

Table VIII-1
ESOPHAGUS CANCER (Invasive)

TRENDS IN SEER INCIDENCE^a AND U.S. MORTALITY^b USING THE JOINPOINT REGRESSION PROGRAM, 1975-2001
WITH UP TO THREE JOINPOINTS BY RACE AND SEX

		<u>Joinpoint Segment 1</u>		<u>Joinpoint Segment 2</u>		<u>Joinpoint Segment 3</u>		<u>Joinpoint Segment 4</u>	
		Year	APC	Year	APC	Year	APC	Year	APC
<u>SEER Cancer Incidence^a</u>									
All Races	Male and Female	1975-2001	0.6 ^c						
All Races	Male	1975-2001	0.8 ^c						
All Races	Female	1975-2001	-0.2						
White	Male and Female	1975-1981	-0.6	1981-2001	1.6 ^c				
White	Male	1975-2001	1.7 ^c						
White	Female	1975-2001	0.1						
Black	Male and Female	1975-1986	1.1	1986-2001	-4.5 ^c				
Black	Male	1975-1986	1.2	1986-2001	-4.8 ^c				
Black	Female	1975-1980	9.9	1980-2001	-2.6 ^c				
<u>SEER Delay-Adjusted Incidence^a</u>									
All Races	Male and Female	1975-2001	0.6 ^c						
All Races	Male	1975-2001	0.8 ^c						
All Races	Female	1975-2001	-0.2						
White	Male and Female	1975-1981	-0.6	1981-2001	1.7 ^c				
White	Male	1975-2001	1.7 ^c						
White	Female	1975-2001	0.1						
Black	Male and Female	1975-1986	1.1	1986-2001	-4.4 ^c				
Black	Male	1975-1986	1.1	1986-2001	-4.8 ^c				
Black	Female	1975-1980	9.9	1980-2001	-2.5 ^c				
<u>U.S. Cancer Mortality^b</u>									
All Races	Male and Female	1975-2001	0.7 ^c						
All Races	Male	1975-1985	0.7 ^c	1985-1994	1.2 ^c	1994-2001	0.5 ^c		
All Races	Female	1975-2001	0.0						
White	Male and Female	1975-1983	0.4 ^c	1983-2001	1.7 ^c				
White	Male	1975-1982	0.4	1982-2001	1.9 ^c				
White	Female	1975-2001	0.4 ^c						
Black	Male and Female	1975-1982	1.1 ^c	1982-1993	-1.6 ^c	1993-2001	-4.4 ^c		
Black	Male	1975-1988	0.2	1988-2001	-3.8 ^c				
Black	Female	1975-1990	0.0	1990-2001	-3.2 ^c				

Joinpoint Regression Program Version 2.7, September 2003, National Cancer Institute. (<http://srab.cancer.gov/joinpoint/>).

^a The APC is the Annual Percent Change based on rates age-adjusted to the 2000 U.S. standard population by 5-year age groups. Trends are from the SEER 9 areas.

^b Trends are from the NCHS public use data file for the total US.

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

Table VIII-2
ESOPHAGUS CANCER (Invasive)

SEER INCIDENCE RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES^a, BY RACE AND SEX

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>AGE-ADJUSTED RATES</u>									
<u>YEAR OF DIAGNOSIS:</u>									
1975	4.1	6.8	2.1	3.5	5.6	2.0	10.9	19.9	3.7
1976	4.3	6.9	2.3	3.7	5.9	2.1	10.7	16.9	5.6
1977	4.1	6.6	2.2	3.3	5.3	1.9	12.0	20.9	5.4
1978	4.1	7.0	1.9	3.4	5.7	1.7	13.0	24.4	4.3
1979	4.4	7.4	2.2	3.7	6.2	2.0	12.9	23.0	5.2
1980	4.3	6.9	2.3	3.5	5.7	1.9	12.3	18.8	7.4
1981	4.1	6.5	2.4	3.3	5.2	1.9	13.5	21.3	7.5
1982	4.3	6.8	2.3	3.5	5.5	2.0	13.6	22.6	6.5
1983	4.3	7.4	2.0	3.6	6.1	1.8	12.2	22.2	4.3
1984	4.2	6.7	2.2	3.5	5.6	1.9	12.0	19.9	6.0
1985	4.4	7.4	2.2	3.7	6.3	1.9	12.7	22.1	5.8
1986	4.6	7.5	2.5	3.9	6.2	2.2	14.1	24.0	6.3
1987	4.6	7.6	2.3	3.9	6.4	2.0	11.4	20.1	4.8
1988	4.4	7.3	2.2	3.9	6.3	2.0	11.2	19.5	5.0
1989	4.4	7.3	2.2	3.8	6.2	2.0	10.5	17.3	5.4
1990	4.8	8.3	2.2	4.2	7.3	1.9	12.6	21.6	5.8
1991	4.6	7.5	2.4	4.2	6.8	2.2	10.2	17.8	4.9
1992	4.6	8.0	2.0	4.2	7.4	1.8	10.6	18.0	5.3
1993	4.6	7.7	2.3	4.2	6.9	2.1	10.1	17.5	4.8
1994	4.5	7.7	2.1	4.2	7.2	1.9	9.2	14.7	5.1
1995	4.4	7.1	2.2	4.1	6.7	2.1	8.4	13.7	4.3
1996	4.8	8.1	2.2	4.4	7.5	2.0	9.7	16.5	4.8
1997	4.7	7.8	2.2	4.6	7.7	2.0	7.1	10.8	4.5
1998	4.7	8.2	2.0	4.5	7.9	1.9	7.7	12.5	4.2
1999	4.9	8.4	2.1	4.9	8.5	2.0	7.1	11.5	4.1
2000	4.7	7.9	2.1	4.7	8.0	2.0	6.9	10.6	4.3
2001	4.7	8.2	1.9	4.7	8.2	1.9	6.3	11.1	2.8
<u>AGE-ADJUSTED RATES, 1997-2001</u>									
<u>AGE AT DIAGNOSIS:</u>									
All ages	4.8	8.1	2.1	4.7	8.1	2.0	7.0	11.3	3.9
Under 65	2.0	3.4	0.7	1.9	3.3	0.6	3.7	5.8	2.0
65 and over	23.7	40.6	11.7	23.8	41.0	11.6	30.0	49.5	17.5
All ages(IARC world std) ^b	3.2	5.4	1.3	3.1	5.3	1.2	5.0	8.0	2.8
<u>AGE-SPECIFIC RATES, 1997-2001</u>									
<u>AGE AT DIAGNOSIS:</u>									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-
35-39	0.4	0.7	-	0.5	0.9	-	-	-	-
40-44	1.0	1.7	-	1.0	1.6	-	-	-	-
45-49	3.0	5.0	1.0	2.8	4.7	0.8	5.3	8.2	-
50-54	5.5	9.7	1.5	5.1	9.0	1.2	12.2	20.6	-
55-59	9.9	16.8	3.3	9.3	16.1	2.7	19.1	31.1	9.0
60-64	14.9	24.8	5.8	14.5	24.7	5.0	24.9	35.5	16.4
65-69	20.9	35.4	8.5	20.4	34.6	8.0	32.6	52.6	17.5
70-74	24.9	41.9	11.5	24.8	41.7	11.4	33.7	57.5	17.7
75-79	25.6	43.9	12.8	26.0	45.1	12.6	30.7	49.7	18.8
80-84	25.2	45.5	12.9	25.8	47.3	12.9	25.5	-	-
85+	22.6	38.0	16.1	23.3	39.3	16.7	-	-	-

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

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

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

Table VIII-3
ESOPHAGUS CANCER (Invasive)

U.S. DEATH RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES^a, BY RACE AND SEX

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>AGE-ADJUSTED RATES</u>									
<u>YEAR OF DEATH:</u>									
1975	3.7	6.4	1.7	3.1	5.4	1.5	9.7	17.0	4.1
1976	3.7	6.4	1.8	3.1	5.3	1.5	10.2	17.7	4.3
1977	3.7	6.3	1.8	3.1	5.2	1.5	10.1	17.6	4.4
1978	3.8	6.4	1.8	3.2	5.4	1.6	10.0	17.6	4.3
1979	3.8	6.4	1.8	3.1	5.3	1.5	10.3	18.6	4.2
1980	3.8	6.6	1.8	3.2	5.5	1.5	10.6	18.3	4.9
1981	3.8	6.6	1.8	3.2	5.4	1.5	10.4	18.7	4.3
1982	3.8	6.5	1.8	3.2	5.4	1.6	10.5	18.6	4.5
1983	3.9	6.6	1.8	3.2	5.6	1.5	10.2	17.9	4.5
1984	3.9	6.7	1.9	3.3	5.6	1.6	10.6	18.8	4.6
1985	3.9	6.7	1.7	3.3	5.7	1.5	9.9	17.7	4.3
1986	3.9	6.8	1.8	3.3	5.8	1.6	10.2	18.0	4.5
1987	4.0	6.9	1.8	3.4	6.0	1.5	9.7	17.1	4.4
1988	4.0	7.0	1.8	3.5	6.0	1.6	10.0	18.4	3.9
1989	4.1	7.1	1.8	3.6	6.2	1.6	9.7	17.3	4.3
1990	4.1	7.2	1.8	3.6	6.3	1.5	9.3	16.3	4.4
1991	4.1	7.2	1.8	3.6	6.4	1.6	9.2	16.5	4.1
1992	4.2	7.3	1.8	3.7	6.6	1.6	8.6	15.1	4.1
1993	4.2	7.3	1.8	3.7	6.6	1.6	9.0	16.0	4.1
1994	4.3	7.6	1.8	3.9	6.9	1.6	8.6	15.3	3.9
1995	4.3	7.6	1.8	3.9	7.0	1.6	8.0	14.4	3.5
1996	4.3	7.5	1.9	4.0	7.1	1.7	7.8	13.6	3.7
1997	4.3	7.5	1.8	4.0	7.1	1.6	7.3	12.8	3.4
1998	4.4	7.7	1.8	4.1	7.3	1.7	7.1	12.2	3.6
1999	4.3	7.7	1.8	4.2	7.4	1.6	6.5	11.6	3.1
2000	4.4	7.7	1.8	4.3	7.6	1.7	6.4	10.9	3.3
2001	4.4	7.8	1.8	4.3	7.6	1.7	6.4	11.3	3.0
<u>AGE-ADJUSTED RATES, 1997-2001</u>									
<u>AGE AT DEATH:</u>									
All ages	4.4	7.7	1.8	4.2	7.4	1.7	6.7	11.7	3.2
Under 65	1.7	3.0	0.5	1.6	2.8	0.5	3.3	5.7	1.4
65 and over	22.5	40.0	10.4	22.0	39.4	10.0	30.3	53.3	16.3
All ages(IARC world std) ^b	2.8	4.9	1.1	2.7	4.7	1.0	4.7	8.1	2.2
<u>AGE-SPECIFIC RATES, 1997-2001</u>									
<u>AGE AT DEATH:</u>									
<1	-	-	-	-	-	-	-	-	-
1-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	0.0	0.1	-	0.0	0.1	-	-	-	-
30-34	0.1	0.2	-	0.1	0.2	-	-	-	-
35-39	0.3	0.5	0.1	0.3	0.5	0.1	0.2	-	-
40-44	0.9	1.7	0.3	0.9	1.6	0.2	1.6	2.6	0.6
45-49	2.4	4.2	0.6	2.2	4.0	0.5	4.4	7.2	1.9
50-54	4.9	8.5	1.4	4.4	7.8	1.1	10.0	17.5	3.7
55-59	8.6	14.8	2.7	7.7	13.4	2.3	17.8	31.1	7.0
60-64	13.1	22.5	4.6	12.1	21.0	3.9	24.5	42.1	10.8
65-69	18.0	31.3	6.7	17.2	30.2	5.9	29.2	49.0	14.5
70-74	22.3	39.2	9.1	21.6	38.3	8.3	33.2	57.1	17.4
75-79	24.6	43.9	11.2	24.2	43.4	10.8	33.5	61.1	16.8
80-84	25.3	45.9	13.3	25.3	46.2	13.0	27.5	48.1	17.3
85+	25.6	46.9	17.0	25.9	47.3	17.2	24.3	47.2	15.6

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

^b NCHS public use data file for the total US. Rates are per 100,000 and are age-adjusted to the IARC world standard population.

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

Table 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:									
1960-1963 ^a	-	-	-	4	4	6	1	0	2
1970-1973 ^a	-	-	-	4	4	4	4	4	3
1974-1976 ^b	4.8	3.8	7.3	5.3	4.6	6.8	3.7	1.7	9.1
1977-1979 ^b	5.1	4.9	5.8	5.7	5.8	5.6	2.8	2.4	4.3
1980-1982 ^b	6.7	6.0	8.5	7.3	6.4	9.2	5.4	4.6	7.2
1983-1985 ^b	8.2	6.8	11.8	9.3	7.7	13.2	5.9	4.7	9.6
1986-1988 ^b	9.8	9.9	9.4	10.7	11.3	9.4	7.2	7.0	7.6
1989-1991 ^b	11.0	10.8	11.4	11.7	11.8	11.5	8.9	8.0	10.5
1992-1994 ^b	14.1	13.8	14.9	15.3	14.8	16.7	9.7	10.2	8.4
1995-2000 ^b	14.3 ^c	14.2 ^c	14.7 ^c	15.8 ^c	15.6 ^c	16.3 ^c	8.9 ^c	8.5 ^c	9.8
1995-2000 ^b									
ALL STAGES	14.3	14.2	14.7	15.8	15.6	16.3	8.9	8.5	9.8
LOCALIZED	29.3	30.1	27.1	33.2	34.4	29.4	13.9	12.2	16.9 ^d
REGIONAL	13.3	12.0	17.1	14.2	13.2	17.8	12.3	10.0	16.7 ^d
DISTANT	3.1	3.0	3.3	3.0	2.8	4.0	2.2	1.8	0.0
UNSTAGED	11.3	12.9	8.1	12.0	13.2	9.7	9.0	12.9	3.3
<u>STAGE DISTRIBUTION (%) 1995-2000^b</u>									
ALL STAGES									
Number of cases	5,485	4,148	1,337	4,383	3,350	1,033	762	524	238
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
LOCALIZED	26	26	27	26	26	28	25	25	24
REGIONAL	30	31	27	30	31	27	26	26	26
DISTANT	27	29	22	27	29	21	30	31	27
UNSTAGED	17	15	23	17	15	24	19	17	24
<u>5-YR RELATIVE SURVIVAL RATES, 1995-2000^b</u>									
AGE AT DIAGNOSIS:									
<45	22.5	20.6	30.2 ^d	21.1	18.4	-	24.3 ^d	26.4 ^d	-
45-54	15.2	15.6	13.1	18.1	18.7	14.0 ^d	8.4	7.1	13.2 ^d
55-64	16.8	16.5	18.1	18.8	18.1	21.9	12.4	11.8	14.3 ^d
65-74	14.2	13.6	16.2	15.7	14.9	18.2	4.0	3.0	5.2
75+	8.9	8.1	10.1	9.9	9.4	10.7	5.1	-	5.7
Under 65	16.7	16.4	18.1	18.7	18.3	21.2	12.0	11.0	14.8
65 and over	12.3	11.8	13.2	13.5	13.1	14.4	4.3	3.2	5.5

^a

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

^b

Rates are from the SEER 9 areas. They are based on data from population-based registries in Connecticut, New Mexico, Utah, Iowa, Hawaii, Atlanta, Detroit, Seattle-Puget Sound and San Francisco-Oakland. Rates are based on follow-up of patients into 2001.

^c

The difference in rates between 1974-1976 and 1995-2000 is statistically significant (p<.05).

^d

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

^e

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

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Statistic could not be calculated.

Table VIII-5
ESOPHAGUS CANCER (Invasive)

SURVIVAL RATES^a

By Year of Diagnosis

All Races, Males and Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
Relative Survival Rates (SEER ^b)																			
1-year	27.8	31.5	36.4	34.9	35.7	36.0	39.0	39.3	42.0	41.8	38.3	39.0	41.7	43.3	41.6	41.9	44.8	47.7	
2-year	11.7	14.7	21.0	19.1	18.0	20.3	20.3	20.6	21.5	24.7	22.6	23.7	24.2	24.3	24.1	24.7	26.8		
3-year	7.8	10.2	13.4	14.4	11.9	13.8	14.5	14.7	15.2	19.7	16.7	18.8	17.9	19.0	17.7	19.0			
4-year	6.0	8.5	10.2	11.8	9.4	11.9	11.7	11.8	13.0	17.1	14.3	15.8	14.1	16.4	14.4				
5-year	4.9	7.1	9.1	10.5	8.9	9.9	10.3	10.5	12.1	15.3	12.9	14.1	12.4	15.7					
6-year	4.4	6.4	7.5	9.4	7.9	9.0	9.2	10.0	10.6	14.5	11.6	12.6	11.8						
7-year	4.0	5.8	7.1	8.7	7.1	8.6	8.4	9.1	10.2	13.0	10.9	11.8							
8-year	3.6	5.2	6.2	7.9	6.1	8.1	8.4	8.7	9.1	12.6	10.3								
9-year	3.4	4.8	5.7	7.9	5.5	6.8	7.8	8.0	8.9	12.2									
10-year	3.1	4.6	5.5	6.8	5.5	6.4	7.1	7.7	8.7										
11-year	2.9	4.3	5.1	6.4	5.5	5.9	5.9	7.6											
12-year	2.8	4.3	4.3	6.1	5.5	5.6	4.8												
13-year	2.7	4.0	4.3	6.0	4.1	5.6													
14-year	2.7	4.0	4.3	5.9	3.9														
15-year	2.7	4.0	4.3	5.7															
16-year	2.6	3.8	4.2																
17-year	2.6	3.6																	
18-year	2.6																		
19-year	2.6																		
20-year	2.6																		

^a Survival rates are relative rates expressed as percents.
^b Rates are from the SEER 9 areas.

Table VIII-6
ESOPHAGUS CANCER (Invasive)

SURVIVAL RATES^a

By Year of Diagnosis

All Races, Males

Year of Diagnosis

	1975- 1979	1980- 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
Relative Survival Rates (SEER ^b)																			
1-year	25.5	30.8	35.3	34.1	34.3	34.0	38.5	41.4	41.6	41.1	39.5	38.4	41.4	44.5	42.0	42.1	44.6	49.0	
2-year	10.3	14.2	19.9	19.6	17.2	19.0	19.8	21.5	21.3	24.5	22.4	22.2	24.7	25.0	24.9	24.9	26.6		
3-year	6.9	9.5	11.4	15.5	12.3	12.0	14.4	14.7	15.4	19.6	17.2	18.6	18.2	19.0	18.7	19.0			
4-year	5.3	7.7	7.5	12.5	9.7	10.6	11.5	11.8	12.8	16.1	14.7	15.4	14.0	15.8	15.5				
5-year	4.3	6.2	7.4	11.2	9.3	9.3	10.0	10.3	12.1	14.3	13.1	14.0	12.8	14.8					
6-year	3.8	5.4	6.4	10.3	8.4	8.6	8.6	9.8	10.4	13.3	12.0	12.5	12.1						
7-year	3.5	4.8	6.0	9.4	7.1	8.3	7.8	8.8	10.4	12.0	11.7	11.8							
8-year	3.2	4.3	5.4	8.2	6.5	8.0	7.8	8.2	9.0	11.5	11.0								
9-year	3.0	4.0	5.1	8.2	6.0	6.5	7.6	7.5	8.7	11.4									
10-year	2.8	3.8	5.1	7.7	6.0	6.1	7.4	7.2	8.3										
11-year	2.7	3.7	5.0	7.0	6.0	5.5	6.6	7.1											
12-year	2.6	3.7	3.8	6.5	6.0	4.9	5.5												
13-year	2.6	3.6	3.8	6.3	4.4	4.9													
14-year	2.5	3.6	3.8	6.3	3.9														
15-year	2.5	3.6	3.8	6.0															
16-year	2.4	3.6	3.8																
17-year	2.4	3.6																	
18-year	2.4																		
19-year	2.4																		
20-year	2.4																		

^a Survival rates are relative rates expressed as percents.
^b Rates are from the SEER 9 areas.

Table VIII-7
ESOPHAGUS CANCER (Invasive)

SURVIVAL RATES^a

By Year of Diagnosis

All Races, Females

Year of Diagnosis

	1975- 1979	1980- 1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Relative Survival Rates (SEER ^b)																		
1-year	33.5	33.1	39.2	36.7	39.4	41.3	40.3	32.9	43.1	43.9	35.1	40.9	42.6	39.8	40.3	41.5	45.5	43.5
2-year	15.2	15.9	24.0	17.6	20.3	23.7	21.6	17.5	22.0	25.5	23.2	28.1	22.8	22.3	21.8	23.9	27.6	
3-year	10.1	12.1	18.7	11.5	10.8	18.7	14.6	14.6	14.9	20.1	15.3	19.5	17.3	19.2	14.8	18.9		
4-year	7.9	10.6	17.1	10.0	8.6	15.5	12.0	11.9	13.6	20.1	13.4	17.0	14.2	18.0	11.3			
5-year	6.4	9.4	13.5	8.8	7.9	11.5	10.8	11.2	12.2	18.8	12.4	14.2	11.3	18.0				
6-year	5.9	8.7	10.2	7.1	6.5	10.2	10.7	10.6	11.2	18.4	10.7	13.0	10.6					
7-year	5.1	8.3	10.0	6.8	6.5	9.4	9.9	9.8	9.5	16.4	8.8	11.7						
8-year	4.5	7.5	8.3	6.8	5.2	8.5	9.8	9.8	9.4	16.4	8.6							
9-year	4.2	6.6	7.2	6.8	4.1	7.6	8.2	9.4	9.2	14.9								
10-year	3.6	6.6	6.7	4.6	3.7	7.2	6.5	9.2	9.2									
11-year	3.4	5.6	5.3	4.6	3.7	6.9	4.5	8.9										
12-year	3.2	5.5	5.3	4.6	3.7	6.9	2.8											
13-year	3.0	4.9	5.3	4.6	3.5	6.9												
14-year	3.0	4.8	5.3	4.6	3.5													
15-year	3.0	4.8	5.3	4.6														
16-year	2.8	4.1	4.6															
17-year	2.5	3.2																
18-year	2.4																	
19-year	2.4																	
20-year	2.4																	

^a Survival rates are relative rates expressed as percents.
^b Rates are from the SEER 9 areas.

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

1999-2001

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	0.77	0.00	0.00	0.00	0.26
10	0.00	0.00	0.01	0.78	0.00	0.00	0.00	0.26
20	0.00	0.01	0.04	0.78	0.00	0.00	0.01	0.26
30	0.01	0.04	0.15	0.79	0.00	0.01	0.03	0.26
40	0.03	0.15	0.38	0.80	0.01	0.03	0.09	0.26
50	0.12	0.36	0.63	0.80	0.02	0.08	0.17	0.26
60	0.26	0.55	0.70	0.73	0.06	0.15	0.23	0.25

Lifetime Risk of Being Diagnosed = 0.77%
 Lifetime Risk of Dying = 0.73%

Lifetime Risk of Being Diagnosed = 0.26%
 Lifetime Risk of Dying = 0.22%

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	0.79	0.00	0.00	0.00	0.25
10	0.00	0.00	0.01	0.80	0.00	0.00	0.00	0.26
20	0.00	0.01	0.04	0.81	0.00	0.00	0.01	0.26
30	0.01	0.04	0.15	0.81	0.00	0.01	0.02	0.26
40	0.03	0.15	0.39	0.82	0.01	0.02	0.08	0.26
50	0.12	0.37	0.64	0.82	0.02	0.08	0.16	0.26
60	0.26	0.56	0.71	0.74	0.06	0.15	0.23	0.25

Lifetime Risk of Being Diagnosed = 0.79%
 Lifetime Risk of Dying = 0.73%

Lifetime Risk of Being Diagnosed = 0.25%
 Lifetime Risk of Dying = 0.21%

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	0.76	0.00	0.00	0.00	0.36
10	0.00	0.00	0.01	0.78	0.00	0.00	0.00	0.37
20	0.00	0.01	0.04	0.79	0.00	0.00	0.02	0.37
30	0.00	0.04	0.22	0.81	0.00	0.02	0.08	0.37
40	0.04	0.22	0.50	0.83	0.02	0.08	0.19	0.38
50	0.20	0.49	0.77	0.85	0.07	0.18	0.29	0.37
60	0.34	0.66	0.76	0.76	0.13	0.24	0.32	0.34

Lifetime Risk of Being Diagnosed = 0.76%
 Lifetime Risk of Dying = 0.83%

Lifetime Risk of Being Diagnosed = 0.36%
 Lifetime Risk of Dying = 0.31%

Table VIII-9
ESOPHAGUS CANCER (Invasive)

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

By Race/Ethnicity and Sex

Incidence^a

RACE/ETHNICITY	Rate 1997-2001			Trend 1992-2001		
	Rate per 100,000 persons			APC (%)		
	Total	Males	Females	Total	Males	Females
All Races	4.5	7.7	2.0	0.3	0.5	-0.9
White	4.5	7.7	1.9	1.5 ^d	1.9 ^d	-0.2
White Hispanic ^b	3.3	6.2	1.2	-0.2	-0.6	-
White Non-Hispanic ^b	4.7	7.9	2.0	2.0 ^d	2.3 ^d	0.1
Black	6.7	10.6	3.8	-5.2 ^d	-5.8 ^d	-4.1 ^d
Asian/Pacific Islander	2.9	5.1	1.1	-0.7	-1.3	-
Amer Ind/Alaska Nat	3.2	4.9	-	-	-	-
Hispanic ^b	3.2	6.0	1.2	-0.1	-0.4	-

Mortality^c

RACE/ETHNICITY	Rate 1997-2001			Trend 1992-2001		
	Rate per 100,000 persons			APC (%)		
	Total	Males	Females	Total	Males	Females
All Races	4.4	7.7	1.8	0.6 ^d	0.7 ^d	0.0
White	4.2	7.4	1.7	1.6 ^d	1.7 ^d	0.8 ^d
White Hispanic ^b	2.5	4.5	1.0	-0.3	-1.2 ^d	2.7
White Non-Hispanic ^b	4.3	7.6	1.7	1.9 ^d	1.9 ^d	1.2 ^d
Black	6.7	11.7	3.2	-4.0 ^d	-4.3 ^d	-3.3 ^d
Asian/Pacific Islander	2.1	3.5	1.0	-3.0	-3.1	-1.9
Amer Ind/Alaska Nat	2.9	4.8	1.4	2.8	0.9	-
Hispanic ^b	2.4	4.4	1.0	-0.4	-1.2 ^d	2.2

The APC is the Annual Percent Change over the time interval.

- Statistic not shown. Rate based on less than 25 cases for the time interval. Trend based on less than 10 cases for at least one year within the time interval.

^a Incidence data are from the 12 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, and Alaska Native Registry).

^b Hispanic and Non-Hispanic are not mutually exclusive from Whites, Blacks, Asian Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics and Non-Hispanics do not include cases from Detroit, Hawaii and Alaska Native Registry. For mortality, information is included for all states except Connecticut, Maine, Maryland, Oklahoma, New York, New Hampshire, North Dakota and Vermont.

^c Mortality data are analyzed from a public use file provided by the National Center for Health Statistics (NCHS).

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

Table VIII-10
ESOPHAGUS CANCER (Invasive)

AGE-ADJUSTED SEER INCIDENCE RATES^a AND SEER DEATH RATES^b
 By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>SEER INCIDENCE RATES^a, 1997-2001</u>									
REGISTRY									
12 registries	4.5	7.7	2.0	4.5	7.7	1.9	6.7	10.6	3.8
11 registries	4.5	7.7	2.0	4.5	7.7	1.9	6.7	10.6	3.8
9 registries	4.8	8.1	2.1	4.7	8.1	2.0	7.0	11.3	3.9
San Francisco-Oakland	4.3	6.9	2.3	4.5	7.3	2.3	5.6	8.1	3.6
Connecticut	5.4	9.1	2.5	5.2	9.0	2.3	8.4	12.0	5.9
Metropolitan Detroit	5.4	9.4	2.3	4.9	8.6	2.0	7.6	13.1	3.6
Hawaii	3.8	6.8	1.1	4.3	6.3	-	-	-	-
Iowa	4.6	8.1	1.9	4.6	8.1	1.8	-	-	-
New Mexico	3.8	6.9	1.3	4.0	7.2	1.3	-	-	-
Seattle-Puget Sound	5.4	9.1	2.3	5.5	9.3	2.3	6.5	-	-
Utah	3.0	5.3	1.0	3.0	5.4	1.0	-	-	-
Metropolitan Atlanta	5.0	8.3	2.5	4.2	7.4	1.7	7.0	11.1	4.2
San Jose-Monterey	4.2	6.8	2.0	4.6	7.5	2.2	-	-	-
Los Angeles	3.9	6.5	1.9	3.9	6.5	1.8	5.7	8.7	3.6
<u>SEER DEATH RATES^b, 1997-2001</u>									
REGISTRY									
12 registries	4.1	7.0	1.8	4.1	7.1	1.7	5.9	9.6	3.4
11 registries	4.0	7.0	1.8	4.1	7.1	1.7	5.9	9.6	3.4
9 registries	4.2	7.3	1.8	4.1	7.3	1.7	6.4	10.5	3.6
San Francisco-Oakland	3.8	6.1	2.0	4.0	6.5	2.0	5.5	8.0	3.6
Connecticut	4.6	8.1	2.0	4.4	7.9	1.8	7.5	11.7	4.5
Metropolitan Detroit	4.8	8.7	2.0	4.6	8.4	1.7	6.0	10.3	3.1
Hawaii	3.2	5.6	1.1	3.7	5.5	-	-	-	-
Iowa	4.2	7.4	1.7	4.2	7.4	1.7	-	-	-
New Mexico	3.3	5.9	1.2	3.4	6.1	1.2	-	-	-
Seattle-Puget Sound	4.9	8.5	2.0	4.9	8.6	1.9	8.0	12.4	-
Utah	2.7	4.9	0.7	2.7	5.0	0.7	-	-	-
Metropolitan Atlanta	4.6	7.8	2.3	3.7	6.3	1.7	7.6	12.9	4.3
San Jose-Monterey	3.6	6.0	1.7	4.2	7.0	1.9	-	-	-
Los Angeles	3.6	6.0	1.8	3.7	6.1	1.8	4.8	7.5	2.8

Note: San Jose-Monterey and Los Angeles are new SEER areas as of 1992 and their data are only used in tables where indicated.
^a SEER 9 areas. Incidence rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.
^b NCHS public use data file for the total US. Death rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

- Statistic could not be calculated or populations are inadequate.

Table VIII-11
ESOPHAGUS CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER DEATH^a RATES BY STATE, ALL RACES, 1997-2001

Males and Females

State	Rate	SE	Rank	PD
TOTAL U.S.	4.4	0.02		
High Five States				
District of Columbia	8.1 ^{bc}	0.54	(01)	84.1
New Hampshire	5.4 ^b	0.30	(02)	22.7
Maine	5.3 ^b	0.27	(03)	20.5
South Carolina	5.1 ^{bc}	0.16	(04)	15.9
Massachusetts	5.1 ^{bc}	0.12	(05)	15.9
Low Five States				
Arkansas	3.8 ^c	0.16	(47)	-13.6
South Dakota	3.5 ^b	0.30	(48)	-20.5
New Mexico	3.3 ^{bc}	0.20	(49)	-25.0
Hawaii	3.2 ^{bc}	0.23	(50)	-27.3
Utah	2.7 ^{bc}	0.19	(51)	-38.6

Males

State	Rate	SE	Rank	PD
TOTAL U.S.	7.7	0.04		
High Five States				
District of Columbia	13.4 ^{bc}	1.09	(01)	74.0
Massachusetts	9.4 ^{bc}	0.26	(02)	22.1
Wisconsin	9.2 ^{bc}	0.28	(03)	19.5
Maine	9.2 ^b	0.55	(04)	19.5
New Hampshire	9.1 ^b	0.60	(05)	18.2
Low Five States				
Arizona	6.5 ^{bc}	0.24	(47)	-15.6
South Dakota	6.5 ^b	0.60	(48)	-15.6
New Mexico	5.9 ^{bc}	0.41	(49)	-23.4
Hawaii	5.6 ^{bc}	0.44	(50)	-27.3
Utah	4.9 ^{bc}	0.38	(51)	-36.4

Females

State	Rate	SE	Rank	PD
TOTAL U.S.	1.8	0.02		
High Five States				
District of Columbia	4.2 ^{bc}	0.51	(01)	133.3
Alaska	2.7 ^b	0.59	(02)	50.0
New Hampshire	2.3 ^b	0.26	(03)	27.8
Maryland	2.2 ^b	0.13	(04)	22.2
Delaware	2.2 ^b	0.31	(05)	22.2
Low Five States				
Mississippi	1.2 ^{bc}	0.13	(47)	-33.3
New Mexico	1.2 ^{bc}	0.16	(48)	-33.3
South Dakota	1.2 ^b	0.23	(49)	-33.3
Hawaii	1.1 ^{bc}	0.18	(50)	-38.9
Utah	0.7 ^{bc}	0.13	(51)	-61.1

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

- ^a NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.
- ^b Absolute percent difference between state rate and total U.S. rate is 15% or more.
- ^c Difference between state rate and total U.S. rate is statistically significant (p<=.0002).
- SE Standard error of the rate.
- PD Percent difference between state rate and total U.S. rate.

Table VIII-12
ESOPHAGUS CANCER (Invasive)

Estimated United States Cancer Prevalence Counts^a on January 1, 2001
 By Race/Ethnicity, Sex and Years Since Diagnosis

Years Since Diagnosis	0 to <5	5 to <10	10 to <15	15 to <20	20 to <25	0 to <11 ^e	0 to <26 ^e	>=26 ^g	Complete ^h
<u>Race/Sex</u>									
All Races ^b	15,737	3,909	1,497	658	288	20,116	22,081	285	22,366
Males	11,952	2,822	1,103	438	209	15,097	16,515	140	16,655
Females	3,785	1,087	394	220	79	5,019	5,566	145	5,711
White ^b	13,553	3,396	1,185	497	245	17,303	18,880	238	19,118
Males	10,435	2,435	914	320	197	13,119	14,305	132	14,437
Females	3,118	961	271	177	48	4,184	4,575	106	4,681
Black ^b	1,773	432	271	155	40	2,307	2,660	77	2,737
Males	1,178	317	168	111	12	1,561	1,775	25	1,800
Females	595	115	103	44	28	746	885	52	937
Asian/Pacific Islander ^c	276	65	+	+	+	350	+	+	+
Males	217	51	+	+	+	275	+	+	+
Females	59	14	+	+	+	75	+	+	+
Hispanic ^d	621	168	+	+	+	808	+	+	+
Males	474	139	+	+	+	632	+	+	+
Females	147	29	+	+	+	176	+	+	+

Estimated prevalence percent^a on January 1, 2001, of the SEER 11 population diagnosed in the previous 10 years
 By Age at Prevalence, Race/Ethnicity and Sex

Age at Prevalence	Age Specific (Crude)										Age-Adjusted ^f
	All Ages	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+	All Ages
<u>Race/Sex</u>											
All Races ^c	0.0057%	-	-	0.0001%	0.0005%	0.0026%	0.0107%	0.0249%	0.0330%	0.0245%	0.0063%
Males	0.0086%	-	-	-	0.0008%	0.0044%	0.0184%	0.0415%	0.0554%	0.0399%	0.0105%
Females	0.0028%	-	-	-	0.0002%	0.0008%	0.0034%	0.0103%	0.0161%	0.0164%	0.0028%
White ^c	0.0061%	-	-	-	0.0005%	0.0026%	0.0111%	0.0253%	0.0339%	0.0256%	0.0064%
Males	0.0093%	-	-	-	0.0008%	0.0045%	0.0195%	0.0420%	0.0572%	0.0422%	0.0108%
Females	0.0029%	-	-	-	-	0.0008%	0.0029%	0.0102%	0.0161%	0.0170%	0.0028%
Black ^c	0.0052%	-	-	-	-	0.0038%	0.0145%	0.0323%	0.0380%	0.0160%	0.0074%
Males	0.0072%	-	-	-	-	0.0058%	0.0211%	0.0489%	0.0640%	0.0212%	0.0114%
Females	0.0034%	-	-	-	-	0.0020%	0.0090%	0.0191%	0.0209%	0.0136%	0.0045%
Asian/Pacific Islander ^c	0.0034%	-	-	-	-	0.0012%	0.0044%	0.0166%	0.0240%	0.0179%	0.0040%
Males	0.0055%	-	-	-	-	0.0025%	0.0076%	0.0324%	0.0380%	0.0280%	0.0070%
Females	0.0015%	-	-	-	-	-	-	0.0038%	0.0135%	0.0108%	0.0017%
Hispanic ^d	0.0021%	-	-	-	0.0005%	0.0018%	0.0078%	0.0152%	0.0228%	0.0224%	0.0045%
Males	0.0031%	-	-	-	0.0008%	0.0032%	0.0139%	0.0281%	0.0360%	0.0360%	0.0076%
Females	0.0010%	-	-	-	-	-	0.0023%	0.0046%	0.0134%	0.0150%	0.0020%

- ^a US 2001 cancer prevalence counts are based on 2001 cancer prevalence proportions from the SEER registries and 1/1/2001 US population estimates based on the average of 2000 and 2001 population estimates from the US Bureau of the Census. Prevalence was calculated using the First Malignant Primary Only for a person.
- ^{b c d} Statistics based on b) SEER 9 Areas c) SEER 11 Areas d) SEER 11 Areas excluding Hawaii and Detroit.
- ^e Maximum limited-duration prevalence: 26 years for 1975-2001 SEER 9 data; 11 years for 1990-2001 SEER 11 data (used to calculate prevalence for Hispanics and Asian Pacific Islanders).
- ^f Percentages are age-adjusted to the 2000 US standard population by 5-year age groups.
- ^{g h} (g) Cases diagnosed 26 years or more ago were estimated using the completeness index method (Capocaccia et. al. 1997, Merrill et. al. 2000). (h) Complete prevalence is obtained by summing 0 to <26 and >=26.
- Statistic not shown. Statistic based on fewer than 5 cases estimated alive in SEER for the time interval.
- + Not available.

SEER Incidence, Delay Adjusted Incidence and US Death Rates+ Esophagus Cancer, by Race and Sex

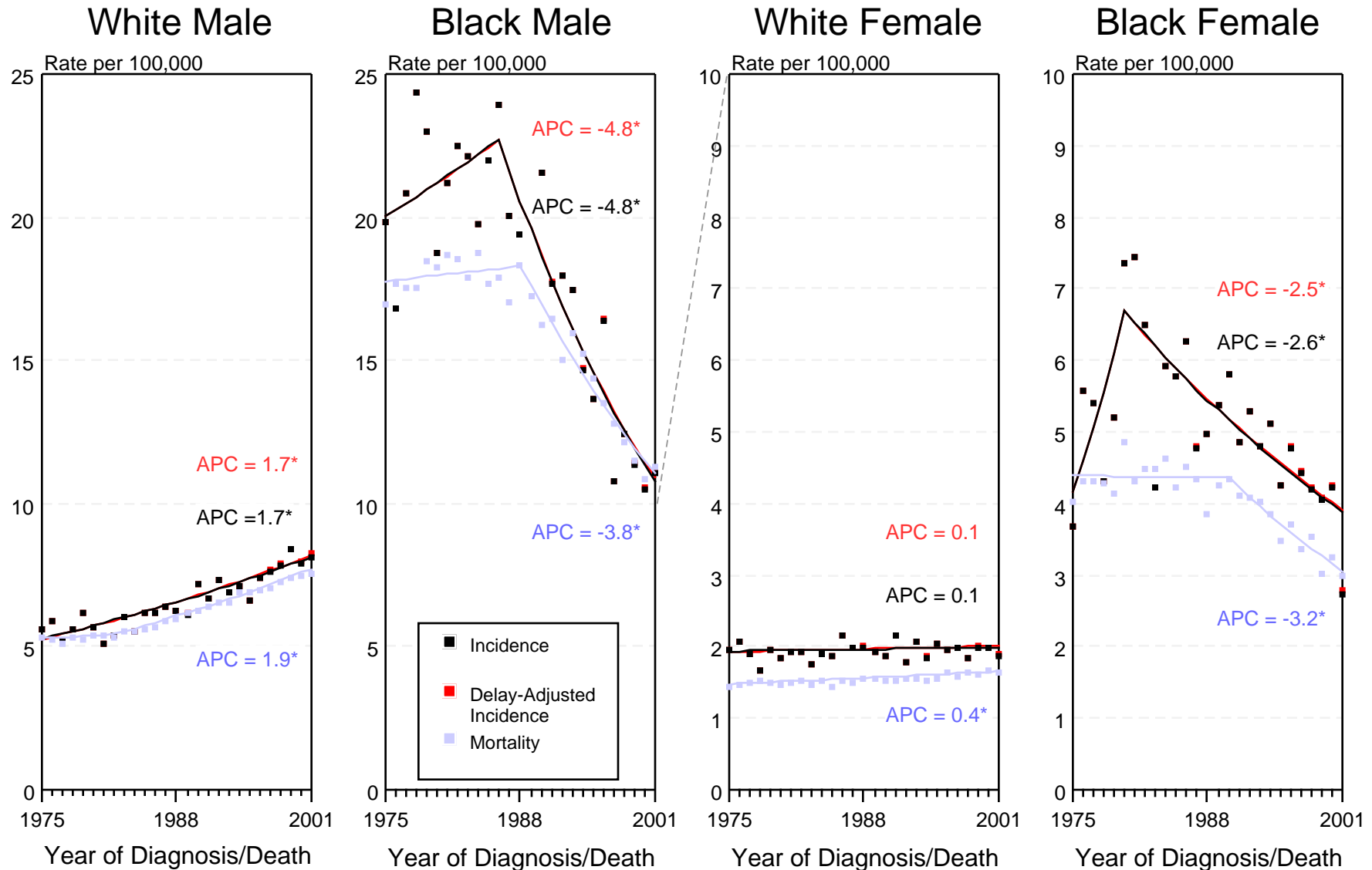


Figure VIII-1

+ Source: SEER 9 areas and NCHS public use data file for the total US. Rates are age-adjusted to the 2000 US standard million population by 5-year age groups. Regression lines and APCs are calculated using the Joinpoint Regression Program Version 2.7, September 2003, National Cancer Institute.

The APC is the Annual Percent Change for the regression line segments. The APC shown on the graph is for the most recent trend.

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