

Table IV-1
FEMALE BREAST CANCER (Invasive)

TRENDS IN SEER INCIDENCE AND U.S. MORTALITY, BY RACE AND AGE

	<u>All Races, Females</u>			<u>White Females</u>			<u>Black Females</u>		
	<u>All</u>	<u><50</u>	<u>50+</u>	<u>All</u>	<u><50</u>	<u>50+</u>	<u>All</u>	<u><50</u>	<u>50+</u>
<u>INCIDENCE TRENDS (expressed in percents)§:</u>									
<u>1973-93</u>									
All Ages									
Percent Change (PC)	23.6	2.2	31.3	24.0	1.4	31.9	36.9	19.9	43.8
Est. Annual PC (EAPC)	1.7★	0.7★	2.0★	1.7★	0.7★	2.1★	2.0★	1.2★	2.3★
Under 65									
Percent Change (PC)	15.0	-	-	14.8	-	-	32.9	-	-
Est. Annual PC (EAPC)	1.2★	-	-	1.3★	-	-	1.7★	-	-
65 and over									
Percent Change (PC)	39.4	-	-	40.5	-	-	44.6	-	-
Est. Annual PC (EAPC)	2.4★	-	-	2.5★	-	-	2.5★	-	-
<u>1975-79 - ALL AGES</u>									
Percent Change (PC)	-2.2	-5.2	-1.2	-2.0	-5.2	-0.9	-3.2	-1.7	-3.8
Est. Annual PC (EAPC)	-0.7	-1.7★	-0.4	-0.7	-1.6★	-0.3	-1.4	-1.4	-1.4
<u>1989-93 - ALL AGES</u>									
Percent Change (PC)	1.3	-3.0	2.6	0.0	-4.3	1.2	8.2	0.8	11.0
Est. Annual PC (EAPC)	0.4	-0.8	0.8	0.0	-1.3	0.4	2.8◆	0.7	3.5★◆
<u>MORTALITY TRENDS (expressed in percents)δ:</u>									
<u>1973-93</u>									
All Ages									
Percent Change (PC)	-2.9	-18.9	1.0	-4.3	-21.5	-0.2	18.0	-0.7	24.3
Est. Annual PC (EAPC)	0.1	-0.8★	0.3★	0.0	-1.0★	0.2★	1.2★	0.6★	1.4★
Under 65									
Percent Change (PC)	-13.3	-	-	-15.4	-	-	8.7	-	-
Est. Annual PC (EAPC)	-0.5★	-	-	-0.6★	-	-	0.9★	-	-
65 and over									
Percent Change (PC)	12.1	-	-	11.4	-	-	34.9	-	-
Est. Annual PC (EAPC)	0.8★	-	-	0.8★	-	-	1.8★	-	-
<u>1975-79 - ALL AGES</u>									
Percent Change (PC)	-0.4	-3.4	0.3	-0.8	-5.1	0.2	4.6	8.9	3.3
Est. Annual PC (EAPC)	-0.2	-1.3★	0.1	-0.2	-1.8★	0.1	1.2	2.4	0.9
<u>1989-93 - ALL AGES</u>									
Percent Change (PC)	-5.2	-8.7	-4.4	-5.8	-10.0	-5.0	0.8	-2.7	1.8
Est. Annual PC (EAPC)	-1.7★◆	-3.0★◆	-1.4★◇	-1.9★◆	-3.4★◇	-1.6★◆	0.5	-1.1◆	1.0

The Est. Annual PC is the Estimated Annual Percent Change (EAPC) over the time interval.

§ SEER Program.

δ NCHS public use tape.

★ The EAPC is significantly different from zero (p<.05).

◆ The EAPC for 1989-93 is significantly different from the EAPC for 1975-79 (p<.05).

◇ The EAPC for 1989-93 is significantly different from the EAPC for 1975-79 (p<.10).

- Statistic could not be calculated.

Table IV-2
BREAST CANCER (Invasive)

SEER INCIDENCE 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>AGE-ADJUSTED RATES</u>									
YEAR OF DIAGNOSIS:									
1973	45.0	1.0	82.6	46.1	0.9	84.4	38.4	2.7	68.7
1974	51.7	1.0	94.9	52.8	1.0	96.5	43.4	1.7	78.9
1975	48.1	0.7	88.0	49.1	0.7	89.7	43.4	0.7	78.5
1976	46.7	0.8	85.4	48.0	0.8	87.6	39.2	1.0	70.4
1977	46.1	0.8	84.0	47.2	0.7	86.0	40.7	1.8	72.1
1978	46.1	0.7	84.1	47.4	0.7	86.4	39.9	0.3	71.7
1979	47.0	0.8	85.5	48.1	0.8	87.4	41.2	1.7	72.5
1980	46.9	0.7	85.3	48.2	0.8	87.7	41.6	0.7	74.1
1981	48.9	0.8	88.8	50.4	0.7	91.7	44.2	1.7	77.5
1982	49.1	0.8	89.3	50.5	0.8	92.1	44.2	1.6	77.2
1983	51.3	0.9	93.3	52.8	0.9	96.1	48.5	0.4	86.0
1984	53.3	0.8	97.1	55.0	0.8	100.3	47.9	1.2	84.5
1985	57.0	0.7	103.9	58.6	0.8	107.0	52.5	0.9	92.4
1986	58.5	0.8	106.5	59.9	0.8	109.4	54.2	1.1	95.0
1987	62.1	0.8	113.0	64.4	0.8	117.8	51.9	1.0	90.9
1988	60.6	1.0	110.2	62.5	0.9	114.3	57.1	2.2	99.2
1989	58.5	0.9	106.5	60.4	0.9	110.4	51.2	1.8	89.3
1990	60.3	0.9	110.0	62.1	1.0	113.8	55.9	1.0	97.5
1991	61.2	0.9	111.8	63.0	0.9	115.8	55.4	1.1	97.3
1992	60.7	0.9	111.1	61.8	0.8	113.7	58.2	1.1	101.8
1993	59.1	1.0	108.3	60.0	1.0	110.5	57.0	0.8	100.3
<u>AGE-ADJUSTED RATES, 1989-93</u>									
AGE AT DIAGNOSIS:									
All ages	59.9	0.9	109.5	61.4	0.9	112.8	55.6	1.2	97.3
Under 65	37.7	0.4	73.0	38.2	0.4	74.8	38.0	0.7	69.2
65 and over	263.0	5.4	443.3	273.5	5.5	460.3	216.5	5.7	353.7
All ages (world std.) ^λ	50.0	0.7	92.7	51.1	0.7	95.3	47.3	1.0	83.7
<u>AGE-SPECIFIC RATES, 1989-93</u>									
AGE AT DIAGNOSIS:									
0-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5-9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-14	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2
15-19	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.2
20-24	0.5	0.0	1.1	0.4	0.0	0.8	1.1	0.0	2.0
25-29	3.9	0.0	7.8	3.6	0.0	7.2	5.7	0.0	10.8
30-34	12.7	0.1	25.1	11.9	0.1	23.9	18.0	0.0	33.7
35-39	32.0	0.2	63.4	31.5	0.2	63.1	35.6	0.4	66.0
40-44	62.3	0.4	122.6	61.4	0.3	122.4	71.7	1.4	132.6
45-49	101.1	0.6	199.5	102.0	0.5	203.5	104.0	1.0	194.1
50-54	121.7	1.5	237.1	124.8	1.5	245.7	114.7	1.8	211.1
55-59	146.1	2.5	280.0	148.1	2.2	287.7	147.7	6.0	262.7
60-64	181.5	2.5	341.1	187.9	2.4	357.3	161.1	1.8	287.1
65-69	225.5	4.3	408.0	234.9	4.3	426.9	189.9	4.6	330.4
70-74	259.1	5.5	452.8	268.6	5.7	469.3	215.6	6.6	359.9
75-79	290.0	5.3	480.7	301.4	5.4	497.4	242.3	5.7	385.8
80-84	308.5	7.7	473.6	323.2	8.4	490.6	239.2	5.5	362.8
85+	312.9	6.5	431.4	324.1	6.3	442.2	243.0	7.8	344.3

§ SEER Program. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population, except where noted.

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

Table IV-3
BREAST CANCER (Invasive)
 U.S. MORTALITY RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES^δ, BY RACE AND SEX

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>AGE-ADJUSTED RATES</u>									
YEAR OF DEATH:									
1973	15.0	0.3	26.9	15.1	0.3	27.1	14.8	0.5	26.3
1974	14.9	0.3	26.7	14.9	0.3	26.8	15.1	0.5	26.7
1975	14.6	0.3	26.2	14.8	0.3	26.5	14.1	0.3	24.8
1976	14.8	0.3	26.5	15.0	0.3	26.8	14.4	0.5	25.2
1977	15.2	0.3	27.1	15.2	0.3	27.2	15.7	0.4	27.4
1978	14.8	0.3	26.5	14.9	0.3	26.7	15.3	0.5	26.7
1979	14.6	0.2	26.0	14.7	0.2	26.2	14.8	0.4	25.7
1980	14.8	0.2	26.4	14.9	0.2	26.6	15.2	0.3	26.4
1981	14.9	0.2	26.6	15.0	0.2	26.8	15.6	0.4	27.1
1982	15.0	0.3	26.8	15.1	0.2	26.9	16.3	0.4	28.2
1983	15.0	0.2	26.7	15.0	0.2	26.8	16.2	0.4	28.0
1984	15.4	0.2	27.3	15.3	0.2	27.3	17.4	0.4	30.0
1985	15.4	0.3	27.5	15.4	0.3	27.6	16.9	0.3	29.1
1986	15.3	0.2	27.3	15.3	0.2	27.4	17.1	0.3	29.6
1987	15.2	0.3	27.1	15.2	0.3	27.1	17.8	0.4	30.6
1988	15.5	0.2	27.5	15.3	0.2	27.4	18.3	0.6	31.4
1989	15.4	0.3	27.5	15.4	0.2	27.5	17.7	0.4	30.4
1990	15.4	0.2	27.4	15.2	0.2	27.3	18.5	0.4	31.6
1991	15.1	0.2	27.0	15.0	0.2	26.8	18.6	0.3	31.9
1992	14.7	0.2	26.2	14.5	0.2	26.0	18.1	0.4	31.0
1993	14.5	0.3	25.9	14.3	0.3	25.6	18.5	0.5	31.5
<u>AGE-ADJUSTED RATES, 1989-93</u>									
AGE AT DEATH:									
All ages	15.0	0.2	26.8	14.9	0.2	26.6	18.3	0.4	31.3
Under 65	8.3	0.1	15.9	8.0	0.1	15.5	11.5	0.2	20.8
65 and over	76.5	1.6	126.2	77.3	1.5	127.8	79.8	2.6	127.2
All ages (world std.) ^φ	12.1	0.2	21.9	11.9	0.2	21.7	15.2	0.3	26.3
<u>AGE-SPECIFIC RATES, 1989-93</u>									
AGE AT DEATH:									
0-4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5-9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10-14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20-24	0.1	0.0	0.1	0.0	0.0	0.1	0.2	0.0	0.3
25-29	0.6	0.0	1.2	0.5	0.0	1.0	1.3	0.0	2.5
30-34	2.2	0.0	4.5	2.0	0.0	4.1	4.1	0.0	7.6
35-39	5.7	0.0	11.4	5.2	0.0	10.5	10.2	0.1	19.0
40-44	11.5	0.1	22.6	10.9	0.1	21.7	18.2	0.1	33.6
45-49	18.6	0.2	36.4	17.8	0.1	35.2	28.4	0.4	51.9
50-54	27.3	0.3	52.9	26.4	0.3	51.5	39.3	0.5	70.9
55-59	35.9	0.4	68.4	35.2	0.4	67.8	46.8	0.9	83.1
60-64	45.5	0.7	84.8	45.4	0.7	85.4	54.5	0.9	95.0
65-69	56.8	1.0	102.1	57.1	1.0	103.3	62.9	1.7	107.4
70-74	67.8	1.3	117.8	68.4	1.2	119.4	73.3	3.3	119.9
75-79	83.4	1.7	136.9	84.3	1.8	138.7	84.2	1.4	133.0
80-84	102.3	2.3	155.9	103.6	2.2	157.7	101.8	4.2	152.3
85+	142.8	4.0	196.2	144.7	4.0	198.1	136.9	4.6	192.1

^δ NCHS public use tape. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population, except where noted.

^φ NCHS public use tape. Rates are per 100,000 and are age-adjusted to the world standard population.

Table IV-4
FEMALE BREAST CANCER (Invasive)

SEER INCIDENCE§ AND U.S. MORTALITYδ 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:									
1973	82.6	29.0	247.8	84.4	29.4	253.9	68.7	25.8	201.0
1974	94.9	33.0	285.8	96.5	32.8	292.8	78.9	30.4	228.7
1975	88.0	30.0	267.0	89.7	30.0	273.9	78.5	30.9	225.6
1976	85.4	29.7	257.3	87.6	30.2	264.4	70.4	27.3	203.2
1977	84.0	28.8	254.3	86.0	29.0	261.9	72.1	27.0	211.0
1978	84.1	28.5	255.3	86.4	28.7	264.2	71.7	29.6	201.6
1979	85.5	28.0	262.8	87.4	28.4	269.5	72.5	27.6	211.0
1980	85.3	27.7	263.2	87.7	28.0	271.7	74.1	27.6	217.7
1981	88.8	28.7	274.0	91.7	29.3	284.1	77.5	28.6	228.4
1982	89.3	29.9	272.5	92.1	30.3	282.8	77.2	28.0	229.0
1983	93.3	29.6	289.8	96.1	29.9	300.1	86.0	30.2	258.2
1984	97.1	31.0	300.9	100.3	31.4	312.8	84.5	32.1	245.9
1985	103.9	32.5	324.1	107.0	32.6	336.4	92.4	33.4	274.3
1986	106.5	32.6	334.7	109.4	33.1	344.9	95.0	32.4	287.9
1987	113.0	33.4	358.6	117.8	34.2	375.6	90.9	31.5	274.4
1988	110.2	32.2	350.6	114.3	32.9	365.2	99.2	31.2	308.8
1989	106.5	31.9	336.5	110.4	32.6	350.5	89.3	31.4	267.9
1990	110.0	33.4	346.4	113.8	33.4	362.1	97.5	35.4	289.0
1991	111.8	34.5	350.1	115.8	34.6	366.3	97.3	36.6	284.4
1992	111.1	31.9	355.3	113.7	31.8	366.1	101.8	34.3	310.0
1993	108.3	31.4	345.4	110.5	31.3	354.8	100.3	33.1	307.8
1989-93	109.5	32.6	346.8	112.8	32.7	360.0	97.3	34.2	292.1
<u>U.S. MORTALITY RATES</u>									
YEAR OF DEATH:									
1973	26.9	7.0	88.4	27.1	6.8	89.7	26.3	8.9	79.8
1974	26.7	6.9	87.6	26.8	6.7	88.6	26.7	8.7	82.0
1975	26.2	6.8	86.1	26.5	6.7	87.5	24.8	7.9	77.1
1976	26.5	6.5	88.3	26.8	6.4	89.9	25.2	7.5	79.7
1977	27.1	6.6	90.2	27.2	6.5	91.1	27.4	7.8	88.0
1978	26.5	6.4	88.3	26.7	6.3	89.5	26.7	8.4	83.1
1979	26.0	6.3	86.6	26.2	6.2	88.2	25.7	8.4	79.0
1980	26.4	6.3	88.4	26.6	6.2	89.7	26.4	8.0	83.2
1981	26.6	6.2	89.3	26.8	6.0	90.7	27.1	8.5	84.3
1982	26.8	6.2	90.2	26.9	6.0	91.1	28.2	8.3	89.7
1983	26.7	6.0	90.6	26.8	5.8	91.6	28.0	8.2	89.2
1984	27.3	6.3	92.2	27.3	6.0	93.0	30.0	9.2	94.3
1985	27.5	6.3	92.7	27.6	6.1	93.7	29.1	8.8	91.8
1986	27.3	6.4	91.9	27.4	6.1	93.0	29.6	9.4	91.7
1987	27.1	6.2	91.7	27.1	5.9	92.4	30.6	9.5	95.7
1988	27.5	6.2	93.4	27.4	5.9	93.9	31.4	9.3	99.5
1989	27.5	6.2	93.1	27.5	5.9	93.9	30.4	9.2	96.0
1990	27.4	6.1	92.9	27.3	5.9	93.2	31.6	8.8	101.7
1991	27.0	6.0	91.8	26.8	5.7	92.0	31.9	9.1	102.1
1992	26.2	5.8	89.1	26.0	5.5	89.3	31.0	8.9	99.1
1993	25.9	5.5	88.7	25.6	5.2	88.6	31.5	8.6	102.1
1989-93	26.8	5.9	91.1	26.6	5.6	91.4	31.3	8.9	100.2

§ SEER Program. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.

δ NCHS public use tape. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.

Table IV-5
FEMALE BREAST CANCER (Invasive)

SURVIVAL RATES, BY RACE, DIAGNOSIS YEAR, STAGE AND AGE

	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:									
1960-63 ^a	-	-	-	63	-	-	46	-	-
1970-73 ^a	-	-	-	68	-	-	51	-	-
1974-76 ^b	74.4	76.2	73.8	75.1	77.3	74.3	62.8	64.0	62.1
1977-79 ^b	74.7	75.8	74.3	75.4	76.7	74.9	63.0	65.0	61.8
1980-82 ^b	76.3	77.1	76.0	77.1	77.9	76.8	65.8	69.2	63.9
1983-85 ^b	78.4	77.4	78.8	79.6	79.1	79.8	63.4	63.3	63.5
1986-92 ^b	83.8 Ω	80.8 Ω	85.0 Ω	85.0 Ω	82.4 Ω	86.0 Ω	69.8 Ω	67.2	71.5 Ω
1986-92 ^b									
ALL STAGES	83.8	80.8	85.0	85.0	82.4	86.0	69.8	67.2	71.5
LOCALIZED	96.5	92.1	98.1	97.1	92.7	98.5	89.4	85.3	92.0
REGIONAL	75.6	73.7	76.6	77.1	75.7	77.8	61.3	59.1	63.0
DISTANT	20.2	22.4	19.6	20.7	24.5	19.8	16.4	15.2	16.9
UNSTAGED	54.8	62.2	52.9	56.2	65.8	53.7	47.8	42.7 \uparrow	49.5

STAGE DISTRIBUTION (%) 1986-92^b

ALL STAGES									
Number of cases	88,580	21,200	67,380	77,868	17,662	60,206	6,803	2,328	4,475
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
LOCALIZED	59	54	61	60	55	61	48	47	49
REGIONAL	32	39	30	31	38	29	37	42	35
DISTANT	6	5	6	6	4	6	9	7	10
UNSTAGED	3	2	4	3	2	3	5	3	6

5-YR RELATIVE SURVIVAL RATES, 1986-92^b

AGE AT DIAGNOSIS:									
<45	78.9	-	-	80.8	-	-	64.4	-	-
45-54	83.2	-	-	84.4	-	-	70.4	-	-
55-64	83.9	-	-	85.0	-	-	70.1	-	-
65-74	86.3	-	-	87.0	-	-	73.9	-	-
75+	86.1	-	-	86.9	-	-	73.6	-	-
Under 65	82.3	-	-	83.7	-	-	68.0	-	-
65 and over	86.2	-	-	87.0	-	-	74.2	-	-

^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 Program. They are based on data from population-based registries in Connecticut, New Mexico, Utah, Iowa, Hawaii, Atlanta, Detroit, Seattle-Puget Sound and San Francisco-Oakland. Rates are based on follow-up of patients through 1993.

Ω The difference in rates between 1974-76 and 1986-92 is statistically significant ($p < .05$).

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

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

- Statistic could not be calculated.

Table IV-6
FEMALE BREAST CANCER (Invasive)

INCIDENCE, MORTALITY, AND SURVIVAL RATES

By Year of Diagnosis/Death

All Races, Females

Year of Diagnosis/Death

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Incidence																					
SEER	82.6	94.9	88.0	85.4	84.0	84.1	85.5	85.3	88.8	89.3	93.3	97.1	103.9	106.5	113.0	110.2	106.5	110.0	111.8	111.1	108.3
Mortality																					
U.S.	26.9	26.7	26.2	26.5	27.1	26.5	26.0	26.4	26.6	26.8	26.7	27.3	27.5	27.3	27.1	27.5	27.5	27.4	27.0	26.2	25.9
SEER	26.5	28.0	27.6	26.9	28.0	27.3	26.2	26.8	27.1	27.5	26.8	26.5	27.9	27.0	27.7	27.7	27.5	26.1	26.9	25.6	24.9
Relative Survival Rates (SEER)																					
1-year	93.4	94.0	94.5	94.6	94.5	94.7	94.9	95.2	95.4	95.6	95.4	95.7	95.9	96.4	97.0	97.0	97.2	97.1	97.4	97.4	
2-year	86.9	88.1	88.7	88.7	89.1	88.8	89.0	89.8	90.1	90.4	90.4	91.4	91.4	91.9	93.5	93.7	93.6	93.5	93.9		
3-year	81.3	82.9	82.9	83.5	83.6	83.2	83.2	84.1	84.9	84.8	85.1	86.4	86.6	87.4	89.6	90.4	90.4	89.9			
4-year	76.7	77.6	78.6	78.4	78.7	78.7	78.4	79.5	79.7	80.7	81.2	82.6	82.7	83.9	86.5	87.6	87.6				
5-year	72.1	73.6	75.0	74.5	75.2	74.5	74.4	75.3	76.2	77.3	77.0	78.9	79.2	81.0	83.7	84.9					
6-year	68.3	70.6	71.7	71.1	72.1	71.4	71.3	72.1	73.2	74.2	74.0	76.4	76.7	78.7	80.9						
7-year	65.3	67.9	69.2	68.2	69.5	68.7	68.2	69.3	70.5	71.1	71.1	73.9	74.6	76.3							
8-year	63.1	65.8	67.3	66.0	67.3	66.2	66.0	67.1	67.9	69.1	68.8	71.8	72.6								
9-year	61.1	64.2	65.3	63.8	65.1	64.1	63.8	64.6	66.0	67.6	67.1	69.3									
10-year	59.6	62.4	63.4	62.2	63.3	62.6	62.1	63.0	63.8	65.6	65.3										
11-year	58.3	60.9	61.6	60.7	61.7	61.0	60.7	61.2	62.2	63.5											
12-year	56.5	59.2	60.2	59.0	59.9	59.3	59.5	59.8	60.9												
13-year	55.0	57.9	58.8	58.0	58.9	58.5	58.3	58.9													
14-year	53.9	56.9	57.9	57.3	57.9	57.4	57.2														
15-year	52.7	55.8	56.8	56.2	56.7	56.3															
16-year	51.6	54.7	55.6	55.8	55.6																
17-year	50.8	54.0	55.0	54.9																	
18-year	50.3	53.1	54.3																		
19-year	49.0	52.1																			
20-year	48.5																				

Note: Incidence and mortality rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.

Survival rates are relative rates expressed as percents.

Table IV-7
 FEMALE BREAST CANCER (Under 50) (Invasive)

INCIDENCE, MORTALITY, AND SURVIVAL RATES

By Year of Diagnosis/Death

All Races, Females

Year of Diagnosis/Death

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Incidence																					
SEER	29.0	33.0	30.0	29.7	28.8	28.5	28.0	27.7	28.7	29.9	29.6	31.0	32.5	32.6	33.4	32.2	31.9	33.4	34.5	31.9	31.4
Mortality																					
U.S.	7.0	6.9	6.8	6.5	6.6	6.4	6.3	6.3	6.2	6.2	6.0	6.3	6.3	6.4	6.2	6.2	6.2	6.1	6.0	5.8	5.5
SEER	6.3	7.2	6.8	6.2	7.0	6.2	6.1	6.5	5.9	6.1	5.8	5.8	6.0	6.3	6.0	6.0	5.7	6.0	5.9	5.1	5.3
Relative Survival Rates (SEER)																					
1-year	95.7	96.7	96.4	96.5	96.6	97.2	96.9	97.8	98.1	97.4	97.7	97.4	97.6	98.0	98.1	98.5	98.2	97.6	98.5	98.4	
2-year	89.1	91.0	90.4	91.3	91.0	91.3	90.4	90.7	92.0	92.0	91.6	91.4	91.8	92.3	92.6	93.8	92.9	93.1	93.7		
3-year	83.1	84.9	83.7	85.9	85.1	84.6	83.2	84.7	86.1	86.5	86.1	85.3	85.8	86.2	87.2	89.2	88.7	88.4			
4-year	78.7	79.5	80.0	80.5	80.6	80.1	78.8	79.9	80.9	82.1	81.2	81.3	81.2	82.1	82.9	85.3	84.9				
5-year	74.1	76.0	76.1	76.4	76.8	76.0	74.7	75.5	77.3	78.5	76.8	77.5	77.9	78.5	79.3	81.8					
6-year	70.4	72.8	72.6	73.3	74.1	73.4	72.2	72.3	74.6	74.8	73.6	75.1	75.5	75.8	76.7						
7-year	67.0	70.0	70.0	71.0	72.0	70.4	69.5	69.4	72.2	72.4	70.9	72.3	73.4	73.0							
8-year	64.9	67.6	68.3	68.8	69.8	68.6	67.5	67.3	69.7	70.1	68.8	69.6	71.3								
9-year	63.1	66.1	66.7	66.7	67.8	66.3	66.0	65.6	68.1	68.2	67.2	67.3									
10-year	61.4	64.5	64.9	65.7	66.2	64.5	64.4	64.0	66.2	66.8	65.4										
11-year	60.4	62.9	63.9	64.3	64.9	63.0	63.1	63.0	64.8	65.1											
12-year	59.4	61.4	62.2	62.7	63.2	61.7	61.8	62.0	63.5												
13-year	57.8	60.3	61.1	61.7	62.3	60.4	60.5	61.0													
14-year	56.8	59.5	60.3	61.0	61.6	59.6	59.4														
15-year	55.7	58.4	58.8	60.3	61.3	58.7															
16-year	54.1	57.0	57.8	59.8	60.4																
17-year	53.6	56.2	56.7	59.2																	
18-year	53.0	54.8	56.2																		
19-year	51.7	53.6																			
20-year	51.6																				

Note: Incidence and mortality rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.

Survival rates are relative rates expressed as percents.

Table IV-8
FEMALE BREAST CANCER (50 and Over) (Invasive)

INCIDENCE, MORTALITY, AND SURVIVAL RATES

By Year of Diagnosis/Death

All Races, Females

Year of Diagnosis/Death

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Incidence																					
SEER	247.8	285.8	267.0	257.3	254.3	255.3	262.8	263.2	274.0	272.5	289.8	300.9	324.1	334.7	358.6	350.6	336.5	346.4	350.1	355.3	345.4
Mortality																					
U.S.	88.4	87.6	86.1	88.3	90.2	88.3	86.6	88.4	89.3	90.2	90.6	92.2	92.7	91.9	91.7	93.4	93.1	92.9	91.8	89.1	88.7
SEER	88.8	92.2	91.8	90.7	92.8	92.1	88.0	89.3	92.3	93.6	91.5	90.4	95.3	91.1	94.6	94.8	94.8	87.9	91.7	89.0	85.6
Relative Survival Rates (SEER)																					
1-year	92.7	93.2	93.9	93.9	93.8	93.8	94.3	94.5	94.6	95.0	94.7	95.2	95.4	96.0	96.7	96.5	96.8	96.9	97.0	97.1	
2-year	86.1	87.1	88.2	87.8	88.5	88.0	88.5	89.5	89.5	89.8	90.1	91.4	91.3	91.8	93.8	93.6	93.8	93.7	94.0		
3-year	80.6	82.2	82.6	82.6	83.1	82.7	83.2	83.9	84.5	84.3	84.8	86.8	86.9	87.8	90.4	90.8	91.0	90.5			
4-year	75.9	76.9	78.1	77.7	78.1	78.2	78.3	79.4	79.3	80.2	81.2	83.0	83.2	84.6	87.7	88.4	88.5				
5-year	71.4	72.7	74.7	73.9	74.6	73.9	74.3	75.3	75.8	76.9	77.1	79.5	79.7	81.8	85.2	86.0					
6-year	67.5	69.8	71.5	70.4	71.4	70.8	71.0	72.1	72.8	74.0	74.2	76.9	77.2	79.8	82.5						
7-year	64.6	67.1	68.9	67.2	68.6	68.1	67.8	69.3	70.0	70.7	71.3	74.7	75.1	77.6							
8-year	62.3	65.1	66.9	65.0	66.4	65.3	65.5	67.1	67.4	68.8	68.9	72.7	73.2								
9-year	60.3	63.4	64.9	62.7	64.1	63.3	63.0	64.3	65.4	67.5	67.3	70.3									
10-year	58.8	61.5	62.8	60.7	62.3	61.9	61.2	62.7	63.0	65.3	65.5										
11-year	57.4	60.0	60.7	59.2	60.4	60.3	59.9	60.7	61.3	63.1											
12-year	55.1	58.3	59.5	57.5	58.6	58.5	58.7	59.2	60.0												
13-year	53.6	56.9	57.9	56.4	57.5	57.9	57.6	58.3													
14-year	52.5	55.8	57.0	55.6	56.3	56.8	56.5														
15-year	51.3	54.5	56.0	54.4	54.8	55.5															
16-year	50.3	53.6	54.8	54.0	53.5																
17-year	49.3	53.0	54.4	52.9																	
18-year	48.9	52.3	53.7																		
19-year	47.6	51.6																			
20-year	46.9																				

Note: Incidence and mortality rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.

Survival rates are relative rates expressed as percents.

Table IV-9
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 With Cancer and
 Lifetime Risk (Percent) of Dying From Cancer

SEER Areas, 1991-93

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	0.10	0.00	0.00	0.04	12.61
10	0.00	0.00	0.00	0.10	0.00	0.04	0.47	12.73
20	0.00	0.00	0.01	0.10	0.04	0.47	1.96	12.77
30	0.00	0.01	0.02	0.10	0.43	1.93	4.30	12.79
40	0.00	0.02	0.05	0.10	1.52	3.92	7.01	12.53
50	0.02	0.05	0.08	0.10	2.48	5.67	8.94	11.37
60	0.03	0.06	0.09	0.09	3.43	6.94	9.02	9.54

Lifetime Risk of Being Diagnosed = 0.10%
 Lifetime Risk of Dying = 0.03%

Lifetime Risk of Being Diagnosed = 12.61%
 Lifetime Risk of Dying = 3.54%

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	0.10	0.00	0.00	0.04	13.10
10	0.00	0.00	0.00	0.10	0.00	0.04	0.45	13.20
20	0.00	0.00	0.01	0.10	0.04	0.46	1.97	13.23
30	0.00	0.00	0.02	0.10	0.42	1.94	4.37	13.26
40	0.00	0.02	0.05	0.10	1.54	4.00	7.26	12.99
50	0.02	0.04	0.08	0.10	2.54	5.90	9.30	11.80
60	0.03	0.06	0.09	0.09	3.59	7.24	9.39	9.90

Lifetime Risk of Being Diagnosed = 0.10%
 Lifetime Risk of Dying = 0.02%

Lifetime Risk of Being Diagnosed = 13.10%
 Lifetime Risk of Dying = 3.66%

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	0.08	0.00	0.00	0.06	9.57
10	0.00	0.00	0.00	0.08	0.00	0.06	0.52	9.78
20	0.00	0.00	0.01	0.08	0.06	0.52	2.02	9.81
30	0.00	0.01	0.03	0.08	0.47	1.98	4.11	9.86
40	0.01	0.03	0.05	0.09	1.55	3.73	6.01	9.63
50	0.03	0.05	0.08	0.09	2.31	4.72	6.95	8.56
60	0.03	0.06	0.07	0.07	2.70	5.20	6.49	7.00

Lifetime Risk of Being Diagnosed = 0.08%
 Lifetime Risk of Dying = 0.05%

Lifetime Risk of Being Diagnosed = 9.57%
 Lifetime Risk of Dying = 3.37%

Table IV-10
FEMALE BREAST CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY^δ RATES BY STATE, 1989-93

All Races, Females

State	Rate	SE	Rank	PD
TOTAL U.S.	26.8	0.06		
High Five States				
District of Columbia	34.2 [⊕] *	1.36	(01)	27.6
New Jersey	31.1 [⊕] *	0.35	(02)	16.0
New Hampshire	30.9*	1.00	(03)	15.3
Delaware	30.7*	1.22	(04)	14.6
Rhode Island	30.2*	0.98	(05)	12.7
Low Five States				
Mississippi	23.9 [⊕] *	0.56	(47)	-10.8
Arkansas	23.8 [⊕] *	0.56	(48)	-11.2
New Mexico	23.4*	0.75	(49)	-12.7
Utah	22.4 [⊕] *	0.77	(50)	-16.4
Hawaii	17.8 [⊕] *	0.77	(51)	-33.6

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	24.7	0.44	(39)	-7.8	Montana	25.6	1.03	(32)	-4.5
Alaska	25.0	1.82	(37)	-6.7	Nebraska	26.0	0.74	(24)	-3.0
Arizona	24.3 [⊕]	0.48	(43)	-9.3	Nevada	26.5	0.88	(19)	-1.1
Arkansas	23.8 [⊕] *	0.56	(48)	-11.2	New Hampshire	30.9*	1.00	(03)	15.3
California	25.8 [⊕]	0.18	(29)	-3.7	New Jersey	31.1 [⊕] *	0.35	(02)	16.0
Colorado	24.2	0.52	(44)	-9.7	New Mexico	23.4*	0.75	(49)	-12.7
Connecticut	26.5	0.50	(18)	-1.1	New York	29.8 [⊕] *	0.23	(06)	11.2
Delaware	30.7*	1.22	(04)	14.6	North Carolina	26.2	0.36	(20)	-2.2
District of Columbia	34.2 [⊕] *	1.36	(01)	27.6	North Dakota	26.1	1.19	(23)	-2.6
Florida	25.3 [⊕]	0.24	(35)	-5.6	Ohio	28.1	0.29	(11)	4.9
Georgia	24.6 [⊕]	0.37	(41)	-8.2	Oklahoma	24.1 [⊕] *	0.50	(46)	-10.1
Hawaii	17.8 [⊕] *	0.77	(51)	-33.6	Oregon	24.4	0.53	(42)	-9.0
Idaho	25.4	0.96	(33)	-5.2	Pennsylvania	29.4 [⊕]	0.27	(08)	9.7
Illinois	29.2 [⊕]	0.29	(09)	9.0	Rhode Island	30.2*	0.98	(05)	12.7
Indiana	26.7	0.40	(17)	-0.4	South Carolina	25.9	0.50	(26)	-3.4
Iowa	25.8	0.54	(27)	-3.7	South Dakota	25.6	1.12	(31)	-4.5
Kansas	24.8	0.58	(38)	-7.5	Tennessee	25.4	0.41	(34)	-5.2
Kentucky	25.7	0.48	(30)	-4.1	Texas	24.2 [⊕]	0.23	(45)	-9.7
Louisiana	27.0	0.47	(16)	0.7	Utah	22.4 [⊕] *	0.77	(50)	-16.4
Maine	25.9	0.82	(25)	-3.4	Vermont	27.0	1.29	(15)	0.7
Maryland	28.2	0.45	(10)	5.2	Virginia	27.6	0.40	(12)	3.0
Massachusetts	29.7 [⊕] *	0.40	(07)	10.8	Washington	25.8	0.43	(28)	-3.7
Michigan	27.4	0.32	(13)	2.2	West Virginia	24.7	0.64	(40)	-7.8
Minnesota	26.1	0.46	(22)	-2.6	Wisconsin	27.0	0.43	(14)	0.7
Mississippi	23.9 [⊕] *	0.56	(47)	-10.8	Wyoming	25.0	1.41	(36)	-6.7
Missouri	26.2	0.40	(21)	-2.2					

^δ NCHS public use tape. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.

SE Standard error of the rate.

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

* Absolute difference between state rate and total U.S. rate is 10% or more.

[⊕] Difference between state rate and total U.S. rate is statistically significant (p<=.0002).

Table IV-11
FEMALE BREAST CANCER (Invasive)AGE-ADJUSTED SEER INCIDENCE RATES[§], SEER MORTALITY RATES^δ, AND 5-YEAR RELATIVE SURVIVAL RATES[⊙]
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[§], 1989-93</u>									
REGISTRY									
Standard 9 registries	109.5	32.6	346.8	112.8	32.7	360.0	97.3	34.2	292.1
San Francisco-Oakland	113.2	34.3	356.2	124.4	35.7	397.9	96.1	35.4	283.5
Connecticut	115.6	34.0	367.5	116.8	34.2	371.4	102.0	33.8	312.0
Metropolitan Detroit	112.8	33.3	358.0	115.1	32.8	369.0	98.7	34.1	298.0
Hawaii	99.2	33.4	302.3	128.8	35.6	416.2	-	-	-
Iowa	105.7	30.8	336.8	105.7	30.9	336.3	-	-	-
New Mexico	92.3	28.4	289.5	96.4	29.7	302.1	-	-	-
Seattle-Puget Sound	115.1	32.7	369.2	116.4	32.7	374.6	94.5	35.5	276.2
Utah	94.0	25.6	304.7	94.9	26.1	307.1	-	-	-
Metropolitan Atlanta	107.8	34.6	333.6	111.3	34.6	347.9	96.4	34.0	288.9
San Jose-Monterey	109.2	30.8	351.0	113.7	31.5	367.2	100.5	23.8	337.0
Los Angeles	101.8	30.5	321.6	107.3	30.5	344.2	93.8	33.5	279.6
<u>SEER MORTALITY RATES^δ, 1989-93</u>									
REGISTRY									
Standard 9 registries	26.2	5.6	89.8	26.7	5.4	92.3	31.0	8.5	100.6
San Francisco-Oakland	27.0	5.6	92.9	29.1	5.4	102.1	31.3	10.1	96.9
Connecticut	26.5	5.3	92.0	26.5	5.2	92.2	28.5	7.7	92.8
Metropolitan Detroit	29.3	6.3	99.9	28.4	5.5	99.1	32.6	8.9	105.7
Hawaii	17.8	3.8	61.2	25.7	3.1	95.3	-	-	-
Iowa	25.8	5.9	87.3	25.9	6.0	87.5	-	-	-
New Mexico	23.4	5.3	79.5	24.4	5.6	82.3	-	-	-
Seattle-Puget Sound	26.4	5.5	90.9	27.2	5.6	93.9	25.6	6.7	83.8
Utah	22.4	4.5	77.7	22.7	4.6	78.5	-	-	-
Metropolitan Atlanta	26.3	6.1	88.6	25.0	5.5	85.0	31.3	7.8	103.8
San Jose-Monterey	24.1	5.6	81.1	25.6	5.8	86.7	24.5	7.0	78.2
Los Angeles	26.5	5.9	89.9	27.6	5.9	94.7	32.1	8.4	105.4
<u>SURVIVAL RATES[⊙], 1986-92</u>									
REGISTRY									
Standard 9 registries	83.8	80.8	85.0	85.0	82.4	86.0	69.8	67.2	71.5
San Francisco-Oakland	85.0	81.1	86.6	86.5	83.0	87.8	74.5	67.5	78.6
Connecticut	84.0	82.5	84.7	84.7	83.5	85.3	70.6	71.0	70.3
Metropolitan Detroit	79.8	77.8	80.5	82.3	81.3	82.7	67.9	65.3	69.3
Hawaii	88.0	85.1	89.2	91.0	88.0	92.7	-	-	-
Iowa	84.4	80.2	85.6	84.5	80.2	85.7	-	-	-
New Mexico	82.1	79.2	83.3	82.8	80.2	83.9	-	-	-
Seattle-Puget Sound	86.8	83.4	88.1	87.2	83.6	88.6	74.2	77.0 [†]	72.9 [†]
Utah	84.9	81.4	86.2	84.9	81.5	86.1	-	-	-
Metropolitan Atlanta	81.8	78.3	83.9	85.7	82.9	87.3	67.3	65.5	69.1

Note: San Jose-Monterey and Los Angeles are new SEER areas as of 1992 and their data are only used in this table and not other tables in this section.

§ SEER Program. Incidence rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.

δ NCHS public use tape. Mortality rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.

⊙ Survival rates are relative rates expressed as percents and are based on follow-up of patients through 1993.

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

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

- Statistic could not be calculated or populations are inadequate.

SEER Incidence and U.S. Mortality Female Breast Cancer, Under 50 Years of Age By Race

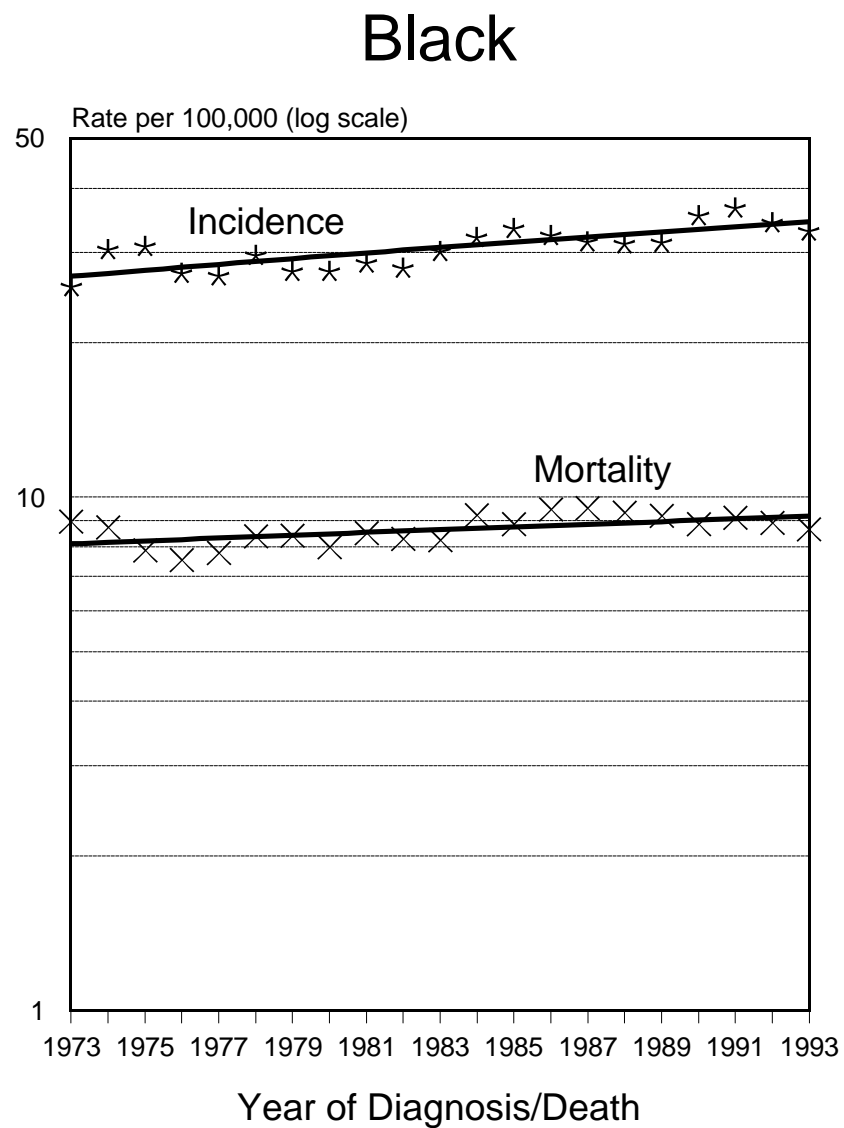
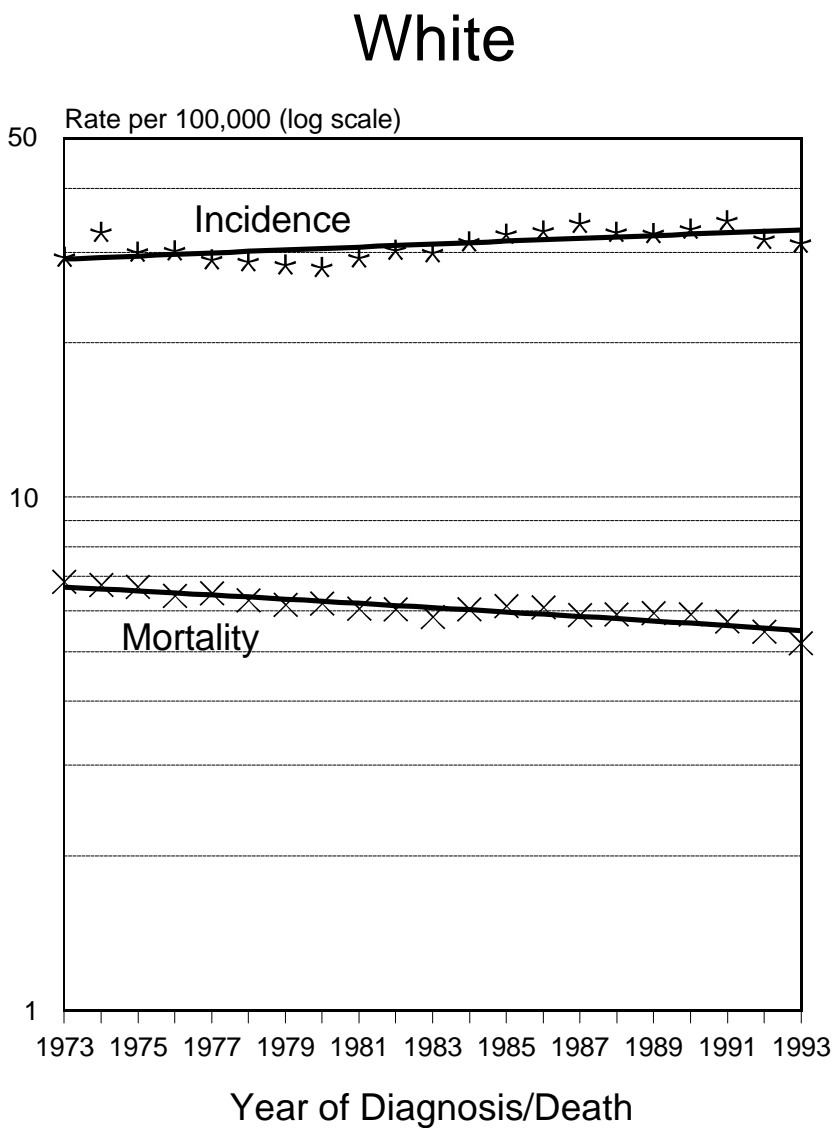


Figure IV-1

SEER Incidence and U.S. Mortality Female Breast Cancer, Ages 50 and Over By Race

White

Black

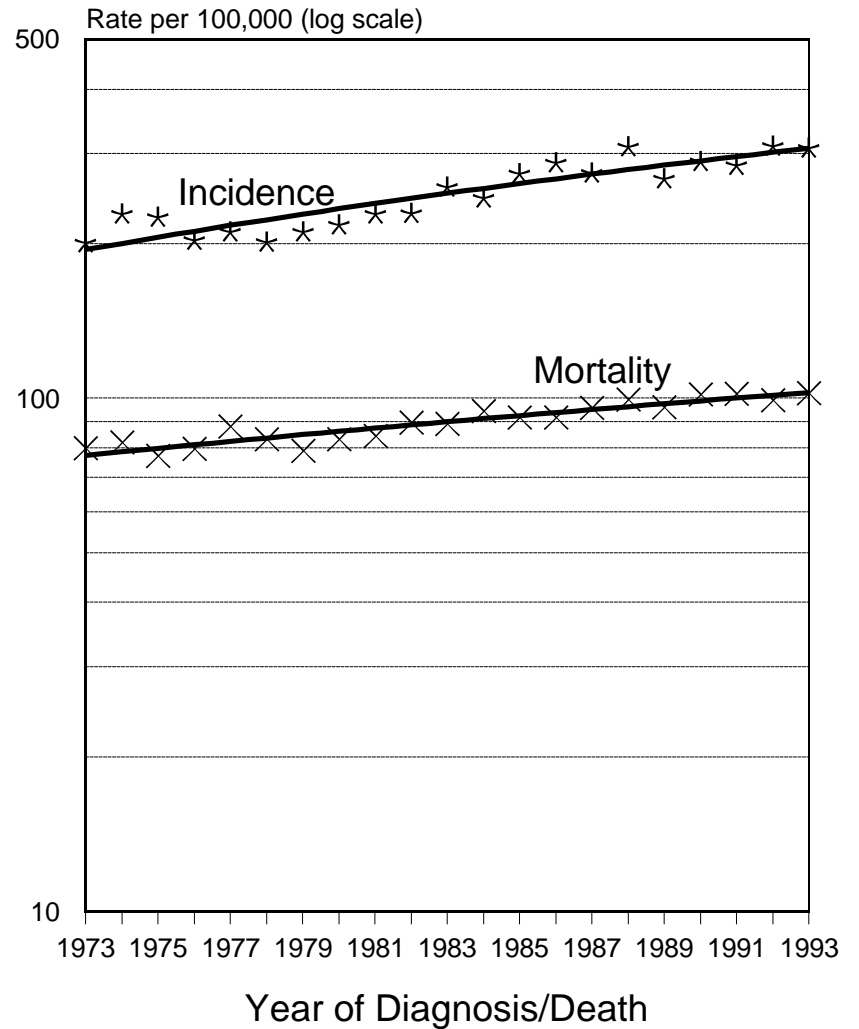
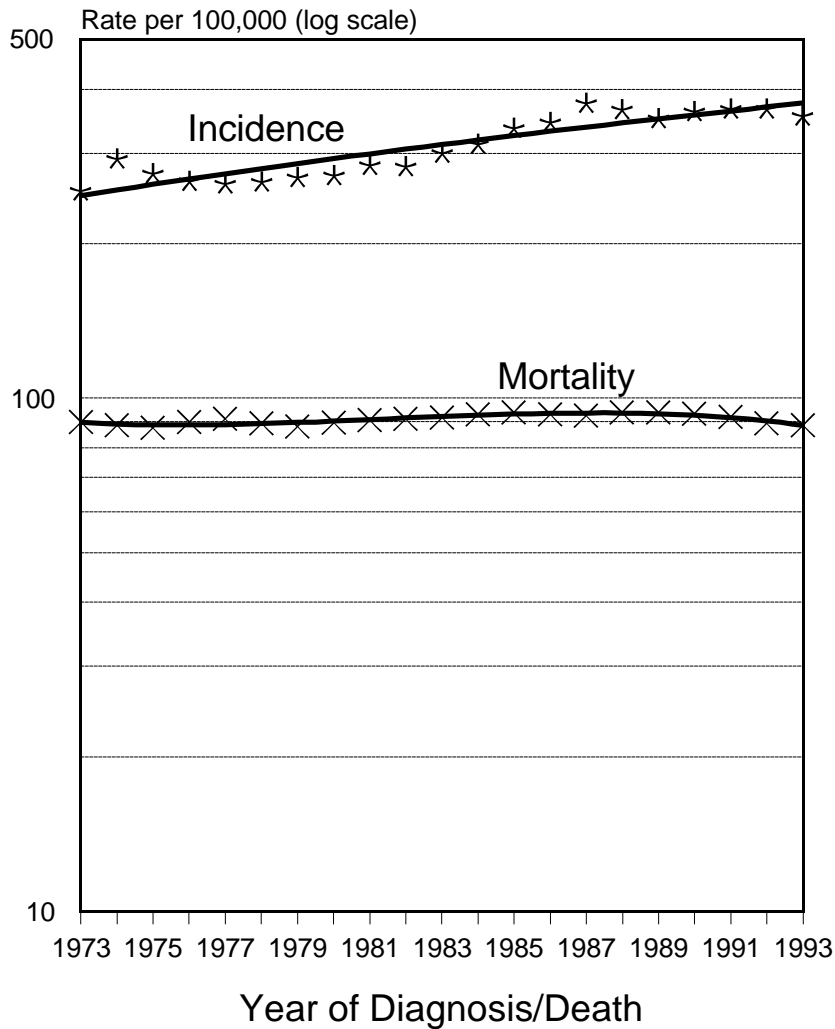
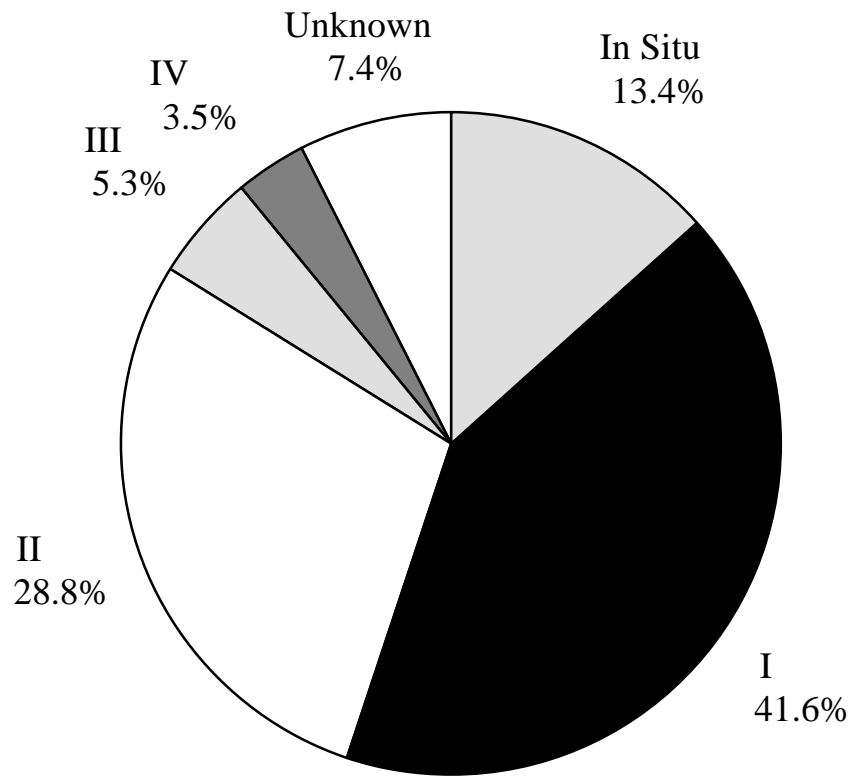
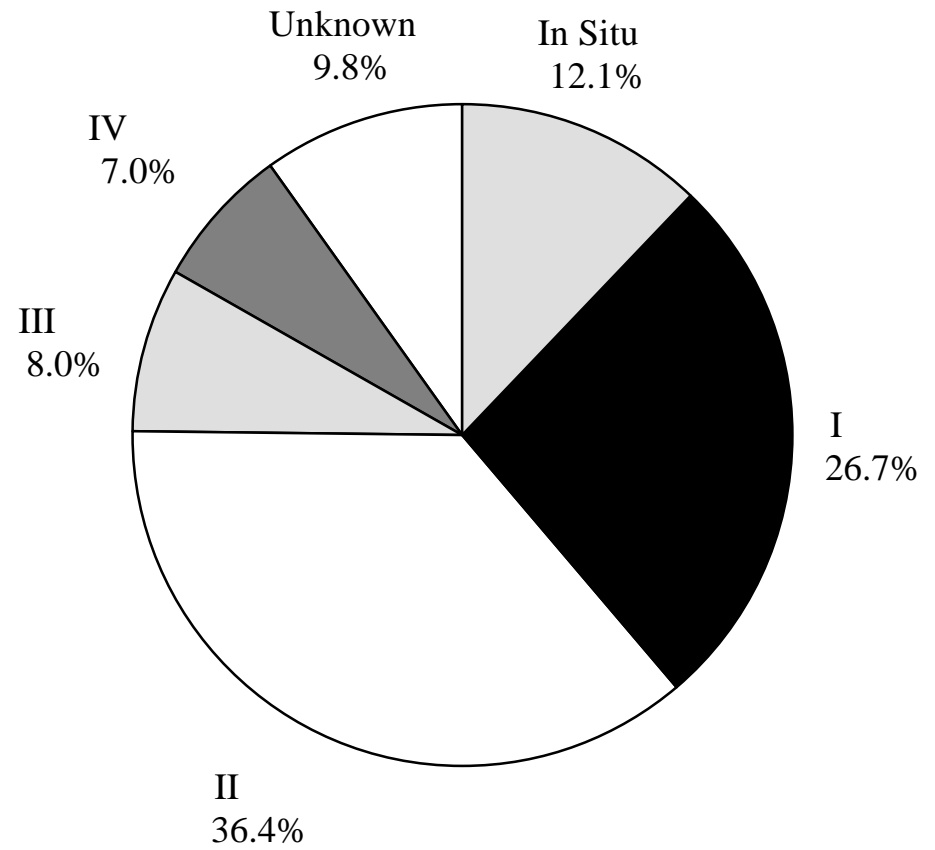


Figure IV-2

Breast Cancer Stage Distribution 1993



White Females



Black Females

Figure IV-3

Female Breast Cancer by Stage Incidence Rates, 1983-93

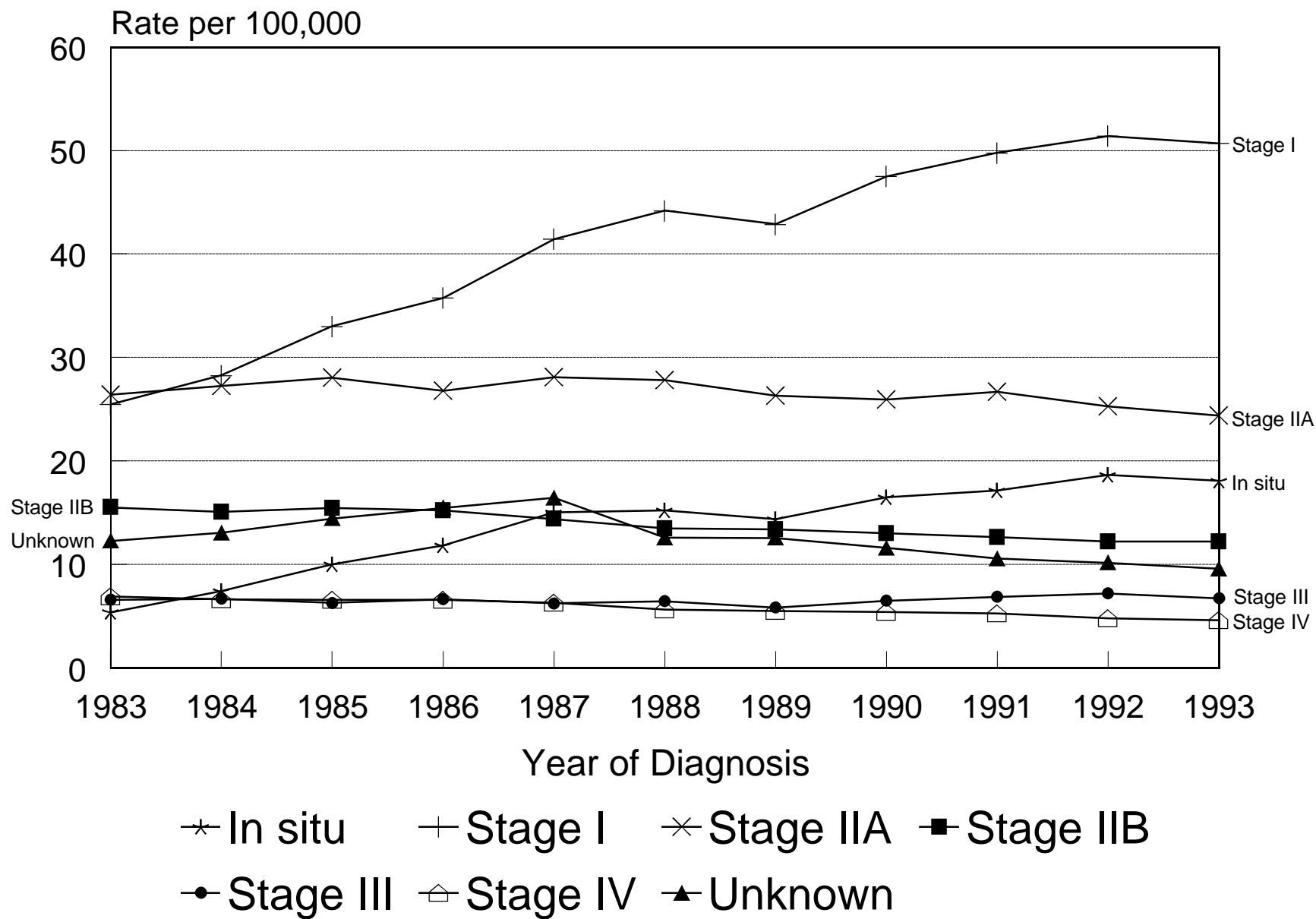
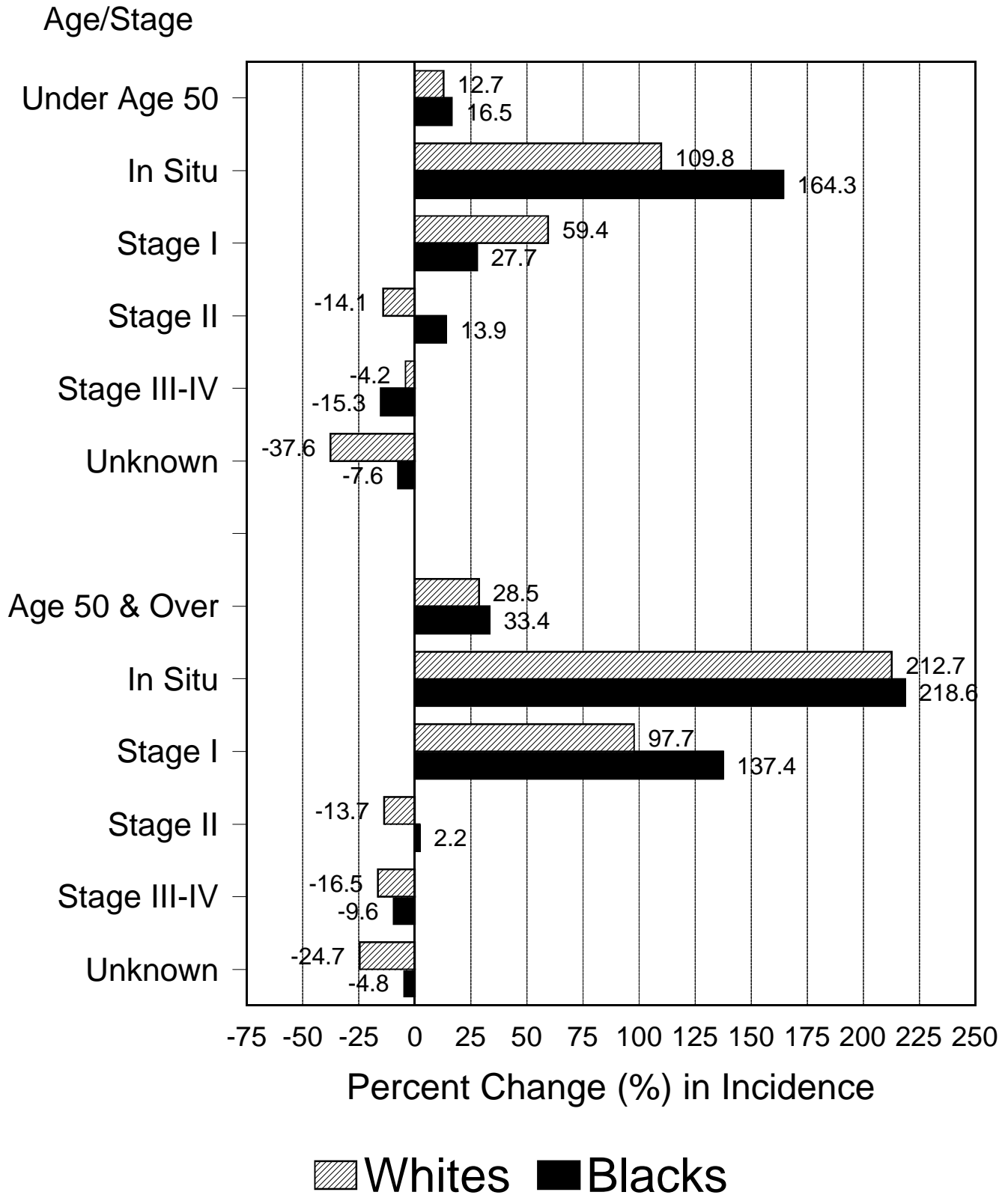
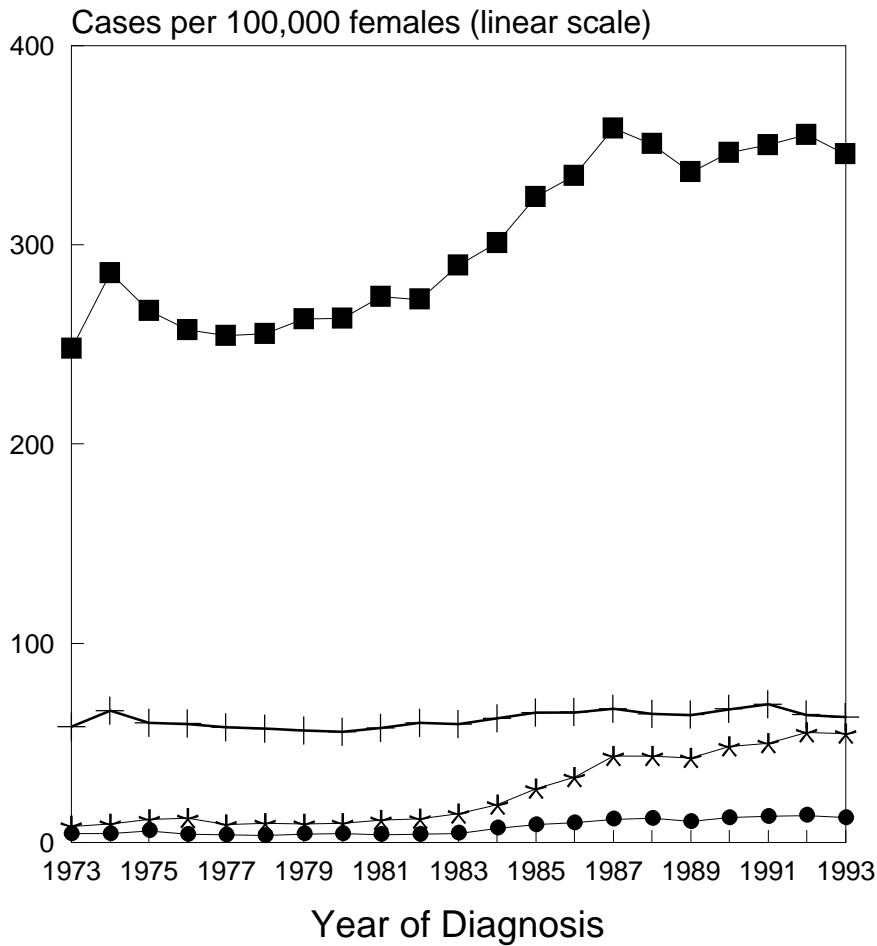


Figure IV-5

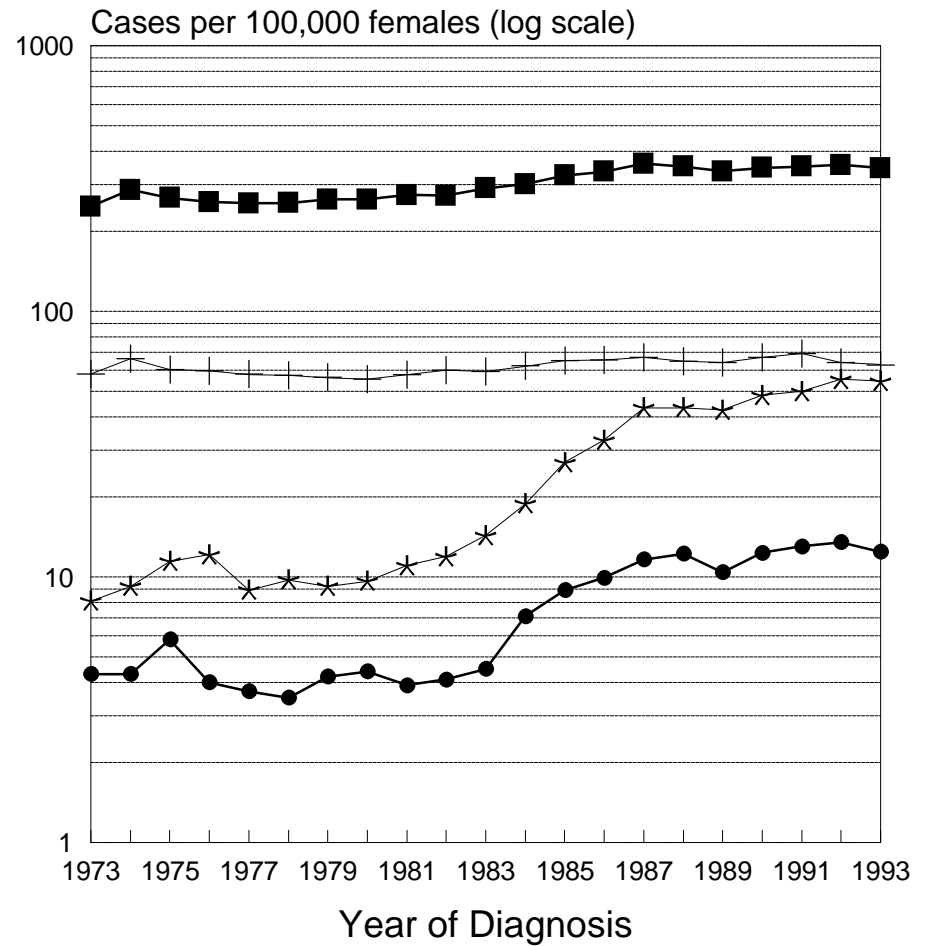
Female Breast Cancer by Stage Percent Change in Incidence, 1983-93



Breast Cancer Incidence Rates, 1973-93 by Age, In Situ vs. Malignant All Races, Female



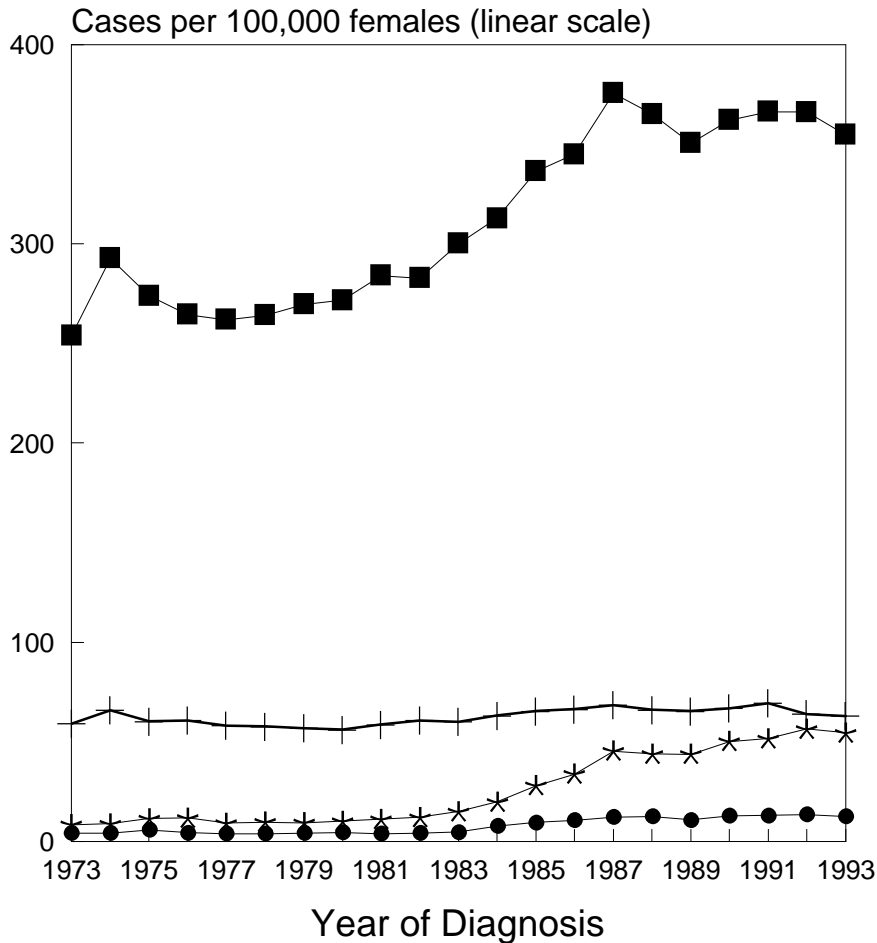
● In Situ: Ages 20-49 + Malign: Ages 20-49
 * In Situ: Ages 50+ ■ Malign: Ages 50+



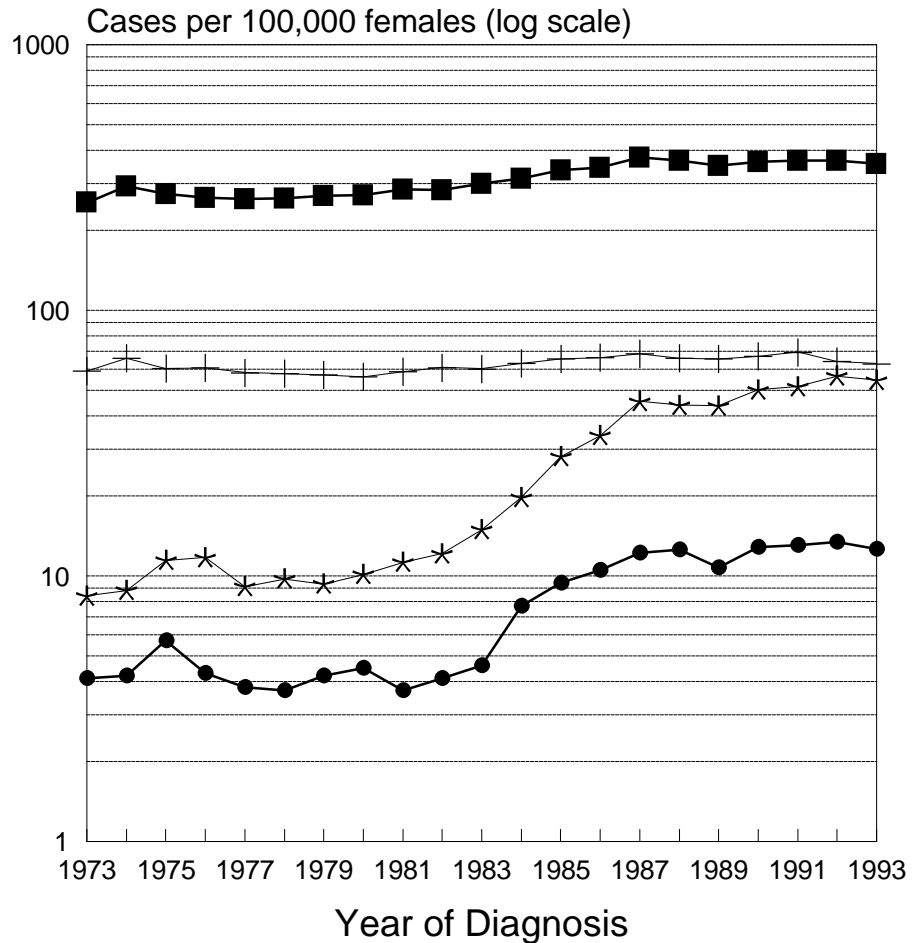
● In Situ: Ages 20-49 + Malign: Ages 20-49
 * In Situ: Ages 50+ ■ Malign: Ages 50+

Age-adjusted to 1970 Standard

Breast Cancer Incidence Rates, 1973-93 by Age, In Situ vs. Malignant White Females



● In Situ: Ages 20-49 + Malign: Ages 20-49
 * In Situ: Ages 50+ ■ Malign: Ages 50+

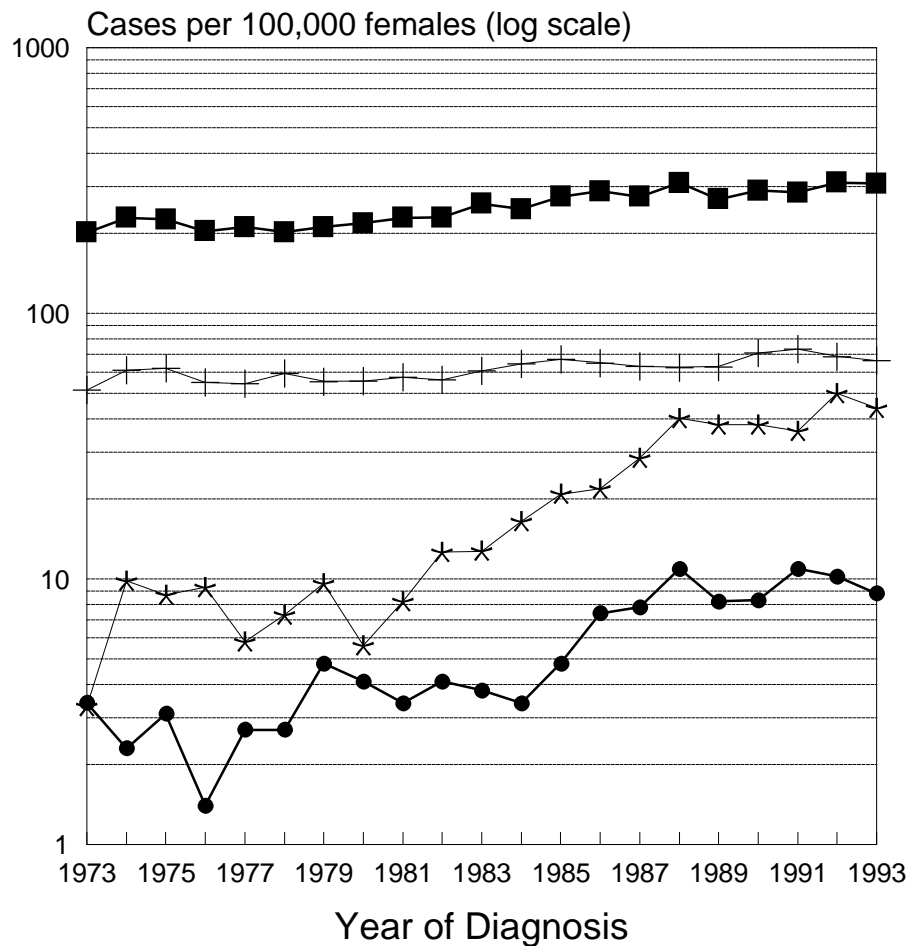
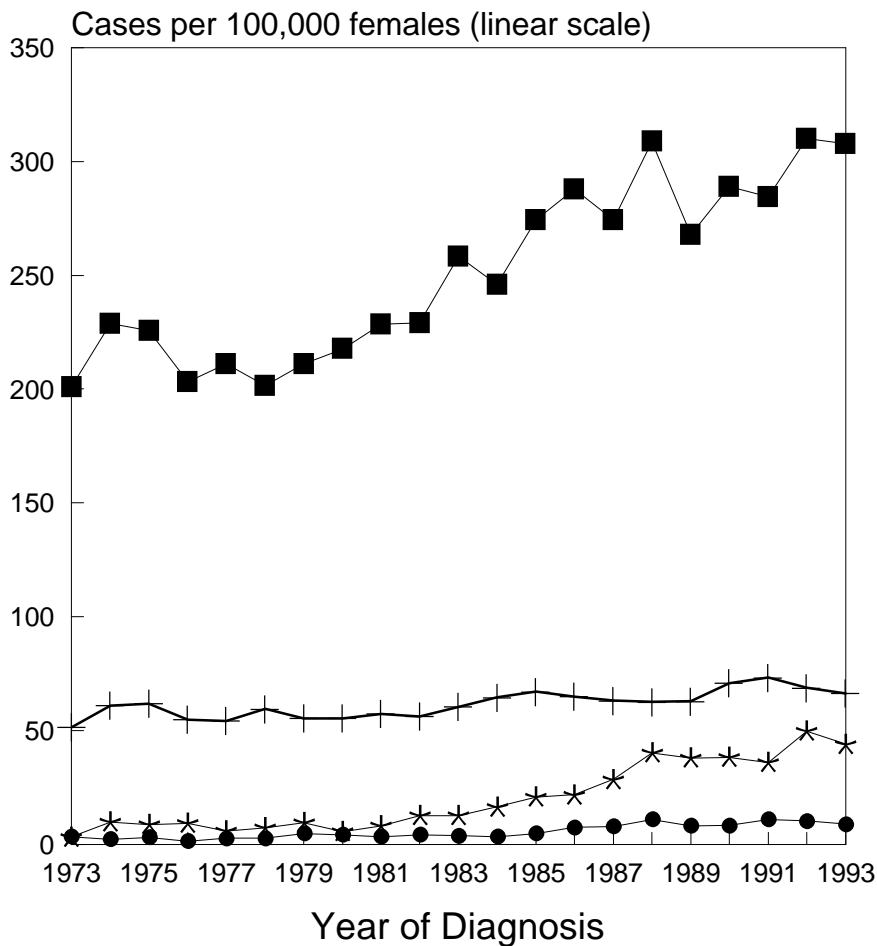


● In Situ: Ages 20-49 + Malign: Ages 20-49
 * In Situ: Ages 50+ ■ Malign: Ages 50+

Age-adjusted to 1970 Standard

Figure IV-7

Breast Cancer Incidence Rates, 1973-93 by Age, In Situ vs. Malignant Black Females



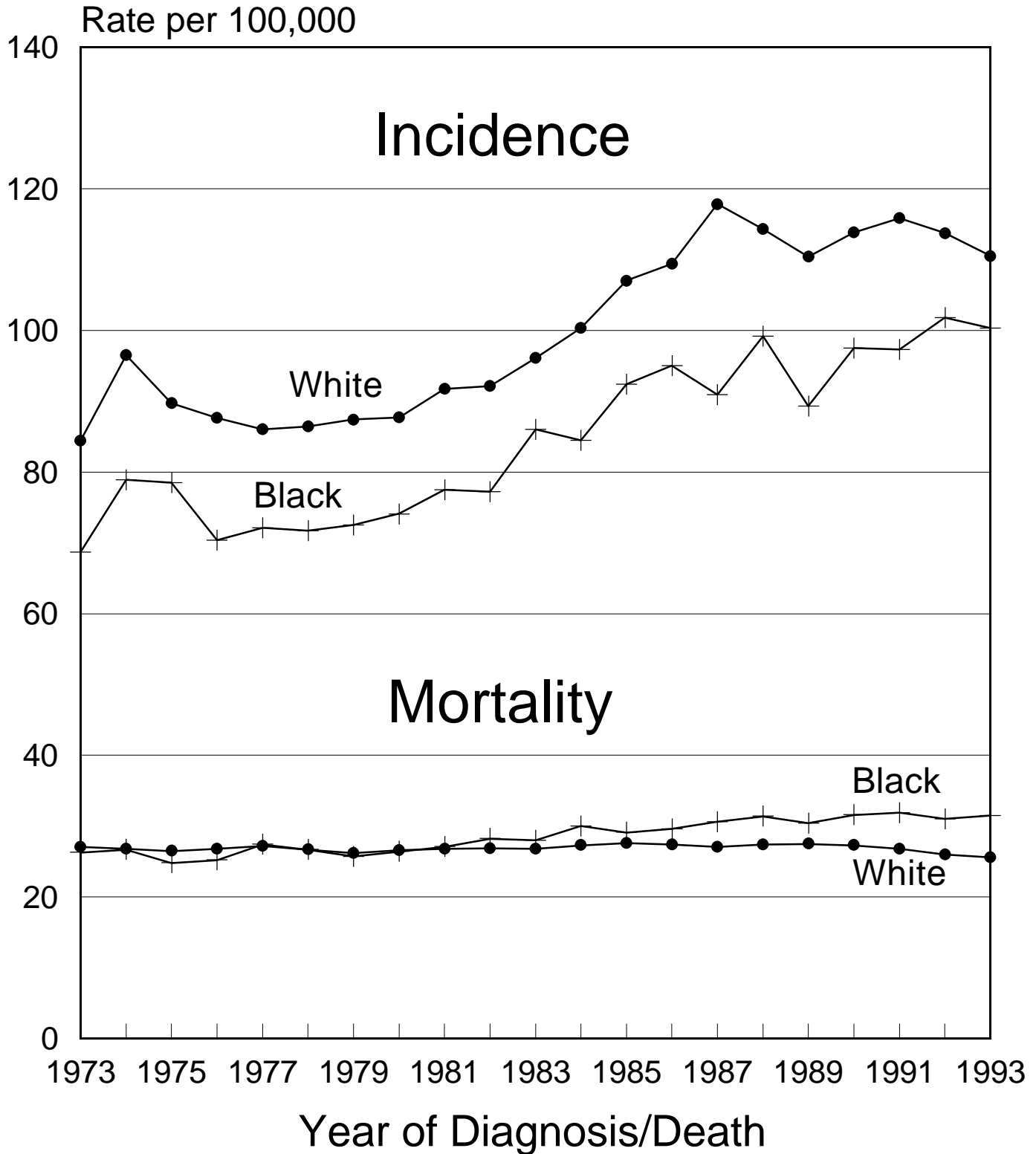
● In Situ: Ages 20-49 + Malign: Ages 20-49
* In Situ: Ages 50+ ■ Malign: Ages 50+

● In Situ: Ages 20-49 + Malign: Ages 20-49
* In Situ: Ages 50+ ■ Malign: Ages 50+

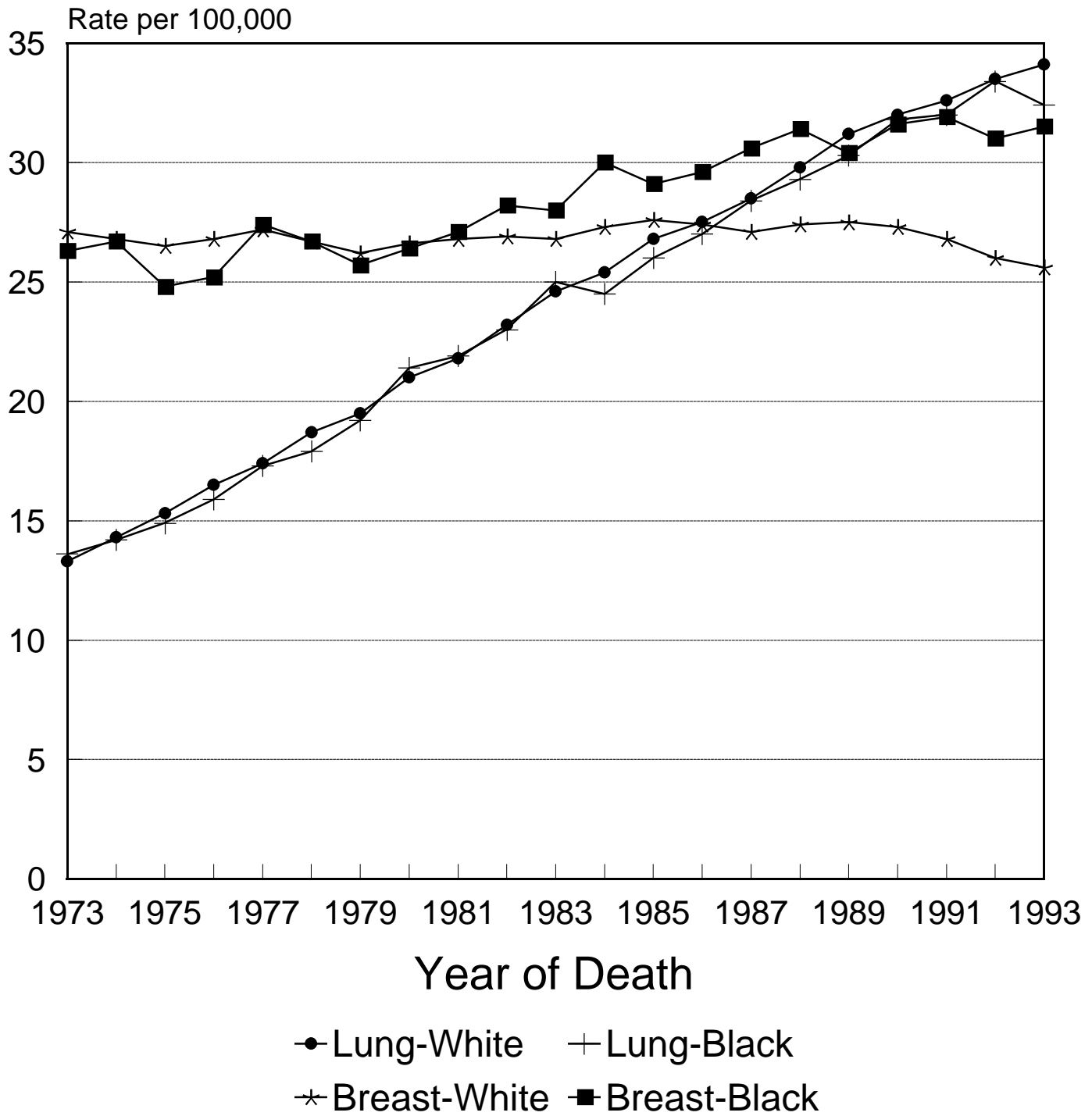
Age-adjusted to 1970 Standard

Figure IV-8

Breast Cancer Incidence & Mortality White Females vs. Black Females



Breast vs. Lung Cancer Mortality White Females vs. Black Females United States, 1973-93



Age-adjusted to 1970 Standard