

Table XV-1  
LUNG AND BRONCHUS CANCER (Invasive)

TRENDS IN SEER INCIDENCE<sup>a</sup> AND U.S. MORTALITY<sup>b</sup> USING THE JOINPOINT REGRESSION PROGRAM, 1973-1999  
WITH UP TO THREE JOINPOINTS BY RACE AND SEX

	All Races		Whites		Blacks	
	Year	APC	Year	APC	Year	APC
<u>SEER Cancer Incidence<sup>a</sup></u>						
Sex - Male and Female	1973-81	3.0★	1973-81	3.0★	1973-84	3.2★
	1981-91	1.1★	1981-91	1.2★	1984-99	-0.5★
	1991-99	-0.9★	1991-99	-0.9★		
Sex - Male	1973-80	2.2★	1973-80	2.1★	1973-84	2.9★
	1980-91	-0.2	1980-91	-0.2	1984-99	-1.6★
	1991-99	-2.2★	1991-99	-2.3★		
Sex - Female	1973-81	6.3★	1973-76	10.4★	1973-90	4.4★
	1981-91	3.4★	1976-88	4.8★	1990-99	0.2
	1991-99	0.5	1988-99	1.2★		
<u>U.S. Cancer Mortality<sup>b</sup></u>						
Sex - Male and Female	1973-80	3.0★	1973-80	2.9★	1973-81	3.4★
	1980-90	1.8★	1980-90	1.8★	1981-90	1.9★
	1990-97	-0.2	1990-97	-0.1	1990-99	-0.9★
	1997-99	-1.9★	1997-99	-1.9★		
Sex - Male	1973-80	2.2★	1973-80	2.1★	1973-81	3.1★
	1980-90	0.7★	1980-90	0.6★	1981-89	1.6★
	1990-97	-1.5★	1990-97	-1.4★	1989-93	-0.8
	1997-99	-2.8★	1997-99	-2.7★	1993-99	-2.6★
Sex - Female	1973-82	6.1★	1973-82	6.2★	1973-82	6.2★
	1982-90	4.1★	1982-90	4.2★	1982-91	3.8★
	1990-95	1.9★	1990-95	2.1★	1991-99	1.2★
	1995-99	0.2	1995-99	0.2		

The APC is the Annual Percent Change based on rates age-adjusted to the 2000 U.S. standard population by 5-year age groups using the Joinpoint Regression Program.  
<sup>a</sup>Trends are from the SEER 9 areas.  
<sup>b</sup>Trends are from the NCHS public use data file.  
★The APC is significantly different from zero ( $p < .05$ ).

Table XV-2  
SMALL CELL LUNG AND BRONCHUS CANCER (Invasive) AND NON-SMALL CELL LUNG AND BRONCHUS CANCER (Invasive)

TRENDS IN SEER INCIDENCE<sup>a</sup> USING THE JOINPOINT REGRESSION PROGRAM, 1973-1999  
WITH UP TO THREE JOINPOINTS BY RACE AND SEX

	All Races		Whites		Blacks	
	Year	APC	Year	APC	Year	APC
<u>SEER Cancer Incidence for Small Cell Lung and Bronchus<sup>a</sup></u>						
Sex - Male and Female	1973-81	7.1★	1973-81	7.3★	1973-86	4.6★
	1981-89	1.6★	1981-89	1.7★	1986-99	-2.4★
	1989-99	-2.5★	1989-99	-2.3★		
Sex - Male	1973-80	6.6★	1973-80	6.6★	1973-86	4.0★
	1980-88	0.6	1980-88	0.6	1986-99	-3.8★
	1988-99	-3.6★	1988-99	-3.6★		
Sex - Female	1973-82	9.8★	1973-82	10.1★	1973-91	5.1★
	1982-91	2.9★	1982-89	3.8★	1991-99	-3.7
	1991-99	-1.6★	1989-99	-0.7		
<u>SEER Cancer Incidence for Non-Small Cell Lung and Bronchus<sup>a</sup></u>						
Sex - Male and Female	1973-77	3.5★	1973-76	4.2★	1973-84	2.9★
	1977-91	1.2★	1976-91	1.4★	1984-99	-0.4
	1991-99	-0.6★	1991-99	-0.6★		
Sex - Male	1973-80	1.6★	1973-78	1.9★	1973-84	2.7★
	1980-92	-0.3	1978-91	-0.1	1984-99	-1.5★
	1992-99	-2.0★	1991-99	-2.0★		
Sex - Female	1973-76	9.4★	1973-76	9.6★	1973-89	4.5★
	1976-90	3.9★	1976-88	4.3★	1989-99	1.0
	1990-99	1.1★	1988-97	1.9★		
			1997-99	-1.4		

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

Trends are from the SEER 9 areas.

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

<sup>a</sup>

★



Table XV-4  
SMALL CELL LUNG AND BRONCHUS 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	5.7	9.2	2.8	5.6	9.1	2.9	7.9	14.0	-
1974	6.1	9.8	3.3	6.3	10.2	3.3	5.7	8.9	-
1975	6.6	10.3	3.8	6.9	10.7	4.0	5.9	8.9	3.5
1976	7.1	11.4	3.8	7.1	11.5	3.9	8.2	12.8	4.8
1977	7.7	12.4	4.2	7.8	12.8	4.2	8.1	11.0	5.8
1978	8.6	13.4	5.0	8.9	13.7	5.3	7.8	13.9	-
1979	8.7	13.1	5.4	9.0	13.6	5.6	7.6	11.8	4.5
1980	9.1	14.2	5.2	9.3	14.4	5.6	10.0	17.5	4.4
1981	9.7	14.5	6.1	10.0	14.8	6.5	9.2	15.9	4.2
1982	10.4	14.9	7.1	10.7	15.3	7.5	9.6	15.9	4.9
1983	10.4	14.9	7.1	10.7	15.0	7.6	9.2	15.1	5.0
1984	10.7	15.2	7.4	11.0	15.6	7.8	10.4	15.0	6.9
1985	10.4	15.0	7.1	10.8	15.2	7.5	11.1	17.8	6.3
1986	11.2	15.5	8.0	11.5	16.0	8.3	12.3	17.7	8.4
1987	10.6	14.1	8.2	11.2	14.6	8.8	9.5	14.5	6.0
1988	11.4	15.3	8.5	11.9	15.6	9.2	10.5	17.9	5.3
1989	11.2	14.8	8.7	11.7	15.2	9.2	12.1	17.5	8.5
1990	10.7	13.8	8.4	11.3	14.5	9.1	9.3	13.7	6.2
1991	11.3	14.0	9.4	11.7	14.4	9.9	12.4	16.0	10.0
1992	10.5	13.4	8.5	11.0	13.8	9.0	10.1	13.2	8.0
1993	10.0	12.3	8.4	10.5	12.6	9.0	9.5	13.3	6.8
1994	9.8	11.6	8.4	10.2	11.9	9.1	10.0	13.5	7.5
1995	9.8	12.2	8.1	10.3	12.5	8.7	9.4	13.4	6.6
1996	9.7	12.0	7.9	10.2	12.4	8.6	8.6	11.5	6.8
1997	9.5	10.8	8.6	10.1	11.1	9.5	7.8	10.5	6.1
1998	9.2	10.7	8.1	9.7	11.1	8.8	9.4	11.9	7.5
1999	8.5	9.7	7.7	9.0	9.9	8.5	8.0	10.8	5.8
<u>AGE-ADJUSTED RATES, 1995-99</u>									
<u>AGE AT DIAGNOSIS:</u>									
All ages	9.3	11.0	8.1	9.9	11.4	8.8	8.6	11.6	6.5
Under 65	3.9	4.4	3.5	4.2	4.5	3.9	4.0	5.2	3.0
65 and over	46.6	57.2	39.5	49.2	59.0	42.7	40.6	55.6	30.8
All ages (world std.) <sup>æ</sup>	6.5	7.5	5.7	6.9	7.7	6.3	6.1	8.1	4.7
<u>AGE-SPECIFIC RATES, 1995-99</u>									
<u>AGE AT DIAGNOSIS:</u>									
0-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	-	-	-	-	-	-	-	-	-
25-29	-	-	-	-	-	-	-	-	-
30-34	-	-	-	-	-	-	-	-	-
35-39	0.4	-	0.5	0.4	-	-	-	-	-
40-44	1.4	1.4	1.4	1.5	1.5	1.5	-	-	-
45-49	3.8	3.9	3.7	4.0	4.0	4.0	3.7	-	-
50-54	9.9	10.9	8.9	10.4	11.3	9.4	11.8	12.9	10.8
55-59	21.6	24.5	19.0	23.1	25.3	21.0	20.9	28.5	14.7
60-64	34.5	38.6	30.7	36.6	39.2	34.3	34.0	49.1	22.4
65-69	49.1	54.8	44.4	52.5	57.0	48.6	43.2	50.8	37.3
70-74	55.3	64.0	48.5	58.3	65.2	52.8	52.0	69.9	39.2
75-79	53.8	67.7	44.0	57.1	71.2	47.1	44.0	58.5	34.3
80-84	41.4	56.2	32.6	42.7	56.5	34.6	29.6	55.9	-
85+	17.0	31.9	10.7	17.1	32.5	10.9	-	-	-

\$ 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.

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

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

**Table XV-5**  
**NON-SMALL CELL LUNG AND BRONCHUS 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
<b>AGE-ADJUSTED RATES</b>									
<b>YEAR OF DIAGNOSIS:</b>									
1973	43.3	76.6	18.1	42.3	75.7	17.5	60.2	109.6	20.6
1974	44.4	77.5	19.5	43.6	76.8	19.2	60.8	105.0	23.3
1975	45.6	79.1	20.8	45.0	78.4	20.9	58.8	106.1	21.2
1976	48.3	82.4	23.5	47.5	81.2	23.4	64.1	118.2	23.9
1977	49.0	83.1	24.1	48.0	81.9	23.8	65.5	113.8	28.1
1978	49.2	83.3	24.7	48.4	82.2	24.6	66.8	116.6	28.7
1979	49.9	82.7	26.2	49.0	81.5	26.0	66.7	115.7	29.4
1980	51.5	85.7	27.0	50.0	83.2	26.8	76.7	134.1	33.8
1981	52.3	84.9	29.0	51.5	83.6	29.1	73.0	127.1	33.0
1982	53.0	85.8	29.6	52.3	84.4	30.2	70.7	125.1	30.8
1983	53.1	84.6	30.8	52.2	82.6	31.4	77.5	136.3	34.6
1984	54.8	86.9	32.1	53.3	84.3	31.9	82.6	144.3	37.9
1985	54.2	83.8	33.1	53.2	81.7	33.4	78.6	132.2	39.8
1986	54.6	83.6	34.3	53.6	81.4	34.7	80.7	138.4	40.4
1987	57.3	87.5	36.0	57.0	86.2	36.7	75.3	129.2	37.2
1988	56.8	83.6	37.8	56.4	82.4	38.6	77.8	127.4	42.7
1989	56.5	83.3	37.5	56.1	82.1	38.2	77.1	125.1	43.1
1990	57.6	83.4	39.4	57.2	82.1	39.9	77.5	123.8	45.8
1991	58.1	83.5	40.2	57.5	82.0	40.8	80.9	128.7	47.0
1992	59.1	84.0	41.4	58.2	81.3	42.2	84.0	135.3	48.0
1993	57.8	81.5	40.8	57.5	79.9	41.9	76.8	121.3	45.4
1994	57.5	79.2	42.2	57.2	78.1	42.7	77.2	116.6	49.1
1995	57.0	77.4	42.3	56.7	75.1	43.6	76.8	124.1	43.7
1996	56.7	75.4	43.2	56.3	73.6	44.3	75.8	114.0	49.1
1997	56.8	74.8	43.8	56.7	73.0	45.2	74.0	115.6	44.5
1998	57.5	75.8	44.3	57.3	74.1	45.5	76.5	113.3	50.3
1999	54.9	71.4	43.0	54.5	69.5	43.8	73.4	104.2	51.2
<b>AGE-ADJUSTED RATES, 1995-99</b>									
<b>AGE AT DIAGNOSIS:</b>									
All ages	56.6	74.9	43.3	56.3	73.0	44.5	75.3	114.0	47.8
Under 65	20.7	24.6	17.1	20.0	22.8	17.3	34.6	49.3	22.7
65 and over	304.4	422.5	224.7	307.5	420.3	232.3	356.1	561.2	221.2
All ages (world std.) <sup>ë</sup>	36.8	47.2	28.6	36.5	45.6	29.4	51.0	75.4	32.7
<b>AGE-SPECIFIC RATES, 1995-99</b>									
<b>AGE AT DIAGNOSIS:</b>									
0-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	-	-	-	-	-	-	-	-	-
20-24	0.3	-	-	-	-	-	-	-	-
25-29	0.5	0.6	-	0.5	-	-	-	-	-
30-34	1.4	1.6	1.3	1.3	1.4	1.2	2.2	-	-
35-39	4.4	4.5	4.4	3.9	3.7	4.1	8.9	11.2	6.9
40-44	10.2	11.9	8.6	8.6	9.4	7.7	23.3	31.8	16.0
45-49	24.1	27.0	21.1	21.9	23.4	20.4	46.4	63.5	31.8
50-54	53.9	61.7	46.3	50.9	55.3	46.5	98.1	137.0	65.4
55-59	103.1	123.2	84.1	100.2	114.1	86.7	174.8	257.3	108.2
60-64	171.1	211.9	134.1	171.4	205.5	139.6	243.0	351.6	159.7
65-69	254.0	324.9	194.0	259.4	323.0	204.5	301.6	438.3	194.7
70-74	329.9	439.0	244.8	332.3	432.4	253.6	401.7	613.3	250.2
75-79	350.7	480.0	258.9	353.9	475.2	268.0	417.0	679.0	242.5
80-84	340.5	498.4	246.3	344.9	503.6	251.6	378.6	642.3	231.8
85+	241.4	416.6	167.3	238.9	419.4	165.8	250.8	427.2	170.7

<sup>\$</sup> 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.

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

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

Table XV-6  
LUNG AND BRONCHUS CANCER (Invasive)

U.S. DEATH RATES, AGE-ADJUSTED AND AGE-SPECIFIC RATES<sup>a</sup>, BY RACE AND SEX

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<u>AGE-ADJUSTED RATES</u>									
YEAR OF DEATH:									
1973	40.2	72.9	15.5	39.7	72.1	15.4	46.6	86.0	15.8
1974	41.6	75.1	16.6	41.1	74.1	16.6	48.4	89.8	16.4
1975	42.6	76.4	17.6	42.1	75.5	17.7	49.3	91.0	17.3
1976	44.2	78.5	19.0	43.7	77.6	19.1	51.1	94.0	18.5
1977	45.5	80.4	20.0	44.8	79.1	20.1	54.6	100.8	19.9
1978	46.9	82.1	21.4	46.3	80.8	21.6	55.3	101.6	20.7
1979	47.7	82.9	22.3	47.1	81.6	22.4	56.4	102.9	22.2
1980	49.4	84.7	24.1	48.8	83.3	24.2	59.2	106.7	24.6
1981	50.0	85.2	24.9	49.3	83.5	25.1	60.6	109.7	25.1
1982	51.4	86.8	26.5	50.8	85.2	26.7	62.3	112.5	26.3
1983	52.4	87.0	28.1	51.7	85.4	28.3	63.7	112.8	28.7
1984	53.4	88.2	28.9	52.6	86.2	29.3	65.1	118.0	28.0
1985	54.3	88.5	30.4	53.7	86.7	30.8	65.8	117.5	29.6
1986	55.0	89.0	31.4	54.4	87.0	31.8	67.0	119.2	31.0
1987	56.2	90.0	32.7	55.6	88.1	33.0	68.6	121.8	32.5
1988	57.0	89.9	34.1	56.4	87.9	34.6	69.2	122.2	33.5
1989	57.9	89.8	35.8	57.2	87.6	36.3	71.0	124.7	34.9
1990	58.9	90.6	36.9	58.2	88.5	37.3	72.0	124.9	36.5
1991	59.1	89.9	37.7	58.5	87.9	38.2	71.6	123.2	37.2
1992	59.1	88.1	38.8	58.5	86.1	39.4	71.4	120.6	38.6
1993	59.3	87.7	39.5	58.9	85.7	40.2	71.2	121.4	37.8
1994	58.8	85.8	39.9	58.5	84.0	40.6	70.3	118.0	38.8
1995	58.7	84.5	40.6	58.5	82.8	41.3	69.5	115.3	39.1
1996	58.3	83.0	40.8	58.1	81.4	41.6	68.6	112.4	39.4
1997	58.0	81.5	41.3	57.8	80.1	42.0	68.3	109.3	41.0
1998	57.6	80.1	41.5	57.5	78.7	42.2	67.3	106.5	41.2
1999	56.0	77.2	40.7	55.9	75.9	41.4	65.5	102.7	40.6
<u>AGE-ADJUSTED RATES, 1995-99</u>									
AGE AT DEATH:									
All ages	57.7	81.2	41.0	57.5	79.7	41.7	67.8	109.1	40.2
Under 65	20.0	25.4	15.0	19.5	24.2	15.2	28.2	42.8	16.8
65 and over	318.4	466.4	220.4	320.3	463.8	225.0	341.4	567.6	202.4
All ages (world std.) <sup>b</sup>	36.9	50.4	26.5	36.7	49.2	27.0	45.0	70.8	26.8
<u>AGE-SPECIFIC RATES, 1995-99</u>									
AGE AT DEATH:									
0-4	-	-	-	-	-	-	-	-	-
5-9	-	-	-	-	-	-	-	-	-
10-14	-	-	-	-	-	-	-	-	-
15-19	0.0	-	-	-	-	-	-	-	-
20-24	0.1	0.1	-	0.1	0.1	-	-	-	-
25-29	0.2	0.3	0.2	0.2	0.2	0.2	0.2	-	-
30-34	0.9	1.0	0.8	0.9	1.0	0.8	0.9	1.1	0.8
35-39	3.2	3.4	3.0	3.0	3.1	2.9	5.1	6.1	4.1
40-44	9.2	10.8	7.7	8.5	9.7	7.3	15.9	21.3	11.2
45-49	21.7	26.5	17.0	20.2	23.9	16.6	37.0	53.0	23.5
50-54	51.0	63.4	39.2	49.1	59.1	39.4	79.5	120.0	46.6
55-59	100.6	128.9	74.4	98.8	123.2	75.9	138.6	214.1	79.8
60-64	173.6	227.8	125.2	172.7	221.0	128.6	218.2	342.8	125.0
65-69	256.5	347.5	180.0	258.5	344.4	185.1	283.5	434.5	170.8
70-74	335.0	465.7	233.6	335.9	460.6	238.0	380.2	598.8	229.2
75-79	362.6	520.2	251.8	364.9	516.5	257.5	385.5	643.4	222.8
80-84	367.6	568.5	250.2	370.5	567.1	255.1	366.9	672.6	208.0
85+	287.9	519.4	193.3	289.8	523.3	195.5	283.6	544.8	175.6

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

<sup>b</sup> NCHS public use data file. Rates are per 100,000 and are age-adjusted to the world standard population.  
- Statistic not shown. Rate based on less than 25 cases for the time interval.

Table XV-7  
LUNG AND BRONCHUS 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
<b>5-YR RELATIVE SURVIVAL RATES</b>									
<b>YEAR OF DIAGNOSIS:</b>									
1960-63 <sup>a</sup>	-	-	-	8	7	11	5	5	6
1970-73 <sup>a</sup>	-	-	-	10	9	14	7	6	10
1974-76 <sup>b</sup>	12.4	11.2	15.8	12.5	11.1	16.0	11.4	11.0	13.1
1977-79 <sup>b</sup>	13.4	11.7	17.1	13.6	12.0	17.2	11.1	9.1	17.2
1980-82 <sup>b</sup>	13.4	12.1	16.1	13.5	12.2	16.2	12.1	10.9	15.5
1983-85 <sup>b</sup>	13.6	11.9	16.7	13.8	12.1	17.0	11.3	10.3	14.1
1986-88 <sup>b</sup>	13.3	12.0	15.4	13.5	12.0	15.8	11.9	11.9	11.7
1989-91 <sup>b</sup>	13.9	12.4	16.2	14.3	12.7	16.6	10.7	9.5	13.0
1992-98 <sup>b</sup>	14.7 <sup>U</sup>	13.1 <sup>U</sup>	16.7 <sup>U</sup>	15.0 <sup>U</sup>	13.3 <sup>U</sup>	17.0 <sup>U</sup>	12.3 <sup>U</sup>	10.8	14.7
<b>1992-98<sup>b</sup></b>									
ALL STAGES	14.7	13.1	16.7	15.0	13.3	17.0	12.3	10.8	14.7
LOCALIZED	48.5	44.6	52.8	49.2	45.2	53.3	42.9	38.4	49.1
REGIONAL	21.7	20.2	23.8	22.1	20.7	24.0	18.1	16.5	20.6
DISTANT	2.5	2.3	2.9	2.4	2.1	2.8	2.8	2.3	3.6
UNSTAGED	8.4	7.5	9.5	8.5	7.5	9.6	8.9	9.0	8.9
<b>STAGE DISTRIBUTION (%) 1992-98<sup>b</sup></b>									
ALL STAGES									
Number of cases	87,658	50,874	36,784	73,264	41,664	31,600	9,231	5,896	3,335
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
LOCALIZED	15	14	16	15	14	17	13	13	15
REGIONAL	24	24	23	24	24	23	24	24	23
DISTANT	48	49	47	48	48	47	52	52	50
UNSTAGED	13	13	14	14	13	14	12	11	12
<b>5-YR RELATIVE SURVIVAL RATES, 1992-98<sup>b</sup></b>									
<b>AGE AT DIAGNOSIS:</b>									
<45	21.7	18.7	25.6	24.3	20.9	28.4	15.2	11.9	20.6
45-54	17.6	15.8	20.1	18.5	16.6	21.0	12.9	12.3	14.0
55-64	16.8	14.6	20.0	17.2	15.1	20.2	13.5	11.4	17.7
65-74	14.8	13.2	16.8	15.0	13.3	17.3	11.6	10.6	13.2
75+	9.3	8.1	10.5	9.4	8.2	10.6	8.5	7.0	10.5
Under 65	17.5	15.3	20.5	18.1	15.9	21.1	13.6	11.7	17.0
65 and over	12.8	11.5	14.3	13.0	11.6	14.6	10.7	9.6	12.3

<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 9 areas. They are based on data from population-based registries in Connecticut, New Mexico, Utah, Iowa, Hawaii, Atlanta, Detroit, Seattle-Puget Sound and San Francisco-Oakland. Rates are based on follow-up of patients into 1999.  
 The difference in rates between 1974-76 and 1992-98 is statistically significant ( $p<.05$ ).  
 The standard error of the survival rate is between 5 and 10 percentage points.  
 The standard error of the survival rate is greater than 10 percentage points.  
 Statistic could not be calculated.

Table XV-8  
SMALL CELL LUNG AND BRONCHUS 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
<b>5-YR RELATIVE SURVIVAL RATES</b>									
<b>YEAR OF DIAGNOSIS:</b>									
1974-76 <sup>b</sup>	3.6	3.0	5.0	3.6	2.9	5.0	3.4	3.6	3.1
1977-79 <sup>b</sup>	4.5	3.3	6.7	4.5	3.3	6.7	3.8	3.4	4.8
1980-82 <sup>b</sup>	4.7	3.8	6.2	4.8	4.0	6.2	4.0	3.0	6.4
1983-85 <sup>b</sup>	4.8	3.5	6.6	4.8	3.6	6.6	4.7	2.5	8.5
1986-88 <sup>b</sup>	5.0	3.9	6.5	5.2	4.0	6.8	3.9	3.4	4.6
1989-91 <sup>b</sup>	5.4	4.5	6.5	5.5	4.4	6.8	3.7	4.3	2.9
1992-98 <sup>b</sup>	6.4 <sup>†</sup>	5.4 <sup>†</sup>	7.4 <sup>†</sup>	6.4 <sup>†</sup>	5.4 <sup>†</sup>	7.4 <sup>†</sup>	5.3 <sup>†</sup>	3.7 <sup>†</sup>	7.1
<b>1992-98<sup>b</sup></b>									
ALL STAGES	6.4	5.4	7.4	6.4	5.4	7.4	5.3	3.7	7.1
LOCALIZED	20.4	17.7	23.5	21.7	18.9	24.9	10.3	2.7	18.4 <sup>†</sup>
REGIONAL	13.1	11.7	14.4	13.2	11.9	14.3	10.0	8.3	11.3
DISTANT	2.5	2.1	3.0	2.4	2.1	2.7	2.4	1.0	4.4
UNSTAGED	8.7	7.5	9.9	8.9	7.3	10.4	11.3	16.0 <sup>†</sup>	5.7
<b>STAGE DISTRIBUTION (%) 1992-98<sup>b</sup></b>									
ALL STAGES									
Number of cases	13,529	7,247	6,282	11,893	6,266	5,627	1,030	579	451
Percent	100%	100%	100%	100%	100%	100%	100%	100%	100%
LOCALIZED	6	6	6	6	6	6	6	6	6
REGIONAL	20	18	21	19	18	21	22	21	23
DISTANT	63	65	61	63	65	61	63	65	60
UNSTAGED	12	11	12	12	11	13	9	8	10
<b>5-YR RELATIVE SURVIVAL RATES, 1992-98<sup>b</sup></b>									
<b>AGE AT DIAGNOSIS:</b>									
<45	9.9	8.5	11.3	11.6	9.1	14.2	3.4	-	-
45-54	9.4	8.6	10.6	9.6	9.1	10.4	7.3	4.8	11.0
55-64	7.7	6.2	9.3	7.8	6.4	9.3	4.2	2.7	5.9
65-74	5.4	4.1	6.8	5.3	3.9	6.8	5.3	3.1	7.5
75+	3.8	3.8	4.0	3.7	3.9	3.6	6.2	3.8	8.3
Under 65	8.3	7.1	9.8	8.5	7.4	9.9	4.9	3.8	6.3
65 and over	4.9	4.0	5.8	4.8	3.9	5.7	5.5	3.3	7.8

<sup>b</sup> Rates are from the SEER 9 areas. They are based on data from population-based registries in Connecticut, New Mexico, Utah, Iowa, Hawaii, Atlanta, Detroit, Seattle-Puget Sound and San Francisco-Oakland. Rates are based on follow-up of patients into 1999.

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

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

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

Statistic could not be calculated.

↑ -

Table XV-9  
NON-SMALL CELL LUNG AND BRONCHUS 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
<b>5-YR RELATIVE SURVIVAL RATES</b>									
<b>YEAR OF DIAGNOSIS:</b>									
1974-76 <sup>b</sup>	13.8	12.4	17.8	13.9	12.4	18.1	12.3	11.7	15.0
1977-79 <sup>b</sup>	15.0	13.2	19.3	15.4	13.6	19.5	12.1	9.8	19.4
1980-82 <sup>b</sup>	15.1	13.6	18.4	15.4	13.8	18.6	13.2	11.9	16.9
1983-85 <sup>b</sup>	15.5	13.5	19.2	15.9	13.8	19.6	12.3	11.2	15.0
1986-88 <sup>b</sup>	15.1	13.6	17.6	15.4	13.7	18.2	13.1	13.1	13.1
1989-91 <sup>b</sup>	15.7	13.9	18.6	16.3	14.4	19.1	11.8	10.1	14.8
1992-98 <sup>b</sup>	16.3 <sup>U</sup>	14.5 <sup>U</sup>	18.8 <sup>U</sup>	16.7 <sup>U</sup>	14.8 <sup>U</sup>	19.2 <sup>U</sup>	13.2	11.7	16.0
1992-98 <sup>b</sup>	16.3	14.5	18.8	16.7	14.8	19.2	13.2	11.7	16.0
ALL STAGES	50.5	46.6	54.9	51.2	47.2	55.4	44.9	40.4	51.3
LOCALIZED	23.0	21.3	25.6	23.5	21.8	25.9	19.0	17.2	22.1
REGIONAL	2.6	2.3	2.9	2.4	2.1	2.9	2.9	2.6	3.4
DISTANT	8.3	7.4	9.4	8.4	7.5	9.5	8.7	8.4	9.3
<b>STAGE DISTRIBUTION (%) 1992-98<sup>b</sup></b>									
ALL STAGES	74,129	43,627	30,502	61,371	35,398	25,973	8,201	5,317	2,884
Number of cases	100%	100%	100%	100%	100%	100%	100%	100%	100%
Percent	17	15	19	17	15	19	14	13	16
LOCALIZED	25	25	23	25	26	23	24	24	23
REGIONAL	46	46	44	45	46	44	50	51	49
DISTANT	14	13	14	14	14	14	12	12	12
UNSTAGED									
<b>5-YR RELATIVE SURVIVAL RATES, 1992-98<sup>b</sup></b>									
<b>AGE AT DIAGNOSIS:</b>									
<45	23.2	19.9	27.6	26.1	22.5	30.7	16.2	12.3	22.9
45-54	19.2	17.2	22.0	20.5	18.2	23.4	13.5	13.0	14.4
55-64	18.8	16.3	22.7	19.5	16.9	23.1	14.9	12.4	20.1
65-74	16.7	14.9	19.2	17.1	15.1	19.8	12.5	11.6	14.2
75+	10.1	8.7	11.6	10.3	8.8	11.8	8.8	7.3	10.7
Under 65	19.3	16.8	23.0	20.3	17.7	23.9	14.7	12.6	18.6
65 and over	14.2	12.8	16.1	14.5	12.9	16.5	11.4	10.4	13.1

<sup>b</sup> Rates are from the SEER 9 areas. They are based on data from population-based registries in Connecticut, New Mexico, Utah, Iowa, Hawaii, Atlanta, Detroit, Seattle-Puget Sound and San Francisco-Oakland. Rates are based on follow-up of patients into 1999.

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

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

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

Statistic could not be calculated.

Table XV-10  
LUNG AND BRONCHUS CANCER (Invasive)  
INCIDENCE, DEATH, AND SURVIVAL RATES◊

By Year of Diagnosis/Death

All Races, Males and Females

Year of Diagnosis/Death

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Incidence</b>																					
SEER <sup>a</sup>	52.2	60.6	62.0	63.3	63.4	65.5	64.7	65.8	68.0	68.1	67.7	68.2	69.4	69.6	67.8	67.3	66.8	66.3	66.3	66.7	63.5
<b>Mortality</b>																					
U.S. <sup>b</sup>	42.6	49.4	50.0	51.4	52.4	53.4	54.3	55.0	56.2	57.0	57.9	58.9	59.1	59.1	59.3	58.8	58.7	58.3	58.0	57.6	56.0
SEER <sup>a</sup>	41.2	46.7	46.9	48.5	49.8	49.2	50.8	49.7	51.3	52.3	52.9	52.2	54.0	53.0	52.7	52.6	51.9	51.1	50.6	50.8	49.0
<b>Relative Survival Rates (SEER<sup>a</sup>)</b>																					
1-year	34.3	38.3	37.7	39.2	39.5	39.0	39.7	40.3	39.7	40.2	40.4	40.3	41.2	41.1	40.8	40.9	41.5	41.1	41.6	40.9	
2-year	20.5	22.1	22.1	22.9	23.4	22.5	23.0	23.2	22.8	23.3	23.5	23.6	24.0	24.7	24.6	24.5	25.3	25.4	25.1		
3-year	15.5	16.9	16.8	17.9	18.1	17.4	17.7	17.6	17.1	17.6	17.6	18.0	18.8	19.0	18.9	19.1	19.1	19.4	19.7		
4-year	13.4	14.4	14.7	15.6	15.4	14.7	15.1	14.8	14.8	15.1	15.2	15.3	15.9	16.1	16.2	16.4	16.8				
5-year	12.0	12.9	13.2	13.9	14.0	13.1	13.7	13.2	13.3	13.4	13.9	13.7	14.1	14.3	14.7	14.8					
6-year	11.0	12.0	12.1	12.5	12.9	12.1	12.7	12.1	12.2	12.1	12.9	12.7	13.1	13.1	13.1	13.6					
7-year	10.4	11.2	11.1	11.9	11.9	11.2	11.6	11.3	11.1	11.2	12.0	11.8	12.0	12.0	12.1						
8-year	10.1	10.3	10.3	11.1	11.2	10.4	10.9	10.5	10.5	10.5	10.5	11.1	11.0	11.0	11.1						
9-year	9.8	9.7	9.6	10.5	10.4	9.6	10.2	10.0	9.8	9.9	10.5	10.1									
10-year	9.3	8.9	9.1	10.0	9.9	9.2	9.7	9.4	9.3	9.4	10.0										
11-year	9.0	8.4	8.8	9.6	9.5	8.9	9.3	8.8	8.9	8.8											
12-year	8.8	8.0	8.4	9.0	9.0	8.5	8.9	8.4	8.4	8.4											
13-year	8.4	7.4	7.9	8.7	8.6	8.1	8.5	8.0													
14-year	8.2	7.0	7.6	8.3	8.4	7.7	8.2														
15-year	7.8	6.6	7.2	7.9	8.1	7.4															
16-year	7.5	6.5	6.8	7.3	7.6																
17-year	7.2	6.2	6.6	6.7																	
18-year	7.0	6.1	6.3																		
19-year	6.9	5.8																			
20-year	6.8																				
21-year	6.7																				
22-year	6.5																				
23-year	6.0																				
24-year	5.7																				

<sup>a</sup> Rates are from the SEER 9 areas.

<sup>b</sup> Rates are from the NCHS public use data file.

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

Survival rates are relative rates expressed as percents.

Table XV-11  
LUNG AND BRONCHUS CANCER (Invasive)  
INCIDENCE, DEATH, AND SURVIVAL RATES◊

By Year of Diagnosis/Death

All Races, Males

Year of Diagnosis/Death

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Incidence</b>																					
SEER <sup>a</sup>	89.4	99.9	99.4	100.7	99.4	102.1	98.8	99.1	101.6	98.9	98.2	97.3	97.6	97.4	93.8	90.8	89.6	87.4	85.6	86.5	81.1
<b>Mortality</b>																					
U.S. <sup>b</sup>	76.4	84.7	85.2	86.8	87.0	88.2	88.5	89.0	90.0	89.9	89.8	90.6	89.9	88.1	87.7	85.8	84.5	83.0	81.5	80.1	77.2
SEER <sup>a</sup>	73.1	79.0	78.1	78.7	80.8	78.4	80.1	77.9	79.0	79.4	79.1	77.5	77.9	76.5	75.1	74.5	71.3	69.6	67.6	67.9	64.5
<b>Relative Survival Rates (SEER<sup>a</sup>)</b>																					
1-year	33.1	36.7	35.6	37.3	37.6	37.2	37.0	38.3	38.1	38.0	38.0	38.9	39.0	38.2	38.6	39.3	39.3	39.4	38.3		
2-year	19.2	20.9	20.2	21.2	21.3	20.9	21.1	21.0	21.8	21.8	22.0	21.3	22.0	23.3	22.3	22.1	23.5	23.7	23.5		
3-year	14.2	15.8	15.0	16.4	16.0	15.7	15.7	16.0	16.4	16.2	16.0	17.1	17.6	16.5	16.7	17.6	18.3				
4-year	12.2	13.5	13.0	14.0	13.6	13.0	13.1	13.1	13.7	13.7	14.0	13.4	14.1	14.8	14.0	14.1	15.1				
5-year	10.9	12.1	11.7	12.4	12.4	11.5	11.8	11.5	12.3	12.0	12.8	11.9	12.5	13.1	12.6	12.7					
6-year	9.8	11.3	10.6	11.2	11.2	10.5	10.8	10.6	11.3	10.8	11.9	10.9	11.7	11.9	11.6						
7-year	9.3	10.5	9.7	10.5	10.4	9.6	9.9	9.9	10.4	9.9	11.2	10.2	10.5	10.5	11.0						
8-year	9.0	9.6	8.8	9.8	9.7	8.8	9.3	9.1	9.9	9.1	10.6	9.4	9.7								
9-year	8.8	8.9	8.2	9.3	8.8	8.2	8.7	8.6	9.3	8.6	10.1	8.5									
10-year	8.4	8.2	7.8	8.7	8.3	7.8	8.3	8.1	8.7	8.2	9.6										
11-year	8.0	7.8	7.5	8.4	7.9	7.7	8.0	7.4	8.3	7.7											
12-year	7.7	7.2	7.1	8.0	7.5	7.4	7.5	6.9	7.8												
13-year	7.3	6.9	6.6	7.8	7.1	7.2	7.2	6.6													
14-year	7.1	6.6	6.1	7.5	6.9	6.7	7.0														
15-year	6.7	6.3	5.9	7.1	6.5	6.3															
16-year	6.6	6.2	5.6	6.5	6.1																
17-year	6.4	5.8	5.3	5.8																	
18-year	6.1	5.8	5.2																		
19-year	6.1	5.5																			
20-year	6.1																				
21-year	6.1																				
22-year	6.1																				
23-year	5.6																				
24-year	5.1																				

<sup>a</sup> Rates are from the SEER 9 areas.

<sup>b</sup> Rates are from the NCHS public use data file.

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

Survival rates are relative rates expressed as percents.

Table XV-12  
LUNG AND BRONCHUS CANCER (Invasive)  
INCIDENCE, DEATH, AND SURVIVAL RATES◊

By Year of Diagnosis/Death

All Races, Females

Year of Diagnosis/Death

	1975	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
<b>Incidence</b>																					
SEER <sup>a</sup>	24.5	32.2	35.1	36.8	37.8	39.5	40.2	42.3	44.2	46.3	46.2	47.8	49.6	49.9	49.2	50.6	50.4	51.2	52.4	52.4	50.7
<b>Mortality</b>																					
U.S. <sup>b</sup>	17.6	24.1	24.9	26.5	28.1	28.9	30.4	31.4	32.7	34.1	35.8	36.9	37.7	38.8	39.5	39.9	40.6	40.8	41.3	41.5	40.7
SEER <sup>a</sup>	17.6	23.7	24.8	27.4	28.3	28.8	30.4	30.0	31.9	33.4	34.6	34.8	37.6	36.6	37.0	37.4	38.3	38.0	38.5	38.6	38.0
<b>Relative Survival Rates (SEER<sup>a</sup>)</b>																					
1-year	37.7	42.1	42.3	43.2	43.4	42.6	44.8	43.9	42.2	43.5	44.3	44.0	44.7	44.1	44.6	44.0	44.6	43.4	44.3	44.2	
2-year	24.3	25.0	26.2	26.4	27.6	25.6	26.8	27.1	24.6	25.7	25.8	27.2	26.9	26.9	28.0	27.9	27.7	27.5	27.2		
3-year	19.2	19.4	20.8	21.0	22.1	20.8	21.5	20.6	19.0	19.6	19.7	21.1	21.2	20.9	22.3	22.2	21.8	21.5			
4-year	16.7	16.5	18.2	18.7	18.9	17.8	19.0	17.8	16.6	17.4	17.2	18.1	18.6	18.1	19.2	19.4	19.0				
5-year	15.1	14.8	16.4	16.9	17.1	16.0	17.1	15.9	14.8	15.5	15.7	16.4	16.4	15.9	17.6	17.4					
6-year	14.1	13.7	15.0	15.0	16.0	14.9	16.0	14.7	13.6	14.2	14.4	15.2	15.1	14.8	16.2						
7-year	13.2	12.7	13.8	14.6	14.7	14.0	14.6	13.8	12.2	13.3	13.1	14.0	14.0	14.0	13.6						
8-year	12.7	12.0	13.1	13.6	13.9	13.2	13.8	12.9	11.5	12.6	11.9	13.3	13.1								
9-year	12.2	11.4	12.3	12.7	13.1	11.9	12.8	12.4	10.5	11.8	11.1	12.4									
10-year	11.5	10.3	11.6	12.1	12.4	11.4	12.2	11.4	10.3	11.1	10.5										
11-year	11.4	9.6	11.1	11.7	12.1	10.8	11.4	11.0	9.8	10.3											
12-year	11.2	9.4	10.8	10.6	11.5	10.2	11.0	10.6	9.4												
13-year	10.9	8.4	10.2	10.2	11.1	9.6	10.5	10.0													
14-year	10.5	7.7	9.9	9.7	10.9	9.3	9.9														
15-year	10.3	7.2	9.3	9.1	10.6	8.9															
16-year	9.5	7.1	8.8	8.5	9.8																
17-year	8.7	7.0	8.8	8.1																	
18-year	8.7	6.7	8.0																		
19-year	8.5	6.2																			
20-year	8.0																				
21-year	7.4																				
22-year	7.2																				
23-year	6.7																				
24-year	6.7																				

<sup>a</sup> Rates are from the SEER 9 areas.

<sup>b</sup> Rates are from the NCHS public use data file.

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

Survival rates are relative rates expressed as percents.

Table XV-13  
LUNG AND BRONCHUS CANCER (Invasive)

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

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

1997-1999

All Races								
Current Age	Males				Females			
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually
0	0.00	0.00	0.00	7.81	0.00	0.00	0.01	5.80
10	0.00	0.00	0.03	7.89	0.00	0.01	0.03	5.85
20	0.00	0.03	0.22	7.93	0.00	0.03	0.18	5.86
30	0.03	0.22	1.11	8.03	0.03	0.18	0.86	5.88
40	0.19	1.10	3.43	8.15	0.15	0.84	2.48	5.91
50	0.94	3.35	6.40	8.24	0.70	2.37	4.49	5.87
60	2.61	5.91	7.64	7.90	1.76	3.98	5.24	5.43

Lifetime Risk of Being Diagnosed = 7.81%      Lifetime Risk of Being Diagnosed = 5.80%  
 Lifetime Risk of Dying = 7.52%      Lifetime Risk of Dying = 4.87%

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	7.78	0.00	0.00	0.01	6.09
10	0.00	0.00	0.03	7.84	0.00	0.01	0.03	6.13
20	0.00	0.03	0.19	7.88	0.00	0.03	0.18	6.14
30	0.02	0.19	1.03	7.97	0.02	0.17	0.88	6.16
40	0.17	1.03	3.35	8.07	0.15	0.86	2.62	6.18
50	0.89	3.29	6.32	8.16	0.73	2.51	4.75	6.14
60	2.58	5.84	7.57	7.83	1.87	4.22	5.50	5.67

Lifetime Risk of Being Diagnosed = 7.78%      Lifetime Risk of Being Diagnosed = 6.09%  
 Lifetime Risk of Dying = 7.59%      Lifetime Risk of Dying = 5.04%

Blacks								
Current Age	Males				Females			
	+10 yrs	+20 yrs	+30 yrs	Eventually	+10 yrs	+20 yrs	+30 yrs	Eventually
0	0.00	0.00	0.01	8.46	0.00	0.00	0.01	5.19
10	0.00	0.01	0.06	8.63	0.00	0.01	0.04	5.28
20	0.01	0.07	0.47	8.71	0.01	0.04	0.29	5.30
30	0.06	0.47	2.02	8.95	0.04	0.28	1.15	5.33
40	0.43	2.03	4.88	9.20	0.25	1.13	2.73	5.39
50	1.73	4.81	8.06	9.48	0.92	2.58	4.36	5.36
60	3.63	7.46	8.86	9.13	1.83	3.78	4.69	4.87

Lifetime Risk of Being Diagnosed = 8.46%      Lifetime Risk of Being Diagnosed = 5.19%  
 Lifetime Risk of Dying = 7.60%      Lifetime Risk of Dying = 4.03%

Table XV-14  
LUNG AND BRONCHUS (Invasive)  
AGE-ADJUSTED SEER INCIDENCE AND U.S. DEATH RATES  
By Race/Ethnicity and Sex

Incidence<sup>i</sup>

	Rate 1992-1999 Rate per 100,000 persons			Trend 1992-1999 EAPC (%)		
	Total	Males	Females	Total	Males	Females
<b>RACE/ETHNICITY</b>						
All Races	63.9	84.5	49.2	-1.3*	-2.5*	0.1
White	64.3	82.9	51.1	-1.2*	-2.5*	0.2
White Hispanic	33.1	46.2	23.9	-3.1*	-4.0*	-2.3
White Non-Hispanic	66.2	84.3	53.4	-0.9*	-2.2*	0.4
Black	82.6	124.1	53.2	-1.4*	-2.8*	0.7
Asian/Pacific Islander	44.0	63.8	28.5	-0.6	-0.8	0.3
Amer Ind/Alaska Nat	35.4	51.4	23.3	-3.4	-3.3	-4.1
Hispanic <sup>o</sup>	31.5	44.1	22.8	-3.1*	-4.0*	-2.2

Mortality<sup>♦</sup>

	Rate 1992-1999 Rate per 100,000 persons			Trend 1992-1999 EAPC (%)		
	Total	Males	Females	Total	Males	Females
<b>RACE/ETHNICITY</b>						
All Races	58.2	83.3	40.4	-0.7*	-1.8*	0.8*
White	57.9	81.7	41.1	-0.6*	-1.7*	0.8*
White Hispanic	25.1	39.8	14.4	-1.3*	-1.9*	-0.5
White Non-Hispanic	60.0	84.5	42.6	-0.4*	-1.6*	1.0*
Black	68.9	113.0	39.6	-1.2*	-2.4*	1.1*
Asian/Pacific Islander	29.3	42.3	19.3	-0.8*	-1.5*	0.8
Amer Ind/Alaska Nat	35.5	49.3	24.9	1.3	0.8	1.8
Hispanic <sup>o</sup>	24.1	38.2	13.8	-1.3*	-1.9*	-0.6

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 12 SEER areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, and Alaska Native Registry).

<sup>o</sup> Hispanic is not mutually exclusive from whites, blacks, Asian Pacific Islanders, and American Indians/Alaska Natives. Incidence data for Hispanics does not include cases from Detroit, Hawaii and Alaska Native Registry. For mortality, information is included for all states except Connecticut, Oklahoma, New York, and New Hampshire.

<sup>♦</sup> Mortality data are analyzed from a public use file provided by the National Center for Health Statistics (NCHS).

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

Table XV-15  
LUNG AND BRONCHUS CANCER (Invasive)

AGE-ADJUSTED SEER INCIDENCE RATES\$ AND SEER DEATH RATESä  
By Registry, Race and Sex

	All Races			Whites			Blacks		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
<b>SEER INCIDENCE RATES\$, 1995-99</b>									
REGISTRY									
11 registries	62.8	81.5	49.3	63.2	79.8	51.4	81.1	120.6	53.1
9 registries	65.9	86.0	51.4	66.2	84.4	53.3	83.9	125.6	54.4
San Francisco-Oakland	61.5	76.2	51.0	63.3	73.8	56.0	76.7	108.6	53.0
Connecticut	70.6	90.0	57.1	70.7	89.0	58.2	72.8	114.4	45.5
Metropolitan Detroit	79.2	106.2	60.6	76.4	99.9	60.8	92.0	135.6	61.1
Hawaii	53.5	72.1	37.5	69.5	85.6	55.0	-	-	-
Iowa	67.6	95.8	47.3	67.4	95.5	47.2	94.9	135.6	65.8
New Mexico	48.6	63.7	37.2	50.3	65.3	39.0	44.0	62.2	-
Seattle-Puget Sound	72.7	88.0	61.5	74.1	88.5	63.8	86.1	118.2	57.3
Utah	31.4	42.6	22.5	31.5	42.7	22.7	-	-	-
Metropolitan Atlanta	72.4	101.4	53.4	69.6	91.9	55.3	83.5	142.8	48.0
San Jose-Monterey	54.6	66.9	45.5	56.4	67.2	48.7	78.1	110.9	50.0
Los Angeles	55.2	70.8	43.8	54.8	67.3	45.9	74.9	109.5	50.3
<b>SEER DEATH RATESä, 1995-99</b>									
REGISTRY									
11 registries	48.7	65.1	37.0	49.1	64.2	38.5	64.1	97.0	41.1
9 registries	50.7	68.1	38.3	51.0	67.4	39.6	65.3	99.3	41.6
San Francisco-Oakland	48.4	61.5	39.2	50.2	61.0	42.8	64.9	91.2	45.8
Connecticut	52.2	69.3	40.6	52.3	68.6	41.4	55.1	88.8	33.1
Metropolitan Detroit	58.4	80.8	43.3	56.3	76.5	43.0	68.6	102.1	45.0
Hawaii	40.6	55.0	28.3	53.9	67.7	42.2	-	-	-
Iowa	52.9	77.1	36.1	52.8	76.7	36.0	79.9	126.9	47.7
New Mexico	41.4	54.7	31.4	43.0	56.3	32.9	38.0	51.8	-
Seattle-Puget Sound	56.1	70.5	45.6	57.2	71.1	47.3	63.3	87.3	40.6
Utah	25.7	35.9	17.6	25.6	35.6	17.7	-	-	-
Metropolitan Atlanta	56.3	82.5	39.7	54.1	75.1	40.9	67.3	118.7	37.4
San Jose-Monterey	41.9	52.5	34.1	43.8	53.8	36.7	57.4	79.7	39.6
Los Angeles	44.1	58.6	33.9	43.9	56.0	35.5	61.7	93.0	39.9

Note: San Jose-Monterey and Los Angeles are new SEER areas as of 1992 and their data are only used in tables where indicated.  
\$ SEER 9 areas. Incidence rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

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

- Statistic could not be calculated or populations are inadequate.

Table XV-16  
LUNG AND BRONCHUS CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER DEATH<sup>a</sup> RATES BY STATE, 1995-99

All Races, Males and Females

State	Rate	SE	Rank	PD
TOTAL U.S.	57.7	0.07		
High Five States				
Kentucky	78.1 <sup>⊕</sup>	0.63	(01)	35.4
West Virginia	72.3 <sup>⊕</sup>	0.83	(02)	25.3
Arkansas	71.3 <sup>⊕</sup>	0.72	(03)	23.6
Tennessee	70.1 <sup>⊕</sup>	0.51	(04)	21.5
Mississippi	69.7 <sup>⊕</sup>	0.73	(05)	20.8
Low Five States				
North Dakota	45.8 <sup>⊕</sup>	1.15	(47)	-20.6
New Mexico	41.4 <sup>⊕</sup>	0.74	(48)	-28.2
Colorado	41.4 <sup>⊕</sup>	0.51	(49)	-28.2
Hawaii	40.6 <sup>⊕</sup>	0.83	(50)	-29.6
Utah	25.7 <sup>⊕</sup>	0.60	(51)	-55.5

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	64.0 <sup>⊕</sup>	0.54	(13)	10.9	Montana	53.3 <sup>⊕</sup>	1.08	(35)	-7.6
Alaska	58.2	2.09	(28)	0.9	Nebraska	50.7 <sup>⊕</sup>	0.77	(40)	-12.1
Arizona	51.9 <sup>⊕</sup>	0.48	(38)	-10.1	Nevada	67.9 <sup>⊕</sup>	0.96	(08)	17.7
Arkansas	71.3 <sup>⊕</sup>	0.72	(03)	23.6	New Hampshire	60.7 <sup>⊕</sup>	1.06	(21)	5.2
California	49.4 <sup>⊕</sup>	0.19	(44)	-14.4	New Jersey	55.8 <sup>⊕</sup>	0.36	(33)	-3.3
Colorado	41.4 <sup>⊕</sup>	0.51	(49)	-28.2	New Mexico	41.4 <sup>⊕</sup>	0.74	(48)	-28.2
Connecticut	52.2 <sup>⊕</sup>	0.54	(37)	-9.5	New York	51.6 <sup>⊕</sup>	0.24	(39)	-10.6
Delaware	69.0 <sup>⊕</sup>	1.38	(07)	19.6	North Carolina	62.8 <sup>⊕</sup>	0.42	(17)	8.8
District of Columbia	59.0	1.45	(23)	2.3	North Dakota	45.8 <sup>⊕</sup>	1.15	(47)	-20.6
Florida	59.8 <sup>⊕</sup>	0.26	(22)	3.6	Ohio	63.0 <sup>⊕</sup>	0.33	(16)	9.2
Georgia	63.1 <sup>⊕</sup>	0.46	(15)	9.4	Oklahoma	66.0 <sup>⊕</sup>	0.62	(09)	14.4
Hawaii	40.6 <sup>⊕</sup>	0.83	(50)	-29.6	Oregon	58.4	0.59	(26)	1.2
Idaho	45.9 <sup>⊕</sup>	0.91	(46)	-20.5	Pennsylvania	57.5	0.29	(30)	-0.3
Illinois	58.3	0.32	(27)	1.0	Rhode Island	63.1 <sup>⊕</sup>	1.08	(14)	9.4
Indiana	65.8 <sup>⊕</sup>	0.48	(10)	14.0	South Carolina	61.2 <sup>⊕</sup>	0.58	(20)	6.1
Iowa	52.9 <sup>⊕</sup>	0.57	(36)	-8.3	South Dakota	49.9 <sup>⊕</sup>	1.13	(43)	-13.5
Kansas	54.8 <sup>⊕</sup>	0.64	(34)	-5.0	Tennessee	70.1 <sup>⊕</sup>	0.51	(04)	21.5
Kentucky	78.1 <sup>⊕</sup>	0.63	(01)	35.4	Texas	58.7	0.27	(24)	1.7
Louisiana	69.0 <sup>⊕</sup>	0.59	(06)	19.6	Utah	25.7 <sup>⊕</sup>	0.60	(51)	-55.5
Maine	65.4 <sup>⊕</sup>	1.00	(11)	13.3	Vermont	57.5	1.43	(29)	-0.3
Maryland	62.6 <sup>⊕</sup>	0.52	(18)	8.5	Virginia	61.8 <sup>⊕</sup>	0.45	(19)	7.1
Massachusetts	56.6	0.42	(32)	-1.9	Washington	57.0	0.47	(31)	-1.2
Michigan	58.5	0.35	(25)	1.4	West Virginia	72.3 <sup>⊕</sup>	0.83	(02)	25.3
Minnesota	47.6 <sup>⊕</sup>	0.46	(45)	-17.5	Wisconsin	50.2 <sup>⊕</sup>	0.44	(41)	-13.0
Mississippi	69.7 <sup>⊕</sup>	0.73	(05)	20.8	Wyoming	50.1 <sup>⊕</sup>	1.51	(42)	-13.2
Missouri	65.4 <sup>⊕</sup>	0.48	(12)	13.3					

<sup>a</sup> NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

SE Standard error of the rate.

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

<sup>⊕</sup> Absolute percent difference between state rate and total U.S. rate is 5% or more.

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

Table XV-17  
LUNG AND BRONCHUS CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER DEATH<sup>a</sup> RATES BY STATE, 1995-99

All Races, Males

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
TOTAL U.S.	81.2	0.12							
High Five States									
Kentucky	116.1 <sup>⊕</sup>	1.21	(01)	43.0					
Mississippi	112.6 <sup>⊕</sup>	1.47	(02)	38.7					
Arkansas	109.4 <sup>⊕</sup>	1.37	(03)	34.7					
Tennessee	109.2 <sup>⊕</sup>	1.01	(04)	34.5					
Louisiana	104.9 <sup>⊕</sup>	1.15	(05)	29.2					
Low Five States									
Idaho	62.2 <sup>⊕</sup>	1.60	(47)	-23.4					
Colorado	56.2 <sup>⊕</sup>	0.93	(48)	-30.8					
Hawaii	55.0 <sup>⊕</sup>	1.42	(49)	-32.3					
New Mexico	54.7 <sup>⊕</sup>	1.30	(50)	-32.6					
Utah	35.9 <sup>⊕</sup>	1.07	(51)	-55.8					
State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	101.8 <sup>⊕</sup>	1.08	(07)	25.4	Montana	69.9 <sup>⊕</sup>	1.87	(39)	-13.9
Alaska	71.2 <sup>⊕</sup>	3.44	(37)	-12.3	Nebraska	73.6 <sup>⊕</sup>	1.41	(35)	-9.4
Arizona	68.5 <sup>⊕</sup>	0.83	(42)	-15.6	Nevada	82.6	1.62	(24)	1.7
Arkansas	109.4 <sup>⊕</sup>	1.37	(03)	34.7	New Hampshire	79.7	1.88	(28)	-1.8
California	63.3 <sup>⊕</sup>	0.33	(46)	-22.0	New Jersey	76.1 <sup>⊕</sup>	0.67	(32)	-6.3
Colorado	56.2 <sup>⊕</sup>	0.93	(48)	-30.8	New Mexico	54.7 <sup>⊕</sup>	1.30	(50)	-32.6
Connecticut	69.3 <sup>⊕</sup>	0.97	(41)	-14.7	New York	70.6 <sup>⊕</sup>	0.43	(38)	-13.1
Delaware	94.6 <sup>⊕</sup>	2.55	(13)	16.5	North Carolina	98.5 <sup>⊕</sup>	0.83	(09)	21.3
District of Columbia	87.0 <sup>⊕</sup>	2.81	(19)	7.1	North Dakota	65.1 <sup>⊕</sup>	2.06	(44)	-19.8
Florida	81.1	0.45	(26)	-0.1	Ohio	89.2 <sup>⊕</sup>	0.62	(17)	9.9
Georgia	98.9 <sup>⊕</sup>	0.92	(08)	21.8	Oklahoma	96.9 <sup>⊕</sup>	1.16	(10)	19.3
Hawaii	55.0 <sup>⊕</sup>	1.42	(49)	-32.3	Oregon	74.9 <sup>⊕</sup>	1.02	(33)	-7.8
Idaho	62.2 <sup>⊕</sup>	1.60	(47)	-23.4	Pennsylvania	82.8	0.54	(23)	2.0
Illinois	82.9	0.59	(22)	2.1	Rhode Island	89.5 <sup>⊕</sup>	2.00	(16)	10.2
Indiana	95.2 <sup>⊕</sup>	0.90	(11)	17.2	South Carolina	94.9 <sup>⊕</sup>	1.16	(12)	16.9
Iowa	77.1 <sup>⊕</sup>	1.06	(30)	-5.0	South Dakota	73.6 <sup>⊕</sup>	2.07	(34)	-9.4
Kansas	78.8	1.18	(29)	-3.0	Tennessee	109.2 <sup>⊕</sup>	1.01	(04)	34.5
Kentucky	116.1 <sup>⊕</sup>	1.21	(01)	43.0	Texas	84.7 <sup>⊕</sup>	0.51	(21)	4.3
Louisiana	104.9 <sup>⊕</sup>	1.15	(05)	29.2	Utah	35.9 <sup>⊕</sup>	1.07	(51)	-55.8
Maine	88.3 <sup>⊕</sup>	1.79	(18)	8.7	Vermont	80.3	2.61	(27)	-1.1
Maryland	86.4 <sup>⊕</sup>	0.97	(20)	6.4	Virginia	90.9 <sup>⊕</sup>	0.88	(15)	11.9
Massachusetts	76.8 <sup>⊕</sup>	0.77	(31)	-5.4	Washington	72.2 <sup>⊕</sup>	0.81	(36)	-11.1
Michigan	81.6	0.65	(25)	0.5	West Virginia	104.7 <sup>⊕</sup>	1.56	(06)	28.9
Minnesota	64.8 <sup>⊕</sup>	0.82	(45)	-20.2	Wisconsin	69.6 <sup>⊕</sup>	0.79	(40)	-14.3
Mississippi	112.6 <sup>⊕</sup>	1.47	(02)	38.7	Wyoming	66.1 <sup>⊕</sup>	2.67	(43)	-18.6
Missouri	93.8 <sup>⊕</sup>	0.89	(14)	15.5					

<sup>a</sup> NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

SE Standard error of the rate.

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

<sup>⊕</sup> Absolute percent difference between state rate and total U.S. rate is 5% or more.

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

Table XV-18  
LUNG AND BRONCHUS CANCER (Invasive)

AVERAGE ANNUAL AGE-ADJUSTED CANCER DEATH<sup>a</sup> RATES BY STATE, 1995-99

All Races, Females

State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
TOTAL U.S.	41.0	0.07							
High Five States									
Nevada	56.0 <sup>⊕</sup>	1.19	(01)	36.6					
Kentucky	51.4 <sup>⊕</sup>	0.68	(02)	25.4					
Delaware	51.1 <sup>⊕</sup>	1.59	(03)	24.6					
West Virginia	50.1 <sup>⊕</sup>	0.91	(04)	22.2					
Maine	49.5 <sup>⊕</sup>	1.16	(05)	20.7					
Low Five States									
New Mexico	31.4 <sup>⊕</sup>	0.86	(47)	-23.4					
North Dakota	31.3 <sup>⊕</sup>	1.31	(48)	-23.7					
Colorado	31.1 <sup>⊕</sup>	0.58	(49)	-24.1					
Hawaii	28.3 <sup>⊕</sup>	0.94	(50)	-31.0					
Utah	17.6 <sup>⊕</sup>	0.67	(51)	-57.1					
State	Rate	SE	Rank	PD	State	Rate	SE	Rank	PD
Alabama	38.1 <sup>⊕</sup>	0.55	(38)	-7.1	Montana	41.0	1.28	(26)	0.0
Alaska	46.2 <sup>⊕</sup>	2.55	(07)	12.7	Nebraska	34.0 <sup>⊕</sup>	0.85	(44)	-17.1
Arizona	39.0	0.56	(34)	-4.9	Nevada	56.0 <sup>⊕</sup>	1.19	(01)	36.6
Arkansas	43.5 <sup>⊕</sup>	0.75	(18)	6.1	New Hampshire	47.4 <sup>⊕</sup>	1.26	(06)	15.6
California	39.2 <sup>⊕</sup>	0.23	(32)	-4.4	New Jersey	42.1	0.42	(22)	2.7
Colorado	31.1 <sup>⊕</sup>	0.58	(49)	-24.1	New Mexico	31.4 <sup>⊕</sup>	0.86	(47)	-23.4
Connecticut	40.6	0.64	(27)	-1.0	New York	38.6 <sup>⊕</sup>	0.27	(35)	-5.9
Delaware	51.1 <sup>⊕</sup>	1.59	(03)	24.6	North Carolina	38.4 <sup>⊕</sup>	0.43	(37)	-6.3
District of Columbia	40.4	1.57	(28)	-1.5	North Dakota	31.3 <sup>⊕</sup>	1.31	(48)	-23.7
Florida	43.3 <sup>⊕</sup>	0.29	(19)	5.6	Ohio	44.9 <sup>⊕</sup>	0.37	(14)	9.5
Georgia	39.0 <sup>⊕</sup>	0.47	(33)	-4.9	Oklahoma	44.0 <sup>⊕</sup>	0.67	(16)	7.3
Hawaii	28.3 <sup>⊕</sup>	0.94	(50)	-31.0	Oregon	46.2 <sup>⊕</sup>	0.71	(09)	12.7
Idaho	33.1 <sup>⊕</sup>	1.05	(45)	-19.3	Pennsylvania	40.0	0.32	(31)	-2.4
Illinois	41.3	0.35	(24)	0.7	Rhode Island	46.2 <sup>⊕</sup>	1.24	(08)	12.7
Indiana	45.5 <sup>⊕</sup>	0.53	(12)	11.0	South Carolina	37.7 <sup>⊕</sup>	0.60	(39)	-8.0
Iowa	36.1 <sup>⊕</sup>	0.64	(42)	-12.0	South Dakota	31.7 <sup>⊕</sup>	1.23	(46)	-22.7
Kansas	37.7 <sup>⊕</sup>	0.71	(40)	-8.0	Tennessee	42.7	0.53	(20)	4.1
Kentucky	51.4 <sup>⊕</sup>	0.68	(02)	25.4	Texas	40.1	0.30	(30)	-2.2
Louisiana	44.1 <sup>⊕</sup>	0.62	(15)	7.6	Utah	17.6 <sup>⊕</sup>	0.67	(51)	-57.1
Maine	49.5 <sup>⊕</sup>	1.16	(05)	20.7	Vermont	41.2	1.62	(25)	0.5
Maryland	46.1 <sup>⊕</sup>	0.59	(10)	12.4	Virginia	41.9	0.49	(23)	2.2
Massachusetts	43.5 <sup>⊕</sup>	0.49	(17)	6.1	Washington	45.7 <sup>⊕</sup>	0.57	(11)	11.5
Michigan	42.3	0.40	(21)	3.2	West Virginia	50.1 <sup>⊕</sup>	0.91	(04)	22.2
Minnesota	35.3 <sup>⊕</sup>	0.54	(43)	-13.9	Wisconsin	36.4 <sup>⊕</sup>	0.50	(41)	-11.2
Mississippi	40.3	0.73	(29)	-1.7	Wyoming	38.5 <sup>⊕</sup>	1.80	(36)	-6.1
Missouri	45.2 <sup>⊕</sup>	0.53	(13)	10.2					

<sup>a</sup> NCHS public use data file. Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population by 5-year age groups.

SE Standard error of the rate.

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

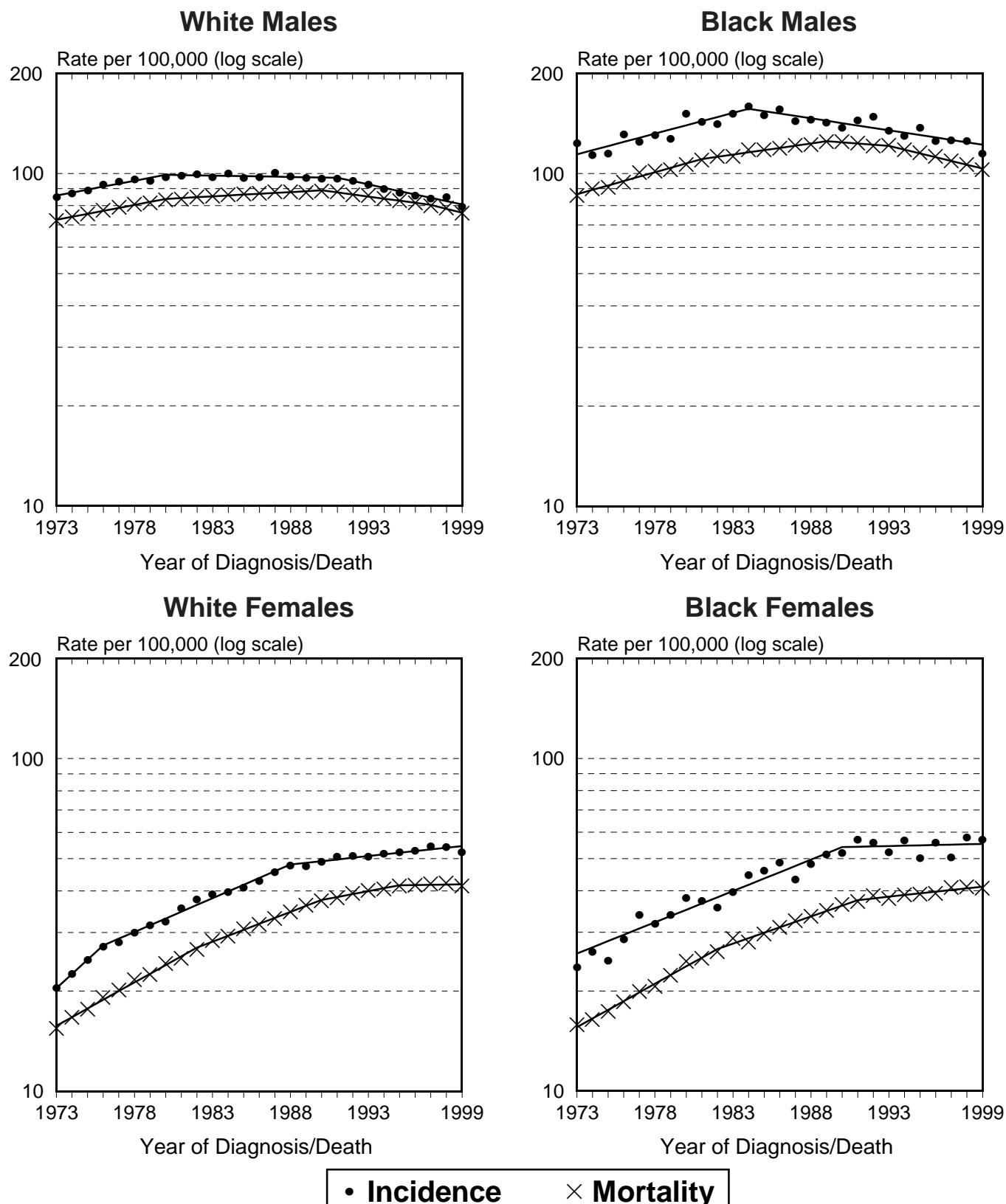
<sup>⊕</sup> Absolute percent difference between state rate and total U.S. rate is 5% or more.

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

Figure XV-1

# SEER Incidence and U.S. Death Rates<sup>+</sup>

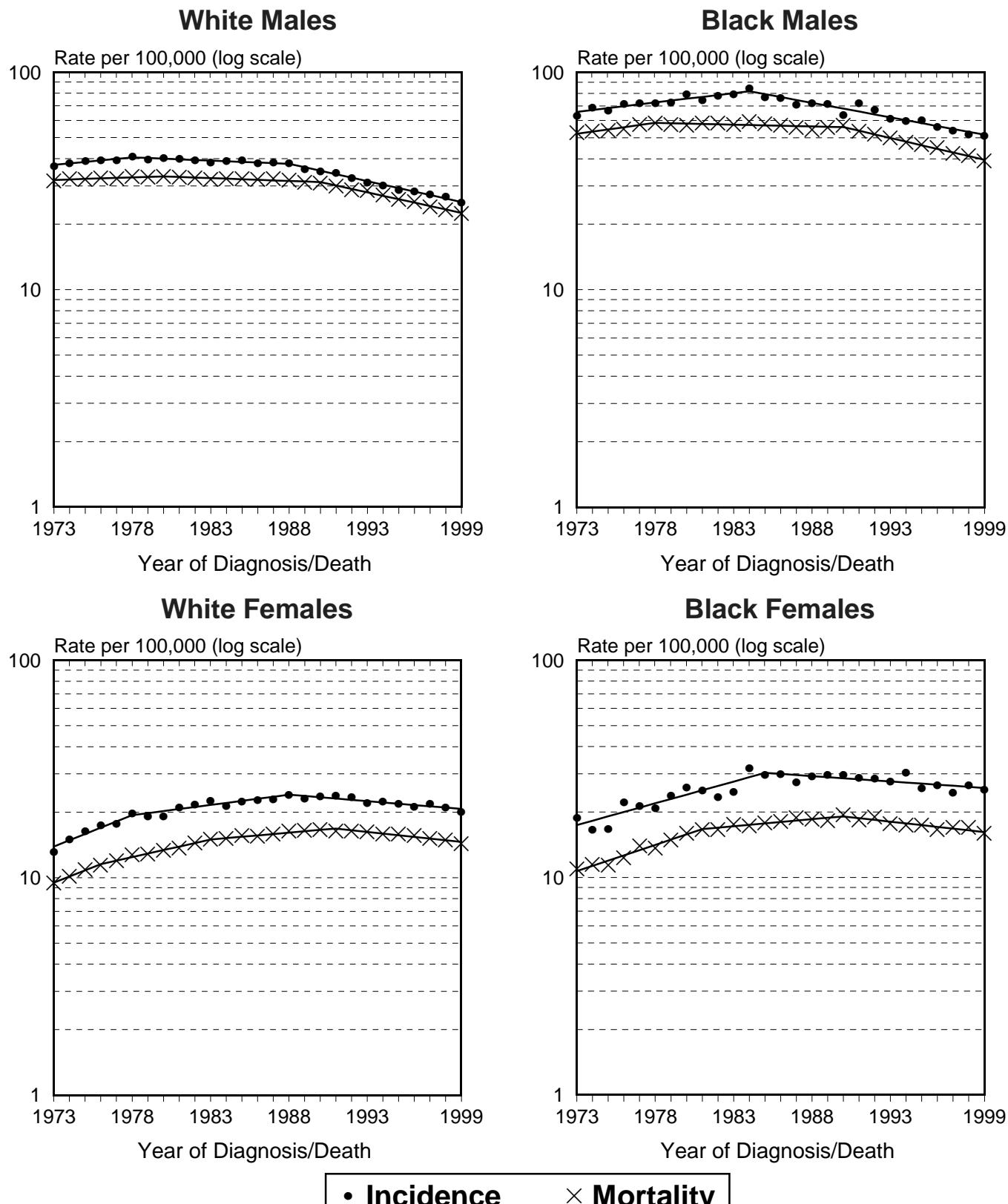
## Lung and Bronchus, All Ages



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

Figure XV-2

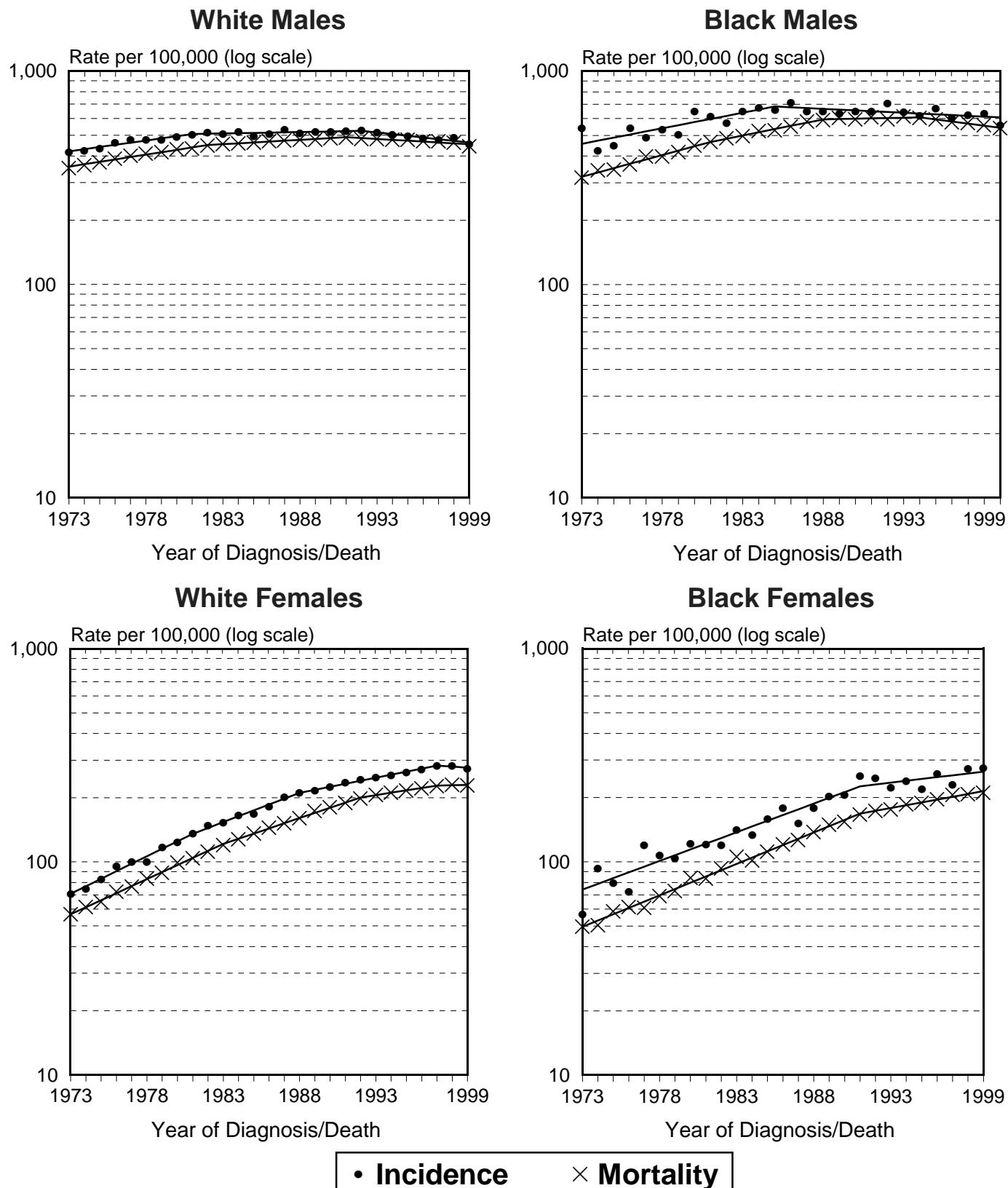
# SEER Incidence and U.S. Death Rates<sup>+</sup> Lung and Bronchus, Under 65 Years of Age



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

Figure XV-3

# SEER Incidence and U.S. Death Rates<sup>+</sup> Lung and Bronchus, Ages 65 and Over



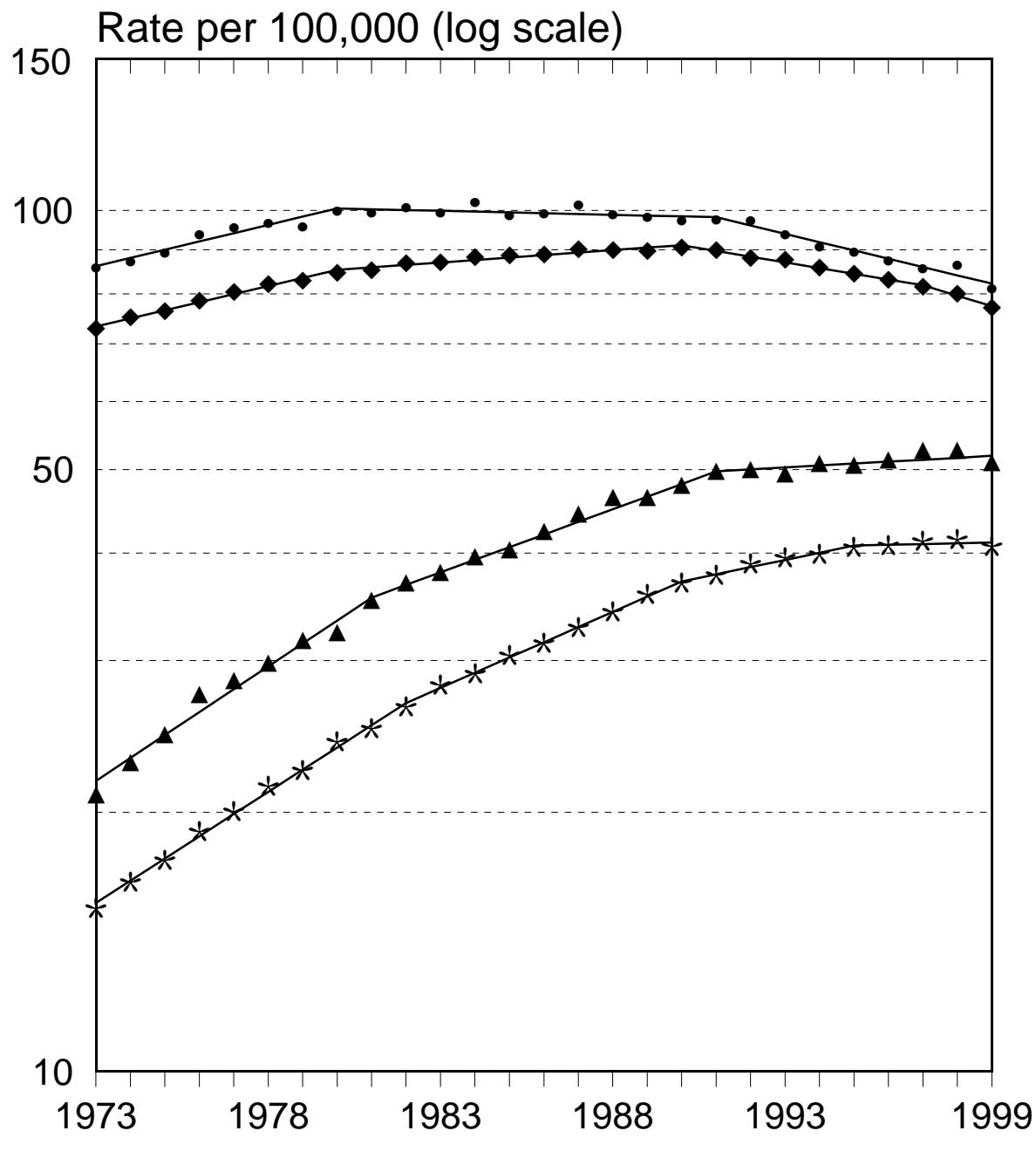
<sup>+</sup> Source: SEER 9 areas and NCHS public use data file. Rates are age-adjusted to the 2000 U.S. standard million population by 5-year age groups. Regression lines are calculated using the Joinpoint Regression Program.

Figure XV-4

# Cancer of the Lung & Bronchus

## SEER Incidence & U.S. Death Rates, 1973-1999

### By Sex, All Races

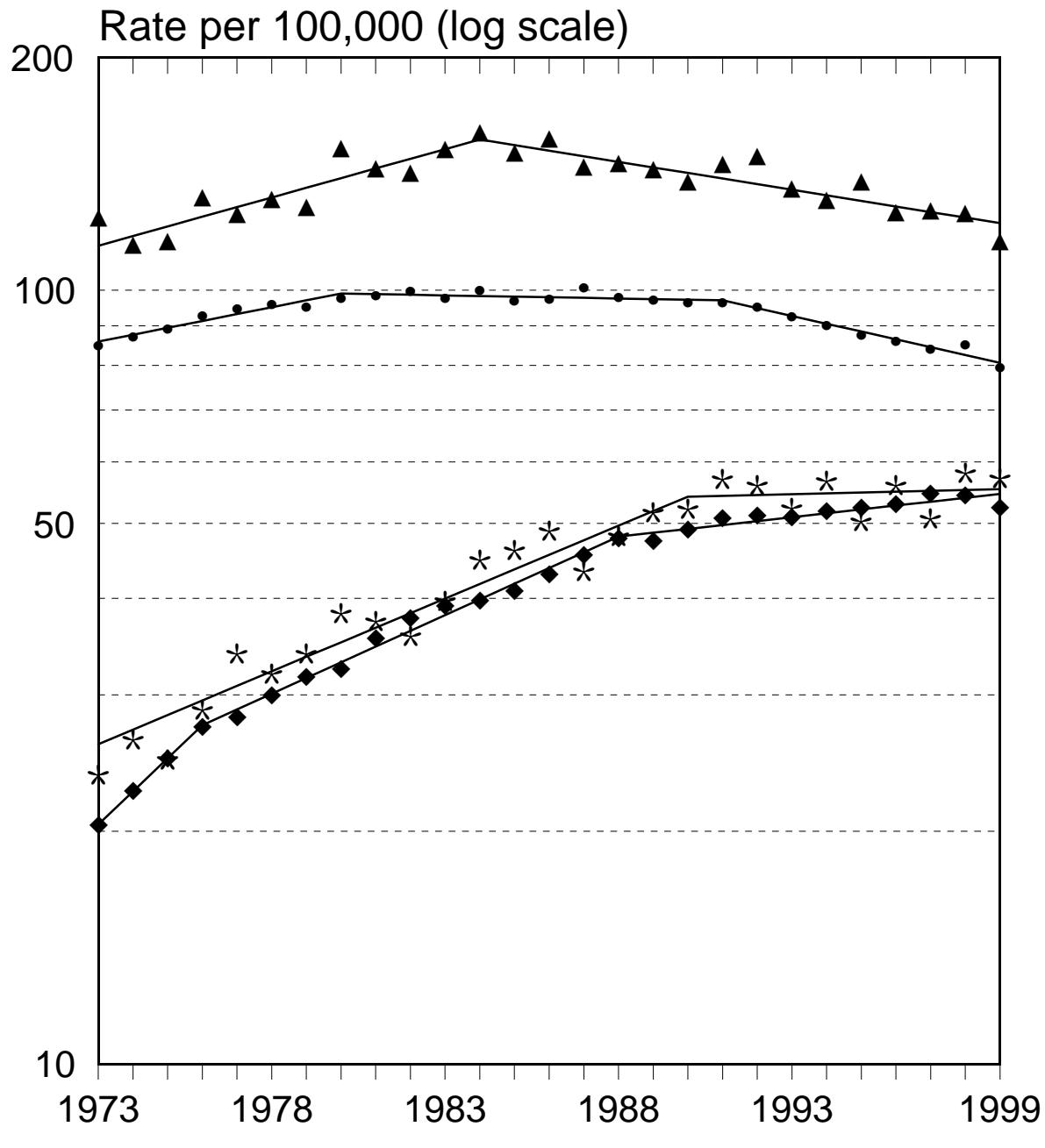


- Male Incidence    ▲ Female Incidence
- ◆ Male Mortality    \* Female Mortality

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

Figure XV-5

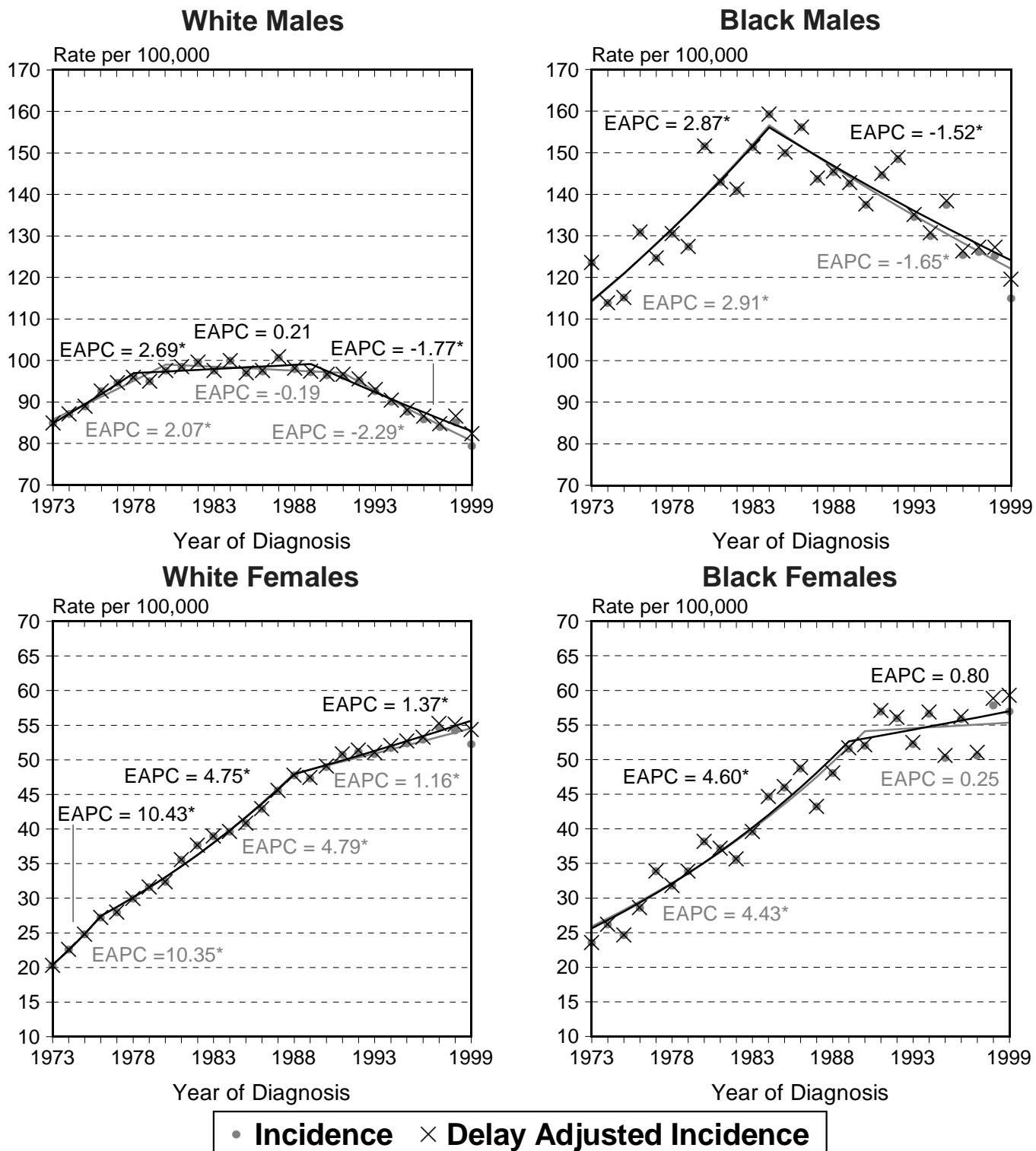
# Cancer of the Lung & Bronchus SEER Incidence, 1973-1999 By Sex and Race



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

Figure XV-6

# SEER Incidence and Delay Adjusted Incidence Rates<sup>+</sup> Lung and Bronchus By Race and Sex



Source: SEER 9 areas.

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

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