Cancer Facts & Figures for African Americans 2007-2008

American Cancer Society®

Contents

Acknowledgments

This publication attempts to summarize current scientific information about cancer. Except when specified, it does not represent the official policy of the American Cancer Society.

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Cancer Statistics

Introduction

According to the US Census Bureau, there will be approximately 39 million African Americans in the US in 2007.[1] This includes approximately 36 million individuals whose ancestors came to the US involuntarily before the Civil War, as well as more recent immigrants born in other countries (Table 1). Together, these groups comprise approximately 13% of the total US population.

Table 1. Foreign-born Black Population by Place of Birth, Census 2000

Total	2,099,865
Africa	512,628
Caribbean	1,250,611
Central America	136,535
South America	113,374
Others	86,717

Note: The above numbers may be underestimated due to undocumented immigrants.

Source: US Census Bureau. PCT 47. Sex by place of birth by year of entry for the foreign-born population. Census 2000 Summary File 4. www.factfinder.census.gov.

This report presents statistics on cancer incidence, mortality, survival, and risk factors for cancer among people who describe themselves as African American or black. African Americans have the highest death rate and shortest survival of any racial and ethnic group in the US for most cancers. The causes of these inequalities are complex and interrelated, but likely arise from socioeconomic disparities in work, wealth, income, education, housing and overall standard of living, economic and social barriers to high quality cancer prevention, early detection and treatment services and the impact of racial discrimination on all of these factors. Biological or inherited differences associated with "race" are thought to make a minor contribution to the disparate cancer burden among African Americans in the US.

Although the racial disparity has decreased over the last 10 years, in 2003 the death rate for all cancers combined continued to be 35% higher in African American men and 18% higher in African American women than in white men and women. Furthermore, cancer is not the only group of diseases from which African Americans

Table 2. Leading Causes of Death, by Rank, Among African Americans and Whites, 2003

All Ages	No. of Deaths		Death Rate*		% of Total Deaths	
Cause of Death	African Americans	Whites	African Americans	Whites	African Americans	Whites
Heart disease†	77,367	594,814	301.3	227.1	26.6	28.3
Cancer	62,660	481,545	234.5	188.3	21.5	22.9
Cerebrovascular diseases	18,806	134,703	74.6	51.1	6.5	6.4
Diabetes	12,892	59,096	49.4	22.9	4.4	2.8
Accidents	12,346	93,311	36.1	38.1	4.2	4.4
All causes	291,260	2,103,422	1069.6	814.0	100.0	100.0

Children Aged 1-14	No. of Deaths		Death Rate*		% of Total Deaths	
Cause of Death	African Americans	Whites	African Americans	Whites	African Americans	Whites
Accidents	866	3,258	9.3	7.4	31.5	38.1
Homicide	306	364	3.3	0.8	11.1	4.3
Cancers	230	1,170	2.5	2.7	8.4	13.7
Congenital anomalies (birth defects)	194	680	2.1	1.5	7.1	8.0
Heart diseases	133	291	1.4	0.7	4.8	3.4
All causes	2,750	8,540	29.4	19.3	100.0	100.0

*Rates are per 100,000 and age-adjusted to the 2000 US standard population. †Diseases of veins, lymphatics, and lymph nodes, other and unspecified disorders of the circulatory system were excluded.

Source: National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

bear a disproportionately high burden (Table 2). Life expectancy is lower for African Americans than whites among men (69.8 versus 75.7 years) and women (76.5 versus 80.8 years).[2]
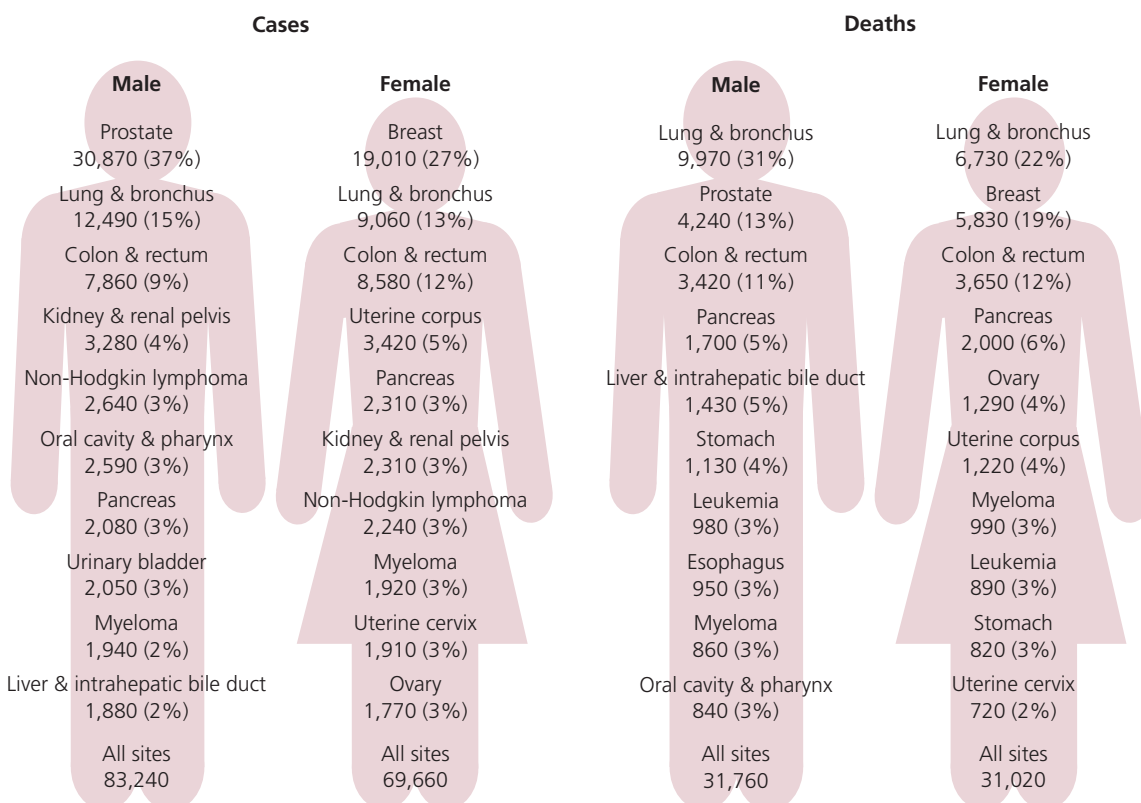
New Cases and Deaths

Estimated new cases: About 152,900 new cancer cases are expected to be diagnosed among African Americans in 2007. The number of cases continues to increase largely due to growth and aging of the population rather than changes in the incidence or rate of developing cancer. The most commonly diagnosed cancers among African American men continue to be prostate (37%), lung (15%) and colon and rectum (9%). Among African American women, the most common cancers will be breast (27%), lung (13%) and colon and rectum (12%) (Figure 1).

Trends in incidence rates: In African Americans, the incidence rate for all cancers combined increased from the mid-1970s to the early 1990s, with a larger increase in men than in women. After the early 1990s, however, rates decreased in African American males and stabilized in African American females.

Estimated cancer deaths: About 62,780 African Americans are expected to die from cancer in 2007. Figure 1 shows the expected number of cancer deaths from the 10 leading causes of cancer death among African American men and women. Lung cancer accounts for the largest number of cancer deaths among both men (31%) and women (22%), followed by prostate cancer in men (13%) and breast cancer in women (19%). For both men and women, cancers of the colon and rectum and pancreas are expected to rank third and fourth, respectively, as the leading sites for cancer deaths.

Figure 1. Leading Sites of New Cancer Cases* and Deaths Among African Americans, 2007 Estimates

Cases

Male	Female
Prostate 30,870 (37%)	Breast 19,010 (27%)
Lung & bronchus 12,490 (15%)	Lung & bronchus 9,060 (13%)
Colon & rectum 7,860 (9%)	Colon & rectum 8,580 (12%)
Kidney & renal pelvis 3,280 (4%)	Uterine corpus 3,420 (5%)
Non-Hodgkin lymphoma 2,640 (3%)	Pancreas 2,310 (3%)
Oral cavity & pharynx 2,590 (3%)	Kidney & renal pelvis 2,310 (3%)
Pancreas 2,080 (3%)	Non-Hodgkin lymphoma 2,240 (3%)
Urinary bladder 2,050 (3%)	Myeloma 1,920 (3%)
Myeloma 1,940 (2%)	Uterine cervix 1,910 (3%)
Liver & intrahepatic bile duct 1,880 (2%)	Ovary 1,770 (3%)
All sites 83,240	All sites 69,660

Deaths

Male	Female
Lung & bronchus 9,970 (31%)	Lung & bronchus 6,730 (22%)
Prostate 4,240 (13%)	Breast 5,830 (19%)
Colon & rectum 3,420 (11%)	Colon & rectum 3,650 (12%)
Pancreas 1,700 (5%)	Pancreas 2,000 (6%)
Liver & intrahepatic bile duct 1,430 (5%)	Ovary 1,290 (4%)
Stomach 1,130 (4%)	Uterine corpus 1,220 (4%)
Leukemia 980 (3%)	Myeloma 990 (3%)
Esophagus 950 (3%)	Leukemia 890 (3%)
Myeloma 860 (3%)	Stomach 820 (3%)
Oral cavity & pharynx 840 (3%)	Uterine cervix 720 (2%)
All sites 31,760	All sites 31,020

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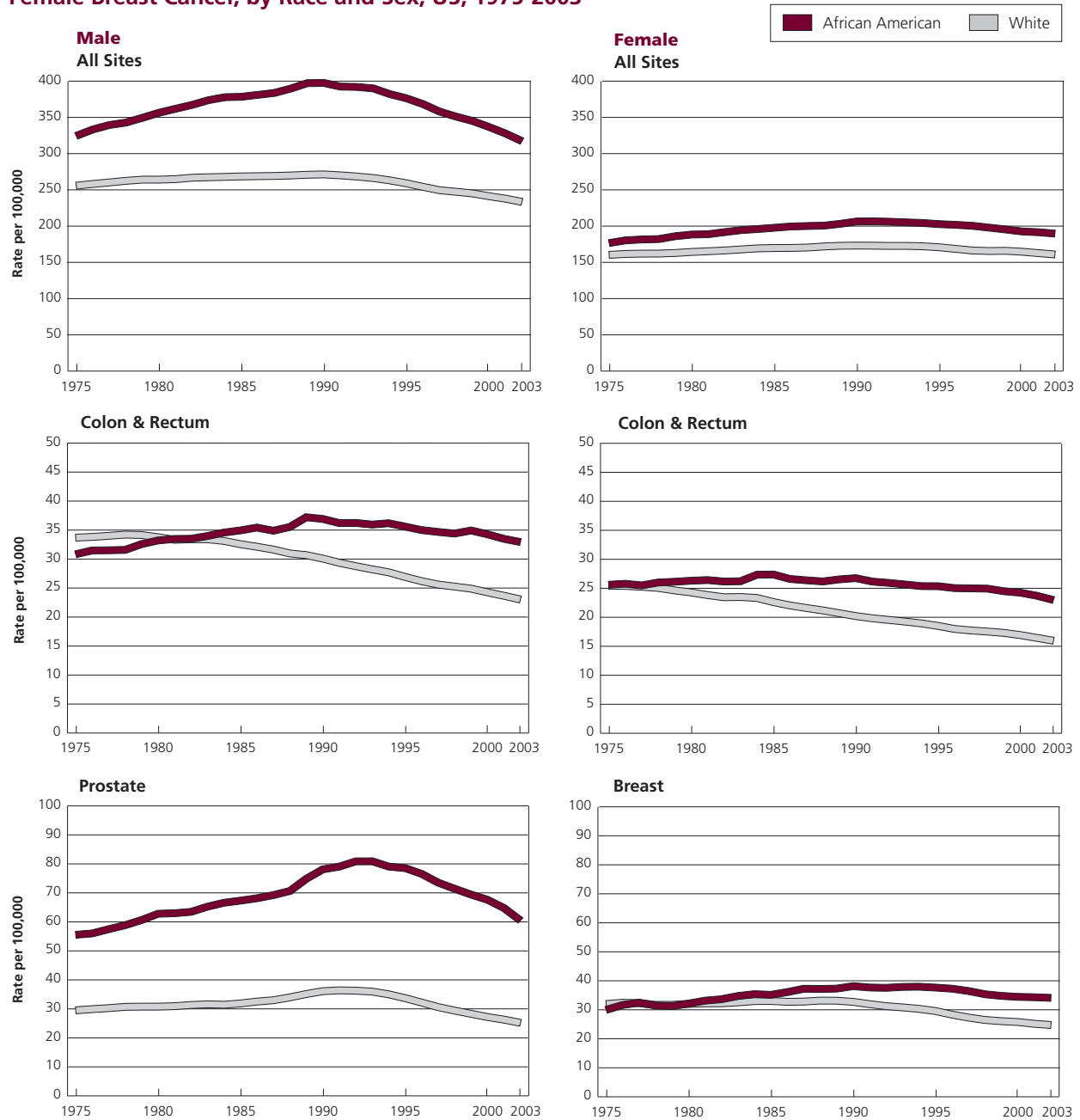Note: Estimates are rounded to the nearest 10.

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Trends in death rates: After increasing from 1975-1991, the death rate among African Americans for all cancers combined declined by an average of 1.7% per year from 1995-2003. The decline was larger in men (2.3% per year since 1994) than in women (1.1% per year since 1997). Similar trends were observed among whites from 1992-2003, with a greater reduction in the rate among men (1.4%) than women (0.8%).

In men, the death rate for all cancers combined was substantially higher among African Americans than whites from 1975-2003. After peaking in the early 1990s, this gap has begun to diminish (Figure 2). Similar trends

Figure 2. Trends in Death Rates* for All Cancer Sites Combined, Colon and Rectum, Prostate, and Female Breast Cancer, by Race and Sex, US, 1975-2003

*Rates are per 100,000 population and age-adjusted to the 2000 US standard population and are 2-year moving averages.

Source: National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

were seen among women, although the racial gap is much smaller. The racial difference in overall cancer death rates is due largely to cancers of the breast and colon and rectum in women, and cancers of the prostate, lung and bronchus, and colon and rectum in men. In these cancers, for the most part, the disparity between whites and African Americans increased rather than decreased over time. For example, death rates for colorectal cancer in both men and women and for breast cancer in women have decreased faster in whites than in African Americans over the past 15-25 years.

For certain cancers, the racial disparity reflects higher incidence rates in African Americans than whites; for virtually all sites, it reflects poorer survival due to later stage at diagnosis and less access to appropriate and timely treatment.
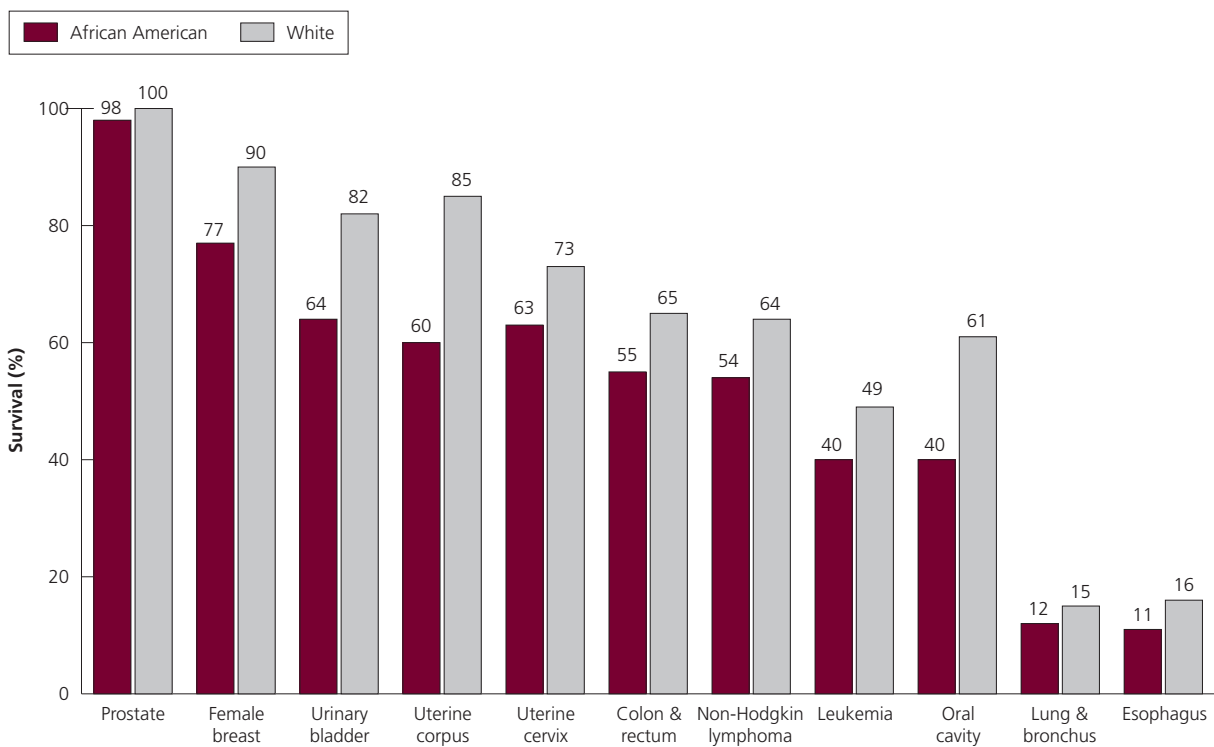
Table 3 shows variations by state in death rates for all cancers combined and selected cancer sites. For all cancers combined, the highest death rates among men are found in Kansas, Kentucky, and Louisiana, and the lowest rates are found in Utah, New York, and Hawaii. Among women, the highest death rates are reported in Kentucky, Illinois, and Indiana, and the lowest rates in New Mexico, Rhode Island, and New York.

Survival

Rates and trends: Five-year relative survival rates indicate the likelihood of surviving 5 years from the time of diagnosis, taking into account deaths from other causes, and are commonly used to monitor progress in the early detection and treatment of cancer. The overall 5-year relative survival rate among African Americans has improved, from approximately 27% during 1960-1963 to 57% during 1996-2002. However, in general, African Americans are less likely than whites to survive 5 years after diagnosis for all cancer sites (Figure 3) and at all stages of diagnosis (Figure 4). Much of this

Figure 3. Five-Year Relative Survival* for Selected Cancers, by Race, US, 1996-2002

*Based on cancer patients diagnosed between 1996-2002 and followed through 2003.

Source: Surveillance, Epidemiology, and End Results (SEER) Program, 17 SEER Registries, 1975-2003, Division of Cancer Control and Population Sciences, National Cancer Institute, 2006.
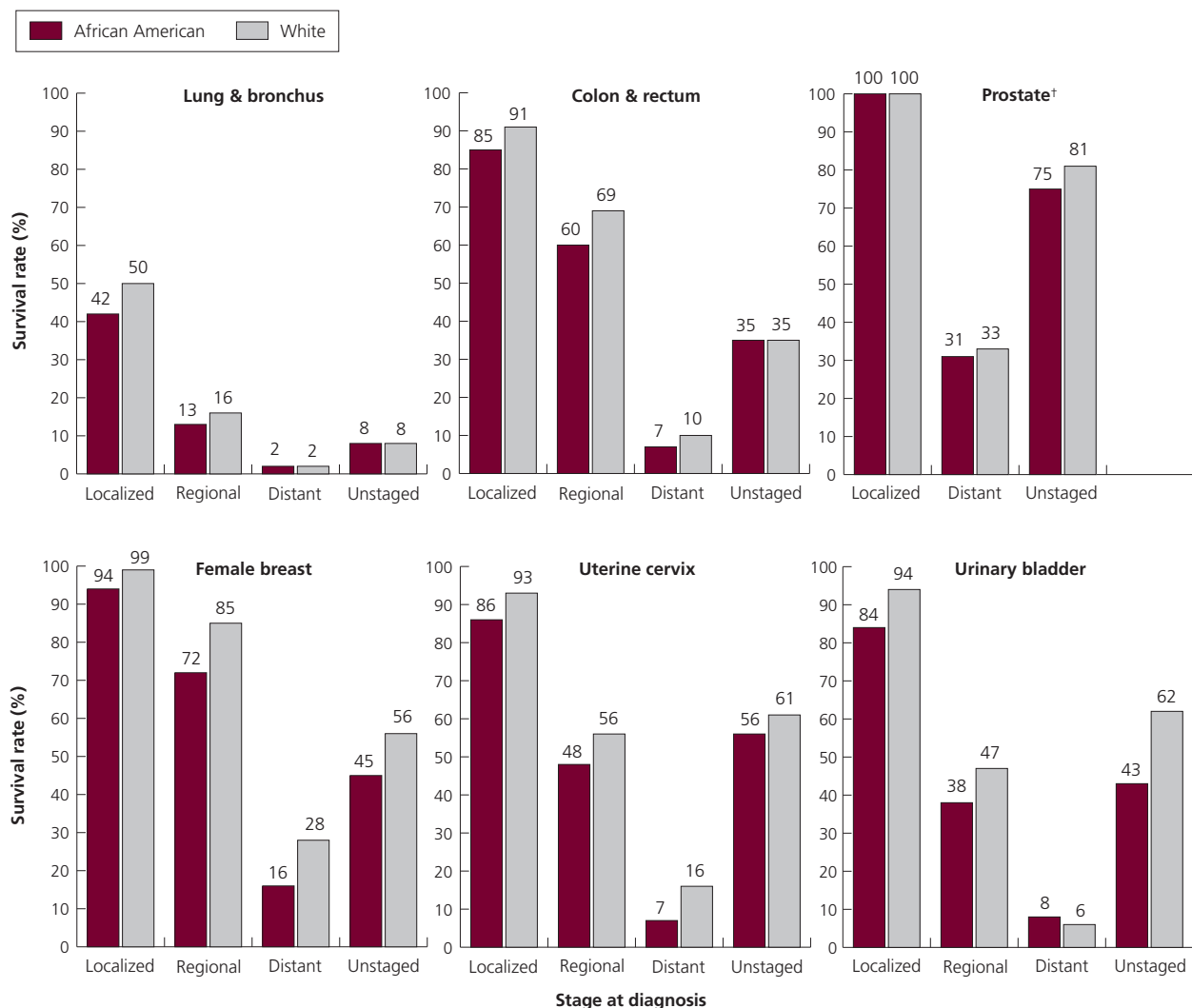
Table 3. Death Rates* for Selected Cancers in African American Males and Females, by State, 2000-2003

	All Cancers		Lung & Bronchus		Colon & Rectum		Prostate	Female Breast	Uterine Cervix
	Male	Female	Male	Female	Male	Female			
Alabama	355.3	180.3	106.9	31.3	32.3	21.9	76.2	32.6	6.0
Alaska	279.3	162.4	†	†	†	†	†	†	†
Arizona	257.2	177.4	76.4	44.9	26.5	19.0	52.1	39.9	†
Arkansas	363.3	192.9	118.5	33.2	38.4	26.8	74.7	35.6	6.4
California	298.8	193.3	85.1	43.1	30.4	23.3	58.8	33.4	4.1
Colorado	278.9	170.7	79.7	42.4	29.8	19.6	54.5	23.0	†
Connecticut	276.8	172.9	72.3	37.2	25.6	21.1	53.8	28.6	†
Delaware	311.8	198.7	94.5	46.8	34.3	24.2	51.7	33.7	†
Washington DC	362.5	206.0	98.5	44.2	36.4	25.0	61.9	37.5	5.1
Florida	291.7	172.5	80.1	29.1	29.4	20.3	65.8	30.7	5.9
Georgia	334.0	180.2	97.5	31.1	32.0	24.3	70.2	31.2	4.2
Hawaii	148.2	†	†	†	†	†	†	†	†
Illinois	346.2	219.3	104.4	50.2	37.9	26.5	64.4	38.8	6.3
Indiana	355.7	213.5	111.0	57.0	39.3	22.7	65.0	35.8	4.4
Iowa	349.7	208.2	117.2	57.8	†	†	58.2	38.6	†
Kansas	368.3	199.2	103.6	37.8	39.9	25.0	72.9	38.4	†
Kentucky	372.7	224.0	129.0	60.3	37.5	32.5	61.3	36.9	6.2
Louisiana	374.1	208.4	120.2	41.7	39.3	25.8	61.0	40.5	5.5
Maryland	314.4	193.8	93.2	44.8	34.0	24.3	62.1	34.3	4.1
Massachusetts	284.3	169.7	75.7	32.8	26.1	19.9	54.8	28.8	†
Michigan	313.2	200.9	98.1	48.8	32.2	23.1	51.9	35.4	3.9
Minnesota	314.4	186.2	86.6	49.9	27.5	25.2	60.0	22.6	†
Mississippi	363.4	189.9	116.0	34.9	35.3	26.0	79.3	36.6	6.7
Missouri	355.7	208.5	113.1	50.6	35.4	23.2	54.8	38.0	5.4
Nebraska	352.1	192.1	134.2	48.8	39.2	†	53.0	39.3	†
Nevada	255.5	188.7	71.3	46.2	27.5	25.1	56.1	31.2	†
New Hampshire	263.3	†	†	†	†	†	†	†	†
New Jersey	320.4	194.0	89.6	40.2	32.5	23.5	63.9	34.9	5.4
New Mexico	288.7	131.7	90.2	†	†	†	†	†	†
New York	251.6	159.5	64.7	29.8	27.4	19.1	55.1	29.4	4.8
North Carolina	348.5	180.0	106.0	32.6	32.6	21.7	76.4	33.3	4.0
Ohio	346.6	204.5	110.4	49.1	36.0	25.0	59.7	35.9	4.3
Oklahoma	347.4	199.0	106.0	48.6	42.6	23.8	67.1	38.6	†
Oregon	308.7	168.6	89.1	39.7	†	†	67.7	†	†
Pennsylvania	345.5	210.0	105.3	50.1	33.8	23.2	62.8	36.8	4.4
Rhode Island	290.4	150.6	84.5	33.5	†	†	†	†	†
South Carolina	355.4	181.2	101.4	30.8	33.6	21.4	72.8	34.2	5.5
Tennessee	368.1	210.7	117.7	44.9	42.2	28.2	70.3	35.2	7.2
Texas	346.4	203.1	113.1	42.9	38.2	26.0	57.7	36.5	6.2
Utah	254.0	†	†	†	†	†	†	†	†
Virginia	347.8	200.1	98.6	41.1	33.6	24.7	73.0	38.0	4.2
Washington	278.7	189.9	93.7	44.0	23.0	23.0	48.1	32.4	†
West Virginia	319.1	208.1	75.0	52.0	42.3	27.4	64.7	36.0	†
Wisconsin	349.4	200.1	115.3	55.4	29.9	23.9	54.8	30.2	†
United States	326.8	191.1	97.2	39.8	33.4	23.4	64.0	34.3	5.0

*Rates are per 100,000 population and age-adjusted to the 2000 US standard population. †Rates are suppressed when they are based on fewer than 25 deaths. Note: Statistics are not shown for Idaho, Maine, Montana, North Dakota, South Dakota, Virginia, and Wyoming due to less than 25 deaths among African Americans for each site/sex during 2000-2003.

Source: US Mortality Public Use Data Tapes, 1969-2003, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

Figure 4. Five-Year Relative Survival Rates* for Selected Cancers, by Race and Stage, 1996-2002

Legend: ■ African American　□ White

Lung & bronchus
Stage	African American	White
Localized	42	50
Regional	13	16
Distant	2	2
Unstaged	8	8

Colon & rectum
Stage	African American	White
Localized	85	91
Regional	60	69
Distant	7	10
Unstaged	35	35

Prostate†
Stage	African American	White
Localized	100	100
Distant	31	33
Unstaged	75	81

Female breast
Stage	African American	White
Localized	94	99
Regional	72	85
Distant	16	28
Unstaged	45	56

Uterine cervix
Stage	African American	White
Localized	86	93
Regional	48	56
Distant	7	16
Unstaged	56	61

Urinary bladder
Stage	African American	White
Localized	84	94
Regional	38	47
Distant	8	6
Unstaged	43	62

Survival rate (%) — Stage at diagnosis

*Five-year relative survival rate among cancer patients diagnosed between 1996-2002 and followed through 2003.
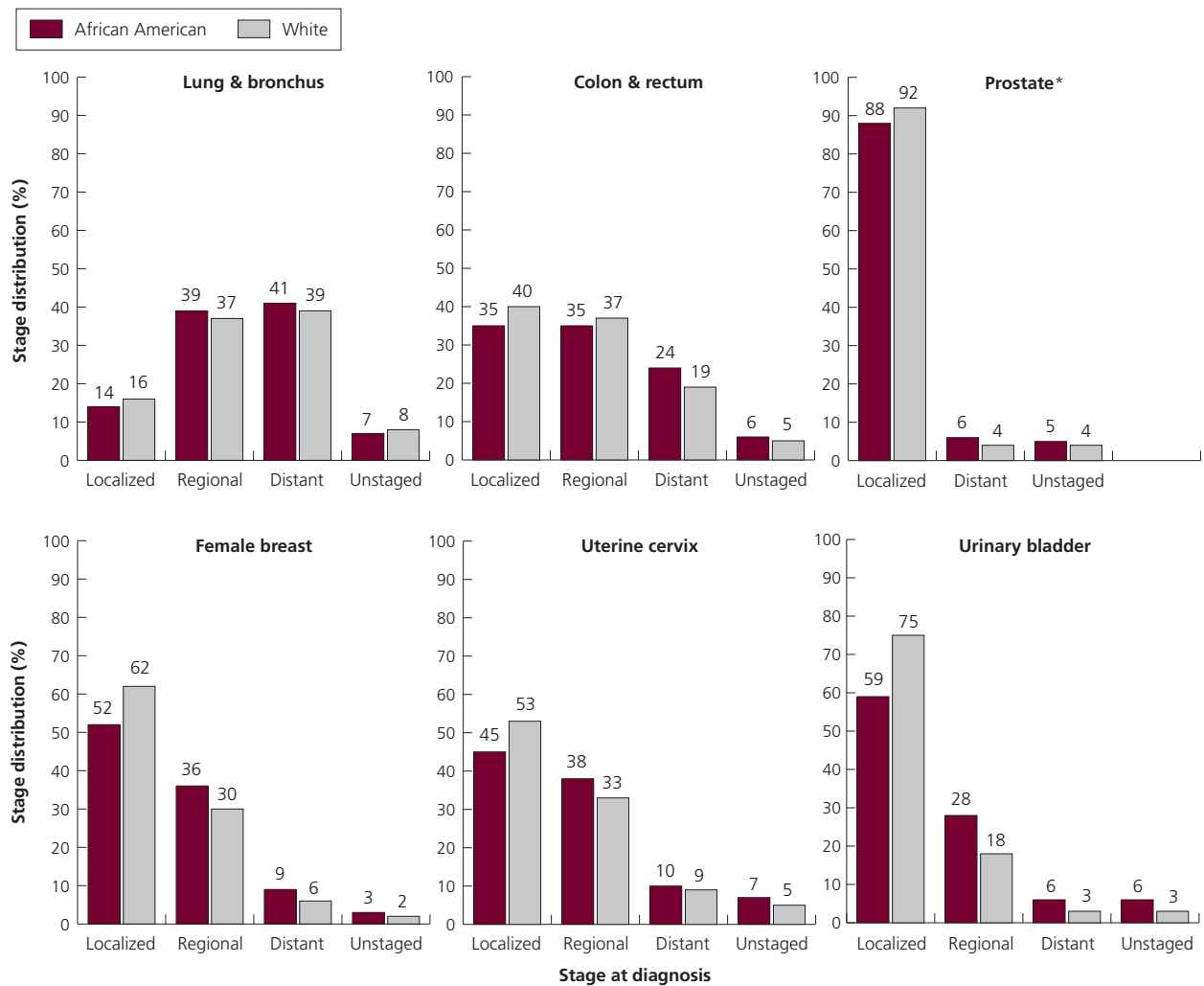
†The rate for localized stage represents localized and regional stages combined.

Source: Surveillance, Epidemiology, and End Results (SEER) Program, 17 SEER Registries, 1973-2003, Division of Cancer Control and Population Sciences, National Cancer Institute, 2006.

difference is believed to be due to barriers to receipt of timely and high quality medical care by African Americans, which result in diagnosis at a later stage when the disease has spread to regional or distant tissues (Figure 5), and disparities in treatment.[3-6] Identifying and understanding these factors has become an active and important area of research.

Although 5-year relative survival rates for all cancers combined are useful in monitoring trends over time and survival differences between groups, they are not useful for predicting individual prognosis because many important factors that influence survival cannot be taken into account. Five-year relative survival rates for specific cancers and the major factors that influence them will be discussed for each site.

Figure 5. Stage Distribution for Selected Cancers Among African Americans and Whites, 1996-2002

■ African American ☐ White

Percentages may not total 100 due to rounding.

Local: An invasive cancer confined entirely to the organ. Regional: A malignant cancer that 1) has extended beyond the limits of the organ of origin directly into surrounding organs or tissues; 2) involves regional lymph nodes by way of lymphatic system; or 3) has both regional extension and involvement of regional lymph nodes. Distant: A cancer that has spread to parts of the body remote from the primary tumor either by direct extension or by discontinuous metastasis to distant organs, tissues, or via the lymphatic system to distant lymph nodes.

*The percentage of cancers diagnosed at the localized stage represents localized and regional stages combined.

Source: Surveillance, Epidemiology, and End Results (SEER) Program, 17 SEER Registries, 1975-2003, Division of Cancer Control and Population Sciences, National Cancer Institute, 2006.

Selected Cancers

Female Breast

New Cases

An estimated 19,010 new cases of breast cancer are expected to occur among African American women in 2007. Breast cancer is the most common cancer among African American women. The incidence rate of breast cancer is about 12% lower in African American women than in white women; however, among younger African American women (under age 40), the incidence is higher than among white women. Breast cancer incidence rates increased rapidly among African American women during the 1980s, largely due to the increased use of mammography. Since the early 1990s, breast cancer incidence rates have stabilized among African American women aged 50 and older, and are decreasing among women under age 50.[7]

Deaths

An estimated 5,830 deaths from breast cancer are expected to occur among African American women in 2007. Breast cancer is the second most common cause of cancer death among African American women, surpassed only by lung cancer. Breast cancer death rates among African American women increased 1.6% annually from 1975-1991 and declined thereafter (Figure 6). However, the decrease was larger in women under age 50 (1.9% per year) than in women aged 50 and older (1.1%).[8] The steady decline in female breast cancer mortality since 1991 has been attributed to improvements in both early detection and treatment.[9,10] However, there has been a notable divergence between long-term breast cancer mortality rates for white and African American women (Figure 2). During the early 1980s, breast cancer death rates for white and African American women were approximately equal, yet during 2000-2003 African American women had a 36% higher death rate than white women. This difference accounts for one-third of the excess cancer mortality experienced by African American women compared to white women. The higher breast cancer mortality rate among African American women compared to white women occurs despite a lower incidence rate. Factors that contribute to the higher death rates among African American women include differences in access to and utilization of early detection and treatment, risk factors that are differen-

tially distributed by race or socioeconomic status, or biologic differences associated with race.

Survival

The 5-year relative survival rate for breast cancer diagnosed in 1996-2002 among African American women was 77%, compared with 90% among whites (Figure 3). This difference can be attributed to both later stage at detection (Figure 5) and poorer stage-specific survival (Figure 4). Of all breast cancers diagnosed among African American women, 52% are diagnosed at a local stage, compared to 62% among white women. Within each stage, the 5-year survival is also greater among white women.[7]
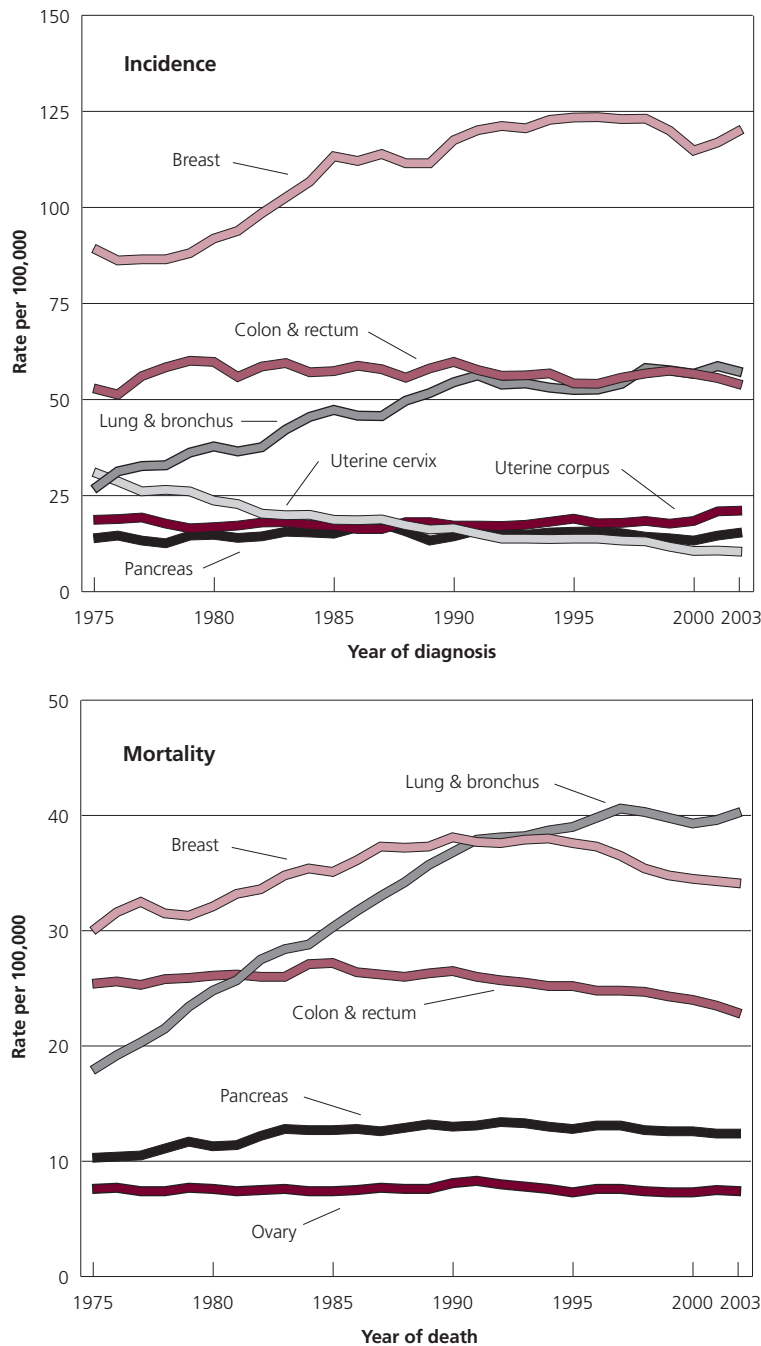
The reasons for this survival differential have been studied extensively. Poorer outcomes among African American women persist even after accounting for socioeconomic status.[11,12] Studies have documented unequal receipt of prompt, high-quality treatment for African American women compared to white women.[5,13,14] There is also evidence that aggressive tumor characteristics are more common in African American women than white women.[11,15,16] More information about breast cancer is available in the American Cancer Society publication *Breast Cancer Facts & Figures* (8610.05) or from the American Cancer Society Web site at www.cancer.org.

Uterine Cervix

New cases

An estimated 1,910 cases of invasive cervical cancer are expected to be diagnosed among African American women in 2007. Incidence rates have decreased steadily over the past several decades in both African American

Figure 6. Age-Adjusted Incidence and Mortality Rates* for Selected Cancers, African American Females, 1975-2003

Incidence

Rate per 100,000

Breast

Colon & rectum

Lung & bronchus

Uterine cervix   Uterine corpus

Pancreas

Year of diagnosis

Mortality

Rate per 100,000

Lung & bronchus

Breast

Colon & rectum

Pancreas

Ovary

Year of death

*Rates are age-adjusted to the 2000 US standard population and are 2-year moving averages.

Source: Incidence – Surveillance, Epidemiology, and End Results (SEER) Program, 9 SEER Registries,1973-2003, Division of Cancer Control and Population Sciences, National Cancer Institute, 2006. Mortality – US Mortality Public Use Data Tapes, 1969-2003, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

and white women; however, incidence rates of cervical cancer remain 30% higher in African American women (Table 4). As Pap screening has become more common, pre-invasive lesions of the cervix are detected far more frequently than invasive cancer.

Deaths

An estimated 720 deaths from cervical cancer are expected in 2007. Although mortality rates have declined steadily over the past several decades due to prevention and early detection by screening (Figure 6), African American women are still more than twice as likely to die from cervical cancer as white women (Table 5).

Survival

The overall 5-year relative survival rate for cervical cancer among African American women is 63%, compared to 73% among white women (Figure 3). African American women are more likely to be diagnosed with advanced-stage disease when survival is poorer (Figure 5). Cervical cancer can usually be found early with regular Pap tests.

In 2006, the Food and Drug Administration approved Gardasil – the first vaccine developed to prevent cervical cancer – for use in females aged 9-26 years.[17] Another vaccine (Cervarix) is currently awaiting approval by the European Agency for the Evaluation of Medicinal Products. Women will need to continue getting Pap tests, however, because the vaccine targets only the most common strains of human papillomavirus (HPV), the virus that causes cervical cancer, and doesn't provide protection for women that may already be infected with HPV.

Colon and Rectum

New Cases

An estimated 16,440 cases of colorectal cancer are expected to occur among African Americans in 2007. Colorectal cancer is the third most common cancer in both African American women and men. Colorectal cancer incidence among African Americans has stabilized over the past 20 years (Figures 6 and 7).[8] However, incidence rates among African American men and women are higher than those among whites; the reasons for this are poorly understood. Factors that increase risk for colorectal cancer include obesity, physical inactivity, cigarette smoking, a diet high in red or processed meats, and heavy alcohol consumption. Risk is also increased by certain inherited genetic mutations (FAP and HNPCC). Factors that are protective against colorectal cancer include occupational or recreational physical activity, a diet high in fruits and vegetables, use of anti-inflammatory drugs, hormone replacement therapy containing estrogen and progesterone (in women), and colorectal cancer screening with removal of polyps before they progress to cancer.[18-21]

Deaths

An estimated 7,070 deaths from colorectal cancer are expected to occur among African Americans in 2007.

Table 4. Comparison of Cancer Incidence Rates Between African Americans and Whites, US, 2000-2003

Males

Cancer	African American Rate*	White Rate*	Absolute Difference†	Rate Ratio‡
Kaposi sarcoma	2.7	1.1	1.6	2.4
Myeloma	13.7	6.5	7.2	2.1
Small intestine	3.9	2.0	1.9	1.9
Larynx	11.7	6.6	5.1	1.8
Stomach	17.7	10.2	7.5	1.7
Prostate	258.3	163.4	94.9	1.6
Liver & intrahepatic bile duct	12.1	7.8	4.3	1.6
Esophagus	10.8	7.8	3.0	1.4
Lung & bronchus	112.2	81.7	30.5	1.4
Pancreas	16.2	12.7	3.5	1.3
Colon & rectum	72.9	61.4	11.5	1.2
Oral cavity & pharynx	18.0	15.7	2.3	1.1
Kidney & renal pelvis	20.1	18.0	2.1	1.1
Soft tissue (including heart)	3.6	3.7	-0.1	1.0
Hodgkin lymphoma	2.8	3.2	-0.4	0.9
Leukemia	12.9	16.5	-3.6	0.8
Non-Hodgkin lymphoma	17.6	23.8	-6.2	0.7
Brain & other nervous system	4.9	8.3	-3.4	0.6
Thyroid	2.4	4.5	-2.1	0.5
Urinary bladder	19.8	40.2	-20.4	0.5
Mesothelioma	1.0	2.3	-1.3	0.4
Testis	1.5	6.2	-4.7	0.2
Melanoma of the skin	1.1	26.5	-25.4	<0.1
All cancers combined	666.4	558.3	108.1	1.2

Females

Cancer	African American Rate*	White Rate*	Absolute Difference†	Rate Ratio‡
Myeloma	9.1	4.1	5.0	2.2
Stomach	9.3	4.7	4.6	2.0
Small intestine	2.6	1.4	1.2	1.9
Esophagus	3.3	1.9	1.4	1.7
Larynx	2.0	1.4	0.6	1.4
Pancreas	13.7	9.8	3.9	1.4
Uterine cervix	11.5	8.5	3.0	1.3
Colon & rectum	56.1	44.7	11.4	1.3
Liver & intrahepatic bile duct	3.5	2.8	0.7	1.2
Soft tissue (including heart)	3.0	2.6	0.4	1.1
Kidney & renal pelvis	9.7	9.0	0.7	1.1
Lung & bronchus	53.1	54.7	-1.4	1.0
Oral cavity & pharynx	5.8	6.1	-0.3	0.9
Breast	118.0	134.0	-16.0	0.9
Leukemia	8.0	9.8	-1.8	0.8
Uterine corpus	19.5	24.3	-4.8	0.8
Hodgkin lymphoma	2.0	2.6	-0.6	0.8
Urinary bladder	7.4	10.0	-2.6	0.7
Ovary	10.1	14.5	-4.4	0.7
Non-Hodgkin lymphoma	11.7	16.8	-5.1	0.7
Brain & other nervous system	3.5	5.9	-2.4	0.6
Thyroid	7.1	12.7	-5.6	0.6
Melanoma of the skin	0.9	17.3	-16.4	0.1
All cancers combined	395.5	424.6	-29.1	0.9

*Rates are per 100,000 and age-adjusted to the 2000 US standard population. †Absolute difference: Rate in African Americans minus rate in whites.

‡Ratios of rates in African Americans divided by those of whites are based on two decimal places.

Source: Surveillance, Epidemiology, and End Results Program, 17 SEER Registries, 2000-2003, Division of Cancer Control and Population Sciences, National Cancer Institute, 2006.

Colorectal cancer is the third leading cause of cancer deaths in both African American men and women. Higher death rates from colorectal cancer account for one-fourth of the disparity in cancer death rates between African American and white women and 11% of the disparity between African American and white men. Overall, death rates from colorectal cancer have declined since 1990; however, the reduction in death rates has been smaller in African Americans than in whites (0.9% per year versus 1.9%), thus contributing to the diverging trends in death rates (Figure 2).[8] The decrease in death rates in both groups reflects improvements in survival and declining incidence rates (especially in whites).

Survival

The 5-year relative survival rate for colorectal cancer among African Americans improved from 46% in 1975-1977 to 55% in 1996-2002; however, this improvement was smaller than that in whites (51% to 66% over the same period).[8] The disparity in survival is due partly to later stage at diagnosis, as 35% of colorectal cancers in African Americans and 40% in whites are diagnosed at a localized stage (Figure 5). Lower 5-year relative survival rates for each stage of diagnosis are seen in African Americans (Figure 4), presumably reflecting disparities in access to and receipt of high-quality treatment, and differences in tumor biology.[22]

Table 5. Comparison of Cancer Death Rates Between African Americans and Whites, US, 2000-2003

Males

Cancer	African American Rate*	White Rate*	Absolute Difference†	Rate Ratio‡
Prostate	64.0	26.2	37.8	2.4
Larynx	5.1	2.2	2.9	2.3
Stomach	12.1	5.3	6.8	2.3
Myeloma	8.5	4.4	4.1	1.9
Breast	0.6	0.3	0.3	1.8
Oral cavity & pharynx	6.8	3.8	3.0	1.8
Small intestine	0.7	0.4	0.3	1.7
Liver & intrahepatic bile duct	9.8	6.4	3.4	1.5
Colon & rectum	33.4	23.4	10.0	1.4
Esophagus	10.5	7.7	2.8	1.4
Lung & bronchus	97.2	73.4	23.8	1.3
Pancreas	15.4	12.0	3.4	1.3
Soft tissue (including heart)	1.5	1.5	0.0	1.0
Kidney & renal pelvis	6.2	6.2	0.0	1.0
Hodgkin lymphoma	0.5	0.6	-0.1	0.9
Leukemia	8.7	10.4	-1.7	0.8
Thyroid	0.4	0.5	-0.1	0.8
Urinary bladder	5.4	7.8	-2.6	0.7
Non-Hodgkin lymphoma	6.6	10.1	-3.5	0.7
Brain & other nervous system	3.3	5.8	-2.5	0.6
Melanoma of the skin	0.5	4.3	-3.8	0.1
All cancers combined	**326.8**	**237.3**	**89.5**	**1.4**

Females

Cancer	African American Rate*	White Rate*	Absolute Difference†	Rate Ratio‡
Stomach	6.0	2.7	3.3	2.2
Myeloma	6.3	2.9	3.4	2.2
Uterine cervix	5.0	2.4	2.6	2.1
Uterine corpus	7.1	3.9	3.2	1.8
Larynx	0.9	0.5	0.4	1.8
Esophagus	3.0	1.7	1.3	1.8
Small intestine	0.5	0.3	0.2	1.6
Colon & rectum	23.4	16.2	7.2	1.4
Pancreas	12.5	9.0	3.5	1.4
Liver & intrahepatic bile duct	3.8	2.8	1.0	1.4
Breast	34.3	25.3	9.0	1.4
Urinary bladder	2.8	2.3	0.5	1.3
Soft tissue (including heart)	1.4	1.1	0.3	1.2
Oral cavity & pharynx	1.7	1.5	0.2	1.2
Thyroid	0.5	0.5	0.0	1.2
Kidney & renal pelvis	2.8	2.8	0.0	1.0
Lung & bronchus	39.8	42.2	-2.4	0.9
Leukemia	5.3	5.9	-0.6	0.9
Ovary	7.4	9.3	-1.9	0.8
Non-Hodgkin lymphoma	0.3	0.4	-0.1	0.8
Hodgkin lymphoma	4.3	6.5	-2.2	0.7
Brain & other nervous system	2.2	3.9	-1.7	0.6
Melanoma of the skin	0.4	2.0	-1.6	0.2
All cancers combined	**191.1**	**162.8**	**28.3**	**1.2**

*Rates are per 100,000 and age-adjusted to the 2000 US standard population. †Absolute difference: Rate in African Americans minus rate in whites.
‡Ratios of rates in African Americans divided by those of whites are based on two decimal places.
Source: National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

Lung and Bronchus

New Cases

An estimated 21,550 cases of lung cancer are expected to occur among African Americans in 2007, accounting for about 14% of the cancer diagnoses in this group. Cancer of the lung is the second most common cancer in both African American men and women. The average annual incidence rate for cancers of the lung and bronchus during 2000-2003 was almost 40% higher in African American men than in white men (Table 4), whereas incidence rates are comparable between African American and white women. Incidence rates of lung cancer continue to rise among African American women, though at a slower rate since 1989 (0.8% per year) (Figure 6). After increasing for many decades, the rate of lung cancer among African American males has been decreasing since 1984 (1.6% per year) (Figure 7).

Deaths

An estimated 16,700 deaths from lung cancer are expected to occur among African Americans in 2007. Lung cancer kills more African Americans than any other cancer. Among males, the average annual death rate for cancers of the lung and bronchus between 2000-2003 was approximately 30% higher in African Americans compared to whites (Table 5). From 1975-1982, lung cancer death rates increased by an average of 2.9% per year among African American men, and 6.4% per year among African American women.[8] Lung cancer death rates continued to increase during the 1980s, but not as rapidly (Figures 6 and 7). However, during 1993-2003, the lung cancer death rate in African American men decreased substantially by 2.6% per year, while the rate in women continued to increase, though at a much slower rate (0.4% per year). The decline in men and the slower rate of increase among women are the result of decreases in smoking prevalence over the previous 40 years.[23]

Survival

The 5-year relative survival rate for lung cancer is slightly lower in African Americans than in whites: 12% and 15%, respectively (Figure 3). When lung cancer is detected at a localized stage, the 5-year relative survival rate among African Americans is 42%; however, only 14% of lung cancer cases are detected at that stage. Symptoms of lung cancer generally do not appear until the disease is advanced. Five-year survival rates for early-stage lung cancer are lower for African Americans

than for whites. Studies have shown that African Americans diagnosed with early-stage lung cancer are less likely than whites to receive surgery, the only treatment which can result in long-term cure, even after accounting for socioeconomic factors.[24] Another study within the military health care system found no survival disparities when access to medical care was universal.[25]

Prostate

New Cases

An estimated 30,870 cases of prostate cancer are expected to occur among African American men in 2007, accounting for 37% of all cancers diagnosed in African American men. Between 2000-2003, the average annual prostate cancer incidence rate was 60% higher in African American men than in white men (Table 4). Incidence rates peaked in African American men in 1993 and have since been declining (Figure 7). The dramatic but short-term increase in prostate cancer incidence rates between 1989-1993 was likely due to earlier diagnosis through increased use of the prostate-specific antigen (PSA) blood test. However, the reasons for the historically higher incidence rates among African American men compared to whites are less clear.

Deaths

Prostate cancer is the second leading cause of cancer death in African American men. It is estimated that 4,240 deaths from prostate cancer will occur in African American men in 2007. African American men have the highest mortality rate for prostate cancer of any racial or ethnic group in the US. The death rate for prostate cancer is 2.4 times higher in African American men than in white men (Table 5). This difference accounts for about 40% of the overall cancer mortality disparity between African American and white men. After a long period of increase, prostate cancer death rates in African American men peaked in 1993. Rates declined steadily thereafter and in 2001 began to decrease sharply at a rate of 6.7% per year. The decline in the rate of prostate cancer deaths, however, lags behind that of white men; prostate cancer death rates in white men began decreasing in 1991. Some of the decreases in prostate cancer mortality may be due to screening, improved surgical and radiologic treatment, and dissemination of
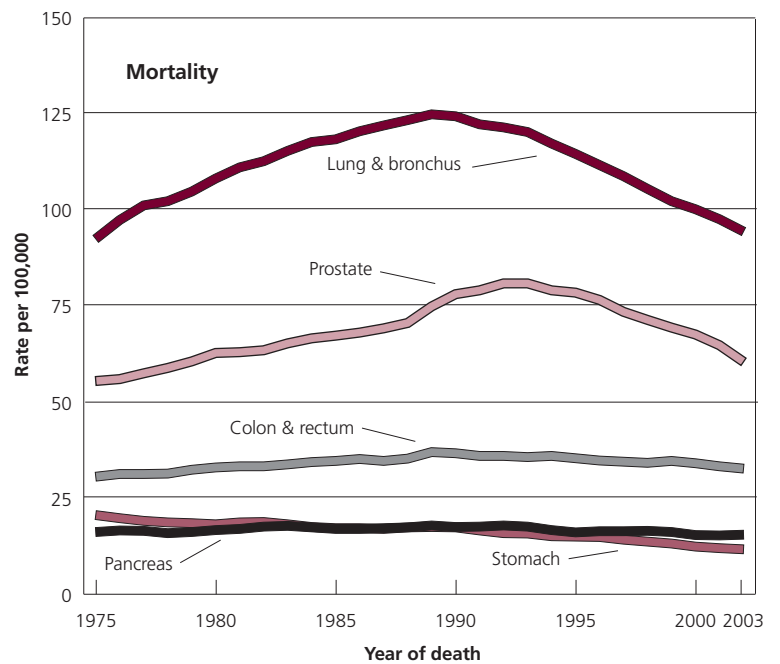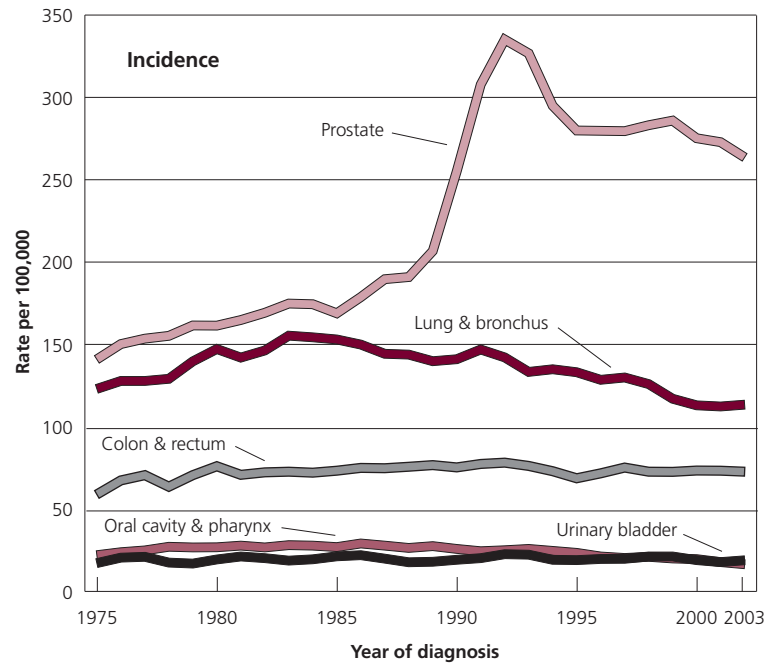
Figure 7. Age-Adjusted Incidence and Mortality Rates* for Selected Cancers, African American Males, 1975-2003

Incidence

Rate per 100,000 — Year of diagnosis

Prostate
Lung & bronchus
Colon & rectum
Oral cavity & pharynx   Urinary bladder

Mortality

Rate per 100,000 — Year of death

Lung & bronchus
Prostate
Colon & rectum
Pancreas   Stomach

*Rates are age-adjusted to the 2000 US standard population and are 2-year moving averages.
Source: Incidence – Surveillance, Epidemiology, and End Results (SEER) Program, 9 SEER Registries,1973-2003, Division of Cancer Control and Population Sciences, National Cancer Institute, 2006. Mortality – US Mortality Public Use Data Tapes, 1969-2003, National Center for Health Statistics, Centers for Disease Control and Prevention, 2006.

hormonal therapy for advanced-stage disease.[26-31] However, the precise impact of each of these factors is difficult to estimate.

Survival

The overall 5-year relative survival rate for prostate cancer among African Americans is 98% for the years 1996-2002 (Figure 3), compared to 100% among whites. Eighty-eight percent of all prostate cancers among African Americans are diagnosed at the local and regional stages, compared to 92% in whites; the 5-year relative survival rate for African Americans whose tumors are diagnosed at these stages is 100%. Among African American men, 5-year survival rates drop to 31% when the cancer has spread to distant sites.

Table 6. Probability of Developing Invasive Cancers Over Selected Age Intervals Among African Americans, by Sex, US, 2001 to 2003*

		Birth to 39 (%)	40 to 59 (%)	60 to 69 (%)	70 and older (%)	Birth to Death (%)
All sites[†]	Male	1.10 (1 in 91)	11.71 (1 in 9)	20.64 (1 in 5)	40.89 (1 in 2)	42.67 (1 in 2)
	Female	1.64 (1 in 61)	8.61 (1 in 12)	10.02 (1 in 10)	23.97 (1 in 4)	32.25 (1 in 3)
Prostate	Male	0.02 (1 in 5154)	4.50 (1 in 22)	10.37 (1 in10)	18.09 (1 in 6)	19.76 (1 in 5)
Breast	Female	0.52 (1 in 191)	3.63 (1 in 28)	3.01 (1 in 33)	5.46 (1 in 18)	9.98 (1 in 10)
Lung & bronchus	Male	0.04 (1 in 2718)	1.89 (1 in 53)	3.46 (1 in 29)	7.34 (1 in 14)	8.26 (1 in 12)
	Female	0.04 (1 in 2666)	1.06 (1 in 95)	1.81 (1 in 55)	3.86 (1 in 26)	5.21 (1 in 19)
Colon & rectum	Male	0.07 (1 in 1345)	1.20 (1 in 83)	1.96 (1 in 51)	4.80 (1 in 21)	5.17 (1 in 19)
	Female	0.07 (1 in 1431)	1.01 (1 in 99)	1.53 (1 in 65)	4.56 (1 in 22)	5.41 (1 in 18)
Uterine corpus	Female	0.06 (1 in 1793)	0.45 (1 in 220)	0.77 (1 in 130)	1.18 (1 in 85)	1.93 (1 in 52)
Urinary bladder[‡]	Male	0.01 (1 in 7796)	0.26 (1 in 383)	0.46 (1 in 216)	1.49 (1 in 67)	1.40 (1 in 71)
	Female	0.01 (1 in 13567)	0.08 (1 in 1252)	0.18 (1 in 545)	0.78 (1 in 128)	0.78 (1 in 128)
Stomach	Male	0.02 (1 in 4658)	0.26 (1 in 388)	0.46 (1 in 219)	1.31 (1 in 76)	1.31 (1 in 76)
	Female	0.02 (1 in 6404)	0.13 (1 in 790)	0.20 (1 in 498)	0.99 (1 in 102)	0.99 (1 in 101)
Non-Hodgkin lymphoma	Male	0.16 (1 in 618)	0.45 (1 in 221)	0.38 (1 in 261)	0.72 (1 in 139)	1.25 (1 in 80)
	Female	0.10 (1 in 978)	0.28 (1 in 354)	0.28 (1 in 362)	0.67 (1 in 148)	1.07 (1 in 94)
Leukemia	Male	0.11 (1 in 910)	0.21 (1 in 476)	0.30 (1 in 333)	0.77 (1 in 131)	0.94 (1 in 106)
	Female	0.08 (1 in 1184)	0.12 (1 in 848)	0.17 (1 in 575)	0.61 (1 in 165)	0.76 (1 in 131)
Uterine cervix	Female	0.15 (1 in 689)	0.34 (1 in 295)	0.24 (1 in 413)	0.39 (1 in 254)	0.94 (1 in 106)

*For those free of cancer at beginning of age interval. Based on cancer cases diagnosed during 2001-2003. †All sites exclude basal and squamous cell skin cancers and in situ cancers except urinary bladder. ‡Includes invasive and in situ cancer cases.

Source: DevCan: Probability of Developing or Dying of Cancer Software, Version 6.1.1. Statistical Research and Applications Branch, National Cancer Institute, 2006. www.srab.cancer.gov/devcan

Table 7. Lifetime Probability of Developing or Dying from Invasive Cancers, by Race and Sex, US, 2001 to 2003*

		Developing		Dying	
		African American (%)	White (%)	African American (%)	White (%)
All sites[†]	Male	42.67 (1 in 2)	45.28 (1 in 2)	23.78 (1 in 4)	23.38 (1 in 4)
	Female	32.25 (1 in 3)	38.88 (1 in 3)	19.84 (1 in 5)	20.37 (1 in 5)
Prostate	Male	19.76 (1 in 5)	16.58 (1 in 6)	4.37 (1 in 23)	2.87 (1 in 35)
Breast	Female	9.98 (1 in 10)	13.25 (1 in 8)	3.34 (1 in 30)	3.00 (1 in 33)
Lung & bronchus	Male	8.26 (1 in 12)	8.09 (1 in 12)	7.10 (1 in 14)	6.77 (1 in 15)
	Female	5.21 (1 in 19)	6.47 (1 in 15)	4.31 (1 in 23)	5.14 (1 in 19)
Colon & rectum	Male	5.17 (1 in 19)	5.79 (1 in 17)	2.39 (1 in 42)	2.30 (1 in 43)
	Female	5.41 (1 in 18)	5.34 (1 in 19)	2.55 (1 in 39)	2.17 (1 in 46)
Uterine corpus	Female	1.93 (1 in 52)	2.61 (1 in 38)	0.72 (1 in 139)	0.51 (1 in 197)
Urinary bladder[‡]	Male	1.40 (1 in 71)	3.95 (1 in 25)	0.40 (1 in 249)	0.81 (1 in 124)
	Female	0.78 (1 in 128)	1.22 (1 in 82)	0.35 (1 in 287)	0.33 (1 in 306)
Stomach	Male	1.31 (1 in 76)	1.01 (1 in 99)	0.92 (1 in 108)	0.58 (1 in 171)
	Female	0.99 (1 in 101)	0.57 (1 in 175)	0.66 (1 in 151)	0.38 (1 in 267)
Non-Hodgkin lymphoma	Male	1.25 (1 in 80)	2.24 (1 in 45)	0.50 (1 in 200)	1.03 (1 in 97)
	Female	1.07 (1 in 94)	1.92 (1 in 52)	0.43 (1 in 231)	0.82 (1 in 122)
Leukemia	Male	0.94 (1 in 106)	1.56 (1 in 64)	0.69 (1 in 145)	1.03 (1 in 97)
	Female	0.76 (1 in 131)	1.10 (1 in 91)	0.58 (1 in 173)	0.74 (1 in 134)
Uterine cervix	Female	0.94 (1 in 106)	0.69 (1 in 145)	0.39 (1 in 258)	0.22 (1 in 459)

*For those free of cancer at beginning of age interval. Based on cancer cases diagnosed during 2001-2003. †All sites exclude basal and squamous cell skin cancers and in situ cancers except urinary bladder. ‡Includes invasive and in situ cancer cases.

Source: DevCan: Probability of Developing or Dying of Cancer Software, Version 6.1.1. Statistical Research and Applications Branch, National Cancer Institute, 2006. www.srab.cancer.gov/devcan

Risk Factor Statistics

Socioeconomic Status

Socioeconomic factors influence the entire spectrum of cancer from prevention and early detection to treatment, quality of life, and survival.[32] Compared with 10% of whites, 24% of African Americans live below the poverty line.[33] In addition, 20% of African Americans are uninsured, while only 11% of whites lack health insurance. Socioeconomic factors that affect cancer prevention and early detection include behaviors such as tobacco avoidance, maintenance of physical activity and a healthy body weight, and regular access to high-quality screening tests with timely and appropriate follow-up. Poor and uninsured people are more likely to be treated for cancer at late stages of disease, are more likely to receive substandard clinical care and services, and are more likely to die from cancer.

Table 8. Educational Attainment (%) of the Population 25 Years and Over, African Americans and Non-Hispanic Whites, 2004

	African Americans	Whites
Less than high school	19.4	10.0
High school graduate	36.0	32.8
Some college	27.0	26.6
College graduate	12.3	19.8
Master's degree and beyond	5.3	10.8

Note: "Some college" category includes some college (no degree) and an associate degree.

Source: Educational attainment of the population 25 years and over, by age, sex, race, and Hispanic origin: 2004. Table 10. http://www.census.gov/population/www/socdemo/education/cps2004.html.

African Americans are more likely to be diagnosed at a later stage of cancer than whites, possibly due to factors such as less awareness about cancer symptoms and reduced access to cancer screening services (Figure 5). Detection at later stages, in turn, may result in lower cure rates and shorter survival times.

Tobacco Use

Smoking is the most preventable cause of premature death in the US and is responsible for about 30% of all cancer deaths.[34,35] Cigarette smoking contributes to lung cancer as well as cancers of the nasopharynx, nasal cavity and paranasal sinuses, lip, oral cavity, pharynx, larynx, esophagus, pancreas, uterine cervix, kidney, bladder, stomach, and acute myeloid leukemia.[36] Both incidence and death rates for lung cancer are higher among African American men than among white men, due in part to differences in smoking behaviors. Since 1965, the rate of adult (≥18 years old) smoking has been consistently higher in African American men than in white men; however, in recent years the rates have converged. Although African American men begin smoking at a somewhat later age than white men, they often smoke cigarettes more intensively and are more likely to smoke mentholated brands,[37] which have been shown to have higher carbon monoxide concentrations than non-mentholated cigarettes and may be associated with a greater absorption of nicotine.[38] The relative importance of these factors – in addition to differences in nutritional status and/or inherited genetic susceptibilities – to the higher lung cancer rates among African Americans is unclear.[39]

Adult Cigarette Smoking

In 2005, 5.7 million African American adults were smokers.[40] The prevalence of current cigarette smoking among adults (≥18 years old) was higher among African American men (26.7%) than white men (24.0%), but lower among African American women (17.3%) compared to white women (20.0%) (Figure 8a).[40] In both groups, the prevalence is much higher than the Healthy People 2010 goal of 12%.[39]
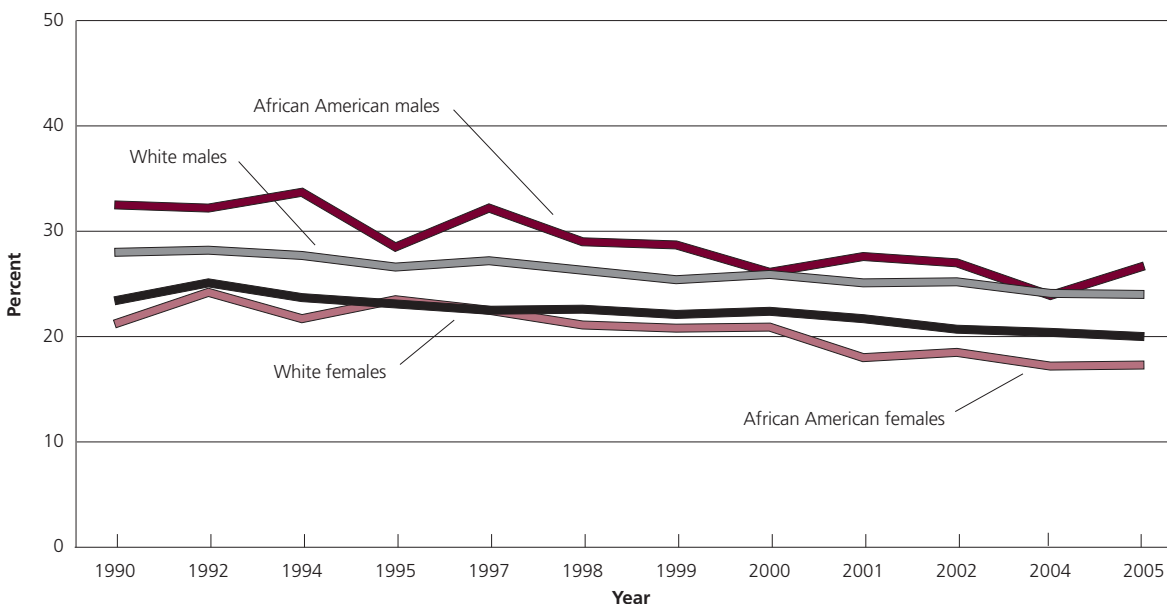
Youth Tobacco Use

An estimated 3,000 young persons begin smoking each day.[39] For more than a decade, African American youth have had a lower prevalence of cigarette smoking than other racial and ethnic groups. According to the Youth

Risk Behavior Surveillance Survey (YRBSS), the prevalence of current cigarette smoking among African American high school students peaked in 1997 (in boys) and 1999 (in girls) and generally has been decreasing since.[41] As of 2005, 14.0% of African American boys and 11.8% of African American girls smoke cigarettes (Figure 8b).
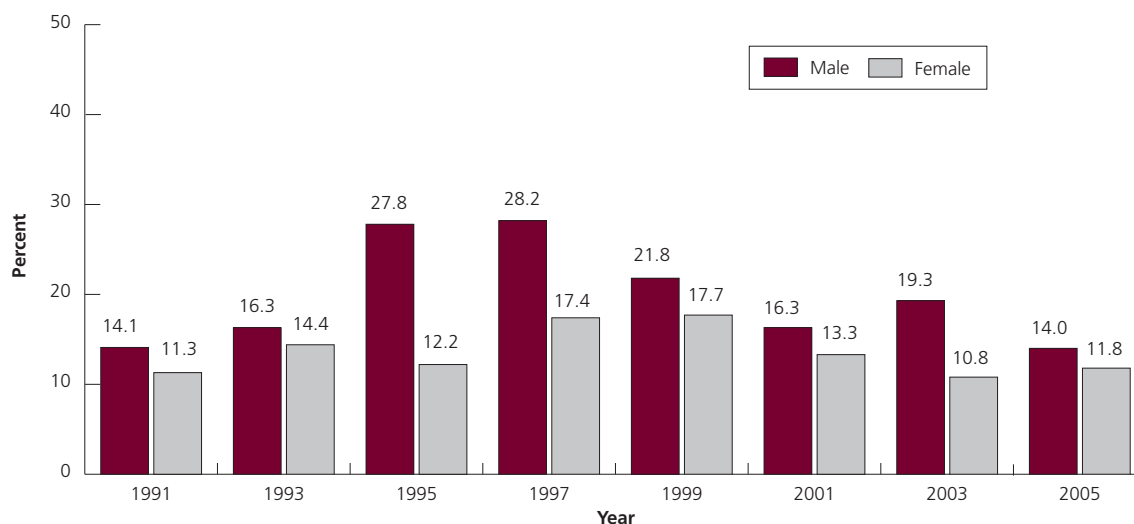
Figure 8a. Trends in the Percentage of Current Cigarette Smokers*, Adults 18+, US, 1990-2005

*Persons who reported having smoked more than 100 cigarettes and who reported now smoking every day or on some days.
Sources: National Health Interview Survey (NHIS), 1990-2005. National Center for Health Statistics, Centers for Disease Control and Prevention.

Figure 8b. Trends in the Percentage of Current Cigarette Smokers*, Non-Hispanic African American High School Students, US, 1991-2005

*Smoked cigarettes on one or more of the 30 days preceding the survey.
Sources: Youth Risk Behavior Surveillance Survey, 1991-2005. National Center for Chronic Disease and Health Promotion. Morb Mort Wkly Rep. 2006;55(SS05). Centers for Disease Control and Prevention.

Overweight, Obesity, and Physical Activity

Overweight and Obesity

Obesity is the fastest growing health problem in the US. In addition to diabetes, heart disease, and stroke, obesity increases the risk of many cancers, including cancers of the breast (among postmenopausal women), colon and rectum, endometrium, gallbladder, pancreas, liver, gastric cardia, kidney, and adenocarcinoma of the esophagus.[42,43] According to the definition of obese (BMI ≥30 kg/m^{2}), 45% of African American adults are considered obese and 76% are considered overweight (BMI ≥25 kg/m^{2}) or obese (Figure 9).[44] Overweight and obesity are more common among African American than white women and girls, while there is little difference among men and boys (Figure 9). The proportion of US adults who are overweight has increased greatly since 1980. This trend in adult obesity is moving away from the Healthy People 2010 goal of an obesity prevalence of only 15%.[39]

Physical Activity

Studies have shown that regular physical activity is associated with lower risk of colon cancer and female breast cancer.[43] The American Cancer Society recommends that adults engage in at least 30 minutes of moderate-to-vigorous physical activity, above usual activities, on 5 or more days of the week and 45-60 minutes of intentional physical activity are preferable.[45]

Data from the 2005 Behavioral Risk Factor Surveillance System (BRFSS) show that one-third of African American adults (32.9%) report no leisure-time physical activity, with African American women more likely than men to be physically inactive (36.5% versus 28.3%, respectively). While the level is low for both sexes, African American men were more likely than African American women to report both regular, sustained physical activity (45.3% versus 36.2%, respectively) and regular, vigorous activity levels (men 28.9%, women 17.9%) (Table 9).

Body Mass Index for Adults

Different measures are used to determine whether a person is considered normal weight, overweight, or obese, taking height into account. A common scale is the body mass index (BMI), or ratio of weight (in kilograms) to height (in meters, squared). For adults aged 20 years and older, overweight is defined as a BMI of 25.0 to 29.9 kg/m^{2}; obesity is defined as a BMI of 30.0 kg/m^{2} or greater.
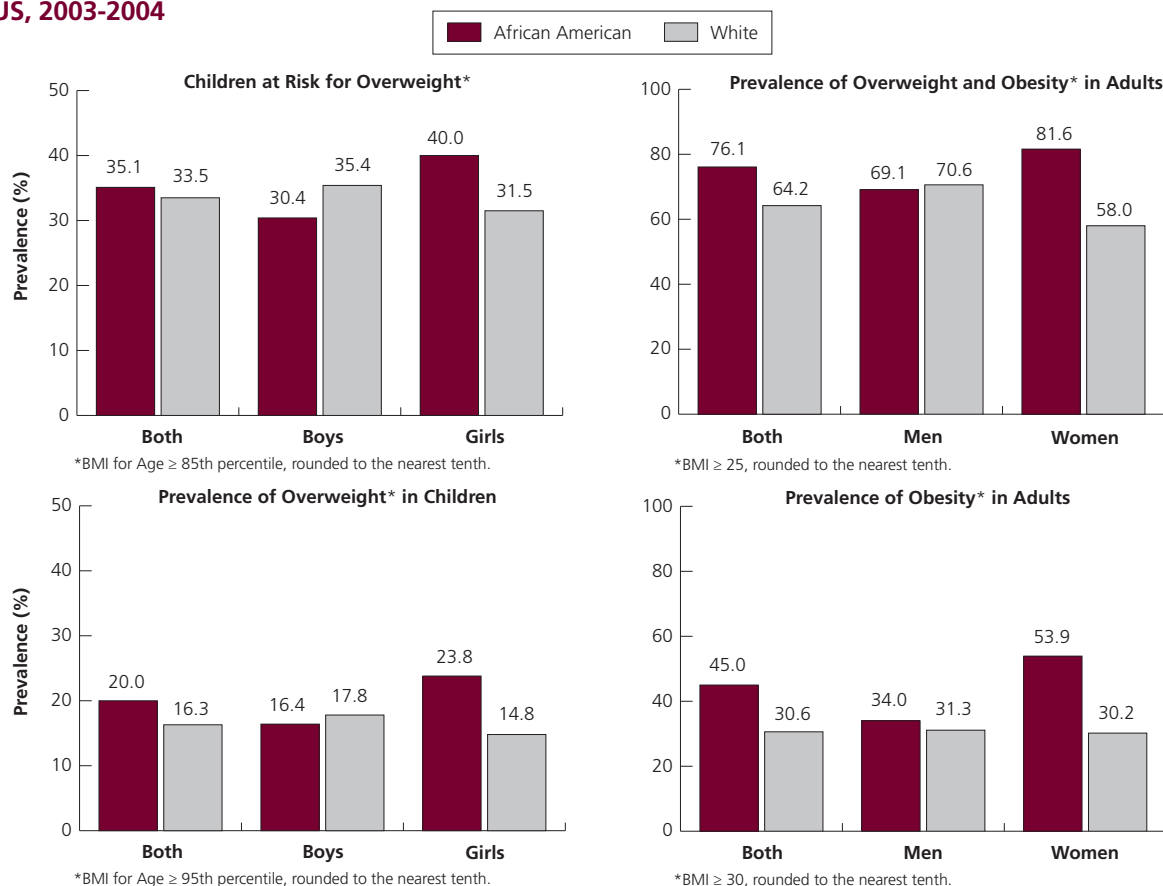
This table relates BMI to pounds and inches rather than kilograms and meters. BMI corresponds to an individual's height (in the left column) and weight category (in pounds). An adult aged 20 or older is considered overweight or obese if his or her weight falls within the corresponding area of the table. For example, a 5'4 woman is considered overweight if she weighs between 145 and 173 pounds. She is considered obese if she weighs 174 pounds or more. A 5'10 man is considered overweight if he weighs between 174 and 206 pounds and obese if he weighs 207 pounds or more.

Height (feet, inches)	Body weight (pounds) Overweight*	Obese[†]
6'4	205	246
6'3	200	240
6'2	194	233
6'1	189	227
6'0	184	221
5'11	179	215
5'10	174	207
5'9	169	203
5'8	164	197
5'7	159	191
5'6	155	186
5'5	150	180
5'4	145	174
5'3	141	169
5'2	136	164
5'1	132	158
5'0	128	153
4'11	124	148
4'10	119	143

*Overweight defined as BMI of 25 to 29.9 kg/m^{2}.
[†]Obese defined as BMI of 30 kg/m^{2} or greater.

Figure 9. Prevalence of Obesity and Overweight in Children (2-19) and Adults (20+), by Sex and Race, US, 2003-2004

Legend: ■ African American   ▢ White

Children at Risk for Overweight*

	Both	Boys	Girls
African American	35.1	30.4	40.0
White	33.5	35.4	31.5

*BMI for Age ≥ 85th percentile, rounded to the nearest tenth.

Prevalence of Overweight and Obesity* in Adults

	Both	Men	Women
African American	76.1	69.1	81.6
White	64.2	70.6	58.0

*BMI ≥ 25, rounded to the nearest tenth.

Prevalence of Overweight* in Children

	Both	Boys	Girls
African American	20.0	16.4	23.8
White	16.3	17.8	14.8

*BMI for Age ≥ 95th percentile, rounded to the nearest tenth.

Prevalence of Obesity* in Adults

	Both	Men	Women
African American	45.0	34.0	53.9
White	30.6	31.3	30.2

*BMI ≥ 30, rounded to the nearest tenth.

Source: National Health and Nutrition Examination Survey. National Center for Health Statistics, Centers for Disease Control and Prevention. Prevalence of Overweight and Obesity Among US Children, Adolescents and Adults, NHANES 1999-2004, JAMA. 2006;1549-1555.

Table 9. Leisure-Time Physical Activity, Adults 18 and Older, by Race and Sex, US, 2005

	% African American*	% White*
No leisure-time physical activity†		
Total	32.9	21.4
Male	28.3	19.5
Female	36.5	23.1
Vigorous/Moderate physical activity‡		
Total	40.3	50.9
Male	45.3	52.3
Female	36.2	49.6
Vigorous physical activity§		
Total	22.9	29.3
Male	28.9	32.9
Female	17.9	26.0

Estimates exclude missing, don't know/not sure, or refused responses, and are age-adjusted to the 2000 US population 18 years and over.

*Non-Hispanic. †No leisure time physical activity or exercise during the past 30 days other than the respondent's regular job. ‡Moderate physical activity is (regular) leisure-time physical activity (moderate activity 30+ min/5+ times a week or vigorous activity 20+ min/3+ times a week). Moderate activity causes some increase in breathing or heart rate. §Activity (such as running, aerobics, or heavy yard work) that causes large increases in breathing or heart rate at least three times a week, 20 minutes or more per session.

Source: Behavioral Risk Factor Surveillance System Public Use Data Tape 2005, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 2006.

Use of Screening Tests

Screening tests are used to detect some cancers at stages when they are still highly curable. In fact, for some cancers early detection tests can lead to the prevention of cancer through the identification and removal of precancerous lesions. Screening can also greatly improve the chances of cure, extend life, reduce the extent of treatment needed, and thereby improve quality of life for cancer survivors.

Breast and Cervical Cancer Screening

The American Cancer Society recommends that women aged 40 and older get an annual mammogram and an annual clinical breast examination by a health care professional (close to and preferably before the scheduled mammogram). In 2003, the American Cancer Society dropped its recommendation that all women perform breast self-exams (BSE) monthly. The reason for this change is that research has shown that a structured BSE is less important than self awareness. The Society still recommends that women be told of the potential benefits and limitations of BSE, and those women who wish to do it should receive instruction from their health care providers. All women should become familiar with both the appearance and feel of their breasts so that they are able to notice any changes. Women aged 20-39 should have a clinical breast examination by a health care professional every three years.

In 1987, only 23.8% of African American women aged 40 and older reported the use of mammography screening for breast cancer within two years prior to the interview. In 2003, that percentage increased to 70%.[46] In 2004, the proportion of African American women aged 40 and older who reported receiving a mammogram within the past year was 59.4% (Table 10).

The American Cancer Society recommends that all women should begin cervical cancer screening about 3 years after they begin having vaginal intercourse, but no later than age 21. See screening guidelines, page 20. In 2004, the rate of Pap testing was similar among African American (86.7%) and white women (85.6%).

Breast and cervical cancer testing is now more accessible to medically underserved women through the National Breast and Cervical Cancer Early Detection Program (NBCCEDP). This program, now available in all

Table 10. Use of Cancer Screening Examinations, 2004

	Black Non-Hispanic	White Non-Hispanic
Breast cancer, 2004		
Mammogram*	59.4	58.6
Clinical breast exam (CBE)†	64.3	65.6
Mammogram & CBE‡	51.2	52.2
Cervical cancer, 2004		
Pap test§	86.7	85.6
Colon & rectum cancer, 2004		
Fecal occult blood test (FOBT)¶	19.2	19.4
Flexible sigmoidoscopy#	44.3	47.0
Prostate cancer, 2004		
Prostate specific antigen (PSA) test**	50.0	55.4
Digital rectal exam (DRE)††	47.4	52.2

Age group adjusted to the 2000 US standard population.

*A mammogram within the past year for women aged 40 years and older. †A clinical breast exam within the past year for women aged 40 and older. ‡Both a mammogram and clinical breast exam within the past year for women aged 40 and older. §A Pap test within the past three years for women aged 18 and older. ¶A fecal occult blood test using a home kit within the past year for adults aged 50 and older. #A flexible sigmoidoscopy or colonoscopy within the past five years for adults aged 50 and older. **A prostate-specific antigen (PSA) test within the past year for men aged 50 and older. ††A digital rectal exam (DRE) within the past year for men aged 50 and older.

Source: Behavioral Risk Factor Surveillance System, Public Use Data File, 2004. National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 2005.

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Screening Guidelines
For the Early Detection of Cancer in Asymptomatic People

Site	Recommendation
Breast	• Yearly mammograms are recommended starting at age 40. The age at which screening should be stopped should be individualized by considering the potential risks and benefits of screening in the context of overall health status and longevity. • Clinical breast exam should be part of a periodic health exam, about every 3 years for women in their 20s and 30s, and every year for women 40 and older. • Women should know how their breasts normally feel and report any breast change promptly to their health care providers. Breast self-exam is an option for women starting in their 20s. • Women at increased risk (e.g., family history, genetic tendency, past breast cancer) should talk with their doctors about the benefits and limitations of starting mammography screening earlier, having additional tests (i.e., breast ultrasound and MRI), or having more frequent exams.
Colon & rectum	Beginning at age 50, men and women should begin screening with 1 of the examination schedules below: • A fecal occult blood test (FOBT) or fecal immunochemical test (FIT) every year • A flexible sigmoidoscopy (FSIG) every 5 years • Annual FOBT or FIT and flexible sigmoidoscopy every 5 years* • A double-contrast barium enema every 5 years • A colonoscopy every 10 years *Combined testing is preferred over either annual FOBT or FIT, or FSIG every 5 years, alone. People who are at moderate or high risk for colorectal cancer should talk with a doctor about a different testing schedule.*
Prostate	The PSA test and the digital rectal examination should be offered annually, beginning at age 50, to men who have a life expectancy of at least 10 years. Men at high risk (African American men and men with a strong family history of 1 or more first-degree relatives diagnosed with prostate cancer at an early age) should begin testing at age 45. For both men at average risk and high risk, information should be provided about what is known and what is uncertain about the benefits and limitations of early detection and treatment of prostate cancer so they can make an informed decision about testing.
Uterus	**Cervix:** Screening should begin approximately 3 years after a woman begins having vaginal intercourse, but no later than 21 years of age. Screening should be done every year with regular Pap tests or every 2 years using liquid-based tests. At or after age 30, women who have had 3 normal test results in a row may get screened every 2 to 3 years. Alternatively, cervical cancer screening with HPV DNA testing and conventional or liquid-based cytology could be performed every 3 years. However, doctors may suggest a woman get screened more often if she has certain risk factors, such as HIV infection or a weak immune system. Women 70 years and older who have had 3 or more consecutive normal Pap tests in the last 10 years may choose to stop cervical cancer screening. Screening after total hysterectomy (with removal of the cervix) is not necessary unless the surgery was done as a treatment for cervical cancer. **Endometrium:** The American Cancer Society recommends that at the time of menopause all women should be informed about the risks and symptoms of endometrial cancer, and strongly encouraged to report any unexpected bleeding or spotting to their physicians. Annual screening for endometrial cancer with endometrial biopsy beginning at age 35 should be offered to women with or at risk for hereditary nonpolyposis colon cancer (HNPCC).
Cancer-related checkup	For individuals undergoing periodic health examinations, a cancer-related checkup should include health counseling and, depending on a person's age and gender, might include examinations for cancers of the thyroid, oral cavity, skin, lymph nodes, testes, and ovaries, as well as for some nonmalignant diseases.

American Cancer Society guidelines for early cancer detection are assessed annually in order to identify whether there is new scientific evidence sufficient to warrant a reevaluation of current recommendations. If evidence is sufficiently compelling to consider a change or clarification in a current guideline or the development of a new guideline, a formal procedure is initiated. Guidelines are formally evaluated every 5 years regardless of whether new evidence suggests a change in the existing recommendations. There are 9 steps in this procedure and these "guidelines for guideline development" were formally established to provide a specific methodology for science and expert judgment to form the underpinnings of specific statements and recommendations from the Society. These procedures constitute a deliberate process to ensure that all Society recommendations have the same methodological and evidence-based process at their core. This process also employs a system for rating strength and consistency of evidence that is similar to that employed by the Agency for Health Care Research and Quality (AHCRQ) and the US Preventive Services Task Force (USPSTF).

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50 states, the District of Columbia, 4 US territories, and 13 American Indian/Alaska Native tribal organizations, helps low-income, uninsured, and underinsured women gain access to breast and cervical cancer screening and diagnostic services. Each state or territory's Department of Health will have information on how to contact the nearest program participant.

Colon and Rectum Screening

The American Cancer Society recommends that both men and women should choose one of the several available testing methods beginning at age 50. See screening guidelines, page 20.

The use of colorectal screening tests among African Americans has increased over the past several years. In 1987, only 4% of African Americans reported having had a colorectal screening examination within the past three years.[20] By 2004, more than 44% had a flexible sigmoidoscopy or colonoscopy (Table 10). Similar increases in screening were seen for the fecal occult blood test. Although use of colorectal screening tests has improved among African American adults, the percentage being screened still remains less than 50%.

Prostate Testing

The Society recommends that African American men begin annual prostate cancer screening starting at age 45. See screening guidelines, page 20.

The use of the prostate-specific antigen (PSA) blood test to test for prostate cancer is lower in African American compared to white males aged 50 and older (50.0% versus 55.4%, respectively). Likewise, African American men were less likely than white men over the age of 50 to report a digital rectal exam within the past year (Table 10).

Advocacy, Research, and Programs to Reduce Cancer Disparities

The American Cancer Society continues to work toward the 2015 goal of eliminating disparities in cancer morbidity and mortality through advocacy, research, education, and service. This section provides highlights and information on some of these efforts.

Advocacy

Working independently and collaboratively with lawmakers at the local, state, and federal levels, the Society is able to help create, change, and influence public policies that can have a significant impact on reducing the cancer disparities in this country.

Increasing funding for the Centers for Disease Control and Prevention's (CDC) National Breast and Cervical Cancer Early Detection Program is a high priority for the Society. This successful program provides community-based breast and cervical cancer screening, diagnosis, and treatment to low-income, uninsured, and underserved women. In addition, the Society is fighting to protect funding for other cancer programs within CDC's National Center for Chronic Disease Prevention and Health Promotion, including education and screening targeted toward cancers disproportionately affecting minority communities – particularly African Americans – such as prostate, breast, colorectal, cervical, and ovarian cancers.

The Society is advocating for a program to increase colorectal cancer screening rates in the underserved. African Americans are more likely to die from colorectal cancer than any other racial or ethnic group. This program would authorize a colorectal cancer early detection and treatment program that would grant millions of low-income, uninsured men and women access to colorectal cancer screenings and treatment. The CDC is examining the feasibility of such a program through a series of demonstration projects.

The Society is also working with Congress to secure sufficient funding for the "Patient Navigator" bill that

was signed into law by President George W. Bush in 2005. This landmark legislation would provide grants to fund patient navigators who are skilled in providing culturally relevant information, tailored outreach and education, and interventions that will improve access to care, health outcomes, and quality of life in medically underserved communities.

The Society continues to lead the fight to maintain and increase the investment the nation has made in biomedical and cancer research following the doubling of the budget for the National Institutes of Health (NIH). This includes increased funding for cancer research at the National Cancer Institute and the National Center on Minority Health and Health Disparities.

The Society has been able to expand its advocacy work exponentially to support its legislative agenda with the creation of its sister advocacy organization, the American Cancer Society Cancer Action Network[SM] (ACS CAN). ACS CAN is a nonprofit, nonpartisan, advocacy organization that uses voter education and issue campaigns aimed at lawmakers and candidates to support laws and policies that will help people fight cancer. To learn more about ACS CAN, visit www.acscan.org.

What research is currently addressing African Americans and cancer?

Since 1999, the American Cancer Society has funded 76 studies totaling $62 million dollars devoted to the poor and medically underserved. Forty-three percent of this research focuses on the African American population, encompassing the cancer continuum from prevention to survivorship. Examples of currently funded research include the following:

Early detection and prevention. A study of cancer knowledge, attitudes, beliefs, and risk perceptions among college students is being conducted by the American Cancer Society's Behavioral Research Center. Through partnerships with selected historically African American colleges and universities, this study gathered baseline information from students and campus health centers. The long-term goal of this research is to increase knowledge and awareness of cancer risk reduction strategies and early detection to begin in young adulthood for African Americans.

Treatment. African American patients with colorectal cancer have consistently poorer outcomes than whites. Based on the hypothesis that African American patients

receive poorer quality of surgical care than whites, an American Cancer Society grantee is evaluating racial differences in surgical treatment of colorectal cancer and identifying specific interventions for improvement in the quality of surgical care.

Survivorship. Psychosocial research has focused on developing supportive and educational programs to help patients cope with the effect of cancer and its treatment. While the programs have shown significant benefit for white, middle-class patients, there have been no programs that have been developed or evaluated for African American and Hispanic populations. This study, funded by a Society grant, will develop and compare two programs: the psycho-educational model and the psycho-spiritual model. Many minority patients have reported a greater need for spiritual support to help provide meaning, hope, and comfort. By examining the effects of these two programs on the physical, emotional, and spiritual well-being of patients, researchers hope to better serve the cancer needs of underserved populations.

What resources are available for African Americans?

Body & Soul – A Celebration of Healthy Eating and Living. This wellness program was developed for African Americans through collaboration between the National Cancer Institute and churches. The program encourages participants to eat 5 to 9 servings of fruits and vegetables every day for better health. Body & Soul works by combining pastoral leadership, educational activities, and peer counseling in a church environment that supports healthy eating.

Phi Beta Sigma. The American Cancer Society and Phi Beta Sigma fraternity have created Sigma's Waging War Against Cancer (SWWAC), a project focusing on health and wellness, including tobacco control and awareness prevention, and early detection of prostate and colorectal cancer among African American men.

Look Good...Feel Better®. This program provides cosmetic offerings to women to help restore their appearance and self-image during chemotherapy and radiation treatments.

What other programs/organizations support the elimination of health disparities among African Americans?

National Breast and Cervical Cancer Early Detection Program (NBCCEDP): helps low-income, uninsured, and underinsured women gain access to breast and cervical cancer screening and diagnostic services. Each state Department of Health will have information on how to contact the nearest program participant. For additional information, visit www.cdc.gov/cancer/nbccedp.

Racial and Ethnic Approaches to Community Health (REACH 2010): the aim of this CDC initiative is to eliminate disparities in health status experienced by racial and ethnic minority populations. Cancers of the breast and cervix are priority areas. For additional information, visit www.cdc.gov/reach2010/.

Comprehensive Cancer Control (CCC) Leadership Institutes: the National Partners for Comprehensive Cancer Control include the CDC, the American Cancer Society, the National Cancer Institute, the American College of Surgeons, the North American Association of Central Cancer Registries, the Chronic Disease Directors, the Intercultural Cancer Council, the Lance Armstrong Foundation, the National Association of County and City Health Officials, and C-Change. The National Partners provide the foundation for a comprehensive approach to cancer prevention and control within states, tribes, territories, and communities. For additional information, visit www.cancerplan.org.

University of Texas, MD Anderson Cancer Center: the Center for Research on Minority Health is a comprehensive investigative, educational, and outreach unit that focuses on decreasing the incidence and prevalence of morbidity and mortality in ethnic minorities and medically underserved populations. For additional information, visit www.mdanderson.org/departments/CRMH.

United States Conference of Mayors (USCM): the USCM's Cancer Awareness Program is a long-term effort to educate and disseminate information about early detection and treatment programs for racial and ethnic minorities and medically underserved populations. The USCM develops strategies to reach these populations and promote early detection and accessibility of treatment options. For additional information, visit www.usmayors.org/cancer.

Intercultural Cancer Council (ICC): ICC promotes policies, programs, partnerships, and research to eliminate the unequal burden of cancer among racial and ethnic minorities and medically underserved populations in the US and its associated territories. For additional information, visit www.iccnetwork.org.

Cancer Prevention and Control Research Network (CPCRN): the CPCRN is a subgroup of CDC's Prevention Research Centers and is comprised of 8 funded academic research institutions. The Network's mission is the acceleration of evidence-based cancer prevention and control, particularly in underserved and minority communities, by advancing cancer research and influencing public health and primary care practice. The CPCRN is actively engaged in enhancing large-scale efforts to reach underserved populations and reduce their cancer burden. For additional information, visit www.cpcrn.org.

National Medical Association (NMA): the NMA is the largest and oldest national organization representing African American physicians and their patients in the US. The NMA is committed to the elimination of health disparities and the promotion of healthy lifestyles among African Americans and other underserved populations. It conducts national consumer education programs on cancer, cardiovascular diseases, stroke, HIV/AIDS, clinical trials, as well as other issues that impact the lives of African Americans. For additional information, visit www.nmanet.org.

Sources of Statistics

New Cancer Cases. The method for estimating new cancer cases in the current year has been refined several times over the years to take advantage of improvements in data and statistical methods. Beginning with 2007, a new projection method is being used to estimate the number of new cancer cases expected to occur among African Americans. 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. Additionally, this method accounts for expected delays in case reporting.

Comparisons of estimates from the new and old methods showed that estimates were generally similar for all cancers combined but differ substantially for some specific cancer sites, particularly for leukemia, female breast, and lung cancers. For the reasons listed above, however, the estimates from the new method are likely to be more accurate than those from the old method (see Pickle et al. for details on this subject).[47]

Incidence Rates. Incidence rates are defined as the number of people per 100,000 who develop disease during a given period of time. For this publication, incidence rates were calculated using data on cancer cases collected by SEER and population data collected by the US Census Bureau. When referenced as such, US SEER incidence rates were previously made available on the SEER Web site, www.seer.cancer.gov, and within the *SEER Cancer Statistics Review 1975-2003*.[8] When not referenced otherwise, US SEER incidence rates are based on American Cancer Society analysis of the SEER Public Use Dataset, 1973-2003, April 2006 submission, using SEER*Stat 6.2.4, a statistical software package from the National Cancer Institute.[48] All incidence rates in this publication are age-adjusted to the 2000 US standard population.

Cancer Deaths. The estimated number of cancer deaths expected to occur in African Americans in 2007 is calculated by fitting the number of cancer deaths from 1969-2004 to a statistical forecasting model. Data on the number of deaths are obtained from the National Center for Health Statistics (NCHS) at the CDC.

Death Rates. Death rates are defined as the number of people per 100,000 who die from a disease during a one-year interval. Death rates used in this publication were previously made available by SEER on its Web site, www.seer.cancer.gov, and within the *SEER Cancer Statistics Review 1975-2003*.[8] Death rates were calculated using data on cancer deaths compiled by NCHS and population data collected by the US Census Bureau. All death rates in this publication were age-adjusted to the 2000 US standard population.

Survival. Five-year relative survival rates are presented in this report for cancer patients diagnosed between 1996-2002 and followed through 2003. Relative survival rates are used to adjust for normal life expectancy (and events such as death from heart disease, accidents, and diseases of old age). These rates are calculated by dividing observed 5-year survival rates for cancer patients by observed 5-year survival rates for people in the general population who are similar to the patient group with respect to age, gender, race, and calendar year of observation. Five-year survival statistics presented in this publication were originally published in the *SEER Cancer Statistics Review, 1975-2003*.[8]

Probability of Developing Cancer. Probabilities of developing breast cancer were calculated using *DevCan 6.1.1* (Probability of Developing Cancer Software) developed by the National Cancer Institute.[49] These probabilities reflect the average experience of people in the US and do not take into account individual behaviors and risk factors. For example, the estimate of 1 African American man in 12 developing lung cancer in a lifetime underestimates the risk for smokers and overestimates risk for nonsmokers.

Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is a survey of the CDC, National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP), and the US states and territories. It is designed to provide state prevalence estimates on behavioral risk factors such as cigarette smoking, physical activity, and cancer screening. The survey sample is large enough to allow estimation at the state level. Data are gathered through monthly computer-assisted telephone interviews with adults aged 18 years and

older. Prevalence estimates from BRFSS are subject to several limitations. For example, the prevalence estimates are only applicable to adults living in households with a residential telephone line. For more information, visit the BRFSS Web site at http://www.cdc.gov/brfss.

National Health and Nutrition Examination Survey (NHANES). The NHANES is a survey of the CDC, National Center for Health Statistics (NCHS). The survey is designed to provide national prevalence estimates on the health and nutritional status of adults and children. Data are gathered through in-person interviews and direct physical exams in mobile examination centers. For more information, visit the NHANES Web site at http://www.cdc.gov/nchs/nhanes.htm.

National Health Interview Survey (NHIS). The NHIS is a survey of the CDC, National Center for Health Statistics (NCHS). The survey is designed to provide national prevalence estimates on personal, socio-economic, demographic, and health characteristics, such as cigarette smoking and physical activity. Data are gathered through a computer-assisted personal interview of adults aged 18 and older. The NHIS is an annual survey and has been conducted by NCHS since 1957. For more information, visit the NHIS Web site at http://www.cdc.gov/nchs/nhis.htm.

Youth Risk Behavior Surveillance System (YRBSS). The YRBSS is a survey of the CDC, National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP). The survey is designed to provide national, state, and local prevalence estimates on health risk behaviors such as tobacco use, unhealthy dietary behaviors, and physical inactivity among youth and young adults who attend public and private high schools. Data are gathered through a self-administered questionnaire completed during a required subject or class period. The YRBSS is a biennial survey that began in 1991. The state and local surveys are of variable data quality, and caution should be used in comparing data among them. For more information, visit the YRBSS Web site at http://www.cdc.gov/HealthyYouth/yrbs/index.htm.

Factors That Influence Cancer Rates

Age Adjustment to the Year 2000 Standard

Epidemiologists use a statistical method called "age adjustment" to compare groups of people with different age compositions. This is especially important when examining cancer rates since cancer is generally a disease of older people. For example, without adjusting for age, it would be inaccurate to compare the cancer rates of the state of Florida, which has a large elderly population, to that of Alaska, which has a younger population. Without adjusting for age, it would appear that the cancer rates for Florida are much higher than Alaska. However, once the rates are age adjusted, it appears they are similar.

Since the publication of *Cancer Facts & Figures for African Americans 2003-2004*, the Society has used the Year 2000 Standard for age-adjustment. This is a change from statistics previously published by the American Cancer Society. Prior to 2003, most age-adjusted rates were standardized to the 1970 census, although some were based on the 1980 census or even the 1940 census. This change has also been adopted by federal agencies that publish statistics. The new age standard applies to data from calendar year 1999 and forward. The change also requires a recalculation of age-adjusted rates for previous years to allow valid comparisons between current and past years.

The purpose of shifting to the Year 2000 Standard is to more accurately reflect contemporary incidence and mortality rates, given the aging of the US population. On average, Americans are living longer because of the decline in infectious and cardiovascular diseases. Greater longevity allows more people to reach the age when cancer and other chronic diseases become more common. Using the Year 2000 Standard in age-adjustment instead of the 1970 or 1940 standards allows age-adjusted rates to be closer to the actual, unadjusted rate in the population.

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