

Table IV-1  
FEMALE BREAST CANCER (Invasive)

TRENDS IN SEER INCIDENCE<sup>a</sup> AND U.S. MORTALITY<sup>b</sup> USING THE JOINTPOINT REGRESSION PROGRAM, 1975-2002  
WITH UP TO THREE JOINTPOINTS BY RACE AND AGE

		<u>Jointpoint Segment 1</u>		<u>Jointpoint Segment 2</u>		<u>Jointpoint Segment 3</u>		<u>Jointpoint Segment 4</u>	
		<u>Year</u>	<u>APC</u>	<u>Year</u>	<u>APC</u>	<u>Year</u>	<u>APC</u>	<u>Year</u>	<u>APC</u>
<u>SEER Cancer Incidence<sup>a</sup></u>									
All Races	All Ages	1975-1980	-0.5	1980-1987	3.8 <sup>c</sup>	1987-2002	0.3 <sup>c</sup>		
All Races	Under 50	1975-1980	-1.4	1980-1986	3.0 <sup>c</sup>	1986-2002	-0.3 <sup>c</sup>		
All Races	50 and Over	1975-1980	-0.2	1980-1987	4.2 <sup>c</sup>	1987-2002	0.5 <sup>c</sup>		
White	All Ages	1975-1980	-0.4	1980-1987	3.8 <sup>c</sup>	1987-2002	0.4 <sup>c</sup>		
White	Under 50	1975-1980	-1.2	1980-1986	2.9 <sup>c</sup>	1986-2002	-0.3 <sup>c</sup>		
White	50 and Over	1975-1980	-0.1	1980-1987	4.3 <sup>c</sup>	1987-2002	0.6 <sup>c</sup>		
Black	All Ages	1975-1992	2.3 <sup>c</sup>	1992-2002	-0.4				
Black	Under 50	1975-1991	1.6 <sup>c</sup>	1991-2002	-1.3 <sup>c</sup>				
Black	50 and Over	1975-1995	2.3 <sup>c</sup>	1995-2002	-0.9				
<u>SEER Delay-Adjusted Incidence<sup>a</sup></u>									
All Races	All Ages	1975-1980	-0.4	1980-1987	3.7 <sup>c</sup>	1987-2002	0.4 <sup>c</sup>		
White	All Ages	1975-1980	-0.3	1980-1987	3.8 <sup>c</sup>	1987-2002	0.5 <sup>c</sup>		
Black	All Ages	1975-1992	2.3 <sup>c</sup>	1992-2002	-0.1				
<u>U.S. Cancer Mortality<sup>b</sup></u>									
All Races	All Ages	1975-1990	0.4 <sup>c</sup>	1990-2002	-2.3 <sup>c</sup>				
All Races	Under 50	1975-1990	-0.3 <sup>c</sup>	1990-2002	-3.3 <sup>c</sup>				
All Races	50 and Over	1975-1990	0.6 <sup>c</sup>	1990-2002	-2.0 <sup>c</sup>				
White	All Ages	1975-1990	0.3 <sup>c</sup>	1990-2002	-2.4 <sup>c</sup>				
White	Under 50	1975-1990	-0.6 <sup>c</sup>	1990-2002	-3.8 <sup>c</sup>				
White	50 and Over	1975-1990	0.5 <sup>c</sup>	1990-2002	-2.2 <sup>c</sup>				
Black	All Ages	1975-1991	1.6 <sup>c</sup>	1991-2002	-1.1 <sup>c</sup>				
Black	Under 50	1975-1988	1.7 <sup>c</sup>	1988-2002	-1.9 <sup>c</sup>				
Black	50 and Over	1975-1993	1.6 <sup>c</sup>	1993-2002	-1.2 <sup>c</sup>				

Jointpoint Regression Program Version 3.0, April 2005, National Cancer Institute. (<http://srab.cancer.gov/jointpoint/>).

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

<sup>a</sup> Trends are from the SEER 9 areas.

<sup>b</sup> Trends are from the NCHS public use data file for the total US.

<sup>c</sup> The APC is significantly different from zero (p<.05).

Table IV-2  
FEMALE BREAST CANCER (In Situ)

TRENDS IN SEER INCIDENCE<sup>a</sup> USING THE JOINPOINT REGRESSION PROGRAM, 1975-2002  
WITH UP TO THREE JOINPOINTS BY RACE AND AGE

		<u>Joinpoint Segment 1</u>		<u>Joinpoint Segment 2</u>		<u>Joinpoint Segment 3</u>		<u>Joinpoint Segment 4</u>	
		<u>Year</u>	<u>APC</u>	<u>Year</u>	<u>APC</u>	<u>Year</u>	<u>APC</u>	<u>Year</u>	<u>APC</u>
<u>SEER Cancer Incidence<sup>a</sup></u>									
All Races	All Ages	1975-1981	-2.8	1981-1987	24.2 <sup>b</sup>	1987-2002	5.4 <sup>b</sup>		
All Races	Under 50	1975-1982	-2.4	1982-1986	28.8 <sup>b</sup>	1986-2002	3.5 <sup>b</sup>		
All Races	50 and Over	1975-1981	-2.1	1981-1987	26.7 <sup>b</sup>	1987-2002	6.2 <sup>b</sup>		
White	All Ages	1975-1982	-0.9	1982-1986	34.1 <sup>b</sup>	1986-2002	5.4 <sup>b</sup>		
White	Under 50	1975-1982	-4.0	1982-1985	41.7	1985-2002	3.6 <sup>b</sup>		
White	50 and Over	1975-1981	-1.6	1981-1987	26.9 <sup>b</sup>	1987-2002	6.0 <sup>b</sup>		
Black	All Ages	1975-1981	3.2	1981-1988	18.4 <sup>b</sup>	1988-1999	7.5 <sup>b</sup>	1999-2002	-0.9
Black	Under 50	1975-1998	7.8 <sup>b</sup>	1998-2002	-5.7				
Black	50 and Over	1975-1980	-1.8	1980-1988	20.7 <sup>b</sup>	1988-2000	8.1 <sup>b</sup>	2000-2002	-3.4
<u>SEER Delay-Adjusted Incidence<sup>a</sup></u>									
All Races	All Ages	1975-1981	-2.8	1981-1987	24.1 <sup>b</sup>	1987-2002	5.4 <sup>b</sup>		
White	All Ages	1975-1982	-0.9	1982-1986	34.0 <sup>b</sup>	1986-2002	5.5 <sup>b</sup>		
Black	All Ages	1975-1981	3.2	1981-1988	18.4 <sup>b</sup>	1988-1999	7.6 <sup>b</sup>	1999-2002	-0.5

Joinpoint Regression Program Version 3.0, April 2005, National Cancer Institute. (<http://srab.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).

<sup>a</sup> Trends are from the SEER 9 areas.

<sup>b</sup> The APC is significantly different from zero (p<.05).

Table IV-3  
BREAST CANCER (Invasive)

SEER INCIDENCE RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES<sup>a</sup>, BY RACE AND SEX

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>AGE-ADJUSTED RATES</u>									
<u>YEAR OF DIAGNOSIS:</u>									
1975	58.0	0.9	105.0	59.4	0.9	107.3	52.1	-	93.5
1976	56.4	1.1	101.9	58.1	1.1	104.8	48.0	-	85.2
1977	56.0	1.0	100.8	57.5	0.9	103.4	49.6	-	86.9
1978	55.8	0.9	100.5	57.5	0.9	103.6	48.3	-	86.0
1979	56.8	1.0	102.1	58.3	0.9	104.8	49.9	-	86.9
1980	56.8	0.9	102.1	58.4	1.0	104.9	50.6	-	89.4
1981	59.3	1.0	106.3	61.2	0.9	109.8	54.4	-	94.2
1982	59.2	1.0	106.4	61.1	0.9	109.9	53.9	-	93.6
1983	61.9	1.0	111.1	63.7	1.1	114.5	58.8	-	103.3
1984	64.4	0.9	115.8	66.5	0.9	119.8	58.1	-	101.8
1985	69.0	1.0	124.1	70.9	1.0	127.7	64.0	-	111.5
1986	70.4	0.9	126.7	72.2	1.0	130.3	66.3	-	115.0
1987	74.7	1.0	134.4	77.8	1.0	140.3	62.9	-	109.1
1988	73.1	1.2	131.3	75.6	1.2	136.3	68.9	-	118.5
1989	70.7	1.1	127.1	73.3	1.1	132.3	60.7	-	105.3
1990	73.0	1.1	131.6	75.3	1.1	136.2	68.2	-	118.1
1991	73.9	1.1	133.6	76.5	1.2	138.6	67.2	-	117.1
1992	73.0	1.0	131.9	74.7	1.0	135.6	71.1	-	123.1
1993	71.3	1.1	129.1	73.1	1.0	133.1	68.7	-	119.3
1994	72.0	1.2	130.7	74.2	1.1	135.5	70.2	-	121.8
1995	72.7	1.0	132.3	75.0	0.9	137.4	71.5	-	123.4
1996	73.2	1.3	133.4	75.1	1.3	137.7	71.1	-	123.3
1997	75.3	1.2	137.4	77.4	1.1	142.3	71.5	-	123.7
1998	77.0	1.1	140.8	79.4	1.2	146.2	70.0	-	121.9
1999	76.6	1.1	140.4	79.0	1.0	146.0	71.7	-	124.0
2000	73.8	1.2	135.3	76.8	1.2	142.1	67.1	-	115.6
2001	74.4	1.3	136.6	77.1	1.3	142.9	65.0	-	112.6
2002	72.1	1.2	132.9	74.3	1.2	138.2	69.2	-	120.0
<u>AGE-ADJUSTED RATES, 1998-2002</u>									
<u>AGE AT DIAGNOSIS:</u>									
All ages	74.7	1.2	137.1	77.3	1.2	143.0	68.6	2.0	118.7
Under 65	46.4	0.5	90.4	47.3	0.5	93.5	44.5	0.8	81.6
65 and over	270.9	5.7	459.9	284.3	5.8	485.2	235.2	10.3	375.5
All ages(IARC world std) <sup>b</sup>	52.7	0.8	99.0	54.4	0.8	103.2	48.8	1.2	86.3
<u>AGE-SPECIFIC RATES, 1998-2002</u>									
<u>AGE AT DIAGNOSIS:</u>									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	0.6	-	1.3	0.6	-	1.2	-	-	-
25-29	3.8	-	7.6	3.5	-	7.2	6.0	-	11.3
30-34	13.3	-	26.8	12.5	-	25.6	17.7	-	33.4
35-39	30.8	-	61.7	30.7	-	62.3	32.7	-	61.5
40-44	60.7	-	120.3	60.8	-	122.4	62.0	-	115.9
45-49	99.3	0.9	194.8	101.1	0.9	201.2	97.2	-	179.9
50-54	131.2	1.4	255.9	134.5	1.4	265.6	125.2	-	229.4
55-59	173.0	2.5	335.7	178.5	2.4	350.4	153.4	-	278.5
60-64	207.3	3.4	394.7	215.7	3.5	415.5	183.3	-	327.6
65-69	239.3	4.5	440.7	252.4	4.7	470.7	209.1	-	360.1
70-74	266.2	5.1	472.2	278.9	5.5	499.4	227.0	-	376.3
75-79	293.2	5.2	496.6	307.7	5.0	521.8	263.0	-	419.5
80-84	296.4	8.5	472.0	310.1	9.1	492.9	246.3	-	374.6
85+	281.9	7.4	399.5	295.4	6.7	415.6	248.8	-	332.4

<sup>a</sup> SEER 9 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> SEER 9 areas. Rates are per 100,000 and are age-adjusted to the IARC world standard population.

- Statistic not shown. Rate based on less than 25 cases for the time interval.

Table IV-4  
BREAST CANCER (Invasive)U.S. DEATH RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES<sup>a</sup>, BY RACE AND SEX

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>AGE-ADJUSTED RATES</u>									
<u>YEAR OF DEATH:</u>									
1975	17.8	0.4	31.4	18.0	0.4	31.8	16.8	0.4	29.5
1976	18.1	0.4	31.8	18.2	0.4	32.2	17.6	0.6	30.5
1977	18.5	0.4	32.5	18.6	0.4	32.7	18.9	0.5	32.8
1978	18.0	0.4	31.7	18.1	0.3	31.9	18.6	0.6	32.1
1979	17.7	0.3	31.2	17.9	0.3	31.5	17.9	0.5	30.8
1980	18.0	0.3	31.7	18.1	0.3	31.9	18.4	0.4	31.7
1981	18.2	0.3	31.9	18.3	0.3	32.1	19.0	0.5	32.6
1982	18.4	0.3	32.2	18.4	0.3	32.3	19.7	0.6	33.7
1983	18.3	0.3	32.1	18.4	0.3	32.2	19.6	0.5	33.5
1984	18.8	0.3	32.9	18.8	0.3	32.9	21.0	0.5	35.9
1985	18.8	0.3	33.0	18.9	0.3	33.1	20.3	0.4	34.9
1986	18.8	0.3	32.9	18.8	0.3	32.9	20.7	0.4	35.4
1987	18.7	0.3	32.7	18.6	0.3	32.6	21.5	0.5	36.7
1988	19.0	0.3	33.2	18.9	0.3	33.1	22.4	0.9	37.8
1989	19.0	0.3	33.2	18.9	0.3	33.2	21.6	0.5	36.6
1990	18.9	0.3	33.1	18.8	0.3	33.0	22.5	0.5	38.0
1991	18.7	0.3	32.7	18.5	0.3	32.4	22.6	0.4	38.3
1992	18.1	0.3	31.6	17.9	0.3	31.4	21.9	0.4	37.1
1993	18.0	0.4	31.4	17.7	0.3	31.1	22.6	0.7	38.0
1994	17.7	0.4	30.9	17.4	0.3	30.6	22.4	0.6	37.7
1995	17.4	0.4	30.6	17.1	0.3	30.1	22.7	0.8	38.2
1996	16.8	0.3	29.5	16.5	0.3	29.0	22.1	0.7	37.1
1997	16.1	0.3	28.2	15.7	0.3	27.6	22.3	0.6	37.4
1998	15.7	0.3	27.5	15.3	0.3	27.0	21.1	0.6	35.5
1999	15.2	0.3	26.6	14.8	0.3	26.0	20.9	0.7	35.2
2000	15.2	0.4	26.6	14.8	0.4	26.2	20.5	0.6	34.3
2001	14.7	0.3	26.0	14.3	0.3	25.4	20.5	0.6	34.5
2002	14.5	0.3	25.5	14.1	0.3	24.9	20.3	0.6	34.1
<u>AGE-ADJUSTED RATES, 1998-2002</u>									
<u>AGE AT DEATH:</u>									
All ages	15.0	0.3	26.4	14.7	0.3	25.9	20.6	0.6	34.7
Under 65	7.0	0.1	13.6	6.6	0.1	12.9	11.4	0.2	20.8
65 and over	70.3	1.9	115.0	70.3	1.8	115.5	84.4	3.3	130.7
All ages(IARC world std) <sup>b</sup>	9.5	0.2	17.3	9.2	0.2	16.8	13.6	0.4	23.6
<u>AGE-SPECIFIC RATES, 1998-2002</u>									
<u>AGE AT DEATH:</u>									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	0.0	-	0.1	-	-	-	-	-	-
25-29	0.4	-	0.8	0.4	-	0.7	0.9	-	1.7
30-34	1.8	-	3.7	1.6	-	3.2	3.8	-	7.2
35-39	4.4	0.1	8.7	3.9	-	7.8	8.3	-	15.5
40-44	8.2	0.1	16.2	7.4	0.1	14.7	15.0	-	28.0
45-49	13.5	0.1	26.5	12.3	0.1	24.4	23.7	-	43.8
50-54	20.8	0.3	40.4	19.6	0.3	38.5	33.5	0.7	61.4
55-59	27.6	0.5	53.0	26.4	0.5	51.1	42.7	1.0	76.9
60-64	34.7	0.7	65.5	33.9	0.6	64.7	47.9	1.5	84.4
65-69	42.8	1.0	78.7	42.4	1.0	78.7	55.4	1.6	95.2
70-74	55.3	1.4	97.7	55.1	1.4	98.2	69.2	2.7	113.5
75-79	69.6	2.1	116.7	69.8	2.0	117.7	82.8	3.3	130.6
80-84	90.5	2.6	142.7	90.7	2.6	143.4	108.0	4.2	160.4
85+	139.5	3.9	195.5	140.3	3.7	196.6	154.9	7.5	210.5

<sup>a</sup> NCHS public use data file for the total US. 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> NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the IARC world standard population.

- Statistic not shown. Rate based on less than 25 cases for the time interval.

Table IV-5  
FEMALE BREAST CANCER (Invasive)SEER INCIDENCE<sup>a</sup> AND U.S. DEATH<sup>b</sup> RATES, AGE-ADJUSTED RATES, BY RACE AND AGE

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
<u>SEER INCIDENCE RATES</u>									
YEAR OF DIAGNOSIS:									
1975	105.0	40.6	273.7	107.3	40.7	281.6	93.5	42.6	226.9
1976	101.9	40.0	264.0	104.8	40.9	272.3	85.2	38.0	208.9
1977	100.8	39.1	262.4	103.4	39.4	271.0	86.9	37.5	216.4
1978	100.5	38.8	262.3	103.6	39.3	272.0	86.0	40.1	206.1
1979	102.1	38.0	269.8	104.8	38.6	277.9	86.9	37.7	215.7
1980	102.1	37.7	270.6	104.9	38.2	279.6	89.4	37.8	224.7
1981	106.3	39.2	282.0	109.8	40.1	292.5	94.2	38.9	239.3
1982	106.4	40.5	279.0	109.9	41.2	289.8	93.6	37.9	239.3
1983	111.1	40.2	296.8	114.5	40.9	307.2	103.3	41.2	265.9
1984	115.8	42.3	308.2	119.8	43.1	320.4	101.8	44.5	252.1
1985	124.1	44.2	333.1	127.7	44.4	346.0	111.5	45.5	284.2
1986	126.7	44.4	342.3	130.3	45.2	353.1	115.0	45.1	298.1
1987	134.4	45.4	367.4	140.3	46.6	385.8	109.1	42.8	282.6
1988	131.3	44.0	359.7	136.3	45.1	375.4	118.5	43.1	316.0
1989	127.1	43.4	346.4	132.3	44.5	362.2	105.3	42.3	270.3
1990	131.6	45.5	357.0	136.2	45.5	373.7	118.1	48.7	299.9
1991	133.6	47.1	360.1	138.6	47.1	378.4	117.1	50.8	290.9
1992	131.9	43.5	363.6	135.6	43.7	376.4	123.1	46.7	323.3
1993	129.1	42.8	355.3	133.1	43.2	368.5	119.3	45.1	313.6
1994	130.7	42.3	362.3	135.5	42.6	378.8	121.8	47.3	316.7
1995	132.3	43.0	366.1	137.4	43.7	382.9	123.4	45.3	328.1
1996	133.4	43.4	368.8	137.7	43.8	383.6	123.3	43.9	331.3
1997	137.4	43.3	383.7	142.3	43.9	399.8	123.7	44.0	332.5
1998	140.8	45.3	391.1	146.2	45.6	409.8	121.9	45.9	321.0
1999	140.4	43.4	394.4	146.0	44.7	411.1	124.0	42.8	336.4
2000	135.3	43.1	376.8	142.1	43.6	399.8	115.6	44.1	302.8
2001	136.6	43.3	381.0	142.9	44.2	401.2	112.6	39.4	304.2
2002	132.9	41.9	371.1	138.2	42.6	388.6	120.0	40.2	328.9
<u>U.S. DEATH RATES</u>									
YEAR OF DEATH:									
1975	31.4	9.1	89.9	31.8	9.0	91.4	29.5	10.7	78.8
1976	31.8	8.7	92.2	32.2	8.6	93.8	30.5	10.2	83.5
1977	32.5	8.9	94.3	32.7	8.7	95.3	32.8	10.5	91.1
1978	31.7	8.7	92.1	31.9	8.5	93.3	32.1	11.4	86.5
1979	31.2	8.6	90.5	31.5	8.3	92.1	30.8	11.4	81.8
1980	31.7	8.6	92.2	31.9	8.4	93.6	31.7	10.8	86.3
1981	31.9	8.5	93.3	32.1	8.2	94.8	32.6	11.5	87.7
1982	32.2	8.4	94.4	32.3	8.2	95.5	33.7	11.2	92.8
1983	32.1	8.2	94.7	32.2	7.9	95.8	33.5	11.2	92.1
1984	32.9	8.6	96.6	32.9	8.2	97.5	35.9	12.5	97.2
1985	33.0	8.6	96.9	33.1	8.3	98.1	34.9	12.0	94.6
1986	32.9	8.6	96.3	32.9	8.3	97.5	35.4	12.9	94.6
1987	32.7	8.4	96.1	32.6	8.0	96.9	36.7	12.9	99.0
1988	33.2	8.4	98.2	33.1	8.0	98.8	37.8	12.7	103.4
1989	33.2	8.4	98.2	33.2	8.1	99.2	36.6	12.4	100.0
1990	33.1	8.3	98.1	33.0	8.0	98.5	38.0	12.0	106.1
1991	32.7	8.2	96.9	32.4	7.7	97.2	38.3	12.3	106.3
1992	31.6	7.8	94.2	31.4	7.4	94.5	37.1	12.0	102.7
1993	31.4	7.4	94.2	31.1	7.0	94.2	38.0	11.7	107.1
1994	30.9	7.4	92.6	30.6	6.9	92.5	37.7	11.7	105.9
1995	30.6	7.3	91.5	30.1	6.8	91.1	38.2	11.7	107.5
1996	29.5	6.9	88.5	29.0	6.4	88.3	37.1	11.7	103.6
1997	28.2	6.7	84.5	27.6	6.2	83.6	37.4	11.0	106.6
1998	27.5	6.3	83.1	27.0	5.8	82.5	35.5	10.6	100.7
1999	26.6	5.7	81.2	26.0	5.2	80.4	35.2	10.3	100.5
2000	26.6	5.9	80.9	26.2	5.4	80.6	34.3	9.9	98.3
2001	26.0	5.9	78.6	25.4	5.3	77.8	34.5	9.9	99.0
2002	25.5	5.6	77.7	24.9	5.1	77.0	34.1	10.0	97.1

<sup>a</sup> SEER 9 areas. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

<sup>b</sup> NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130), unless noted.

- Statistic not shown. Rate based on less than 25 cases for the time interval.

Table IV-6  
FEMALE BREAST CANCER (In Situ)

SEER INCIDENCE RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES<sup>a</sup>, BY RACE AND AGE

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
<u>SEER INCIDENCE RATES</u>									
YEAR OF DIAGNOSIS:									
1975	5.8	3.8	11.2	5.9	3.8	11.3	3.9	-	-
1976	5.3	2.7	12.0	5.4	2.9	11.8	-	-	-
1977	4.3	2.6	8.7	4.3	2.6	8.9	-	-	-
1978	4.4	2.3	9.8	4.5	2.5	10.0	-	-	-
1979	4.6	2.8	9.3	4.7	2.9	9.4	4.8	-	-
1980	4.9	3.0	9.7	5.0	3.1	10.2	3.7	-	-
1981	5.0	2.6	11.0	4.9	2.5	11.3	4.1	-	-
1982	5.3	2.7	12.0	5.3	2.7	12.2	5.7	-	13.3
1983	6.1	3.0	14.1	6.2	3.0	14.6	5.5	-	13.2
1984	8.6	4.8	18.7	9.2	5.2	19.6	6.3	-	16.8
1985	11.5	5.9	26.1	12.1	6.3	27.3	8.1	-	20.6
1986	13.6	6.8	31.7	14.3	7.2	32.9	9.2	5.1	20.1
1987	17.4	7.8	42.3	18.2	8.3	44.2	12.2	5.3	30.1
1988	17.6	8.2	42.2	18.1	8.5	43.2	16.2	7.4	39.3
1989	16.5	7.0	41.4	17.1	7.3	42.7	14.5	5.5	38.1
1990	19.1	8.4	47.2	19.9	8.8	49.1	15.1	5.5	40.0
1991	19.8	8.8	48.6	20.4	8.9	50.8	15.3	7.3	36.3
1992	21.5	9.0	54.1	22.2	9.2	56.2	19.0	6.8	50.9
1993	20.7	8.4	53.1	21.3	8.8	54.2	16.6	6.1	44.2
1994	22.3	8.8	57.8	22.9	9.1	59.0	20.1	7.4	53.3
1995	24.7	9.6	64.1	25.0	9.9	64.6	22.6	6.3	65.2
1996	25.4	9.8	66.1	25.9	9.8	68.1	22.3	7.6	60.7
1997	28.4	11.1	73.7	29.0	11.3	75.4	27.9	11.3	71.5
1998	32.8	12.0	87.2	33.8	12.3	89.9	29.8	10.7	79.9
1999	32.7	11.9	87.0	33.0	12.2	87.7	29.4	10.3	79.5
2000	32.8	11.8	87.7	33.8	12.5	89.7	29.4	8.0	85.4
2001	33.4	11.5	90.7	33.9	11.9	91.4	31.2	9.0	89.4
2002	33.6	11.7	90.8	34.0	12.1	91.2	28.3	8.5	80.1

	All Races, Females		White Females		Black Females	
<u>AGE-ADJUSTED RATES, 1998-2002</u>						
AGE AT DIAGNOSIS:						
All ages	33.0		33.7		29.6	
Under 65	24.9		25.5		21.2	
65 and over	89.2		90.2		88.1	
All ages(IARC world std) <sup>b</sup>	25.0		25.5		22.2	

	All Races, Females		White Females		Black Females	
<u>AGE-SPECIFIC RATES, 1998-2002</u>						
AGE AT DIAGNOSIS:						
<1	-		-		-	
1-4	-		-		-	
5-9	-		-		-	
10-14	-		-		-	
15-19	-		-		-	
20-24	-		-		-	
25-29	0.7		-		-	
30-34	3.0		3.0		-	
35-39	11.3		12.0		8.3	
40-44	36.4		38.1		29.2	
45-49	60.2		62.0		46.1	
50-54	79.8		81.5		66.3	
55-59	92.4		94.2		86.0	
60-64	96.9		97.7		88.8	
65-69	103.8		106.5		96.5	
70-74	101.5		102.3		104.5	
75-79	97.5		97.7		101.5	
80-84	73.2		73.3		64.8	
85+	35.9		35.8		39.7	

<sup>a</sup> SEER 9 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> SEER 9 areas. Rates are per 100,000 and are age-adjusted to the IARC world standard population.

- Statistic not shown. Rate based on less than 25 cases for the time interval.

Table IV-7  
FEMALE BREAST CANCER (Invasive)

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
<u>5-YR RELATIVE SURVIVAL RATES</u>									
YEAR OF DIAGNOSIS:									
1960-1963 <sup>a</sup>	-	-	-	63	-	-	46	-	-
1970-1973 <sup>a</sup>	-	-	-	68	-	-	51	-	-
1974-1976 <sup>b</sup>	74.6	76.4	74.0	75.3	77.4	74.5	63.1	64.2	62.5
1977-1979 <sup>b</sup>	74.7	75.9	74.3	75.5	76.8	75.0	63.1	65.4	61.8
1980-1982 <sup>b</sup>	76.3	77.1	76.1	77.1	77.9	76.9	65.8	68.7	64.1
1983-1985 <sup>b</sup>	78.1	77.4	78.3	79.2	79.0	79.3	63.6	63.5	63.6
1986-1988 <sup>b</sup>	82.9	80.2	83.8	84.0	81.6	84.7	69.3	67.5	70.2
1989-1991 <sup>b</sup>	84.9	82.8	85.8	86.2	84.6	86.8	71.3	69.4	72.5
1992-1994 <sup>b</sup>	86.2	84.0	87.1	87.6	86.0	88.1	72.6	70.1	74.1
1995-2001 <sup>b</sup>	88.2 <sup>d</sup>	86.1 <sup>d</sup>	89.1 <sup>d</sup>	89.5 <sup>d</sup>	88.0 <sup>d</sup>	90.0 <sup>d</sup>	75.9 <sup>d</sup>	73.6 <sup>d</sup>	77.3 <sup>d</sup>
1995-2001 <sup>b</sup>									
All Stages	88.2	86.1	89.1	89.5	88.0	90.0	75.9	73.6	77.3
Localized	97.9	94.8	99.0	98.5	95.6	99.4	92.2	89.0	93.8
Regional	81.3	81.6	81.2	82.9	83.8	82.4	68.3	67.9	68.7
Distant	26.1	33.2	23.6	27.7	36.6	24.9	16.3	20.5	13.7
Unstaged	55.6	65.8	52.4	57.5	71.5	53.4	46.4	48.1 <sup>e</sup>	44.8
<i>IN SITU</i> <sup>g</sup>	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.1	100.0
<u>5-YR PERIOD SURVIVAL RATES<sup>bc</sup></u>									
YEAR OF DIAGNOSIS:									
1995-2001	89.1	86.9	90.0	90.3	88.7	90.9	76.7	74.6	78.1
<u>STAGE DISTRIBUTION (%) 1995-2001<sup>b</sup></u>									
All Stages									
Number of cases	107,748	26,653	81,095	91,127	21,030	70,097	9,103	3,219	5,884
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
Localized	63	56	66	64	57	66	53	48	56
Regional	29	37	26	29	37	26	35	41	32
Distant	6	5	6	5	5	6	9	9	9
Unstaged	2	2	2	2	2	2	3	3	3
<u>5-YR RELATIVE SURVIVAL RATES, 1995-2001<sup>b</sup></u>									
AGE AT DIAGNOSIS:									
<45	84.8	-	-	86.9	-	-	71.3	-	-
45-54	88.4	-	-	89.7	-	-	77.2	-	-
55-64	89.4	-	-	90.6	-	-	78.2	-	-
65-74	90.1	-	-	90.7	-	-	79.7	-	-
75+	87.8	-	-	88.6	-	-	73.3	-	-
Under 65	87.9	-	-	89.4	-	-	75.5	-	-
65 and over	89.2	-	-	89.9	-	-	77.2	-	-

a

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

b

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

Rates are based on follow-up of patients into 2002.

c

Period survival provides a more up-to-date estimate of survival by piecing together the most recent conditional survival estimates from several cohorts. It is computed here using three calendar year blocks (1999-2001: 0-1 year survival), (1998-2000: 1-2 year survival), (1997-1999: 2-3 year survival), (1996-1998: 3-4 year survival), (1995-1997: 4-5 years survival).

d

The difference in rates between 1974-1976 and 1995-2001 is statistically significant (p&lt;.05).

e

The standard error of the survival rate is between 5 and 10 percentage points.

f

The standard error of the survival rate is greater than 10 percentage points.

g

In situ cases are not included in the All Stages group.

-

Statistic could not be calculated.

Table IV-8  
FEMALE BREAST CANCER (Invasive)

SURVIVAL RATES<sup>a</sup>

By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Relative Survival Rates (SEER <sup>b</sup> )																			
1-year	94.7	95.5	95.8	96.3	96.8	96.8	97.0	97.0	97.3	97.4	97.2	97.6	97.3	97.2	97.6	97.7	97.6	97.7	97.6
2-year	88.9	90.5	91.2	91.7	93.2	93.4	93.3	93.4	93.9	94.4	94.1	94.3	94.1	93.9	94.6	95.2	95.3	95.5	
3-year	83.3	85.1	86.3	87.0	89.2	90.1	90.0	89.8	90.2	91.1	91.0	91.1	91.5	91.1	92.2	93.2	93.3		
4-year	78.7	80.7	82.3	83.5	86.0	87.2	87.2	86.9	87.7	88.3	88.3	88.7	89.0	89.2	90.1	91.2			
5-year	74.8	76.9	78.8	80.5	83.3	84.7	84.7	84.7	85.4	86.0	86.0	86.7	86.9	87.0	88.5				
6-year	71.7	73.9	76.3	78.2	80.6	82.5	82.4	82.6	83.5	84.2	84.1	85.1	85.5	85.3					
7-year	68.9	71.1	74.2	75.9	78.4	80.6	80.7	80.7	81.7	82.5	82.4	83.6	83.8						
8-year	66.7	68.8	72.3	74.4	77.0	79.1	79.2	79.4	80.2	81.6	80.8	82.8							
9-year	64.6	66.8	70.3	72.7	75.1	77.4	77.9	78.0	78.8	80.6	79.8								
10-year	62.8	64.9	68.6	71.1	73.8	76.4	76.8	76.9	77.7	79.5									
11-year	61.2	63.0	67.3	69.9	72.2	75.2	75.8	75.9	76.9										
12-year	59.6	61.8	66.1	68.6	70.9	74.1	74.3	74.9											
13-year	58.5	60.8	65.3	67.5	69.7	73.0	73.4												
14-year	57.5	59.5	64.5	66.6	68.4	72.3													
15-year	56.4	58.6	63.5	65.2	67.6														
16-year	55.5	57.5	62.4	64.2															
17-year	54.6	56.6	61.1																
18-year	53.8	55.8																	
19-year	53.0																		
20-year	52.4																		

<sup>a</sup> Survival rates are relative rates expressed as percents.  
<sup>b</sup> Rates are from the SEER 9 areas.



Table IV-9  
FEMALE BREAST CANCER (Under 50) (Invasive)

SURVIVAL RATES<sup>a</sup>

By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Relative Survival Rates (SEER <sup>b</sup> )																			
1-year	96.8	97.6	97.6	97.9	98.1	98.4	98.1	97.6	98.5	98.4	98.0	98.4	98.0	97.8	98.1	98.5	98.6	98.5	98.4
2-year	90.9	91.5	91.9	92.2	92.7	93.8	93.1	93.0	93.9	94.6	94.2	93.6	93.7	93.8	94.7	95.2	95.0	95.6	
3-year	84.6	85.6	85.8	86.1	87.2	89.2	88.8	88.4	90.0	90.7	90.2	89.2	89.9	90.7	91.7	92.1	92.0		
4-year	80.0	81.0	81.3	82.1	83.0	85.6	85.0	84.9	86.7	86.3	87.1	86.1	86.6	88.1	88.7	89.4			
5-year	76.1	77.1	77.9	78.4	79.7	82.5	82.1	82.3	83.8	83.7	84.6	83.7	84.0	85.4	86.6				
6-year	73.2	74.1	75.6	75.8	77.2	80.4	79.7	80.0	81.6	81.6	82.9	81.7	82.0	83.1					
7-year	70.8	71.5	73.5	73.1	74.9	78.3	78.0	78.5	79.4	80.1	81.1	79.9	79.9						
8-year	68.8	69.3	71.8	71.4	73.3	76.5	76.6	76.5	77.9	78.5	79.4	78.6							
9-year	66.9	67.5	69.9	70.3	71.4	75.1	74.9	75.4	77.0	77.5	78.3								
10-year	65.4	66.1	68.6	69.2	69.9	73.8	74.2	74.2	76.0	76.5									
11-year	64.0	64.7	67.9	68.2	68.4	72.7	73.2	73.3	75.0										
12-year	62.6	63.7	66.6	67.0	67.0	72.2	72.0	72.4											
13-year	61.4	62.7	65.6	66.0	66.1	71.1	70.9												
14-year	60.7	61.5	65.0	65.2	65.3	70.5													
15-year	59.9	60.7	64.0	64.4	64.6														
16-year	59.2	60.0	63.2	63.8															
17-year	58.6	59.3	62.2																
18-year	58.0	58.6																	
19-year	57.4																		
20-year	56.6																		

<sup>a</sup> Survival rates are relative rates expressed as percents.  
<sup>b</sup> Rates are from the SEER 9 areas.

Table IV-10  
 FEMALE BREAST CANCER (50 and Over) (Invasive)

SURVIVAL RATES<sup>a</sup>

By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Relative Survival Rates (SEER <sup>b</sup> )																			
1-year	94.0	94.9	95.3	95.8	96.5	96.3	96.6	96.8	96.9	97.1	96.9	97.3	97.0	97.0	97.4	97.5	97.3	97.4	97.3
2-year	88.2	90.2	91.1	91.5	93.4	93.2	93.4	93.5	93.8	94.4	94.1	94.6	94.3	94.0	94.5	95.2	95.4	95.5	
3-year	82.9	84.9	86.5	87.3	89.9	90.3	90.5	90.3	90.3	91.3	91.3	91.8	92.1	91.3	92.4	93.6	93.7		
4-year	78.2	80.6	82.6	84.0	87.0	87.8	88.0	87.7	88.0	89.0	88.8	89.7	89.9	89.6	90.6	91.9			
5-year	74.4	76.8	79.1	81.2	84.5	85.5	85.7	85.7	86.0	86.8	86.6	87.9	88.0	87.6	89.2				
6-year	71.2	73.8	76.6	79.0	81.8	83.2	83.4	83.7	84.3	85.2	84.6	86.5	86.9	86.2					
7-year	68.3	70.9	74.4	76.9	79.7	81.5	81.7	81.7	82.8	83.5	83.0	85.2	85.5						
8-year	65.9	68.6	72.5	75.5	78.4	80.1	80.4	80.7	81.2	83.0	81.5	84.7							
9-year	63.7	66.5	70.5	73.7	76.7	78.3	79.3	79.3	79.7	82.0	80.6								
10-year	61.8	64.4	68.7	71.9	75.5	77.5	78.0	78.2	78.6	81.0									
11-year	60.0	62.4	67.1	70.7	73.8	76.3	77.2	77.2	78.1										
12-year	58.4	61.1	66.0	69.4	72.8	75.1	75.6	76.3											
13-year	57.2	60.0	65.2	68.3	71.5	74.1	74.9												
14-year	56.0	58.7	64.5	67.4	70.2	73.4													
15-year	54.7	57.8	63.5	65.8	69.5														
16-year	53.7	56.4	62.2	64.8															
17-year	52.5	55.4	60.7																
18-year	51.6	54.6																	
19-year	50.7																		
20-year	50.0																		

<sup>a</sup> Survival rates are relative rates expressed as percents.  
<sup>b</sup> Rates are from the SEER 9 areas.

Table IV-11  
BREAST CANCER (Invasive)

Percent Diagnosed With Cancer In 10, 20 and 30 Years and In Remaining Lifetime,  
 Given Cancer Free At Current Age By Race and Sex

Lifetime Risk (Percent) of Being Diagnosed (13 SEER Areas) With Cancer and  
 Lifetime Risk (Percent) of Dying (Total U.S.) From Cancer

2000-2002

All Races

Current Age	Males				Females			
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually
0	0.00	0.00	0.00	0.12	0.00	0.00	0.05	13.22
10	0.00	0.00	0.00	0.12	0.00	0.05	0.48	13.37
20	0.00	0.00	0.01	0.12	0.05	0.48	1.92	13.40
30	0.00	0.01	0.02	0.13	0.44	1.88	4.49	13.41
40	0.01	0.02	0.06	0.13	1.46	4.11	7.56	13.14
50	0.02	0.05	0.09	0.12	2.73	6.30	9.64	12.06
60	0.04	0.08	0.11	0.11	3.82	7.40	9.52	9.99

Lifetime Risk of Being Diagnosed = 0.12%                      Lifetime Risk of Being Diagnosed = 13.22%  
 Lifetime Risk of Dying = 0.03%                                      Lifetime Risk of Dying = 2.96%

Whites

Current Age	Males				Females			
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually
0	0.00	0.00	0.00	0.12	0.00	0.00	0.05	14.04
10	0.00	0.00	0.00	0.13	0.00	0.05	0.48	14.17
20	0.00	0.00	0.01	0.13	0.05	0.48	1.96	14.20
30	0.00	0.01	0.02	0.13	0.43	1.92	4.66	14.21
40	0.01	0.02	0.06	0.13	1.50	4.28	8.01	13.94
50	0.02	0.05	0.09	0.13	2.86	6.71	10.31	12.83
60	0.04	0.08	0.11	0.12	4.12	7.96	10.18	10.66

Lifetime Risk of Being Diagnosed = 0.12%                      Lifetime Risk of Being Diagnosed = 14.04%  
 Lifetime Risk of Dying = 0.03%                                      Lifetime Risk of Dying = 2.96%

Blacks

Current Age	Males				Females			
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually
0	0.00	0.00	0.00	0.16	0.00	0.00	0.07	9.98
10	0.00	0.00	0.00	0.16	0.00	0.07	0.53	10.21
20	0.00	0.00	0.02	0.17	0.07	0.53	1.83	10.24
30	0.00	0.02	0.04	0.17	0.47	1.78	3.98	10.26
40	0.01	0.04	0.09	0.17	1.34	3.58	6.20	9.99
50	0.03	0.08	0.12	0.17	2.36	5.11	7.52	9.10
60	0.06	0.10	0.13	0.16	3.05	5.72	7.13	7.48

Lifetime Risk of Being Diagnosed = 0.16%                      Lifetime Risk of Being Diagnosed = 9.98%  
 Lifetime Risk of Dying = 0.05%                                      Lifetime Risk of Dying = 3.25%

Devcan Version 6.0, April 2005, National Cancer Institute (<http://srab.cancer.gov/devcan/>).

Source: Incidence data are from the SEER 13 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia). Mortality data are from the NCHS public use data file for the total US.

Table IV-12  
FEMALE BREAST CANCER (Invasive)

SEER INCIDENCE AND U.S. MORTALITY  
AGE-ADJUSTED RATES AND TRENDS<sup>a</sup>  
 By Race/Ethnicity

Incidence<sup>b</sup>

RACE/ETHNICITY	Rate 1998-2002	Trend 1992-2002
	Rate per 100,000 persons	APC (%)
	<u>Females</u>	<u>Females</u>
All Races	134.4	0.4
White	141.1	0.5
White Hispanic <sup>c</sup>	92.8	0.5
White Non-Hispanic <sup>c</sup>	149.4	0.7 <sup>e</sup>
Black	119.4	-0.2
Asian/Pacific Islander	96.6	1.5 <sup>e</sup>
Amer Ind/Alaska Nat	54.8	-3.5 <sup>e</sup>
Hispanic <sup>c</sup>	89.9	0.6

Mortality<sup>d</sup>

RACE/ETHNICITY	Rate 1998-2002	Trend 1992-2002
	Rate per 100,000 persons	APC (%)
	<u>Females</u>	<u>Females</u>
All Races	26.4	-2.4 <sup>e</sup>
White	25.9	-2.5 <sup>e</sup>
White Hispanic <sup>c</sup>	17.2	-2.0 <sup>e</sup>
White Non-Hispanic <sup>c</sup>	26.2	-2.4 <sup>e</sup>
Black	34.7	-1.2 <sup>e</sup>
Asian/Pacific Islander	12.7	-0.6
Amer Ind/Alaska Nat	13.8	-1.5
Hispanic <sup>c</sup>	16.7	-1.9 <sup>e</sup>

- The APC is the Annual Percent Change over the time interval.
- Statistic not shown. Rate based on less than 25 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> Incidence data are from the 13 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
- <sup>c</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 do not include cases from Detroit, Hawaii, Alaska Native Registry and Rural Georgia. For mortality, information is included for all states except Connecticut, Maine, Maryland, Minnesota, New Hampshire, New York, North Dakota, Oklahoma and Vermont.
- <sup>d</sup> Mortality data are analyzed from a public use file provided by the National Center for Health Statistics (NCHS).
- <sup>e</sup> The APC is significantly different from zero (p<.05).

Table IV-13  
FEMALE BREAST CANCER (In Situ)

SEER INCIDENCE  
AGE-ADJUSTED RATES AND TRENDS<sup>a</sup>  
 By Race/Ethnicity

Incidence<sup>b</sup>

RACE/ETHNICITY	Rate 1998-2002	Trend 1992-2002
	Rate per 100,000 persons	APC (%)
	<u>Females</u>	<u>Females</u>
All Races	31.0	5.3 <sup>d</sup>
White	31.9	5.2 <sup>d</sup>
White Hispanic <sup>c</sup>	17.5	5.5 <sup>d</sup>
White Non-Hispanic <sup>c</sup>	33.2	5.2 <sup>d</sup>
Black	27.3	5.4 <sup>d</sup>
Asian/Pacific Islander	26.8	8.0 <sup>d</sup>
Amer Ind/Alaska Nat	11.3	-
Hispanic <sup>c</sup>	17.0	5.6 <sup>d</sup>

- The APC is the Annual Percent Change over the time interval.
- Statistic not shown. Rate based on less than 25 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> Incidence data are from the 13 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia).
- <sup>c</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 do not include cases from Detroit, Hawaii, Alaska Native Registry and Rural Georgia.
- <sup>d</sup> The APC is significantly different from zero (p<.05).

Table IV-14  
FEMALE BREAST CANCER (Invasive)

AGE-ADJUSTED SEER INCIDENCE RATES AND SEER DEATH RATES<sup>a</sup>  
 By Registry, Race and Age

	<u>All Races, Females</u>			<u>White Females</u>			<u>Black Females</u>		
	<u>All</u>	<u>&lt;50</u>	<u>50+</u>	<u>All</u>	<u>&lt;50</u>	<u>50+</u>	<u>All</u>	<u>&lt;50</u>	<u>50+</u>
<u>SEER INCIDENCE RATES<sup>b</sup>, 1998-2002</u>									
REGISTRY									
13 SEER Areas	134.4	42.5	375.0	141.1	43.2	397.3	119.4	41.7	322.7
11 SEER Areas	134.5	42.5	375.5	141.1	43.2	397.6	119.8	41.8	324.1
9 SEER Areas	137.1	43.4	382.7	143.0	44.1	401.9	118.7	42.4	318.6
San Francisco-Oakland	141.2	45.5	391.8	157.1	47.7	443.4	117.6	43.5	311.6
Connecticut	143.2	46.8	395.6	145.5	47.3	402.4	116.7	41.1	314.7
Metropolitan Detroit	135.4	43.9	375.2	140.1	44.7	390.0	123.6	42.7	335.6
Hawaii	131.7	45.5	357.5	154.2	51.0	424.4	-	-	-
Iowa	132.1	41.0	370.5	132.0	40.9	370.6	126.9	42.9	347.0
New Mexico	116.6	38.4	321.4	122.7	40.7	337.2	84.9	-	242.2
Seattle-Puget Sound	152.2	44.3	434.7	158.9	45.2	456.7	111.9	43.9	289.9
Utah	120.2	34.7	343.8	122.2	35.4	349.6	-	-	-
Metropolitan Atlanta	135.0	43.5	374.6	145.4	44.8	408.9	115.8	42.9	306.7
San Jose-Monterey	135.5	41.9	380.6	147.6	43.7	419.5	102.9	39.1	270.1
Los Angeles	126.0	40.1	350.8	133.0	40.1	376.1	123.5	40.1	341.8
<u>SEER DEATH RATES<sup>c</sup>, 1998-2002</u>									
REGISTRY									
13 SEER Areas	25.2	5.5	76.9	25.6	5.1	79.3	33.8	9.9	96.3
11 SEER Areas	25.3	5.5	77.0	25.6	5.1	79.4	33.9	9.9	96.7
9 SEER Areas	25.7	5.5	78.5	25.8	5.0	80.3	34.1	9.5	98.6
San Francisco-Oakland	25.5	5.9	76.7	27.8	5.5	86.1	34.2	10.6	96.0
Connecticut	26.4	5.2	82.1	26.2	5.0	81.6	31.5	7.7	93.7
Metropolitan Detroit	29.2	6.5	88.7	27.3	5.2	85.2	36.3	10.5	104.0
Hawaii	19.2	4.1	58.7	25.2	-	83.1	-	-	-
Iowa	25.4	4.9	79.0	25.3	4.8	78.7	37.8	-	115.9
New Mexico	23.0	6.2	67.0	23.6	6.6	68.2	42.0	-	-
Seattle-Puget Sound	24.4	4.5	76.5	25.0	4.4	78.8	32.1	10.2	89.3
Utah	23.5	4.9	72.2	23.6	4.9	72.6	-	-	-
Metropolitan Atlanta	27.2	6.1	82.3	25.5	4.6	80.3	32.7	8.9	94.8
San Jose-Monterey	22.7	4.8	69.4	24.6	4.5	77.1	23.9	-	-
Los Angeles	24.7	5.9	73.7	25.1	5.4	76.7	33.9	11.3	93.2

<sup>a</sup> Incidence and death 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.

<sup>c</sup> NCHS public use data file for the total US with analyses limited to the SEER geographic areas.

- Statistic could not be calculated or populations are inadequate.

Table IV-15  
 FEMALE BREAST CANCER (*In Situ*)

AGE-ADJUSTED SEER INCIDENCE RATES<sup>a</sup>  
 By Registry, Race and Age

	All Races, Females			White Females			Black Females		
	All	<50	50+	All	<50	50+	All	<50	50+
<u>SEER INCIDENCE RATES<sup>b</sup>, 1998-2002</u>									
REGISTRY									
13 SEER Areas	31.0	10.9	83.4	31.9	11.3	85.8	27.3	8.6	76.4
11 SEER Areas	31.0	10.9	83.4	31.9	11.3	85.8	27.4	8.6	76.5
9 SEER Areas	33.0	11.8	88.7	33.7	12.2	90.0	29.6	9.3	82.9
San Francisco-Oakland	31.8	11.4	85.4	32.9	11.4	89.4	22.5	7.7	61.1
Connecticut	41.6	16.8	106.6	42.5	17.3	108.3	30.2	11.5	79.2
Metropolitan Detroit	40.9	15.4	107.5	42.2	16.8	108.6	37.5	11.6	105.4
Hawaii	35.7	12.5	96.6	31.8	11.1	86.2	-	-	-
Iowa	25.0	8.6	67.7	25.1	8.7	67.8	-	-	-
New Mexico	21.3	7.0	58.7	22.9	7.9	62.3	-	-	-
Seattle-Puget Sound	34.4	11.1	95.3	35.3	11.6	97.2	28.7	-	84.7
Utah	23.2	7.2	65.2	23.5	7.1	66.6	-	-	-
Metropolitan Atlanta	31.1	10.3	85.6	35.1	12.1	95.2	24.3	8.0	67.3
San Jose-Monterey	29.5	10.4	79.7	30.8	10.2	85.0	-	-	-
Los Angeles	24.9	8.7	67.5	26.2	9.0	71.5	21.9	7.0	60.8

<sup>a</sup> Incidence 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.

- Statistic could not be calculated or populations are inadequate.

Table IV-16  
 FEMALE BREAST CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER DEATH<sup>a</sup> RATES BY STATE, ALL RACES, 1998-2002

All Ages

State	Rate	SE	Rank	PD
TOTAL U.S.	26.4	0.06		
High Five States				
District of Columbia	36.1 <sup>bc</sup>	1.51	(01)	36.7
Louisiana	29.7 <sup>bc</sup>	0.50	(02)	12.5
New Jersey	29.5 <sup>bc</sup>	0.34	(03)	11.7
Ohio	28.7 <sup>c</sup>	0.29	(04)	8.7
Maryland	28.5 <sup>c</sup>	0.45	(05)	8.0
Low Five States				
Alaska	23.3 <sup>b</sup>	1.61	(47)	-11.7
Colorado	23.3 <sup>bc</sup>	0.48	(48)	-11.7
Wyoming	23.2 <sup>b</sup>	1.34	(49)	-12.1
New Mexico	23.0 <sup>bc</sup>	0.70	(50)	-12.9
Hawaii	19.2 <sup>bc</sup>	0.76	(51)	-27.3

Ages <50

State	Rate	SE	Rank	PD
TOTAL U.S.	5.9	0.03		
High Five States				
District of Columbia	11.2 <sup>bc</sup>	1.06	(01)	89.8
Mississippi	8.0 <sup>bc</sup>	0.40	(02)	35.6
Louisiana	7.4 <sup>bc</sup>	0.31	(03)	25.4
Alabama	7.1 <sup>bc</sup>	0.30	(04)	20.3
South Carolina	7.0 <sup>bc</sup>	0.31	(05)	18.6
Low Five States				
North Dakota	4.7 <sup>b</sup>	0.65	(47)	-20.3
Montana	4.6 <sup>b</sup>	0.52	(48)	-22.0
Washington	4.5 <sup>bc</sup>	0.20	(49)	-23.7
New Hampshire	4.4 <sup>b</sup>	0.42	(50)	-25.4
Hawaii	4.1 <sup>bc</sup>	0.43	(51)	-30.5

Ages 50+

State	Rate	SE	Rank	PD
TOTAL U.S.	80.2	0.19		
High Five States				
District of Columbia	101.4 <sup>bc</sup>	4.69	(01)	26.4
New Jersey	92.0 <sup>bc</sup>	1.14	(02)	14.7
Louisiana	88.1 <sup>bc</sup>	1.63	(03)	9.9
Ohio	87.9 <sup>bc</sup>	0.96	(04)	9.6
Illinois	86.9 <sup>bc</sup>	0.96	(05)	8.4
Low Five States				
Colorado	71.2 <sup>bc</sup>	1.61	(47)	-11.2
Alaska	71.1 <sup>b</sup>	5.59	(48)	-11.3
Wyoming	70.5 <sup>b</sup>	4.45	(49)	-12.1
New Mexico	67.0 <sup>bc</sup>	2.26	(50)	-16.5
Hawaii	58.7 <sup>bc</sup>	2.50	(51)	-26.8

For additional detailed cancer statistics by state, please visit the State Cancer Profiles website. <http://statecancerprofiles.cancer.gov/>

<sup>a</sup> NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).  
<sup>b</sup> Absolute percent difference between state rate and total U.S. rate is 10% or more.  
<sup>c</sup> Difference between state rate and total U.S. rate is statistically significant (p<=.0002).  
 SE Standard error of the rate.  
 PD Percent difference between state rate and total U.S. rate.



Table IV-17  
BREAST CANCER (Invasive)

Estimated United States Cancer Prevalence Counts<sup>a</sup> on January 1, 2002  
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	0 to <12 <sup>e</sup>	0 to <27 <sup>e</sup>	>=27 <sup>g</sup>	Complete <sup>h</sup>
<b>Race/Sex</b>									
All Races <sup>b</sup>	815,238	557,995	390,390	222,946	129,931	1,548,184	2,159,088	130,961	2,290,049
Males	5,171	2,750	1,674	971	627	8,769	11,398	382	11,780
Females	810,067	555,245	388,716	221,975	129,304	1,539,415	2,147,690	130,579	2,278,269
White <sup>b</sup>	718,104	498,369	355,168	203,033	119,018	1,374,678	1,932,860	116,667	2,049,527
Males	4,430	2,419	1,449	906	578	7,572	9,974	285 <sup>i</sup>	10,259
Females	713,674	495,950	353,719	202,127	118,440	1,367,106	1,922,886	116,382	2,039,268
Black <sup>b</sup>	67,474	42,592	25,613	14,511	7,975	122,140	160,589	+	+
Males	597	236	211	50	49	944	1,145	+	+
Females	66,877	42,356	25,402	14,461	7,926	121,196	159,444	8,928	168,372
Asian/Pacific Islander <sup>c</sup>	20,812	11,916	+	+	+	36,083	+	+	+
Males	54	74	+	+	+	132	+	+	+
Females	20,758	11,842	+	+	+	35,951	+	+	+
Hispanic <sup>d</sup>	36,401	22,488	+	+	+	65,375	+	+	+
Males	130	64	+	+	+	219	+	+	+
Females	36,271	22,424	+	+	+	65,156	+	+	+

Estimated prevalence percent<sup>a</sup> on January 1, 2002, of the SEER 11 population diagnosed in the previous 10 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
<b>Race/Sex</b>											
All Races <sup>c</sup>	0.4288%	-	0.0002%	0.0047%	0.0770%	0.3799%	0.9421%	1.4263%	1.8718%	2.0490%	0.4585%
Males	0.0050%	-	-	-	0.0006%	0.0023%	0.0088%	0.0211%	0.0312%	0.0395%	0.0062%
Females	0.8431%	-	0.0003%	0.0097%	0.1556%	0.7525%	1.8274%	2.6760%	3.2571%	3.1316%	0.8357%
White <sup>c</sup>	0.4714%	-	0.0002%	0.0046%	0.0754%	0.3868%	0.9833%	1.5196%	2.0033%	2.1706%	0.4822%
Males	0.0053%	-	-	-	0.0005%	0.0021%	0.0086%	0.0214%	0.0325%	0.0407%	0.0062%
Females	0.9350%	-	0.0003%	0.0096%	0.1553%	0.7786%	1.9338%	2.8863%	3.5082%	3.3005%	0.8867%
Black <sup>c</sup>	0.2915%	-	-	0.0061%	0.0935%	0.3580%	0.8203%	1.1928%	1.5573%	1.5962%	0.3950%
Males	0.0050%	-	-	-	-	0.0032%	0.0143%	0.0297%	0.0409%	0.0397%	0.0082%
Females	0.5511%	-	-	0.0118%	0.1754%	0.6685%	1.4923%	2.1099%	2.5552%	2.3235%	0.6813%
Asian/Pacific Islander <sup>c</sup>	0.2970%	-	-	0.0046%	0.0701%	0.3552%	0.7509%	0.9892%	1.1138%	1.1045%	0.3244%
Males	0.0026%	-	-	-	-	0.0021%	0.0038%	0.0095%	0.0152%	0.0284%	0.0033%
Females	0.5727%	-	-	0.0091%	0.1359%	0.6728%	1.4067%	1.7984%	1.9273%	1.8429%	0.5884%
Hispanic <sup>d</sup>	0.1555%	-	-	0.0034%	0.0495%	0.2660%	0.6169%	0.9047%	1.2065%	1.3197%	0.3010%
Males	0.0010%	-	-	-	-	0.0013%	0.0031%	0.0086%	0.0112%	0.0181%	0.0025%
Females	0.3182%	-	-	0.0075%	0.1058%	0.5357%	1.1810%	1.6433%	2.0574%	2.0362%	0.5431%

- <sup>a</sup> US 2002 cancer prevalence counts are based on 2002 cancer prevalence proportions from the SEER registries and 1/1/2002 US population estimates based on the average of 2001 and 2002 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) SEER 11 Areas excluding Hawaii and Detroit.
- <sup>e</sup> Maximum limited-duration prevalence: 27 years for 1975-2002 SEER 9 data; 12 years for 1990-2002 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 by 5-year age groups.
- <sup>g h i</sup> (g) Cases diagnosed more than 27 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 <27 and >=27. (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.

# SEER Incidence, Delay Adjusted Incidence and US Death Rates+ Female Breast Cancer, by Race

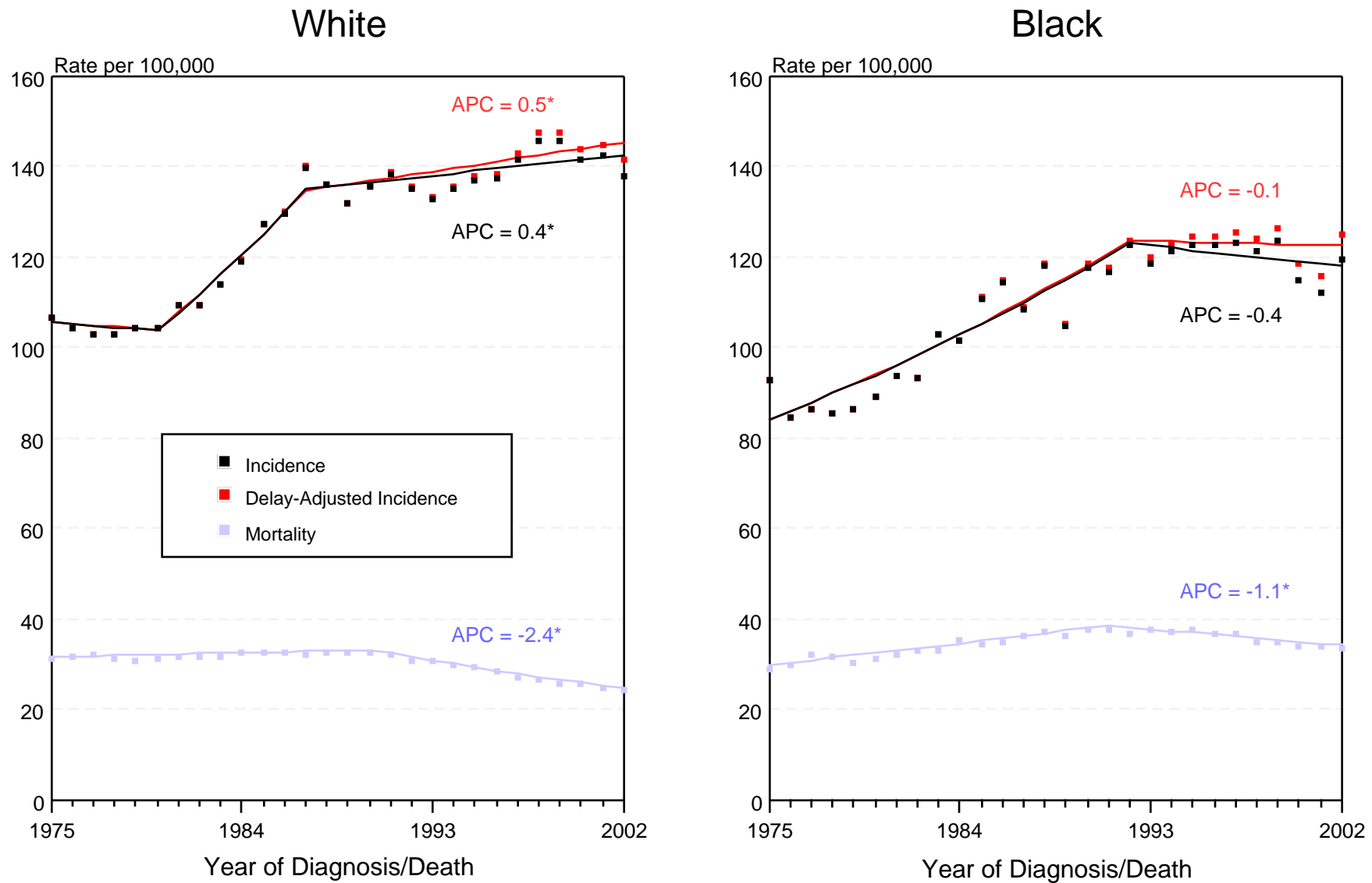


Figure IV-1

+ Source: SEER 9 areas and NCHS public use data file for the total US. 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 3.0, April 2005, 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+ Female Breast Cancer, by Age and Race

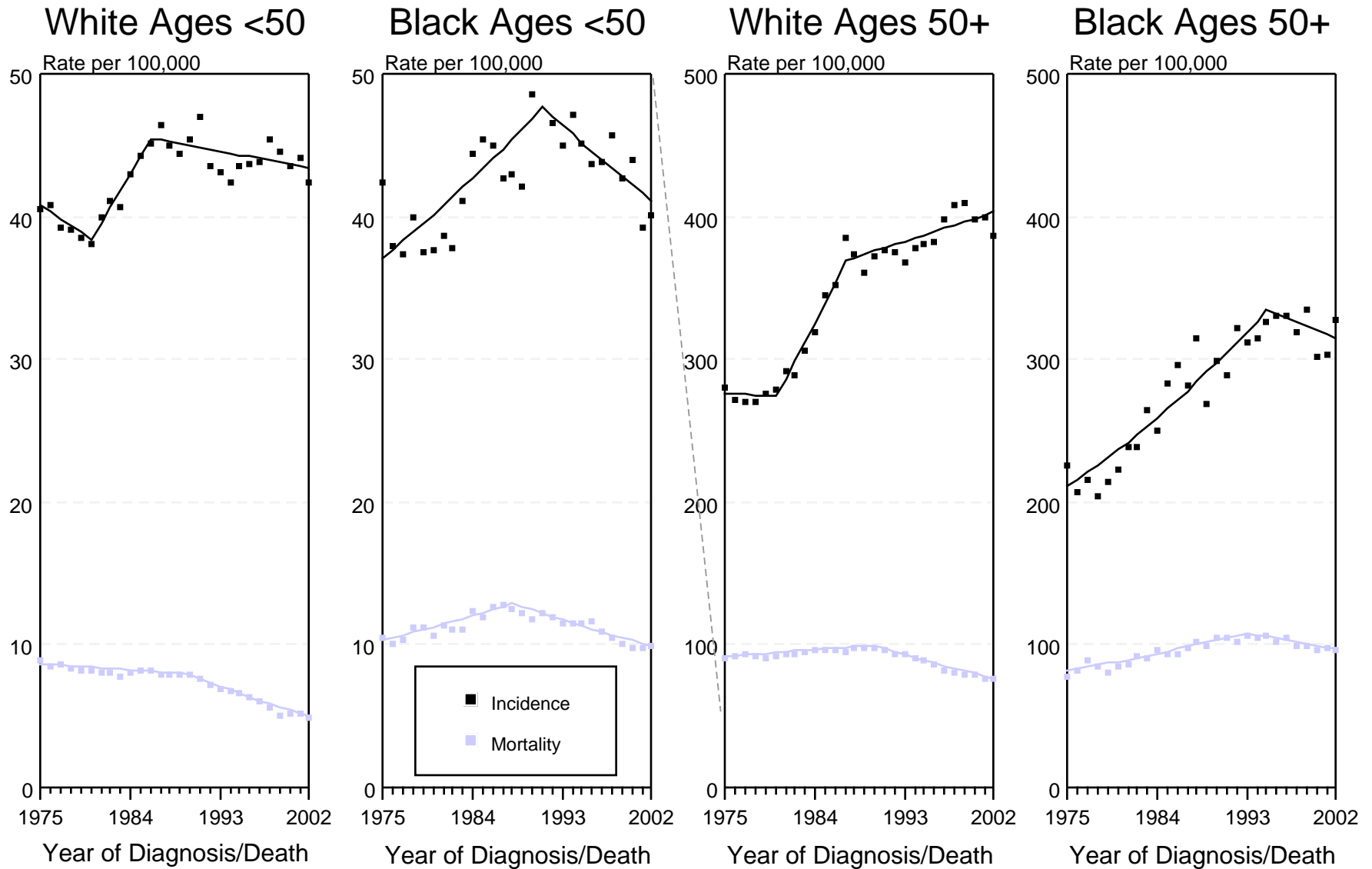


Figure IV-2

+ Source: SEER 9 areas and NCHS public use data file for the total US. 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 3.0, April 2005, National Cancer Institute.

# SEER Incidence and Delay Adjusted Incidence Rates+ Female Breast Cancer (*In Situ*), by Race

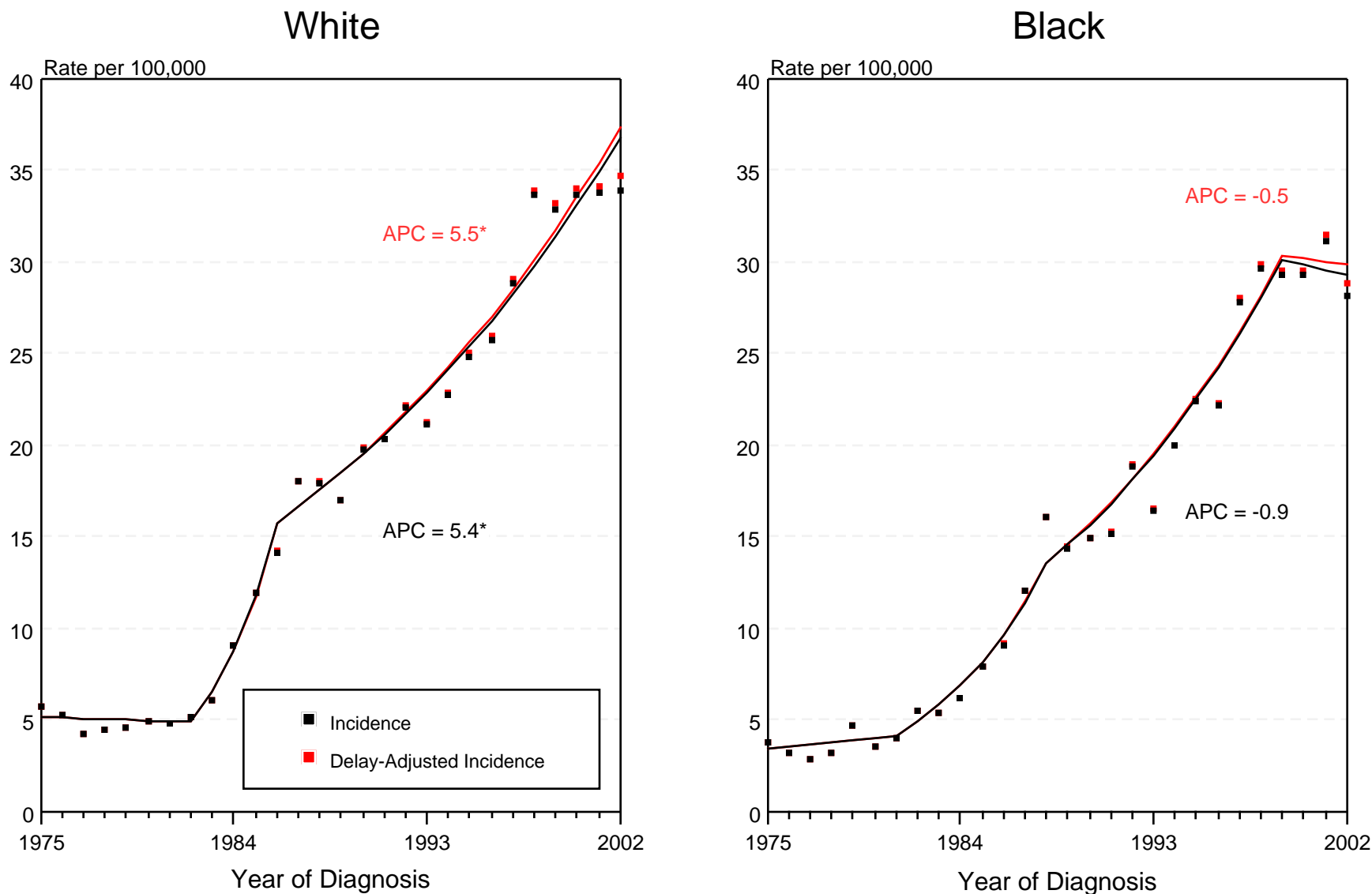


Figure IV-3

+ 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 3.0, April 2005, 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 + Female Breast Cancer

Joinpoint Analyses for 1975-2002 for Whites and Blacks

Rates for 1992-2002 for Asian/Pacific Islander, American Indian/Alaska Native and Hispanic

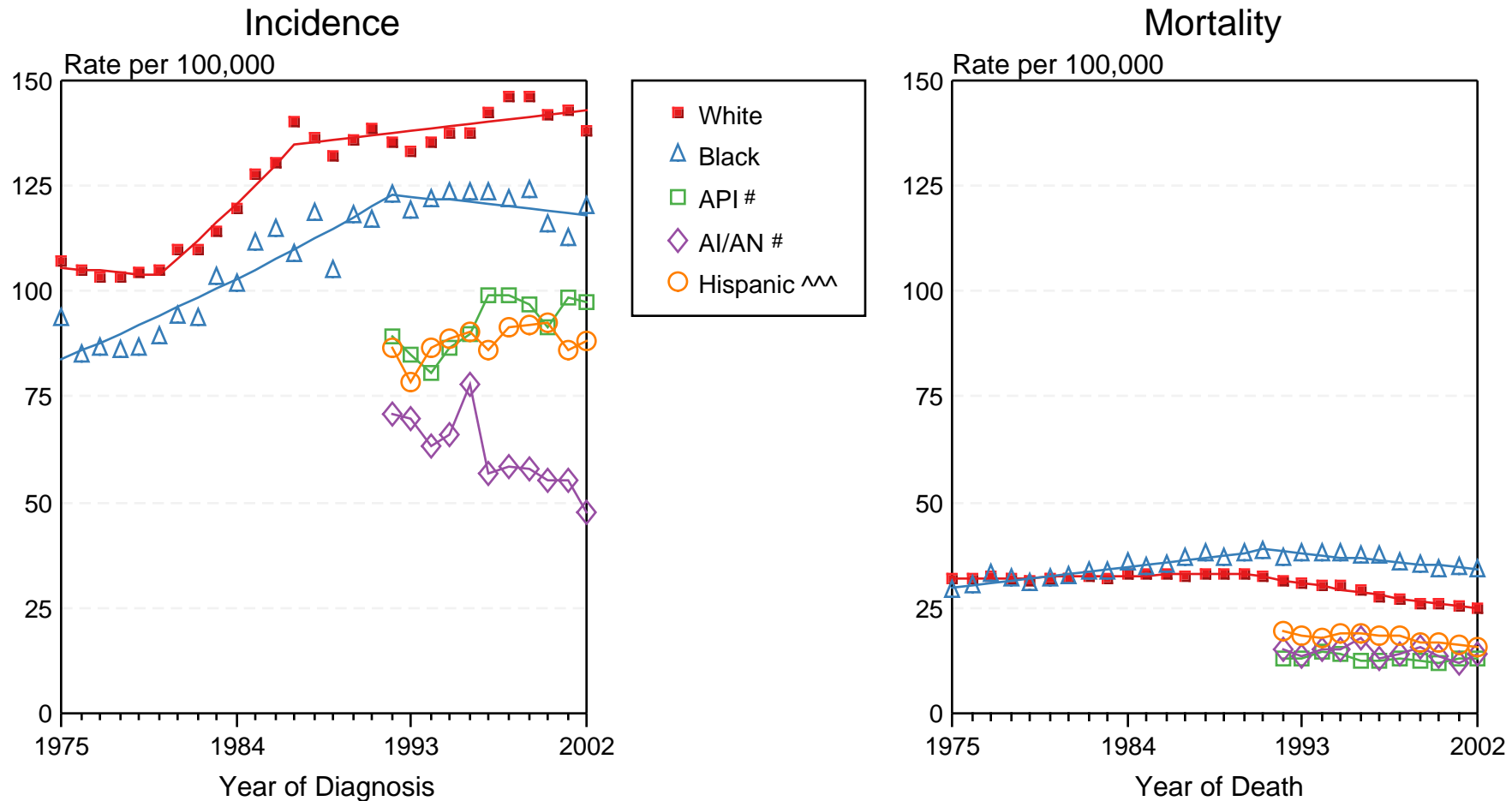


Figure IV-4

+ Source: Incidence data for whites and blacks is from the SEER 9 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta). Incidence data for Asian/Pacific Islanders, American Indian/Alaska Natives and Hispanics is from the SEER 13 Areas (SEER 9 Areas, San Jose-Monterey, Los Angeles, Alaska Native Registry and Rural Georgia). Mortality data is from NCHS public use data file for the total US. Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1103). Regression lines for whites and blacks are calculated using the Joinpoint Regression Program Version 3.0, April 2005, National Cancer Institute.

# API = Asian/Pacific Islander. AI/AN = American Indian/Alaska Native.

^^ Hispanic is not mutually exclusive from Whites, Blacks, Asian/Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics excludes cases from Detroit, Hawaii, Alaska Native Registry and Rural Georgia. Mortality data for Hispanics excludes cases from Connecticut, Maine, Maryland, Minnesota, Oklahoma, New Hampshire, New York, North Dakota, and Vermont.

# Breast Cancer Incidence Rates, 1975-2002 by Age, *In Situ* vs Malignant All Races, Female

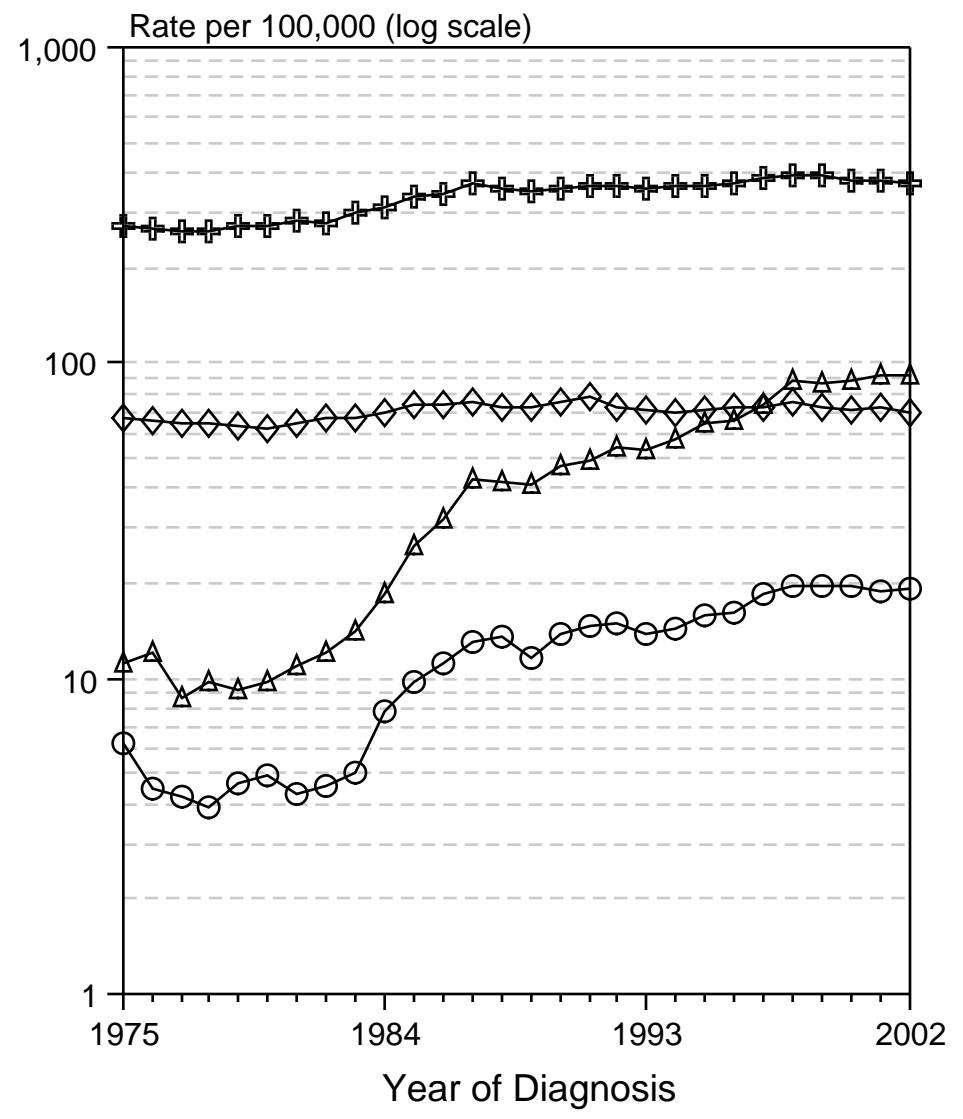
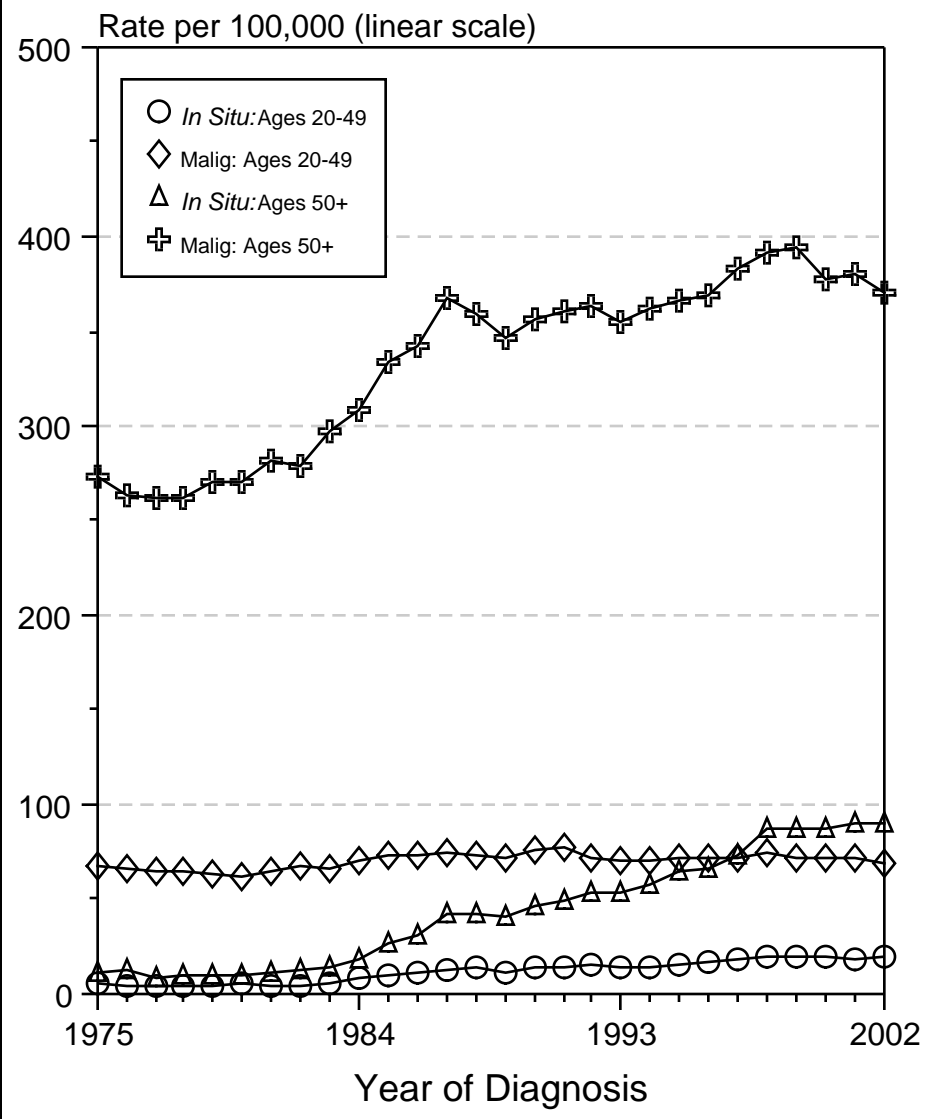


Figure IV-5

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

# Breast Cancer Incidence Rates, 1975-2002 by Age, *In Situ* vs Malignant White Female

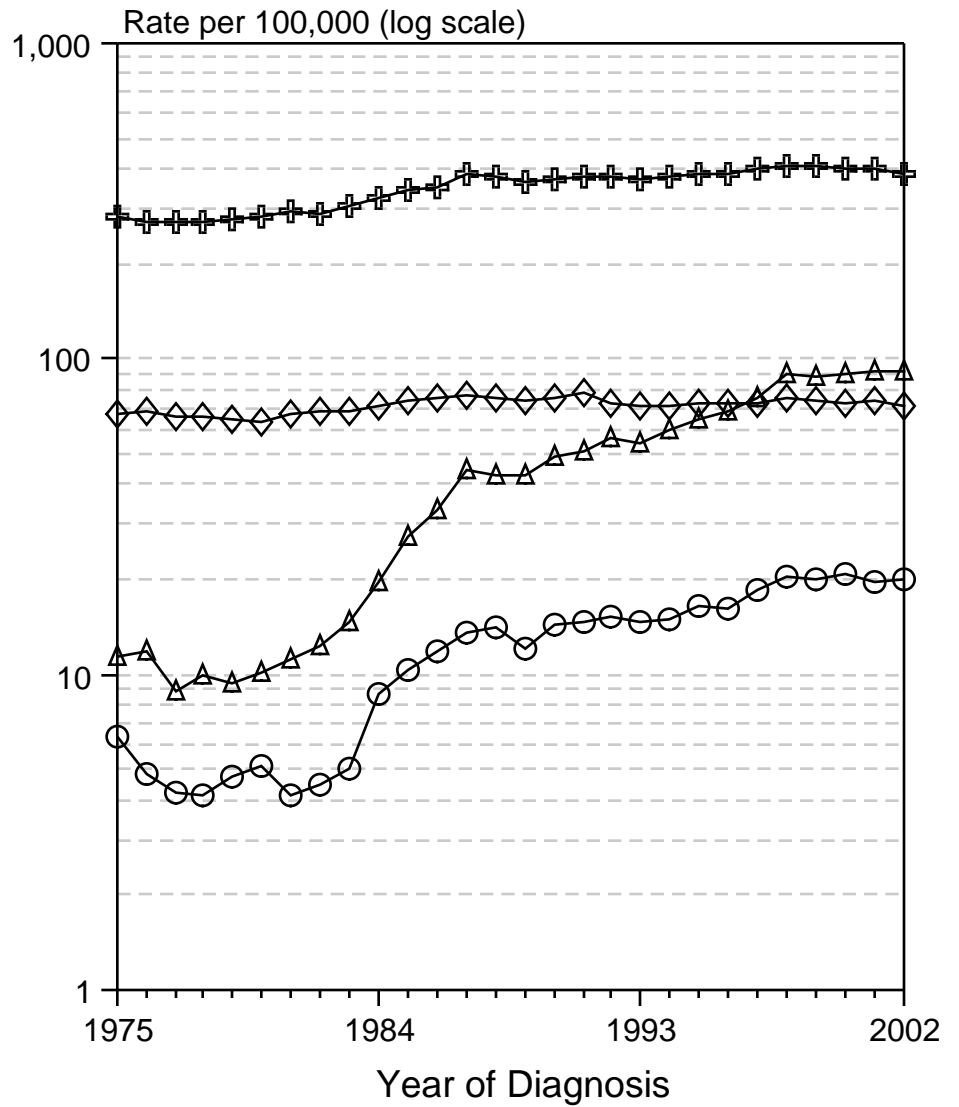
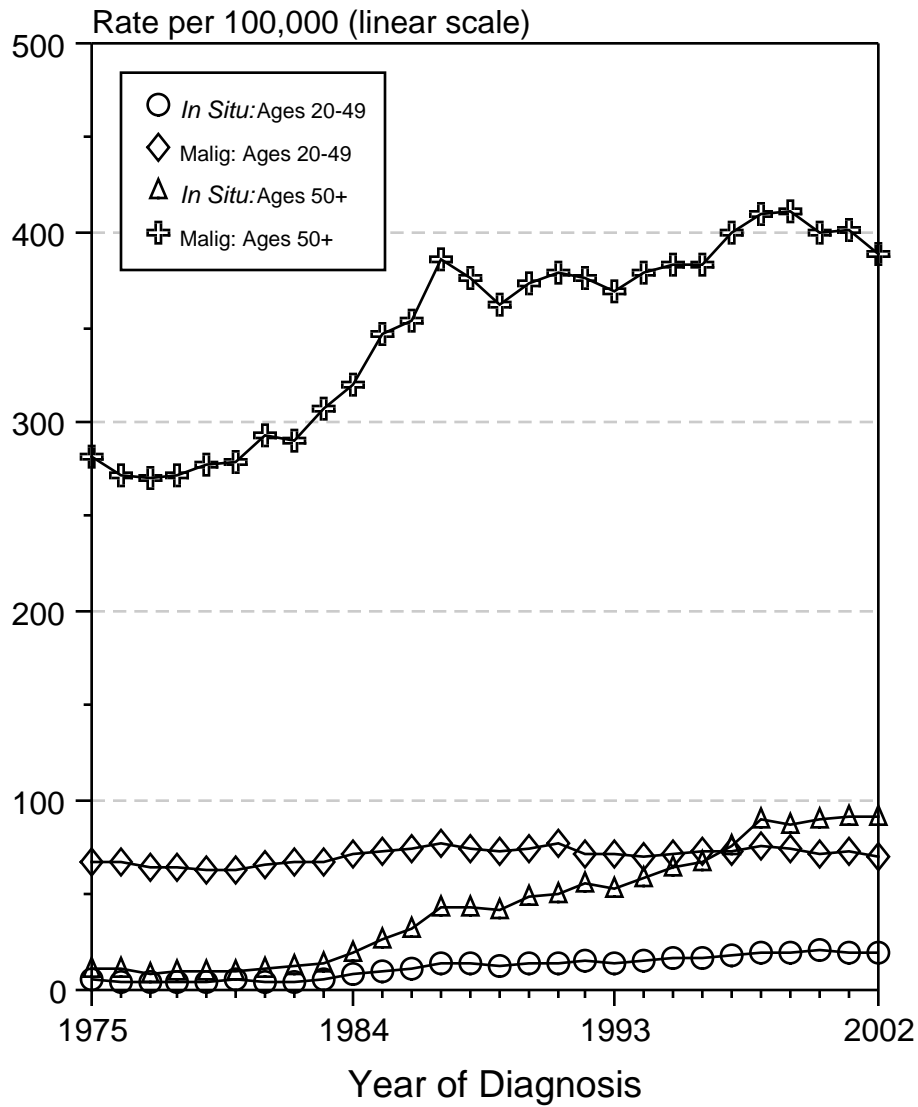


Figure IV-6

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

# Breast Cancer Incidence Rates, 1975-2002 by Age, *In Situ* vs Malignant Black Female

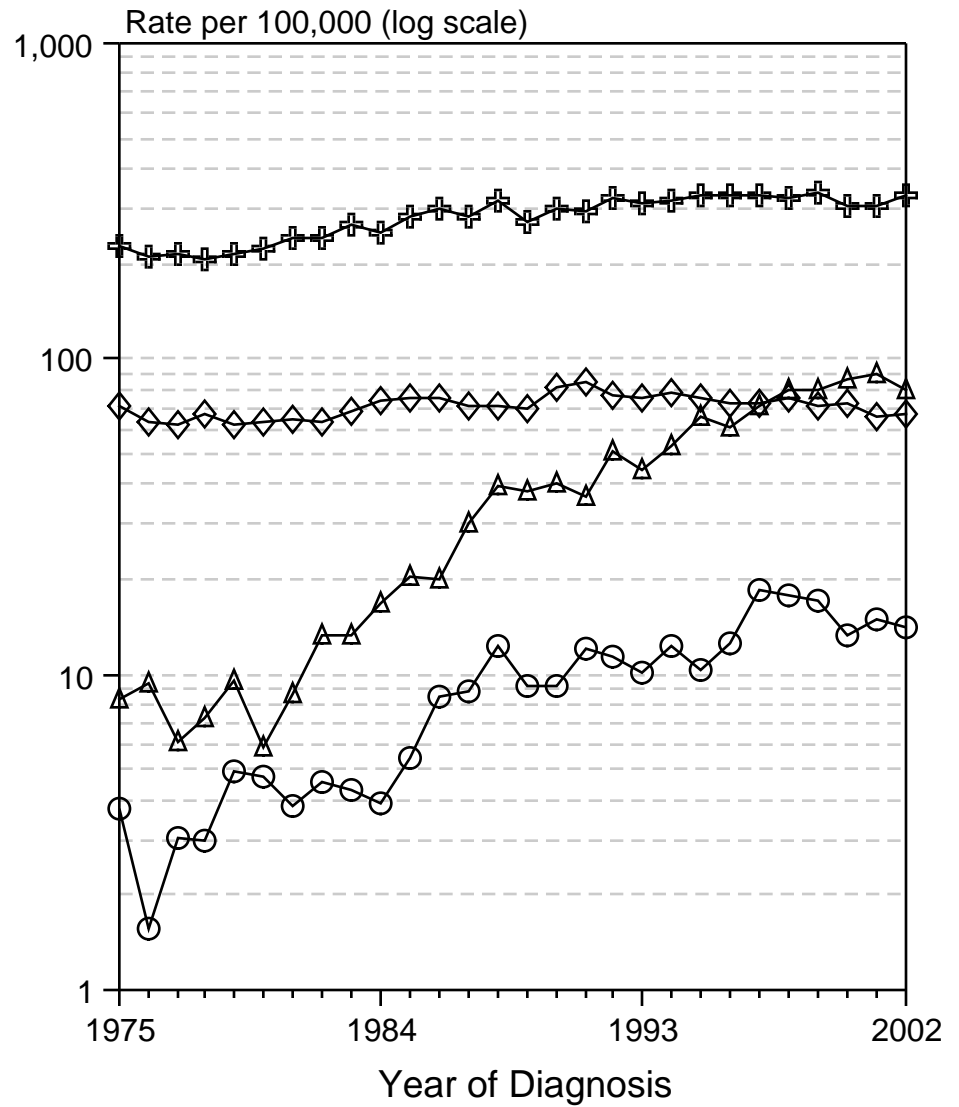
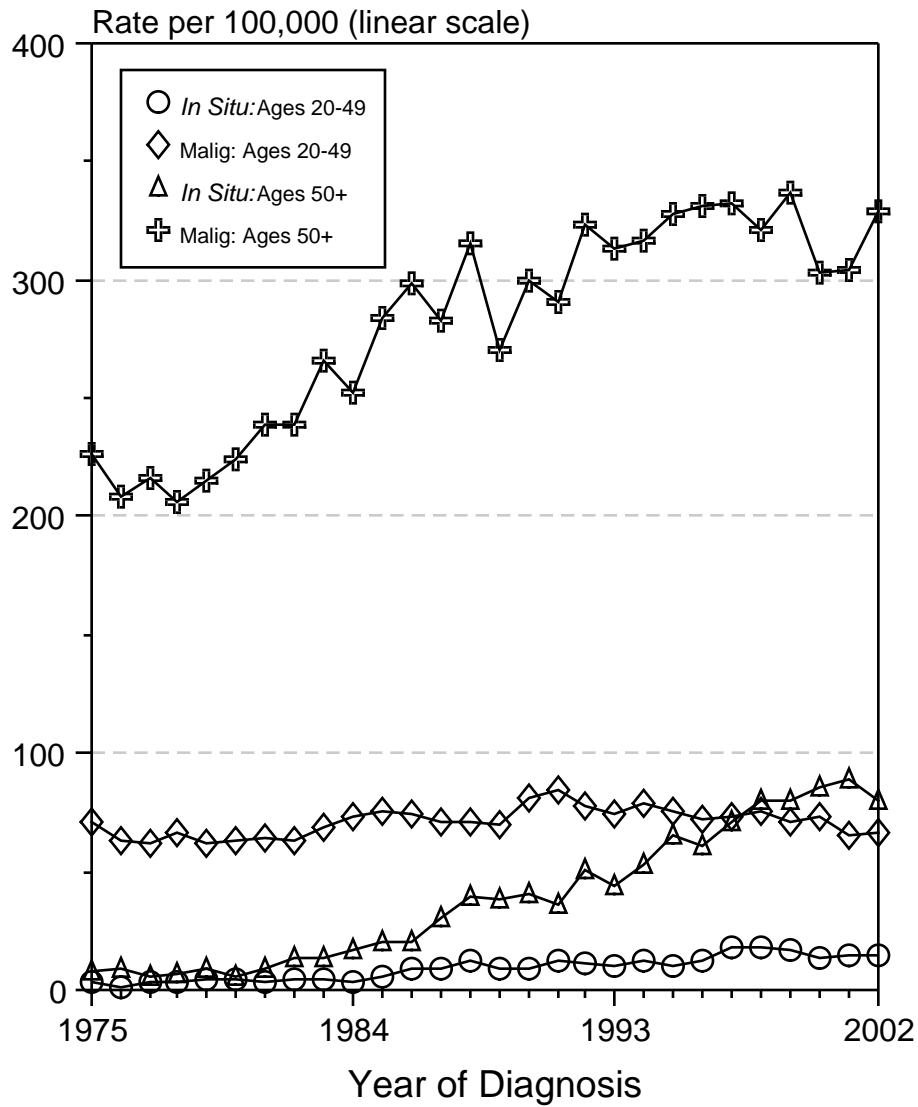
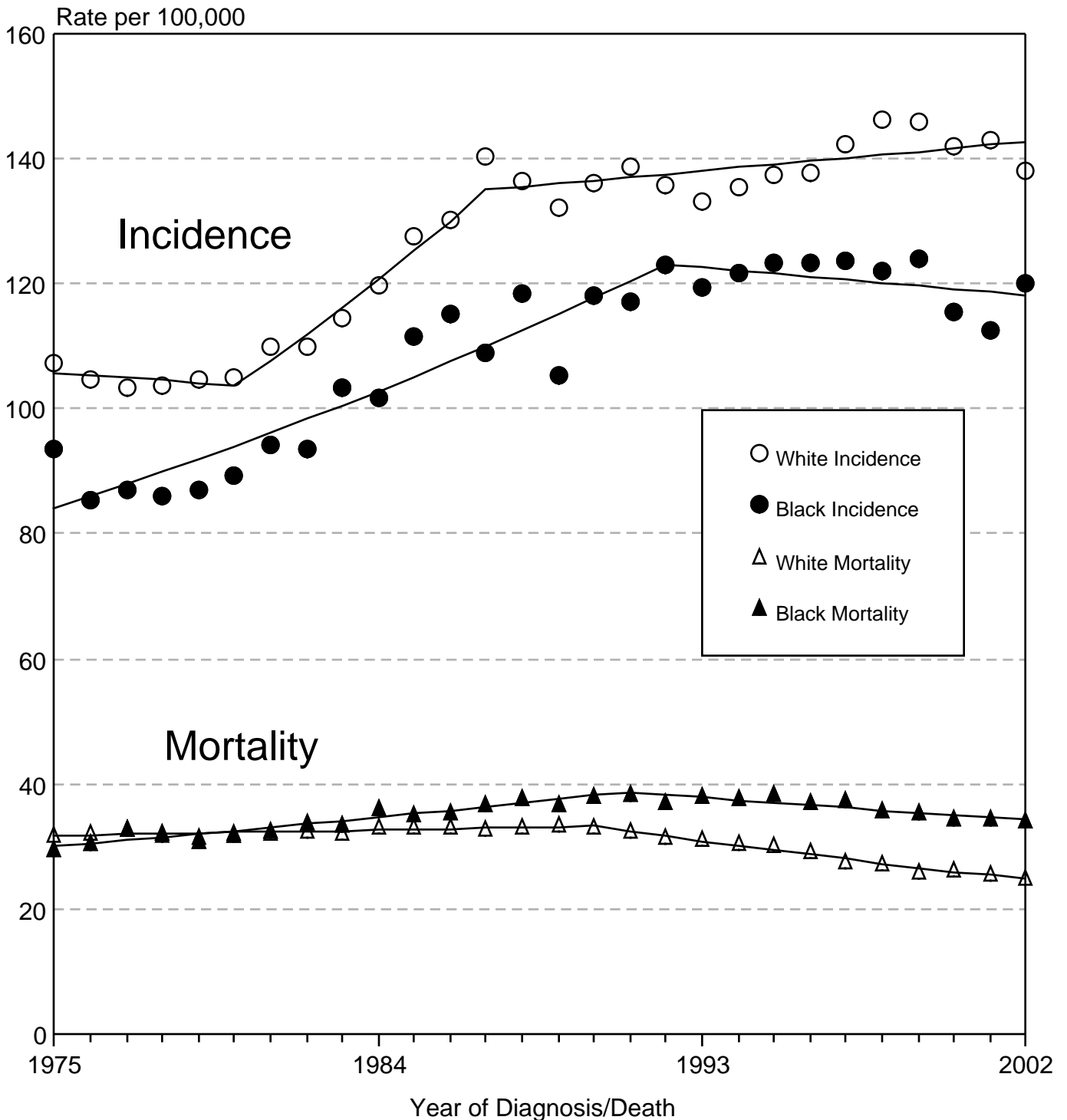


Figure IV-7

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



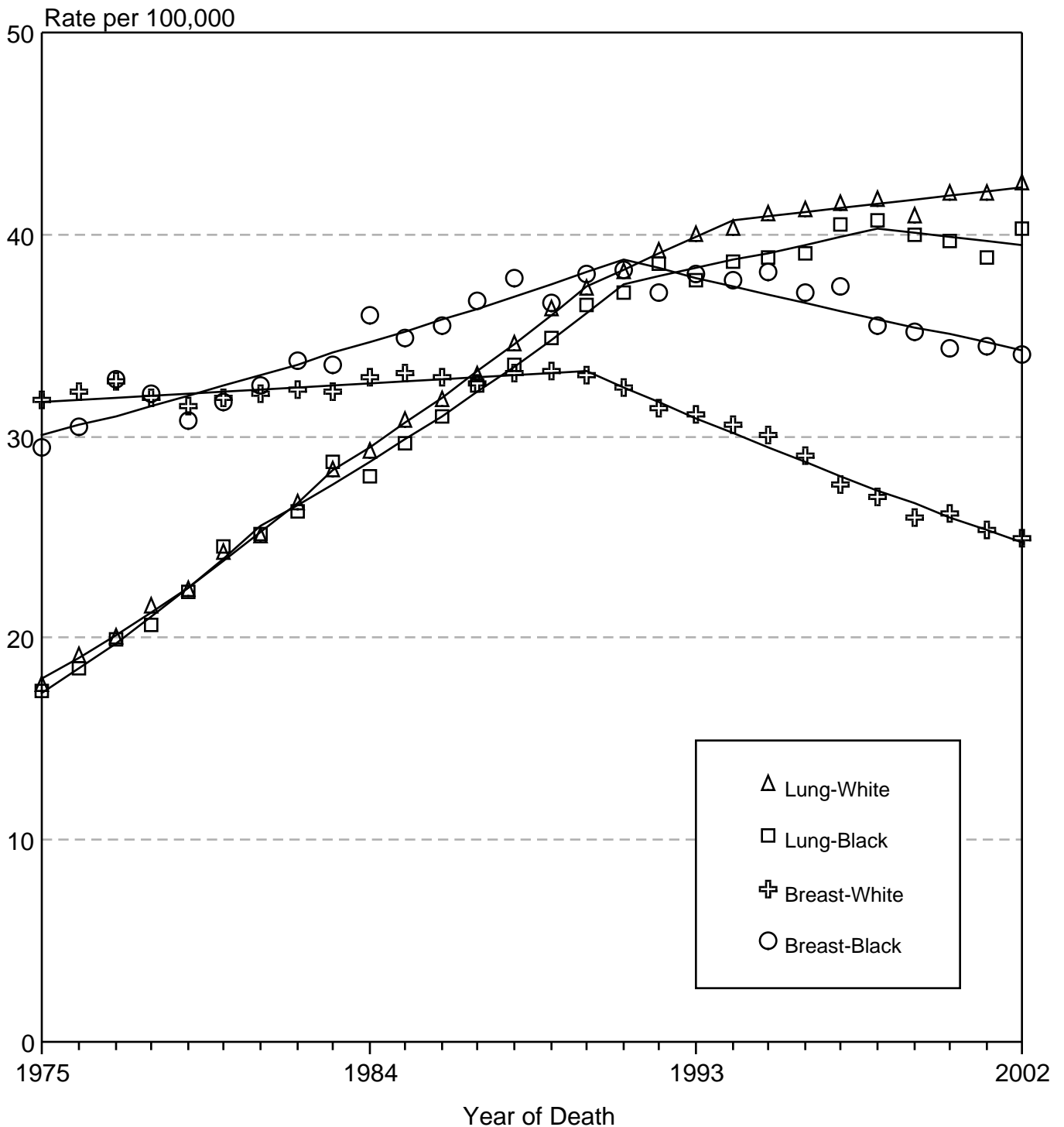
# Breast Cancer Incidence & Mortality White Females vs Black Females 1975-2002



Source: SEER 9 areas and NCHS public use data file for the total US.  
 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 3.0, April 2005, National Cancer Institute.

Figure IV-9

# Breast vs Lung Cancer Mortality White Females vs Black Females 1975-2002



Source: NCHS public use data file for the total US.  
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 3.0, April 2005, National Cancer Institute.