

Table XXIV-1  
TESTIS CANCER (Invasive)

TRENDS IN SEER INCIDENCE AND U.S. MORTALITY USING THE JOINPOINT REGRESSION PROGRAM, 1973-1998  
WITH UP TO THREE JOINPOINTS BY RACE AND AGE

|                              | All Races |        | Whites  |        | Blacks  |       |
|------------------------------|-----------|--------|---------|--------|---------|-------|
|                              | Year      | APC    | Year    | APC    | Year    | APC   |
| <u>SEER Cancer Incidence</u> |           |        |         |        |         |       |
| Age - All Ages               | 1973-98   | 1.7★   | 1973-89 | 2.7★   | 1973-98 | 1.2   |
|                              |           |        | 1989-98 | 0.5    |         |       |
| Age - Under 50               | 1973-87   | 3.0★   | 1973-86 | 3.6★   | 1973-98 | 1.3   |
|                              | 1987-98   | 0.9    | 1986-98 | 1.1★   |         |       |
| Age - 50 and Over            | 1973-98   | -0.3   | 1973-98 | -0.2   |         |       |
| <u>U.S. Cancer Mortality</u> |           |        |         |        |         |       |
| Age - All Ages               | 1973-77   | -5.9★  | 1973-77 | -5.9★  | 1973-98 | -3.2★ |
|                              | 1977-81   | -12.7★ | 1977-81 | -13.0★ |         |       |
|                              | 1981-98   | -2.8★  | 1981-98 | -2.7★  |         |       |
| Age - Under 50               | 1973-77   | -5.9★  | 1973-76 | -4.2   | 1973-98 | -2.1★ |
|                              | 1977-81   | -13.5★ | 1976-81 | -12.8★ |         |       |
|                              | 1981-98   | -2.8★  | 1981-98 | -2.7★  |         |       |
| Age - 50 and Over            | 1973-81   | -8.5★  | 1973-82 | -8.2★  | 1973-98 | -4.7★ |
|                              | 1981-98   | -3.1★  | 1982-98 | -2.7★  |         |       |

The APC is the Annual Percent Change based on rates age-adjusted to the 1970 U.S. standard population using the Joinpoint Regression Program.

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

Table XXIV-2  
TESTIS CANCER (Invasive)

SEER INCIDENCES AND U.S. MORTALITY<sup>§</sup> RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES, BY RACE

|                                    | Incidence§       |             |             | US Mortality <sup>§</sup> |             |             |
|------------------------------------|------------------|-------------|-------------|---------------------------|-------------|-------------|
|                                    | All Races, Males | White Males | Black Males | All Races, Males          | White Males | Black Males |
| <b>AGE-SPECIFIC RATES, 1994-98</b> |                  |             |             |                           |             |             |
| AGE AT DIAGNOSIS/DEATH:            |                  |             |             |                           |             |             |
| 0-4                                | -                | -           | -           | -                         | -           | -           |
| 5-9                                | -                | -           | -           | -                         | -           | -           |
| 10-14                              | -                | -           | -           | -                         | -           | -           |
| 15-19                              | 3.1              | 3.6         | -           | 0.1                       | 0.1         | -           |
| 20-24                              | 7.6              | 9.0         | -           | 0.4                       | 0.4         | -           |
| 25-29                              | 14.3             | 17.0        | -           | 0.5                       | 0.5         | -           |
| 30-34                              | 14.1             | 16.6        | -           | 0.5                       | 0.6         | -           |
| 35-39                              | 12.1             | 13.7        | -           | 0.5                       | 0.6         | 0.4         |
| 40-44                              | 8.7              | 9.9         | -           | 0.4                       | 0.4         | -           |
| 45-49                              | 6.0              | 6.7         | -           | 0.3                       | 0.3         | -           |
| 50-54                              | 3.6              | 4.0         | -           | 0.2                       | 0.2         | -           |
| 55-59                              | 2.1              | 2.4         | -           | 0.3                       | 0.3         | -           |
| 60-64                              | 1.7              | 1.8         | -           | 0.2                       | 0.2         | -           |
| 65-69                              | 1.8              | 2.1         | -           | 0.2                       | 0.2         | -           |
| 70-74                              | -                | -           | -           | 0.3                       | 0.3         | -           |
| 75-79                              | -                | -           | -           | 0.3                       | 0.3         | -           |
| 80-84                              | -                | -           | -           | 0.4                       | 0.4         | -           |
| 85+                                | -                | -           | -           | -                         | -           | -           |
| <b>AGE-ADJUSTED RATES, 1994-98</b> |                  |             |             |                           |             |             |
| AGE AT DIAGNOSIS/DEATH:            |                  |             |             |                           |             |             |
| All ages                           | 4.7              | 5.5         | 1.2         | 0.2                       | 0.2         | 0.1         |
| Under 65                           | 5.1              | 5.9         | 1.2         | 0.2                       | 0.2         | 0.1         |
| 65 and over                        | 1.2              | 1.3         | -           | 0.3                       | 0.3         | -           |
| All ages (world std.) <sup>⊕</sup> | 5.0              | 5.8         | 1.2         | 0.2                       | 0.2         | 0.1         |

SEER Program. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population, unless noted.  
 NCHS public use tape. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population, unless noted.  
 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 XXIV-3  
TESTIS CANCER (Invasive)

SEER INCIDENCES AND U.S. MORTALITY<sup>D</sup> RATES, AGE-ADJUSTED RATES, BY RACE AND AGE

|                             | All Races, Males |     |     | White Males |     |     | Black Males |     |     |
|-----------------------------|------------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
|                             | All              | <50 | 50+ | All         | <50 | 50+ | All         | <50 | 50+ |
| <u>SEER INCIDENCE RATES</u> |                  |     |     |             |     |     |             |     |     |
| <u>YEAR OF DIAGNOSIS:</u>   |                  |     |     |             |     |     |             |     |     |
| 1973                        | 3.0              | 3.2 | 2.2 | 3.2         | 3.5 | 2.4 | -           | -   | -   |
| 1974                        | 3.3              | 3.6 | 2.3 | 3.5         | 3.8 | 2.3 | -           | -   | -   |
| 1975                        | 3.3              | 3.6 | 2.4 | 3.7         | 4.0 | 2.6 | -           | -   | -   |
| 1976                        | 3.2              | 3.7 | 1.6 | 3.5         | 4.0 | 1.8 | -           | -   | -   |
| 1977                        | 3.8              | 4.3 | 2.2 | 4.3         | 4.9 | 2.4 | -           | -   | -   |
| 1978                        | 3.2              | 3.7 | 1.9 | 3.6         | 4.1 | 2.1 | -           | -   | -   |
| 1979                        | 3.5              | 4.0 | 2.0 | 3.9         | 4.5 | 2.1 | -           | -   | -   |
| 1980                        | 4.0              | 4.6 | 1.9 | 4.5         | 5.2 | 2.1 | -           | -   | -   |
| 1981                        | 3.8              | 4.4 | 1.8 | 4.3         | 5.0 | 2.0 | -           | -   | -   |
| 1982                        | 4.0              | 4.6 | 2.3 | 4.6         | 5.3 | 2.5 | -           | -   | -   |
| 1983                        | 4.1              | 4.7 | 2.3 | 4.7         | 5.4 | 2.6 | -           | -   | -   |
| 1984                        | 4.0              | 4.6 | 2.0 | 4.6         | 5.3 | 2.3 | -           | -   | -   |
| 1985                        | 4.1              | 4.8 | 1.9 | 4.7         | 5.5 | 2.2 | -           | -   | -   |
| 1986                        | 4.3              | 5.0 | 2.2 | 5.0         | 5.8 | 2.3 | -           | -   | -   |
| 1987                        | 4.4              | 5.3 | 1.9 | 5.0         | 6.0 | 1.9 | -           | -   | -   |
| 1988                        | 4.1              | 4.9 | 1.5 | 4.8         | 5.8 | 1.8 | -           | -   | -   |
| 1989                        | 4.9              | 5.7 | 2.3 | 5.6         | 6.6 | 2.5 | -           | -   | -   |
| 1990                        | 4.6              | 5.3 | 2.2 | 5.3         | 6.3 | 2.5 | -           | -   | -   |
| 1991                        | 4.6              | 5.3 | 2.1 | 5.2         | 6.1 | 2.4 | -           | -   | -   |
| 1992                        | 4.6              | 5.4 | 2.0 | 5.4         | 6.4 | 2.2 | -           | -   | -   |
| 1993                        | 4.5              | 5.5 | 1.7 | 5.3         | 6.4 | 2.0 | -           | -   | -   |
| 1994                        | 4.9              | 5.8 | 2.2 | 5.6         | 6.7 | 2.4 | -           | -   | -   |
| 1995                        | 4.2              | 4.9 | 1.9 | 4.8         | 5.7 | 2.2 | -           | -   | -   |
| 1996                        | 4.7              | 5.6 | 1.8 | 5.5         | 6.6 | 2.0 | -           | -   | -   |
| 1997                        | 4.8              | 5.6 | 2.5 | 5.6         | 6.6 | 2.7 | -           | -   | -   |
| 1998                        | 4.9              | 6.0 | 1.6 | 5.7         | 7.0 | 1.8 | -           | -   | -   |
| 1994-98                     | 4.7              | 5.6 | 2.0 | 5.5         | 6.5 | 2.2 | 1.2         | 1.3 | -   |
| <u>U.S. MORTALITY RATES</u> |                  |     |     |             |     |     |             |     |     |
| <u>YEAR OF DEATH:</u>       |                  |     |     |             |     |     |             |     |     |
| 1973                        | 0.8              | 0.7 | 0.8 | 0.8         | 0.8 | 0.9 | -           | -   | -   |
| 1974                        | 0.7              | 0.7 | 0.6 | 0.8         | 0.8 | 0.7 | -           | -   | -   |
| 1975                        | 0.7              | 0.7 | 0.7 | 0.7         | 0.7 | 0.7 | -           | -   | -   |
| 1976                        | 0.6              | 0.6 | 0.6 | 0.7         | 0.7 | 0.7 | 0.3         | -   | -   |
| 1977                        | 0.6              | 0.6 | 0.6 | 0.7         | 0.7 | 0.6 | -           | -   | -   |
| 1978                        | 0.5              | 0.5 | 0.5 | 0.5         | 0.5 | 0.5 | 0.2         | -   | -   |
| 1979                        | 0.5              | 0.4 | 0.5 | 0.5         | 0.4 | 0.5 | 0.3         | -   | -   |
| 1980                        | 0.4              | 0.4 | 0.4 | 0.4         | 0.4 | 0.5 | -           | -   | -   |
| 1981                        | 0.3              | 0.3 | 0.3 | 0.4         | 0.4 | 0.3 | -           | -   | -   |
| 1982                        | 0.4              | 0.3 | 0.4 | 0.4         | 0.4 | 0.4 | -           | -   | -   |
| 1983                        | 0.3              | 0.3 | 0.4 | 0.4         | 0.4 | 0.4 | -           | -   | -   |
| 1984                        | 0.3              | 0.3 | 0.4 | 0.3         | 0.3 | 0.4 | -           | -   | -   |
| 1985                        | 0.3              | 0.3 | 0.4 | 0.3         | 0.3 | 0.4 | -           | -   | -   |
| 1986                        | 0.3              | 0.3 | 0.3 | 0.3         | 0.3 | 0.3 | -           | -   | -   |
| 1987                        | 0.3              | 0.3 | 0.3 | 0.3         | 0.3 | 0.3 | -           | -   | -   |
| 1988                        | 0.3              | 0.2 | 0.3 | 0.3         | 0.3 | 0.4 | -           | -   | -   |
| 1989                        | 0.3              | 0.3 | 0.3 | 0.3         | 0.3 | 0.3 | 0.2         | -   | -   |
| 1990                        | 0.2              | 0.2 | 0.2 | 0.3         | 0.3 | 0.2 | -           | -   | -   |
| 1991                        | 0.2              | 0.2 | 0.3 | 0.3         | 0.3 | 0.3 | -           | -   | -   |
| 1992                        | 0.2              | 0.2 | 0.3 | 0.3         | 0.3 | 0.3 | -           | -   | -   |
| 1993                        | 0.3              | 0.3 | 0.3 | 0.3         | 0.3 | 0.3 | -           | -   | -   |
| 1994                        | 0.2              | 0.2 | 0.2 | 0.3         | 0.3 | 0.2 | -           | -   | -   |
| 1995                        | 0.2              | 0.2 | 0.2 | 0.2         | 0.2 | 0.3 | -           | -   | -   |
| 1996                        | 0.2              | 0.2 | 0.3 | 0.3         | 0.2 | 0.3 | -           | -   | -   |
| 1997                        | 0.2              | 0.2 | 0.2 | 0.2         | 0.2 | 0.3 | -           | -   | -   |
| 1998                        | 0.2              | 0.2 | 0.3 | 0.3         | 0.3 | 0.3 | -           | -   | -   |
| 1994-98                     | 0.2              | 0.2 | 0.2 | 0.2         | 0.2 | 0.3 | 0.1         | 0.1 | -   |

SEER Program. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.  
 NCHS public use tape. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.  
 Statistic not shown. Rate based on less than 25 cases for the time interval.

Table XXIV-4  
TESTIS CANCER (Invasive)

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

|  | All Races, Males |       |       | White Males |       |       | Black Males |       |      |
|--|------------------|-------|-------|-------------|-------|-------|-------------|-------|------|
|  | All              | <50   | 50+   | All         | <50   | 50+   | All         | <50   | 50+  |
| <b>5-YR RELATIVE SURVIVAL RATES</b>                      |                  |       |       |             |       |       |             |       |      |
| YEAR OF DIAGNOSIS:                                       |                  |       |       |             |       |       |             |       |      |
| 1960-63 <sup>a</sup>                                     | -                | -     | -     | 63          | -     | -     | -           | -     | -    |
| 1970-73 <sup>a</sup>                                     | -                | -     | -     | 72          | -     | -     | -           | -     | -    |
| 1974-76 <sup>b</sup>                                     | 78.6             | 78.0  | 82.9  | 78.7        | 78.1  | 83.3  | 75.9†       | -     | -    |
| 1977-79 <sup>b</sup>                                     | 87.4             | 88.5  | 77.1  | 87.8        | 88.9  | 78.1  | 66.2†       | -     | -    |
| 1980-82 <sup>b</sup>                                     | 91.8             | 91.8  | 91.1  | 92.0        | 92.0  | 92.0  | 89.7†       | 89.2† | -    |
| 1983-85 <sup>b</sup>                                     | 91.1             | 91.9  | 82.5  | 91.3        | 92.3  | 81.1  | 87.9†       | 84.2† | -    |
| 1986-88 <sup>b</sup>                                     | 95.2             | 95.3  | 93.3  | 95.7        | 95.8  | 94.3  | -           | -     | -    |
| 1989-91 <sup>b</sup>                                     | 95.4             | 95.4  | 93.6  | 95.7        | 95.7  | 94.7  | 91.1†       | 93.3† | -    |
| 1992-97 <sup>b</sup>                                     | 95.3Ω            | 95.7Ω | 88.4  | 95.4Ω       | 95.9Ω | 88.6  | 87.6        | 87.8  | -    |
| 1992-97 <sup>b</sup>                                     | ALL STAGES       | 95.3  | 95.7  | 88.4        | 95.4  | 95.9  | 88.6        | 87.6  | 87.8 |
| LOCALIZED  | 98.5             | 98.5  | 95.9  | 98.5        | 98.4  | 96.5  | 96.5        | 96.0  | -    |
| REGIONAL   | 94.6             | 95.9  | 80.3† | 95.0        | 96.3  | 80.8† | -           | -     | -    |
| DISTANT  | 75.7             | 77.9  | 48.0† | 75.8        | 78.6  | 42.5† | -           | -     | -    |
| UNSTAGED   | 92.7             | 92.9  | -     | 92.4        | 92.6  | -     | -           | -     | -    |
| <b>STAGE DISTRIBUTION (%) 1992-97<sup>b</sup></b>        |                  |       |       |             |       |       |             |       |      |
| ALL STAGES   |                  |       |       |             |       |       |             |       |      |
| Number of cases  | 3,906            | 3,610 | 296   | 3,646       | 3,369 | 277   | 87          | 82    | 5    |
| Percent  | 100%             | 100%  | 100%  | 100%        | 100%  | 100%  | 100%        | 100%  | 100% |
| LOCALIZED  | 69               | 69    | 66    | 69          | 70    | 66    | 58          | 59    | 40   |
| REGIONAL   | 18               | 18    | 19    | 18          | 18    | 18    | 20          | 21    | -    |
| DISTANT  | 11               | 11    | 14    | 10          | 10    | 13    | 21          | 18    | 60   |
| UNSTAGED   | 2                | 2     | 2     | 2           | 2     | 3     | 2           | 2     | -    |
| <b>5-YR RELATIVE SURVIVAL RATES, 1992-97<sup>b</sup></b> |                  |       |       |             |       |       |             |       |      |
| AGE AT DIAGNOSIS:  |                  |       |       |             |       |       |             |       |      |
| <45  | 95.7             | -     | -     | 95.8        | -     | -     | 88.8        | -     | -    |
| 45-54  | 95.0             | -     | -     | 95.3        | -     | -     | -           | -     | -    |
| 55-64  | 87.7†            | -     | -     | 87.2†       | -     | -     | -           | -     | -    |
| 65-74  | 73.6†            | -     | -     | 74.3†       | -     | -     | -           | -     | -    |
| 75+  | -                | -     | -     | -           | -     | -     | -           | -     | -    |
| Under 65   | 95.5             | -     | -     | 95.6        | -     | -     | 87.6        | -     | -    |
| 65 and over  | 76.6†            | -     | -     | 77.4†       | -     | -     | -           | -     | -    |

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

<sup>b</sup> 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 1997.

The difference in rates between 1974-76 and 1992-97 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.

Table XXIV-5  
TESTIS CANCER (Invasive)

INCIDENCE, MORTALITY, AND SURVIVAL RATES

By Year of Diagnosis/Death

All Races, Males

Year of Diagnosis/Death

|                                       | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| <b>Incidence</b>                      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEER                                  | 3.3  | 4.0  | 3.8  | 4.0  | 4.1  | 4.0  | 4.1  | 4.3  | 4.4  | 4.1  | 4.9  | 4.6  | 4.6  | 4.6  | 4.5  | 4.9  | 4.2  | 4.7  | 4.8  | 4.9  |
| <b>Mortality</b>                      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| U.S.                                  | 0.7  | 0.4  | 0.3  | 0.4  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.3  | 0.2  | 0.2  | 0.2  | 0.3  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  |
| SEER                                  | 0.8  | 0.5  | 0.3  | 0.4  | 0.3  | 0.3  | 0.3  | 0.2  | 0.3  | 0.2  | 0.2  | 0.2  | 0.2  | 0.2  | 0.3  | 0.3  | 0.2  | 0.2  | 0.2  | 0.2  |
| <b>Relative Survival Rates (SEER)</b> |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 1-year                                | 90.1 | 95.8 | 97.1 | 96.2 | 95.7 | 95.6 | 97.1 | 98.1 | 98.3 | 98.8 | 98.2 | 98.2 | 98.4 | 97.9 | 96.9 | 97.7 | 98.3 | 97.8 | 97.4 |      |
| 2-year                                | 84.1 | 90.7 | 94.2 | 93.7 | 92.8 | 92.4 | 94.0 | 96.6 | 97.4 | 96.6 | 95.7 | 96.7 | 96.8 | 96.7 | 95.9 | 96.4 | 97.2 | 96.2 |      |      |
| 3-year                                | 81.0 | 89.9 | 94.0 | 93.5 | 91.6 | 91.7 | 93.4 | 96.5 | 96.4 | 95.8 | 95.0 | 96.2 | 95.6 | 95.9 | 95.3 | 95.8 | 96.1 |      |      |      |
| 4-year                                | 80.3 | 89.3 | 94.0 | 92.9 | 91.0 | 90.4 | 92.7 | 95.8 | 95.7 | 95.2 | 94.7 | 96.2 | 95.2 | 95.9 | 95.3 | 95.8 |      |      |      |      |
| 5-year                                | 80.2 | 89.3 | 93.9 | 92.2 | 90.8 | 89.8 | 92.5 | 95.5 | 95.3 | 94.7 | 94.6 | 96.2 | 95.2 | 95.6 | 95.1 |      |      |      |      |      |
| 6-year                                | 79.5 | 89.3 | 93.0 | 92.2 | 90.8 | 88.9 | 92.3 | 95.4 | 94.6 | 94.5 | 94.5 | 95.9 | 94.9 | 95.3 |      |      |      |      |      |      |
| 7-year                                | 79.4 | 89.3 | 92.9 | 92.2 | 90.2 | 88.9 | 92.3 | 95.4 | 94.5 | 94.3 | 94.1 | 95.8 | 94.7 |      |      |      |      |      |      |      |
| 8-year                                | 78.7 | 89.3 | 92.9 | 92.0 | 89.4 | 88.4 | 91.4 | 95.3 | 94.5 | 93.3 | 94.0 | 95.8 |      |      |      |      |      |      |      |      |
| 9-year                                | 78.4 | 89.3 | 92.4 | 91.5 | 89.1 | 87.5 | 91.4 | 95.1 | 94.5 | 93.1 | 93.5 |      |      |      |      |      |      |      |      |      |
| 10-year                               | 77.1 | 89.1 | 92.4 | 91.4 | 88.9 | 87.1 | 91.3 | 94.5 | 94.5 | 92.9 |      |      |      |      |      |      |      |      |      |      |
| 11-year                               | 76.5 | 89.1 | 91.9 | 91.4 | 88.6 | 86.6 | 90.5 | 94.5 | 94.2 |      |      |      |      |      |      |      |      |      |      |      |
| 12-year                               | 76.1 | 88.9 | 91.7 | 91.4 | 88.5 | 86.6 | 90.5 | 93.8 |      |      |      |      |      |      |      |      |      |      |      |      |
| 13-year                               | 75.8 | 88.2 | 90.7 | 91.4 | 87.4 | 86.6 | 89.8 |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 14-year                               | 74.1 | 87.6 | 89.2 | 90.8 | 87.4 | 86.6 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 15-year                               | 73.7 | 87.1 | 89.2 | 90.5 | 86.3 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 16-year                               | 73.4 | 87.0 | 88.5 | 90.0 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 17-year                               | 73.4 | 86.5 | 88.2 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 18-year                               | 72.7 | 86.3 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 19-year                               | 72.0 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 20-year                               | 71.7 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 21-year                               | 71.7 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 22-year                               | 71.4 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 23-year                               | 71.4 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

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 XXIV-6  
TESTIS CANCER (Invasive)

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

Lifetime Risk (Percent) of Being Diagnosed (11 SEER Areas) With Cancer and  
Lifetime Risk (Percent) of Dying (Total U.S.) From Cancer

1996-1998

| Current<br>Age | All Races |         |         |                   |
|----------------|-----------|---------|---------|-------------------|
|                | +10 yrs   | +20 yrs | +30 yrs | <u>Eventually</u> |
| 0              | 0.00      | 0.02    | 0.12    | 0.35              |
| 10             | 0.02      | 0.11    | 0.23    | 0.35              |
| 20             | 0.10      | 0.22    | 0.29    | 0.33              |
| 30             | 0.12      | 0.19    | 0.22    | 0.24              |
| 40             | 0.07      | 0.10    | 0.11    | 0.12              |
| 50             | 0.03      | 0.04    | 0.05    | 0.05              |
| 60             | 0.01      | 0.02    | 0.02    | 0.02              |

Lifetime Risk of Being Diagnosed =      0.35%  
Lifetime Risk of Dying =      0.02%

| Current<br>Age | Whites  |         |         |                   |
|----------------|---------|---------|---------|-------------------|
|                | +10 yrs | +20 yrs | +30 yrs | <u>Eventually</u> |
| 0              | 0.00    | 0.02    | 0.14    | 0.41              |
| 10             | 0.02    | 0.14    | 0.28    | 0.41              |
| 20             | 0.12    | 0.26    | 0.34    | 0.39              |
| 30             | 0.14    | 0.22    | 0.25    | 0.28              |
| 40             | 0.09    | 0.12    | 0.13    | 0.14              |
| 50             | 0.03    | 0.05    | 0.05    | 0.05              |
| 60             | 0.01    | 0.02    | 0.02    | 0.02              |

Lifetime Risk of Being Diagnosed =      0.41%  
Lifetime Risk of Dying =      0.02%

| Current<br>Age | Blacks  |         |         |                   |
|----------------|---------|---------|---------|-------------------|
|                | +10 yrs | +20 yrs | +30 yrs | <u>Eventually</u> |
| 0              | 0.00    | 0.01    | 0.02    | 0.08              |
| 10             | 0.01    | 0.02    | 0.04    | 0.08              |
| 20             | 0.01    | 0.04    | 0.06    | 0.08              |
| 30             | 0.03    | 0.05    | 0.06    | 0.07              |
| 40             | 0.02    | 0.03    | 0.04    | 0.04              |
| 50             | 0.01    | 0.02    | 0.02    | 0.02              |
| 60             | 0.01    | 0.02    | 0.02    | 0.02              |

Lifetime Risk of Being Diagnosed =      0.08%  
Lifetime Risk of Dying =      0.01%

Table XXIV-7  
TESTIS CANCER (Invasive)  
AGE-ADJUSTED SEER INCIDENCE AND U.S. MORTALITY RATES  
By Race/Ethnicity and Sex

Incidence

| RACE/ETHNICITY         | Rate 1992-1998<br>Rate per 100,000 persons | Trend 1992-1998<br>EAPC (%) |
|------------------------|--|-----------------------------|
|                        | Males                                      | Males                       |
| All Races              | 4.4  | 1.3                         |
| White                  | 5.2  | 1.3                         |
| White Hispanic         | 3.3  | 1.4                         |
| White Non-Hispanic     | 5.7  | 1.4                         |
| Black                  | 1.0  | 8.6                         |
| Asian/Pacific Islander | 1.8  | 0.5                         |
| Amer Ind/Alask Nat     | 2.2  | -                           |
| Hispanic <sup>®</sup>  | 3.1  | 1.6                         |

Mortality<sup>♦</sup>

| RACE/ETHNICITY         | Rate 1992-1998<br>Rate per 100,000 persons | Trend 1992-1998<br>EAPC (%) |
|------------------------|--|-----------------------------|
|                        | Males                                      | Males                       |
| All Races              | 0.2  | -1.7                        |
| White                  | 0.3  | -2.0                        |
| White Hispanic         | 0.3  | -7.2                        |
| White Non-Hispanic     | 0.3  | -1.4                        |
| Black                  | 0.1  | 2.8                         |
| Asian/Pacific Islander | 0.1  | -                           |
| Amer Ind/Alask Nat     | -  | -                           |
| Hispanic <sup>®</sup>  | 0.2  | -7.0                        |

- 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.
- x Incidence data are from the 11 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, and Los Angeles) and Alaska. Unless specified, other tables use data from 9 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, and Atlanta).
- ® Hispanic is not mutually exclusive from whites, blacks, Asian Pacific Islanders, and American Indians/Native Alaskans. For incidence, all 11 SEER areas are included. For mortality, information is included for all states except Connecticut, Oklahoma, Louisiana, 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 XXIV-8  
TESTIS CANCER (Invasive)

AGE-ADJUSTED SEER INCIDENCE RATES\$ AND SEER MORTALITY RATESδ  
By Registry and Race

|  | All Races, Males |     |     | White Males |     |     | Black Males |     |     |
|--|------------------|-----|-----|-------------|-----|-----|-------------|-----|-----|
|  | All              | <50 | 50+ | All         | <50 | 50+ | All         | <50 | 50+ |
| <b>SEER INCIDENCE RATES\$, 1994-98</b> |                  |     |     |             |     |     |             |     |     |
| REGISTRY                               |                  |     |     |             |     |     |             |     |     |
| 11 registries                          | 4.5              | 5.3 | 2.0 | 5.3         | 6.3 | 2.2 | 1.2         | 1.3 | -   |
| 9 registries                           | 4.7              | 5.6 | 2.0 | 5.5         | 6.5 | 2.2 | 1.2         | 1.3 | -   |
| San Francisco-Oakland                  | 4.6              | 5.3 | 2.2 | 5.9         | 6.9 | 2.7 | -           | -   | -   |
| Connecticut                            | 4.9              | 5.9 | 1.9 | 5.4         | 6.5 | 2.0 | -           | -   | -   |
| Metropolitan Detroit                   | 4.6              | 5.3 | 2.3 | 5.4         | 6.3 | 2.8 | 1.3         | 1.6 | -   |
| Hawaii                                 | 4.1              | 5.1 | -   | 6.6         | 8.3 | -   | -           | -   | -   |
| Iowa                                   | 5.0              | 5.9 | 2.5 | 5.2         | 6.1 | 2.6 | -           | -   | -   |
| New Mexico                             | 4.5              | 5.4 | -   | 4.9         | 5.9 | -   | -           | -   | -   |
| Seattle-Puget Sound                    | 5.6              | 6.7 | 2.0 | 6.2         | 7.5 | 2.1 | -           | -   | -   |
| Utah                                   | 5.3              | 6.5 | -   | 5.5         | 6.7 | -   | -           | -   | -   |
| Metropolitan Atlanta                   | 3.4              | 4.0 | -   | 4.3         | 5.2 | -   | 1.5         | 1.5 | -   |
| San Jose-Monterey                      | 4.7              | 5.4 | 2.5 | 5.6         | 6.5 | 2.8 | -           | -   | -   |
| Los Angeles                            | 3.9              | 4.6 | 1.8 | 4.7         | 5.6 | 2.1 | 1.2         | 1.3 | -   |
| <b>SEER MORTALITY RATESδ, 1994-98</b>  |                  |     |     |             |     |     |             |     |     |
| REGISTRY                               |                  |     |     |             |     |     |             |     |     |
| 11 registries                          | 0.2              | 0.2 | 0.3 | 0.3         | 0.3 | 0.3 | -           | -   | -   |
| 9 registries                           | 0.2              | 0.2 | 0.2 | 0.2         | 0.2 | 0.3 | -           | -   | -   |
| San Francisco-Oakland                  | 0.2              | -   | -   | -           | -   | -   | -           | -   | -   |
| Connecticut                            | -                | -   | -   | -           | -   | -   | -           | -   | -   |
| Metropolitan Detroit                   | 0.3              | 0.3 | -   | 0.3         | -   | -   | -           | -   | -   |
| Hawaii                                 | -                | -   | -   | -           | -   | -   | -           | -   | -   |
| Iowa                                   | -                | -   | -   | -           | -   | -   | -           | -   | -   |
| New Mexico                             | -                | -   | -   | -           | -   | -   | -           | -   | -   |
| Seattle-Puget Sound                    | -                | -   | -   | -           | -   | -   | -           | -   | -   |
| Utah                                   | -                | -   | -   | -           | -   | -   | -           | -   | -   |
| Metropolitan Atlanta                   | -                | -   | -   | -           | -   | -   | -           | -   | -   |
| San Jose-Monterey                      | -                | -   | -   | -           | -   | -   | -           | -   | -   |
| Los Angeles                            | 0.3              | 0.3 | -   | 0.4         | 0.4 | -   | -           | -   | -   |

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 Program. Incidence rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.  
 NCHS public use tape. Mortality rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.  
 Statistic could not be calculated or populations are inadequate.

Table XXIV-9  
TESTIS CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY<sup>d</sup> RATES BY STATE, 1994-98

All Races, Males

| State                | Rate                            | SE   | Rank | PD    |
|----------------------|---------------------------------|------|------|-------|
| TOTAL U.S.           | 0.2                             | 0.01 |      |       |
| High Five States     |                                 |      |      |       |
| Rhode Island         | 0.4 <sup>e</sup>                | 0.12 | (01) | 100.0 |
| Vermont              | 0.4 <sup>e</sup>                | 0.14 | (02) | 100.0 |
| Wyoming              | 0.4 <sup>e</sup>                | 0.17 | (03) | 100.0 |
| Maine                | 0.3 <sup>e</sup>                | 0.09 | (04) | 50.0  |
| Nevada               | 0.3 <sup>e</sup>                | 0.08 | (05) | 50.0  |
| Low Five States      |                                 |      |      |       |
| Colorado             | 0.1 <sup>e</sup>                | 0.04 | (47) | -50.0 |
| North Dakota         | 0.1 <sup>e</sup>                | 0.09 | (48) | -50.0 |
| Delaware             | 0.1 <sup>e</sup>                | 0.07 | (49) | -50.0 |
| Georgia              | 0.1 <sup>3/4</sup> <sup>f</sup> | 0.02 | (50) | -50.0 |
| District of Columbia | 0.1 <sup>e</sup>                | 0.07 | (51) | -50.0 |

| State                | Rate                            | SE   | Rank | PD    | State          | Rate             | SE   | Rank | PD    |
|----------------------|---------------------------------|------|------|-------|----------------|------------------|------|------|-------|
| Alabama              | 0.2                             | 0.04 | (27) | 0.0   | Montana        | 0.3 <sup>e</sup> | 0.10 | (16) | 50.0  |
| Alaska               | 0.2                             | 0.10 | (38) | 0.0   | Nebraska       | 0.3 <sup>e</sup> | 0.08 | (14) | 50.0  |
| Arizona              | 0.3 <sup>e</sup>                | 0.05 | (19) | 50.0  | Nevada         | 0.3 <sup>e</sup> | 0.08 | (05) | 50.0  |
| Arkansas             | 0.3 <sup>e</sup>                | 0.06 | (12) | 50.0  | New Hampshire  | 0.2              | 0.07 | (33) | 0.0   |
| California           | 0.3 <sup>e</sup>                | 0.02 | (10) | 50.0  | New Jersey     | 0.2              | 0.03 | (41) | 0.0   |
| Colorado             | 0.1 <sup>e</sup>                | 0.04 | (47) | -50.0 | New Mexico     | 0.3 <sup>e</sup> | 0.08 | (15) | 50.0  |
| Connecticut          | 0.1 <sup>e</sup>                | 0.04 | (45) | -50.0 | New York       | 0.2              | 0.02 | (25) | 0.0   |
| Delaware             | 0.1 <sup>e</sup>                | 0.07 | (49) | -50.0 | North Carolina | 0.2              | 0.03 | (44) | 0.0   |
| District of Columbia | 0.1 <sup>e</sup>                | 0.07 | (51) | -50.0 | North Dakota   | 0.1 <sup>e</sup> | 0.09 | (48) | -50.0 |
| Florida              | 0.3 <sup>e</sup>                | 0.03 | (11) | 50.0  | Ohio           | 0.2              | 0.03 | (23) | 0.0   |
| Georgia              | 0.1 <sup>3/4</sup> <sup>f</sup> | 0.02 | (50) | -50.0 | Oklahoma       | 0.2              | 0.05 | (42) | 0.0   |
| Hawaii               | 0.2                             | 0.08 | (32) | 0.0   | Oregon         | 0.3 <sup>e</sup> | 0.05 | (08) | 50.0  |
| Idaho                | 0.2                             | 0.09 | (31) | 0.0   | Pennsylvania   | 0.2              | 0.03 | (24) | 0.0   |
| Illinois             | 0.2                             | 0.02 | (43) | 0.0   | Rhode Island   | 0.4 <sup>e</sup> | 0.12 | (01) | 100.0 |
| Indiana              | 0.2                             | 0.04 | (34) | 0.0   | South Carolina | 0.2              | 0.04 | (30) | 0.0   |
| Iowa                 | 0.2                             | 0.05 | (35) | 0.0   | South Dakota   | 0.3 <sup>e</sup> | 0.10 | (17) | 50.0  |
| Kansas               | 0.2                             | 0.06 | (26) | 0.0   | Tennessee      | 0.2              | 0.04 | (36) | 0.0   |
| Kentucky             | 0.2                             | 0.05 | (20) | 0.0   | Texas          | 0.2              | 0.02 | (22) | 0.0   |
| Louisiana            | 0.2                             | 0.04 | (29) | 0.0   | Utah           | 0.2              | 0.07 | (28) | 0.0   |
| Maine                | 0.3 <sup>e</sup>                | 0.09 | (04) | 50.0  | Vermont        | 0.4 <sup>e</sup> | 0.14 | (02) | 100.0 |
| Maryland             | 0.2                             | 0.04 | (21) | 0.0   | Virginia       | 0.1 <sup>e</sup> | 0.03 | (46) | -50.0 |
| Massachusetts        | 0.3 <sup>e</sup>                | 0.04 | (06) | 50.0  | Washington     | 0.2              | 0.03 | (39) | 0.0   |
| Michigan             | 0.3 <sup>e</sup>                | 0.03 | (07) | 50.0  | West Virginia  | 0.3 <sup>e</sup> | 0.07 | (13) | 50.0  |
| Minnesota            | 0.2                             | 0.04 | (37) | 0.0   | Wisconsin      | 0.3 <sup>e</sup> | 0.04 | (18) | 50.0  |
| Mississippi          | 0.3 <sup>e</sup>                | 0.06 | (09) | 50.0  | Wyoming        | 0.4 <sup>e</sup> | 0.17 | (03) | 100.0 |
| Missouri             | 0.2                             | 0.04 | (40) | 0.0   |                |                  |      |      |       |

<sup>d</sup> NCHS public use tape. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population.  
<sup>SE</sup> Standard error of the rate.

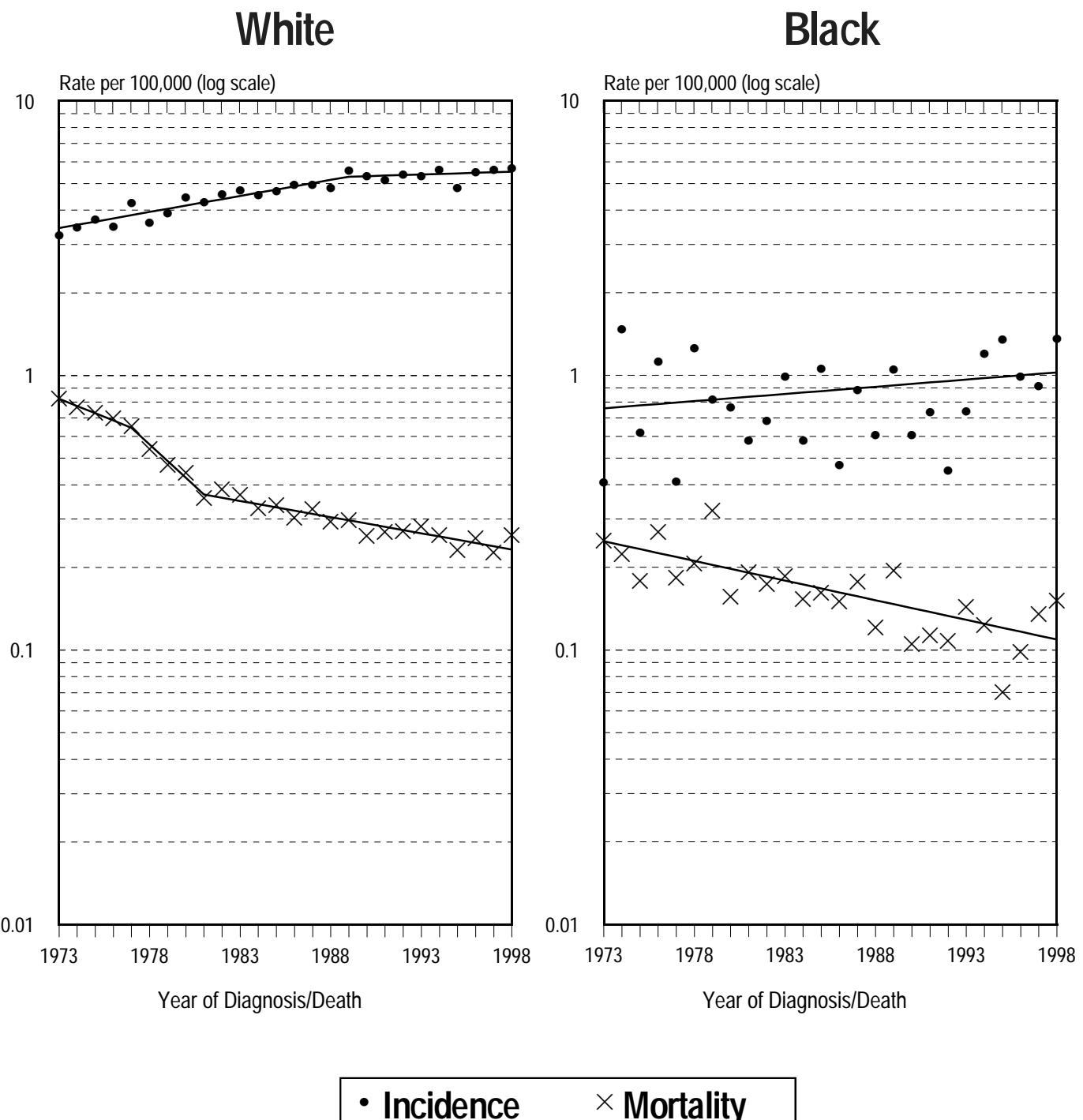
<sup>PD</sup> Percent difference between state rate and total U.S. rate.

<sup>f</sup> Absolute difference between state rate and total U.S. rate is 15% or more.

<sup>3/4</sup> Difference between state rate and total U.S. rate is statistically significant ( $p \leq .0002$ ).

Figure XXIV-1

# SEER Incidence and U.S. Mortality Rates<sup>+</sup> Testis By Race

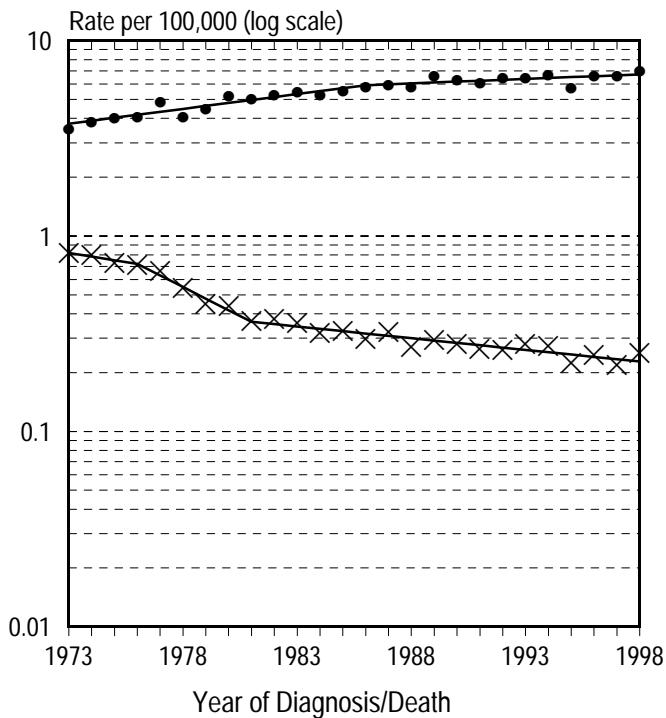


<sup>+</sup> Rates are age-adjusted to the 1970 U.S. standard million population. Regression lines are calculated using the Joinpoint Regression Program.

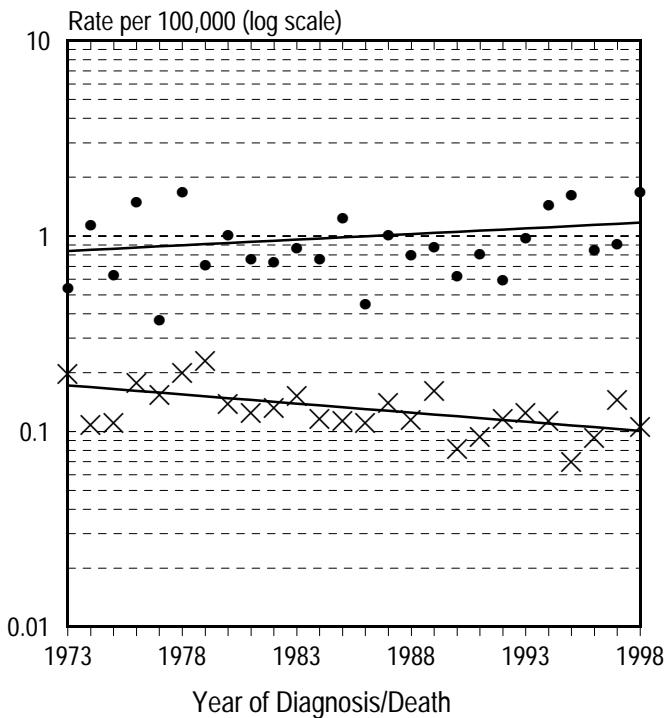
Figure XXIV-2

# SEER Incidence and U.S. Mortality Rates<sup>+</sup> Testis, By Age and Race

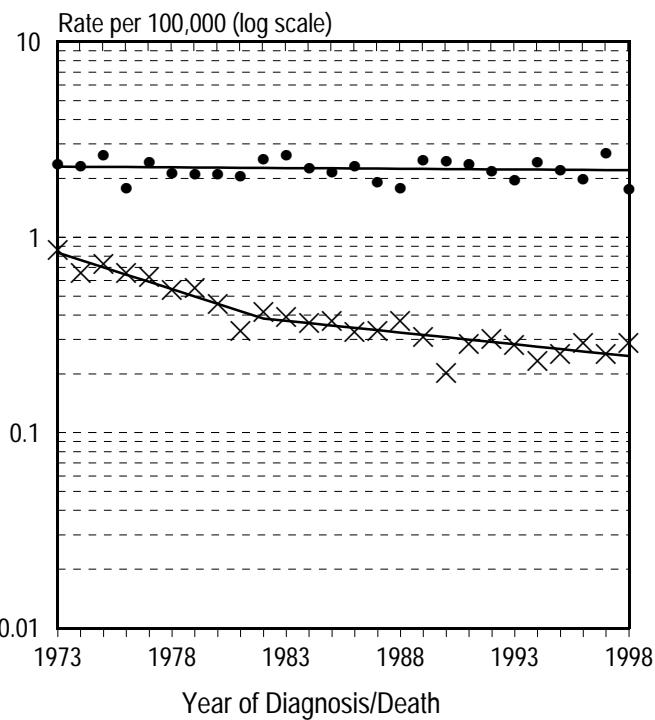
## White - Under 50 Years of Age



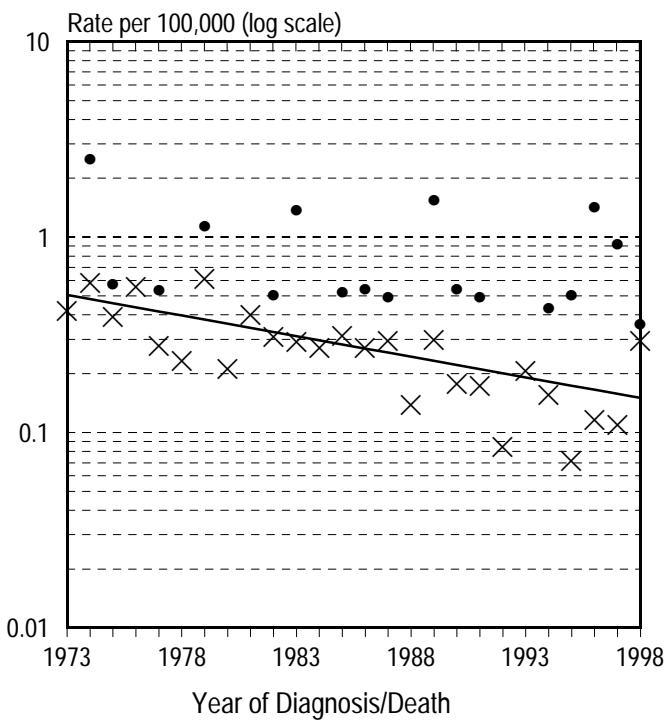
## Black - Under 50 Years of Age



## White - Ages 50 and Over



## Black - Ages 50 and Over



• Incidence

× Mortality

<sup>+</sup> Rates are age-adjusted to the 1970 U.S. standard million population. Regression lines are calculated using the Joinpoint Regression Program. Regression line could not be calculated for the Black Male 50+ Incidence Rates due to years with a rate of zero.