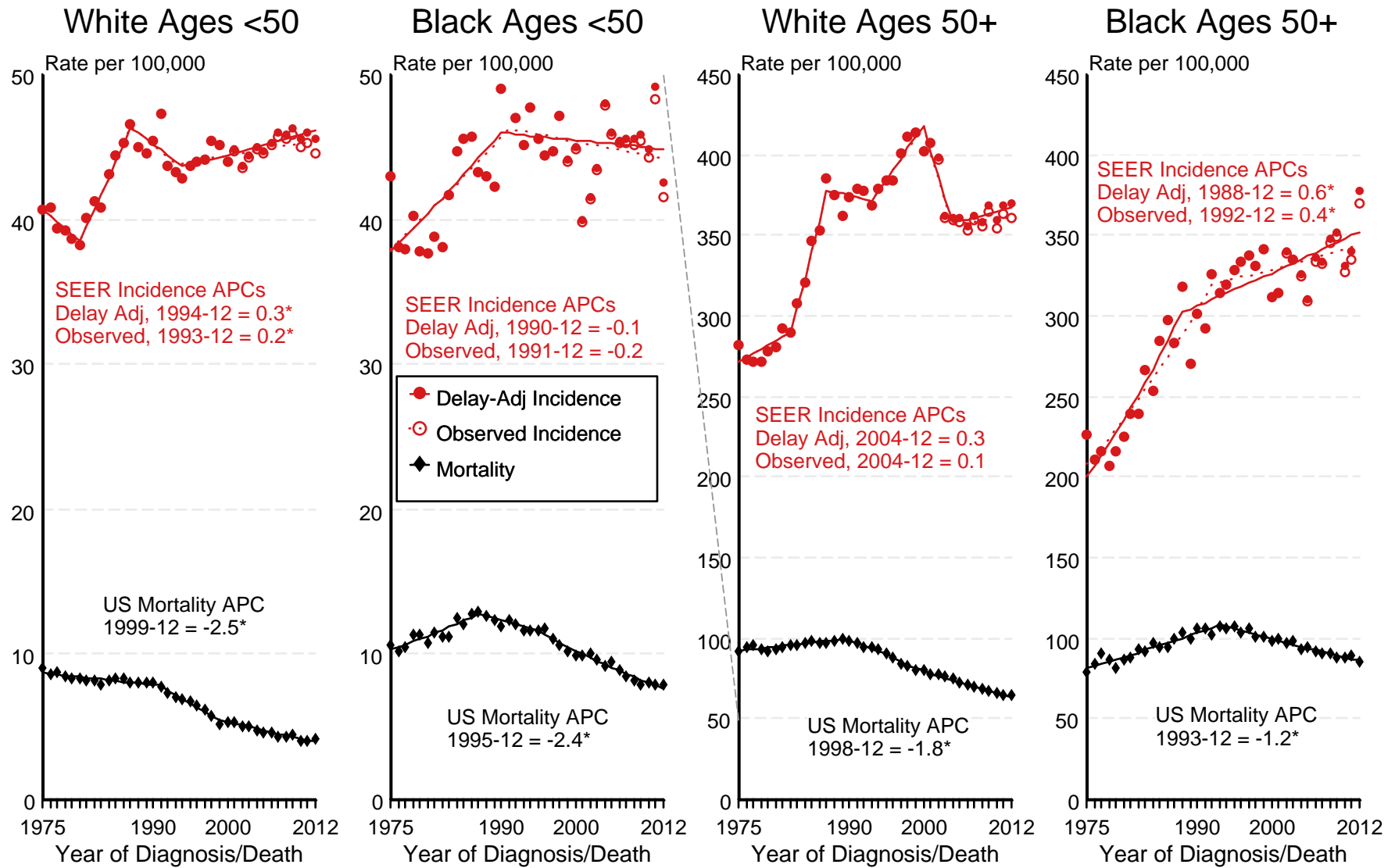
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.2.0, April 2015, National Cancer Institute.

The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

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

Figure 4.2

SEER Observed Incidence, SEER Delay Adjusted Incidence and US Death Rates^a Cancer of the Female Breast, by Age and Race



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

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

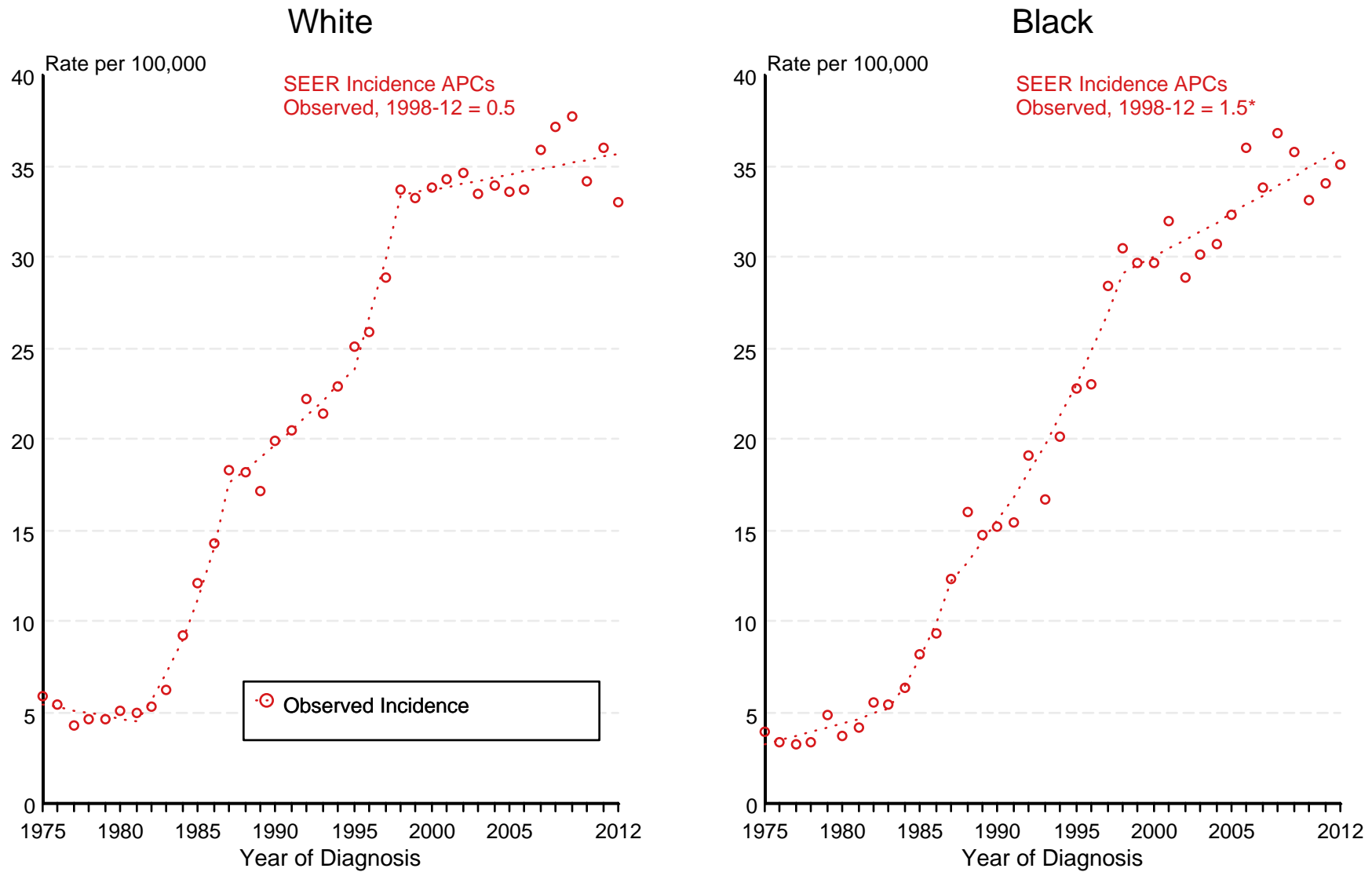
Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.2.0, April 2015, National Cancer Institute.

The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

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

Figure 4.3

SEER Observed Incidence Rates^a Cancer of the Female Breast (*In Situ*), by Race



Source: SEER 9 areas.

^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.1.0, 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.

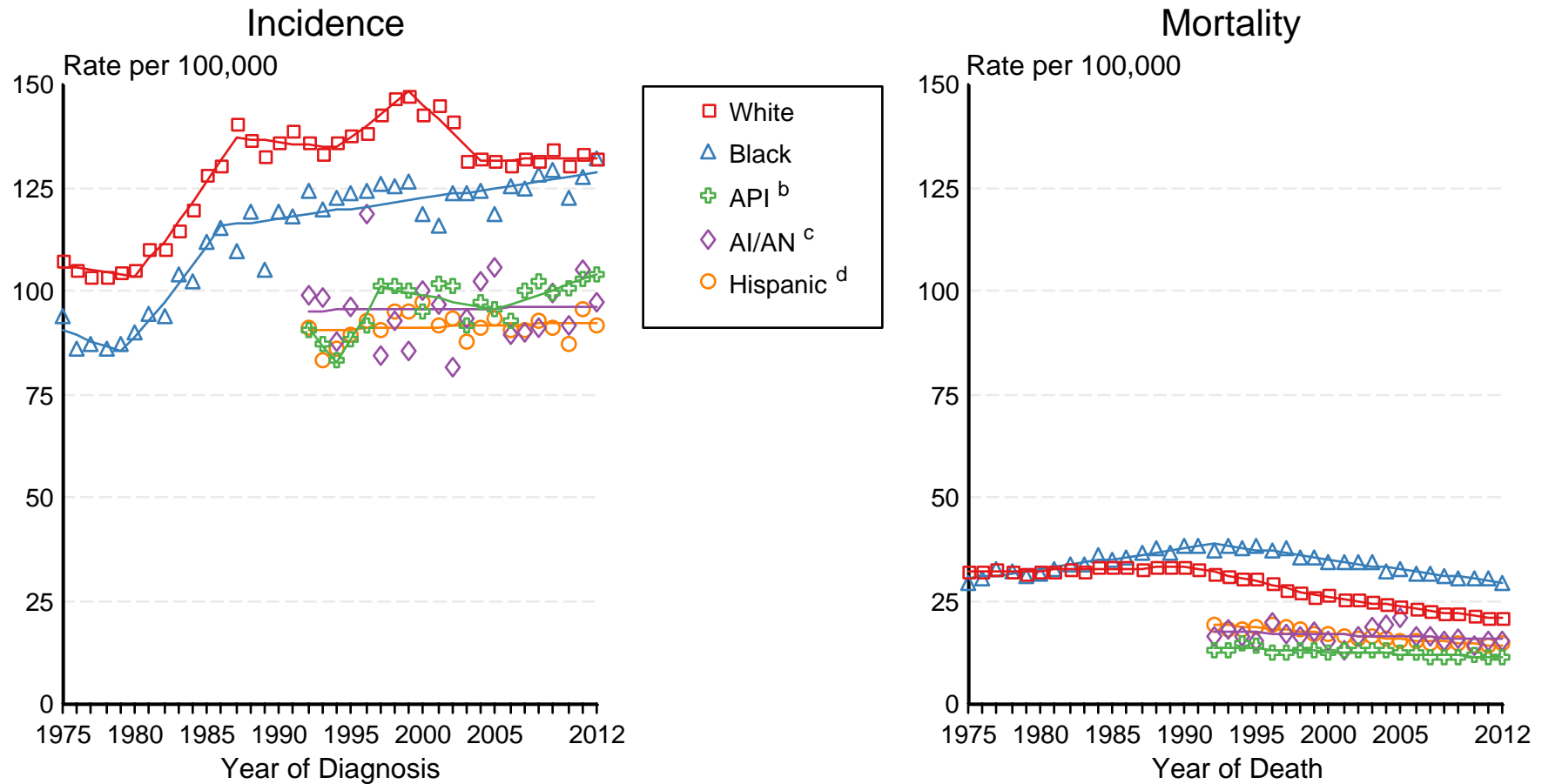
* The APC is significantly different from zero ($p < 0.05$).

Figure 4.4

SEER Incidence and US Death Rates^a Cancer of the Female Breast

Joinpoint Analyses for Whites and Blacks from 1975-2012

and for Asian/Pacific Islanders, American Indians/Alaska Natives and Hispanics from 1992-2012



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

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

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

^b API = Asian/Pacific Islander.

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

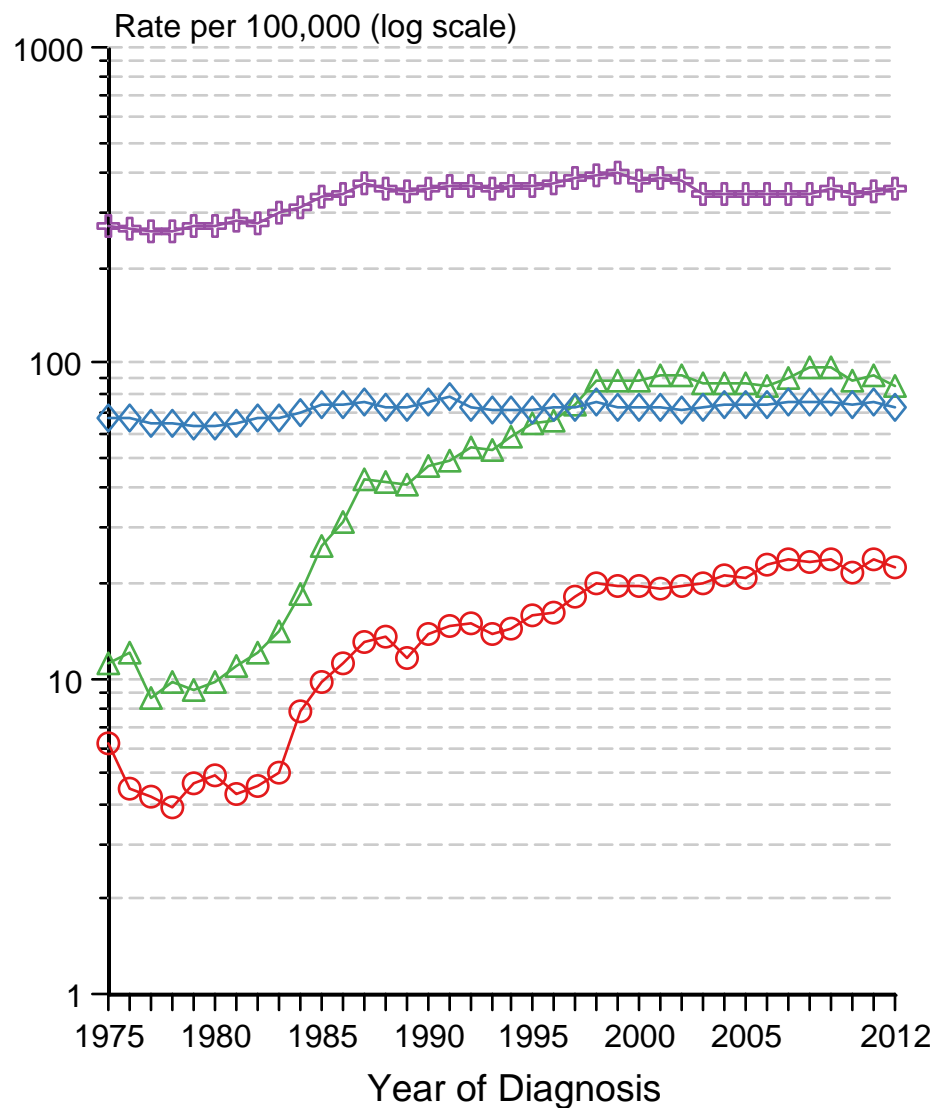
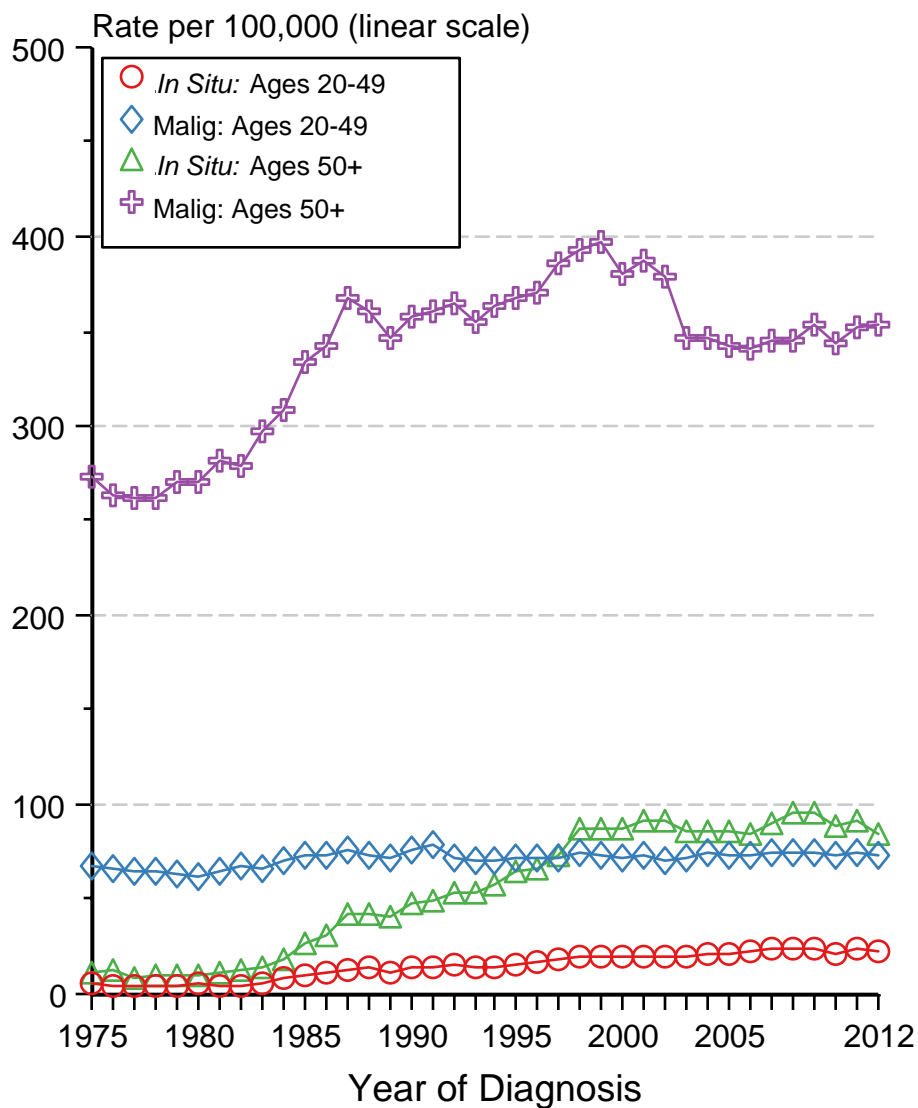
^d Hispanic is not mutually exclusive from whites, blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics are based on NHIA and exclude cases from the Alaska Native Registry. Mortality data for Hispanics exclude cases from New Hampshire and Oklahoma.

Figure 4.5

Cancer of Female Breast, Incidence Rates, 1975-2012

In Situ vs Malignant, by Age

All Races, Females



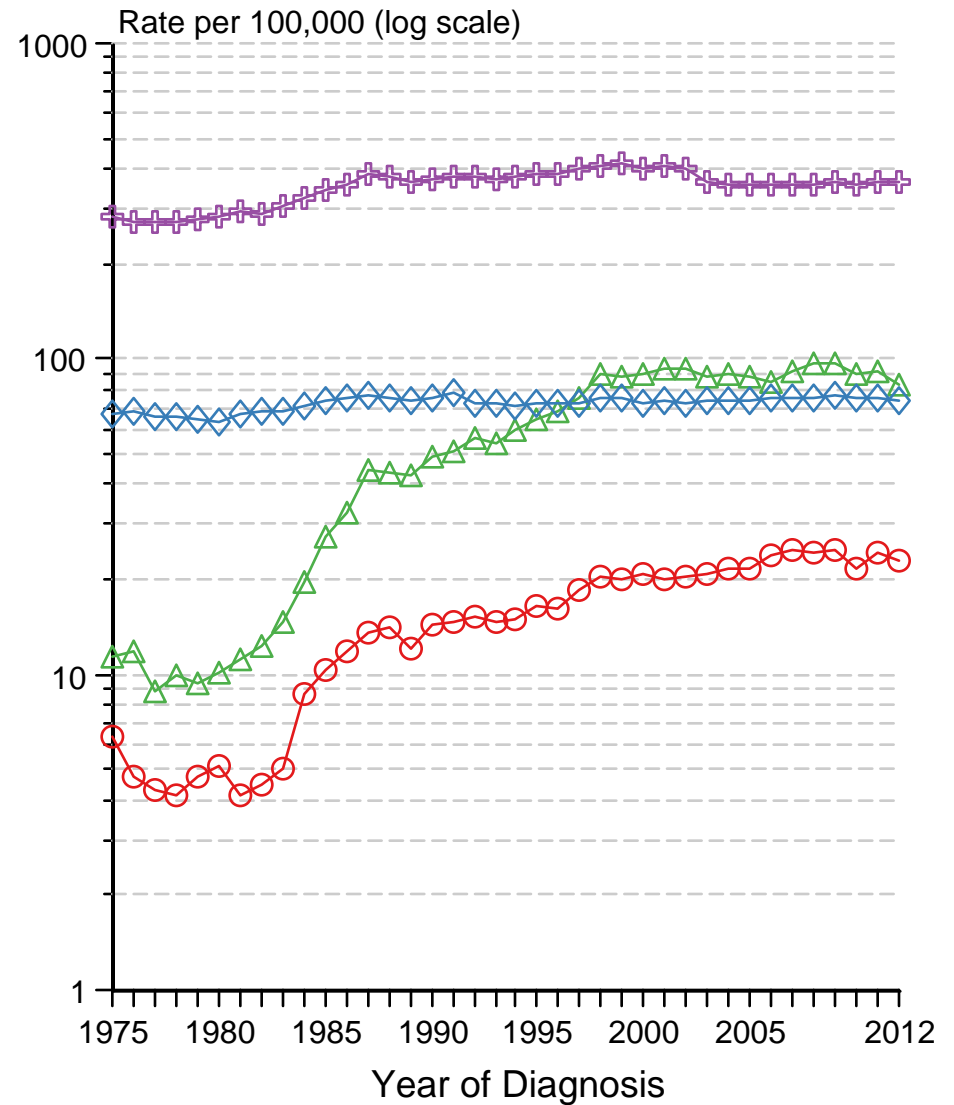
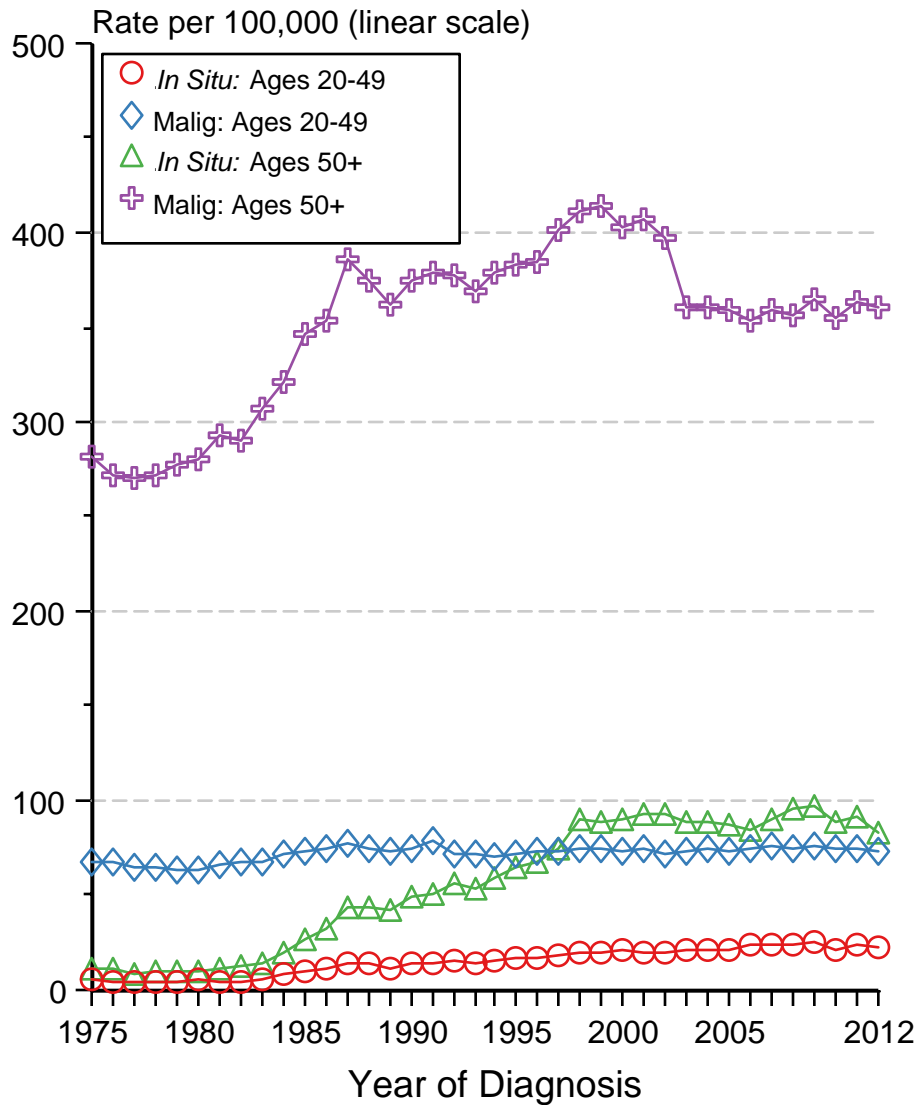
Source: SEER 9 areas. Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Figure 4.6

Cancer of Female Breast, Incidence Rates, 1975-2012

In Situ vs Malignant, by Age

White, Females



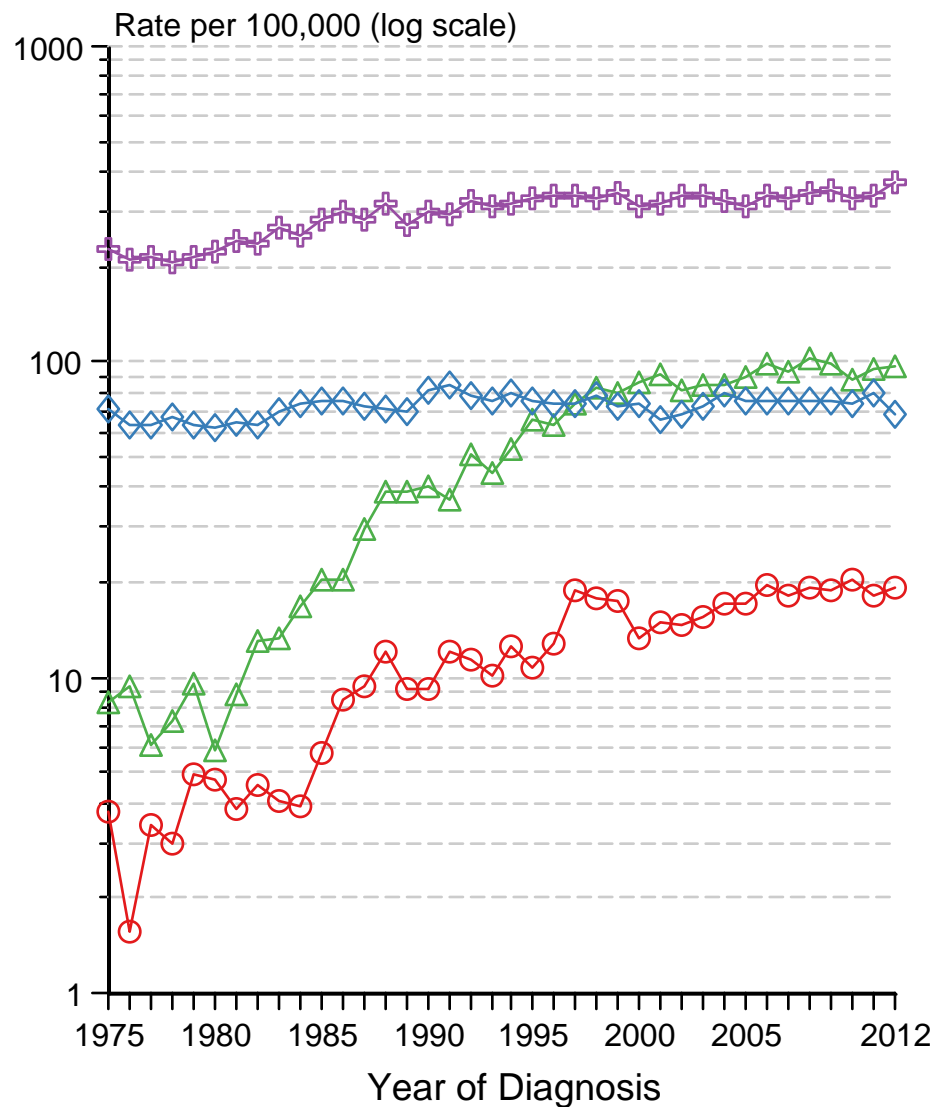
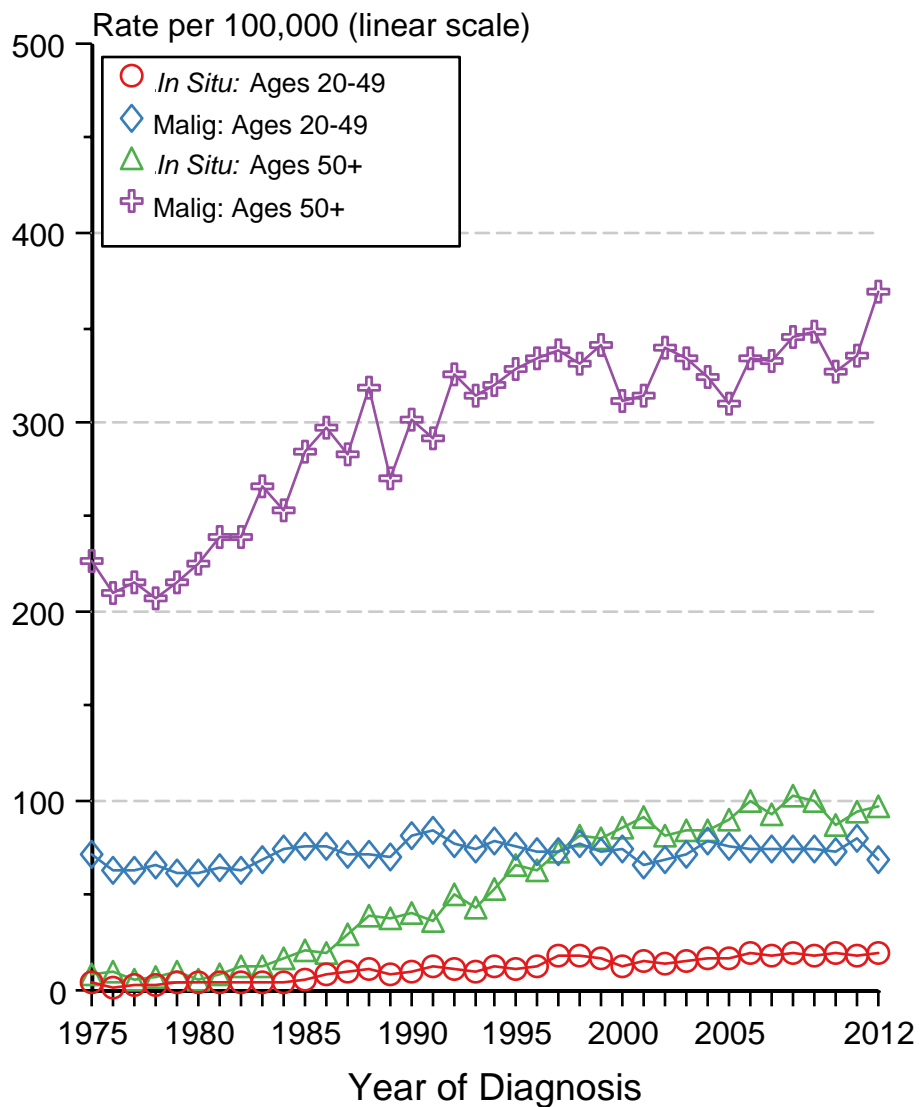
Source: SEER 9 areas. Rates are per 100,000 and age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).

Figure 4.7

Cancer of Female Breast, Incidence Rates, 1975-2012

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).

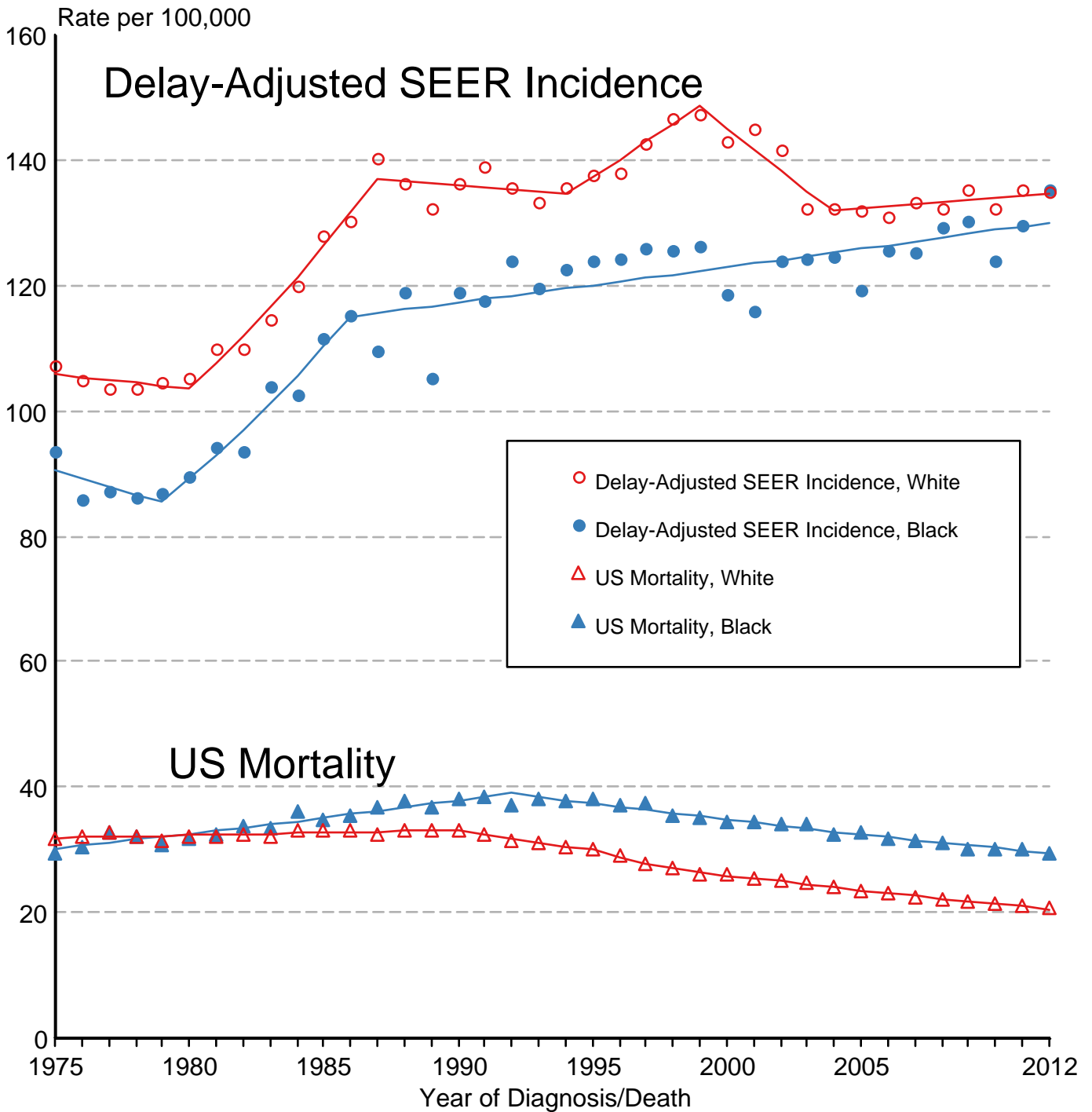
Figure 4.8

Cancer of the Breast

Delay-Adjusted SEER Incidence & US Mortality

White Females vs Black Females

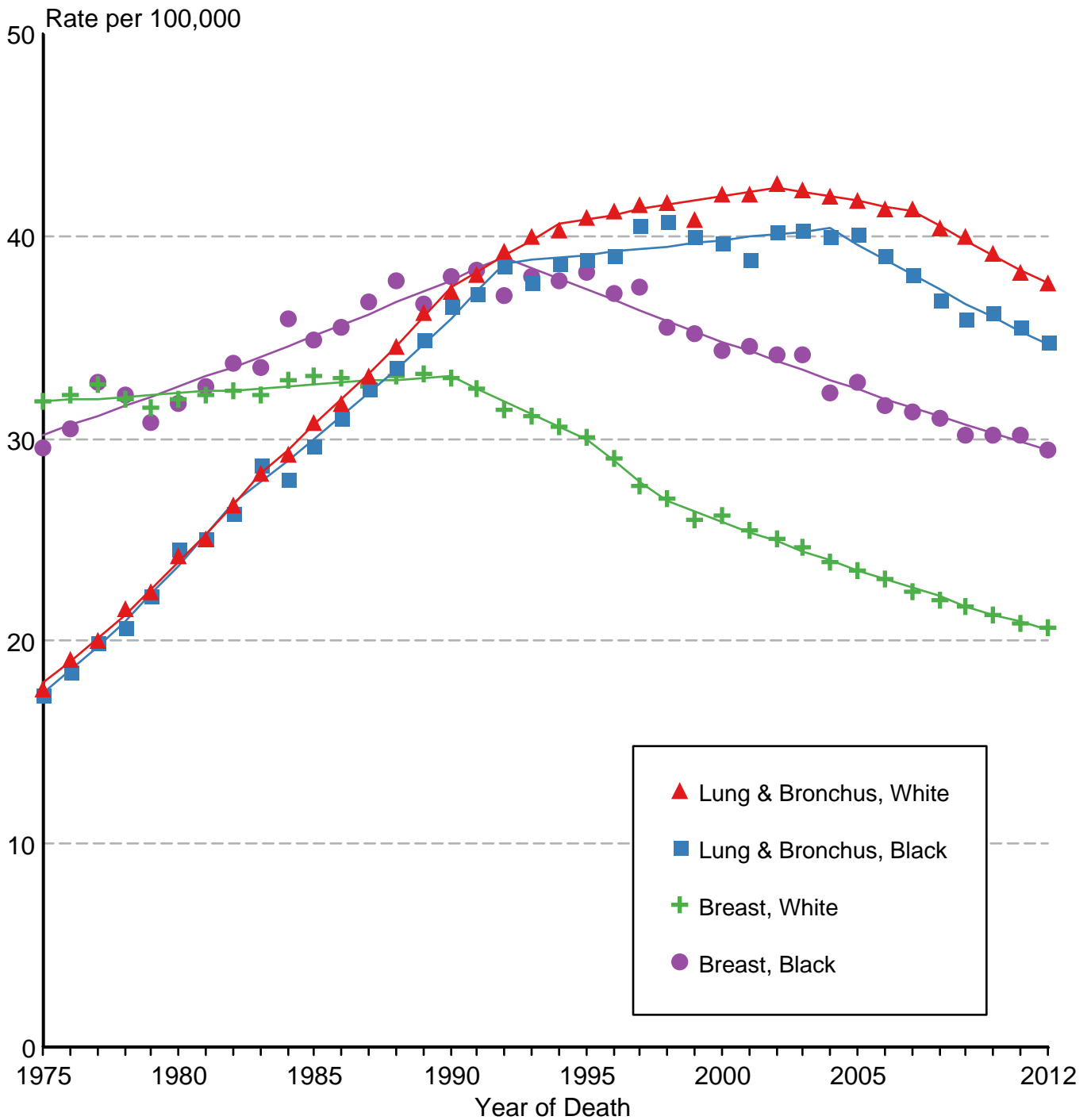
1975-2012



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 4.2.0, April 2015, National Cancer Institute.

Figure 4.9

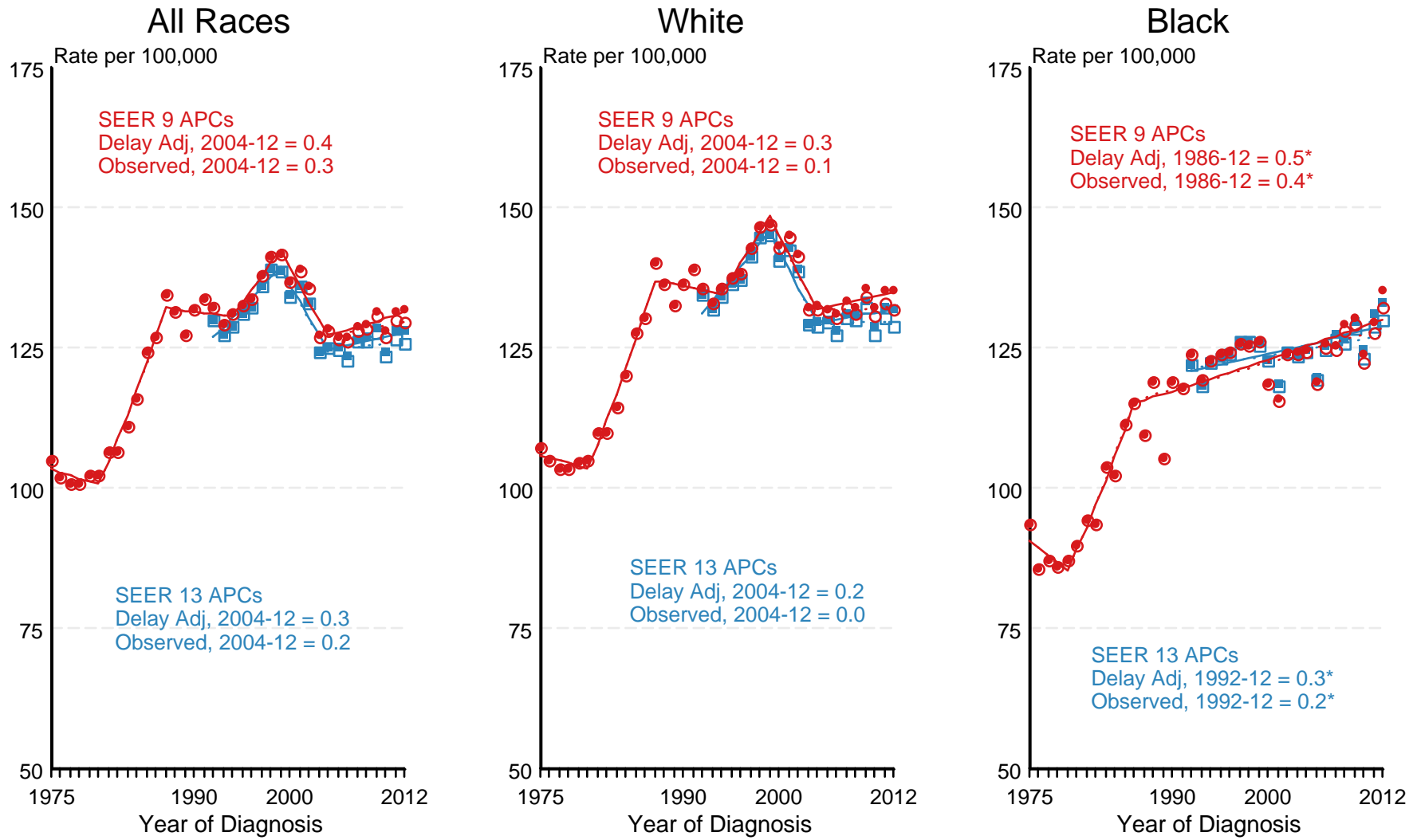
US Death Rates for Cancer of the Breast and Cancer of the Lung and Bronchus White Females vs Black Females 1975-2012



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 4.2.0, April 2015,
National Cancer Institute.

Figure 4.10

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

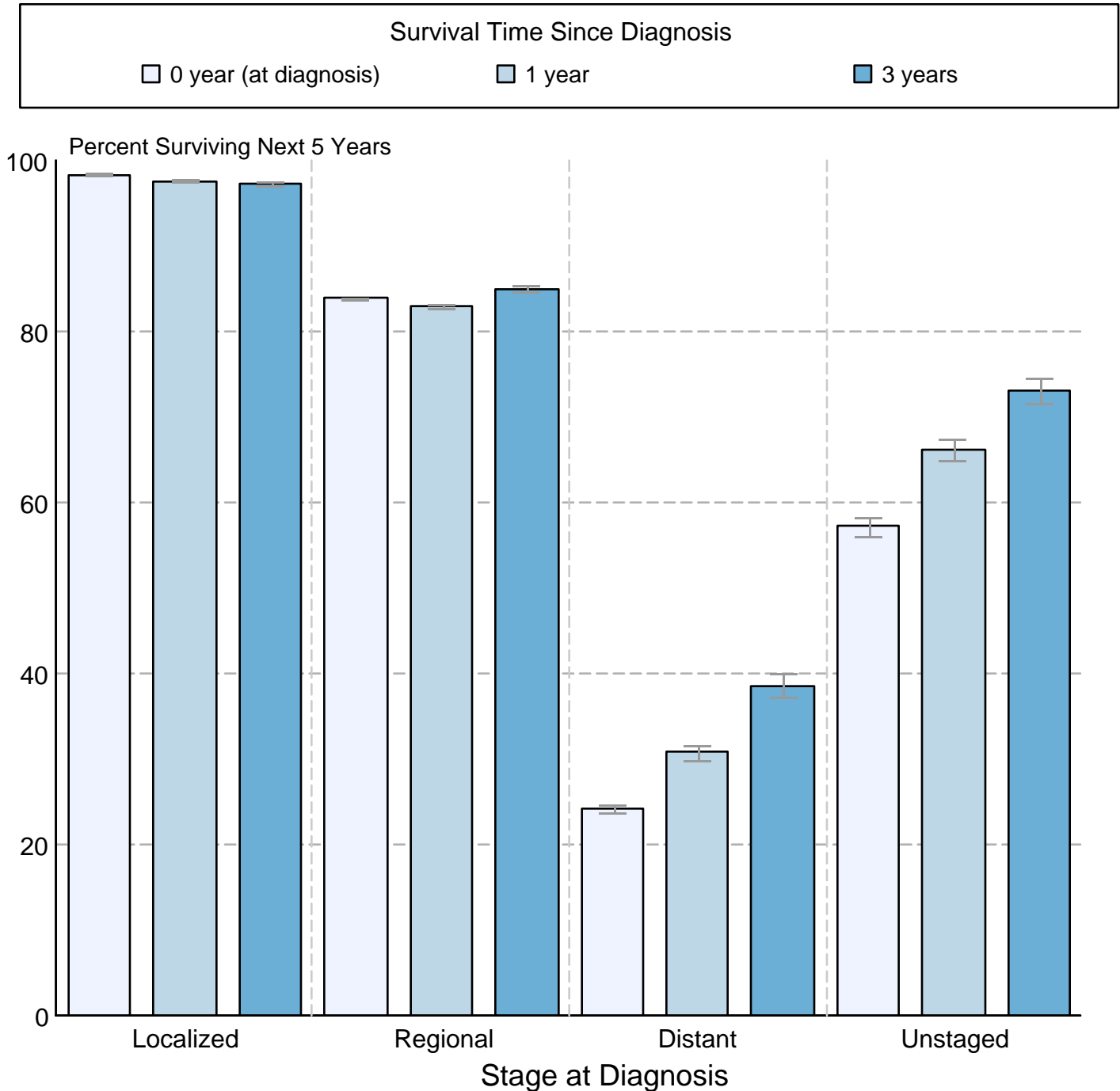


● SEER 9 Delay-Adj. Incidence
 ○ SEER 9 Observed Incidence
 ■ SEER 13 Delay-Adj. Incidence
 □ SEER 13 Observed Incidence

Source: SEER 9 areas and SEER 13 areas.
^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103).
 Regression lines and APCs are calculated using the Joinpoint Regression Program Version 4.2.0, April 2015, National Cancer Institute.
 The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.
 * The APC is significantly different from zero (p < 0.05).

Figure 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 1998-2011 by stage at diagnosis



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