



**TRENDS IN LUNG CANCER MORBIDITY AND MORTALITY**

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JUNE 2004**

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## Introduction <sup>(1)</sup>

The incidence and mortality attributed to lung cancer has been rising steadily since the 1930's, mainly due to the increasing popularity of cigarette smoking. Lung cancer has become the leading cause of cancer mortality in both men and women in the United States and will cause an estimated 160,440 deaths in 2004, accounting for 28.5 percent of all cancer deaths. The following report delineates data available from national surveys on lung cancer mortality, prevalence, incidence, hospitalizations and survival rates.

## Mortality Trends <sup>(2)</sup>

Beginning with 1999 mortality data, the population standard used for calculating age-adjusted death rates was changed from the 1940 population to the 2000 population. This change had three important outcomes: (i) provided age-adjusted rates that are less divergent from crude rates (ii) ensured that all government agencies use the same standard and (iii) corrected the public perception that age adjustment to the 1940 population provides out-of-date statistics. Use of the 2000 population standard placed more weight on death rates at older ages and less weight on death rates at younger ages. Because most lung disease rates increase with age, death rates using the new standard were higher than those using the old standard. Figure 1 compares the lung cancer age-adjusted death rates based on the 1940 and 2000 standard populations from 1979-2001. Age-adjusted death rates for lung cancer are approximately 1.5 times greater using the 2000 standard population than those based on the 1940 standard population.

In addition, starting with 1999 data, the tenth revision of international classification of diseases (ICD-10) replaced ICD-9 in coding and classifying mortality data from death certificates. The ICD is periodically revised to reflect changes in the medical field. This change has several consequences: (i) new cause-of-death titles and corresponding cause-of-death codes, i.e. ICD-10 has alphanumeric categories rather than numeric categories, (ii) breaks in comparability of cause-of-death statistics, and (iii) restructuring of the leading causes of death. In order to assess the net effect of the new revision on death statistics, a comparability ratio is derived. The comparability ratio is calculated by dividing the number of deaths for a selected cause of death classified by the new revision by the number of deaths classified to the most nearly comparable cause of death by the previous revision. A comparability ratio of 1 denotes no change between revisions; a ratio of less than 1 signifies a decrease and a ratio of greater than 1 symbolizes an increase in deaths. The comparability ratio for lung cancer is 0.9837, indicating a 2% decrease in assignments of deaths due to lung cancer when using ICD-10.

Lung cancer has been the leading cause of cancer deaths among men since the early 1950's and, in 1987, surpassed breast cancer to become the leading cause of cancer deaths in women. Lung cancer causes more deaths than the next three most common cancers combined (colon, breast and prostate).<sup>3</sup> Figure 2 depicts the 2001 age-adjusted death rates for the most common cancer sites by sex.

Table 1 documents the number of deaths by race and sex between 1979 and 2001. The number of deaths due to lung cancer has increased 58% between 1979 and 2001 from 98,541 to 156,058. In 2001, 42.1% of lung cancer deaths occurred in women compared to 26% of deaths in 1979.

Table 2 displays the age-adjusted death rate per 100,000 population by race and sex for the same years. Due to change in age-adjusted standard population, data later than 1999 is not comparable to 1979-1998 estimates. In 2001, the age-adjusted mortality rate was 55.3 per 100,000 persons. The male death rate was 83% greater than the rate seen in females and the age-adjusted death rate in the black population (62.5 per 100,000) was over 12% greater than the rate in the white population (55.6 per 100,000). The mortality rate in black males (99.1 per 100,000) was 34% higher than that of white males (73.25 per 100,000). In contrast, white women had age-adjusted mortality rates that were 8% higher than black women. In 2001 the mortality rate was reported at 42.1 per 100,000 in white women and 38.7 per 100,000 in black females. However, compared to men, lung cancer death rates in females among both races are similar.

Figure 3 graphically depicts the trend in age-adjusted death rates by race. Lung cancer mortality rates among Hispanics, Native Americans and Asians were significantly lower than rates among non-Hispanic whites and non-Hispanic blacks.

Tables 3 and 4 show the number of deaths and the age-specific mortality rates for lung cancer by sex, race and Hispanic origin. Age-specific mortality attributed to lung cancer increases with age and is greatest in the oldest age groups. In 2001, age-specific mortality rates were highest in non-Hispanic black males across all age groups, as is expected based on the overall mortality differential. The difference in rates between non-Hispanic blacks males and Hispanics and non-Hispanic white males was much more pronounced among younger age groups. When examining the trend in females,

the mortality rates were higher among non-Hispanic black females in younger age groups but greatest in non-Hispanic white females after age 55.

Table 5 delineates state-specific age-adjusted lung cancer death rates by sex from 1999 to 2001. Overall, Kentucky experienced the highest lung cancer death rate (80.8 per 100,000) and Utah had the lowest (23.2 per 100,000). Kentucky experienced the greatest death rate for males (120 per 100,000) and West Virginia had the greatest death rate for females (55.8 per 100,000). The lowest state-specific mortality rates for males (34.0 per 100,000) and females (14.5 per 100,000) were seen in Utah. Figure 4 portrays 2001 lung cancer death rates by state.

Table 6 depicts data on state-specific age-adjusted lung cancer death rates by race. For whites, the greatest death rate was reported in Kentucky (80.9 per 100,000) while the lowest was reported in Utah (23.3 per 100,000). When examining the rate in blacks, the small number of deaths in some states makes the corresponding data unreliable. Among the states with more than 20 deaths, the highest mortality rate was reported in Iowa (88.2 per 100,000) while the lowest was seen in New York (43.1 per 100,000).

### **Morbidity Trends**

The American Cancer Society estimates that there will be 173,770 new cases of lung cancer in 2004. These new cases will account for 13% of all cancer diagnoses. There are two national cancer registries that collect data on cancer prevalence and incidence – the Surveillance, Epidemiology and End Results (SEER) program of the National Cancer Institute and the National Program of Cancer Registries (NPCR) program of the Centers for Disease Control and Prevention.

The National Program of Cancer Registries began in 1992 after Congress mandated the Centers for Disease Control and Prevention to provide funds to states and territories to improve existing cancer registries; implement registries where they did not exist; and develop standards for states to follow. Currently the CDC Supports 45 states, 3 territories and the District of Columbia.

The majority of the lung cancer data presented in this report is collected by the Surveillance, Epidemiology and End Results (SEER) program of the National Cancer Institute. The SEER Program is a continuing project of the National Cancer Institute that has collected cancer data since 1973 from designated population-based cancer registries in various areas of the country. Rates are adjusted to the 2000 U.S. population.

Table 7 represents lung cancer prevalence counts by race sex and years since diagnosis. In 2001, 347,531 Americans were living with lung cancer. Unsurprisingly, the majority of lung cancer patients living have been diagnosed within the last 5 years.

Table 8 delineates the age-adjusted cancer incidence rates for respiratory cancers by site between 1973 and 2001. Lung cancer incidence increased by 25% from 49.0 per 100,000 in 1973 to 61.2 per 100,000 in 2001. Overall, the incidence rates for lung cancer in men and women were 77.7 per 100,000 and 49.1 per 100,000, respectively. Between 1973 and 2001, the rate in white males decreased 9% while the rate in black males decreased 10.9%. However, the 2001 incidence rate in black men is 43% higher than that of white men (110.2 vs. 77.3 per 100,000, respectively). Lung cancer in both white and black women has more than doubled between 1973 and 2001, +150% and +131%, respectively. Unlike the rates in males, lung cancer rates in white women (51 per 100,000) and black women (54.5 per 100,000) were similar. Table 9 displays age-adjusted incidence rates by race and sex. The latest data on cancer incidence by race is from 1997 to 2001. Hispanic, Asians, and Native Americans were significantly less likely to develop lung cancer.

Malignant mesothelioma is an uncommon, but no longer rare, cancer that is difficult to diagnose and poorly responsive to therapy. Malignant mesothelioma is the most serious of all asbestos-related diseases. In 2001, the age-adjusted mesothelioma cancer incidence rate was 1.0 per 100,000 persons. Although the incidence rate remains low, it has increased 67% between 1979 and 2001. The majority of mesothelioma cases are seen in males that have had occupational exposure to asbestos.

Age-adjusted oral cavity and pharynx incidence rates have decreased in both whites and blacks between 1973 and 2001. In 2001, the age-adjusted oral cancer incidence rate was 10.4 per 100,000 persons overall, 10.5 per 100,000 persons in whites and 11.8 per 100,000 in blacks.

The overall incidence rate for cancer of the larynx has decreased 29% between 1973 and 2001. The 2001 incidence rate in black females (1.9 per 100,000) was 46% higher than white females (1.3 per 100,000). Black males had an incidence rate that was 95% higher than that of white males, 11.9 per 100,000 vs. 6.1 per 100,000, respectively.

Each year SEER and NPCR publish a joint report - U.S. Cancer Statistics - which contains state-specific data on about 84% of cancers diagnosed in the past year. Individual state cancer registries, not included in this report, were contacted and subsequently provided their latest cancer estimates. Table 10 delineates state-specific lung cancer counts and rates by sex. In 2000 Kentucky had the highest age-adjusted incidence rates in males (137.7 per 100,000) while Nevada had the highest rate in females (72.4 per 100,000). Utah had the lowest with 38.6 per 100,000 in males and 16.5 per 100,000 in females. These rates are consistent with state-specific smoking prevalence rates.

### Hospitalization Trends

Table 11 delineates age-specific hospital discharge data derived from the National Hospital Discharge Survey. Of the more than 1.2 million discharges attributed to cancer in 2002, 13% were attributed to lung cancer. The total number of discharges reported for lung cancer was 160,000. This represents a discharge rate of 5.6 per 10,000 and was almost a 43% decrease from the discharge rate of 9.7 per 10,000 reported in 1988. The greatest number of discharges was experienced in the population over age 65.

When examined by sex, the number of discharges and discharge rate between 1988 and 2002 has decreased in males and females, -47% and -35%, respectively. The trend in hospital discharges by sex is portrayed in Figure 5.

Table 12 displays the race-specific number of discharges and discharge rate between 1988 and 2002. The 2002 discharge rate for lung cancer was highest in whites (4.4 per 10,000), followed by blacks (3.3 per 10,000) and then all other (2.0 per 10,000). These rates, however, should be interpreted with caution due to the large percentage of discharges (26.4%) for which race was not reported.

### Lung Cancer Types <sup>(4)</sup>

There are two major types of lung cancer: small cell lung cancer (SCLC) and non-small cell lung cancer (NSCLC). Sometimes a lung cancer may have characteristics of both types, which is known as mixed small cell/large cell carcinoma.

Small cell lung cancer is less common, accounting for 20% of all lung cancer. This type of lung cancer grows more quickly and is more likely to spread to other organs in the body. Small cell lung cancer often starts in the bronchi and toward the center of the lungs. Smoking is the main cause.

Non-small cell lung cancer accounts for the remaining 80% of all lung cancer cases. It generally grows and spreads more slowly. There are three main types of non-small cell lung cancer. They are named for the type of cells in which the cancer develops: squamous cell carcinoma, adenocarcinoma, and large cell carcinoma. Adenocarcinoma is the most frequent form of lung cancer in the United States.

Figure 6 delineates the stage distribution for the most common lung cancer types. Staging is used to determine whether the cancer has spread and, if so, to what parts of the body. Stages include localized (within lungs), regional (spread to lymph nodes) and distant (spread to other organs). Between 1995 and 2000, 55% of all small cell lung cancer cases were diagnosed during the distant stage and only 6% were diagnosed local stage. This compares to the 36% of non-small cell lung cancer diagnosed late and the 18% of cases diagnosed in the localized stage.

### Trends in Survival Rates

Table 13 depicts trends in survival rate for lung and other types of cancer by race from 1960 through 2000. Survival rates for lung cancer tend to be much lower than those of most other cancers. The expected 5-year survival rate for all patients in whom lung cancer is diagnosed is 15.2% compared to 63% for colon, 87.7% for breast and 99.3% for prostate cancer. Survival rates for all cancers listed have experienced statistically significant increases since 1974-1976. However, the survival rate for lung cancer has increased by only 22%, which is a relatively low increase when compared to the other cancers listed.

Compared to whites, blacks experienced lower 5-year survival rates for each type of cancer listed. The five-year survival rate for lung cancer in blacks during the period spanning 1995-2000 was 13.2%. The survival rate for lung cancer in whites was only slightly better at 15.4%. Blacks have poorer survival rates for lung cancer than whites, even when controlling for age at diagnosis.

Table 14 displays trends in the 5-year survival rates by lung cancer type, race and sex. Survival rates for non-small cell lung cancer are greater than those seen for small cell lung cancer. Between 1995 and 2000 the survival rate for non-small cell lung cancer was 16.9% compared to 6.5% for small cell lung cancer.

The *prognosis* (outlook for survival) for a patient with lung cancer depends, to a large extent, on the cancer's stage. Figure 7 displays the 5-yr survival rates for all stages by type of lung cancer. The average five-year survival rate between 1995 and 2000 for localized lung cancer was 49.4% compared to 15.2% overall and 2.1% for a distant tumor. Unfortunately, only 15% of people with lung cancer are diagnosed at an early, localized stage.

### Smoking-Attributable Lung Cancer Deaths

The most important cause of lung cancer in the United States is cigarette smoking. It is estimated that 87% of lung cancer cases are caused by smoking. Compared to non-smokers, smokers have about a 20 fold increase in lung cancer risk; the risk increases with the duration of smoking and amount smoked per day.<sup>3</sup> Between 1995 to 1999, an average of 124,813 Americans (80,571 males and 44,242 females) died of smoking-attributable lung cancer annually. Smoking-attributable annual lung cancer death rates range from a high in Kentucky of 121.4 per 100,000 to a low in Utah of 38.7 per 100,000. As expected, smoking prevalence rates are also highest in Kentucky and lowest in Utah. Figure 8 delineates annual state-specific smoking-attributable lung cancer death rates.

### Lifetime Risk of Being Diagnosed With Cancer

Using data from the SEER registry, the National Cancer Institute has calculated the lifetime risk of being diagnosed with lung cancer, as well as the lifetime risk of dying from lung cancer. This risk is calculated for the entire population and includes smokers and non-smokers. These data are displayed in Table 15 by race and sex for 1999-2001. As shown in the table, the lifetime risk of being diagnosed with and dying from lung cancer is highest in males.

### International Lung Cancer Data

An estimated 1 million people worldwide die from lung cancer annually. It is the most common diagnosed cancer but with marked regional variation. Rates in Africa today, are similar to rates seen in the United States in the 1930s. Over 3 million people have lung cancer, the majority residing in developed countries. The highest rates of lung cancer occur in the same regions of the world for both sexes, but men invariably outpace women by well over 100% in some nations.

### Summary

Lung cancer is the leading cause of lung cancer mortality in both men and women in the United States. An estimated 347,000 people have lung cancer. It has been shown that rises and declines in lung cancer incidence and mortality rates parallel past trends of cigarette smoking. Active smoking is responsible for close to 90% of lung cancer cases; radon causes 10%, occupational exposures to carcinogens account for approximately 9 to 15% and outdoor air pollution 1 to 2%. Because of the interactions between exposures, the combined population attributable risk for lung cancer can exceed 100%.<sup>3</sup> Five year survival rates are low compared to other common cancers at 15.2%.

## FOOTNOTES

- (1) Unless otherwise noted, terms such as higher or less are not intended to indicate statistical significance.
- (2) Information on mortality for lung cancer is available from two different sources: the National Center for Health Statistics (NCHS) and the Surveillance, Epidemiology and End Results (SEER) program of the National Cancer Institute. This report obtains mortality information from the National Center for Health Statistics. All mortality estimates for 1999 to 2001 are coded by ICD-10 revision and age-adjusted to the 2000 U.S. standard population.
- (3) Alberg, AJ and Samet, J. Epidemiology of Lung Cancer. Chest Vol. 123, January 2003.
- (4) Information on lung cancer types and stages comes from the Surveillance, Epidemiology and End Results (SEER) program of the National Cancer Institute and the American Cancer Society.

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4. Cancer Statistics Working Group. U.S. Cancer Statistics, 2000 Incidence
5. National Center for Health Statistics. National Hospital Discharge Survey, 1979-2002
6. Mortality and Morbidity Weekly Report. Annual Smoking-Attributable Mortality, Years of Potential Life Lost, and Economic cost – United States, 1995-1999. Vol. 51(14), April 12, 2002
7. CDC. Tobacco Control State Highlights, 2002

**TABLE 1: LUNG CANCER - NUMBER OF DEATHS BY RACE AND SEX, 1979-1998, 1999-2001**

YEAR	ALL RACES			WHITE			ALL OTHER RACES <sup>1</sup>					
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL			BLACK		
							TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
1979 <sup>2</sup>	98,541	72,803	25,648	87,532	64,338	23,194	11,009	8,465	2,454	10,247	7,991	2,256
1980	103,844	75,535	28,309	92,182	66,651	25,531	11,662	8,884	2,778	10,957	8,382	2,575
1981	106,561	76,764	29,797	94,441	67,525	26,916	12,120	9,239	2,881	11,372	8,697	2,675
1982	111,393	79,228	32,165	98,780	69,686	29,094	12,613	9,542	3,071	11,857	9,003	2,854
1983	115,023	80,338	34,685	101,857	70,598	31,259	13,166	9,740	3,426	12,282	9,117	3,165
1984	118,730	82,491	36,239	105,027	72,239	32,788	13,703	10,252	3,451	12,708	9,569	3,139
1985	122,566	83,854	38,702	108,529	73,519	35,010	14,037	10,335	3,692	13,009	9,615	3,394
1986	125,522	85,057	40,465	111,049	74,517	36,532	14,473	10,540	3,933	13,354	9,773	3,581
1987	130,009	87,261	42,748	114,888	76,398	38,490	15,121	10,863	4,258	13,886	10,065	3,821
1988	133,284	88,059	45,225	117,826	77,063	40,763	15,458	10,996	4,462	14,131	10,112	4,019
1989	137,150	89,052	48,098	121,023	77,659	43,364	16,127	11,393	4,734	14,703	10,457	4,246
1990	141,285	91,091	50,194	124,650	79,488	45,162	16,635	11,603	5,032	15,144	10,632	4,512
1991	143,758	91,690	52,068	126,872	80,028	46,844	16,886	11,662	5,224	15,201	10,545	4,656
1992	145,943	91,405	54,538	128,719	79,728	48,991	17,224	11,677	5,547	15,472	10,530	4,942
1993	148,855	92,564	56,291	131,337	80,620	50,717	17,518	11,944	5,574	15,641	10,733	4,908
1994	149,482	91,893	57,589	131,871	80,096	51,775	17,611	11,797	5,814	15,670	10,555	5,115
1995	151,200	91,856	59,344	133,366	80,088	53,278	17,834	11,768	6,066	15,790	10,537	5,253
1996	152,015	91,620	60,395	134,055	79,809	54,246	17,960	11,811	6,149	15,835	10,463	5,372
1997	153,310	91,352	61,958	135,060	79,624	55,436	18,250	11,728	6,522	16,014	10,336	5,678
1998	154,561	91,447	63,114	136,026	79,649	56,377	18,535	11,798	6,737	16,105	10,288	5,817
1999 <sup>3</sup>	152,156	89,453	62,703	133,752	77,846	55,906	18,404	11,607	6,797	15,963	10,135	5,828
2000 <sup>3</sup>	155,521	90,469	65,052	136,912	78,747	58,165	18,609	11,722	6,887	16,066	10,153	5,913
2001 <sup>3</sup>	156,058	90,426	65,632	137,274	78,665	58,609	18,784	11,761	7,023	16,019	10,131	5,888

**SOURCE: NATIONAL VITAL STATISTICS. REPORTS OF FINAL MORTALITY DATA.**

NOTES:

(1) ALL RACES OTHER THAN WHITE.

(2) INTERNATIONAL CLASSIFICATION OF DISEASES, 9TH REVISION (ICD-9) CODE 162.

(3) INTERNATIONAL CLASSIFICATION OF DISEASES, 10TH REVISION (ICD-10) CODE C33-C34.

**TABLE 2: LUNG CANCER - AGE-ADJUSTED DEATH RATES<sup>1,2</sup> BY RACE AND SEX, 1979-1998, 1999-2001**

YEAR	ALL RACES						ALL OTHER RACES <sup>3</sup>					
	ALL RACES			WHITE			TOTAL			BLACK		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
1979 <sup>4</sup>	33.6	55.7	16.3	33.0	54.3	16.4	38.4	67.4	15.7	41.6	74.2	16.6
1980	34.8	56.9	17.6	34.2	55.5	17.6	39.8	69.2	17.1	43.9	77.2	18.5
1981	35.1	56.9	18.2	34.4	55.3	18.2	40.2	70.0	17.2	44.7	79.0	18.9
1982	35.9	57.6	19.2	35.3	56.0	19.4	40.6	70.6	17.6	45.6	80.4	19.5
1983	36.4	57.3	20.3	35.8	55.7	20.5	41.3	70.6	19.1	46.5	80.4	21.2
1984	37.0	58.0	20.8	36.4	56.2	21.0	41.9	72.5	18.9	47.2	83.1	20.7
1985	37.6	58.1	21.8	37.0	56.4	22.1	41.9	71.6	19.5	47.6	82.6	21.8
1986	37.8	57.9	22.3	37.2	56.2	22.5	42.1	71.4	20.2	48.0	82.8	22.6
1987	38.5	58.5	23.1	37.9	56.8	23.3	42.8	71.9	21.3	49.0	84.0	23.7
1988	38.9	58.2	24.0	38.3	56.5	24.3	42.5	71.0	21.6	48.9	83.1	24.3
1989	39.3	57.9	24.9	38.6	56.0	25.3	43.4	72.3	22.1	50.2	85.3	25.0
1990	39.9	58.5	25.6	39.3	56.6	25.9	43.9	72.3	23.2	51.3	86.2	26.4
1991	39.6	57.5	25.8	39.1	55.8	26.1	42.7	70.0	22.8	49.9	83.2	26.1
1992	39.3	56.0	26.4	38.8	54.4	26.7	42.4	68.1	23.6	49.8	81.4	27.3
1993	39.3	55.7	26.6	38.9	54.0	27.0	41.7	67.7	22.9	48.9	80.8	26.2
1994	38.7	54.2	26.6	38.4	52.7	27.1	40.7	64.9	23.1	47.9	77.6	26.7
1995	38.3	53.0	26.9	38.0	51.6	27.4	40.1	63.0	23.5	47.3	75.8	26.9
1996	37.8	51.8	26.8	37.6	50.5	27.5	40.7	64.8	23.3	46.2	73.2	26.5
1997	37.4	50.5	27.0	37.1	49.3	27.5	39.4	61.4	23.8	45.3	70.6	27.4
1998	37.0	49.5	27.0	36.8	48.4	27.5	39.2	56.8	23.6	44.6	68.5	27.5
1999 <sup>5</sup>	56.0	77.0	40.8	56.0	75.8	41.5	55.7	84.9	35.4	65.2	101.8	40.5
2000 <sup>5</sup>	56.5	76.6	41.8	56.6	75.5	42.8	54.8	83.4	34.8	64.1	99.5	40.2
2001 <sup>5</sup>	55.3	75.2	41.0	55.6	74.2	42.1	52.8	81.1	33.8	62.5	99.1	38.7

**SOURCE: NATIONAL VITAL STATISTICS. REPORTS OF FINAL MORTALITY DATA.**

NOTES:

- (1) RATES FOR 1979-1998 ARE PER 100,000 PERSONS AND AGE-ADJUSTED TO THE 1940 U.S. STANDARD POPULATION.
- (2) RATES FOR 1999-2001 ARE PER 100,000 PERSONS AND AGE-ADJUSTED TO THE 2000 U.S. STANDARD POPULATION.
- (3) ALL OTHER RACES INCLUDES BLACKS AND ALL RACES OTHER THAN WHITE.
- (4) INTERNATIONAL CLASSIFICATION OF DISEASES, 9TH REVISION (ICD-9) CODE 162.
- (5) INTERNATIONAL CLASSIFICATION OF DISEASES, 10TH REVISION (ICD-10) CODE C33-C34.

**TABLE 3: LUNG CANCER - NUMBER OF DEATHS<sup>1</sup> BY ORIGIN, SEX AND 10-YEAR AGE GROUPS, 1999-2001**

YEAR/ AGE	ALL ORIGINS			HISPANIC			NON-HISPANIC WHITE			NON- HISPANIC BLACK		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
<b>2001</b>												
All Ages	156,058	90,426	65,632	3,816	2,495	1,321	133,266	76,066	57,200	15,883	10,030	5,853
<1	0	0	0	0	0	0	0	0	0	0	0	0
1-14	7	5	2	3	2	1	3	2	1	1	1	0
15-24	20	12	8	7	6	1	9	4	5	3	1	2
25-34	157	77	80	16	10	6	114	55	59	16	7	9
35-44	2,796	1,504	1,292	106	68	38	2,100	1,095	1,005	515	298	217
45-54	12,041	7,190	4,851	364	239	125	9,301	5,421	3,880	2,060	1,352	708
55-64	29,777	17,873	11,904	758	517	241	24,713	14,552	10,161	3,685	2,400	1,285
65-74	51,225	30,699	20,526	1,230	820	410	43,972	26,056	17,916	5,076	3,266	1,810
75-84	46,700	26,406	20,294	1,011	657	354	41,223	23,022	18,201	3,623	2,226	1,397
85+	13,331	6,656	6,675	321	176	145	11,829	5,857	5,972	902	477	425
<b>2000</b>												
All Ages	155,521	90,469	65,052	3,643	2,411	1,232	133,061	76,218	56,843	15,924	10,056	5,868
<1	2	2	0	0	0	0	1	1	0	1	1	0
1-14	3	1	2	0	0	0	3	1	2	0	0	0
15-24	22	14	8	3	3	0	11	7	4	5	2	3
25-34	197	102	95	17	10	7	139	73	66	31	14	17
35-44	2,756	1,542	1,214	90	56	34	1,996	1,076	920	578	359	219
45-54	11,915	7,123	4,792	342	229	113	9,176	5,355	3,821	2,113	1,372	741
55-64	29,271	17,937	11,784	672	471	201	24,777	14,682	10,095	3,688	2,410	1,278
65-74	52,258	31,382	20,876	1,191	793	398	44,952	26,704	18,248	5,178	3,309	1,869
75-84	45,836	25,966	19,870	1,006	666	340	40,666	22,718	17,948	3,414	2,105	1,309
85+	12,806	6,395	6,411	322	183	139	11,337	5,598	5,739	915	483	432
<b>1999</b>												
All Ages	152,156	89,453	62,703	3,545	2,373	1,172	129,967	75,338	54,629	15,834	10,039	5,795
<1	0	0	0	0	0	0	0	0	0	0	0	0
1-14	5	4	1	0	0	0	3	2	1	2	2	0
15-24	20	13	7	3	2	1	9	6	3	8	5	3
25-34	179	97	82	17	10	7	131	71	60	20	11	9
35-44	2,724	1,474	1,250	98	58	40	2,025	1,078	947	531	301	230
45-54	11,434	6,851	4,583	308	208	100	8,832	5,155	3,677	2,029	1,338	691
55-64	29,344	18,013	11,331	724	523	201	24,329	14,654	9,675	3,743	2,500	1,243
65-74	51,848	31,287	20,561	1,170	798	372	44,577	26,596	17,981	5,111	3,267	1,844
75-84	44,261	25,397	18,864	901	606	295	39,153	22,219	16,934	3,483	2,127	1,356
85+	12,339	6,315	6,024	324	168	156	10,907	5,556	5,351	907	488	419

**SOURCE: NATIONAL VITAL STATISTICS SYSTEM TABULATED DATA**

NOTES:

(1) INTERNATIONAL CLASSIFICATION OF DISEASES, 10TH REVISION (ICD-10) CODE C33-C34.

**TABLE 4: LUNG CANCER - AGE-ADJUSTED AND AGE-SPECIFIC MORTALITY RATES<sup>1,2</sup> BY ORIGIN AND SEX, 1999-2001**

YEAR/ AGE	ALL ORIGINS			HISPANIC			NON-HISPANIC WHITE			NON- HISPANIC BLACK		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
<b>2001</b>												
All Ages	55.3	75.2	41.0	23.8	36.8	14.5	57.7	76.6	44.0	63.4	100.5	39.4
<1	**	**	**	**	**	**	**	**	**	**	**	**
1-14	**	**	**	**	**	**	**	**	**	**	**	**
15-24	0.1	**	**	**	**	**	**	**	**	**	**	**
25-34	0.4	0.4	0.4	**	**	**	0.5	0.4	0.5	**	**	**
35-44	6.2	6.7	5.7	1.9	2.4	1.4	6.6	6.9	6.4	9.2	11.4	7.3
45-54	30.7	37.4	24.3	10.7	14.2	7.3	31.5	37.0	26.0	47.5	67.5	30.4
55-64	117.7	147.1	90.5	41.0	59.5	24.6	124.0	150.3	99.2	149.4	218.3	94.0
65-74	279.7	370.0	204.9	108.3	163.7	64.6	295.2	381.1	222.3	311.4	484.4	189.4
75-84	371.4	529.5	267.5	182.3	293.8	107.0	383.0	536.5	281.3	390.9	668.0	235.3
85+	302.7	512.4	215.0	200.7	335.2	135.0	308.6	520.0	220.6	281.6	550.9	181.8
<b>2000</b>												
All Ages	56.1	76.7	41.3	24.8	39.0	14.7	58.2	77.9	44.1	64.9	102.6	40.4
<1	**	**	**	**	**	**	**	**	**	**	**	**
1-14	**	**	**	**	**	**	**	**	**	**	**	**
15-24	0.1	**	**	**	**	**	**	**	**	**	**	**
25-34	0.5	0.5	0.5	**	**	**	0.5	0.6	0.5	0.6	**	**
35-44	6.1	6.9	5.3	1.8	2.1	1.4	6.2	6.7	5.7	10.4	13.8	7.4
45-54	31.6	38.5	25.0	10.9	14.8	7.1	32.0	37.7	26.4	51.5	72.4	33.6
55-64	122.4	154.0	93.3	39.3	58.6	22.2	129.1	157.7	102.2	155.0	227.1	97.0
65-74	284.2	377.9	206.9	110.6	167.3	66.6	298.0	387.3	222.9	320.2	495.4	196.9
75-84	370.8	532.2	265.6	198.7	327.5	112.3	381.7	537.7	279.2	379.4	649.5	227.3
85+	302.1	521.2	212.8	213.7	368.8	137.5	306.8	527.3	218.0	291.0	567.1	188.4
<b>1999</b>												
All Ages	55.5	76.9	40.2	25.0	39.6	14.6	57.2	77.6	42.7	65.7	104.3	40.6
<1	**	**	**	**	**	**	**	**	**	**	**	**
1-14	**	**	**	**	**	**	**	**	**	**	**	**
15-24	0.1	**	**	**	**	**	**	**	**	**	**	**
25-34	0.4	0.5	0.4	**	**	**	0.5	0.5	0.5	0.4	**	**
35-44	6.0	6.6	5.5	2.0	2.3	1.7	6.2	6.6	5.8	9.6	11.7	7.9
45-54	31.3	38.2	24.6	10.4	14.2	6.7	31.5	37.1	26.1	51.5	73.7	32.5
55-64	123.4	158.0	91.5	44.2	68.1	23.1	128.9	160.1	99.5	161.1	241.9	96.4
65-74	281.5	377.2	203.1	112.9	175.3	64.0	293.5	384.4	217.5	317.7	491.0	195.5
75-84	362.1	527.6	254.5	187.7	316.0	102.3	370.3	531.1	265.0	390.9	665.1	237.4
85+	297.0	529.2	203.5	227.3	362.3	162.2	300.5	536.9	206.2	293.3	580.0	186.1

SOURCE: NATIONAL VITAL STATISTICS SYSTEM TABULATED DATA

NOTES:

(1) RATES ARE PER 100,000 POPULATION.

(2) INTERNATIONAL CLASSIFICATION OF DISEASES, 10TH REVISION (ICD-10) CODE C33-C34.

\*\* NUMBER OF DEATHS IS TOO SMALL.

**TABLE 5: LUNG CANCER - AGE ADJUSTED DEATH RATES<sup>1</sup>, BY STATE AND SEX, 1999-2001**

STATE	1999			2000			2001		
	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE	TOTAL	MALE	FEMALE
Alabama	63.4	98.8	38.4	64.5	100.8	39.4	62.6	95.9	39.8
Alaska	52.4	65.9	41.0	59.5	72.0	50.9	54.4	64.2	46.6
Arizona	52.0	66.6	40.5	48.6	62.0	38.0	45.6	55.7	37.6
Arkansas	69.9	105.5	44.2	68.5	99.1	46.2	68.2	102.7	42.8
California	47.7	59.6	38.5	47.3	60.0	38.0	46.9	58.9	38.2
Colorado	39.9	52.6	30.9	41.3	51.6	33.7	41.5	51.5	34.7
Connecticut	49.8	63.7	40.2	50.6	66.3	39.8	49.4	61.9	41.2
Delaware	70.9	96.5	51.4	59.5	77.8	45.5	63.6	78.4	53.2
District of Columbia	53.0	75.0	38.6	57.2	73.4	43.8	55.8	82.7	37.8
Florida	58.3	78.4	42.4	57.1	75.6	42.6	56.2	72.9	43.0
Georgia	61.2	95.1	38.2	62.6	92.8	42.4	61.3	91.3	40.7
Hawaii	36.2	49.5	25.2	35.6	49.6	23.8	36.5	48.4	26.4
Idaho	43.1	57.7	32.2	45.3	59.4	34.5	44.6	57.0	34.4
Illinois	56.7	79.0	41.0	57.4	79.9	41.8	56.5	78.9	41.0
Indiana	66.1	94.3	46.5	65.8	91.4	48.0	65.1	93.4	45.3
Iowa	51.3	74.4	35.0	52.5	77.1	35.6	51.6	70.3	38.2
Kansas	54.1	76.5	37.6	52.9	74.4	37.9	56.2	77.1	41.2
Kentucky	74.6	109.2	50.4	80.2	115.8	54.1	80.8	120.0	53.5
Louisiana	66.4	99.7	42.9	67.9	99.3	45.8	68.7	100.6	45.9
Maine	60.6	79.9	47.0	62.4	80.3	49.2	58.6	79.1	44.7
Maryland	59.4	81.0	44.3	59.4	78.9	46.1	57.2	75.8	44.0
Massachusetts	54.5	73.8	41.3	56.2	73.9	44.5	54.2	68.4	45.0
Michigan	56.1	75.9	41.9	57.0	76.6	43.3	57.1	75.4	44.3
Minnesota	47.8	65.0	35.1	46.6	60.6	36.8	47.2	60.8	37.1
Mississippi	71.9	112.3	44.2	71.0	111.8	42.7	69.0	107.4	41.9
Missouri	62.9	86.4	45.8	63.5	88.4	46.1	63.1	88.3	45.1
Montana	53.8	69.0	42.0	50.3	66.4	38.4	59.0	73.6	48.2
Nebraska	52.2	73.3	36.6	48.1	65.5	35.1	52.7	72.1	38.2
Nevada	66.6	80.2	55.2	65.7	78.6	56.1	63.5	76.2	53.2
New Hampshire	58.6	77.2	45.3	54.9	70.8	43.6	52.6	64.3	44.5
New Jersey	53.3	71.6	40.4	53.4	71.1	41.6	52.7	70.4	40.7
New Mexico	39.3	51.0	30.3	39.1	52.1	29.3	37.7	49.6	28.5
New York	50.3	65.9	39.4	49.5	66.2	38.1	48.5	64.4	37.9
North Carolina	61.7	92.7	40.3	62.3	94.3	40.6	61.3	90.7	41.1
North Dakota	42.0	57.7	30.4	44.3	64.9	28.6	48.8	65.2	35.9
Ohio	61.3	85.3	44.7	61.4	85.7	44.5	60.2	84.9	42.9
Oklahoma	63.0	90.3	43.7	64.9	89.3	47.6	64.0	90.4	45.1
Oregon	54.5	68.1	44.6	58.8	72.5	49.3	54.9	66.4	46.5
Pennsylvania	55.6	77.1	40.6	55.4	76.6	40.8	54.9	76.8	39.7
Rhode Island	61.3	85.0	46.5	58.7	77.9	45.7	55.2	76.6	40.5
South Carolina	61.4	91.8	39.6	61.4	92.3	39.6	62.5	94.3	39.5
South Dakota	50.7	75.5	31.0	47.2	68.2	31.7	49.8	71.9	33.0
Tennessee	68.8	105.9	42.6	69.1	103.2	44.8	68.8	104.2	43.4
Texas	55.4	77.5	39.5	56.0	79.0	39.2	53.8	74.9	38.4
Utah	26.6	36.5	19.1	26.3	39.6	16.2	23.2	34.0	14.5
Vermont	57.6	84.0	39.1	53.4	69.9	41.0	53.9	77.5	37.3
Virginia	60.0	85.2	42.0	59.1	82.7	42.7	56.2	75.1	43.1
Washington	57.5	72.0	46.7	57.6	70.9	47.9	55.2	68.1	45.9
West Virginia	73.6	104.1	52.6	73.8	104.2	52.0	72.0	94.2	55.8
Wisconsin	49.3	67.0	36.4	48.4	67.0	35.4	49.3	65.1	37.9
Wyoming	52.5	63.5	44.0	49.2	63.9	38.5	48.4	62.8	37.5
<b>U.S. Total</b>	<b>56.0</b>	<b>77.0</b>	<b>40.8</b>	<b>56.5</b>	<b>76.6</b>	<b>41.8</b>	<b>55.3</b>	<b>75.2</b>	<b>41.0</b>

SOURCE: CDC WONDER, 1999, 2000, 2001

NOTES:

(1) RATES ARE PER 100,000 PERSONS, AGE-ADJUSTED TO THE 2000 U.S. POPULATION AND CODED BY ICD-10 REVISION.

**TABLE 6: LUNG CANCER - AGE ADJUSTED MORTALITY RATES<sup>1</sup> BY STATE AND RACE, 1999-2001**

STATE	1999				2000				2001			
	ALL	WHITE	BLACK	OTHER <sup>2</sup>	ALL	WHITE	BLACK	OTHER <sup>2</sup>	ALL	WHITE	BLACK	OTHER <sup>2</sup>
Alabama	63.4	64.1	61.2	13.5*	64.5	65.4	62.1	6.4*	62.6	63.4	59.6	47.0*
Alaska	52.4	56.9	7.1*	40.7	59.5	59.5	54.0*	59.3	54.4	52.5	60.0*	62.7
Arizona	52.0	53.5	40.1	16.9	48.6	49.5	68.2	14.8	45.6	46.5	54.0	18.7
Arkansas	69.9	69.9	72.6	11.2*	68.5	68.2	71.5	34.6*	68.2	69.3	61.0	35.3*
California	47.7	48.6	61.7	32.1	47.3	48.7	61.2	29.9	46.9	48.1	63.2	31.1
Colorado	39.9	39.9	51.1	22.5*	41.3	41.5	49.4	24.6	41.5	41.3	65.0	24.2*
Connecticut	49.8	50.2	48.3	19.1*	50.6	50.5	61.6	10.7*	49.4	49.7	51.6	22.5*
Delaware	70.9	65.5	89.0	42.8*	59.5	60.2	61.6	10.7*	63.6	62.9	72.5	16.8*
District of Columbia	53.0	37.2	63.6	6.3*	57.2	35.9	68.7	14.4*	55.8	42.0	64.0	17.5*
Florida	58.3	58.9	56.9	16.5	57.1	58.0	50.6	16.5	56.2	57.3	50.6	17.7
Georgia	61.2	62.0	60.7	9.4*	62.6	64.9	55.2	18.3	61.3	63.2	56.5	20.7*
Hawaii	36.2	38.6	20.5*	35.9	35.6	44.2	25.0*	32.7	36.5	38.6	35.2*	35.8
Idaho	43.1	43.1	158.0*	24.1*	45.3	45.5	56.4*	30.5*	44.6	45.1	0.0*	13.3*
Illinois	56.7	55.1	76.7	17.5	57.4	55.7	75.2	27.7	56.5	55.8	71.0	19.2
Indiana	66.1	65.2	86.0	12.9*	65.8	65.7	71.7	11.6*	65.1	64.7	76.7	14.9*
Iowa	51.3	51.2	85.8	14.1*	52.5	52.3	90.4	32.3*	51.6	51.4	88.2	27.0*
Kansas	54.1	53.6	69.4	43.2*	52.9	52.8	59.6	38.3*	56.2	55.2	87.5	34.8*
Kentucky	74.6	74.4	83.5	3.8*	80.2	79.6	94.2	43.9*	80.8	80.9	87.4	12.6*
Louisiana	66.4	63.6	76.2	11.5*	67.9	66.1	73.9	31.8*	68.7	67.3	74.1	18.1*
Maine	60.6	60.7	30.0*	67.8*	62.4	62.5	75.9*	57.2*	58.6	58.8	55.4*	52.0*
Maryland	59.4	58.9	67.4	17.1	59.4	58.9	64.7	27.0	57.2	57.1	62.8	20.5
Massachusetts	54.5	54.7	61.7	30.2	56.2	56.9	54.7	19.6	54.2	55.1	45.8	27.2
Michigan	56.1	54.5	68.6	57.5	57.0	55.9	67.0	43.6	57.1	55.7	69.4	48.1
Minnesota	47.8	47.4	84.0	46.8	46.0	46.0	103.9	37.6	47.2	46.8	66.4	50.7
Mississippi	71.9	71.9	71.7	34.0*	71.0	71.8	69.2	35.2*	69.0	70.1	66.6	6.8*
Missouri	62.9	62.0	77.2	29.9*	63.5	62.7	76.7	35.8*	63.1	62.4	75.3	23.9*
Montana	53.8	52.3	0.0*	103.5	50.3	49.5	74.2*	85.1	59.0	57.6	59.8*	108.4
Nebraska	52.2	51.6	75.7	38.6*	48.1	47.7	68.5	25.1*	52.7	52.3	78.4	47.8*
Nevada	66.6	68.9	60.9	29.6	65.7	67.8	67.4	27.9	63.5	65.1	70.7	29.2
New Hampshire	58.6	59.0	54.2*	17.6*	54.9	55.0	142.6*	0.0*	52.6	53.0	43.2*	9.5*
New Jersey	53.3	53.8	61.2	13.4	53.4	53.8	61.1	17.5	52.7	53.1	61.4	18.3
New Mexico	39.3	41.2	29.5*	11.7*	39.1	40.5	42.2*	16.0*	37.7	39.3	48.8*	12.4*
New York	50.3	52.2	44.4	28.0	49.5	51.4	43.8	26.5	48.5	50.7	43.1	22.1
North Carolina	61.7	61.6	63.1	42.2	62.3	62.8	61.4	36.0	61.3	61.3	62.3	42.0
North Dakota	42.0	41.0	28.7*	94.5*	44.3	44.0	91.8*	75.1*	48.8	47.4	0.0*	116.2*
Ohio	61.3	60.2	76.8	29.7	61.4	59.7	83.1	22.6*	60.2	59.6	71.0	24.6
Oklahoma	63.0	62.0	61.6	36.3	64.9	66.3	69.2	43.4	64.0	66.0	59.8	40.1
Oregon	54.5	54.5	64.7	47.7	58.8	59.5	72.0	29.2	54.9	55.6	60.5	35.6
Pennsylvania	55.6	53.9	81.5	16.1*	55.4	54.4	72.4	16.4	54.9	54.0	72.5	15.8
Rhode Island	61.3	61.7	62.4*	20.2*	58.7	59.8	59.7*	4.0*	55.2	55.3	50.0*	43.4*
South Carolina	61.4	61.8	60.1	24.3*	61.4	62.2	58.6	30.0*	62.5	64.0	57.0	24.0*
South Dakota	50.7	49.3	33.5*	100.2	47.2	45.5	0.0*	90.2	49.8	49.2	152.4*	61.7*
Tennessee	68.8	67.7	79.1	29.2*	69.1	68.7	74.9	25.1*	68.8	68.4	75.5	22.4*
Texas	55.4	54.5	70.3	22.2	56.0	54.8	73.7	24.3	53.8	53.0	69.3	23.2
Utah	26.6	26.6	28.9*	29.3*	26.3	26.5	0.0*	23.2*	23.2	23.3	26.7*	17.2*
Vermont	57.6	58.0	0.0*	0.0*	53.4	53.5	70.3*	56.1*	53.9	54.4	0.0*	0.0*
Virginia	60.0	59.5	67.6	27.0	59.1	59.0	65.0	25.1	56.2	56.6	60.2	23.4
Washington	57.5	59.0	56.7	26.4	57.6	59.0	62.8	32.3	55.2	56.3	63.4	36.7
West Virginia	73.6	74.6	47.9	0.0*	73.8	74.3	63.8	6.4*	72.0	72.6	63.6	5.9*
Wisconsin	49.3	48.5	74.9	41.9	48.4	47.8	72.8	20.7*	49.3	48.6	78.0	31.9
Wyoming	52.5	52.7	0.0*	64.5*	49.2	48.9	58.2*	54.5*	48.4	48.8	0.0*	33.2*
<b>U.S. Total<sup>3</sup></b>	<b>56.0</b>	<b>55.4</b>	<b>64.8</b>	<b>29.2</b>	<b>56.5</b>	<b>56.2</b>	<b>64.0</b>	<b>28.7</b>	<b>55.3</b>	<b>55.5</b>	<b>62.4</b>	<b>29.0</b>

SOURCE: CDC WONDER, 1999, 2000, 2001

NOTES:

\* THESE RATES SHOULD BE INTERPRETED WITH CAUTION AS THEY REPRESENT 20 OR FEWER DEATHS.

(1) RATES ARE PER 100,000 PERSONS, AGE-ADJUSTED TO THE 2000 U.S. POPULATION AND CODED BY ICD-10 REVISION.

(2) INCLUDES RACES OTHER THAN WHITE AND BLACK.

(3) DUE TO ROUNDING, U.S. TOTAL RATES PRESENTED IN THIS TABLE MAY DIFFER FROM THOSE IN TABLE 3.

**TABLE 7: LUNG CANCER PREVALENCE COUNTS <sup>1,2</sup> BY RACE, SEX AND YEARS SINCE DIAGNOSIS, 2000, 2001**

	YEARS SINCE DIAGNOSIS													
	0 to <5		5 to <10		10 to <15		15 to <20		20 to <25		>=25		Total	
	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001	2000
Total	201,687	202,049	65,597	64,492	33,793	33,754	18,636	18,075	9,864	9,871	16,540	14,216	347,531	342,457
Male	101,771	102,908	31,625	31,191	16,925	17,500	9,065	9,081	5,175	5,180	9,659	8,687	175,053	174,547
Female	99,916	99,141	33,971	33,301	16,867	16,254	9,571	8,994	4,689	4,691	6,881	5,529	172,478	167,910
White <sup>3</sup>	174,418	175,244	58,006	57,029	29,982	29,944	16,579	16,104	8,691	8,738	8,771	7,605	297,663	294,664
Male	86,667	87,928	27,574	27,199	14,762	15,212	7,854	7,978	4,532	4,568	4,546	4,114	146,663	146,999
Female	87,751	87,316	30,432	29,830	15,222	14,732	8,725	8,126	4,159	4,170	4,225	3,491	151,000	147,665
Black <sup>3</sup>	21,217	21,428	6,066	5,961	3,097	3,094	1,687	1,588	870	906	879	885	33,967	33,862
Male	11,525	11,703	3,183	3,143	1,749	1,835	967	880	499	520	510	504	18,524	18,585
Female	9,692	9,725	2,883	2,818	1,348	1,259	711	708	371	386	369	381	15,443	15,277
Hispanics <sup>4</sup>	5,186	4,917	1,554	1,584	6	6	6	6	6	6	6	6	6	6
Male	2,805	2,687	765	803	6	6	6	6	6	6	6	6	6	6
Female	2,381	2,230	789	781	6	6	6	6	6	6	6	6	6	6
Asian/Pacific Islander <sup>5</sup>	4,269	3,925	1,016	954	6	6	6	6	6	6	6	6	6	6
Male	2,532	2,398	597	566	6	6	6	6	6	6	6	6	6	6
Female	1,737	1,527	419	388	6	6	6	6	6	6	6	6	6	6

Source: National Cancer Institute: SEER Cancer Statistics Review, 1973-2001

Notes:

- (1) Prevalence proportions were calculated using only the First Malignant Tumor Ever for a person.
- (2) U.S. 2000 and 2001 cancer total prevalence counts are based on 2000 and 2001 cancer prevalence proportions from the SEER registries and 1/1/2000 and 1/1/2001 U.S. population estimates based on the average of 1999-2000 and 2000-2001 population estimates from the U.S. Bureau of the Census, respectively.
- (3) Statistics based on SEER 9 areas.
- (4) Statistics based on SEER 11 areas excluding Hawaii and Detroit.
- (5) Statistics based on SEER 11 areas.
- (6) Not Available

**TABLE 8: RESPIRATORY CANCERS: AGE-ADJUSTED INCIDENCE RATES<sup>1</sup> BY RACE AND SEX, 1973-2001**

YEAR/SITE	ALL RACES			WHITES			BLACKS		
	TOTAL	MALES	FEMALES	TOTAL	MALES	FEMALES	TOTAL	MALES	FEMALES
<b>LUNG &amp; BRONCHUS</b>									
1973	49.0	85.9	20.9	47.9	84.9	20.4	68.0	123.7	23.6
1974	50.6	87.3	22.8	50.0	87.0	22.5	66.5	113.9	26.2
1975	52.2	89.4	24.5	51.9	89.1	24.9	64.7	115.1	24.7
1976	55.4	93.8	27.3	54.6	92.7	27.3	72.3	131.0	28.6
1977	56.7	95.5	28.3	55.9	94.7	28.1	73.5	124.8	33.9
1978	57.9	96.7	29.7	57.3	95.9	29.9	74.6	130.5	31.7
1979	58.6	95.7	31.6	58.0	95.1	31.6	74.3	127.5	34.0
1980	60.6	99.9	32.2	59.4	97.6	32.4	86.6	151.6	38.3
1981	62.0	99.4	35.1	61.5	98.5	35.5	82.2	143.0	37.2
1982	63.3	100.7	36.8	63.1	99.7	37.7	80.4	141.1	35.7
1983	63.4	99.4	37.8	63.0	97.6	39.0	86.7	151.3	39.5
1984	65.5	102.1	39.5	64.4	100.0	39.7	93.0	159.3	44.8
1985	64.7	98.8	40.2	64.0	97.0	40.8	89.7	150.0	46.0
1986	65.8	99.1	42.3	65.2	97.5	42.9	92.9	156.1	48.8
1987	68.0	101.6	44.2	68.1	100.7	45.5	84.8	143.7	43.2
1988	68.1	98.9	46.3	68.3	98.0	47.8	88.2	145.3	48.0
1989	67.7	98.2	46.2	67.8	97.3	47.4	89.1	142.6	51.6
1990	68.2	97.3	47.8	68.4	96.5	48.9	86.9	137.5	52.1
1991	69.4	97.6	49.6	69.1	96.3	50.6	93.3	145.2	57.0
1992	69.6	97.4	49.9	69.0	95.2	51.0	94.1	149.7	55.8
1993	67.8	94.1	49.2	67.9	92.7	50.8	86.3	135.7	52.0
1994	67.3	91.1	50.6	67.0	90.3	51.7	87.2	131.7	56.4
1995	66.9	60.0	50.4	67.1	88.0	52.3	86.2	139.5	50.2
1996	66.4	87.9	51.2	66.7	86.6	52.9	84.0	127.4	55.2
1997	66.6	86.3	52.5	67.2	84.9	54.9	82.0	129.3	50.3
1998	67.4	88.0	52.8	67.8	86.3	54.9	86.8	130.2	57.9
1999	65.5	84.3	52.1	66.0	83.0	54.1	83.8	121.5	58.2
2000	63.4	81.9	50.6	63.9	79.8	52.6	79.1	113.3	56.0
2001	61.2	77.7	49.1	62.1	77.3	51.0	76.9	110.2	54.5
<b>MESOTHELIOMA</b>									
1977	0.6	1.0	0.3	0.6	1.1	0.3	0.2	0.3	0.1
1978	0.7	1.4	0.2	0.8	1.5	0.2	0.3	0.3	0.3
1979	0.8	1.5	0.3	0.8	1.6	0.3	0.6	0.9	0.4
1980	1.0	1.8	0.4	1.0	2.0	0.4	0.2	0.7	0.0
1981	0.8	1.4	0.3	0.8	1.5	0.3	0.3	0.8	0.0
1982	0.8	1.4	0.4	0.9	1.5	0.4	0.3	0.9	0.0
1983	1.0	1.9	0.5	1.1	2.0	0.5	0.9	1.6	0.5
1984	1.1	2.0	0.4	1.2	2.2	0.4	0.3	0.8	0.0
1985	0.9	1.7	0.4	1.0	1.7	0.4	0.8	1.8	0.2
1986	0.9	1.6	0.4	1.0	1.8	0.5	0.5	0.9	0.2
1987	1.0	1.7	0.4	1.0	1.8	0.5	0.7	1.1	0.4
1988	1.0	1.8	0.4	1.1	2.0	0.4	0.6	1.2	0.3
1989	1.1	2.2	0.4	1.2	2.3	0.4	0.7	1.0	0.4
1990	1.2	2.2	0.5	1.3	2.3	0.5	0.7	1.4	0.3
1991	1.1	2.1	0.4	1.2	2.2	0.5	0.7	1.6	0.2
1992	1.2	2.5	0.4	1.3	2.7	0.4	0.7	1.3	0.2
1993	1.0	2.0	0.4	1.1	2.2	0.4	0.7	1.2	0.3
1994	1.2	2.2	0.4	1.2	2.3	0.5	1.1	1.8	0.5
1995	1.2	2.1	0.5	1.2	2.3	0.5	0.8	1.7	0.3
1996	1.1	2.1	0.4	1.3	2.4	0.5	0.4	0.8	0.2
1997	1.0	1.9	0.4	1.0	2.0	0.4	0.9	1.4	0.6
1998	1.1	2.1	0.4	1.2	2.2	0.5	0.6	1.3	0.2
1999	1.1	2.0	0.4	1.1	2.1	0.4	0.7	1.3	0.2
2000	1.1	2.1	0.4	1.2	2.3	0.4	0.6	1.1	0.2
2001	1.0	2.0	0.4	1.1	2.2	0.4	0.4	0.9	0.2

TABLE 8 CONT'D: RESPIRATORY CANCERS AGE ADJUSTED INCIDENCE RATES <sup>(1)</sup> BY RACE & SEX, 1973-2001

YEAR/SITE	ALL RACES			WHITES			BLACKS		
	TOTAL	MALES	FEMALES	TOTAL	MALES	FEMALES	TOTAL	MALES	FEMALES
<b>ORAL CAVITY &amp; PHARYNX</b>									
1973	13.1	20.8	7.2	13.0	20.9	7.1	12.5	19.2	6.8
1974	12.9	20.4	7.1	12.9	20.7	7.0	12.5	18.9	7.1
1975	13.2	21.2	7.1	13.3	21.7	6.9	13.4	20.2	8.3
1976	13.3	21.0	7.4	13.2	21.0	7.4	15.1	23.8	8.2
1977	12.7	20.1	7.0	12.6	19.8	7.0	14.5	23.9	6.8
1978	13.4	20.9	7.7	13.2	20.8	7.6	15.8	25.8	8.1
1979	14.0	21.9	8.0	13.7	21.6	7.7	18.5	28.2	10.8
1980	13.3	20.3	7.9	13.0	20.0	7.6	16.8	25.1	9.8
1981	13.6	20.8	7.9	13.4	20.5	7.9	16.7	28.2	7.5
1982	13.3	20.3	7.9	13.1	19.9	7.8	17.1	27.4	8.9
1983	13.3	21.3	7.2	13.3	21.3	7.3	16.1	26.0	8.3
1984	13.5	20.9	7.9	13.0	20.2	7.6	19.1	30.2	10.1
1985	13.4	20.0	8.2	13.3	19.7	8.3	16.0	25.8	8.5
1986	12.7	19.5	7.2	12.6	19.3	7.3	16.2	28.2	6.9
1987	13.4	21.0	7.5	13.3	20.6	7.7	16.8	30.2	6.8
1988	12.4	18.6	7.3	12.0	18.2	7.1	16.6	25.7	9.2
1989	12.4	18.9	7.2	12.1	18.3	7.3	16.0	27.7	7.0
1990	12.9	20.0	7.3	12.7	19.5	7.4	16.2	28.2	6.9
1991	12.5	19.1	7.2	12.5	18.9	7.3	7.3	24.3	7.4
1992	12.2	18.8	6.9	12.1	18.5	6.9	15.2	25.6	7.1
1993	12.7	19.2	7.3	12.5	18.8	7.2	15.9	25.6	8.1
1994	11.9	18.2	6.8	11.6	17.3	6.9	15.9	27.0	7.1
1995	11.7	17.3	7.2	11.7	17.1	7.2	13.7	22.7	6.8
1996	11.9	17.9	7.0	11.5	17.3	6.8	15.3	25.0	7.7
1997	11.5	17.4	6.7	11.5	17.1	6.8	11.7	18.8	6.2
1998	11.2	16.6	6.7	11.2	16.4	6.9	13.0	22.5	6.2
1999	10.5	15.5	6.4	10.4	15.3	6.2	11.7	20.0	5.6
2000	10.7	16.0	6.2	10.6	15.6	6.3	11.6	20.5	4.9
2001	10.4	15.0	6.6	10.5	15.0	6.6	11.8	18.6	6.7
<b>LARYNX</b>									
1973	5.1	9.7	1.5	5.0	9.7	1.4	7.5	14.2	--
1974	5.0	9.3	1.6	5.0	9.4	1.5	6.5	11.0	--
1975	5.0	9.5	1.5	5.0	9.4	1.5	7.0	13.2	--
1976	5.2	10.0	1.4	5.2	9.9	1.4	7.3	14.6	--
1977	5.0	9.7	1.4	5.0	9.7	1.3	7.5	13.9	--
1978	5.3	9.8	1.8	5.3	9.8	1.9	6.9	13.2	--
1979	5.4	10.1	1.7	5.4	10.2	1.7	7.5	13.2	--
1980	5.2	10.0	1.6	5.2	9.9	1.5	7.3	14.3	--
1981	5.4	9.8	1.9	5.3	9.6	2.0	8.1	16.3	--
1982	5.3	9.7	1.8	5.3	9.8	1.8	7.9	14.4	--
1983	5.3	9.9	1.7	5.4	10.1	1.7	6.8	12.2	--
1984	5.1	9.6	1.6	5.0	9.6	1.5	8.5	14.9	3.4
1985	5.4	9.9	1.9	5.4	10.0	1.9	8.4	15.5	3.2
1986	5.0	9.4	1.6	4.9	9.2	1.7	7.8	15.5	--
1987	5.2	9.4	1.9	5.1	9.4	1.9	8.2	15.0	3.1
1988	5.2	9.6	1.9	5.2	9.6	1.8	8.2	14.8	3.3
1989	5.0	8.9	2.0	5.0	8.9	1.9	7.9	14.3	3.3
1990	5.1	9.2	1.9	5.0	9.0	1.9	9.5	17.8	3.6
1991	4.7	8.5	1.8	4.8	8.5	1.9	6.7	12.6	--
1992	5.0	9.1	1.8	4.9	8.9	1.7	8.7	15.8	3.4
1993	4.4	8.1	1.5	4.4	8.0	1.5	6.9	14.1	--
1994	4.7	8.3	1.8	4.5	8.1	1.7	8.9	15.8	3.8
1995	4.4	7.9	1.6	4.4	7.8	1.6	6.7	13.0	--
1996	4.3	7.5	1.7	4.3	7.5	1.6	6.4	11.4	2.8
1997	4.2	7.5	1.6	4.1	7.3	1.6	7.1	13.2	2.7
1998	3.8	6.7	1.6	3.7	6.5	1.6	6.5	11.8	2.8
1999	4.1	7.0	1.8	4.1	6.9	1.8	7.2	12.3	3.6
2000	4.0	7.2	1.4	4.0	7.0	1.5	6.1	11.6	2.2
2001	3.6	6.4	1.2	3.5	6.1	1.3	6.1	11.9	1.9

SOURCE: NATIONAL CANCER INSTITUTE: SEER CANCER STATISTICS REVIEW, 1973-2001

NOTE:

(1) RATES ARE PER 100,000 PERSONS AND ARE AGE-ADJUSTED TO THE 2000 U.S. STANDARD POPULATION.

-- RATES BASED ON LESS THAN 25 CASES FOR THE TIME INTERVAL.

**TABLE 9: LUNG CANCER: AGE ADJUSTED INCIDENCE RATES (1), BY RACE AND SEX, 1997-2001**

	<b>Total</b>	<b>White</b>	<b>Black</b>	<b>Hispanic<sup>2</sup></b>	<b>Asian/Pacific Islander</b>	<b>American Indian/Alaskan Native</b>
<b>Sex</b>						
Males	79.1	77.9	117.2	45.2	60.5	46.0
Females	49.1	51.3	54.5	23.9	28.5	23.4
Total	61.7	62.4	79.8	32.6	42.4	33.1

Source: National Cancer Institute, SEER Cancer Statistics Review, 1973-2001

Notes:

1. Rates are per 100,000, age-adjusted to the 2000 US standard population. Incidence rates obtained from SEER covering 10%-15% of the US population.

2. Hispanics are not mutually exclusive from whites, African Americans, Asian/Pacific Islanders, and American Indian/Alaskan Natives.

**Table 10: State-Specific Lung Cancer Counts and Crude and Age-Adjusted Incidence Rates, By Sex, 2000**

STATE	MALE		FEMALE	
	Cases	Age-Adjusted Incidence Rate <sup>1</sup>	Cases	Age-Adjusted Incidence Rate <sup>1</sup>
Alabama	2,099	108.0	1,271	48.6
Alaska	147	92.9	101	54.0
Arizona	1,600	67.7	1,378	48.7
Arkansas <sup>2, 3</sup>	7,163	114.8	4,251	53.7
California	9,115	72.0	7,737	47.5
Colorado	1,010	66.0	846	43.9
Connecticut	1,270	81.4	1,141	55.7
Delaware <sup>2, 3</sup>	1,797	104.6	1,353	61.5
District of Columbia	191	81.8	165	50.3
Florida	8,711	95.4	6,751	59.9
Georgia	3,095	108.8	1,965	47.2
Hawaii	386	66.7	255	37.6
Idaho	439	82.7	298	46.9
Illinois	4,715	93.3	3,627	53.7
Indiana	2,538	99.2	1,870	55.8
Iowa	1,262	89.3	845	47.2
Kansas	1,067	90.4	743	49.2
Kentucky	2,413	137.7	1,625	71.2
Louisiana	1,942	109.8	1,249	52.9
Maine <sup>2, 3</sup>	581	93.3	428	54.6
Maryland	1,955	91.4	1,581	56.2
Massachusetts	2,397	85.6	2,259	59.9
Michigan	3,952	93.8	3,024	55.7
Minnesota	1,531	74.2	1,181	46.2
Mississippi <sup>2, 3</sup>	1,090	97.2	551	36.4
Missouri	2,526	99.4	1,808	55.1
Montana	369	84.6	299	57.7
Nebraska	598	77.6	468	47.7
Nevada	842	100.6	701	72.4
New Hampshire	419	79.1	368	55.5
New Jersey	3,219	87.2	2,706	54.2
New Mexico	418	54.8	327	34.9
New York	6,474	80.2	5,673	51.1
North Carolina	3,139	93.5	2,093	47.3
North Dakota	212	67.8	143	39.4
Ohio	4,794	95.2	3,733	55.8
Oklahoma <sup>2</sup>	1,696	109.2	1,179	58.9
Oregon	1,255	81.7	1,096	57.2
Pennsylvania	5,646	95.5	4,261	51.9
Rhode Island	502	103.8	413	63.8
South Carolina	1,736	102.2	1,073	48.1
South Dakota <sup>2, 3</sup>	215	59.6	163	37.8
Tennessee <sup>2</sup>	2,351	97.4	1,609	48.4
Texas <sup>2</sup>	6,649	90.5	4,702	49.2
Utah	268	38.6	139	16.5
Vermont	252	91.5	156	45.5
Virginia <sup>2</sup>	2,348	82.5	1,763	47.6
Washington	1,935	81.0	1,727	58.1
West Virginia	1,103	120.3	796	65.7
Wisconsin	1,806	75.4	1,318	44.0
Wyoming	141	65.7	106	42.0
United States <sup>4</sup>	89,489	87.9	68,989	52.5

Source: United States Cancer Statistics, 2000 Incidence and State Based Cancer Registries

Notes:

(1) Rates are per 100,000 population. Age-adjusted incidence rates are adjusted to the 2000 U.S. standard population.

(2) Information from these 9 states came from individual state cancer registries.

(3) Comparisons between other states and AR, DE, ME, MS, SD should be made with caution. Estimates for AR and DE are from 1997 to 2001; ME and MS are from 1999. Cancer registration in SD during 2000 was neither statewide nor population based.

(4) U.S. totals are not representative of all 50 states and D.C. It consists of data from selected statewide and metropolitan area cancer registries in 41 states, 6 metropolitan areas, and DC that meet specific data quality criteria for lung cancer and were published in U.S. Cancer Incidence, 2000. Counts and rates cover approximately 84% of the U.S. population.

**TABLE 11: LUNG CANCER: NUMBER OF FIRST-LISTED HOSPITAL DISCHARGES AND RATE PER 10,000 POPULATION, BY AGE, 1979-2002 <sup>1</sup>**

YEAR	<15		15-44		45-64		65+		TOTAL <sup>(2)</sup>	
	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE
1979	---	---	12,000	1.2	130,000	29.3	131,000	52.1	274,000	12.7
1980	---	---	12,000	1.2	123,000	27.8	142,000	55.3	277,000	12.4
1981	---	---	11,000	1.0	134,000	30.2	145,000	55.2	293,000	12.9
1982	---	---	15,000	1.4	147,000	33.2	155,000	58.0	319,000	13.9
1983	---	---	12,000	1.1	151,000	34.0	176,000	64.1	339,000	14.6
1984	---	---	13,000	1.2	155,000	34.1	172,000	61.2	340,000	14.5
1985	---	---	13,000	1.2	132,000	29.4	169,000	59.4	315,000	13.3
1986	---	---	15,000	1.3	120,000	26.7	155,000	53.3	290,000	12.1
1987	---	---	12,000	1.1	129,000	28.5	164,000	54.9	305,000	12.6
1988 <sup>(3)</sup>	---	---	8,000*	0.7*	102,000	22.2	125,000	41.2	236,000	9.7
1989	---	---	11,000	1.0	101,000	21.8	127,000	40.9	239,000	9.7
1990	---	---	12,000	1.0	101,000	21.4	119,000	37.7	231,000	9.3
1991	---	---	10,000	0.8	101,000	21.6	125,000	39.3	236,000	9.4
1992	---	---	7,000*	0.6*	86,000	17.8	122,000	37.8	215,000	8.5
1993	---	---	7,000*	0.6*	75,000	15.1	111,000	33.9	194,000	7.6
1994	---	---	9,000*	0.7*	73,000	14.3	126,000	37.9	199,000	7.6
1995	---	---	8,000*	0.7*	75,000	14.4	110,000	32.8	197,000	7.5
1996	---	---	10,000	0.8	72,000	13.4	122,000	36.0	210,000	8.0
1997	---	---	---	---	60,000	10.9	123,000	36.4	192,000	7.1
1998	---	---	9,000*	0.7*	55,000	9.6	99,000	29.0	165,000	6.0
1999	---	---	5,000*	0.4*	54,000	9.2	104,000	30.5	164,000	6.0
2000	---	---	8,000*	0.6*	43,000	7.0	87,000	25.1	139,000	5.0
2001	---	---	6,000*	0.5*	56,000	8.7	90,000	25.6	153,000	5.4
2002	---	---	5,000*	0.4*	55,000	8.3	100,000	28.0	160,000	5.6

**SOURCE: NATIONAL CENTER FOR HEALTH STATISTICS: NATIONAL HOSPITAL DISCHARGE SURVEY**

NOTES:

(1) HOSPITAL DISCHARGE ESTIMATES ARE CODED BY ICD-9 REVISION (ICD-9 CODE 162, 176.4, 197.0, 197.3)

(2) DUE TO ROUNDING AND THE EXCLUSION OF NUMBERS THAT DO NOT MEET STANDARDS OF RELIABILITY, NUMBERS ACROSS MAY NOT SUM TO THE TOTAL NUMBER OF HOSPITAL DISCHARGES.

(3) DATA FROM 1988-2002 MAY NOT BE COMPARABLE TO EARLIER YEARS DUE TO THE REDESIGN OF THE SURVEY IN 1988.

--- FIGURE DOES NOT MEET STANDARDS OF RELIABILITY OR PRECISION.

\*ESTIMATES OF 5,000-10,000 AND CORRESPONDING RATES SHOULD BE USED WITH CAUTION.

**TABLE 12: LUNG CANCER: NUMBER OF FIRST-LISTED HOSPITAL DISCHARGES AND RATE PER 10,000 PERSONS BY RACE, 1988-2002 <sup>(1)</sup>**

YEAR	NUMBER OF DISCHARGES				RATE PER 10,000 POPULATION			
	TOTAL	WHITE	BLACK	ALL OTHER	TOTAL	WHITE	BLACK	ALL OTHER
1988	236,000	193,000	N/A	N/A	9.7	9.3	N/A	N/A
1989	239,000	194,000	N/A	N/A	9.7	9.3	N/A	N/A
1990	231,000	183,000	19,000	--	9.3	8.7	6.3	--
1991	236,000	181,000	21,000	7,000*	9.4	8.6	6.9	7.1*
1992	215,000	161,000	16,000	5,000*	8.5	7.6	5.2	4.7*
1993	194,000	149,000	16,000	--	7.6	7.0	5.1	--
1994	199,000	151,000	21,000	7,000*	7.6	7.0	6.4	6.0*
1995	197,000	140,000	21,000	--	7.5	6.5	6.4	--
1996	210,000	156,000	17,000	5,000*	8.0	7.1	5.3	4.4*
1997	192,000	142,000	20,000	--	7.1	6.4	5.6	--
1998	165,000	114,000	14,000	7,000*	6.0	5.1	3.8	5.1*
1999	164,000	115,000	13,000	8,000*	6.0	5.1	3.5	6.3*
2000	139,000	85,000	12,000	4,403*	5.0	3.7	3.5	2.5*
2001	153,000	95,000	14,000	4,000*	5.4	4.1	4.0	2.2*
2002	160,000	102,000	12,000	3,800*	5.6	4.4	3.3	2.0*

SOURCE: NATIONAL CENTER FOR HEALTH STATISTICS, NATIONAL HOSPITAL DISCHARGE SURVEY, UNPUBLISHED DATA.

NOTES:

(1) HOSPITAL DISCHARGE ESTIMATES ARE CODED BY ICD-9 REVISIONS (ICD-9 CODE 162, 176, 197.0, 197.3).

-- FIGURE DOES NOT MEET STANDARD OF RELIABILITY OR PRECISION.

\* ESTIMATES BELOW 10,000 AND CORRESPONDING RATES SHOULD BE USED WITH CAUTION

N/A NOT AVAILABLE

**TABLE 13: SURVIVAL RATES BY SELECTED CANCER SITES, RACE, CASES DIAGNOSED  
IN 1960-63, 1970-73, 1974-76, 1977-79, 1980-82, 1983-85, 1986-88, 1989-91, 1992-94, 1995-2000**

<b>TOTAL</b>										
<b>RELATIVE 5-YEAR SURVIVAL (%)</b>										
<b>SITE</b>	1960-63 <sup>(1)</sup>	1970-73 <sup>(1)</sup>	1974-76 <sup>(2)</sup>	1977-79 <sup>(2)</sup>	1980-82 <sup>(2)</sup>	1983-85 <sup>(2)</sup>	1986-88 <sup>(2)</sup>	1989-91 <sup>(2)</sup>	1992-94 <sup>(2)</sup>	1995-2000 <sup>(2)</sup>
LUNG & BRONCHUS	*	*	12.5	13.4	13.4	13.6	13.3	14.0	14.7	15.2 <sup>3</sup>
COLON	*	*	50.4	52.9	55.4	57.7	60.9	62.6	62.1	63.0 <sup>3</sup>
RECTUM	*	*	48.5	49.8	52.2	55.1	58.5	60.1	61.1	64.3 <sup>3</sup>
BREAST	*	*	74.7	74.7	76.3	78.1	82.8	84.9	86.2	87.7 <sup>3</sup>
ESOPHAGUS	*	*	4.9	5.1	6.7	8.3	9.8	11.0	14.1	14.3 <sup>3</sup>
PROSTATE	*	*	67.1	71.1	73.4	74.8	81.2	90.7	97.3	99.3 <sup>3</sup>
<b>WHITE</b>										
<b>RELATIVE 5-YEAR SURVIVAL (%)</b>										
<b>SITE</b>	1960-63 <sup>(1)</sup>	1970-73 <sup>(1)</sup>	1974-76 <sup>(2)</sup>	1977-79 <sup>(2)</sup>	1980-82 <sup>(2)</sup>	1983-85 <sup>(2)</sup>	1986-88 <sup>(2)</sup>	1989-91 <sup>(2)</sup>	1992-94 <sup>(2)</sup>	1995-2000 <sup>(2)</sup>
LUNG & BRONCHUS	8.0	10.0	12.5	13.6	13.5	13.8	13.5	14.4	15.1	15.4 <sup>3</sup>
COLON	43.0	49.0	50.6	53.1	55.7	58.5	61.6	63.2	63.1	63.8 <sup>3</sup>
RECTUM	38.0	45.0	48.9	50.6	53.1	55.9	59.2	60.5	62.0	64.6 <sup>3</sup>
BREAST	63.0	68.0	75.3	75.5	77.1	79.2	83.9	86.2	87.5	88.9 <sup>3</sup>
ESOPHAGUS	4.0	4.0	5.3	5.7	7.3	9.4	10.7	11.7	15.3	15.8 <sup>3</sup>
PROSTATE	50.0	63.0	68.1	72.2	74.5	76.3	82.7	92.0	98.1	100.0 <sup>3</sup>
<b>BLACK</b>										
<b>RELATIVE 5-YEAR SURVIVAL (%)</b>										
<b>SITE</b>	1960-63 <sup>(1)</sup>	1970-73 <sup>(1)</sup>	1974-76 <sup>(2)</sup>	1977-79 <sup>(2)</sup>	1980-82 <sup>(2)</sup>	1983-85 <sup>(2)</sup>	1986-88 <sup>(2)</sup>	1989-91 <sup>(2)</sup>	1992-94 <sup>(2)</sup>	1995-2000 <sup>(2)</sup>
LUNG & BRONCHUS	5.0	7.0	11.4	11.2	12.1	11.4	11.9	10.8	11.8	13.2 <sup>3</sup>
COLON	34.0	37.0	46.2	48.2	49.3	49.5	53.1	53.9	51.9	54.4 <sup>3</sup>
RECTUM	27.0	30.0	42.0	39.0	38.1	43.9	51.3	54.5	52.7	55.2 <sup>3</sup>
BREAST	46.0	51.0	63.2	63.1	65.8	63.6	69.2	71.2	72.5	75.2 <sup>3</sup>
ESOPHAGUS	1.0	4.0	4.0	2.8	5.4	6.2	7.2	8.9	9.7	8.9 <sup>3</sup>
PROSTATE	35.0	55.0	58.4	62.6	64.8	63.9	69.3	80.8	92.4	96.0 <sup>3</sup>

SOURCE: NATIONAL CANCER INSTITUTE: SEER CANCER STATISTICS REVIEW, 1973-2001

NOTES:

(1) RATES ARE BASED ON DATA FROM A SERIES OF HOSPITAL REGISTRIES AND ONE POPULATION BASED REGISTRY.

(2) RATES ARE FROM THE SEER PROGRAM AND ARE BASED ON FOLLOW-UP OF ALL PATIENTS THROUGH 2001.

(3) THE DIFFERENCE IN RATES BETWEEN 1974-76 AND 1995-2000 IS STATISTICALLY SIGNIFICANT (p<0.05).

\* STATISTICS COULD NOT BE CALCULATED.

**TABLE 14: FIVE YEAR SURVIVAL RATES, BY LUNG CANCER TYPE, RACE & SEX, 1974-2000**

YEAR/TYPE	ALL RACES			WHITES			BLACKS		
	TOTAL %	MALES %	FEMALES %	TOTAL %	MALES %	FEMALES %	TOTAL %	MALES %	FEMALES %
<b>LUNG &amp; BRONCHUS</b>									
1974-76	12.5	11.2	15.9	12.5	11.1	16.0	11.5	11.0	13.3
1977-79	13.3	11.7	17.1	13.6	12.0	17.2	11.1	9.1	17.3
1980-82	13.4	12.0	16.1	13.5	12.2	16.2	12.1	10.9	15.6
1983-85	13.6	11.9	16.8	13.8	12.1	17.0	11.4	10.2	14.2
1986-88	13.3	12.0	15.4	13.5	12.0	15.8	11.9	12.0	11.7
1989-91	14.0	12.4	16.2	14.4	12.8	16.6	10.8	9.6	13.0
1992-94	14.7	12.9	17.1	15.1	13.2	17.5	11.8	10.5	14.1
1995-2000	15.2 <sup>2</sup>	13.6 <sup>2</sup>	17.2 <sup>2</sup>	15.4 <sup>2</sup>	13.7 <sup>2</sup>	17.4 <sup>2</sup>	13.2 <sup>2</sup>	11.9	15.4
<b>SMALL CELL LUNG CANCER</b>									
1974-76	3.6	3.0	5.0	3.6	2.9	5.0	3.4	3.6	3.1
1977-79	4.5	3.3	6.7	4.5	3.3	6.7	3.8	3.4	4.8
1980-82	4.7	3.8	6.2	4.8	4.0	6.1	3.9	3.0	6.4
1983-85	4.7	3.5	6.6	4.8	3.6	6.6	4.7	2.5	8.6
1986-88	5.0	3.9	6.5	5.2	4.0	6.8	3.9	3.4	4.6
1989-91	5.4	4.5	6.5	5.5	4.3	6.9	3.7	4.3	2.9
1992-94	6.3	4.9	7.8	6.3	4.9	7.7	5.5	3.8	7.6
1995-2000	6.5 <sup>2</sup>	5.6 <sup>2</sup>	7.4 <sup>2</sup>	6.6 <sup>2</sup>	5.6 <sup>2</sup>	7.6 <sup>2</sup>	5.4 <sup>2</sup>	5.0 <sup>2</sup>	5.9
<b>NON SMALL CELL LUNG CANCER</b>									
1974-76	13.9	12.4	17.9	14.0	12.4	18.2	12.3	11.7	15.3
1977-79	15.0	13.2	19.3	15.4	13.6	19.5	12.1	9.7	19.6
1980-82	15.1	13.6	18.4	15.4	13.8	18.7	13.2	11.9	17.0
1983-85	15.5	13.5	19.2	15.9	13.8	19.6	12.3	11.2	15.2
1986-88	15.1	13.6	17.7	15.4	13.7	18.2	13.1	13.1	13.1
1989-91	15.8	13.9	18.6	16.3	14.5	19.1	11.9	10.2	14.8
1992-94	16.3	14.3	19.1	16.9	14.7	19.7	13.4	11.3	15.2
1995-2000	16.9 <sup>2</sup>	15.0 <sup>2</sup>	19.2 <sup>2</sup>	17.2 <sup>2</sup>	15.2 <sup>2</sup>	19.5 <sup>2</sup>	14.2	12.6	16.9

Source: National Cancer Institute: SEER Cancer Statistics Review, 1973-2001

Notes:

- (1) Rates are from the SEER 9 areas. Rates are based on follow-up of patients into 2001.
- (2) The difference in rates between 1974-76 and 1995-2000 is statistically significant (p<.05)

**TABLE 15: LIFETIME RISK (%) OF BEING DIAGNOSED WITH LUNG CANCER AND LIFETIME RISK (%) OF DYING FROM LUNG CANCER, BY RACE AND SEX, 1999-2001**

TYPE OF RISK	ALL RACES		WHITES		BLACKS	
	MALES	FEMALES	MALES	FEMALES	MALES	FEMALES
LIFETIME RISK OF DIAGNOSIS	7.63	5.71	7.63	5.99	8.20	5.29
LIFETIME RISK OF DYING	7.29	4.84	7.36	5.02	7.36	3.92

**SOURCE: NATIONAL CANCER INSTITUTE. SEER CANCER STATISTICS REVIEW, 1973-2001**