

Cancer Statistics, 2007

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ABSTRACT Each year, the American Cancer Society (ACS) estimates the number of new cancer cases and deaths expected in the United States in the current year and compiles the most recent data on cancer incidence, mortality, and survival based on incidence data from the National Cancer Institute, Centers for Disease Control and Prevention, and the North American Association of Central Cancer Registries and mortality data from the National Center for Health Statistics. This report considers incidence data through 2003 and mortality data through 2004. Incidence and death rates are age-standardized to the 2000 US standard million population. A total of 1,444,920 new cancer cases and 559,650 deaths for cancers are projected to occur in the United States in 2007. Notable trends in cancer incidence and mortality rates include stabilization of the age-standardized, delay-adjusted incidence rates for all cancers combined in men from 1995 through 2003; a continuing increase in the incidence rate by 0.3% per year in women; and a 13.6% total decrease in age-standardized cancer death rates among men and women combined between 1991 and 2004. This report also examines cancer incidence, mortality, and survival by site, sex, race/ethnicity, geographic area, and calendar year, as well as the proportionate contribution of selected sites to the overall trends. While the absolute number of cancer deaths decreased for the second consecutive year in the United States (by more than 3,000 from 2003 to 2004) and much progress has been made in reducing mortality rates and improving survival, cancer still accounts for more deaths than heart disease in persons under age 85 years. Further progress can be accelerated by supporting new discoveries and by applying existing cancer control knowledge across all segments of the population. (CA Cancer J Clin 2007;57:43–66.) © American Cancer Society, Inc., 2007.

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This article is available online at <http://CAonline.AmCancerSoc.org>

INTRODUCTION

Cancer is a major public health problem in the United States and other developed countries. Currently, one in four deaths in the United States is due to cancer. In this article, we provide an overview of cancer statistics, including updated incidence, mortality, and survival rates, and expected number of new cancer cases and deaths in 2007.

MATERIALS AND METHODS

Data Sources

Mortality data from 1930 to 2004 in the United States were obtained from the National Center for Health Statistics (NCHS).¹ Incidence data for long-term trends (1975 to 2003), 5-year relative survival rates, and data on lifetime probability of developing cancer were obtained from the Surveillance, Epidemiology, and End Results (SEER) program of the National Cancer Institute, covering about 26% of the US population.^{2,3,4,5} Incidence data (1995 to 2003) for projecting new cancer cases were obtained from cancer registries that participate in the SEER program or the Centers for Disease Control and Prevention (CDC)'s National Program of Cancer Registries (NPCR), through the North American Associations of Central Cancer Registries (NAACCR). State-specific incidence rates were abstracted

from *Cancer in North America (1999–2003) Volume One*,⁶ based on data collected by cancer registries participating in the SEER program and NPCR. Population data were obtained from the US Census Bureau.⁷ Causes of death were coded and classified according to the *International Classification of Diseases* (ICD-8, ICD-9, and ICD-10).^{8,9,10} Cancer cases were classified according to the *International Classification of Diseases for Oncology*.¹¹

Estimated New Cancer Cases

The precise number of cancer cases diagnosed each year in the nation and in every state is unknown because complete cancer registration has not yet been achieved in some states. Since the American Cancer Society (ACS) began producing estimates of new cancer cases in the current year, the method has been refined several times to take advantage of improvements in data and statistical methods. Beginning with 2007, we are using a new projection method described by Pickle et al¹² in an accompanying article in this issue of *CA*. The new method is a spatio-temporal model based on incidence data from 1995 through 2003 from 41 states that met NAACCR's high-quality data standard for incidence, covering about 86% of the US population. This contrasts with the previous quadratic autoregressive model based on incidence data from the nine oldest SEER registries, covering about 10% of the US population. Furthermore, the new method considers geographic variations in socio-demographic and lifestyle factors, medical settings, and cancer screening behaviors as predictors of incidence, and accounts for expected delays in case reporting.

Estimated Cancer Deaths

We used the state-space prediction method¹³ to estimate the number of cancer deaths expected to occur in the United States and in each state in the year 2007. Projections are based on underlying cause-of-death from death certificates as reported to the NCHS.¹ This model projects the number of cancer deaths expected to occur in 2007 based on the number that occurred each year from 1969 to 2004 in the United States and in each state separately.

Other Statistics

We provide mortality statistics for the leading causes of death as well as deaths from cancer in the year 2004. Causes of death for 2004 were coded and classified according to ICD-10.⁸ This report also provides updated statistics on trends in cancer incidence and mortality rates, the probability of developing cancer, and 5-year relative survival rates for selected cancer sites based on data from 1975 through 2003.³ All age-adjusted incidence and death rates are standardized to the 2000 US standard population and expressed per 100,000 population.

The long-term incidence rates and trends (1975 to 2003) are adjusted for delays in reporting where possible. Delayed reporting affects the most recent 1 to 3 years of incidence data (in this case, 2001 to 2003), especially for cancers such as melanoma and prostate that are frequently diagnosed in outpatient settings. The National Cancer Institute (NCI) has developed a method to account for expected reporting delays in SEER registries for all cancer sites combined and several specific cancer sites when long-term incidence trends are analyzed.¹⁴ Delay-adjusted trends provide a more accurate assessment of trends in the most recent years for which data are available.

SELECTED FINDINGS

Expected Numbers of New Cancer Cases

Table 1 presents estimated numbers of new cases of invasive cancer expected among men and women in the United States in 2007. The overall estimate of about 1.44 million new cases does not include carcinoma in situ of any site except urinary bladder, nor does it include basal cell and squamous cell cancers of the skin. More than 1 million additional cases of basal cell and squamous cell skin cancer, about 62,030 cases of breast carcinoma in situ, and 48,290 cases of in situ melanoma are expected to be newly diagnosed in 2007. Because of the introduction of a new projection method, estimates have been affected for many individual cancer sites, particularly for leukemia, female breast, lung, and prostate cancers. The estimated numbers of new cancer cases for each state and selected cancer sites are shown in Table 2.

TABLE 1 Estimated New Cancer Cases and Deaths by Sex, US, 2007*

	Estimated New Cases			Estimated Deaths		
	Both Sexes	Male	Female	Both sexes	Male	Female
All Sites	1,444,920	766,860	678,060	559,650	289,550	270,100
Oral cavity & pharynx	34,360	24,180	10,180	7,550	5,180	2,370
Tongue	9,800	6,930	2,870	1,830	1,180	650
Mouth	10,660	6,480	4,180	1,860	1,110	750
Pharynx	11,800	9,310	2,490	2,180	1,620	560
Other oral cavity	2,100	1,460	640	1,680	1,270	410
Digestive system	271,250	147,390	123,860	134,710	74,500	60,210
Esophagus	15,560	12,130	3,430	13,940	10,900	3,040
Stomach	21,260	13,000	8,260	11,210	6,610	4,600
Small intestine	5,640	2,940	2,700	1,090	570	520
Colon†	112,340	55,290	57,050	52,180	26,000	26,180
Rectum	41,420	23,840	17,580			
Anus, anal canal, & anorectum	4,650	1,900	2,750	690	260	430
Liver & intrahepatic bile duct	19,160	13,650	5,510	16,780	11,280	5,500
Gallbladder & other biliary	9,250	4,380	4,870	3,250	1,260	1,990
Pancreas	37,170	18,830	18,340	33,370	16,840	16,530
Other digestive organs	4,800	1,430	3,370	2,200	780	1,420
Respiratory system	229,400	127,090	102,310	164,840	92,910	71,930
Larynx	11,300	8,960	2,340	3,660	2,900	760
Lung & bronchus	213,380	114,760	98,620	160,390	89,510	70,880
Other respiratory organs	4,720	3,370	1,350	790	500	290
Bones & joints	2,370	1,330	1,040	1,330	740	590
Soft tissue (including heart)	9,220	5,050	4,170	3,560	1,840	1,720
Skin (excluding basal & squamous)	65,050	37,070	27,980	10,850	7,140	3,710
Melanoma-skin	59,940	33,910	26,030	8,110	5,220	2,890
Other nonepithelial skin	5,110	3,160	1,950	2,740	1,920	820
Breast	180,510	2,030	178,480	40,910	450	40,460
Genital system	306,380	228,090	78,290	55,740	27,720	28,020
Uterine cervix	11,150		11,150	3,670		3,670
Uterine corpus	39,080		39,080	7,400		7,400
Ovary	22,430		22,430	15,280		15,280
Vulva	3,490		3,490	880		880
Vagina & other genital, female	2,140		2,140	790		790
Prostate	218,890	218,890		27,050	27,050	
Testis	7,920	7,920		380	380	
Penis & other genital, male	1,280	1,280		290	290	
Urinary system	120,400	82,960	37,440	27,340	18,100	9,240
Urinary bladder	67,160	50,040	17,120	13,750	9,630	4,120
Kidney & renal pelvis	51,190	31,590	19,600	12,890	8,080	4,810
Ureter & other urinary organs	2,050	1,330	720	700	390	310
Eye & orbit	2,340	1,310	1,030	220	110	110
Brain & other nervous system	20,500	11,170	9,330	12,740	7,150	5,590
Endocrine system	35,520	9,040	26,480	2,320	1,030	1,290
Thyroid	33,550	8,070	25,480	1,530	650	880
Other endocrine	1,970	970	1,000	790	380	410
Lymphoma	71,380	38,670	32,710	19,730	10,370	9,360
Hodgkin lymphoma	8,190	4,470	3,720	1,070	770	300
Non-Hodgkin lymphoma	63,190	34,200	28,990	18,660	9,600	9,060
Multiple myeloma	19,900	10,960	8,940	10,790	5,550	5,240
Leukemia	44,240	24,800	19,440	21,790	12,320	9,470
Acute lymphocytic leukemia	5,200	3,060	2,140	1,420	820	600
Chronic lymphocytic leukemia	15,340	8,960	6,380	4,500	2,560	1,940
Acute myeloid leukemia	13,410	7,060	6,350	8,990	5,020	3,970
Chronic myeloid leukemia	4,570	2,570	2,000	490	240	250
Other leukemia‡	5,720	3,150	2,570	6,390	3,680	2,710
Other & unspecified primary sites§	32,100	15,720	16,380	45,230	24,440	20,790

*Rounded to the nearest 10; estimated new cases exclude basal and squamous cell skin cancers and in situ carcinomas except urinary bladder. About 62,030 female carcinoma in situ of the breast and 48,290 melanoma in situ will be newly diagnosed in 2007.

†Estimated deaths for colon and rectum cancers are combined.

‡More deaths than cases suggests lack of specificity in recording underlying causes of death on death certificates.

Source: Estimated new cases are based on 1995–2003 incidence rates from 41 states as reported by the North American Association of Central Cancer Registries (NAACCR), representing about 86% of the US population. Estimated deaths are based on data from US Mortality Public Use Data Tapes, 1969 to 2004, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

TABLE 2 Age-standardized Incidence Rates for All Cancers Combined, 1999-2003, and Estimated New Cases* for Selected Cancers by State, US, 2007

State	Incidence Rate [†]	Colon & Rectum				Uterine Corpus	Leukemia	Lung & Bronchus	Melanoma of the Skin	Non-Hodgkin Lymphoma	Prostate	Urinary Bladder
		All Cases	Female Breast	Uterine Cervix	Rectum							
AL	429.0	20,590	2,750	170	2,350	460	550	3,850	740	860	3,010	850
AK	480.7	2,500	340	‡	270	60	70	330	80	110	420	110
AZ	§	26,270	3,220	190	2,750	550	740	3,740	1,300	1,080	3,400	1,360
AR	§	14,130	1,830	130	1,640	320	510	2,420	550	600	1,960	560
CA	448.2	151,250	19,790	1,350	15,000	3,870	4,610	17,920	6,860	7,190	24,590	6,590
CO	446.8	19,190	2,660	150	1,790	490	670	2,100	1,210	880	3,160	880
CT	508.0	19,780	2,510	100	2,190	650	610	2,720	1,120	870	2,890	1,090
DE	497.4	4,530	560	‡	480	130	110	770	190	170	800	220
DC	507.2	2,540	320	‡	270	70	60	380	60	100	540	90
FL	478.6	106,560	11,710	850	11,420	2,490	3,360	17,490	4,380	4,530	15,710	5,460
GA	460.3	35,440	4,520	330	3,690	810	960	5,780	1,460	1,370	5,850	1,360
HI	418.5	6,020	820	50	790	170	170	690	270	250	780	200
ID	453.2	6,140	780	‡	600	150	220	760	350	280	1,080	310
IL	486.4	62,010	7,030	530	6,890	1,730	2,030	9,550	2,050	2,670	8,060	2,880
IN	465.4	30,040	3,560	240	3,390	880	910	5,210	1,220	1,310	3,710	1,390
IA	476.5	16,540	2,000	100	1,930	500	620	2,290	690	800	2,140	820
KS	§	12,760	1,750	100	1,360	360	420	1,870	430	600	1,490	570
KY	509.7	22,850	2,590	200	2,570	560	680	4,450	1,050	900	2,880	970
LA	487.8	22,540	2,820	200	2,520	420	680	3,510	670	920	3,640	850
ME	513.5	8,340	980	‡	880	270	250	1,360	410	330	1,210	470
MD	490.5	26,390	3,560	190	2,870	810	630	4,130	1,150	1,160	4,690	1,150
MA	507.2	34,920	4,260	180	3,850	1,110	1,010	5,060	1,820	1,550	5,180	1,950
MI	502.6	54,410	5,900	370	5,570	1,610	1,680	8,210	2,080	2,250	8,200	2,700
MN	472.7	25,420	3,240	150	2,650	750	920	3,160	1,130	1,170	4,800	1,250
MS	§	12,470	1,620	120	1,440	230	340	2,190	320	480	2,010	480
MO	460.8	29,930	3,730	240	3,380	830	890	5,350	870	1,260	3,910	1,350
MT	475.3	4,920	630	‡	520	120	170	690	190	220	940	260
NE	469.0	8,720	1,160	60	920	260	290	1,190	340	400	1,260	430
NV	470.3	11,030	1,180	80	1,120	230	330	1,750	390	420	1,550	570
NH	492.1	7,140	890	‡	800	230	190	1,010	370	290	1,050	390
NJ	518.3	49,370	6,080	350	5,160	1,550	1,520	6,310	2,210	2,200	8,070	2,450
NM	§	8,030	1,080	70	310	200	310	940	420	350	1,410	350
NY	479.7	100,960	12,580	790	10,710	3,240	3,080	13,390	3,070	4,540	15,770	4,980
NC	§	38,210	4,870	280	4,290	1,020	1,070	6,290	1,630	1,610	6,040	1,690
ND	§	3,340	440	‡	410	100	110	390	120	150	520	200
OH	§	59,220	6,710	390	6,410	1,800	1,710	9,790	2,390	2,560	8,260	2,940
OK	458.7	17,170	2,200	160	1,880	400	570	3,180	720	770	2,510	710
OR	481.0	18,630	2,460	110	1,830	470	500	2,520	990	890	2,870	970
PA	499.0	75,130	8,860	420	8,220	2,400	2,240	10,500	3,120	3,330	12,230	4,030
RI	519.2	6,360	730	‡	690	190	170	920	300	260	920	370
SC	471.0	21,370	2,600	190	2,230	480	550	3,460	870	780	3,380	840
SD	§	3,990	510	‡	470	120	130	490	160	180	710	220
TN	§	28,440	3,690	250	3,100	660	800	5,110	980	1,180	3,000	1,230
TX	443.3	91,020	12,120	940	9,510	2,040	3,130	13,520	3,860	4,140	13,280	3,300
UT	408.4	7,660	920	50	740	220	300	600	500	380	1,510	340
VT	§	3,500	420	‡	390	110	80	440	150	140	550	170
VA	§	35,090	4,570	280	3,530	970	900	5,360	1,510	1,390	5,330	1,380
WA	499.5	31,080	4,090	150	2,920	800	960	3,970	1,630	1,500	5,000	1,490
WV	485.4	10,490	1,180	80	1,210	310	300	2,110	410	430	1,430	500
WI	480.2	28,130	3,340	170	3,090	860	1,040	3,930	1,070	1,300	4,770	1,350
WY	§	2,340	310	‡	260	60	70	290	100	110	410	110
US	474.8	1,444,920	178,480	11,150	153,760	39,080	44,240	213,380	59,940	63,190	218,890	67,160

*Rounded to the nearest 10; excludes basal and squamous cell skin cancers and in situ carcinomas except urinary bladder.

†Rates are per 100,000 and age-adjusted to the 2000 US standard population; source: CINA+ Online, NAACCR, based on data collected by cancer registries participating in NCI's SEER Program and CDC's National Program of Cancer Registries.

‡Estimate is fewer than 50 cases.

§Combined incidence rate is not available.

Note: These model-based estimates are calculated using incidence rates from 41 states as reported by NAACCR; they are offered as a rough guide and should be interpreted with caution. State estimates may not add to US total due to rounding and exclusion of state estimates fewer than 50 cases.

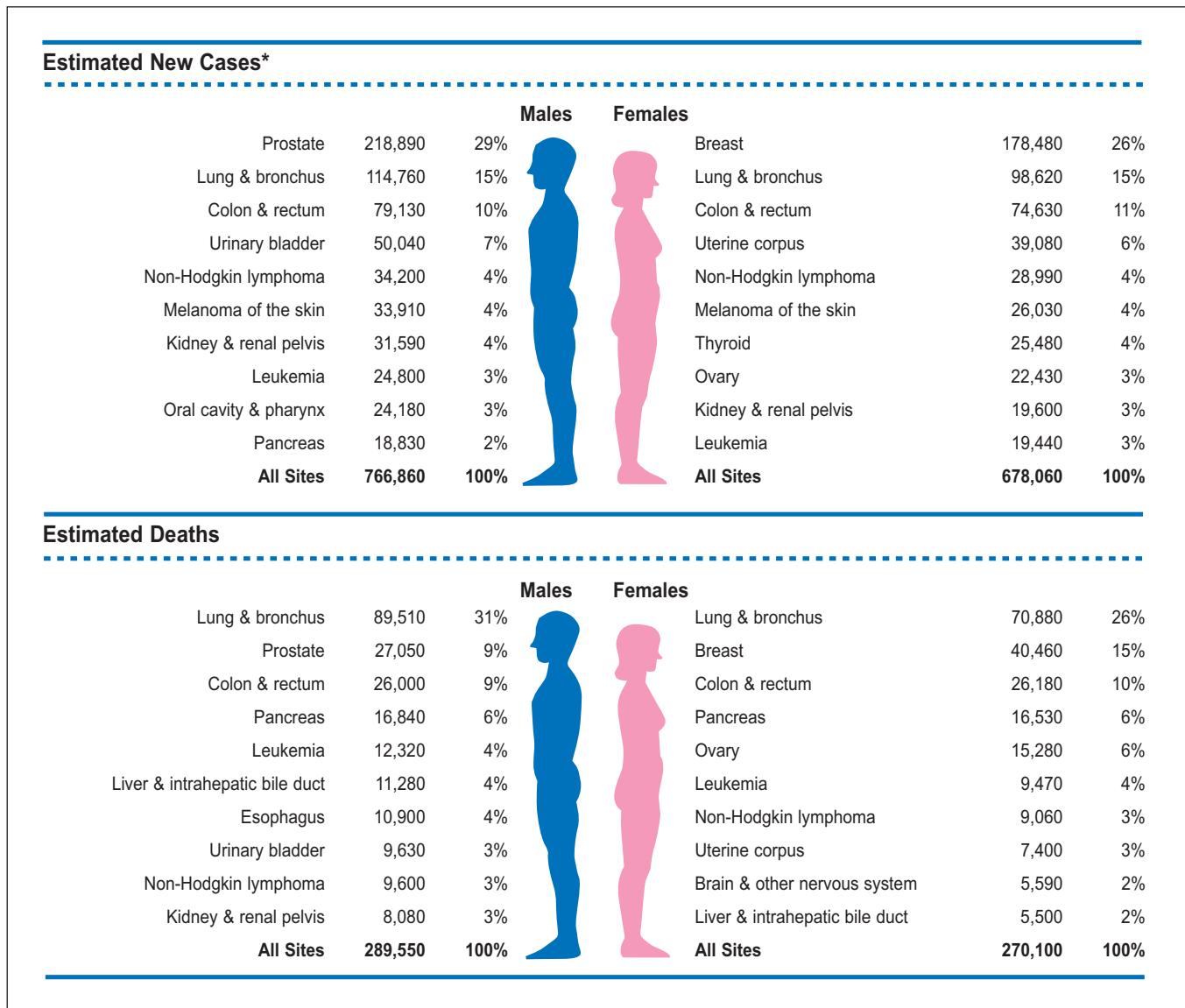


FIGURE 1 Ten Leading Cancer Types for the Estimated New Cancer Cases and Deaths, by Sex, US, 2007

*Excludes basal and squamous cell skin cancers and in situ carcinomas except urinary bladder. Estimates are rounded to the nearest 10.

Figure 1 indicates the most common cancers expected to occur in men and women in 2007. Among men, cancers of the prostate, lung and bronchus, and colon and rectum account for about 54% of all newly diagnosed cancers. Prostate cancer alone accounts for about 29% (218,890) of incident cases in men. Based on cases diagnosed between 1996 and 2002, an estimated 91% of these new cases of prostate cancer are expected to be diagnosed at local or regional stages, for which 5-year relative survival approaches 100%.

The three most commonly diagnosed types of cancer among women in 2007 will be cancers of the breast, lung and bronchus, and colon and rectum, accounting for about 52% of estimated cancer cases in women. Breast cancer alone is expected to account for 26% (178,480) of all new cancer cases among women.

Expected Number of New Cancer Deaths

Table 1 also shows the expected number of deaths from cancer projected for 2007 for men,

women, and both sexes combined. It is estimated that about 559,650 Americans will die from cancer, corresponding to over 1,500 deaths per day. Cancers of the lung and bronchus, prostate, and colon and rectum in men, and cancers of the lung and bronchus, breast, and colon and rectum in women continue to be the most common fatal cancers. These four cancers account for half of the total cancer deaths among men and women (Figure 1). Lung cancer surpassed breast cancer as the leading cause of cancer death in women in 1987. Lung cancer is expected to account for 26% of all female cancer deaths in 2007. Table 3 provides the estimated number of cancer deaths in 2007 by state for selected cancer sites.

Regional Variations in Cancer Rates

Table 4 depicts cancer incidence for select cancers by state. Rates vary widely across states. For example, among the cancers listed in Table 4, the largest variations in the incidence rates, in proportionate terms, occurred in lung cancer, in which rates (cases per 100,000 population) ranged from 41.8 in men and 21.5 in women in Utah to 137.9 in men and 73.5 in women in Kentucky. In contrast, the variation in female breast cancer incidence rates was small, ranging from 115 cases per 100,000 population in New Mexico to 146.7 cases in Washington. Factors that contribute to the state variations in the incidence rates include differences in the prevalence of risk factors, access to and utilization of early detection services, and completeness of reporting. For example, the state variation in lung cancer incidence rates primarily reflects differences in smoking prevalence; Utah ranks lowest in adult smoking prevalence and Kentucky highest.

Trends in Cancer Incidence and Mortality

Figures 2 to 5 depict long-term trends in cancer incidence and death rates for all cancers combined and for selected cancer sites by sex. Table 5 shows incidence and mortality patterns for all cancer sites combined and for the four most common cancer sites based on joinpoint analysis. Trends in incidence were adjusted for delayed reporting. Delay-adjusted cancer incidence rates for all sites combined stabilized in

men from 1995 to 2003 and increased in women by 0.3% per year from 1987 to 2003.

Lung cancer incidence rates are declining in men and appear to be plateauing in women after increasing for many decades. The lag in the temporal trend of lung cancer incidence rates in women compared with men reflects historical differences in cigarette smoking between men and women; cigarette smoking in women peaked about 20 years later than in men. Colorectal cancer incidence rates have decreased from 1998 through 2003 in both males and in females. Female breast cancer incidence rates leveled off from 2001 to 2003 after increasing since 1980, which may reflect the saturation of mammography utilization and reduction in the use of hormone replacement therapy.¹⁵ Prostate cancer incidence rates continued to increase, although at a slower rate than those reported for the early 1990s and before. The continuing increase for prostate cancer may be attributable to increased screening through prostate-specific antigen (PSA) testing.¹⁵

Death rates for all cancer sites combined decreased by 1.6% per year from 1993 to 2003 in males and by 0.8% per year in females from 1992 to 2003. Mortality rates have continued to decrease across all four major cancer sites in men and in women, except for female lung cancer in which rates continued to increase by 0.3% per year from 1995 to 2003 (Table 5).

Table 6 shows the contribution of individual cancer sites to the total decrease in overall cancer death rates. Death rates from all cancers combined peaked in 1990 for men and in 1991 for women. Between 1990/1991 and 2003, death rates from cancer decreased by 16.3% among men and by 8.5% among women. Among men, reduction in death rates from lung, prostate, and colorectal cancers accounts for about 80% of the decrease in cancer death rates, while reduction in death rates from breast and colorectal cancers accounts for over 60% of the decrease among women. Lung cancer in men and breast cancer in women alone account for nearly 40% of the sex-specific decreases in cancer death rates. The decrease in lung cancer death rates among men is due to reduction in tobacco use over the past 40 years, while the decrease in death rates from female breast, colorectal, and prostate cancer largely reflects improvements in early detection and treatment. Between

TABLE 3 Age-standardized Death Rates for All Cancers Combined, 1999–2003, and Estimated Deaths* From All Cancers Combined and Selected Sites by State, US, 2007

State	Death Rate†	Brain & Other			Colon			Non-Hodgkin Lymphoma			
		All Sites	Nervous System	Female Breast	Rectum	Leukemia	Liver	Lung & Bronchus	Ovary	Pancreas	Prostate
AL	210.7	9,740	210	680	880	350	300	3,240	330	290	530
AK	195.3	810	‡	50	70	‡	‡	230	‡	‡	50
AZ	174.9	10,120	250	710	970	400	330	2,850	320	300	590
AR	210.2	6,240	140	410	610	240	200	2,220	200	140	310
CA	178.7	54,890	1,460	4,130	5,230	2,150	2,270	13,220	1,830	1,680	3,480
CO	171.2	6,660	190	520	630	290	200	1,650	240	220	410
CT	186.5	6,990	150	490	590	270	190	1,860	230	190	480
DE	207.7	1,810	‡	120	160	70	‡	580	60	50	100
DC	230.3	1,020	‡	80	100	‡	‡	260	‡	‡	60
FL	186.2	40,430	790	2,700	3,530	1,630	1,190	12,360	1,300	1,040	2,350
GA	202.3	14,950	280	1,120	1,340	540	360	4,500	470	420	820
HI	152.9	2,260	‡	130	210	80	110	530	90	50	170
ID	178.1	2,370	80	180	200	120	50	570	100	50	140
IL	204.8	23,870	490	1,740	2,380	990	650	6,690	750	620	1,480
IN	211.9	12,730	280	860	1,180	510	290	3,800	430	350	740
IA	188.5	6,510	160	410	600	310	140	1,750	300	190	390
KS	189.0	5,290	140	380	520	230	120	1,530	220	150	310
KY	226.8	9,390	150	600	860	320	220	3,450	290	220	460
LA	226.3	9,550	200	730	960	330	330	3,020	310	220	530
ME	210.5	3,190	80	190	280	100	70	970	110	80	190
MD	203.7	10,210	230	830	970	390	250	2,900	320	270	640
MA	200.8	13,240	270	890	1,180	490	380	3,630	420	360	860
MI	199.6	19,180	450	1,320	1,750	770	560	5,840	660	540	1,180
MN	185.2	9,380	240	600	810	400	240	2,460	350	250	550
MS	219.5	5,990	160	450	610	210	180	2,040	170	150	340
MO	205.0	12,610	270	870	1,170	460	330	4,120	500	320	690
MT	191.6	1,920	50	130	160	80	‡	520	80	60	110
NE	184.6	3,320	90	220	350	150	70	900	110	90	180
NV	206.2	4,660	100	330	490	160	140	1,330	130	130	260
NH	198.4	2,630	70	180	220	100	70	740	90	60	150
NJ	201.6	17,140	320	1,350	1,680	680	530	4,380	600	490	1,070
NM	171.1	3,270	80	240	320	120	140	720	120	90	190
NY	187.3	35,270	720	2,670	3,350	1,360	1,090	9,500	1,030	1,020	2,330
NC	202.0	16,880	360	1,240	1,480	610	420	5,150	570	450	980
ND	181.8	1,220	‡	90	120	‡	‡	350	‡	‡	80
OH	209.0	24,600	540	1,820	2,350	950	600	7,310	610	650	1,370
OK	205.2	7,380	170	510	720	290	180	2,390	210	170	370
OR	196.1	7,370	200	530	640	260	190	2,140	360	230	440
PA	202.8	29,140	560	2,470	2,730	1,070	790	7,780	1,140	790	1,780
RI	200.2	2,370	50	140	210	80	70	640	60	60	140
SC	208.1	8,940	190	570	790	330	230	2,750	260	220	510
SD	189.0	1,600	50	100	160	70	‡	420	80	50	100
TN	214.7	12,920	350	890	1,160	480	330	4,340	410	320	700
TX	192.8	34,170	840	2,480	3,220	1,410	1,490	9,920	1,160	860	2,010
UT	148.0	2,690	90	240	240	130	70	470	140	90	170
VT	192.6	1,160	‡	100	120	50	‡	350	50	‡	70
VA	202.9	13,740	280	1,100	1,320	500	370	4,290	360	390	800
WA	193.2	11,370	370	770	990	490	380	3,170	440	370	740
WV	218.5	4,610	90	280	480	130	110	1,450	170	140	220
WI	189.6	10,870	260	770	960	490	310	2,890	320	290	680
WY	187.8	980	‡	60	110	‡	‡	260	‡	‡	60
US	195.7	559,650	12,740	40,460	52,180	21,790	16,780	160,390	18,660	15,280	33,370
											27,050

*Rounded to the nearest 10.

†Rates are per 100,000 population and age-adjusted to the 2000 US standard population.

‡Estimate is fewer than 50 deaths.

Note: State estimates may not add to US total due to rounding and exclusion of state estimates fewer than 50 deaths.

Source: US Mortality Public Use Data Tapes, 1969 to 2004, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

TABLE 4 Cancer Incidence Rates* by Site and State, US, 1999 to 2003

State	All Sites		Breast		Colon & Rectum		Lung & Bronchus		Non-Hodgkin Lymphoma		Prostate	Urinary Bladder	
	Male	Female	Female	Male	Female	Male	Female	Male	Female	Male	Male	Female	
Alabama †	526.5	365.2	115.3	60.6	41.8	108.9	49.9	18.8	13.3	140.4	30.0	7.1	
Alaska †	556.8	421.2	134.2	65.5	50.3	87.6	60.9	23.7	15.7	167.7	39.5	8.4	
Arizona	462.4	364.1	116.7	53.1	38.2	71.8	48.7	18.7	13.4	118.2	36.0	8.8	
Arkansas	544.1	377.1	121.0	60.1	43.4	114.9	56.1	20.8	15.1	154.2	34.3	8.2	
California †	520.9	398.5	129.8	56.6	41.5	70.8	48.4	22.4	15.3	158.3	34.4	8.3	
Colorado †	516.2	400.3	134.2	53.7	40.7	66.6	44.7	21.7	16.7	164.8	35.4	9.3	
Connecticut †	597.3	448.3	140.4	68.8	50.3	84.2	57.1	24.4	17.0	179.8	45.0	12.3	
Delaware †	586.8	433.4	128.8	66.6	48.8	97.4	63.0	21.6	15.9	176.1	38.5	10.2	
Dist. of Columbia †	635.6	422.6	135.3	65.6	52.0	96.4	50.1	21.0	11.9	227.1	25.3	9.8	
Florida †	562.2	415.6	123.0	62.8	46.6	94.4	60.5	22.3	15.5	152.7	40.4	10.4	
Georgia †	565.8	391.5	124.0	61.5	43.7	108.6	52.8	19.6	13.8	166.2	32.7	8.0	
Hawaii †	481.8	375.2	127.3	65.4	42.3	68.0	37.2	18.7	13.1	132.3	23.4	5.2	
Idaho †	530.0	396.0	128.2	52.4	39.5	71.1	44.8	20.8	17.6	171.9	38.2	7.6	
Illinois †	580.9	425.5	129.7	71.1	49.8	96.1	56.6	23.2	16.2	165.6	40.2	10.5	
Indiana †	545.7	414.4	124.8	67.6	48.5	107.1	60.3	22.0	15.7	138.6	36.1	9.2	
Iowa †	557.1	424.2	128.7	71.6	53.0	90.2	50.4	22.6	16.7	154.2	39.1	9.8	
Kansas ‡	-	-	-	-	-	-	-	-	-	-	-	-	
Kentucky †	616.9	440.5	124.8	72.0	53.1	137.9	73.5	21.6	16.5	155.1	37.8	9.5	
Louisiana †	613.8	402.3	122.8	72.7	49.6	114.0	56.8	22.4	15.7	179.5	34.2	8.2	
Maine †	609.9	447.6	131.4	69.1	51.4	101.0	62.8	22.5	16.9	171.3	48.9	13.2	
Maryland †	581.6	428.3	131.9	63.2	47.2	87.2	57.1	20.9	14.4	185.2	34.0	9.4	
Massachusetts †	591.6	451.8	138.8	68.7	50.3	84.0	61.4	23.1	16.8	178.2	45.8	12.5	
Michigan †	608.6	429.9	129.4	62.4	46.5	94.8	58.6	23.6	17.3	199.1	42.0	10.7	
Minnesota †	559.4	412.3	135.9	60.3	44.6	72.1	47.8	25.4	18.0	188.6	38.4	10.2	
Mississippi ‡	-	-	-	-	-	-	-	-	-	-	-	-	
Missouri †	537.4	408.8	125.4	67.9	48.5	104.7	59.5	21.9	15.9	136.8	35.9	9.0	
Montana †	558.8	412.0	128.4	59.0	43.9	81.2	56.0	22.6	15.1	183.6	40.8	10.1	
Nebraska †	551.0	413.4	131.4	70.8	49.7	81.6	47.4	22.6	17.3	165.7	38.3	9.2	
Nevada †	541.3	414.2	120.8	60.7	44.1	91.5	71.2	20.7	14.3	150.6	44.0	11.0	
New Hampshire †	571.7	436.6	135.2	62.4	48.5	81.9	59.3	24.2	16.4	185.3	46.2	12.7	
New Jersey †	623.9	448.7	133.9	73.1	52.3	85.0	55.7	25.7	18.0	200.3	45.3	12.0	
New Mexico	485.0	357.3	115.0	52.0	35.2	60.1	36.8	17.9	13.6	152.2	28.7	7.1	
New York †	565.4	424.8	126.7	68.0	50.2	82.8	53.5	23.4	16.6	168.1	41.0	11.1	
North Carolina	519.2	372.6	121.5	57.0	41.8	96.2	49.9	19.0	13.4	152.4	32.7	8.4	
North Dakota	518.0	366.9	123.1	64.8	43.4	70.8	41.0	21.6	14.6	181.8	37.2	9.1	
Ohio	551.9	412.6	126.6	65.7	47.7	99.5	57.8	22.9	16.1	154.1	39.5	10.1	
Oklahoma †	547.0	399.6	128.3	64.6	44.6	111.2	62.1	21.9	15.1	148.8	32.6	8.0	
Oregon †	545.4	436.5	142.6	56.9	44.3	82.6	61.0	23.4	17.3	164.1	41.1	10.2	
Pennsylvania †	594.4	436.5	129.4	72.2	51.1	92.9	53.9	24.5	17.0	172.3	44.2	11.6	
Rhode Island †	627.2	448.6	130.7	72.9	50.2	98.7	60.9	23.5	17.3	177.9	51.6	14.8	
South Carolina †	590.1	389.4	123.5	65.4	45.6	107.4	51.1	20.4	14.3	176.9	33.9	7.6	
South Dakota (2001-2003)	564.1	395.7	128.6	66.2	48.9	78.4	41.8	22.2	15.5	190.1	43.2	8.6	
Tennessee §	442.0	351.2	113.7	54.7	40.2	95.5	50.9	17.8	12.9	108.7	28.3	7.3	
Texas †	530.7	383.4	118.6	59.2	41.4	91.8	50.7	21.3	15.6	148.3	29.6	7.3	
Utah †	490.2	346.3	117.1	48.3	36.6	41.8	21.5	23.1	15.3	186.5	31.3	7.0	
Vermont ‡	-	-	-	-	-	-	-	-	-	-	-	-	
Virginia	510.5	367.6	122.2	58.3	43.1	83.5	48.7	19.1	13.0	161.4	32.4	8.2	
Washington †	573.7	448.0	146.7	57.9	43.5	84.4	60.5	26.0	18.1	177.1	41.7	10.3	
West Virginia †	574.6	427.8	116.9	71.5	53.6	118.0	68.4	21.3	16.2	148.2	39.9	12.1	
Wisconsin †	562.0	424.4	133.9	66.5	47.2	84.5	52.2	22.9	16.8	169.1	37.9	10.5	
Wyoming	524.9	390.3	125.2	52.1	45.1	65.6	44.7	17.3	16.9	182.2	40.5	9.2	
United States	562.1	415.3	128.2	64.2	46.7	89.6	54.7	22.6	16.0	165.0	38.2	9.8	

*Per 100,000, age-adjusted to the 2000 US standard population. Not all states submitted data for all years.

†This state's registry has submitted five years of data and passed rigorous criteria for each single year's data including: completeness of reporting, non-duplication of records, percent unknown in critical data fields, percent of cases registered with information from death certificates only, and internal consistency among data items.

‡This state's registry did not submit incidence data to the North American Association of Central Cancer Registries (NAACCR) for 1999-2003.

§This state's data is excluded from interpretation in the text because completeness of case ascertainment for this state's registry is 77%-84% for the years 1999-2003.

Sources: CINA+ Online and Cancer in North America: 1999-2003, Volume One: Incidence, North American Association of Central Cancer Registries.

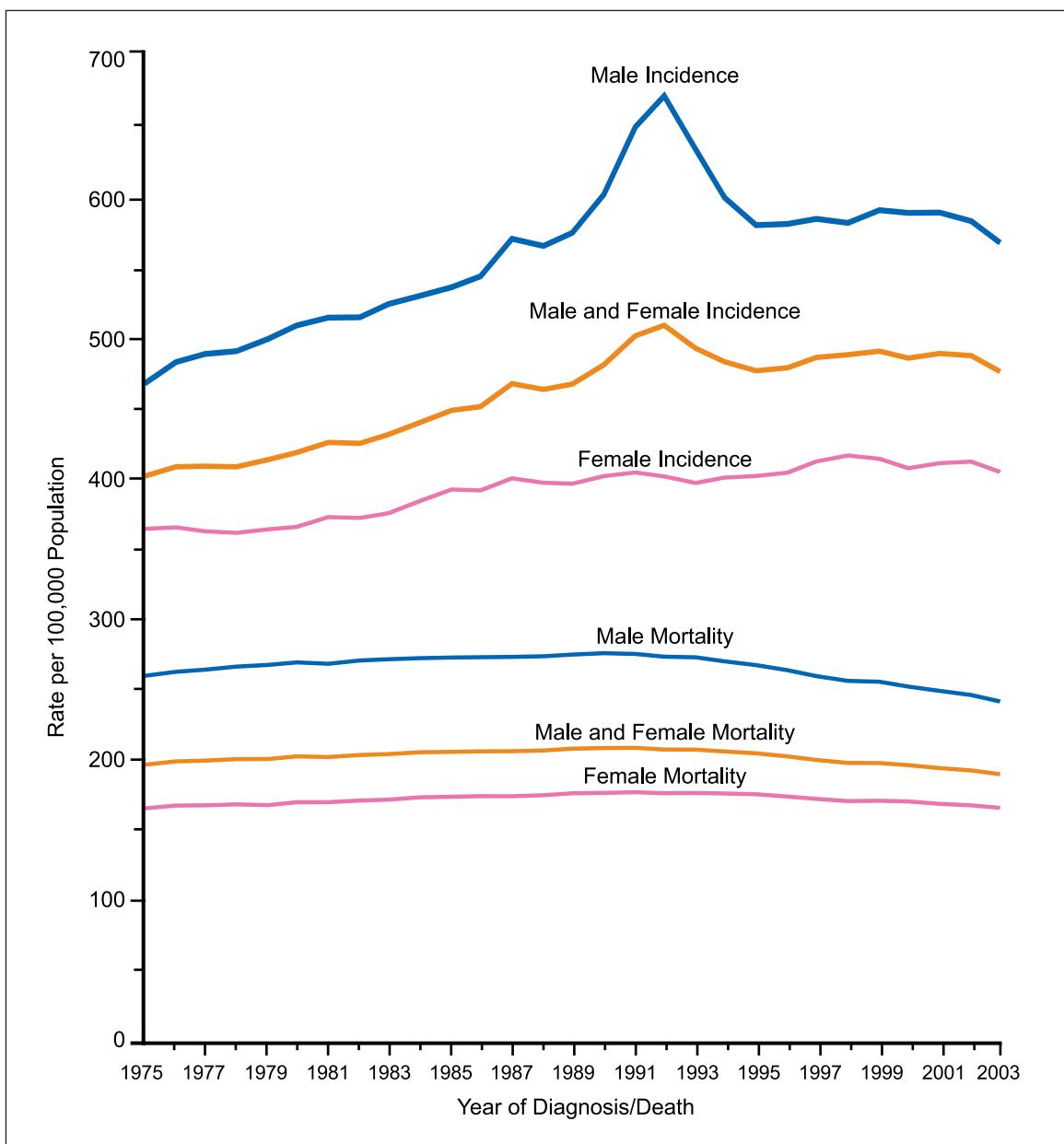


FIGURE 2 Annual Age-adjusted Cancer Incidence and Death Rates* for All Sites, by Sex, US, 1975 to 2003.
 *Rates are age-adjusted to the 2000 US standard population. Incidence rates are adjusted for delays in reporting. Source: Incidence—Surveillance, Epidemiology, and End Results (SEER) program, (www.seer.cancer.gov). Delay-Adjusted Incidence database: “SEER Incidence Delay-Adjusted Rates, 9 Registries, 1975–2003.” National Cancer Institute, DCCPS, Surveillance Research Program, Statistical Research and Applications Branch, released April 2006, based on the November 2005 SEER data submission. Mortality—US Mortality Public Use Data Tapes, 1960 to 2003, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

1990/1991 and 2003, death rates increased substantially for lung cancer in women and for liver and intrahepatic bile duct cancer in men.

Changes in the Recorded Number of Deaths From Cancer From 2003 to 2004

A total of 553,888 cancer deaths was recorded in the United States in 2004, the most

recent year for which actual data are available. There were 3,014 fewer cancer deaths reported in 2004 than in 2003, resulting in a decrease in the total number of cancer deaths for the second consecutive year. Cancer accounted for about 23% of all deaths, ranking second only to heart disease (Table 7). When cause of death is ranked within each age group, categorized

in 20-year age intervals, cancer is one of the five leading causes of death in each age group among both males and females (Table 8). Cancer is the leading cause of death among women aged 40 to 79 years and among men aged 60 to 79 years. When age-adjusted death rates are considered (Figure 6), cancer is the leading cause of death among men and women under age 85 years. A total of 473,535 people under age 85 years died from cancer in the United States in 2004, compared with 414,526 deaths from heart disease.

Table 9 presents the number of deaths from all cancers combined and the five most common cancer sites for males and females at various ages. Among males under age 40 years, leukemia is

the most common fatal cancer, while cancer of the lung and bronchus predominates in men aged 40 years and older. The second most common cause of cancer death is colorectal cancer among men aged 40 to 79 years and prostate cancer among men aged 80 years and older. Among females, leukemia is the leading cause of cancer death before age 20 years, breast cancer ranks first at age 20 to 59 years, and lung cancer ranks first at age 60 years and older.

From 2003 to 2004, the number of recorded cancer deaths decreased by 1,160 in men and by 1,854 in women (Table 10). The largest change in number of deaths from the major cancers was for colorectal cancer in both men and women (decreased by 1,110 and 1,094, respectively).

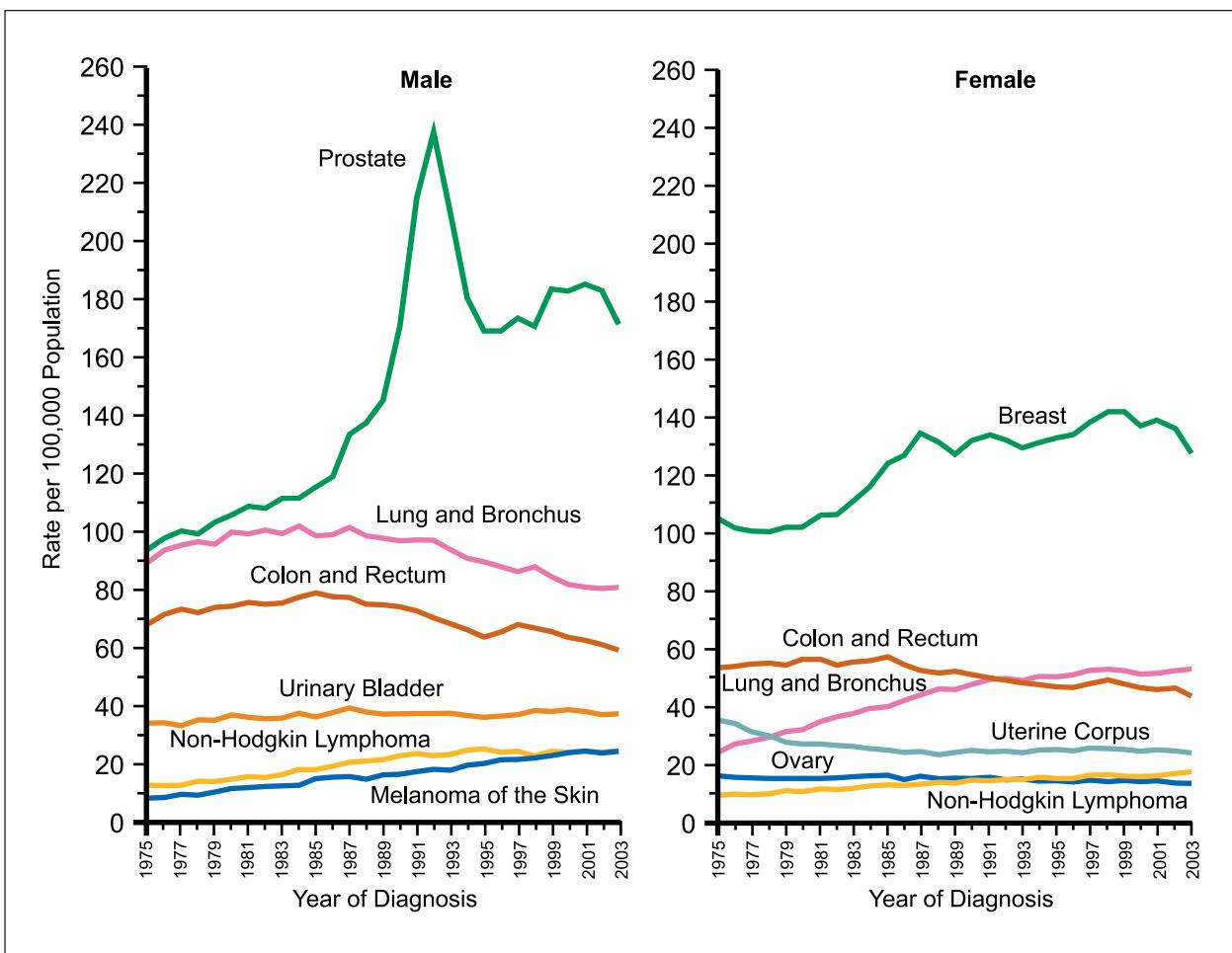


FIGURE 3 Annual Age-adjusted Cancer Incidence Rates* Among Males and Females for Selected Cancers, US, 1975 to 2003.
*Rates are age-adjusted to the 2000 US standard population and adjusted for delays in reporting. Source: Surveillance, Epidemiology, and End Results (SEER) Program (www.seer.cancer.gov). Delay-Adjusted Incidence database: "SEER Incidence Delay-Adjusted Rates, 9 Registries, 1975-2003." National Cancer Institute, DCCPS, Surveillance Research Program, Statistical Research and Applications Branch, released April 2006, based on the November 2005 SEER data submission.

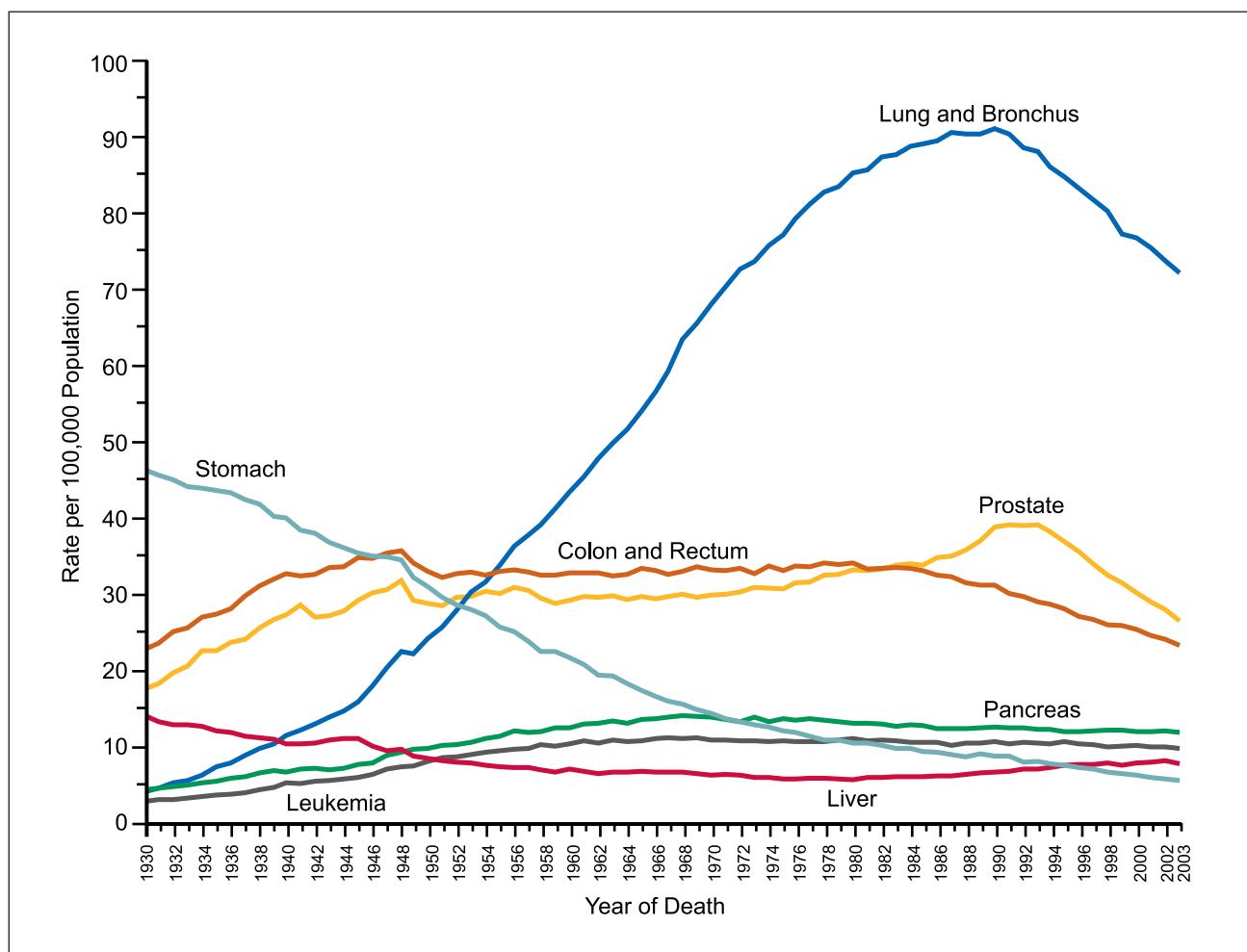


FIGURE 4 Annual Age-adjusted Cancer Death Rates* Among Males for Selected Cancers, US, 1930 to 2003.

*Rates are age-adjusted to the 2000 US standard population. Note: Due to changes in ICD coding, numerator information has changed over time. Rates for cancers of the lung and bronchus, colon and rectum, and liver are affected by these changes. Source: US Mortality Public Use Data Tapes, 1960 to 2003, US Mortality Volumes, 1930 to 1959, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

CANCER OCCURRENCE BY RACE/ETHNICITY

Cancer incidence and death rates vary considerably among racial and ethnic groups (Table 11). For all cancer sites combined, African American men have a 15% higher incidence rate and 38% higher death rate than White men. African American women have a 9% lower incidence rate, but an 18% higher death rate than White women for all cancer sites combined. For the specific cancer sites listed in Table 11, incidence and death rates are consistently higher in African Americans than in Whites, except for breast cancer (incidence) and lung and kidney cancers (incidence and mortality) among women. Death rates from prostate, stomach, and cervical cancers among African Americans are more than twice those in

Whites. Factors known to contribute to racial disparities in mortality vary by cancer site. These factors include differences in exposure to underlying risk factors (eg, *Helicobacter pylori* for stomach cancer), access to high-quality regular screening (breast, cervical, and colorectal cancers), and timely diagnosis and treatment (for many cancers). The higher breast cancer incidence rates among Whites are thought to reflect a combination of factors that affect diagnosis (such as more frequent mammography in White women until the most recent time period) and those that affect disease risk (such as later age at first birth and greater use of hormone replacement therapy among White than African American women).¹⁶

Among other racial and ethnic groups, cancer incidence and death rates are lower than

those in Whites and African Americans for all cancer sites combined and for the four most common cancer sites. However, the incidence and death rates are generally higher in minority populations than in Whites for cancers of the uterine cervix, stomach, and liver. Stomach and liver cancer incidence and death rates are more than twice as high in Asian American/Pacific Islanders as in Whites, reflecting increased exposure to infectious agents such as *Helicobacter pylori* and hepatitis B.¹⁷ Kidney cancer incidence and death rates are the highest among American Indians/Alaskan Natives, although factors that contribute to this are unknown.

Trends in cancer incidence can only be adjusted for delayed reporting in Whites and African Americans, and not in other racial and ethnic subgroups, because long-term incidence data required for delay adjustment are available only for Whites and African Americans. From 1995 to 2003, sex-specific incidence rates for all cancer sites combined, not adjusted for delayed reporting, have stabilized, except for African American and Hispanic men, in whom rates decreased by 1.3% and 1.1%, respectively. In contrast, death rates from cancer significantly decreased in each racial and ethnic group, with larger decreases in men than in women.³

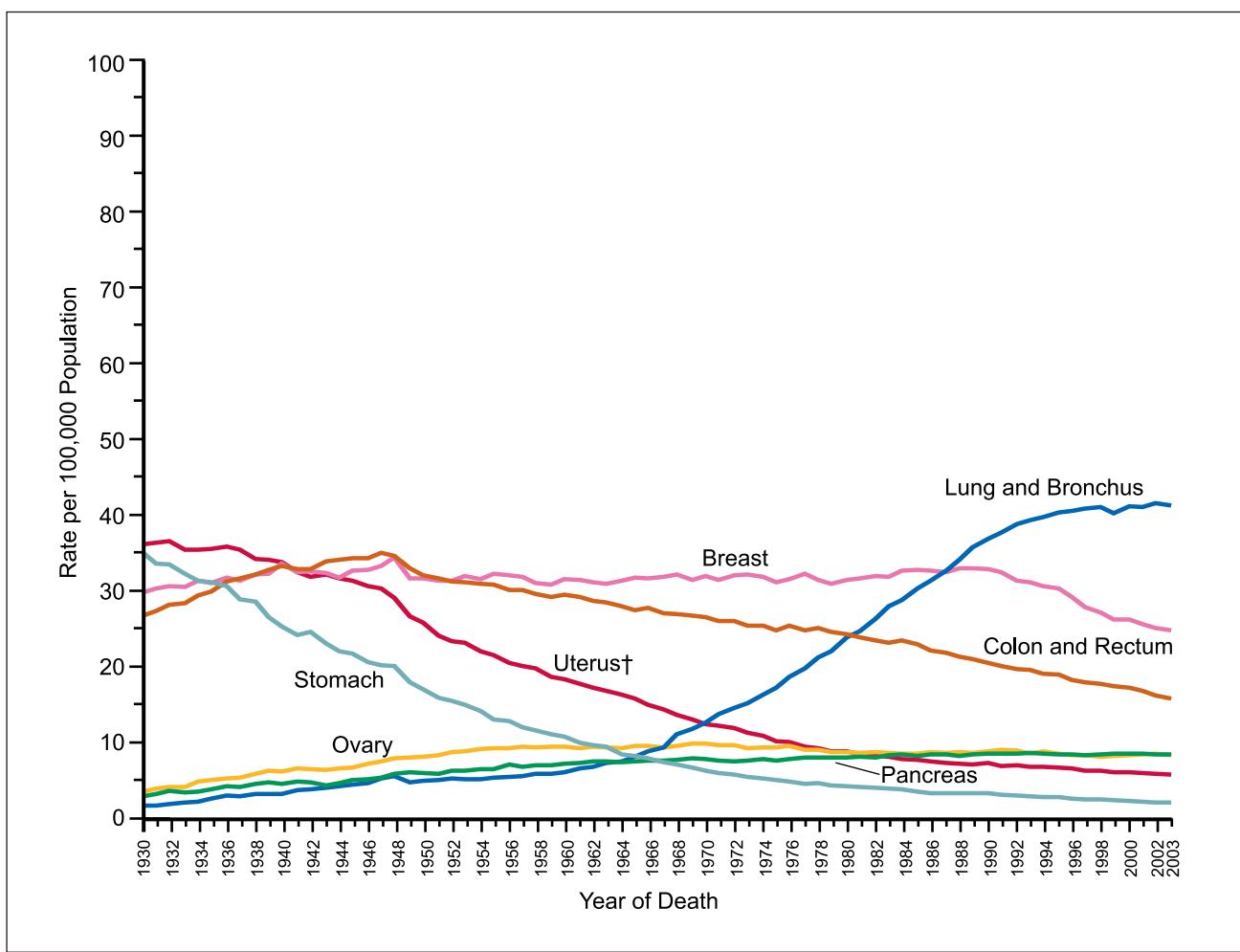


FIGURE 5 Annual Age-adjusted Cancer Death Rates* Among Females for Selected Cancers, US, 1930 to 2003.

*Rates are age-adjusted to the 2000 US standard population.

†Uterus includes uterine cervix and uterine corpus.

Note: Due to changes in ICD coding, numerator information has changed over time. Rates for cancers of the uterus, ovary, lung and bronchus, and colon and rectum are affected by these changes.

Source: US Mortality Public Use Data Tapes, 1960 to 2003, US Mortality Volumes 1930 to 1959, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

TABLE 5 Trends in Cancer Incidence and Death Rates for Selected Cancers by Sex, US, 1975 to 2003

	Line Segment 1		Line Segment 2		Line Segment 3		Line Segment 4	
	Year	APC*	Year	APC*	Year	APC*	Year	APC*
All sites								
Incidence								
Male and female	1975-1983	0.9 †	1983-1992	1.8 †	1992-1995	-1.5	1995-2003	0.1
Male	1975-1989	1.3 †	1989-1992	5.1 †	1992-1995	-4.5 †	1995-2003	0.0
Female	1975-1979	-0.3	1979-1987	1.6 †	1987-2003	0.3 †		
Death								
Male and female	1975-1990	0.5 †	1990-1994	-0.4	1994-2003	-1.1 †		
Male	1975-1979	1.0 †	1979-1990	0.3 †	1990-1993	-0.4	1993-2003	-1.6 †
Female	1975-1992	0.5 †	1992-2003	-0.8 †				
Lung & bronchus								
Incidence								
Male and female	1975-1982	2.5 †	1982-1991	0.9 †	1991-2003	-0.7 †		
Male	1975-1982	1.5 †	1982-1991	-0.5 †	1991-2003	-1.7 †		
Female	1975-1982	5.6 †	1982-1991	3.4 †	1991-2003	0.5 †		
Death								
Male and female	1975-1980	3.0 †	1980-1990	1.8 †	1990-1994	-0.1	1994-2003	-0.9 †
Male	1975-1978	2.4 †	1978-1984	1.2 †	1984-1991	0.3 †	1991-2003	-1.9 †
Female	1975-1982	6.0 †	1982-1990	4.2 †	1990-1995	1.7 †	1995-2003	0.3 †
Colon & rectum								
Incidence								
Male and female	1975-1985	0.8 †	1985-1995	-1.8 †	1995-1998	1.2	1998-2003	-2.1 †
Male	1975-1986	1.1 †	1986-1995	-2.1 †	1995-1998	1.0	1998-2003	-2.5 †
Female	1975-1985	0.3	1985-1995	-1.8 †	1995-1998	1.7	1998-2003	-1.9 †
Death								
Male and female	1975-1978	0.2	1978-1985	-0.8 †	1985-2001	-1.8 †	2001-2003	-2.8 †
Male	1975-1978	0.8	1978-1984	-0.4	1984-1990	-1.3 †	1990-2003	-2.1 †
Female	1975-1984	-1.0 †	1984-2003	-1.9 †				
Breast (female)								
Incidence								
	1975-1980	-0.4	1980-1987	3.7 †	1987-2001	0.5 †	2001-2003	-4.1
Death								
	1975-1990	0.4 †	1990-1995	-1.8 †	1995-1999	-3.1 †	1999-2003	-1.4 †
Prostate								
Incidence								
	1975-1988	2.6 †	1988-1992	16.4 †	1992-1995	-10.8 †	1995-2003	1.1 †
Death								
	1975-1987	0.9 †	1987-1991	3.1 †	1991-1994	-0.6	1994-2003	-4.0 †

*Annual percent change based on incidence (delay-adjusted) and mortality rates age-adjusted to the 2000 US standard population.

†The APC is significantly different from zero.

Note: Trends were analyzed by Joinpoint Regression Program, version 3.1, with a maximum of three joinpoints (ie, four line segments).

Source: Ries LAG, Harkins D, Krapcho M, et al., eds. SEER Cancer Statistics Review, 1975-2003, National Cancer Institute, based on November 2005 SEER data submission, posted to the SEER Web site, 2006.

Lifetime Probability of Developing Cancer

The lifetime probability of developing cancer is higher for men (45%) than for women (38%) (Table 12). However, because of the relatively early age of breast cancer onset, women have a slightly higher probability of developing cancer before age 60 years. It is noteworthy that these estimates are based on the average experience of the general population and may over- or underestimate individual risk because of differences in exposure and/or genetic susceptibility.

Cancer Survival by Race

Compared with Whites, African American men and women have poorer survival once a

cancer diagnosis is made. As shown in Figure 7, African Americans are less likely than Whites to be diagnosed with cancer at a localized stage, when the disease may be more easily and successfully treated, and are more likely to be diagnosed with cancer at a regional or distant stage of disease. Five-year relative survival is lower in African Americans than Whites within each stratum of stage of diagnosis for nearly every cancer site (Figure 8). These disparities may result from inequalities in access to and receipt of quality health care and/or within-stage differences in tumor characteristics. The contribution of these factors, individually or collectively, to the differential survival for specific cancers is unclear.¹⁸ However, some studies suggest that African

TABLE 6 The Contribution of Individual Cancer Sites to the Decrease in Cancer Death Rates, 1990-2003

	Death rate (per 100,000)		Change		% Contribution†
	1990*	2003	Absolute	%	
Male					
All Malignant Cancers	279.82	234.12	-45.70	-16.33	
Decreasing					
Lung & Bronchus	90.56	71.92	-18.64	-20.58	38.4
Prostate	38.56	26.56	-12.00	-31.12	24.8
Colon & Rectum	30.77	22.96	-7.81	-25.38	16.1
Pancreas	12.59	12.05	-0.54	-4.29	1.1
Leukemia	10.71	9.93	-0.78	-7.28	1.6
Non-Hodgkin Lymphoma	9.97	9.32	-0.65	-6.52	1.3
Urinary Bladder	7.97	7.37	-0.60	-7.53	1.2
Kidney & Renal Pelvis	6.16	6.07	-0.09	-1.46	0.2
Stomach	8.86	5.70	-3.16	-35.67	6.5
Brain & Other Nervous System	5.97	5.36	-0.61	-10.22	1.3
Myeloma	4.83	4.58	-0.25	-5.18	0.5
Oral Cavity & Pharynx	5.61	4.06	-1.55	-27.63	3.2
Larynx	2.97	2.36	-0.61	-20.54	1.3
Hodgkin Lymphoma	0.85	0.55	-0.30	-35.29	0.6
Bones & Joints	0.55	0.54	-0.01	-1.82	0.0
Small Intestine	0.50	0.43	-0.07	-14.00	0.1
Others	25.77	24.96	-0.81	-3.14	1.7
Total			-48.48		100.0
Increasing					
Esophagus	7.16	7.74	0.58	8.10	20.6
Liver & Intrahepatic Bile Duct	5.27	7.38	2.11	40.04	74.8
Melanoma of the Skin	3.80	3.88	0.08	2.11	2.8
Thyroid	0.37	0.42	0.05	13.51	1.8
Total			2.82		100.0
	Death rate (per 100,000)		Change		% Contribution†
	1991*	2003	Absolute	%	
Females					
All Malignant Cancers	175.30	160.49	-14.81	-8.45	
Decreasing					
Breast	32.69	25.19	-7.50	-22.94	39.4
Colon & Rectum	20.30	16.05	-4.25	-20.94	22.3
Pancreas	9.28	9.24	-0.04	-0.43	0.2
Ovary	9.51	8.85	-0.66	-6.94	3.5
Non-Hodgkin Lymphoma	6.74	5.88	-0.86	-12.76	4.5
Leukemia	6.32	5.59	-0.73	-11.55	3.8
Uterine Corpus	4.18	4.13	-0.05	-1.20	0.3
Brain & Other Nervous System	4.11	3.62	-0.49	-11.92	2.6
Myeloma	3.26	3.08	-0.18	-5.52	0.9
Stomach	4.01	2.96	-1.05	-26.18	5.5
Kidney & Renal Pelvis	2.95	2.73	-0.22	-7.46	1.2
Uterine Cervix	3.49	2.48	-1.01	-28.94	5.3
Urinary Bladder	2.34	2.20	-0.14	-5.98	0.7
Esophagus	1.81	1.74	-0.07	-3.87	0.4
Melanoma of the Skin	1.82	1.74	-0.08	-4.40	0.4
Oral Cavity & Pharynx	2.03	1.47	-0.56	-27.59	2.9
Soft Tissue including Heart	1.28	1.14	-0.14	-10.94	0.7
Gallbladder	1.09	0.77	-0.32	-29.36	1.7
Others	17.97	17.28	-0.69	-3.84	3.6
Total			-19.04		100.0
Increasing					
Lung & Bronchus	37.61	41.24	3.63	9.65	85.8
Liver & Intrahepatic Bile Duct	2.51	3.11	0.60	23.90	14.2
Total			4.23		100.0

*Death rates from cancer peaked in 1990 for men and in 1991 for women.

†This calculation is based on each cancer site's contribution to the increasing or decreasing portion of the total cancer death rate, depending on the individual site's trend; it does not represent the contribution to the net decrease in cancer death rates.

TABLE 7 Fifteen Leading Causes of Death, US, 2004

Rank	Cause of Death	Number of Deaths	Percent (%) of Total Deaths	Death Rate*
	All Causes	2,397,615	100.0	800.8
1	Heart diseases	652,486	27.2	217.0
2	Cancer	553,888	23.1	185.8
3	Cerebrovascular diseases	150,074	6.3	50.0
4	Chronic lower respiratory diseases	121,987	5.1	41.1
5	Accidents (unintentional injuries)	112,012	4.7	37.7
6	Diabetes mellitus	73,138	3.1	24.5
7	Alzheimer disease	65,965	2.8	21.8
8	Influenza & pneumonia	59,664	2.5	19.8
9	Nephritis, nephrotic syndrome, & nephrosis	42,480	1.8	14.2
10	Septicemia	33,373	1.4	11.2
11	Intentional self-harm (suicide)	32,439	1.4	10.9
12	Chronic liver disease & cirrhosis	27,013	1.1	9.0
13	Hypertension & hypertensive renal disease	23,076	1.0	7.7
14	Parkinson disease	17,989	0.8	6.1
15	Assault (homicide)	17,357	0.7	5.9
	All other & ill-defined causes	414,674	17.3	

*Rates are per 100,000 population and age-adjusted to the 2000 US standard population.

Note: Percentages may not total 100 due to rounding. Symptoms, signs, and abnormalities and pneumonitis due to solids and liquids were excluded from the cause of death ranking order.

Source: US Mortality Public Use Data Tape, 2004, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

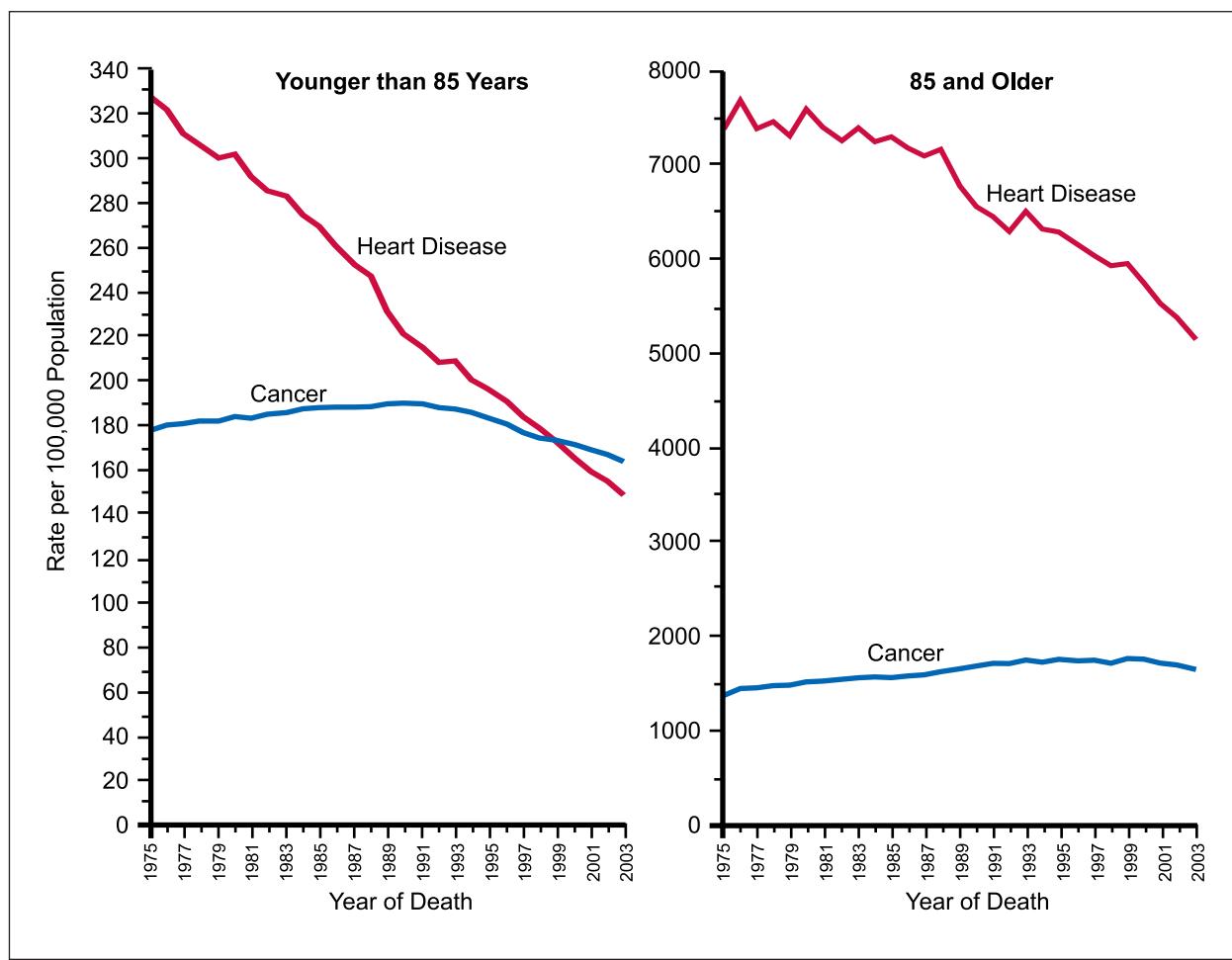


FIGURE 6 Death Rates* From Cancer and Heart Disease for Ages Younger Than 85 and 85 and Older.

*Rates are age-adjusted to the 2000 US standard population.

Source: US Mortality Public Use Data Tapes, 1960 to 2003, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

TABLE 8 Ten Leading Causes of Death by Age and Sex, US, 2004

	All Ages		Ages 1 to 19		Ages 20 to 39		Ages 40 to 59		Ages 60 to 79		Ages 80+	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	All Causes 1,181,668	All Causes 1,215,947	All Causes 16,326	All Causes 8,999	All Causes 63,753	All Causes 28,774	All Causes 217,755	All Causes 134,523	All Causes 467,831	All Causes 386,115	All Causes 400,011	All Causes 645,246
1	Heart diseases 321,973	Heart diseases 330,513	Accidents (unintentional injuries) 7,369	Accidents (unintentional injuries) 3,763	Accidents (unintentional injuries) 21,802	Accidents (unintentional injuries) 7,173	Heart diseases 53,449	Cancer 49,725	Cancer 152,611	Cancer 127,500	Heart diseases 132,195	Heart diseases 217,367
2	Cancer 286,830	Cancer 267,058	Assault (homicide) 2,035	Cancer 930	Intentional self-harm (suicide) 8,685	Cancer 4,878	Cancer 53,127	Heart diseases 21,543	Heart diseases 130,219	Heart diseases 88,538	Cancer 75,579	Cancer 83,986
3	Accidents (unintentional injuries) 72,050	Cerebro-vascular disease 91,274	Intentional self-harm (suicide) 1,532	Assault (homicide) 603	Assault (homicide) 7,700	Heart diseases 2,526	Accidents (unintentional injuries) 22,159	Accidents (unintentional injuries) 9,343	Chronic lower respiratory diseases 30,114	Chronic lower respiratory diseases 29,223	Cerebro-vascular diseases 28,551	Cerebro-vascular diseases 61,582
4	Cerebro-vascular disease 58,800	Chronic lower respiratory diseases 63,341	Cancer 1,219	Congenital anomalies 541	Heart diseases 5,394	Intentional self-harm (suicide) 1,953	Intentional self-harm (suicide) 9,640	Cerebro-vascular diseases 5,536	Cerebro-vascular diseases 22,668	Cerebro-vascular diseases 23,335	Chronic lower respiratory diseases 23,749	Alzheimer disease 39,951
5	Chronic lower respiratory diseases 58,646	Alzheimer disease 46,991	Congenital anomalies 674	Intentional self-harm (suicide) 453	Cancer 4,251	Assault (homicide) 1,478	Chronic liver disease & cirrhosis 9,357	Diabetes mellitus 4,778	Diabetes mellitus 17,160	Diabetes mellitus 15,969	Influenza & pneumonia 15,560	Chronic lower respiratory diseases 29,660
6	Diabetes mellitus 35,267	Accidents (unintentional injuries) 39,962	Heart diseases 456	Heart diseases 342	HIV disease 2,421	HIV disease 1,202	Diabetes mellitus 6,948	Chronic lower respiratory diseases 4,066	Accidents (unintentional injuries) 11,024	Nephritis, nephrotic syndrome & nephrosis 7,652	Alzheimer disease 14,353	Influenza & pneumonia 23,801
7	Influenza & pneumonia 26,861	Diabetes mellitus 37,871	Chronic lower respiratory diseases 160	Influenza & pneumonia 132	Diabetes mellitus 837	Cerebro-vascular disease 680	Cerebro-vascular diseases 6,655	Chronic liver disease & cirrhosis 3,736	Influenza & pneumonia 8,302	Accidents (unintentional injuries) 7,235	Diabetes mellitus 10,269	Diabetes mellitus 16,496
8	Intentional self-harm (suicide) 25,566	Influenza & pneumonia 32,803	Influenza & pneumonia 136	Septicemia 101	Chronic liver disease & cirrhosis 752	Diabetes mellitus 584	HIV disease 6,222	Intentional self-harm (suicide) 3,305	Nephritis, nephrotic syndrome & nephrosis 8,017	Alzheimer disease 6,887	Nephritis, nephrotic syndrome & nephrosis 9,452	Nephritis, nephrotic syndrome & nephrosis 12,205
9	Nephritis, nephrotic syndrome & nephrosis 20,370	Nephritis, nephrotic syndrome & nephrosis 22,110	Cerebro-vascular disease 104	Chronic lower respiratory diseases 93	Cerebro-vascular disease 748	Pregnancy, childbirth & puerperium 514	Chronic lower respiratory diseases 4,260	Septicemia 2,103	Septicemia 6,349	Influenza & pneumonia 6,881	Accidents (unintentional injuries) 9,018	Accidents (unintentional injuries) 11,986
10	Alzheimer disease 18,974	Septicemia 18,362	In situ & benign neoplasms 99	In situ & benign neoplasms 88	Congenital anomalies 500	Chronic liver disease & cirrhosis 358	Assault (homicide) 2,918	HIV disease 2,069	Chronic liver disease & cirrhosis 6,324	Septicemia 6,507	Parkinsons disease 6,435	Hypertension & hypertensive renal disease 9,568

Note: Symptoms, signs, and abnormalities; events of undetermined intent; and other respiratory diseases were excluded from the cause of death ranking order.

Source: US Mortality Public Use Data Tapes, 2004, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

TABLE 9 Reported Deaths for the Five Leading Cancer Sites by Age and Sex, US, 2004

All Ages	<20	20 to 39	40 to 59	60 to 79	≥ 80
Male					
All Sites 286,830	All Sites 1,256	All Sites 4,251	All Sites 53,127	All Sites 152,611	All Sites 75,579
Lung & bronchus 89,575	Leukemia 387	Leukemia 543	Lung & bronchus 16,013	Lung & bronchus 54,959	Lung & bronchus 18,261
Prostate 29,002	Brain & ONS* 301	Brain & ONS* 513	Colon & rectum 5,011	Colon & rectum 13,727	Prostate 15,341
Colon & rectum 26,881	Bones & joints 118	Colon & rectum 384	Pancreas 3,384	Prostate 12,511	Colon & rectum 7,749
Pancreas 15,776	Other endocrine system 108	Non-Hodgkin lymphoma 349	Liver & bile duct 3,301	Pancreas 8,724	Urinary bladder 3,736
Leukemia 12,051	Soft tissue 83	Lung & bronchus 333	Esophagus 2,525	Leukemia 5,860	Pancreas 3,547
Female					
All Sites 267,058	All Sites 967	All Sites 4,878	All Sites 49,725	All Sites 127,500	All Sites 83,986
Lung & bronchus 68,431	Leukemia 278	Breast 1,225	Breast 12,162	Lung & bronchus 39,883	Lung & bronchus 17,022
Breast 40,954	Brain & ONS* 254	Uterine cervix 462	Lung & bronchus 11,219	Breast 17,046	Colon & rectum 11,720
Colon & rectum 26,699	Other endocrine system 89	Leukemia 386	Colon & rectum 3,694	Colon & rectum 10,934	Breast 10,521
Pancreas 15,995	Soft tissue 81	Colon & rectum 346	Ovary 3,281	Pancreas 7,807	Pancreas 5,949
Ovary 14,716	Bones & joints 71	Brain & ONS* 312	Pancreas 2,162	Ovary 7,328	Non-Hodgkin lymphoma 4,076

*ONS = Other nervous system.

Note: Deaths within each age group do not sum to all ages combined due to the inclusion of unknown ages. Others and Unspecified Primary is excluded from cause of death ranking order.

Source: US Mortality Public Use Data Tapes, 2004, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

TABLE 10 Trends in the Recorded Number of Deaths for Selected Cancers by Sex, US, 1989 to 2004

Year	All Sites		Lung and Bronchus		Colon and Rectum		Prostate	Breast
	Male	Female	Male	Female	Male	Female		
1989	263,309	232,843	88,975	48,042	28,123	28,903	30,520	42,837
1990	268,283	237,039	91,014	50,136	28,484	28,674	32,378	43,391
1991	272,380	242,277	91,603	52,022	28,026	28,753	33,564	43,583
1992	274,838	245,740	91,322	54,485	28,280	28,714	34,240	43,068
1993	279,375	250,529	92,493	56,234	28,199	29,206	34,865	43,555
1994	280,465	253,845	91,825	57,535	28,471	28,936	34,902	43,644
1995	281,611	256,844	91,800	59,304	28,409	29,237	34,475	43,844
1996	281,898	257,635	91,559	60,351	27,989	28,766	34,123	43,091
1997	281,110	258,467	91,278	61,922	28,075	28,621	32,891	41,943
1998	282,065	259,467	91,399	63,075	28,024	28,950	32,203	41,737
1999	285,832	264,006	89,401	62,662	28,313	28,909	31,729	41,144
2000	286,082	267,009	90,415	65,016	28,484	28,950	31,078	41,872
2001	287,075	266,693	90,367	65,606	28,229	28,579	30,719	41,394
2002	288,768	268,503	90,121	67,509	28,472	28,132	30,446	41,514
2003	287,990	268,912	89,908	68,084	27,991	27,793	29,554	41,620
2004	286,830	267,058	89,575	68,431	26,881	26,699	29,002	40,954

Note: Effective with the mortality data for 1999, causes of death are classified by ICD-10, replacing ICD-9 used for 1979 to 1998 data.

Source: US Mortality Public Use Data Tapes, 1989 to 2004, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

TABLE 11 Incidence and Death Rates* for Selected Cancers by Race and Ethnicity, US, 1999 to 2003

	All Races	White	African American	Asian American/Pacific Islander	American Indian/Alaska Native†	Hispanic-Latino‡
Incidence Rates						
All sites						
Male	562.1	555.0	639.8	385.5	359.9	444.1
Female	415.3	421.1	383.8	303.3	305.0	327.2
Breast (female)	128.2	130.8	111.5	91.2	74.4	92.6
Colon & rectum						
Male	64.2	63.7	70.2	52.6	52.7	52.4
Female	46.7	45.9	53.5	38.0	41.9	37.3
Kidney & renal pelvis						
Male	17.9	18.0	18.5	9.8	20.9	16.9
Female	9.2	9.3	9.5	4.9	10.0	9.4
Liver & bile duct						
Male	8.2	7.2	11.1	22.1	14.5	14.8
Female	3.0	2.7	3.6	8.3	6.5	5.8
Lung & bronchus						
Male	89.6	88.8	110.6	56.6	55.5	52.7
Female	54.7	56.2	50.3	28.7	33.8	26.7
Prostate	165.0	156.0	243.0	104.2	70.7	141.1
Stomach						
Male	10.7	9.7	17.4	20.0	21.6	16.1
Female	5.1	4.4	9.0	11.4	12.3	9.1
Uterine cervix	9.1	8.6	13.0	9.3	7.2	14.7
Death Rates						
All sites						
Male	243.7	239.2	331.0	144.9	153.4	166.4
Female	164.3	163.4	192.4	98.8	111.6	108.8
Breast (female)	26.0	25.4	34.4	12.6	13.8	16.3
Colon & rectum						
Male	24.3	23.7	33.6	15.3	15.9	17.5
Female	17.0	16.4	23.7	10.5	11.1	11.4
Kidney & renal pelvis						
Male	6.1	6.2	6.1	2.6	6.8	5.3
Female	2.8	2.8	2.8	1.2	3.3	2.4
Liver & bile duct						
Male	7.0	6.3	9.6	15.5	7.8	10.7
Female	3.0	2.8	3.8	6.7	4.0	5.0
Lung & bronchus						
Male	74.8	73.8	98.4	38.8	42.9	37.2
Female	41.0	42.0	39.8	18.8	27.0	14.7
Prostate	29.1	26.7	65.1	11.8	18.0	22.1
Stomach						
Male	6.1	5.4	12.4	11.0	7.1	9.2
Female	3.1	2.7	6.0	6.7	3.7	5.2
Uterine cervix	2.7	2.4	5.1	2.5	2.6	3.4

*Rates are per 100,000 and age-adjusted to the 2000 US standard population.

†Incidence rates are for diagnosis years 1999–2002.

‡Persons of Hispanic/Latino origin may be of any race.

Source: Incidence (except American Indian and Alaska Native): Howe HL, Wu X, Ries LAG, et al. Annual report to the nation on the status of cancer 1975–2003, featuring cancer among US Hispanic/Latino populations. *Cancer* 2006;107:1643–1658.

Incidence (American Indian and Alaska Native) and Mortality: Ries LAG, Harkins D, Krapcho M, et al., eds. SEER Cancer Statistics Review, 1975–2003, National Cancer Institute, based on November 2005 SEER data submission, posted to the SEER Web site, 2006.

TABLE 12 Probability of Developing Invasive Cancers Within Selected Age Intervals, by Sex, US*

		Birth to 39 (%)	40 to 59 (%)	60 to 69 (%)	70 and Older (%)	Birth to Death (%)
All sites†	Male	1.42 (1 in 70)	8.69 (1 in 12)	16.58 (1 in 6)	39.44 (1 in 3)	45.31 (1 in 2)
	Female	2.03 (1 in 49)	9.09 (1 in 11)	10.57 (1 in 9)	26.60 (1 in 4)	37.86 (1 in 3)
Urinary bladder	Male	.02 (1 in 4381)	.41 (1 in 241)	.96 (1 in 105)	3.41 (1 in 29)	3.61 (1 in 28)
	Female	.01 (1 in 9527)	.13 (1 in 782)	.26 (1 in 379)	.96 (1 in 105)	1.14 (1 in 87)
Breast	Female	.48 (1 in 210)	3.98 (1 in 25)	3.65 (1 in 27)	6.84 (1 in 15)	12.67 (1 in 8)
Colon & rectum	Male	.07 (1 in 1342)	.93 (1 in 107)	1.67 (1 in 60)	4.92 (1 in 20)	5.79 (1 in 17)
	Female	.07 (1 in 1469)	.73 (1 in 138)	1.16 (1 in 86)	4.45 (1 in 22)	5.37 (1 in 19)
Leukemia	Male	.16 (1 in 640)	.22 (1 in 452)	.35 (1 in 286)	1.17 (1 in 86)	1.49 (1 in 67)
	Female	.12 (1 in 820)	.14 (1 in 694)	.20 (1 in 491)	.75 (1 in 132)	1.05 (1 in 95)
Lung & bronchus	Male	.03 (1 in 3146)	1.09 (1 in 92)	2.61 (1 in 38)	6.76 (1 in 15)	8.02 (1 in 12)
	Female	.04 (1 in 2779)	.85 (1 in 117)	1.84 (1 in 54)	4.52 (1 in 22)	6.15 (1 in 16)
Melanoma of the skin	Male	.13 (1 in 775)	.53 (1 in 187)	.56 (1 in 178)	1.32 (1 in 76)	2.04 (1 in 49)
	Female	.21 (1 in 467)	.42 (1 in 237)	.29 (1 in 347)	.62 (1 in 163)	1.38 (1 in 73)
Non-Hodgkin lymphoma	Male	.14 (1 in 735)	.45 (1 in 222)	.57 (1 in 176)	1.56 (1 in 64)	2.14 (1 in 47)
	Female	.08 (1 in 1200)	.32 (1 in 313)	.44 (1 in 229)	1.30 (1 in 77)	1.83 (1 in 55)
Prostate	Male	.01 (1 in 10373)	2.59 (1 in 39)	7.03 (1 in 14)	13.83 (1 in 7)	17.12 (1 in 6)
Uterine cervix	Female	.16 (1 in 631)	.29 (1 in 346)	.14 (1 in 695)	.20 (1 in 512)	.73 (1 in 138)
Uterine corpus	Female	.06 (1 in 1652)	.70 (1 in 142)	.81 (1 in 124)	1.28 (1 in 78)	2.49 (1 in 40)

*For those free of cancer at beginning of age interval. Based on cancer cases diagnosed during 2001 to 2003. The "1 in" statistic and the inverse of the percentage may not be equivalent due to rounding.

† Excludes basal and squamous cell skin cancers and in situ carcinomas except urinary bladder.

Source: DevCan Software, Probability of Developing or Dying of Cancer Software, Version 6.1.0. Statistical Research and Applications Branch, National Cancer Institute, 2006. <http://srab.cancer.gov/devcan>.

Americans who receive cancer treatment and medical care similar to that of Whites experience similar outcomes.¹⁹

There have been notable improvements over time in relative 5-year survival rates for many cancer sites and for all cancers combined (Table 13). This is true for both Whites and African Americans. Cancers for which survival has not improved substantially over the past 25 years include uterine corpus, cervix, larynx, lung, and pancreas.

Relative survival rates cannot be calculated for other racial and ethnic populations because accurate life expectancies (the average number of years of life remaining for persons who have attained a given age) are not available. However, based on cause-specific survival rates of cancer patients diagnosed from 1992 to 2000 in SEER areas of the United States, all minority populations, except Asian American/Pacific Islander women, have a greater probability of dying from cancer within 5 years of diagnosis than non-Hispanic Whites, after accounting for differences in stage at diagnosis.^{15,20} For the four major

cancer sites (prostate, female breast, lung and bronchus, and colon and rectum), minority populations are more likely to be diagnosed at distant stage, compared with non-Hispanic Whites.²⁰

CANCER IN CHILDREN

Cancer is the second leading cause of death among children between age 1 to 14 years in the United States; accidents are the most frequent cause of death in this age group (Table 14). The most common cancers in children (aged 0 to 14 years) are leukemia (particularly acute lymphocytic leukemia), brain and other nervous system cancers, soft tissue sarcomas, non-Hodgkin lymphoma, and renal (Wilms) tumors.³ Over the past 25 years, there have been significant improvements in the 5-year relative survival rate for many childhood cancers (Table 15). The 5-year relative survival rate among children for all cancer sites combined improved from 58% for patients diagnosed in 1975 to 1977 to 79% for those diagnosed in 1996 to 2002.³

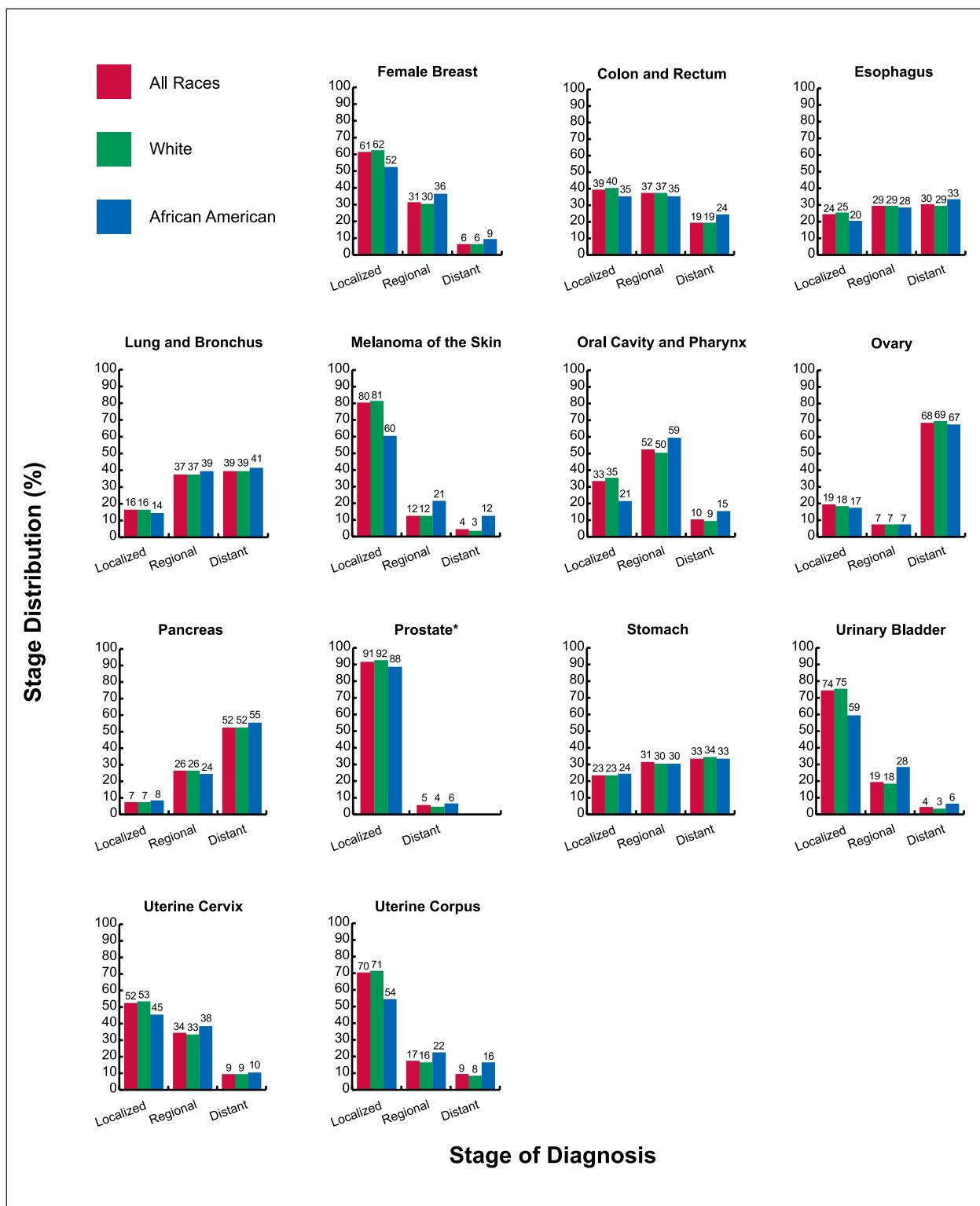


FIGURE 7 Distribution of Selected Cancers by Race and Stage at Diagnosis, US, 1996–2002.

*The distribution for localized stage represents localized and regional stages combined.

Note: Staging according to Surveillance, Epidemiology, and End Results (SEER) historic stage categories rather than the American Joint Committee on Cancer (AJCC) staging system. For each cancer type, stage categories do not total 100% because sufficient information is not available to assign a stage to all cancer cases. Comparison of this data to that of previous years is discouraged due to the use of an expanded data set.

Source: Ries LAG, Harkins D, Krapcho M, et al., eds. SEER Cancer Statistics Review, 1975–2003, National Cancer Institute, based on November 2005 SEER data submission, posted to the SEER Web site, 2006.

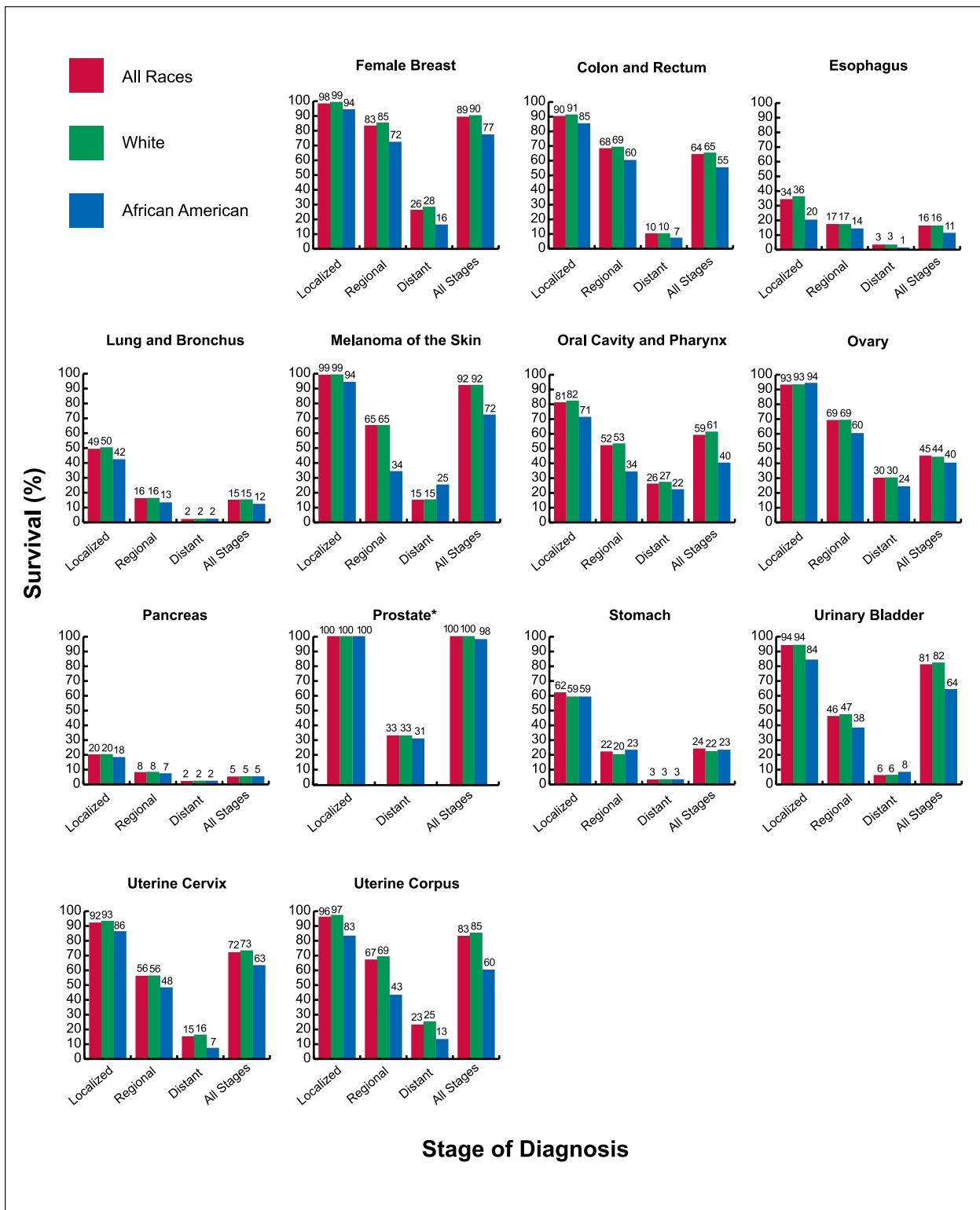


FIGURE 8 Five-year Relative Survival Rates Among Patients Diagnosed With Selected Cancers, by Race and Stage at Diagnosis, US, 1996–2002.

*The rate for localized stage represents localized and regional stages combined. Note: Staging according to Surveillance, Epidemiology, and End Results (SEER) historic stage categories rather than the American Joint Committee on Cancer (AJCC) staging system. Comparison of this data to that of previous years is discouraged due to the use of an expanded data set.

Source: Ries LAG, Harkins D, Krapcho M, et al., eds. SEER Cancer Statistics Review, 1975–2003, National Cancer Institute, based on November 2005 SEER data submission, posted to the SEER Web site, 2006.

TABLE 13 Trends in Five-year Relative Survival Rates* (%) for Selected Cancers by Race and Year of Diagnosis, US, 1975 to 2002.

Site	White			African American			All Races		
	1975 to 1977	1984 to 1986	1996 to 2002	1975 to 1977	1984 to 1986	1996 to 2002	1975 to 1977	1984 to 1986	1996 to 2002
All sites	51	55	68 †	40	41	57 †	50	53	66 †
Brain	23	28	34 †	26	32	37 †	24	29	34 †
Breast (female)	76	80	90 †	63	65	77 †	75	79	89 †
Colon	52	60	66 †	46	50	54 †	51	59	65 †
Esophagus	6	11	17 †	3	8	12 †	5	10	16 †
Hodgkin lymphoma	74	80	87 †	71	75	81 †	73	79	86 †
Kidney	51	56	66 †	50	54	66 †	51	56	66 †
Larynx	67	68	67	59	53	52	66	66	65
Leukemia	36	43	50 †	33	34	39	35	42	49 †
Liver & bile duct	4	6	10 †	2	5	7 †	4	6	10 †
Lung & bronchus	13	14	16 †	12	11	13 †	13	13	16 †
Melanoma of the skin	82	86	93 †	58 ‡	71 §	75 ‡	82	86	92 †
Multiple myeloma	25	28	33 †	31	32	32	26	29	33 †
Non-Hodgkin lymphoma	48	54	64 †	48	48	56	48	53	63 †
Oral cavity	55	57	62 †	36	36	40	53	55	60 †
Ovary ¶	36	39	45 †	43	41	39	37	40	45 †
Pancreas	3	3	5 †	2	5	5 †	2	3	5 †
Prostate	70	77	100 †	61	66	98 †	69	76	100 †
Rectum	49	58	66 †	45	46	59 †	49	57	66 †
Stomach	15	18	22 †	16	20	23 †	16	18	24 †
Testis	83	93	96 †	82 ‡	87 ‡	89	83	93	96 †
Thyroid	93	94	97 †	91	90	94	93	94	97 †
Urinary bladder	74	79	83 †	50	61	65 †	73	78	82 †
Uterine cervix	71	70	75 †	65	58	66	70	68	73 †
Uterine corpus	89	85	86 †	61	58	61	87	83	84 †

*Survival rates are adjusted for normal life expectancy and are based on cases diagnosed from 1975 to 1977, 1984 to 1986, and 1996 to 2002, and followed through 2003.

†The difference in rates between 1975 to 1977 and 1996 to 2002 is statistically significant ($P < 0.05$).

‡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.

¶Recent changes in classification of ovarian cancer, namely excluding borderline tumors, has affected 1996–2002 survival rates.

Note: "All sites" excludes basal and squamous cell skin cancers and in situ carcinomas except urinary bladder.

Source: Ries LAG, Harkins D, Krapcho M, et al., eds. SEER Cancer Statistics Review, 1975–2003, National Cancer Institute, based on November 2005 SEER data submission, posted to the SEER Web site, 2006.

TABLE 14 Fifteen Leading Causes of Death Among Children Aged 1 to 14, US, 2004

Rank	Cause of Death	Number of Deaths*	Percent (%) of Total Deaths	Death Rate†
	All Causes	11,619	100.0	20.3
1	Accidents (unintentional injuries)	4,307	37.1	7.54
2	Cancer	1,418	12.2	2.50
3	Congenital anomalies	958	8.2	1.67
4	Assault (homicide)	706	6.1	1.23
5	Heart diseases	432	3.7	0.75
6	Intentional self-harm (suicide)	285	2.5	0.49
7	Influenza & pneumonia	201	1.7	0.35
8	Chronic lower respiratory disease	168	1.4	0.29
9	Septicemia	150	1.3	0.26
10	In situ & benign neoplasms	137	1.2	0.24
11	Cerebrovascular disease	118	1.0	0.21
12	Anemias	79	0.7	0.14
13	Meningitis	50	0.4	0.09
14	Diabetes mellitus	45	0.4	0.08
15	Complications, medical/surgical	38	0.3	0.07
	All other causes	2,527	21.7	

*Excludes deaths with unknown ages.

†Rates are per 100,000 population and age adjusted to the 2000 US standard population.

Note: Percentages may not total 100 due to rounding. Symptoms, signs, and abnormalities; events of undetermined intent; certain perinatal conditions; other respiratory diseases; and other and unspecified infectious and parasitic diseases were excluded from ranking order.

Source: US Mortality Public Use Data Tape, 2004, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

TABLE 15 Trends in Five-year Relative Survival Rates* (%) for Children Under Age 15, US, 1975 to 2002.

Site	Year of Diagnosis						
	1975 to 1977	1978 to 1980	1981 to 1983	1984 to 1986	1987 to 1989	1990 to 1992	1996 to 2002
All sites	58	63	67	68	71	75	79 †
Acute lymphocytic leukemia	58	66	71	73	78	83	87 †
Acute myeloid leukemia	19	26	27 ‡	30 ‡	36 ‡	41	53 †
Bone & joint	51 ‡	49	57 ‡	59 ‡	67 ‡	67	72 †
Brain & other nervous system	57	58	56	62	64	64	74 †
Hodgkin lymphoma	81	88	88	91	87	97	95 †
Neuroblastoma	52	57	55	52	62	77	69 †
Non-Hodgkin lymphoma	43	53	67	70	71	76	86 †
Soft tissue	61	74	69	73	65	79	72 †
Wilms' tumor	73	79	86	91	92	92	92 †

*Survival rates are adjusted for normal life expectancy and are based on follow up of patients through 2003.

†The difference in rates between 1975 to 1977 and 1996 to 2002 is statistically significant ($P < 0.05$).

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

Note: "All sites" excludes basal and squamous cell skin cancers and in situ carcinomas except urinary bladder.

Source: Ries LAG, Harkins D, Krapcho M, et al., eds. SEER Cancer Statistics Review, 1975–2003, National Cancer Institute, based on November 2005 SEER data submission, posted to the SEER Web site, 2006.

LIMITATIONS AND FUTURE CHALLENGES

Estimates of the expected numbers of new cancer cases and cancer deaths should be interpreted cautiously. These estimates may vary considerably from year to year, particularly for less common cancers and in states with smaller populations. Unanticipated changes may occur that are not captured by modeling techniques. Estimates are also affected by changes in method. The introduction of a new method for estimating new cancer cases in 2007 has substantially affected the estimates for a number of cancers, particularly leukemia and female breast (see Pickle et al for more detailed discussion).¹² For these reasons, we discourage the use of these estimates to track year-to-year changes in cancer occurrence and death. Age-standardized or age-specific cancer death rates from the NCHS and cancer incidence rates from SEER or NPCR are the preferred data sources for tracking cancer trends, even though these data are 3 and 4 years old, respectively, by the time that they become available. Despite their limitations, the ACS estimates of the number of new cancer cases and deaths in the current year provide reasonably accurate estimates of the burden of new cancer cases and deaths in the United States. Such estimates will

assist in continuing efforts to reduce the public health burden of cancer.

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Erratum

In the September/October 2006 issue, in the article “American Cancer Society Guidelines on Nutrition and Physical Activity for Cancer Prevention: Reducing the Risk of Cancer With Healthy Food Choices and Physical Activity” (*CA Cancer J Clin* 2006;56:254–281), the name of the sixth author, Anne McTiernan, MD, PhD (Full Member, Fred Hutchinson Cancer Research Center, Cancer Prevention Research Program, Seattle, WA), was inadvertently omitted. The authors regret the error. In addition, the wording of the author list did not reflect the fact that the authors were writing *on behalf of* the committee. The author list should correctly read: Lawrence H. Kushi, ScD; Tim Byers, MD, MPH; Colleen Doyle, MS, RD; Elisa V. Bandera, MD, PhD; Marji McCullough, ScD, RD; Anne McTiernan, MD, PhD; Ted Gansler, MD, MBA; Kimberly S. Andrews, and Michael J. Thun, MD, MS; for The American Cancer Society 2006 Nutrition and Physical Activity Guidelines Advisory Committee.