

Table VIII-1  
ESOPHAGUS CANCER (Invasive)

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

|   | All Races |       |         | Whites |       |         | Blacks |       |         |
|---|-----------|-------|---------|--------|-------|---------|--------|-------|---------|
|   | Total     | Males | Females | Total  | Males | Females | Total  | Males | Females |
| <u>INCIDENCE TRENDS (expressed in percents)§:</u> |           |       |         |        |       |         |        |       |         |
| <u>1973-96</u>                                    |           |       |         |        |       |         |        |       |         |
| All Ages  |           |       |         |        |       |         |        |       |         |
| Percent Change (PC)                               | 9.2       | 12.1  | -2.7    | 16.5   | 19.7  | -0.2    | -21.7  | -18.2 | -21.8   |
| Est. Annual PC (EAPC)                             | 0.5★      | 0.7★  | -0.1    | 0.9★   | 1.2★  | 0.0     | -1.0★  | -0.9★ | -0.4    |
| Under 65  |           |       |         |        |       |         |        |       |         |
| Percent Change (PC)                               | -2.5      | 13.4  | -38.3   | 7.6    | 26.2  | -37.0   | -33.1  | -21.1 | -52.6   |
| Est. Annual PC (EAPC)                             | -0.1      | 0.5★  | -1.7★   | 0.6★   | 1.2★  | -1.5★   | -1.8★  | -1.4★ | -2.3★   |
| 65 and over                                       |           |       |         |        |       |         |        |       |         |
| Percent Change (PC)                               | 20.7      | 11.2  | 45.7    | 23.6   | 15.5  | 38.0    | 4.6    | -13.0 | 143.7   |
| Est. Annual PC (EAPC)                             | 1.0★      | 0.9★  | 1.3★    | 1.2★   | 1.1★  | 1.1★    | 0.5    | -0.2  | 3.8★    |
| <u>1975-79 - ALL AGES</u>                         |           |       |         |        |       |         |        |       |         |
| Percent Change (PC)                               | 1.9       | 5.4   | -6.8    | -1.7   | 2.2   | -10.1   | 19.8   | 26.4  | 4.1     |
| Est. Annual PC (EAPC)                             | 0.9       | 1.7   | -0.8    | 0.0    | 1.0   | -2.1    | 5.5★   | 6.3   | 4.9     |
| <u>1992-96 - ALL AGES</u>                         |           |       |         |        |       |         |        |       |         |
| Percent Change (PC)                               | -2.8      | -4.1  | -1.1    | -1.7   | -3.2  | 0.2     | -13.1  | -14.5 | -12.9   |
| Est. Annual PC (EAPC)                             | -0.3      | -0.8  | 0.5     | -0.1   | -0.7  | 0.9     | -3.9◆  | -4.2◆ | -4.1    |
| <u>MORTALITY TRENDS (expressed in percents)*:</u> |           |       |         |        |       |         |        |       |         |
| <u>1973-96</u>                                    |           |       |         |        |       |         |        |       |         |
| All Ages  |           |       |         |        |       |         |        |       |         |
| Percent Change (PC)                               | 20.0      | 24.4  | 3.8     | 32.2   | 37.3  | 9.8     | -15.5  | -12.1 | -16.0   |
| Est. Annual PC (EAPC)                             | 0.8★      | 0.9★  | 0.1     | 1.2★   | 1.4★  | 0.2★    | -0.8★  | -0.7★ | -0.5★   |
| Under 65  |           |       |         |        |       |         |        |       |         |
| Percent Change (PC)                               | 3.2       | 12.2  | -27.7   | 19.9   | 30.8  | -22.7   | -30.9  | -25.1 | -42.0   |
| Est. Annual PC (EAPC)                             | 0.0       | 0.4★  | -1.5★   | 0.8★   | 1.2★  | -1.3★   | -1.8★  | -1.6★ | -2.3★   |
| 65 and over                                       |           |       |         |        |       |         |        |       |         |
| Percent Change (PC)                               | 36.0      | 34.8  | 33.8    | 41.6   | 41.8  | 33.1    | 12.1   | 8.5   | 39.9    |
| Est. Annual PC (EAPC)                             | 1.4★      | 1.4★  | 1.2★    | 1.5★   | 1.6★  | 1.1★    | 0.8★   | 0.6★  | 2.1★    |
| <u>1975-79 - ALL AGES</u>                         |           |       |         |        |       |         |        |       |         |
| Percent Change (PC)                               | 1.7       | 0.9   | 3.5     | 1.2    | 0.0   | 3.4     | 2.5    | 3.9   | 1.2     |
| Est. Annual PC (EAPC)                             | 0.5       | 0.3   | 1.1     | 0.3    | -0.1  | 1.0     | 1.2    | 1.7   | 0.5     |
| <u>1992-96 - ALL AGES</u>                         |           |       |         |        |       |         |        |       |         |
| Percent Change (PC)                               | 2.3       | 2.8   | -1.1    | 6.0    | 6.2   | 2.9     | -10.8  | -10.0 | -13.2   |
| Est. Annual PC (EAPC)                             | 0.8★      | 0.8   | -0.1    | 1.9★◆  | 1.9★◆ | 1.1     | -3.3★◆ | -3.2◆ | -3.9◆   |

The Est. Annual PC is the Estimated Annual Percent Change (EAPC) over the time interval.  
 SEER Program.  
 NCHS public use tape.  
 The EAPC is significantly different from zero (p<.05).  
 The EAPC for 1992-96 is significantly different from the EAPC for 1975-79 (p<.05).  
 The EAPC for 1992-96 is significantly different from the EAPC for 1975-79 (p<.10).  
 † Statistic could not be calculated.

Table VIII-2  
ESOPHAGUS 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                               | 3.4       | 5.5   | 1.8     | 3.0    | 4.8   | 1.6     | 9.0    | 13.3  | 5.2     |
| 1974                               | 3.6       | 5.9   | 1.8     | 3.0    | 4.9   | 1.6     | 11.3   | 19.0  | 4.7     |
| 1975                               | 3.5       | 5.8   | 1.8     | 3.0    | 4.8   | 1.7     | 9.6    | 17.6  | 3.2     |
| 1976                               | 3.7       | 5.8   | 2.0     | 3.1    | 5.0   | 1.8     | 9.5    | 15.2  | 4.8     |
| 1977                               | 3.5       | 5.5   | 1.9     | 2.9    | 4.5   | 1.6     | 10.5   | 17.7  | 4.9     |
| 1978                               | 3.6       | 6.1   | 1.6     | 2.9    | 4.9   | 1.4     | 11.5   | 21.3  | 3.8     |
| 1979                               | 3.7       | 6.2   | 1.9     | 3.1    | 5.1   | 1.7     | 11.4   | 20.1  | 4.5     |
| 1980                               | 3.7       | 5.9   | 2.0     | 3.0    | 4.9   | 1.6     | 11.1   | 16.4  | 6.9     |
| 1981                               | 3.5       | 5.5   | 2.0     | 2.8    | 4.3   | 1.6     | 12.3   | 19.4  | 6.8     |
| 1982                               | 3.7       | 5.9   | 1.9     | 2.9    | 4.6   | 1.6     | 12.1   | 20.3  | 5.6     |
| 1983                               | 3.7       | 6.3   | 1.7     | 3.0    | 5.0   | 1.5     | 11.2   | 20.3  | 3.9     |
| 1984                               | 3.6       | 5.7   | 1.9     | 3.0    | 4.8   | 1.5     | 10.8   | 17.8  | 5.4     |
| 1985                               | 3.8       | 6.3   | 1.9     | 3.2    | 5.3   | 1.6     | 11.3   | 19.4  | 5.2     |
| 1986                               | 4.0       | 6.4   | 2.1     | 3.3    | 5.2   | 1.8     | 12.8   | 21.8  | 5.8     |
| 1987                               | 3.9       | 6.4   | 1.9     | 3.3    | 5.4   | 1.6     | 10.3   | 17.9  | 4.4     |
| 1988                               | 3.8       | 6.2   | 1.9     | 3.3    | 5.4   | 1.7     | 9.9    | 16.8  | 4.6     |
| 1989                               | 3.7       | 6.1   | 1.8     | 3.1    | 5.1   | 1.6     | 9.4    | 15.7  | 4.7     |
| 1990                               | 4.2       | 7.1   | 1.9     | 3.6    | 6.1   | 1.6     | 11.3   | 19.5  | 5.1     |
| 1991                               | 3.9       | 6.3   | 2.0     | 3.5    | 5.7   | 1.8     | 9.0    | 15.2  | 4.5     |
| 1992                               | 3.9       | 6.7   | 1.6     | 3.5    | 6.2   | 1.4     | 9.3    | 15.7  | 4.6     |
| 1993                               | 4.0       | 6.6   | 1.9     | 3.6    | 5.9   | 1.7     | 8.9    | 15.2  | 4.3     |
| 1994                               | 3.8       | 6.5   | 1.7     | 3.5    | 6.0   | 1.5     | 8.2    | 13.2  | 4.5     |
| 1995                               | 3.7       | 6.0   | 1.8     | 3.4    | 5.5   | 1.6     | 7.5    | 12.4  | 3.8     |
| 1996                               | 4.0       | 6.8   | 1.7     | 3.6    | 6.2   | 1.6     | 8.3    | 14.0  | 3.9     |
| <u>AGE-ADJUSTED RATES, 1992-96</u> |           |       |         |        |       |         |        |       |         |
| <u>AGE AT DIAGNOSIS:</u>           |           |       |         |        |       |         |        |       |         |
| All ages                           | 3.9       | 6.5   | 1.7     | 3.5    | 5.9   | 1.6     | 8.4    | 14.1  | 4.2     |
| Under 65                           | 1.9       | 3.2   | 0.7     | 1.6    | 2.7   | 0.6     | 5.2    | 8.6   | 2.5     |
| 65 and over                        | 21.7      | 36.9  | 10.9    | 20.8   | 35.1  | 10.6    | 37.9   | 64.2  | 19.8    |
| All ages (world std.) <sup>8</sup> | 3.1       | 5.1   | 1.3     | 2.8    | 4.6   | 1.2     | 7.0    | 11.7  | 3.4     |
| <u>AGE-SPECIFIC RATES, 1992-96</u> |           |       |         |        |       |         |        |       |         |
| <u>AGE AT DIAGNOSIS:</u>           |           |       |         |        |       |         |        |       |         |
| 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                              | 0.0       | 0.0   | 0.0     | 0.0    | 0.0   | 0.0     | 0.0    | 0.0   | 0.0     |
| 25-29                              | 0.1       | 0.1   | 0.1     | 0.1    | 0.1   | 0.1     | 0.1    | 0.2   | 0.0     |
| 30-34                              | 0.2       | 0.3   | 0.1     | 0.2    | 0.3   | 0.1     | 0.2    | 0.5   | 0.0     |
| 35-39                              | 0.4       | 0.7   | 0.1     | 0.3    | 0.6   | 0.1     | 1.0    | 1.9   | 0.3     |
| 40-44                              | 1.2       | 1.9   | 0.5     | 0.8    | 1.4   | 0.3     | 4.4    | 6.9   | 2.3     |
| 45-49                              | 2.8       | 4.6   | 0.9     | 2.4    | 4.1   | 0.6     | 7.7    | 11.7  | 4.3     |
| 50-54                              | 5.7       | 9.5   | 2.1     | 4.7    | 7.7   | 1.7     | 17.8   | 29.7  | 7.7     |
| 55-59                              | 9.8       | 16.6  | 3.5     | 8.4    | 14.1  | 2.9     | 28.1   | 49.3  | 11.2    |
| 60-64                              | 15.4      | 25.2  | 6.6     | 13.9   | 23.0  | 5.5     | 36.6   | 57.3  | 20.3    |
| 65-69                              | 19.0      | 31.8  | 8.3     | 17.2   | 28.3  | 7.8     | 43.5   | 74.5  | 19.5    |
| 70-74                              | 23.4      | 39.5  | 10.9    | 22.3   | 37.4  | 10.6    | 42.6   | 71.1  | 22.7    |
| 75-79                              | 23.2      | 39.2  | 12.2    | 23.0   | 39.2  | 11.9    | 36.3   | 57.1  | 23.1    |
| 80-84                              | 23.7      | 41.6  | 13.4    | 23.6   | 41.6  | 13.6    | 24.8   | 44.3  | 14.4    |
| 85+                                | 21.8      | 39.0  | 14.9    | 21.9   | 38.5  | 15.6    | 19.5   | 40.3  | 10.3    |

<sup>8</sup> SEER Program. Rates are per 100,000 and are age-adjusted to the 1970 U.S. standard population, except where noted.  
<sup>8</sup> SEER Program. Rates are per 100,000 and are age-adjusted to the world standard population.

Table VIII-3  
ESOPHAGUS CANCER (Invasive)

U.S. MORTALITY 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 DEATH:</u>              |           |       |         |        |       |         |        |       |         |
| 1973                               | 3.0       | 5.0   | 1.4     | 2.5    | 4.2   | 1.2     | 8.3    | 13.9  | 3.7     |
| 1974                               | 3.0       | 5.1   | 1.4     | 2.5    | 4.3   | 1.2     | 8.3    | 14.0  | 3.7     |
| 1975                               | 3.1       | 5.4   | 1.4     | 2.6    | 4.5   | 1.2     | 8.6    | 15.0  | 3.6     |
| 1976                               | 3.2       | 5.4   | 1.5     | 2.6    | 4.4   | 1.2     | 9.1    | 15.8  | 3.8     |
| 1977                               | 3.2       | 5.3   | 1.5     | 2.6    | 4.3   | 1.2     | 8.9    | 15.5  | 3.8     |
| 1978                               | 3.2       | 5.4   | 1.5     | 2.7    | 4.5   | 1.3     | 8.9    | 15.6  | 3.8     |
| 1979                               | 3.2       | 5.4   | 1.5     | 2.6    | 4.4   | 1.2     | 9.2    | 16.4  | 3.7     |
| 1980                               | 3.3       | 5.5   | 1.5     | 2.7    | 4.6   | 1.2     | 9.4    | 16.1  | 4.3     |
| 1981                               | 3.3       | 5.6   | 1.5     | 2.7    | 4.5   | 1.2     | 9.3    | 16.5  | 3.9     |
| 1982                               | 3.3       | 5.5   | 1.5     | 2.7    | 4.5   | 1.3     | 9.3    | 16.4  | 4.0     |
| 1983                               | 3.3       | 5.6   | 1.5     | 2.7    | 4.7   | 1.2     | 9.1    | 15.9  | 4.0     |
| 1984                               | 3.3       | 5.7   | 1.5     | 2.7    | 4.7   | 1.3     | 9.4    | 16.6  | 4.2     |
| 1985                               | 3.3       | 5.7   | 1.4     | 2.7    | 4.8   | 1.2     | 8.9    | 15.8  | 3.8     |
| 1986                               | 3.4       | 5.7   | 1.5     | 2.8    | 4.8   | 1.3     | 9.1    | 16.0  | 4.0     |
| 1987                               | 3.4       | 5.8   | 1.5     | 2.9    | 5.0   | 1.2     | 8.6    | 15.0  | 3.9     |
| 1988                               | 3.4       | 5.9   | 1.5     | 2.9    | 5.0   | 1.3     | 8.8    | 16.2  | 3.4     |
| 1989                               | 3.5       | 6.0   | 1.5     | 3.0    | 5.2   | 1.2     | 8.7    | 15.4  | 3.7     |
| 1990                               | 3.5       | 6.0   | 1.5     | 3.0    | 5.2   | 1.2     | 8.3    | 14.3  | 3.8     |
| 1991                               | 3.5       | 6.1   | 1.5     | 3.1    | 5.4   | 1.3     | 8.2    | 14.5  | 3.7     |
| 1992                               | 3.5       | 6.1   | 1.5     | 3.1    | 5.5   | 1.3     | 7.7    | 13.3  | 3.6     |
| 1993                               | 3.6       | 6.2   | 1.5     | 3.1    | 5.5   | 1.3     | 8.0    | 14.0  | 3.6     |
| 1994                               | 3.6       | 6.4   | 1.4     | 3.2    | 5.8   | 1.2     | 7.6    | 13.3  | 3.4     |
| 1995                               | 3.6       | 6.4   | 1.4     | 3.3    | 5.8   | 1.3     | 7.1    | 12.7  | 3.0     |
| 1996                               | 3.6       | 6.3   | 1.5     | 3.4    | 5.9   | 1.3     | 6.9    | 11.9  | 3.2     |
| <u>AGE-ADJUSTED RATES, 1992-96</u> |           |       |         |        |       |         |        |       |         |
| <u>AGE AT DEATH:</u>               |           |       |         |        |       |         |        |       |         |
| All ages                           | 3.6       | 6.3   | 1.5     | 3.2    | 5.7   | 1.3     | 7.4    | 13.0  | 3.4     |
| Under 65                           | 1.7       | 2.9   | 0.6     | 1.4    | 2.5   | 0.4     | 4.4    | 7.6   | 1.9     |
| 65 and over                        | 20.8      | 36.8  | 9.5     | 19.7   | 35.0  | 8.9     | 34.7   | 62.3  | 16.8    |
| All ages (world std.)N             | 2.8       | 4.9   | 1.1     | 2.5    | 4.4   | 0.9     | 6.1    | 10.6  | 2.7     |
| <u>AGE-SPECIFIC RATES, 1992-96</u> |           |       |         |        |       |         |        |       |         |
| <u>AGE AT DEATH:</u>               |           |       |         |        |       |         |        |       |         |
| 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                              | 0.0       | 0.0   | 0.0     | 0.0    | 0.0   | 0.0     | 0.0    | 0.0   | 0.0     |
| 25-29                              | 0.0       | 0.1   | 0.0     | 0.0    | 0.1   | 0.0     | 0.0    | 0.0   | 0.0     |
| 30-34                              | 0.1       | 0.2   | 0.0     | 0.1    | 0.2   | 0.0     | 0.1    | 0.1   | 0.0     |
| 35-39                              | 0.3       | 0.5   | 0.1     | 0.3    | 0.5   | 0.1     | 0.5    | 0.8   | 0.2     |
| 40-44                              | 1.0       | 1.7   | 0.3     | 0.8    | 1.5   | 0.2     | 2.4    | 4.0   | 1.0     |
| 45-49                              | 2.4       | 4.3   | 0.7     | 2.0    | 3.6   | 0.4     | 6.9    | 11.8  | 2.9     |
| 50-54                              | 5.1       | 8.8   | 1.6     | 4.0    | 7.0   | 1.1     | 15.8   | 27.3  | 6.4     |
| 55-59                              | 8.8       | 15.2  | 2.9     | 7.2    | 12.7  | 2.1     | 24.2   | 42.3  | 10.0    |
| 60-64                              | 14.0      | 24.0  | 5.2     | 12.3   | 21.3  | 4.2     | 31.9   | 54.7  | 14.7    |
| 65-69                              | 17.9      | 31.2  | 6.9     | 16.2   | 28.5  | 6.0     | 36.3   | 63.3  | 16.3    |
| 70-74                              | 21.3      | 37.5  | 8.9     | 20.0   | 35.4  | 8.1     | 38.4   | 67.6  | 18.7    |
| 75-79                              | 22.4      | 40.1  | 10.4    | 21.8   | 38.9  | 10.1    | 32.8   | 61.1  | 15.6    |
| 80-84                              | 24.2      | 43.6  | 13.3    | 23.6   | 42.4  | 13.1    | 32.8   | 63.1  | 17.1    |
| 85+                                | 23.1      | 41.7  | 15.9    | 23.3   | 42.0  | 16.1    | 22.1   | 40.7  | 14.5    |

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

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

Table VIII-4  
ESOPHAGUS CANCER (Invasive)

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

|  | All Races |       |         | Whites |       |         | Blacks |       |         |
|--|-----------|-------|---------|--------|-------|---------|--------|-------|---------|
|  | Total     | Males | Females | Total  | Males | Females | Total  | Males | Females |
| <u>5-YR RELATIVE SURVIVAL RATES</u>                      |           |       |         |        |       |         |        |       |         |
| YEAR OF DIAGNOSIS:                                       |           |       |         |        |       |         |        |       |         |
| 1960-63 <sup>a</sup>                                     | -         | -     | -       | 4      | 4     | 6       | 1      | 0     | 2       |
| 1970-73 <sup>a</sup>                                     | -         | -     | -       | 4      | 4     | 4       | 4      | 4     | 3       |
| 1974-76 <sup>b</sup>                                     | 4.6       | 3.7   | 6.8     | 5.1    | 4.4   | 6.6     | 4.0    | 2.1   | 9.0     |
| 1977-79 <sup>b</sup>                                     | 5.0       | 4.7   | 5.8     | 5.6    | 5.6   | 5.6     | 2.8    | 2.4   | 4.3     |
| 1980-82 <sup>b</sup>                                     | 6.8       | 6.1   | 8.5     | 7.4    | 6.6   | 9.2     | 5.4    | 4.6   | 7.2     |
| 1983-85 <sup>b</sup>                                     | 8.3       | 7.0   | 11.8    | 9.3    | 7.8   | 13.1    | 6.3    | 5.2   | 9.5     |
| 1986-88 <sup>b</sup>                                     | 9.9       | 10.0  | 9.7     | 10.8   | 11.4  | 9.6     | 7.3    | 7.1   | 8.0     |
| 1989-95 <sup>b</sup>                                     | 12.3S     | 12.1S | 13.1S   | 13.3S  | 13.2S | 13.6S   | 8.9S   | 8.0S  | 10.7    |
| 1989-95 <sup>b</sup>                                     |           |       |         |        |       |         |        |       |         |
| ALL STAGES   | 12.3      | 12.1  | 13.1    | 13.3   | 13.2  | 13.6    | 8.9    | 8.0   | 10.7    |
| LOCALIZED  | 24.9      | 24.8  | 25.0    | 28.5   | 29.5  | 25.5    | 13.8   | 9.7   | 21.7†   |
| REGIONAL   | 12.7      | 13.1  | 11.2    | 12.8   | 13.0  | 11.9    | 11.9   | 12.9  | 8.8     |
| DISTANT  | 1.9       | 2.2   | 1.2     | 2.0    | 2.0   | 1.7     | 1.6    | 2.3   | 0.0     |
| UNSTAGED   | 10.5      | 9.3   | 13.2    | 11.1   | 9.9   | 13.4    | 7.9    | 6.7   | 10.8    |
| <u>STAGE DISTRIBUTION (%) 1989-95<sup>b</sup></u>        |           |       |         |        |       |         |        |       |         |
| ALL STAGES   |           |       |         |        |       |         |        |       |         |
| Number of cases  | 5,744     | 4,245 | 1,499   | 4,363  | 3,207 | 1,156   | 1,065  | 772   | 293     |
| Percent  | 100%      | 100%  | 100%    | 100%   | 100%  | 100%    | 100%   | 100%  | 100%    |
| LOCALIZED  | 25        | 24    | 25      | 24     | 24    | 24      | 28     | 27    | 29      |
| REGIONAL   | 25        | 26    | 24      | 25     | 26    | 24      | 24     | 24    | 22      |
| DISTANT  | 25        | 27    | 20      | 25     | 27    | 19      | 26     | 26    | 24      |
| UNSTAGED   | 25        | 23    | 31      | 25     | 23    | 33      | 23     | 22    | 26      |
| <u>5-YR RELATIVE SURVIVAL RATES, 1989-95<sup>b</sup></u> |           |       |         |        |       |         |        |       |         |
| AGE AT DIAGNOSIS:  |           |       |         |        |       |         |        |       |         |
| <45  | 17.3      | 16.6  | 21.5†   | 21.4   | 21.9  | -       | 9.1    | 0.0   | -       |
| 45-54  | 15.1      | 14.5  | 17.1    | 16.9   | 16.2  | 20.5†   | 10.0   | 8.9   | 13.1†   |
| 55-64  | 13.5      | 12.5  | 17.2    | 15.0   | 13.7  | 20.0    | 9.1    | 8.4   | 10.9    |
| 65-74  | 11.2      | 11.6  | 10.3    | 11.6   | 12.1  | 9.9     | 9.2    | 8.6   | 10.6    |
| 75+  | 9.8       | 9.1   | 10.7    | 10.8   | 10.1  | 11.5    | 4.6    | 3.9   | 5.5†    |
| Under 65   | 14.3      | 13.4  | 17.6    | 16.0   | 15.0  | 20.3    | 9.4    | 8.3   | 12.0    |
| 65 and over  | 10.7      | 10.8  | 10.5    | 11.3   | 11.5  | 10.7    | 8.0    | 7.6   | 9.1     |

<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 1996.  
S The difference in rates between 1974-76 and 1989-95 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 VIII-5  
ESOPHAGUS CANCER (Invasive)

INCIDENCE, MORTALITY, AND SURVIVAL RATES

By Year of Diagnosis/Death

All Races, Males and Females

|                                | Year of Diagnosis/Death |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--------------------------------|-------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                                | 1975                    | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
| Incidence                      |                         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEER                           | 3.5                     | 3.7  | 3.5  | 3.6  | 3.7  | 3.7  | 3.5  | 3.7  | 3.7  | 3.6  | 3.8  | 4.0  | 3.9  | 3.8  | 3.7  | 4.2  | 3.9  | 3.9  | 4.0  | 3.8  | 3.7  | 4.0  |
| Mortality                      |                         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| U.S.                           | 3.1                     | 3.2  | 3.2  | 3.2  | 3.2  | 3.3  | 3.3  | 3.3  | 3.3  | 3.3  | 3.3  | 3.4  | 3.4  | 3.4  | 3.5  | 3.5  | 3.5  | 3.5  | 3.6  | 3.6  | 3.6  | 3.6  |
| SEER                           | 3.3                     | 3.4  | 3.5  | 3.3  | 3.1  | 3.3  | 3.5  | 3.2  | 3.3  | 3.2  | 3.2  | 3.4  | 3.5  | 3.5  | 3.5  | 3.5  | 3.4  | 3.5  | 3.4  | 3.7  | 3.4  | 3.4  |
| Relative Survival Rates (SEER) |                         |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 1-year                         | 28.2                    | 29.1 | 27.3 | 24.2 | 29.6 | 30.2 | 25.7 | 32.6 | 31.6 | 37.7 | 36.6 | 35.0 | 35.7 | 36.1 | 38.9 | 39.5 | 42.3 | 41.7 | 39.0 | 38.8 | 41.4 |      |
| 2-year                         | 10.3                    | 13.6 | 11.0 | 10.5 | 12.4 | 14.2 | 12.4 | 15.4 | 15.2 | 17.1 | 21.2 | 19.5 | 18.1 | 20.4 | 20.4 | 20.5 | 21.8 | 24.3 | 23.0 | 23.0 |      |      |
| 3-year                         | 6.9                     | 8.8  | 7.3  | 6.3  | 8.9  | 8.8  | 9.1  | 11.1 | 10.6 | 12.2 | 13.7 | 14.8 | 12.0 | 13.9 | 14.5 | 14.8 | 15.5 | 19.1 | 16.7 |      |      |      |
| 4-year                         | 5.1                     | 6.7  | 6.1  | 5.2  | 6.3  | 7.3  | 7.5  | 9.4  | 8.1  | 10.9 | 10.3 | 12.1 | 9.5  | 12.0 | 11.6 | 11.9 | 13.2 | 16.3 |      |      |      |      |
| 5-year                         | 4.0                     | 5.0  | 5.8  | 4.6  | 4.7  | 5.8  | 6.9  | 7.7  | 6.4  | 9.4  | 9.1  | 10.8 | 9.0  | 10.0 | 10.1 | 10.6 | 12.3 |      |      |      |      |      |
| 6-year                         | 3.3                     | 4.8  | 5.3  | 3.9  | 4.0  | 5.3  | 6.0  | 6.8  | 6.0  | 8.4  | 7.5  | 9.7  | 7.9  | 9.1  | 9.0  | 10.0 |      |      |      |      |      |      |
| 7-year                         | 3.3                     | 4.6  | 4.7  | 3.5  | 3.2  | 4.8  | 5.6  | 6.7  | 5.5  | 7.0  | 7.1  | 9.0  | 7.0  | 8.6  | 8.1  |      |      |      |      |      |      |      |
| 8-year                         | 3.0                     | 4.0  | 4.0  | 3.2  | 3.0  | 4.0  | 4.8  | 6.4  | 4.9  | 6.6  | 6.2  | 8.2  | 6.1  | 8.1  |      |      |      |      |      |      |      |      |
| 9-year                         | 3.0                     | 3.3  | 3.7  | 2.7  | 3.0  | 4.0  | 4.4  | 5.6  | 4.3  | 6.3  | 5.7  | 8.2  | 5.4  |      |      |      |      |      |      |      |      |      |
| 10-year                        | 2.8                     | 3.0  | 3.7  | 1.9  | 3.0  | 3.5  | 4.1  | 5.5  | 4.3  | 6.3  | 5.5  | 7.1  |      |      |      |      |      |      |      |      |      |      |
| 11-year                        | 2.7                     | 3.0  | 3.1  | 1.9  | 2.8  | 2.6  | 4.1  | 5.3  | 4.0  | 6.0  | 5.1  |      |      |      |      |      |      |      |      |      |      |      |
| 12-year                        | 2.7                     | 3.0  | 3.0  | 1.6  | 2.5  | 2.5  | 4.1  | 5.3  | 4.0  | 6.0  |      |      |      |      |      |      |      |      |      |      |      |      |
| 13-year                        | 2.7                     | 2.9  | 3.0  | 1.6  | 2.3  | 2.5  | 3.4  | 4.5  | 3.9  |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 14-year                        | 2.6                     | 2.9  | 3.0  | 1.6  | 2.3  | 2.5  | 3.4  | 4.5  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 15-year                        | 2.4                     | 2.9  | 3.0  | 1.6  | 2.3  | 2.5  | 3.4  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 16-year                        | 1.8                     | 2.8  | 3.0  | 1.6  | 2.3  | 2.5  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 17-year                        | 1.8                     | 2.8  | 3.0  | 1.6  | 2.3  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 18-year                        | 1.8                     | 2.8  | 3.0  | 1.4  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 19-year                        | 1.8                     | 2.8  | 3.0  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 20-year                        | 1.4                     | 2.8  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 21-year                        | 1.4                     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

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 VIII-6  
ESOPHAGUS CANCER (Invasive)

INCIDENCE, MORTALITY, AND SURVIVAL RATES

By Year of Diagnosis/Death

All Races, Males

Year of Diagnosis/Death

|                                | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|--------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Incidence                      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEER                           | 5.8  | 5.8  | 5.5  | 6.1  | 6.2  | 5.9  | 5.5  | 5.9  | 6.3  | 5.7  | 6.3  | 6.4  | 6.4  | 6.2  | 6.1  | 7.1  | 6.3  | 6.7  | 6.6  | 6.5  | 6.0  | 6.8  |
| Mortality                      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| U.S.                           | 5.4  | 5.4  | 5.3  | 5.4  | 5.4  | 5.5  | 5.6  | 5.5  | 5.6  | 5.7  | 5.7  | 5.7  | 5.8  | 5.9  | 6.0  | 6.0  | 6.1  | 6.1  | 6.2  | 6.4  | 6.4  | 6.3  |
| SEER                           | 5.7  | 5.5  | 5.8  | 5.7  | 5.4  | 5.5  | 5.7  | 5.1  | 5.7  | 5.3  | 5.5  | 5.7  | 5.7  | 6.1  | 5.8  | 5.8  | 5.8  | 6.2  | 5.7  | 6.5  | 6.0  | 5.8  |
| Relative Survival Rates (SEER) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 1-year                         | 25.6 | 25.7 | 25.9 | 22.4 | 27.5 | 31.0 | 26.0 | 30.4 | 31.0 | 36.7 | 35.6 | 34.2 | 34.2 | 34.2 | 38.4 | 41.5 | 41.9 | 41.3 | 40.3 | 38.2 | 41.5 |      |
| 2-year                         | 8.7  | 11.3 | 9.6  | 8.4  | 12.6 | 14.5 | 12.8 | 14.4 | 15.1 | 15.5 | 20.2 | 20.1 | 17.0 | 19.2 | 19.7 | 21.5 | 21.6 | 24.4 | 22.8 | 21.8 |      |      |
| 3-year                         | 5.8  | 6.4  | 6.2  | 5.3  | 9.7  | 8.9  | 9.5  | 9.6  | 10.2 | 10.0 | 11.8 | 16.0 | 12.3 | 12.1 | 14.4 | 14.8 | 15.6 | 19.1 | 17.5 |      |      |      |
| 4-year                         | 4.5  | 4.6  | 5.4  | 4.3  | 6.7  | 7.4  | 7.3  | 7.7  | 8.3  | 8.5  | 7.7  | 12.8 | 9.7  | 10.7 | 11.4 | 11.9 | 12.8 | 15.4 |      |      |      |      |
| 5-year                         | 3.1  | 3.8  | 5.4  | 4.0  | 4.8  | 5.5  | 6.8  | 6.1  | 6.5  | 7.1  | 7.4  | 11.4 | 9.3  | 9.4  | 9.9  | 10.3 | 12.1 |      |      |      |      |      |
| 6-year                         | 2.3  | 3.7  | 4.7  | 3.7  | 3.8  | 5.2  | 5.9  | 5.4  | 5.8  | 6.4  | 10.6 | 8.3  | 8.7  | 8.4  | 9.6  |      |      |      |      |      |      |      |
| 7-year                         | 2.3  | 3.7  | 4.0  | 3.6  | 3.0  | 4.4  | 5.6  | 5.1  | 5.3  | 4.4  | 5.9  | 9.7  | 7.0  | 8.3  | 7.5  |      |      |      |      |      |      |      |
| 8-year                         | 2.3  | 3.4  | 3.9  | 3.2  | 2.5  | 4.0  | 4.6  | 5.0  | 5.0  | 3.8  | 5.4  | 8.5  | 6.3  | 7.9  |      |      |      |      |      |      |      |      |
| 9-year                         | 2.3  | 2.9  | 3.5  | 2.7  | 2.5  | 3.9  | 4.1  | 4.6  | 4.4  | 3.8  | 5.1  | 8.5  | 5.8  |      |      |      |      |      |      |      |      |      |
| 10-year                        | 2.2  | 2.9  | 3.3  | 1.9  | 2.5  | 3.5  | 3.6  | 4.6  | 4.3  | 3.8  | 5.1  | 8.0  |      |      |      |      |      |      |      |      |      |      |
| 11-year                        | 1.9  | 2.9  | 2.7  | 1.9  | 2.5  | 3.3  | 3.6  | 4.6  | 3.8  | 3.8  | 5.0  |      |      |      |      |      |      |      |      |      |      |      |
| 12-year                        | 1.9  | 2.9  | 2.7  | 1.4  | 2.5  | 3.2  | 3.6  | 4.6  | 3.7  | 3.8  |      |      |      |      |      |      |      |      |      |      |      |      |
| 13-year                        | 1.9  | 2.9  | 2.7  | 1.4  | 2.3  | 3.2  | 3.5  | 3.7  | 3.7  |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 14-year                        | 1.4  | 2.9  | 2.7  | 1.4  | 2.3  | 3.2  | 3.5  | 3.7  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 15-year                        | 1.4  | 2.9  | 2.7  | 1.4  | 2.3  | 3.2  | 3.5  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 16-year                        | 1.4  | 2.9  | 2.7  | 1.4  | 2.3  | 3.2  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 17-year                        | 1.4  | 2.9  | 2.7  | 1.4  | 2.3  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 18-year                        | 1.4  | 2.9  | 2.7  | 1.1  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 19-year                        | 1.3  | 2.9  | 2.7  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 20-year                        | 1.3  | 2.9  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 21-year                        | 1.3  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

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 VIII-7  
ESOPHAGUS CANCER (Invasive)INCIDENCE, MORTALITY, AND SURVIVAL RATES

By Year of Diagnosis/Death

All Races, Females

Year of Diagnosis/Death

|                                | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 |
|--------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Incidence                      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| SEER                           | 1.8  | 2.0  | 1.9  | 1.6  | 1.9  | 2.0  | 2.0  | 1.9  | 1.7  | 1.9  | 1.9  | 2.1  | 1.9  | 1.9  | 1.8  | 1.9  | 2.0  | 1.6  | 1.9  | 1.7  | 1.8  | 1.7  |
| Mortality                      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| U.S.                           | 1.4  | 1.5  | 1.5  | 1.5  | 1.5  | 1.5  | 1.5  | 1.5  | 1.5  | 1.5  | 1.4  | 1.5  | 1.5  | 1.5  | 1.5  | 1.5  | 1.5  | 1.5  | 1.5  | 1.4  | 1.4  | 1.5  |
| SEER                           | 1.5  | 1.8  | 1.8  | 1.5  | 1.3  | 1.7  | 1.8  | 1.6  | 1.5  | 1.6  | 1.4  | 1.6  | 1.6  | 1.4  | 1.6  | 1.8  | 1.5  | 1.5  | 1.5  | 1.4  | 1.3  | 1.5  |
| Relative Survival Rates (SEER) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 1-year                         | 34.8 | 37.0 | 30.7 | 29.2 | 35.0 | 28.3 | 25.1 | 38.4 | 33.6 | 40.0 | 39.2 | 36.8 | 39.4 | 41.3 | 40.1 | 33.4 | 43.3 | 42.7 | 35.4 | 40.5 | 41.1 |      |
| 2-year                         | 14.3 | 18.6 | 14.1 | 16.4 | 12.1 | 13.5 | 11.7 | 18.1 | 15.5 | 20.8 | 24.0 | 18.1 | 20.8 | 23.7 | 22.1 | 17.5 | 22.1 | 24.0 | 23.4 | 26.7 |      |      |
| 3-year                         | 9.7  | 14.3 | 9.9  | 9.2  | 6.8  | 8.5  | 8.2  | 14.8 | 11.5 | 17.4 | 18.7 | 12.0 | 11.2 | 18.7 | 14.8 | 14.6 | 15.0 | 19.0 | 14.7 |      |      |      |
| 4-year                         | 6.7  | 11.4 | 7.8  | 7.5  | 5.3  | 7.0  | 8.0  | 13.7 | 7.3  | 16.5 | 17.1 | 10.5 | 9.0  | 15.5 | 12.0 | 11.9 | 14.2 | 19.0 |      |      |      |      |
| 5-year                         | 6.3  | 7.7  | 6.9  | 6.4  | 4.2  | 6.7  | 7.1  | 11.8 | 6.2  | 14.9 | 13.5 | 9.4  | 8.2  | 11.5 | 10.7 | 11.2 | 12.7 |      |      |      |      |      |
| 6-year                         | 5.8  | 7.4  | 6.5  | 4.4  | 4.2  | 5.7  | 6.2  | 10.4 | 6.2  | 14.3 | 10.2 | 7.6  | 6.8  | 10.2 | 10.5 | 11.1 |      |      |      |      |      |      |
| 7-year                         | 5.3  | 6.4  | 6.0  | 3.1  | 3.9  | 5.7  | 5.8  | 10.4 | 5.9  | 13.0 | 10.0 | 7.4  | 6.8  | 9.4  | 9.7  |      |      |      |      |      |      |      |
| 8-year                         | 4.7  | 5.4  | 4.2  | 3.1  | 3.9  | 4.1  | 5.3  | 10.0 | 4.6  | 13.0 | 8.3  | 7.4  | 5.4  | 8.5  |      |      |      |      |      |      |      |      |
| 9-year                         | 4.7  | 4.2  | 4.2  | 2.5  | 3.9  | 4.1  | 4.9  | 8.2  | 4.0  | 11.4 | 7.2  | 7.4  | 4.3  |      |      |      |      |      |      |      |      |      |
| 10-year                        | 4.3  | 2.8  | 4.2  | 1.7  | 3.7  | 3.7  | 4.9  | 7.8  | 4.0  | 11.4 | 6.7  | 5.2  |      |      |      |      |      |      |      |      |      |      |
| 11-year                        | 4.3  | 2.8  | 3.9  | 1.7  | 3.1  | 0.8  | 4.6  | 6.6  | 4.0  | 11.0 | 5.3  |      |      |      |      |      |      |      |      |      |      |      |
| 12-year                        | 4.3  | 2.8  | 3.3  | 1.7  | 2.4  | 0.8  | 4.0  | 6.6  | 4.0  | 10.8 |      |      |      |      |      |      |      |      |      |      |      |      |
| 13-year                        | 4.3  | 2.1  | 3.3  | 1.7  | 2.4  | 0.8  | 3.4  | 6.4  | 3.9  |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 14-year                        | 4.3  | 2.1  | 3.3  | 1.7  | 2.4  | 0.8  | 2.7  | 5.8  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 15-year                        | 4.3  | 2.1  | 3.3  | 1.7  | 2.4  | 0.8  | 2.7  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 16-year                        | 2.3  | 2.1  | 3.3  | 1.7  | 2.4  | 0.8  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 17-year                        | 2.3  | 2.1  | 3.2  | 1.7  | 2.0  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 18-year                        | 2.3  | 2.1  | 2.2  | 1.7  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 19-year                        | 2.3  | 2.1  | 2.2  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 20-year                        | 1.5  | 2.1  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 21-year                        | 1.5  |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

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 VIII-8  
ESOPHAGUS 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, 1994-96

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    | 0.71       | 0.00                               | 0.00    | 0.00    | 0.26       |       |
| 10                                 | 0.00    | 0.00    | 0.00    | 0.71       | 0.00                               | 0.00    | 0.00    | 0.26       |       |
| 20                                 | 0.00    | 0.00    | 0.03    | 0.72       | 0.00                               | 0.00    | 0.01    | 0.26       |       |
| 30                                 | 0.00    | 0.03    | 0.15    | 0.73       | 0.00                               | 0.01    | 0.03    | 0.27       |       |
| 40                                 | 0.03    | 0.15    | 0.37    | 0.74       | 0.01                               | 0.03    | 0.10    | 0.27       |       |
| 50                                 | 0.13    | 0.35    | 0.60    | 0.74       | 0.03                               | 0.09    | 0.18    | 0.27       |       |
| 60                                 | 0.25    | 0.51    | 0.65    | 0.67       | 0.07                               | 0.16    | 0.23    | 0.25       |       |
| Lifetime Risk of Being Diagnosed = |         |         |         | 0.71%      | Lifetime Risk of Being Diagnosed = |         |         |            | 0.26% |
| Lifetime Risk of Dying =           |         |         |         | 0.69%      | Lifetime Risk of Dying =           |         |         |            | 0.23% |

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    | 0.67       | 0.00                               | 0.00    | 0.00    | 0.25       |       |
| 10                                 | 0.00    | 0.00    | 0.00    | 0.68       | 0.00                               | 0.00    | 0.00    | 0.25       |       |
| 20                                 | 0.00    | 0.00    | 0.03    | 0.68       | 0.00                               | 0.00    | 0.01    | 0.25       |       |
| 30                                 | 0.00    | 0.03    | 0.13    | 0.69       | 0.00                               | 0.01    | 0.03    | 0.25       |       |
| 40                                 | 0.03    | 0.13    | 0.33    | 0.70       | 0.00                               | 0.03    | 0.08    | 0.25       |       |
| 50                                 | 0.10    | 0.32    | 0.56    | 0.70       | 0.02                               | 0.08    | 0.17    | 0.25       |       |
| 60                                 | 0.23    | 0.49    | 0.62    | 0.64       | 0.06                               | 0.15    | 0.22    | 0.24       |       |
| Lifetime Risk of Being Diagnosed = |         |         |         | 0.67%      | Lifetime Risk of Being Diagnosed = |         |         |            | 0.25% |
| Lifetime Risk of Dying =           |         |         |         | 0.68%      | Lifetime Risk of Dying =           |         |         |            | 0.23% |

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    | 0.99       | 0.00                               | 0.00    | 0.00    | 0.43       |       |
| 10                                 | 0.00    | 0.00    | 0.01    | 1.01       | 0.00                               | 0.00    | 0.00    | 0.44       |       |
| 20                                 | 0.00    | 0.01    | 0.09    | 1.03       | 0.00                               | 0.00    | 0.03    | 0.44       |       |
| 30                                 | 0.01    | 0.09    | 0.42    | 1.06       | 0.00                               | 0.03    | 0.10    | 0.45       |       |
| 40                                 | 0.09    | 0.43    | 0.80    | 1.12       | 0.03                               | 0.10    | 0.26    | 0.46       |       |
| 50                                 | 0.38    | 0.80    | 1.06    | 1.14       | 0.08                               | 0.24    | 0.40    | 0.45       |       |
| 60                                 | 0.49    | 0.81    | 0.88    | 0.91       | 0.18                               | 0.35    | 0.39    | 0.41       |       |
| Lifetime Risk of Being Diagnosed = |         |         |         | 0.99%      | Lifetime Risk of Being Diagnosed = |         |         |            | 0.43% |
| Lifetime Risk of Dying =           |         |         |         | 0.88%      | Lifetime Risk of Dying =           |         |         |            | 0.33% |



Table VIII-9  
ESOPHAGUS CANCER (Invasive)

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

By Race/Ethnicity and Sex

Incidence<sup>i</sup>

| RACE/ETHNICITY                      | Rate 1990-1996<br>Rate per 100,000 persons |       |         | Trend 1990-1996<br>EAPC (%) |       |         |
|-------------------------------------|--|-------|---------|-----------------------------|-------|---------|
|                                     | Total                                      | Males | Females | Total                       | Males | Females |
|                                     | All Races                                  | 3.8   | 6.3     | 1.8                         | -0.8  | -0.5    |
| White                               | 3.5  | 5.7   | 1.6     | 0.1                         | 0.5   | -1.9    |
| White Hispanic                      | 2.5  | 4.7   | -       | 0.0                         | 0.1   | -       |
| White Non-Hispanic                  | 3.6  | 5.8   | 1.7     | 0.1                         | 0.5   | -1.8    |
| Black                               | 8.2  | 13.5  | 4.2     | -4.4*                       | -5.1* | -3.2*   |
| Asian/Pacific Islander <sup>‡</sup> | 2.5  | 4.5   | 0.8     | 0.2                         | 0.7   | -       |
| American Indian                     | 1.3  | 2.5   | 0.4     | -                           | -     | -       |
| Hispanic <sup>⊙</sup>               | 2.4  | 4.4   | -       | -0.1                        | 0.1   | -       |

Mortality<sup>❖</sup>

| RACE/ETHNICITY                      | Rate 1990-1996<br>Rate per 100,000 persons |       |         | Trend 1990-1996<br>EAPC (%) |       |         |
|-------------------------------------|--|-------|---------|-----------------------------|-------|---------|
|                                     | Total                                      | Males | Females | Total                       | Males | Females |
|                                     | All Races                                  | 3.6   | 6.2     | 1.5                         | 0.8*  | 1.0*    |
| White                               | 3.2  | 5.6   | 1.3     | 1.9*                        | 2.0*  | 0.7     |
| White Hispanic                      | 2.0  | 3.7   | 0.7     | 1.9*                        | 2.0   | 0.3     |
| White Non-Hispanic                  | 3.2  | 5.7   | 1.3     | 2.2*                        | 2.3*  | 1.0*    |
| Black                               | 7.6  | 13.4  | 3.5     | -3.0*                       | -2.9* | -3.4*   |
| Asian/Pacific Islander <sup>‡</sup> | 1.9  | 3.4   | 0.7     | -5.0                        | -5.2  | -2.2    |
| American Indian                     | 1.9  | 3.3   | -       | 4.5                         | 9.5   | -       |
| Hispanic <sup>⊙</sup>               | 1.9  | 3.5   | 0.7     | 1.6                         | 1.8   | -0.4    |

- 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.
- <sup>i</sup> Incidence data are from the 11 SEER areas (San Francisco, Connecticut, Detroit, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, and Los Angeles).
- ⊙ Unless specified, other tables use data from 9 SEER areas (San Francisco, Connecticut, Detroit, Iowa, New Mexico, Seattle, Utah, and Atlanta).
- ⊙ Hispanic is not mutually exclusive from whites, blacks, Asian Pacific Islanders, and American Indians. 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).
- ‡ Population estimates for the Asian Pacific Islanders rates are adjusted Census Bureau estimates. The population estimates used in Wingo PA, Ries LAG, Rosenberg HM, Miller DS, Edwards BK. Cancer Incidence and mortality, 1973-1996. Cancer 82:1197-207, 1998 were unadjusted.
- \* The EAPC is significantly different from zero (p<.05).

Table VIII-10  
ESOPHAGUS CANCER (Invasive)AGE-ADJUSTED SEER INCIDENCE RATES§ AND SEER MORTALITY RATES\*  
By Registry, Race and Sex

|                                       | All Races |       |         | Whites |       |         | Blacks |       |         |
|---------------------------------------|-----------|-------|---------|--------|-------|---------|--------|-------|---------|
|                                       | Total     | Males | Females | Total  | Males | Females | Total  | Males | Females |
| <u>SEER INCIDENCE RATES§, 1992-96</u> |           |       |         |        |       |         |        |       |         |
| REGISTRY                              |           |       |         |        |       |         |        |       |         |
| 11 registries                         | 3.8       | 6.3   | 1.7     | 3.5    | 5.8   | 1.6     | 7.8    | 12.8  | 4.1     |
| 9 registries                          | 3.9       | 6.5   | 1.7     | 3.5    | 5.9   | 1.6     | 8.4    | 14.1  | 4.2     |
| San Francisco-Oakland                 | 3.8       | 6.0   | 1.9     | 3.7    | 5.9   | 1.9     | 6.1    | 9.3   | 3.6     |
| Connecticut                           | 4.4       | 7.5   | 2.0     | 3.9    | 6.7   | 1.7     | 12.3   | 22.6  | 4.9     |
| Metropolitan Detroit                  | 4.7       | 7.8   | 2.2     | 3.7    | 6.4   | 1.6     | 8.6    | 14.0  | 4.6     |
| Hawaii                                | 3.0       | 5.4   | 0.9     | 3.9    | 5.9   | 1.9     | -      | -     | -       |
| Iowa                                  | 3.5       | 6.1   | 1.3     | 3.4    | 6.1   | 1.3     | -      | -     | -       |
| New Mexico                            | 2.8       | 4.9   | 1.1     | 2.9    | 4.9   | 1.2     | -      | -     | -       |
| Seattle-Puget Sound                   | 4.0       | 6.6   | 1.9     | 4.1    | 6.7   | 1.9     | 5.0    | 5.7   | 4.3     |
| Utah                                  | 2.0       | 3.4   | 0.7     | 2.0    | 3.5   | 0.7     | -      | -     | -       |
| Metropolitan Atlanta                  | 4.6       | 7.7   | 2.2     | 3.1    | 5.0   | 1.7     | 9.8    | 17.9  | 4.1     |
| San Jose-Monterey                     | 3.5       | 5.5   | 1.8     | 3.6    | 5.9   | 1.8     | 5.4    | 7.9   | 3.7     |
| Los Angeles                           | 3.4       | 5.7   | 1.7     | 3.2    | 5.2   | 1.5     | 6.5    | 10.2  | 3.9     |
| <u>SEER MORTALITY RATES*, 1992-96</u> |           |       |         |        |       |         |        |       |         |
| REGISTRY                              |           |       |         |        |       |         |        |       |         |
| 11 registries                         | 3.4       | 5.8   | 1.5     | 3.2    | 5.6   | 1.3     | 6.5    | 10.9  | 3.2     |
| 9 registries                          | 3.5       | 6.0   | 1.4     | 3.3    | 5.7   | 1.3     | 6.9    | 11.8  | 3.3     |
| San Francisco-Oakland                 | 3.5       | 6.0   | 1.6     | 3.6    | 6.1   | 1.6     | 5.7    | 8.8   | 3.2     |
| Connecticut                           | 3.8       | 6.5   | 1.7     | 3.5    | 6.0   | 1.5     | 8.6    | 15.1  | 4.2     |
| Metropolitan Detroit                  | 4.1       | 7.3   | 1.6     | 3.4    | 6.2   | 1.2     | 6.9    | 12.0  | 3.1     |
| Hawaii                                | 2.7       | 4.9   | 0.8     | 3.9    | 6.0   | 1.8     | -      | -     | -       |
| Iowa                                  | 3.3       | 6.1   | 1.1     | 3.3    | 6.0   | 1.1     | -      | -     | -       |
| New Mexico                            | 2.9       | 5.2   | 1.0     | 2.8    | 5.1   | 1.0     | -      | -     | -       |
| Seattle-Puget Sound                   | 3.5       | 5.7   | 1.6     | 3.6    | 5.9   | 1.7     | 3.5    | 5.3   | 1.8     |
| Utah                                  | 1.9       | 3.4   | 0.6     | 1.9    | 3.5   | 0.6     | -      | -     | -       |
| Metropolitan Atlanta                  | 3.9       | 6.8   | 1.9     | 2.8    | 4.8   | 1.4     | 8.2    | 14.8  | 3.7     |
| San Jose-Monterey                     | 3.0       | 4.9   | 1.5     | 3.2    | 5.3   | 1.5     | 4.6    | 7.5   | 2.4     |
| Los Angeles                           | 3.2       | 5.4   | 1.5     | 3.1    | 5.2   | 1.4     | 5.6    | 9.1   | 3.1     |

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 VIII-11  
ESOPHAGUS CANCER (Invasive)

## AVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY\* RATES BY STATE, 1992-96

All Races, Males and Females

| State                | Rate  | SE   | Rank | PD    | State          | Rate  | SE   | Rank | PD    |
|----------------------|-------|------|------|-------|----------------|-------|------|------|-------|
| TOTAL U.S.           | 3.6   | 0.02 |      |       |                |       |      |      |       |
| High Five States     |       |      |      |       |                |       |      |      |       |
| District of Columbia | 8.9⊕* | 0.54 | (01) | 147.2 |                |       |      |      |       |
| Delaware             | 5.0*  | 0.36 | (02) | 38.9  |                |       |      |      |       |
| New Hampshire        | 4.6*  | 0.28 | (03) | 27.8  |                |       |      |      |       |
| Maryland             | 4.5⊕* | 0.13 | (04) | 25.0  |                |       |      |      |       |
| South Carolina       | 4.3*  | 0.15 | (05) | 19.4  |                |       |      |      |       |
| Low Five States      |       |      |      |       |                |       |      |      |       |
| Arkansas             | 2.8⊕* | 0.14 | (47) | -22.2 |                |       |      |      |       |
| Oklahoma             | 2.8⊕* | 0.12 | (48) | -22.2 |                |       |      |      |       |
| Hawaii               | 2.7*  | 0.20 | (49) | -25.0 |                |       |      |      |       |
| North Dakota         | 2.5*  | 0.26 | (50) | -30.6 |                |       |      |      |       |
| Utah                 | 1.9⊕* | 0.15 | (51) | -47.2 |                |       |      |      |       |
| Alabama              | 3.4   | 0.12 | (30) | -5.6  | Montana        | 3.2   | 0.25 | (38) | -11.1 |
| Alaska               | 3.9   | 0.50 | (14) | 8.3   | Nebraska       | 3.4   | 0.19 | (31) | -5.6  |
| Arizona              | 3.4   | 0.12 | (29) | -5.6  | Nevada         | 3.5   | 0.21 | (25) | -2.8  |
| Arkansas             | 2.8⊕* | 0.14 | (47) | -22.2 | New Hampshire  | 4.6*  | 0.28 | (03) | 27.8  |
| California           | 3.2⊕  | 0.05 | (40) | -11.1 | New Jersey     | 3.8   | 0.09 | (17) | 5.6   |
| Colorado             | 2.9⊕* | 0.13 | (44) | -19.4 | New Mexico     | 2.9*  | 0.18 | (45) | -19.4 |
| Connecticut          | 3.8   | 0.14 | (19) | 5.6   | New York       | 3.9⊕  | 0.06 | (10) | 8.3   |
| Delaware             | 5.0*  | 0.36 | (02) | 38.9  | North Carolina | 3.7   | 0.10 | (23) | 2.8   |
| District of Columbia | 8.9⊕* | 0.54 | (01) | 147.2 | North Dakota   | 2.5*  | 0.26 | (50) | -30.6 |
| Florida              | 3.5   | 0.06 | (26) | -2.8  | Ohio           | 3.8   | 0.08 | (20) | 5.6   |
| Georgia              | 3.8   | 0.11 | (18) | 5.6   | Oklahoma       | 2.8⊕* | 0.12 | (48) | -22.2 |
| Hawaii               | 2.7*  | 0.20 | (49) | -25.0 | Oregon         | 3.7   | 0.14 | (22) | 2.8   |
| Idaho                | 3.0*  | 0.22 | (43) | -16.7 | Pennsylvania   | 3.8   | 0.07 | (16) | 5.6   |
| Illinois             | 4.1⊕  | 0.08 | (08) | 13.9  | Rhode Island   | 3.8   | 0.25 | (15) | 5.6   |
| Indiana              | 3.6   | 0.11 | (24) | 0.0   | South Carolina | 4.3*  | 0.15 | (05) | 19.4  |
| Iowa                 | 3.3   | 0.14 | (34) | -8.3  | South Dakota   | 3.2   | 0.27 | (39) | -11.1 |
| Kansas               | 2.8⊕* | 0.14 | (46) | -22.2 | Tennessee      | 3.3   | 0.11 | (35) | -8.3  |
| Kentucky             | 3.5   | 0.13 | (27) | -2.8  | Texas          | 3.2⊕  | 0.06 | (41) | -11.1 |
| Louisiana            | 3.9   | 0.13 | (12) | 8.3   | Utah           | 1.9⊕* | 0.15 | (51) | -47.2 |
| Maine                | 4.0   | 0.23 | (09) | 11.1  | Vermont        | 3.9   | 0.35 | (11) | 8.3   |
| Maryland             | 4.5⊕* | 0.13 | (04) | 25.0  | Virginia       | 4.1   | 0.11 | (07) | 13.9  |
| Massachusetts        | 4.1   | 0.11 | (06) | 13.9  | Washington     | 3.4   | 0.11 | (28) | -5.6  |
| Michigan             | 3.9   | 0.09 | (13) | 8.3   | West Virginia  | 3.2   | 0.17 | (37) | -11.1 |
| Minnesota            | 3.1   | 0.11 | (42) | -13.9 | Wisconsin      | 3.8   | 0.11 | (21) | 5.6   |
| Mississippi          | 3.3   | 0.15 | (36) | -8.3  | Wyoming        | 3.4   | 0.37 | (32) | -5.6  |
| Missouri             | 3.4   | 0.10 | (33) | -5.6  |                |       |      |      |       |

\* 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 15% or more.  
⊕ Difference between state rate and total U.S. rate is statistically significant (p<=.0002).

Table VIII-12  
ESOPHAGUS CANCER (Invasive)

## AVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY\* RATES BY STATE, 1992-96

All Races, Males

| State                | Rate   | SE   | Rank | PD    |
|----------------------|--------|------|------|-------|
| TOTAL U.S.           | 6.3    | 0.03 |      |       |
| High Five States     |        |      |      |       |
| District of Columbia | 16.6⊕* | 1.13 | (01) | 163.5 |
| Delaware             | 8.1*   | 0.68 | (02) | 28.6  |
| New Hampshire        | 8.0*   | 0.56 | (03) | 27.0  |
| South Carolina       | 7.7*   | 0.30 | (04) | 22.2  |
| Maryland             | 7.6⊕*  | 0.26 | (05) | 20.6  |
| Low Five States      |        |      |      |       |
| Idaho                | 5.0*   | 0.43 | (47) | -20.6 |
| Hawaii               | 4.9*   | 0.40 | (48) | -22.2 |
| Oklahoma             | 4.7⊕*  | 0.24 | (49) | -25.4 |
| North Dakota         | 4.2*   | 0.49 | (50) | -33.3 |
| Utah                 | 3.4⊕*  | 0.31 | (51) | -46.0 |

| State                | Rate   | SE   | Rank | PD    | State          | Rate  | SE   | Rank | PD    |
|----------------------|--------|------|------|-------|----------------|-------|------|------|-------|
| Alabama              | 6.1    | 0.24 | (27) | -3.2  | Montana        | 5.2*  | 0.47 | (42) | -17.5 |
| Alaska               | 6.5    | 0.95 | (21) | 3.2   | Nebraska       | 6.2   | 0.38 | (25) | -1.6  |
| Arizona              | 6.0    | 0.24 | (31) | -4.8  | Nevada         | 5.8   | 0.40 | (34) | -7.9  |
| Arkansas             | 5.0*   | 0.28 | (46) | -20.6 | New Hampshire  | 8.0*  | 0.56 | (03) | 27.0  |
| California           | 5.4⊕   | 0.09 | (40) | -14.3 | New Jersey     | 6.8   | 0.18 | (15) | 7.9   |
| Colorado             | 5.2*   | 0.26 | (44) | -17.5 | New Mexico     | 5.2*  | 0.37 | (43) | -17.5 |
| Connecticut          | 6.5    | 0.27 | (23) | 3.2   | New York       | 6.7   | 0.12 | (17) | 6.3   |
| Delaware             | 8.1*   | 0.68 | (02) | 28.6  | North Carolina | 6.5   | 0.20 | (20) | 3.2   |
| District of Columbia | 16.6⊕* | 1.13 | (01) | 163.5 | North Dakota   | 4.2*  | 0.49 | (50) | -33.3 |
| Florida              | 5.8    | 0.12 | (35) | -7.9  | Ohio           | 6.8   | 0.16 | (14) | 7.9   |
| Georgia              | 6.5    | 0.21 | (22) | 3.2   | Oklahoma       | 4.7⊕* | 0.24 | (49) | -25.4 |
| Hawaii               | 4.9*   | 0.40 | (48) | -22.2 | Oregon         | 6.4   | 0.28 | (24) | 1.6   |
| Idaho                | 5.0*   | 0.43 | (47) | -20.6 | Pennsylvania   | 6.9   | 0.14 | (11) | 9.5   |
| Illinois             | 7.1⊕   | 0.16 | (08) | 12.7  | Rhode Island   | 6.7   | 0.51 | (16) | 6.3   |
| Indiana              | 6.8    | 0.22 | (13) | 7.9   | South Carolina | 7.7*  | 0.30 | (04) | 22.2  |
| Iowa                 | 6.1    | 0.28 | (28) | -3.2  | South Dakota   | 5.6   | 0.53 | (37) | -11.1 |
| Kansas               | 5.1*   | 0.28 | (45) | -19.0 | Tennessee      | 5.9   | 0.22 | (32) | -6.3  |
| Kentucky             | 6.1    | 0.26 | (26) | -3.2  | Texas          | 5.6⊕  | 0.12 | (39) | -11.1 |
| Louisiana            | 7.0    | 0.27 | (09) | 11.1  | Utah           | 3.4⊕* | 0.31 | (51) | -46.0 |
| Maine                | 6.8    | 0.46 | (12) | 7.9   | Vermont        | 6.7   | 0.69 | (18) | 6.3   |
| Maryland             | 7.6⊕*  | 0.26 | (05) | 20.6  | Virginia       | 7.5⊕* | 0.23 | (06) | 19.0  |
| Massachusetts        | 7.3*   | 0.22 | (07) | 15.9  | Washington     | 5.8   | 0.21 | (33) | -7.9  |
| Michigan             | 6.9    | 0.17 | (10) | 9.5   | West Virginia  | 6.0   | 0.34 | (30) | -4.8  |
| Minnesota            | 5.6    | 0.22 | (38) | -11.1 | Wisconsin      | 6.6   | 0.23 | (19) | 4.8   |
| Mississippi          | 5.7    | 0.31 | (36) | -9.5  | Wyoming        | 5.3*  | 0.68 | (41) | -15.9 |
| Missouri             | 6.0    | 0.21 | (29) | -4.8  |                |       |      |      |       |

\* 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 15% or more.  
⊕ Difference between state rate and total U.S. rate is statistically significant (p<=.0002).

Table VIII-13  
ESOPHAGUS CANCER (Invasive)

## AVERAGE ANNUAL AGE-ADJUSTED CANCER MORTALITY\* RATES BY STATE, 1992-96

All Races, Females

| State                | Rate  | SE   | Rank | PD    | State          | Rate  | SE   | Rank | PD    |
|----------------------|-------|------|------|-------|----------------|-------|------|------|-------|
| TOTAL U.S.           | 1.5   | 0.01 |      |       |                |       |      |      |       |
| High Five States     |       |      |      |       |                |       |      |      |       |
| District of Columbia | 3.4*  | 0.45 | (01) | 126.7 |                |       |      |      |       |
| Delaware             | 2.4*  | 0.33 | (02) | 60.0  |                |       |      |      |       |
| Maryland             | 2.0*  | 0.12 | (03) | 33.3  |                |       |      |      |       |
| New York             | 1.8⊕* | 0.05 | (04) | 20.0  |                |       |      |      |       |
| Georgia              | 1.7   | 0.10 | (05) | 13.3  |                |       |      |      |       |
| Low Five States      |       |      |      |       |                |       |      |      |       |
| Kansas               | 1.0*  | 0.11 | (47) | -33.3 |                |       |      |      |       |
| Arkansas             | 1.0*  | 0.11 | (48) | -33.3 |                |       |      |      |       |
| New Mexico           | 1.0*  | 0.14 | (49) | -33.3 |                |       |      |      |       |
| Hawaii               | 0.8*  | 0.15 | (50) | -46.7 |                |       |      |      |       |
| Utah                 | 0.6⊕* | 0.12 | (51) | -60.0 |                |       |      |      |       |
| Alabama              | 1.3   | 0.10 | (32) | -13.3 | Montana        | 1.4   | 0.22 | (28) | -6.7  |
| Alaska               | 1.3   | 0.40 | (31) | -13.3 | Nebraska       | 1.1*  | 0.14 | (44) | -26.7 |
| Arizona              | 1.3   | 0.10 | (33) | -13.3 | Nevada         | 1.4   | 0.18 | (26) | -6.7  |
| Arkansas             | 1.0*  | 0.11 | (48) | -33.3 | New Hampshire  | 1.7   | 0.23 | (06) | 13.3  |
| California           | 1.4   | 0.04 | (27) | -6.7  | New Jersey     | 1.5   | 0.07 | (20) | 0.0   |
| Colorado             | 1.2*  | 0.11 | (41) | -20.0 | New Mexico     | 1.0*  | 0.14 | (49) | -33.3 |
| Connecticut          | 1.7   | 0.12 | (09) | 13.3  | New York       | 1.8⊕* | 0.05 | (04) | 20.0  |
| Delaware             | 2.4*  | 0.33 | (02) | 60.0  | North Carolina | 1.4   | 0.08 | (25) | -6.7  |
| District of Columbia | 3.4*  | 0.45 | (01) | 126.7 | North Dakota   | 1.0*  | 0.21 | (46) | -33.3 |
| Florida              | 1.6   | 0.06 | (14) | 6.7   | Ohio           | 1.5   | 0.06 | (23) | 0.0   |
| Georgia              | 1.7   | 0.10 | (05) | 13.3  | Oklahoma       | 1.2*  | 0.11 | (40) | -20.0 |
| Hawaii               | 0.8*  | 0.15 | (50) | -46.7 | Oregon         | 1.6   | 0.12 | (15) | 6.7   |
| Idaho                | 1.2*  | 0.19 | (37) | -20.0 | Pennsylvania   | 1.5   | 0.06 | (19) | 0.0   |
| Illinois             | 1.7   | 0.07 | (07) | 13.3  | Rhode Island   | 1.7   | 0.21 | (11) | 13.3  |
| Indiana              | 1.2*  | 0.08 | (39) | -20.0 | South Carolina | 1.5   | 0.12 | (17) | 0.0   |
| Iowa                 | 1.1*  | 0.10 | (43) | -26.7 | South Dakota   | 1.2*  | 0.23 | (38) | -20.0 |
| Kansas               | 1.0*  | 0.11 | (47) | -33.3 | Tennessee      | 1.3   | 0.09 | (34) | -13.3 |
| Kentucky             | 1.4   | 0.10 | (29) | -6.7  | Texas          | 1.2*  | 0.05 | (35) | -20.0 |
| Louisiana            | 1.5   | 0.11 | (16) | 0.0   | Utah           | 0.6⊕* | 0.12 | (51) | -60.0 |
| Maine                | 1.7   | 0.19 | (08) | 13.3  | Vermont        | 1.6   | 0.30 | (13) | 6.7   |
| Maryland             | 2.0*  | 0.12 | (03) | 33.3  | Virginia       | 1.5   | 0.09 | (21) | 0.0   |
| Massachusetts        | 1.7   | 0.09 | (10) | 13.3  | Washington     | 1.5   | 0.09 | (22) | 0.0   |
| Michigan             | 1.5   | 0.07 | (18) | 0.0   | West Virginia  | 1.1*  | 0.12 | (45) | -26.7 |
| Minnesota            | 1.2*  | 0.09 | (42) | -20.0 | Wisconsin      | 1.5   | 0.10 | (24) | 0.0   |
| Mississippi          | 1.3   | 0.13 | (30) | -13.3 | Wyoming        | 1.6   | 0.35 | (12) | 6.7   |
| Missouri             | 1.2*  | 0.08 | (36) | -20.0 |                |       |      |      |       |

\* 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 15% or more.  
⊕ Difference between state rate and total U.S. rate is statistically significant (p<=.0002).

# SEER Incidence and U.S. Mortality Esophagus, Male By Race

## White

## Black

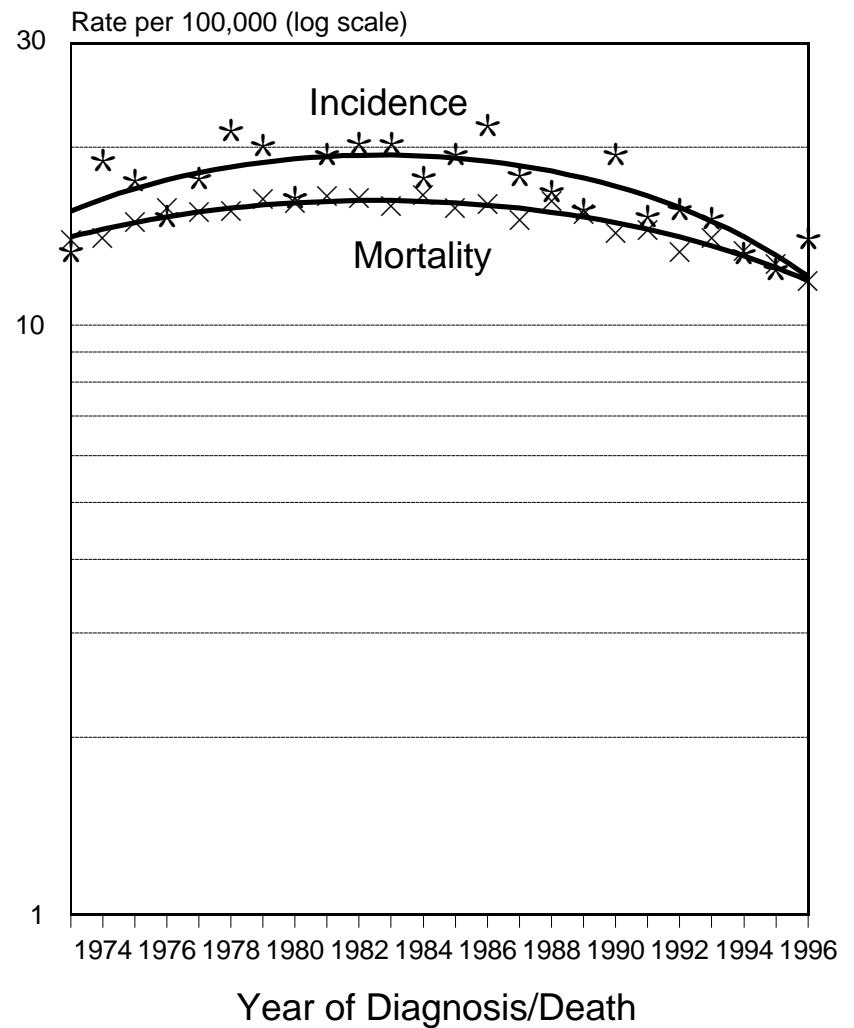
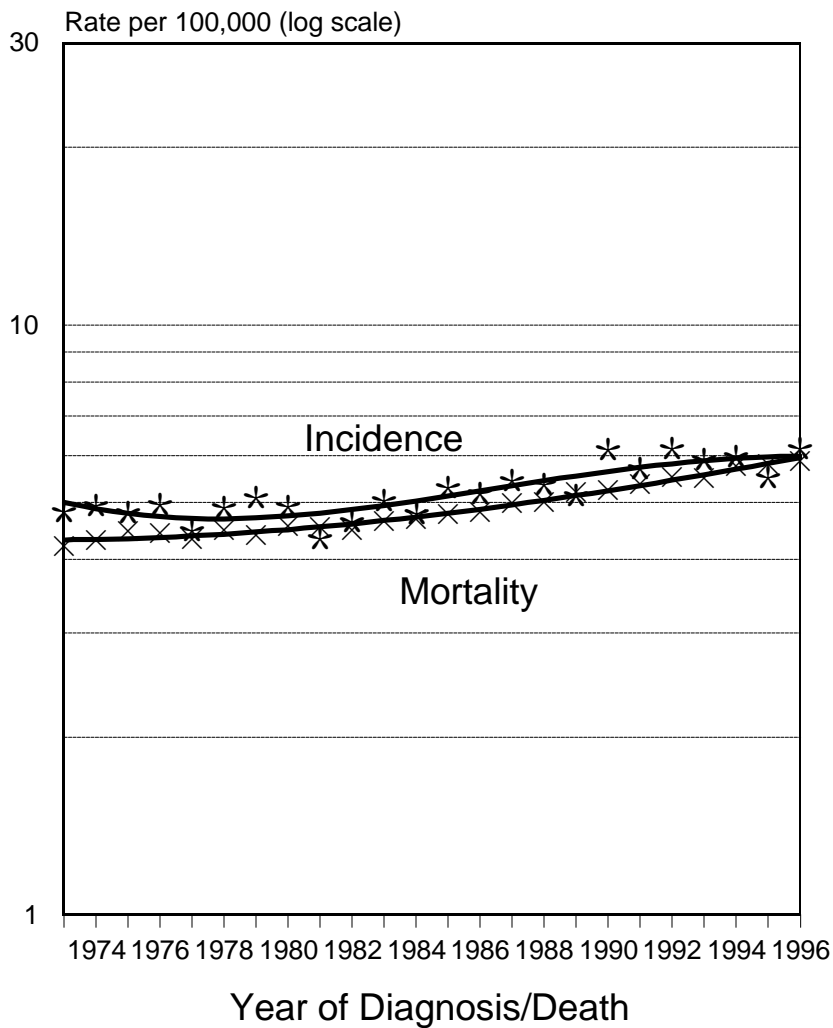


Figure VIII-1

# SEER Incidence and U.S. Mortality Esophagus, Female By Race

## White

## Black

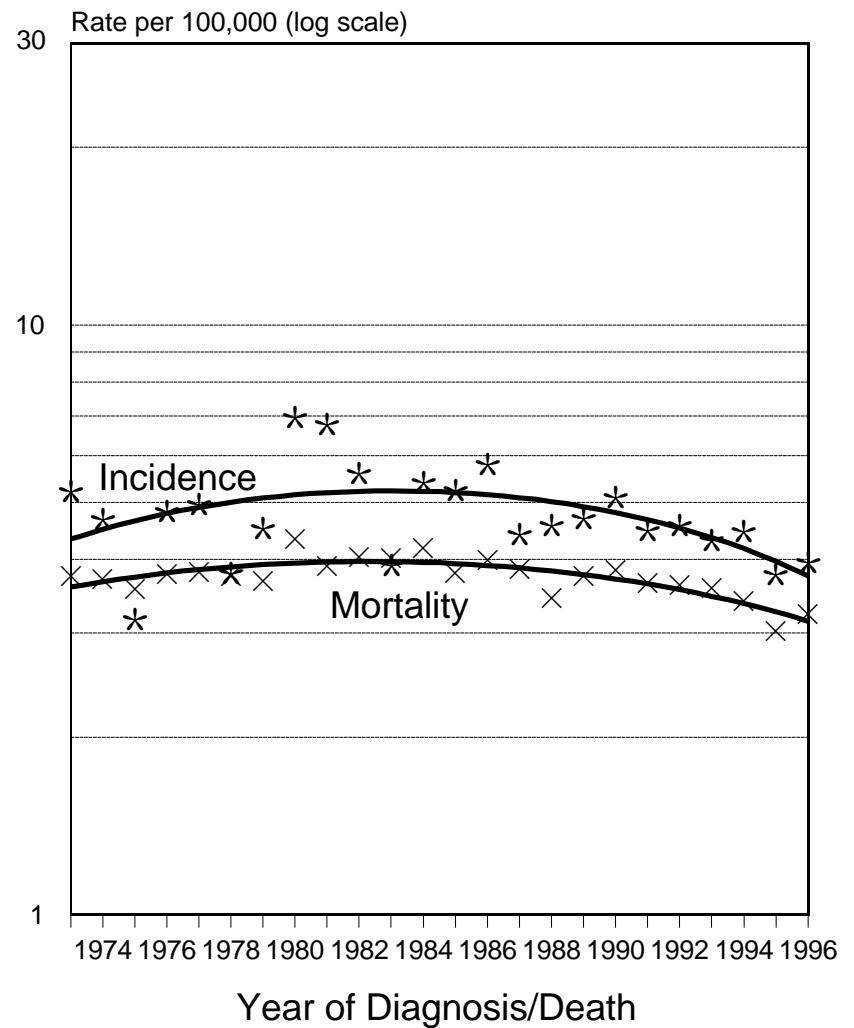
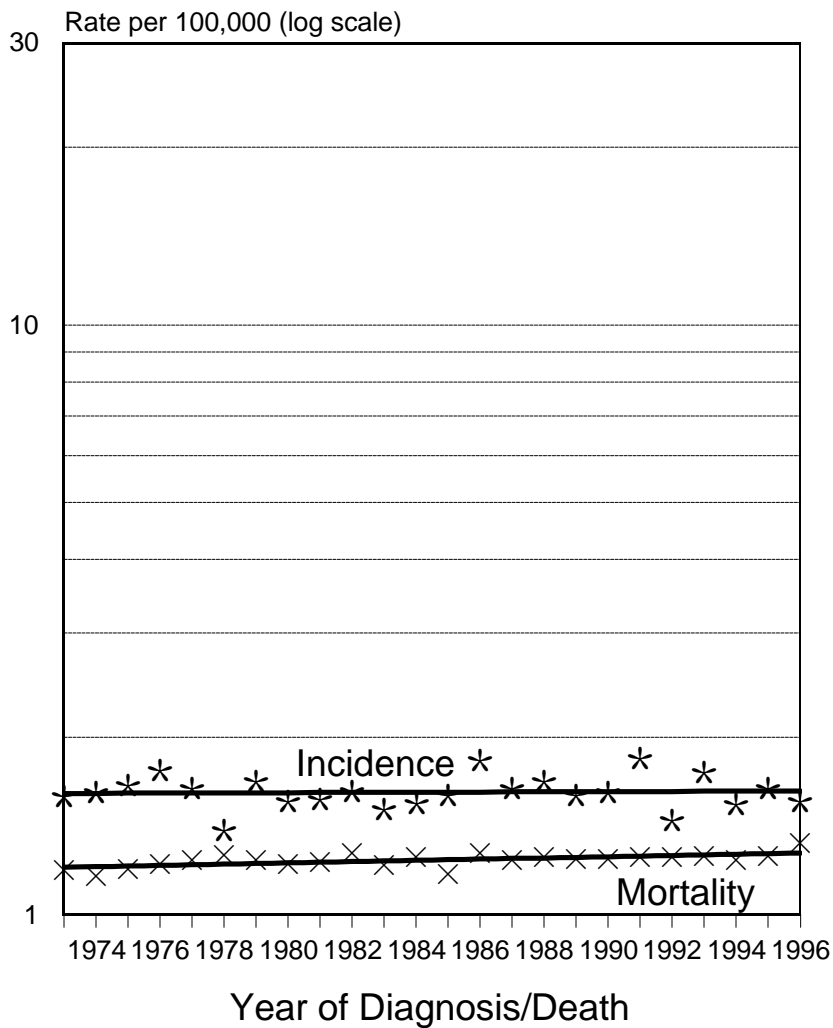


Figure VIII-2