

Table IV-1
 FEMALE BREAST CANCER (Invasive)

TRENDS IN SEER INCIDENCE^a AND U.S. MORTALITY^b USING THE JOINPOINT REGRESSION PROGRAM, 1973-1999
 WITH UP TO THREE JOINPOINTS BY RACE AND AGE

| | All Races | | Whites | | Blacks | |
|--|-----------|-------|---------|-------|---------|-------|
| | Year | APC | Year | APC | Year | APC |
| <u>SEER Cancer Incidence^a</u> | | | | | | |
| Age - All Ages | 1973-80 | -0.6 | 1973-80 | -0.5 | 1973-79 | -0.7 |
| | 1980-87 | 3.7★ | 1980-87 | 3.8★ | 1979-86 | 3.9★ |
| | 1987-99 | 0.5★ | 1987-99 | 0.4 | 1986-99 | 0.9★ |
| Age - Under 50 | 1973-80 | -1.5 | 1973-80 | -1.4★ | 1973-91 | 1.4★ |
| | 1980-86 | 2.9★ | 1980-86 | 2.9★ | 1991-99 | -1.1 |
| | 1986-99 | -0.3 | 1986-99 | -0.4 | | |
| Age - 50 and Over | 1973-80 | -0.3 | 1973-80 | -0.2 | 1973-78 | -1.5 |
| | 1980-87 | 4.1★ | 1980-87 | 4.3★ | 1978-86 | 4.1★ |
| | 1987-99 | 0.7★ | 1987-99 | 0.7★ | 1986-99 | 1.3★ |
| <u>U.S. Cancer Mortality^b</u> | | | | | | |
| Age - All Ages | 1973-79 | -0.3 | 1973-79 | -0.3 | 1973-93 | 1.3★ |
| | 1979-89 | 0.6★ | 1979-89 | 0.5★ | 1993-99 | -1.2★ |
| | 1989-95 | -1.4★ | 1989-95 | -1.6★ | | |
| | 1995-99 | -3.2★ | 1995-99 | -3.5★ | | |
| Age - Under 50 | 1973-80 | -1.5★ | 1973-79 | -1.7★ | 1973-76 | -5.4 |
| | 1980-89 | 0.1 | 1979-90 | -0.4 | 1976-87 | 2.0★ |
| | 1989-97 | -2.7★ | 1990-97 | -3.4★ | 1987-99 | -1.4★ |
| | 1997-99 | -7.4★ | 1997-99 | -8.2★ | | |
| Age - 50 and Over | 1973-91 | 0.5★ | 1973-90 | 0.4★ | 1973-93 | 1.5★ |
| | 1991-99 | -2.1★ | 1990-95 | -1.6★ | 1993-99 | -0.8 |
| | | | 1995-99 | -3.0★ | | |

The APC is the Annual Percent Change based on rates age-adjusted to the 2000 U.S. standard population by 5-year age groups using the Joinpoint Regression Program.

Trends are from the SEER 9 areas.

Trends are from the NCHS public use data file.

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

^a
^b
 ★

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> | | | | | | | | | |
| <u>YEAR OF DIAGNOSIS:</u> | | | | | | | | | |
| 1973 | 54.3 | 1.2 | 98.5 | 55.8 | 1.2 | 100.9 | 46.6 | - | 82.5 |
| 1974 | 62.2 | 1.2 | 113.0 | 63.6 | 1.2 | 115.1 | 52.5 | - | 94.8 |
| 1975 | 58.0 | 0.8 | 105.0 | 59.4 | 0.9 | 107.2 | 52.0 | - | 93.4 |
| 1976 | 56.4 | 1.1 | 101.9 | 58.1 | 1.1 | 104.7 | 47.8 | - | 84.9 |
| 1977 | 55.9 | 1.0 | 100.7 | 57.4 | 0.9 | 103.3 | 49.4 | - | 86.6 |
| 1978 | 55.8 | 0.9 | 100.5 | 57.4 | 0.9 | 103.4 | 48.2 | - | 86.0 |
| 1979 | 56.8 | 1.0 | 102.0 | 58.2 | 0.9 | 104.5 | 49.9 | - | 87.0 |
| 1980 | 56.8 | 0.9 | 102.0 | 58.4 | 1.0 | 104.8 | 50.6 | - | 89.4 |
| 1981 | 59.3 | 1.0 | 106.3 | 61.2 | 0.9 | 109.8 | 54.3 | - | 94.2 |
| 1982 | 59.2 | 1.0 | 106.4 | 61.0 | 0.9 | 109.9 | 53.7 | - | 93.2 |
| 1983 | 61.8 | 1.0 | 111.0 | 63.6 | 1.1 | 114.4 | 58.8 | - | 103.3 |
| 1984 | 64.4 | 0.9 | 115.8 | 66.5 | 0.9 | 119.8 | 57.7 | - | 101.2 |
| 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 | 130.2 | 66.0 | - | 114.6 |
| 1987 | 74.7 | 1.0 | 134.4 | 77.8 | 1.0 | 140.2 | 62.6 | - | 108.7 |
| 1988 | 73.0 | 1.2 | 131.2 | 75.5 | 1.2 | 136.2 | 68.9 | - | 118.5 |
| 1989 | 70.7 | 1.1 | 127.1 | 73.2 | 1.0 | 132.2 | 60.7 | - | 105.4 |
| 1990 | 73.0 | 1.1 | 131.5 | 75.3 | 1.1 | 136.2 | 68.2 | - | 118.1 |
| 1991 | 73.9 | 1.1 | 133.5 | 76.5 | 1.2 | 138.6 | 67.0 | - | 116.9 |
| 1992 | 73.0 | 1.0 | 132.0 | 74.7 | 1.0 | 135.8 | 70.8 | - | 122.7 |
| 1993 | 71.3 | 1.1 | 129.2 | 73.2 | 1.1 | 133.4 | 68.7 | - | 119.5 |
| 1994 | 72.0 | 1.1 | 130.8 | 74.1 | 1.1 | 135.5 | 70.4 | - | 122.5 |
| 1995 | 72.7 | 1.0 | 132.5 | 74.9 | 0.9 | 137.2 | 71.8 | - | 124.4 |
| 1996 | 73.3 | 1.3 | 133.6 | 75.0 | 1.3 | 137.6 | 71.1 | - | 123.8 |
| 1997 | 75.3 | 1.2 | 137.5 | 77.1 | 1.2 | 141.8 | 71.5 | - | 124.4 |
| 1998 | 76.8 | 1.1 | 140.5 | 78.6 | 1.2 | 144.7 | 69.7 | - | 122.3 |
| 1999 | 75.8 | 1.1 | 139.1 | 77.4 | 1.1 | 143.0 | 71.0 | - | 123.9 |
| <u>AGE-ADJUSTED RATES, 1995-99</u> | | | | | | | | | |
| <u>AGE AT DIAGNOSIS:</u> | | | | | | | | | |
| All ages | 74.8 | 1.1 | 136.7 | 76.6 | 1.1 | 140.9 | 71.0 | 1.7 | 123.7 |
| Under 65 | 46.5 | 0.5 | 90.3 | 46.9 | 0.5 | 92.3 | 47.1 | 0.7 | 85.7 |
| 65 and over | 270.7 | 5.5 | 457.4 | 282.0 | 5.5 | 476.8 | 236.0 | 8.2 | 386.6 |
| All ages (world std.) ^ë | 52.5 | 0.7 | 98.1 | 53.5 | 0.7 | 101.0 | 50.4 | 1.0 | 89.4 |
| <u>AGE-SPECIFIC RATES, 1995-99</u> | | | | | | | | | |
| <u>AGE AT DIAGNOSIS:</u> | | | | | | | | | |
| 0-4 | - | - | - | - | - | - | - | - | - |
| 5-9 | - | - | - | - | - | - | - | - | - |
| 10-14 | - | - | - | - | - | - | - | - | - |
| 15-19 | - | - | - | - | - | - | - | - | - |
| 20-24 | 0.7 | - | 1.5 | 0.6 | - | 1.3 | - | - | - |
| 25-29 | 4.4 | - | 8.7 | 4.0 | - | 8.1 | 6.9 | - | 13.0 |
| 30-34 | 13.3 | - | 26.3 | 12.7 | - | 25.5 | 17.7 | - | 32.7 |
| 35-39 | 30.1 | - | 59.8 | 29.6 | - | 59.6 | 34.1 | - | 63.4 |
| 40-44 | 59.9 | - | 118.2 | 59.7 | - | 119.3 | 61.1 | - | 114.0 |
| 45-49 | 101.5 | 0.9 | 200.0 | 101.4 | 0.8 | 202.5 | 105.0 | - | 194.5 |
| 50-54 | 139.9 | 1.4 | 273.0 | 142.1 | 1.4 | 280.8 | 142.7 | - | 261.8 |
| 55-59 | 170.3 | 2.3 | 328.1 | 173.1 | 2.0 | 338.0 | 167.3 | - | 297.3 |
| 60-64 | 196.6 | 3.7 | 371.3 | 202.6 | 3.9 | 387.9 | 179.4 | - | 313.9 |
| 65-69 | 225.4 | 3.4 | 413.5 | 234.1 | 3.5 | 433.6 | 194.3 | - | 342.9 |
| 70-74 | 270.1 | 5.1 | 476.9 | 280.8 | 5.4 | 497.6 | 230.5 | - | 390.7 |
| 75-79 | 295.5 | 6.3 | 500.9 | 308.5 | 6.2 | 522.4 | 264.4 | - | 434.3 |
| 80-84 | 308.6 | 8.3 | 487.7 | 320.6 | 7.8 | 504.3 | 281.8 | - | 432.4 |
| 85+ | 285.7 | 6.5 | 403.8 | 299.4 | 6.4 | 418.1 | 237.4 | - | 338.7 |

§ SEER 9 areas. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups, unless noted.

ë SEER 9 areas. Rates are per 100,000 and are age-adjusted to the world standard population.

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

Table IV-3
BREAST CANCER (Invasive)U.S. DEATH RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES^ä, 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> | | | | | | | | | |
| 1973 | 18.2 | 0.4 | 32.3 | 18.4 | 0.4 | 32.5 | 17.8 | 0.6 | 31.4 |
| 1974 | 18.1 | 0.4 | 32.0 | 18.2 | 0.4 | 32.1 | 18.2 | 0.7 | 31.8 |
| 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 | 22.3 | 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 | 32.5 | 22.6 | 0.4 | 38.3 |
| 1992 | 18.1 | 0.3 | 31.7 | 17.9 | 0.3 | 31.5 | 21.9 | 0.4 | 37.2 |
| 1993 | 18.0 | 0.4 | 31.5 | 17.8 | 0.3 | 31.2 | 22.7 | 0.7 | 38.2 |
| 1994 | 17.8 | 0.4 | 31.1 | 17.5 | 0.3 | 30.8 | 22.5 | 0.6 | 38.0 |
| 1995 | 17.5 | 0.4 | 30.8 | 17.2 | 0.3 | 30.3 | 22.8 | 0.8 | 38.5 |
| 1996 | 17.0 | 0.3 | 29.8 | 16.6 | 0.3 | 29.3 | 22.3 | 0.7 | 37.5 |
| 1997 | 16.2 | 0.3 | 28.5 | 15.8 | 0.3 | 27.9 | 22.5 | 0.6 | 37.9 |
| 1998 | 15.8 | 0.3 | 27.9 | 15.5 | 0.3 | 27.3 | 21.3 | 0.5 | 36.0 |
| 1999 | 15.3 | 0.3 | 27.0 | 14.9 | 0.3 | 26.3 | 21.2 | 0.7 | 35.8 |
| <u>AGE-ADJUSTED RATES, 1995-99</u> | | | | | | | | | |
| <u>AGE AT DEATH:</u> | | | | | | | | | |
| All ages | 16.4 | 0.3 | 28.8 | 16.0 | 0.3 | 28.2 | 22.0 | 0.7 | 37.1 |
| Under 65 | 7.9 | 0.1 | 15.2 | 7.4 | 0.1 | 14.5 | 12.5 | 0.2 | 22.6 |
| 65 and over | 74.9 | 1.9 | 122.4 | 75.0 | 1.8 | 123.0 | 87.3 | 3.6 | 137.5 |
| All ages (world std.) ^ö | 10.4 | 0.2 | 19.0 | 10.1 | 0.2 | 18.5 | 14.7 | 0.4 | 25.4 |
| <u>AGE-SPECIFIC RATES, 1995-99</u> | | | | | | | | | |
| <u>AGE AT DEATH:</u> | | | | | | | | | |
| 0-4 | - | - | - | - | - | - | - | - | - |
| 5-9 | - | - | - | - | - | - | - | - | - |
| 10-14 | - | - | - | - | - | - | - | - | - |
| 15-19 | - | - | - | - | - | - | - | - | - |
| 20-24 | 0.1 | - | 0.1 | 0.0 | - | 0.1 | - | - | - |
| 25-29 | 0.5 | - | 1.0 | 0.4 | - | 0.9 | 1.1 | - | 2.1 |
| 30-34 | 2.0 | - | 4.0 | 1.7 | - | 3.4 | 4.1 | - | 7.7 |
| 35-39 | 4.9 | - | 9.7 | 4.4 | - | 8.7 | 9.2 | - | 17.1 |
| 40-44 | 9.1 | 0.1 | 17.9 | 8.3 | 0.1 | 16.5 | 15.9 | - | 29.7 |
| 45-49 | 15.6 | 0.1 | 30.5 | 14.4 | 0.1 | 28.5 | 26.9 | - | 49.3 |
| 50-54 | 23.6 | 0.3 | 45.6 | 22.4 | 0.3 | 43.7 | 38.0 | 0.8 | 68.1 |
| 55-59 | 30.7 | 0.5 | 58.6 | 29.6 | 0.5 | 57.0 | 45.2 | 1.1 | 79.6 |
| 60-64 | 38.1 | 0.8 | 71.5 | 37.3 | 0.7 | 70.7 | 52.4 | 1.6 | 90.5 |
| 65-69 | 47.1 | 1.0 | 85.8 | 46.9 | 0.9 | 86.2 | 56.6 | 1.9 | 97.5 |
| 70-74 | 60.7 | 1.3 | 106.8 | 60.4 | 1.2 | 106.9 | 76.7 | 2.7 | 127.8 |
| 75-79 | 73.5 | 2.1 | 123.7 | 73.7 | 2.0 | 124.5 | 86.5 | 3.7 | 138.6 |
| 80-84 | 96.2 | 2.5 | 151.0 | 96.3 | 2.4 | 151.4 | 114.2 | 5.6 | 170.7 |
| 85+ | 143.1 | 4.0 | 200.0 | 145.0 | 3.8 | 202.0 | 147.6 | 7.0 | 205.8 |

^ä NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups, unless noted.

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

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

Table IV-4
FEMALE BREAST CANCER (Invasive)

SEER INCIDENCES AND U.S. DEATH RATES, AGE-ADJUSTED RATES, BY RACE AND AGE

| | All Races, Females | | | White Females | | | Black Females | | |
|-----------------------------|--------------------|------|-------|---------------|------|-------|---------------|------|-------|
| | All | <50 | 50+ | All | <50 | 50+ | All | <50 | 50+ |
| SEER INCIDENCE RATES | | | | | | | | | |
| YEAR OF DIAGNOSIS: | | | | | | | | | |
| 1973 | 98.5 | 39.1 | 254.0 | 100.9 | 39.8 | 260.8 | 82.5 | 34.8 | 207.4 |
| 1974 | 113.0 | 44.6 | 291.9 | 115.1 | 44.6 | 299.7 | 94.8 | 41.0 | 235.7 |
| 1975 | 105.0 | 40.5 | 273.8 | 107.2 | 40.7 | 281.4 | 93.4 | 42.1 | 227.6 |
| 1976 | 101.9 | 40.0 | 263.9 | 104.7 | 40.9 | 271.8 | 84.9 | 37.8 | 208.2 |
| 1977 | 100.7 | 39.0 | 262.3 | 103.3 | 39.4 | 270.8 | 86.6 | 37.1 | 216.0 |
| 1978 | 100.5 | 38.7 | 262.3 | 103.4 | 39.1 | 271.7 | 86.0 | 39.9 | 206.8 |
| 1979 | 102.0 | 38.0 | 269.8 | 104.5 | 38.5 | 277.5 | 87.0 | 37.9 | 215.7 |
| 1980 | 102.0 | 37.7 | 270.5 | 104.8 | 38.1 | 279.5 | 89.4 | 37.7 | 224.7 |
| 1981 | 106.3 | 39.1 | 282.0 | 109.8 | 40.1 | 292.4 | 94.2 | 38.7 | 239.4 |
| 1982 | 106.4 | 40.5 | 279.0 | 109.9 | 41.2 | 289.8 | 93.2 | 37.9 | 237.9 |
| 1983 | 111.0 | 40.1 | 296.6 | 114.4 | 40.8 | 307.1 | 103.3 | 41.1 | 266.0 |
| 1984 | 115.8 | 42.3 | 308.1 | 119.8 | 43.1 | 320.5 | 101.2 | 44.1 | 250.8 |
| 1985 | 124.1 | 44.2 | 333.2 | 127.7 | 44.4 | 346.0 | 111.5 | 45.2 | 285.2 |
| 1986 | 126.7 | 44.4 | 342.3 | 130.2 | 45.0 | 353.0 | 114.6 | 45.0 | 297.0 |
| 1987 | 134.4 | 45.4 | 367.4 | 140.2 | 46.5 | 385.5 | 108.7 | 42.7 | 281.5 |
| 1988 | 131.2 | 43.9 | 359.6 | 136.2 | 44.9 | 375.1 | 118.5 | 42.9 | 316.6 |
| 1989 | 127.1 | 43.3 | 346.4 | 132.2 | 44.4 | 362.0 | 105.4 | 42.6 | 269.8 |
| 1990 | 131.5 | 45.5 | 356.8 | 136.2 | 45.5 | 373.7 | 118.1 | 48.8 | 299.7 |
| 1991 | 133.5 | 46.9 | 360.2 | 138.6 | 46.9 | 378.9 | 116.9 | 50.6 | 290.4 |
| 1992 | 132.0 | 43.4 | 363.9 | 135.8 | 43.7 | 377.0 | 122.7 | 45.9 | 323.8 |
| 1993 | 129.2 | 42.6 | 356.0 | 133.4 | 43.1 | 369.8 | 119.5 | 44.8 | 315.1 |
| 1994 | 130.8 | 42.2 | 362.8 | 135.5 | 42.4 | 379.2 | 122.5 | 47.4 | 319.2 |
| 1995 | 132.5 | 42.9 | 367.1 | 137.2 | 43.2 | 383.4 | 124.4 | 45.5 | 331.2 |
| 1996 | 133.6 | 43.4 | 369.8 | 137.6 | 43.5 | 384.0 | 123.8 | 43.6 | 333.6 |
| 1997 | 137.5 | 43.2 | 384.2 | 141.8 | 43.5 | 399.1 | 124.4 | 43.7 | 335.7 |
| 1998 | 140.5 | 44.9 | 391.0 | 144.7 | 44.6 | 406.7 | 122.3 | 45.4 | 323.5 |
| 1999 | 139.1 | 43.0 | 390.8 | 143.0 | 43.6 | 403.3 | 123.9 | 41.9 | 338.6 |
| 1995-99 | 136.7 | 43.5 | 380.8 | 140.9 | 43.7 | 395.5 | 123.7 | 44.0 | 332.4 |
| U.S. DEATH RATES | | | | | | | | | |
| YEAR OF DEATH: | | | | | | | | | |
| 1973 | 32.3 | 9.4 | 92.2 | 32.5 | 9.2 | 93.7 | 31.4 | 12.1 | 82.0 |
| 1974 | 32.0 | 9.3 | 91.4 | 32.1 | 9.1 | 92.5 | 31.8 | 11.8 | 84.1 |
| 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 | 95.9 | 33.5 | 11.2 | 92.1 |
| 1984 | 32.9 | 8.6 | 96.6 | 32.9 | 8.2 | 97.6 | 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 | 98.2 | 33.0 | 8.0 | 98.6 | 38.0 | 12.0 | 106.0 |
| 1991 | 32.7 | 8.2 | 97.1 | 32.5 | 7.7 | 97.4 | 38.3 | 12.3 | 106.4 |
| 1992 | 31.7 | 7.8 | 94.5 | 31.5 | 7.4 | 94.8 | 37.2 | 12.1 | 102.9 |
| 1993 | 31.5 | 7.4 | 94.6 | 31.2 | 7.0 | 94.7 | 38.2 | 11.7 | 107.6 |
| 1994 | 31.1 | 7.4 | 93.2 | 30.8 | 6.9 | 93.1 | 38.0 | 11.8 | 106.6 |
| 1995 | 30.8 | 7.3 | 92.2 | 30.3 | 6.8 | 91.8 | 38.5 | 11.8 | 108.4 |
| 1996 | 29.8 | 7.0 | 89.4 | 29.3 | 6.4 | 89.2 | 37.5 | 11.8 | 104.7 |
| 1997 | 28.5 | 6.8 | 85.5 | 27.9 | 6.3 | 84.6 | 37.9 | 11.1 | 107.9 |
| 1998 | 27.9 | 6.4 | 84.1 | 27.3 | 5.8 | 83.6 | 36.0 | 10.8 | 102.2 |
| 1999 | 27.0 | 5.8 | 82.4 | 26.3 | 5.2 | 81.5 | 35.8 | 10.4 | 102.3 |
| 1995-99 | 28.8 | 6.6 | 86.6 | 28.2 | 6.1 | 86.1 | 37.1 | 11.2 | 105.0 |

SEER 9 areas. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population.
 NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population.
 Statistic not shown. Rate based on less than 25 cases for the time interval.

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 | 74.7 | 76.4 | 74.0 | 75.3 | 77.4 | 74.6 | 63.1 | 64.2 | 62.5 |
| 1977-79 ^b | 74.7 | 75.8 | 74.3 | 75.5 | 76.8 | 75.0 | 63.1 | 65.3 | 61.8 |
| 1980-82 ^b | 76.3 | 77.1 | 76.1 | 77.1 | 77.9 | 76.9 | 65.7 | 68.8 | 64.0 |
| 1983-85 ^b | 78.0 | 77.3 | 78.3 | 79.2 | 79.0 | 79.3 | 63.4 | 63.0 | 63.6 |
| 1986-88 ^b | 82.8 | 80.0 | 83.7 | 83.9 | 81.4 | 84.7 | 69.2 | 67.2 | 70.2 |
| 1989-91 ^b | 84.8 | 82.6 | 85.7 | 86.1 | 84.4 | 86.7 | 71.1 | 69.3 | 72.4 |
| 1992-98 ^b | 86.2 \bar{U} | 84.1 \bar{U} | 87.1 \bar{U} | 87.6 \bar{U} | 86.0 \bar{U} | 88.1 \bar{U} | 72.5 \bar{U} | 70.2 \bar{U} | 74.1 \bar{U} |
| 1992-98 ^b | | | | | | | | | |
| ALL STAGES | 86.2 | 84.1 | 87.1 | 87.6 | 86.0 | 88.1 | 72.5 | 70.2 | 74.1 |
| LOCALIZED | 96.8 | 93.9 | 97.8 | 97.4 | 94.9 | 98.2 | 88.9 | 85.0 | 91.1 |
| REGIONAL | 78.4 | 78.5 | 78.4 | 80.2 | 80.8 | 80.0 | 65.4 | 66.1 | 64.7 |
| DISTANT | 22.5 | 27.7 | 20.9 | 24.0 | 30.4 | 22.1 | 14.7 | 18.0 | 13.0 |
| UNSTAGED | 55.2 | 60.4 | 53.6 | 55.5 | 64.3 | 53.1 | 51.0 | 44.6 \uparrow | 54.2 |
| <u>STAGE DISTRIBUTION (%) 1992-98^b</u> | | | | | | | | | |
| ALL STAGES | | | | | | | | | |
| Number of cases | 100,419 | 24,949 | 75,470 | 85,557 | 19,910 | 65,647 | 8,426 | 2,974 | 5,452 |
| Percent | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| LOCALIZED | 63 | 56 | 66 | 64 | 57 | 66 | 53 | 48 | 56 |
| REGIONAL | 28 | 36 | 26 | 28 | 36 | 25 | 34 | 40 | 30 |
| DISTANT | 6 | 5 | 6 | 5 | 5 | 6 | 9 | 8 | 9 |
| UNSTAGED | 3 | 2 | 3 | 3 | 2 | 3 | 5 | 4 | 5 |
| <u>5-YR RELATIVE SURVIVAL RATES, 1992-98^b</u> | | | | | | | | | |
| AGE AT DIAGNOSIS: | | | | | | | | | |
| <45 | 82.8 | - | - | 84.7 | - | - | 69.8 | - | - |
| 45-54 | 86.5 | - | - | 88.2 | - | - | 72.0 | - | - |
| 55-64 | 87.2 | - | - | 88.3 | - | - | 75.5 | - | - |
| 65-74 | 88.8 | - | - | 89.6 | - | - | 78.4 | - | - |
| 75+ | 85.1 | - | - | 86.2 | - | - | 65.7 | - | - |
| Under 65 | 85.8 | - | - | 87.4 | - | - | 72.3 | - | - |
| 65 and over | 87.4 | - | - | 88.2 | - | - | 73.6 | - | - |

^a

^b

Rates are based on End Results data from a series of hospital registries and one population-based registry. Rates are from the SEER 9 areas. 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 into 1999.

The difference in rates between 1974-76 and 1992-98 is statistically significant ($p < .05$).

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.

\bar{U}
 \uparrow
 \uparrow
-

Table IV-6
FEMALE BREAST CANCER (Invasive)
INCIDENCE, DEATH, AND SURVIVAL RATES*

By Year of Diagnosis/Death

All Races, Females

Year of Diagnosis/Death

| | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Incidence | | | | | | | | | | | | | | | | | | | | | |
| SEER ^a | 105.0 | 102.0 | 106.3 | 106.4 | 111.0 | 115.8 | 124.1 | 126.7 | 134.4 | 131.2 | 127.1 | 131.5 | 133.5 | 132.0 | 129.2 | 130.8 | 132.5 | 133.6 | 137.5 | 140.5 | 139.1 |
| Mortality | | | | | | | | | | | | | | | | | | | | | |
| U.S. ^b | 31.4 | 31.7 | 31.9 | 32.2 | 32.1 | 32.9 | 33.0 | 32.9 | 32.7 | 33.2 | 33.2 | 33.1 | 32.7 | 31.7 | 31.5 | 31.1 | 30.8 | 29.8 | 28.5 | 27.9 | 27.0 |
| SEER ^a | 33.2 | 32.0 | 32.5 | 33.0 | 32.1 | 31.8 | 33.5 | 32.5 | 33.2 | 33.4 | 33.2 | 31.8 | 32.5 | 31.1 | 30.4 | 29.3 | 30.4 | 29.4 | 27.9 | 27.5 | 26.0 |
| Relative Survival Rates (SEER ^a) | | | | | | | | | | | | | | | | | | | | | |
| 1-year | 94.8 | 95.3 | 95.4 | 95.6 | 95.4 | 95.8 | 95.9 | 96.3 | 96.8 | 96.8 | 97.0 | 97.0 | 97.3 | 97.4 | 97.2 | 97.5 | 97.3 | 97.1 | 97.5 | 97.6 | |
| 2-year | 89.1 | 89.8 | 90.0 | 90.4 | 90.5 | 91.4 | 91.3 | 91.7 | 93.2 | 93.3 | 93.3 | 93.4 | 93.9 | 94.4 | 94.1 | 94.3 | 94.1 | 93.9 | 94.5 | | |
| 3-year | 83.3 | 84.2 | 84.8 | 84.9 | 85.1 | 86.3 | 86.3 | 87.1 | 89.2 | 90.0 | 90.0 | 89.8 | 90.2 | 91.0 | 90.9 | 91.0 | 91.4 | 91.0 | | | |
| 4-year | 79.0 | 79.6 | 79.7 | 80.8 | 81.0 | 82.2 | 82.3 | 83.5 | 86.0 | 87.1 | 87.1 | 86.9 | 87.6 | 88.1 | 88.2 | 88.6 | 88.8 | | | | |
| 5-year | 75.4 | 75.5 | 76.1 | 77.4 | 76.7 | 78.5 | 78.7 | 80.4 | 83.2 | 84.5 | 84.6 | 84.6 | 85.3 | 85.7 | 85.8 | 86.5 | | | | | |
| 6-year | 72.2 | 72.4 | 73.1 | 74.1 | 73.5 | 75.9 | 76.3 | 78.1 | 80.5 | 82.3 | 82.3 | 82.5 | 83.3 | 83.8 | 83.7 | | | | | | |
| 7-year | 69.6 | 69.4 | 70.3 | 71.0 | 70.7 | 73.4 | 74.1 | 75.8 | 78.3 | 80.3 | 80.5 | 80.5 | 81.5 | 82.0 | | | | | | | |
| 8-year | 67.7 | 67.0 | 67.6 | 68.8 | 68.3 | 71.3 | 72.2 | 74.2 | 76.8 | 78.8 | 79.0 | 79.1 | 79.7 | | | | | | | | |
| 9-year | 65.8 | 64.5 | 65.7 | 67.3 | 66.5 | 68.9 | 70.1 | 72.5 | 74.9 | 77.0 | 77.6 | 77.6 | | | | | | | | | |
| 10-year | 63.8 | 62.8 | 63.5 | 65.3 | 64.8 | 66.9 | 68.4 | 70.8 | 73.5 | 75.9 | 76.3 | | | | | | | | | | |
| 11-year | 62.0 | 61.0 | 61.9 | 63.3 | 62.7 | 65.0 | 67.0 | 69.6 | 71.8 | 74.5 | | | | | | | | | | | |
| 12-year | 60.6 | 59.6 | 60.6 | 61.9 | 61.5 | 64.1 | 65.8 | 68.2 | 70.4 | | | | | | | | | | | | |
| 13-year | 59.0 | 58.7 | 58.9 | 60.8 | 60.3 | 63.1 | 64.8 | 67.0 | | | | | | | | | | | | | |
| 14-year | 58.0 | 57.7 | 57.6 | 59.2 | 59.0 | 61.8 | 63.9 | | | | | | | | | | | | | | |
| 15-year | 56.8 | 56.8 | 56.9 | 58.5 | 57.8 | 60.6 | | | | | | | | | | | | | | | |
| 16-year | 55.6 | 55.3 | 55.6 | 57.5 | 56.9 | | | | | | | | | | | | | | | | |
| 17-year | 54.8 | 54.3 | 55.0 | 56.4 | | | | | | | | | | | | | | | | | |
| 18-year | 54.2 | 53.3 | 54.2 | | | | | | | | | | | | | | | | | | |
| 19-year | 53.4 | 52.9 | | | | | | | | | | | | | | | | | | | |
| 20-year | 52.8 | | | | | | | | | | | | | | | | | | | | |
| 21-year | 51.9 | | | | | | | | | | | | | | | | | | | | |
| 22-year | 51.4 | | | | | | | | | | | | | | | | | | | | |
| 23-year | 50.9 | | | | | | | | | | | | | | | | | | | | |
| 24-year | 50.3 | | | | | | | | | | | | | | | | | | | | |

^a Rates are from the SEER 9 areas.

^b Rates are from the NCHS public use data file.

* Incidence and death rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

Survival rates are relative rates expressed as percents.

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

INCIDENCE, DEATH, AND SURVIVAL RATES*

By Year of Diagnosis/Death

All Races, Females

Year of Diagnosis/Death

| | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Incidence | | | | | | | | | | | | | | | | | | | | | |
| SEER ^a | 40.5 | 37.7 | 39.1 | 40.5 | 40.1 | 42.3 | 44.2 | 44.4 | 45.4 | 43.9 | 43.3 | 45.5 | 46.9 | 43.4 | 42.6 | 42.2 | 42.9 | 43.4 | 43.2 | 44.9 | 43.0 |
| Mortality | | | | | | | | | | | | | | | | | | | | | |
| U.S. ^b | 9.1 | 8.6 | 8.5 | 8.4 | 8.2 | 8.6 | 8.6 | 8.6 | 8.4 | 8.4 | 8.4 | 8.3 | 8.2 | 7.8 | 7.4 | 7.4 | 7.3 | 7.0 | 6.8 | 6.4 | 5.8 |
| SEER ^a | 9.2 | 8.8 | 8.0 | 8.2 | 7.9 | 7.9 | 8.2 | 8.5 | 8.2 | 8.1 | 7.7 | 8.1 | 8.0 | 6.8 | 7.1 | 6.4 | 7.0 | 6.6 | 6.3 | 5.7 | 5.3 |
| Relative Survival Rates (SEER ^a) | | | | | | | | | | | | | | | | | | | | | |
| 1-year | 96.5 | 97.8 | 98.1 | 97.3 | 97.7 | 97.3 | 97.6 | 97.9 | 98.1 | 98.4 | 98.2 | 97.5 | 98.5 | 98.4 | 97.9 | 98.4 | 97.9 | 97.7 | 98.1 | 98.5 | |
| 2-year | 90.5 | 90.7 | 91.8 | 92.0 | 91.6 | 91.3 | 91.8 | 92.2 | 92.6 | 93.7 | 93.1 | 93.0 | 93.8 | 94.6 | 94.1 | 93.5 | 93.7 | 93.8 | 94.6 | | |
| 3-year | 83.9 | 84.7 | 85.8 | 86.4 | 86.0 | 85.2 | 85.8 | 86.1 | 87.1 | 89.2 | 88.8 | 88.3 | 89.9 | 90.6 | 90.1 | 89.1 | 89.8 | 90.6 | | | |
| 4-year | 80.1 | 80.0 | 80.7 | 82.2 | 81.1 | 80.9 | 81.2 | 82.0 | 82.9 | 85.5 | 84.9 | 84.7 | 86.6 | 86.1 | 86.9 | 85.9 | 86.3 | | | | |
| 5-year | 76.3 | 75.7 | 77.1 | 78.5 | 76.7 | 77.3 | 77.9 | 78.3 | 79.5 | 82.2 | 82.0 | 82.0 | 83.6 | 83.4 | 84.4 | 83.4 | | | | | |
| 6-year | 72.9 | 72.5 | 74.4 | 74.8 | 73.3 | 74.9 | 75.6 | 75.7 | 76.9 | 80.1 | 79.6 | 79.7 | 81.3 | 81.3 | 82.5 | | | | | | |
| 7-year | 70.4 | 69.6 | 72.0 | 72.5 | 70.6 | 72.0 | 73.4 | 72.9 | 74.5 | 78.0 | 77.8 | 78.1 | 79.0 | 79.6 | | | | | | | |
| 8-year | 68.6 | 67.6 | 69.6 | 70.2 | 68.6 | 69.6 | 71.7 | 71.2 | 72.8 | 76.2 | 76.3 | 76.0 | 77.4 | | | | | | | | |
| 9-year | 67.0 | 66.0 | 68.0 | 68.2 | 67.0 | 67.4 | 69.7 | 70.0 | 70.9 | 74.7 | 74.6 | 74.7 | | | | | | | | | |
| 10-year | 65.4 | 64.4 | 66.1 | 66.9 | 65.2 | 66.4 | 68.5 | 68.8 | 69.3 | 73.3 | 73.7 | | | | | | | | | | |
| 11-year | 64.3 | 63.1 | 64.8 | 65.4 | 64.1 | 64.7 | 67.6 | 67.7 | 67.7 | 72.1 | | | | | | | | | | | |
| 12-year | 62.6 | 62.2 | 63.7 | 64.1 | 63.1 | 63.9 | 66.4 | 66.4 | 66.1 | | | | | | | | | | | | |
| 13-year | 61.5 | 61.4 | 62.4 | 63.4 | 61.7 | 62.4 | 65.3 | 65.2 | | | | | | | | | | | | | |
| 14-year | 60.7 | 60.6 | 61.4 | 61.7 | 60.4 | 61.3 | 64.5 | | | | | | | | | | | | | | |
| 15-year | 59.2 | 60.0 | 60.3 | 60.9 | 59.4 | 60.5 | | | | | | | | | | | | | | | |
| 16-year | 58.2 | 59.1 | 59.3 | 60.3 | 58.7 | | | | | | | | | | | | | | | | |
| 17-year | 57.0 | 58.6 | 58.6 | 59.2 | | | | | | | | | | | | | | | | | |
| 18-year | 56.5 | 57.9 | 57.7 | | | | | | | | | | | | | | | | | | |
| 19-year | 55.9 | 57.6 | | | | | | | | | | | | | | | | | | | |
| 20-year | 55.4 | | | | | | | | | | | | | | | | | | | | |
| 21-year | 54.7 | | | | | | | | | | | | | | | | | | | | |
| 22-year | 54.2 | | | | | | | | | | | | | | | | | | | | |
| 23-year | 53.6 | | | | | | | | | | | | | | | | | | | | |
| 24-year | 53.1 | | | | | | | | | | | | | | | | | | | | |

^a Rates are from the SEER 9 areas.

^b Rates are from the NCHS public use data file.

* Incidence and death rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

Survival rates are relative rates expressed as percents.

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

INCIDENCE, DEATH, AND SURVIVAL RATES*

By Year of Diagnosis/Death

All Races, Females

Year of Diagnosis/Death

| | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 |
|--|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Incidence | | | | | | | | | | | | | | | | | | | | | |
| SEER ^a | 273.8 | 270.5 | 282.0 | 279.0 | 296.6 | 308.1 | 333.2 | 342.3 | 367.4 | 359.6 | 346.4 | 356.8 | 360.2 | 363.9 | 356.0 | 362.8 | 367.1 | 369.8 | 384.2 | 391.0 | 390.8 |
| Mortality | | | | | | | | | | | | | | | | | | | | | |
| U.S. ^b | 89.9 | 92.2 | 93.3 | 94.4 | 94.7 | 96.6 | 96.9 | 96.3 | 96.1 | 98.2 | 98.2 | 98.2 | 97.1 | 94.5 | 94.6 | 93.2 | 92.2 | 89.4 | 85.5 | 84.1 | 82.4 |
| SEER ^a | 95.8 | 92.6 | 96.6 | 97.9 | 95.6 | 94.4 | 99.8 | 95.2 | 98.9 | 99.8 | 99.8 | 93.6 | 96.5 | 94.5 | 91.4 | 89.4 | 91.6 | 89.1 | 84.6 | 84.6 | 80.0 |
| Relative Survival Rates (SEER ^a) | | | | | | | | | | | | | | | | | | | | | |
| 1-year | 94.3 | 94.5 | 94.6 | 95.1 | 94.7 | 95.3 | 95.4 | 95.8 | 96.5 | 96.3 | 96.7 | 96.8 | 96.9 | 97.1 | 96.9 | 97.3 | 97.0 | 96.9 | 97.3 | 97.4 | |
| 2-year | 88.6 | 89.6 | 89.5 | 90.0 | 90.2 | 91.4 | 91.1 | 91.5 | 93.4 | 93.2 | 93.4 | 93.5 | 93.9 | 94.3 | 94.0 | 94.6 | 94.2 | 93.9 | 94.4 | | |
| 3-year | 83.0 | 84.0 | 84.5 | 84.4 | 84.8 | 86.6 | 86.5 | 87.4 | 89.8 | 90.3 | 90.4 | 90.3 | 90.3 | 91.2 | 91.2 | 91.7 | 92.0 | 91.2 | | | |
| 4-year | 78.6 | 79.5 | 79.4 | 80.4 | 81.0 | 82.7 | 82.7 | 84.0 | 87.0 | 87.7 | 87.9 | 87.7 | 88.0 | 88.8 | 88.6 | 89.6 | 89.7 | | | | |
| 5-year | 75.1 | 75.4 | 75.8 | 77.0 | 76.8 | 79.0 | 79.1 | 81.2 | 84.5 | 85.4 | 85.6 | 85.7 | 85.9 | 86.6 | 86.4 | 87.7 | | | | | |
| 6-year | 72.0 | 72.3 | 72.6 | 73.8 | 73.6 | 76.3 | 76.5 | 79.0 | 81.8 | 83.1 | 83.3 | 83.6 | 84.2 | 84.9 | 84.3 | | | | | | |
| 7-year | 69.4 | 69.3 | 69.7 | 70.4 | 70.7 | 74.0 | 74.4 | 76.9 | 79.7 | 81.3 | 81.6 | 81.6 | 82.6 | 83.1 | | | | | | | |
| 8-year | 67.4 | 66.8 | 67.0 | 68.3 | 68.2 | 72.0 | 72.4 | 75.4 | 78.3 | 79.9 | 80.2 | 80.5 | 80.9 | | | | | | | | |
| 9-year | 65.3 | 64.1 | 64.9 | 66.9 | 66.4 | 69.6 | 70.4 | 73.6 | 76.6 | 78.0 | 79.0 | 79.0 | | | | | | | | | |
| 10-year | 63.2 | 62.3 | 62.5 | 64.7 | 64.7 | 67.2 | 68.5 | 71.8 | 75.4 | 77.1 | 77.7 | | | | | | | | | | |
| 11-year | 61.0 | 60.2 | 60.8 | 62.5 | 62.3 | 65.4 | 66.8 | 70.6 | 73.7 | 75.9 | | | | | | | | | | | |
| 12-year | 59.7 | 58.6 | 59.4 | 61.1 | 61.0 | 64.5 | 65.7 | 69.3 | 72.6 | | | | | | | | | | | | |
| 13-year | 58.0 | 57.8 | 57.5 | 59.8 | 59.9 | 63.7 | 64.9 | 68.2 | | | | | | | | | | | | | |
| 14-year | 56.9 | 56.6 | 56.1 | 58.1 | 58.6 | 62.5 | 64.0 | | | | | | | | | | | | | | |
| 15-year | 55.7 | 55.6 | 55.4 | 57.6 | 57.5 | 61.2 | | | | | | | | | | | | | | | |
| 16-year | 54.5 | 53.8 | 54.0 | 56.3 | 56.5 | | | | | | | | | | | | | | | | |
| 17-year | 53.8 | 52.5 | 53.5 | 55.3 | | | | | | | | | | | | | | | | | |
| 18-year | 53.1 | 51.4 | 52.8 | | | | | | | | | | | | | | | | | | |
| 19-year | 52.2 | 51.0 | | | | | | | | | | | | | | | | | | | |
| 20-year | 51.5 | | | | | | | | | | | | | | | | | | | | |
| 21-year | 50.4 | | | | | | | | | | | | | | | | | | | | |
| 22-year | 50.0 | | | | | | | | | | | | | | | | | | | | |
| 23-year | 49.4 | | | | | | | | | | | | | | | | | | | | |
| 24-year | 48.7 | | | | | | | | | | | | | | | | | | | | |

^a Rates are from the SEER 9 areas.

^b Rates are from the NCHS public use data file.

* Incidence and death rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

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

1997-1999

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 | 0.11 | 0.00 | 0.00 | 0.05 | 13.42 | |
| 10 | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 | 0.05 | 0.45 | 13.53 | |
| 20 | 0.00 | 0.00 | 0.01 | 0.11 | 0.05 | 0.45 | 1.91 | 13.56 | |
| 30 | 0.00 | 0.01 | 0.02 | 0.11 | 0.40 | 1.87 | 4.62 | 13.58 | |
| 40 | 0.00 | 0.02 | 0.05 | 0.11 | 1.49 | 4.27 | 7.61 | 13.33 | |
| 50 | 0.02 | 0.05 | 0.08 | 0.11 | 2.87 | 6.32 | 9.76 | 12.23 | |
| 60 | 0.03 | 0.07 | 0.09 | 0.10 | 3.70 | 7.40 | 9.59 | 10.06 | |
| Lifetime Risk of Being Diagnosed = | | | | 0.11% | Lifetime Risk of Being Diagnosed = | | | | 13.42% |
| Lifetime Risk of Dying = | | | | 0.03% | Lifetime Risk of Dying = | | | | 3.12% |

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 | 0.11 | 0.00 | 0.00 | 0.05 | 14.05 | |
| 10 | 0.00 | 0.00 | 0.00 | 0.11 | 0.00 | 0.05 | 0.44 | 14.15 | |
| 20 | 0.00 | 0.00 | 0.01 | 0.11 | 0.04 | 0.44 | 1.93 | 14.18 | |
| 30 | 0.00 | 0.01 | 0.02 | 0.12 | 0.40 | 1.89 | 4.74 | 14.20 | |
| 40 | 0.00 | 0.02 | 0.05 | 0.12 | 1.51 | 4.38 | 7.93 | 13.94 | |
| 50 | 0.02 | 0.05 | 0.09 | 0.12 | 2.97 | 6.62 | 10.27 | 12.82 | |
| 60 | 0.04 | 0.07 | 0.10 | 0.11 | 3.92 | 7.83 | 10.10 | 10.57 | |
| Lifetime Risk of Being Diagnosed = | | | | 0.11% | Lifetime Risk of Being Diagnosed = | | | | 14.05% |
| Lifetime Risk of Dying = | | | | 0.03% | Lifetime Risk of Dying = | | | | 3.12% |

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 | 0.12 | 0.00 | 0.00 | 0.07 | 10.23 | |
| 10 | 0.00 | 0.00 | 0.00 | 0.12 | 0.00 | 0.07 | 0.49 | 10.41 | |
| 20 | 0.00 | 0.00 | 0.01 | 0.12 | 0.07 | 0.49 | 1.82 | 10.44 | |
| 30 | 0.00 | 0.01 | 0.05 | 0.13 | 0.42 | 1.77 | 4.14 | 10.46 | |
| 40 | 0.01 | 0.05 | 0.07 | 0.13 | 1.37 | 3.78 | 6.36 | 10.24 | |
| 50 | 0.04 | 0.07 | 0.09 | 0.14 | 2.54 | 5.25 | 7.68 | 9.34 | |
| 60 | 0.03 | 0.06 | 0.08 | 0.11 | 3.03 | 5.73 | 7.23 | 7.59 | |
| Lifetime Risk of Being Diagnosed = | | | | 0.12% | Lifetime Risk of Being Diagnosed = | | | | 10.23% |
| Lifetime Risk of Dying = | | | | 0.04% | Lifetime Risk of Dying = | | | | 3.39% |

Table IV-10
 FEMALE BREAST CANCER (Invasive)

AGE-ADJUSTED SEER INCIDENCE AND U.S. DEATH RATES

By Race/Ethnicity and Sex

Incidenceⁱ

| RACE/ETHNICITY | Rate 1992-1999 | Trend 1992-1999 |
|------------------------|--------------------------|-----------------|
| | Rate per 100,000 persons | EAPC (%) |
| | Females | Females |
| All Races | 132.1 | 1.1★ |
| White | 137.0 | 1.0★ |
| White Hispanic | 87.1 | 0.4 |
| White Non-Hispanic | 144.5 | 1.3★ |
| Black | 120.7 | 0.3 |
| Asian/Pacific Islander | 93.4 | 3.4★ |
| Amer Ind/Alaska Nat | 59.4 | -1.2 |
| Hispanic [⊗] | 82.6 | 0.5 |

Mortality[❖]

| RACE/ETHNICITY | Rate 1992-1999 | Trend 1992-1999 |
|------------------------|--------------------------|-----------------|
| | Rate per 100,000 persons | EAPC (%) |
| | Females | Females |
| All Races | 29.7 | -2.4★ |
| White | 29.3 | -2.7★ |
| White Hispanic | 18.3 | -1.8★ |
| White Non-Hispanic | 29.5 | -2.6★ |
| Black | 37.3 | -0.7 |
| Asian/Pacific Islander | 13.1 | -0.5 |
| Amer Ind/Alaska Nat | 14.8 | 0.5 |
| Hispanic [⊗] | 17.5 | -1.8★ |

- The EAPC is the Estimated 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.
- ⁱ Incidence data are from the 12 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, and Alaska Native Registry).
- [⊗] Hispanic is not mutually exclusive from whites, blacks, Asian Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics does not include cases from Detroit, Hawaii and Alaska Native Registry. For mortality, information is included for all states except Connecticut, Oklahoma, New York, and New Hampshire.
- [❖] Mortality data are analyzed from a public use file provided by the National Center for Health Statistics (NCHS).
- [★] The EAPC is significantly different from zero (p<.05).

Table IV-11
FEMALE BREAST CANCER (Invasive)AGE-ADJUSTED SEER INCIDENCE RATES§ AND SEER DEATH RATESä
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§, 1995-99</u> | | | | | | | | | |
| REGISTRY | | | | | | | | | |
| 11 registries | 134.1 | 42.5 | 373.9 | 139.0 | 42.8 | 390.9 | 121.5 | 42.2 | 329.3 |
| 9 registries | 136.7 | 43.5 | 380.8 | 140.9 | 43.7 | 395.5 | 123.7 | 44.0 | 332.4 |
| San Francisco-Oakland | 141.5 | 45.4 | 393.2 | 158.5 | 48.2 | 447.2 | 110.7 | 38.5 | 300.0 |
| Connecticut | 145.6 | 47.4 | 402.6 | 146.9 | 47.9 | 406.1 | 115.7 | 39.7 | 314.8 |
| Metropolitan Detroit | 131.5 | 43.3 | 362.3 | 133.8 | 42.9 | 371.8 | 122.5 | 43.9 | 328.3 |
| Hawaii | 130.0 | 45.7 | 350.8 | 154.9 | 45.8 | 440.6 | - | - | - |
| Iowa | 130.7 | 40.4 | 367.3 | 130.7 | 40.2 | 367.7 | 148.3 | 51.3 | 402.2 |
| New Mexico | 120.3 | 40.1 | 330.2 | 126.4 | 42.8 | 345.3 | 81.6 | - | 240.3 |
| Seattle-Puget Sound | 149.1 | 43.7 | 425.4 | 153.5 | 44.3 | 439.3 | 118.3 | 39.7 | 324.1 |
| Utah | 116.9 | 34.0 | 334.0 | 119.0 | 34.8 | 339.4 | - | - | - |
| Metropolitan Atlanta | 139.7 | 45.7 | 385.7 | 138.0 | 42.9 | 387.0 | 144.6 | 50.7 | 390.6 |
| San Jose-Monterey | 140.7 | 41.6 | 400.2 | 147.2 | 41.6 | 423.7 | 105.0 | 27.8 | 307.2 |
| Los Angeles | 124.3 | 39.8 | 345.5 | 130.4 | 40.4 | 366.1 | 117.2 | 38.3 | 323.9 |
| <u>SEER DEATH RATESä, 1995-99</u> | | | | | | | | | |
| REGISTRY | | | | | | | | | |
| 11 registries | 27.7 | 6.2 | 84.2 | 28.0 | 5.7 | 86.4 | 37.3 | 11.1 | 106.0 |
| 9 registries | 28.2 | 6.2 | 85.9 | 28.3 | 5.6 | 87.5 | 38.1 | 11.1 | 108.7 |
| San Francisco-Oakland | 26.8 | 6.2 | 80.9 | 29.3 | 5.6 | 91.3 | 32.8 | 11.1 | 89.7 |
| Connecticut | 29.7 | 6.1 | 91.4 | 29.4 | 5.9 | 90.9 | 35.8 | 9.2 | 105.4 |
| Metropolitan Detroit | 31.2 | 7.3 | 93.8 | 29.2 | 6.0 | 89.8 | 38.6 | 11.3 | 109.9 |
| Hawaii | 20.4 | 4.5 | 61.9 | 29.7 | - | 97.9 | - | - | - |
| Iowa | 27.5 | 5.6 | 84.6 | 27.5 | 5.6 | 84.7 | 34.4 | - | 105.0 |
| New Mexico | 27.2 | 6.6 | 81.2 | 28.2 | 6.9 | 83.7 | - | - | - |
| Seattle-Puget Sound | 27.6 | 5.5 | 85.7 | 28.1 | 5.4 | 87.3 | 35.1 | 9.6 | 101.9 |
| Utah | 24.5 | 5.0 | 75.7 | 24.6 | 5.0 | 76.1 | - | - | - |
| Metropolitan Atlanta | 31.6 | 7.1 | 95.8 | 27.6 | 4.8 | 87.5 | 45.4 | 12.6 | 131.3 |
| San Jose-Monterey | 25.7 | 5.0 | 80.0 | 27.9 | 5.2 | 87.3 | 32.9 | - | 109.7 |
| Los Angeles | 26.8 | 6.6 | 79.6 | 27.2 | 6.3 | 82.1 | 35.8 | 11.5 | 99.5 |

Note: San Jose-Monterey and Los Angeles are new SEER areas as of 1992 and their data are only used in tables where indicated.
 § SEER 9 areas. Incidence rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.
 ä NCHS public use data file. Death rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.
 - Statistic could not be calculated or populations are inadequate.

Table IV-12
FEMALE BREAST CANCER (Invasive)AVERAGE ANNUAL AGE-ADJUSTED CANCER DEATH^ä RATES BY STATE, 1995-99

All Races, Females

| State | Rate | SE | Rank | PD | State | Rate | SE | Rank | PD |
|----------------------|-----------------|------|------|-------|----------------|-----------------|------|------|-------|
| TOTAL U.S. | 28.8 | 0.06 | | | | | | | |
| High Five States | | | | | | | | | |
| District of Columbia | 39.1 \oplus * | 1.57 | (01) | 35.8 | | | | | |
| Delaware | 32.6* | 1.28 | (02) | 13.2 | | | | | |
| New Jersey | 32.2 \oplus * | 0.37 | (03) | 11.8 | | | | | |
| New York | 31.5 \oplus | 0.25 | (04) | 9.4 | | | | | |
| Maryland | 31.4 \oplus | 0.49 | (05) | 9.0 | | | | | |
| Low Five States | | | | | | | | | |
| South Dakota | 25.2* | 1.11 | (47) | -12.5 | | | | | |
| Alaska | 24.8* | 1.79 | (48) | -13.9 | | | | | |
| Colorado | 24.6 \oplus * | 0.51 | (49) | -14.6 | | | | | |
| Utah | 24.5 \oplus * | 0.78 | (50) | -14.9 | | | | | |
| Hawaii | 20.4 \oplus * | 0.81 | (51) | -29.2 | | | | | |
| Alabama | 26.7 \oplus | 0.47 | (43) | -7.3 | Montana | 26.6 | 1.04 | (44) | -7.6 |
| Alaska | 24.8* | 1.79 | (48) | -13.9 | Nebraska | 27.1 | 0.76 | (39) | -5.9 |
| Arizona | 25.8 \oplus * | 0.47 | (46) | -10.4 | Nevada | 27.9 | 0.85 | (26) | -3.1 |
| Arkansas | 26.7 | 0.60 | (42) | -7.3 | New Hampshire | 29.7 | 0.99 | (12) | 3.1 |
| California | 27.1 \oplus | 0.19 | (37) | -5.9 | New Jersey | 32.2 \oplus * | 0.37 | (03) | 11.8 |
| Colorado | 24.6 \oplus * | 0.51 | (49) | -14.6 | New Mexico | 27.2 | 0.80 | (36) | -5.6 |
| Connecticut | 29.7 | 0.55 | (13) | 3.1 | New York | 31.5 \oplus | 0.25 | (04) | 9.4 |
| Delaware | 32.6* | 1.28 | (02) | 13.2 | North Carolina | 28.7 | 0.38 | (18) | -0.3 |
| District of Columbia | 39.1 \oplus * | 1.57 | (01) | 35.8 | North Dakota | 27.2 | 1.22 | (35) | -5.6 |
| Florida | 27.4 \oplus | 0.24 | (33) | -4.9 | Ohio | 30.7 \oplus | 0.31 | (10) | 6.6 |
| Georgia | 28.3 | 0.40 | (24) | -1.7 | Oklahoma | 27.7 | 0.54 | (29) | -3.8 |
| Hawaii | 20.4 \oplus * | 0.81 | (51) | -29.2 | Oregon | 27.7 | 0.55 | (30) | -3.8 |
| Idaho | 26.7 | 0.95 | (41) | -7.3 | Pennsylvania | 30.9 \oplus | 0.29 | (08) | 7.3 |
| Illinois | 31.0 \oplus | 0.31 | (07) | 7.6 | Rhode Island | 31.0 | 1.02 | (06) | 7.6 |
| Indiana | 29.2 | 0.43 | (16) | 1.4 | South Carolina | 28.6 | 0.53 | (20) | -0.7 |
| Iowa | 27.5 | 0.57 | (32) | -4.5 | South Dakota | 25.2* | 1.11 | (47) | -12.5 |
| Kansas | 26.5 \oplus | 0.60 | (45) | -8.0 | Tennessee | 28.5 | 0.44 | (21) | -1.0 |
| Kentucky | 28.1 | 0.51 | (25) | -2.4 | Texas | 26.8 \oplus | 0.24 | (40) | -6.9 |
| Louisiana | 30.8 \oplus | 0.52 | (09) | 6.9 | Utah | 24.5 \oplus * | 0.78 | (50) | -14.9 |
| Maine | 28.8 | 0.89 | (17) | 0.0 | Vermont | 28.6 | 1.33 | (19) | -0.7 |
| Maryland | 31.4 \oplus | 0.49 | (05) | 9.0 | Virginia | 29.5 | 0.41 | (14) | 2.4 |
| Massachusetts | 30.4 \oplus | 0.41 | (11) | 5.6 | Washington | 27.1 \oplus | 0.44 | (38) | -5.9 |
| Michigan | 29.5 | 0.33 | (15) | 2.4 | West Virginia | 27.6 | 0.70 | (31) | -4.2 |
| Minnesota | 27.8 | 0.47 | (27) | -3.5 | Wisconsin | 27.8 | 0.44 | (28) | -3.5 |
| Mississippi | 28.5 | 0.63 | (22) | -1.0 | Wyoming | 27.3 | 1.51 | (34) | -5.2 |
| Missouri | 28.4 | 0.43 | (23) | -1.4 | | | | | |

^ä NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

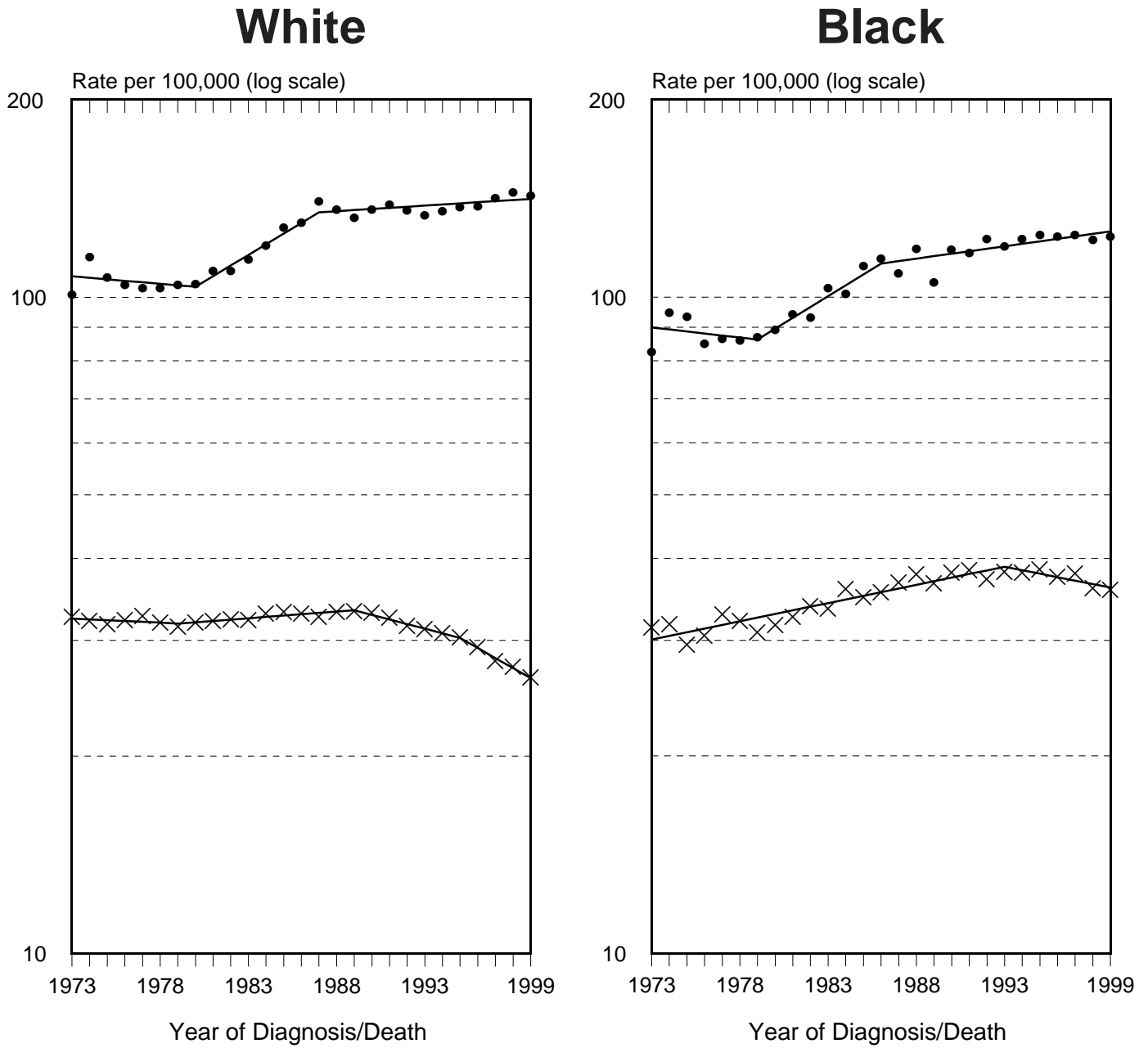
SE Standard error of the rate.

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

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

\oplus Difference between state rate and total U.S. rate is statistically significant ($p \leq .0002$).

SEER Incidence and U.S. Death Rates⁺ Female Breast Cancer By Race

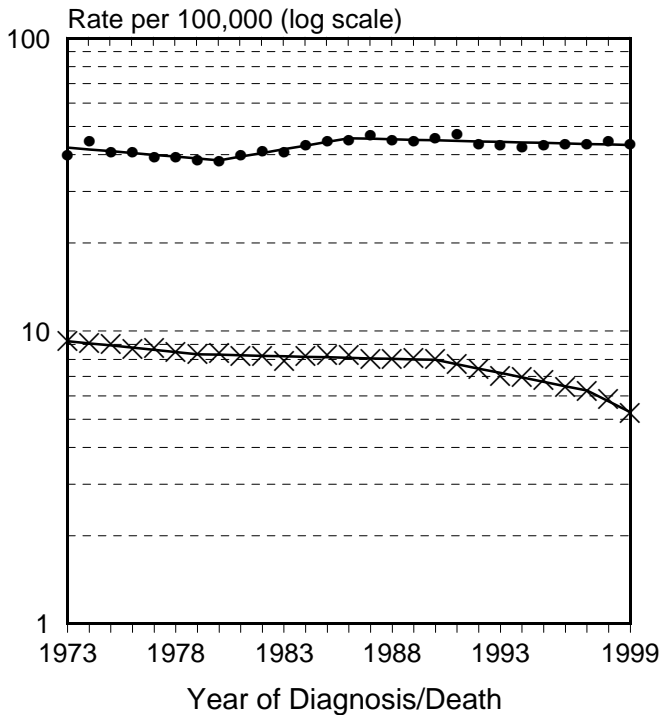


• Incidence × Mortality

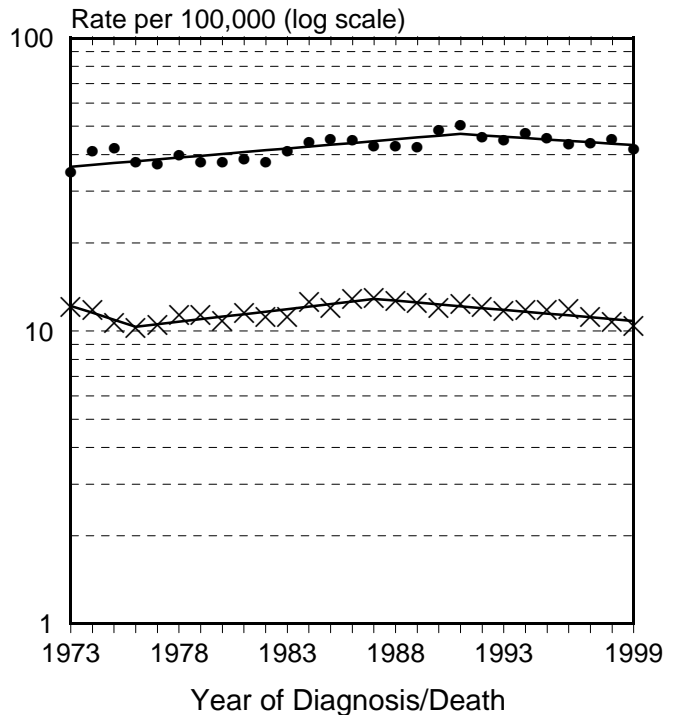
⁺ Source: SEER 9 areas and NCHS public use data file. Rates are age-adjusted to the 2000 U.S. standard million population by 5-year age groups. Regression lines are calculated using the Joinpoint Regression Program.

SEER Incidence and U.S. Death Rates⁺ Female Breast Cancer, By Age and Race

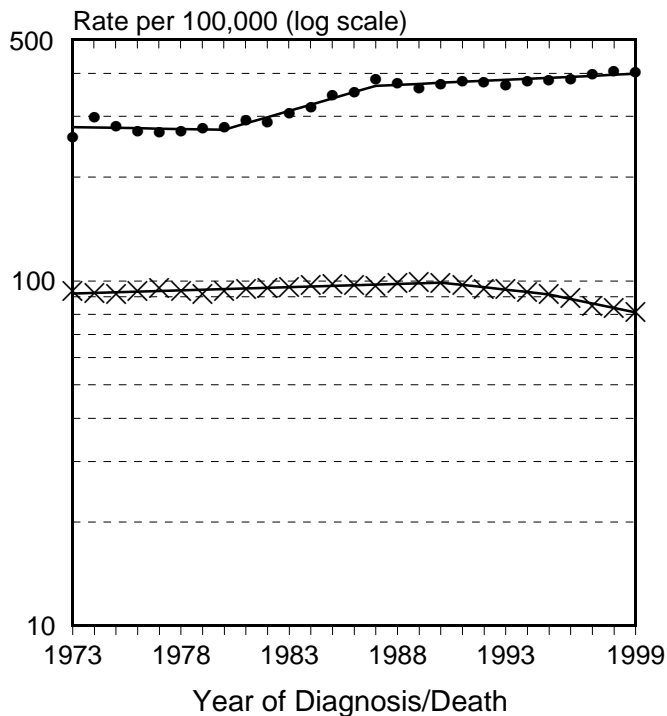
White - Under 50 Years of Age



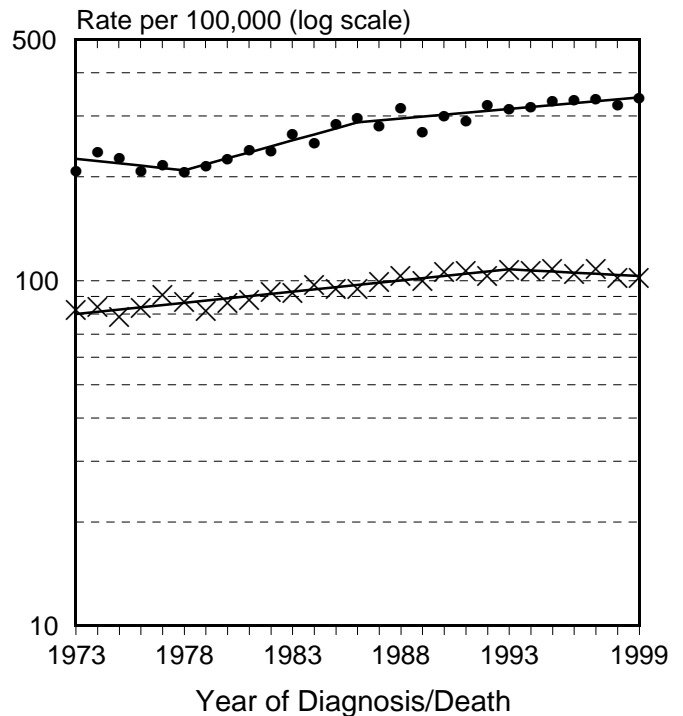
Black - Under 50 Years of Age



White - Ages 50 and Over



Black - Ages 50 and Over



• Incidence × Mortality

⁺ Source: SEER 9 areas and NCHS public use data file. Rates are age-adjusted to the 2000 U.S. standard million population by 5-year age groups. Regression lines are calculated using the Joinpoint Regression Program.

Breast Cancer Incidence Rates, 1973-1999 by Age, In Situ vs. Malignant All Races, Female

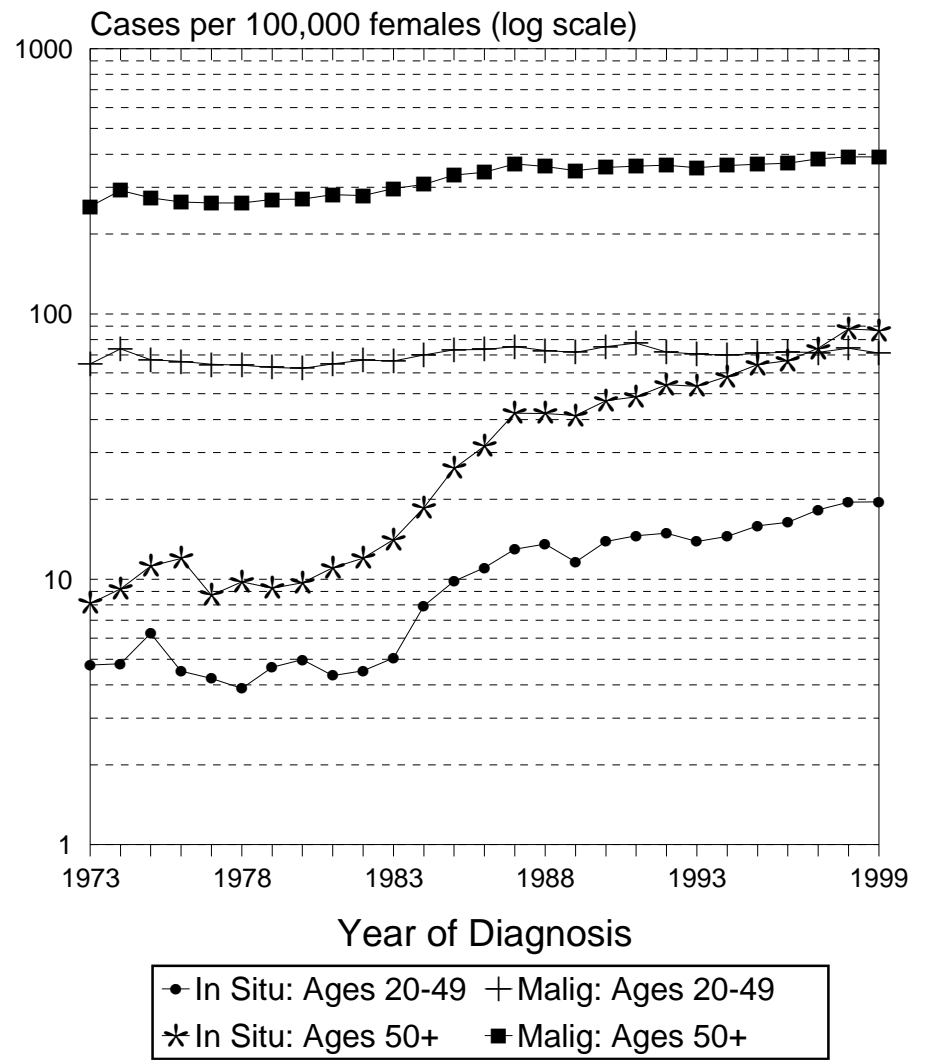
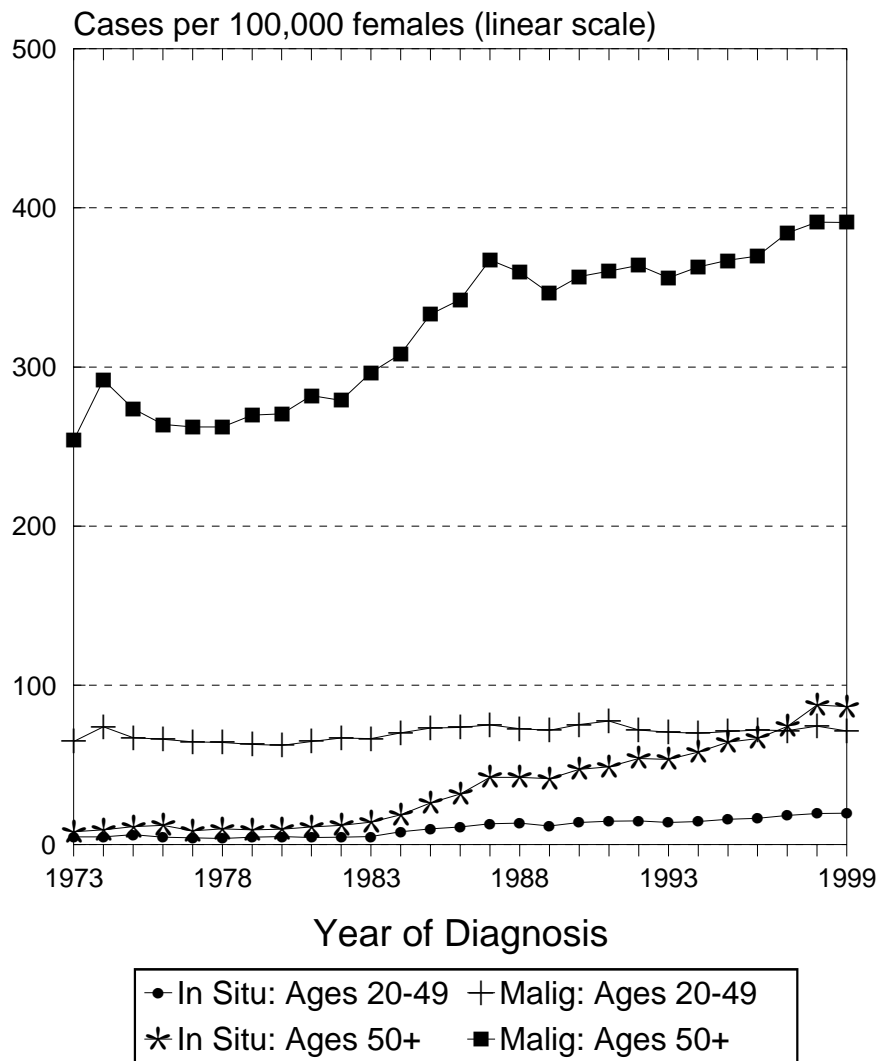
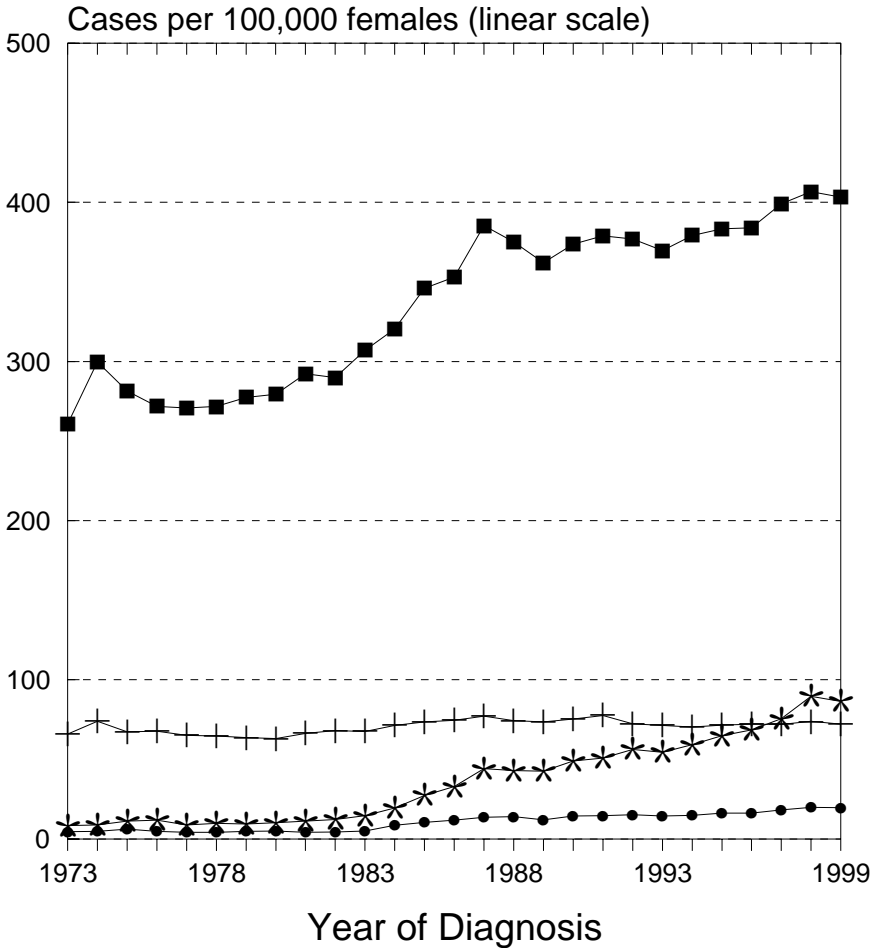


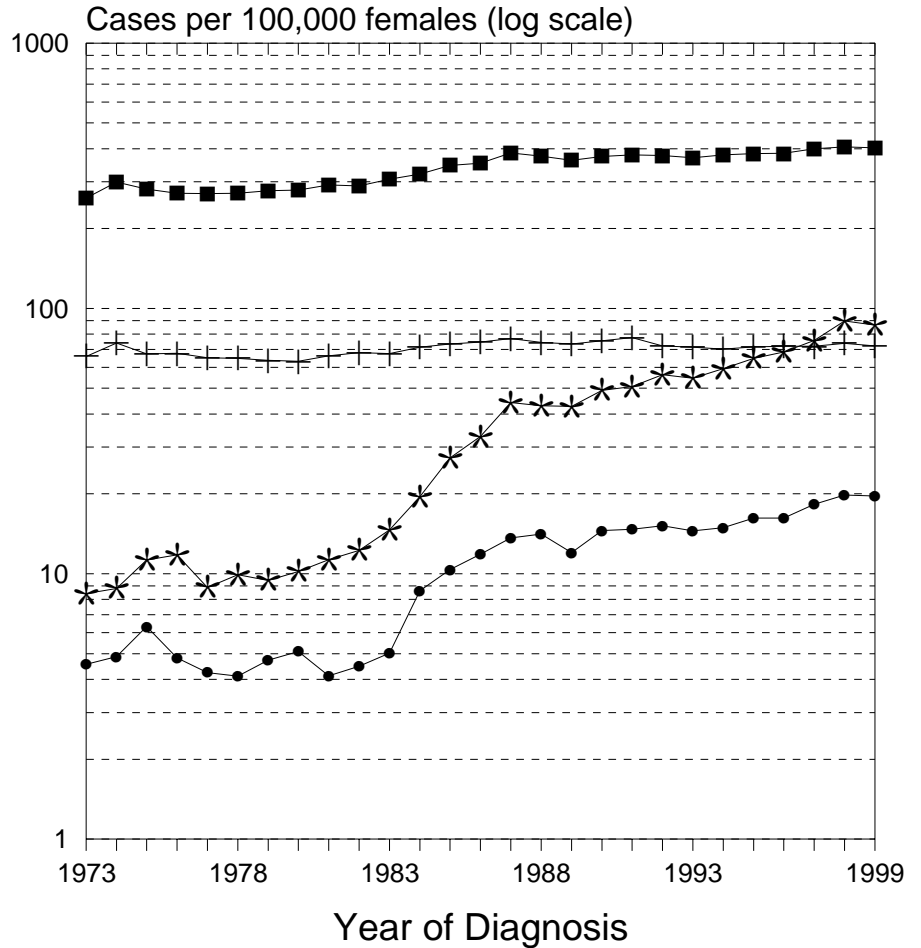
Figure IV-3

Source: SEER 9 areas. Rates are age-adjusted to 2000 U.S. standard million population by 5-year age groups.

Breast Cancer Incidence Rates, 1973-1999 by Age, In Situ vs. Malignant White Females



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

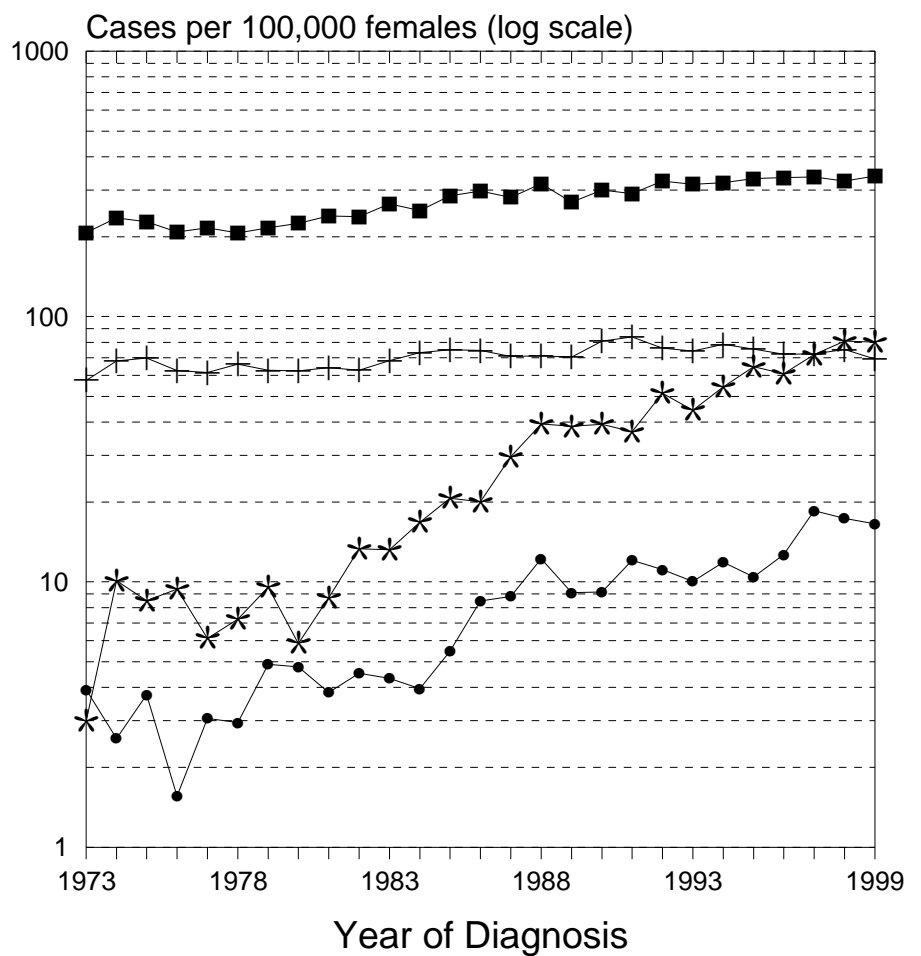
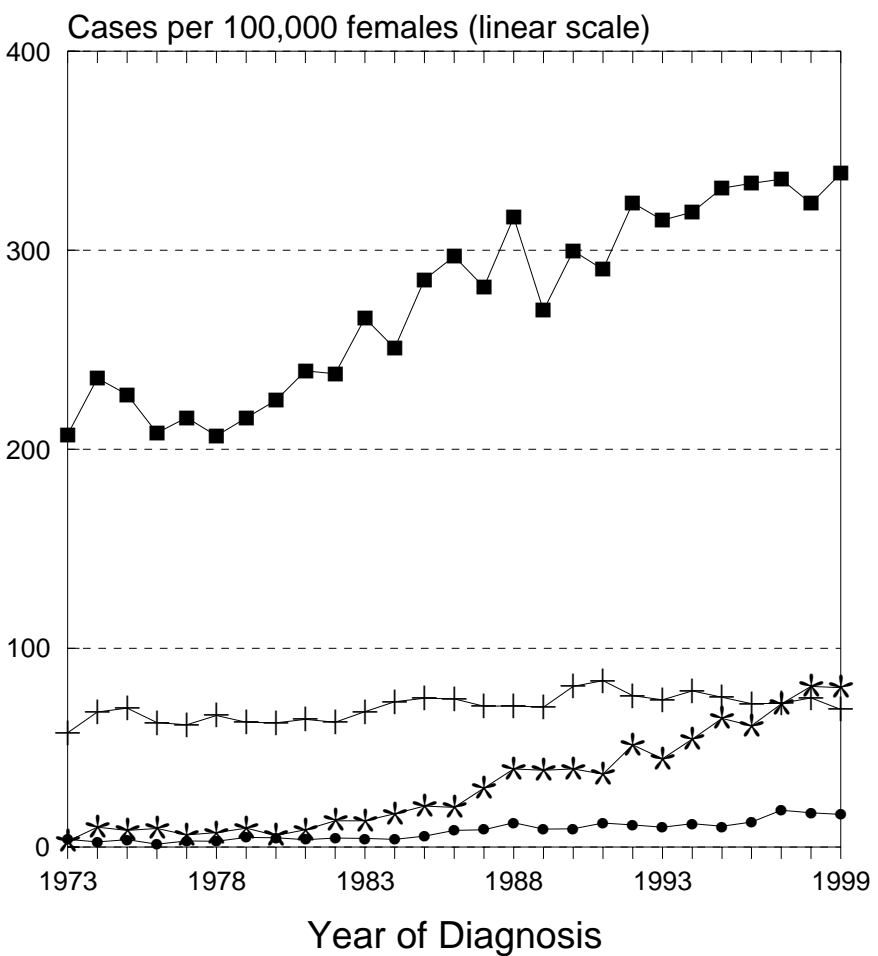


• In Situ: Ages 20-49 + Malign: Ages 20-49
* In Situ: Ages 50+ ■ Malign: Ages 50+

Source: SEER 9 areas. Rates are age-adjusted to 2000 U.S. standard million population by 5-year age groups.

Figure IV-4

Breast Cancer Incidence Rates, 1973-1999 by Age, In Situ vs. Malignant Black Females



• In Situ: Ages 20-49 + Malignant: Ages 20-49
* In Situ: Ages 50+ ■ Malignant: Ages 50+

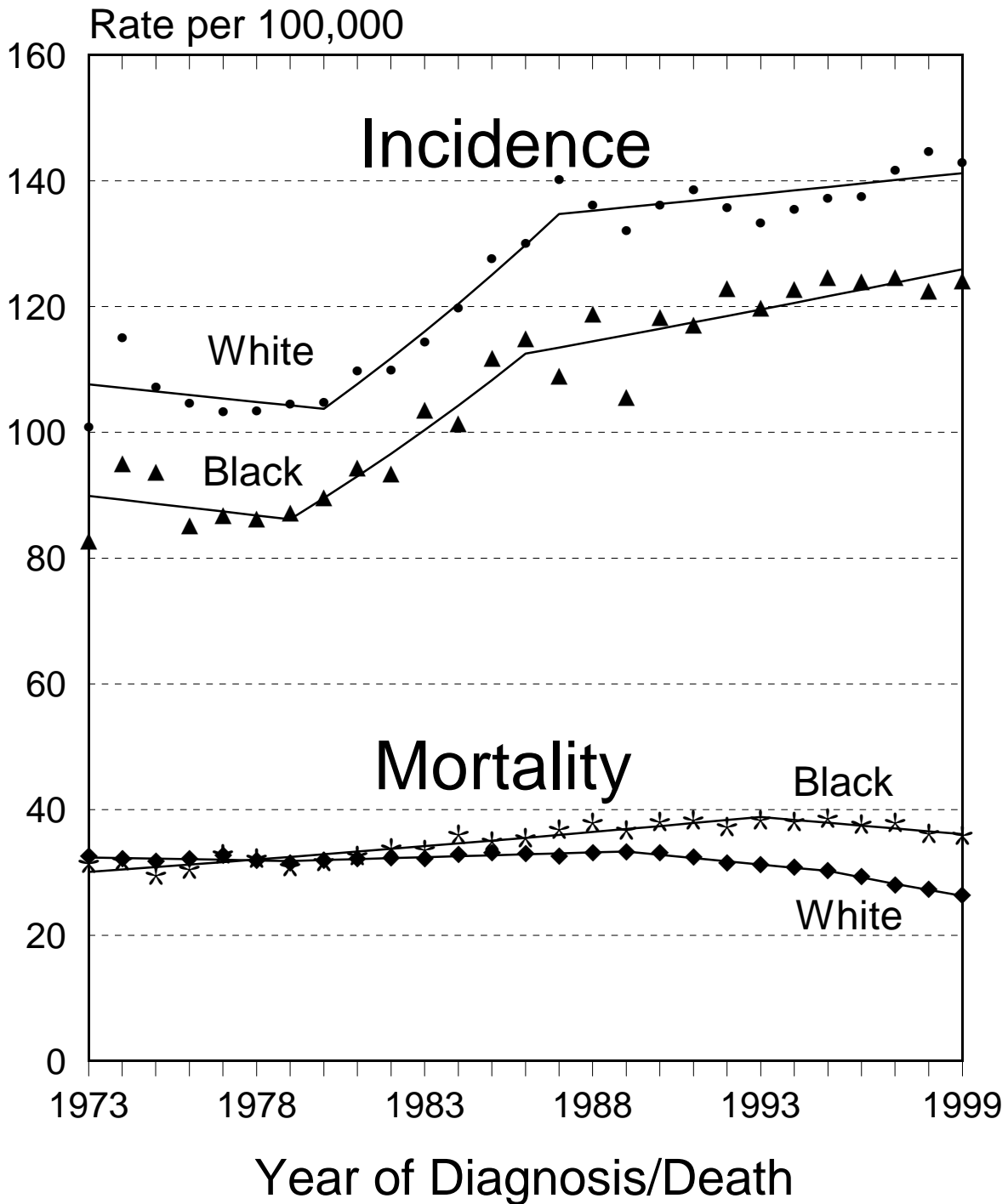
• In Situ: Ages 20-49 + Malignant: Ages 20-49
* In Situ: Ages 50+ ■ Malignant: Ages 50+

Source: SEER 9 areas. Rates are age-adjusted to 2000 U.S. standard million population by 5-year age groups.

Figure IV-5

Figure IV-6

Breast Cancer Incidence & Mortality White Females vs. Black Females

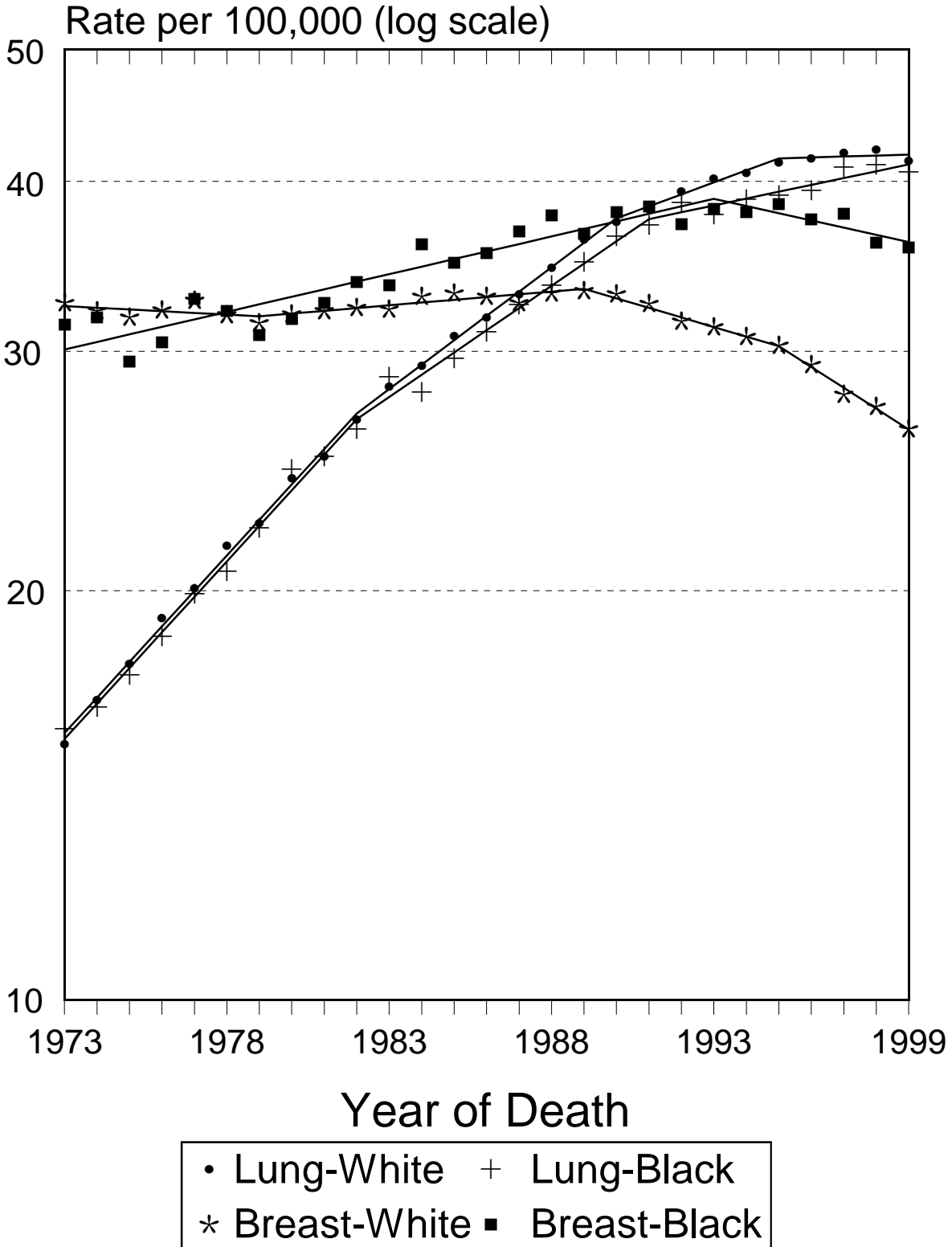


• White Incidence ▲ Black Incidence
◆ White Mortality * Black Mortality

Source: SEER 9 areas and NCHS public use data file. Rates are age-adjusted to the 2000 U.S. standard million population by 5-year age groups. Regression lines are calculated using the Joinpoint Regression Program.

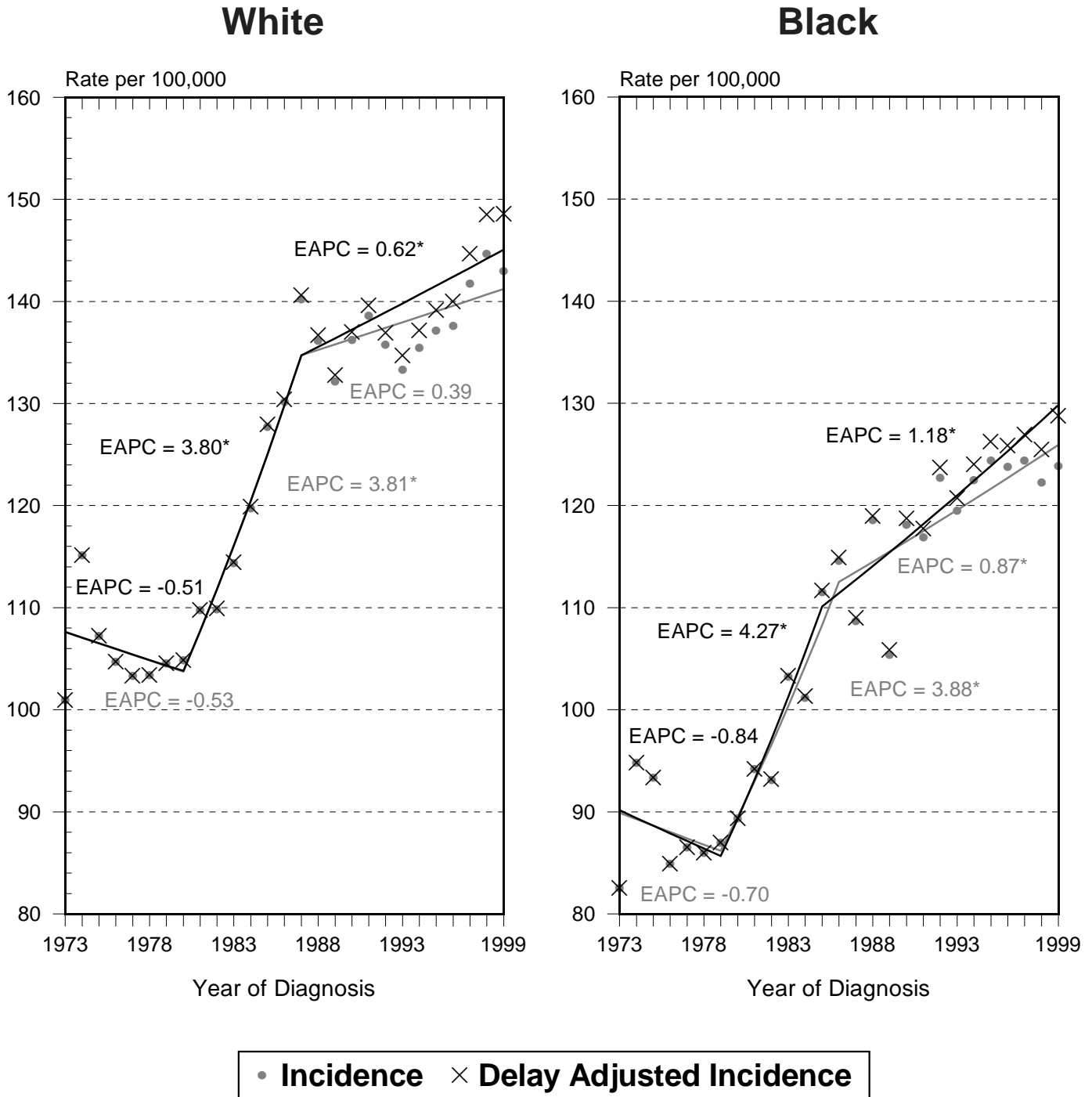
Figure IV-7

Breast vs. Lung Cancer Mortality White Females vs. Black Females United States, 1973-1999



Source: NCHS public use data file. Rates are age-adjusted to the 2000 U.S. standard million population by 5-year age groups. Regression lines are calculated using the Joinpoint Regression Program.

SEER Incidence and Delay Adjusted Incidence Rates⁺ Female Breast Cancer By Race



Source: SEER 9 areas.

⁺ Rates are age-adjusted to the 2000 U.S. standard million population by 5-year age groups. Regression lines are calculated using the Joinpoint Regression Program. The EAPC is the Estimated Annual Percent Change for the regression line segments. The EAPC is calculated by the Joinpoint Regression Program.

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