

Cancer Facts & Figures for African Americans

2013-2014



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Cancer Statistics

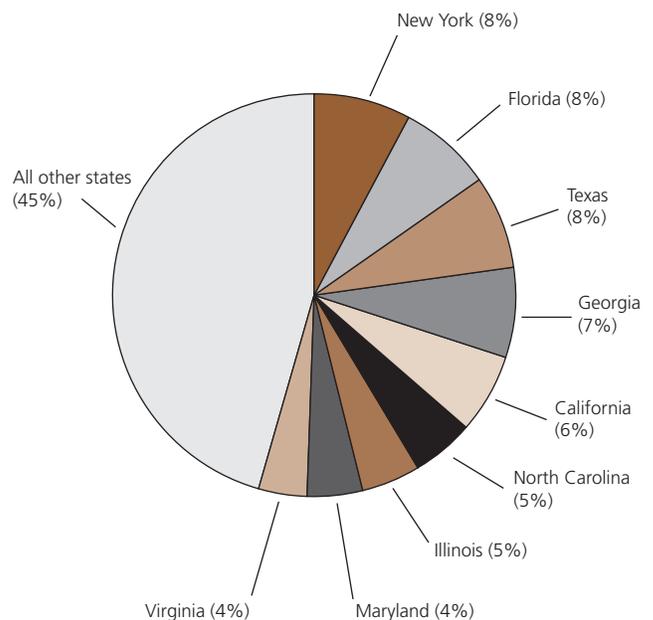
Introduction

The US Census Bureau estimates that in 2013 there are nearly 42 million African Americans living in the US, comprising 13 percent of the total population.¹ The African American population is not equally dispersed throughout the US, but is concentrated in New York, California, and the South (Figure 1). In 2010, nearly one out of every four African Americans resided in New York, Florida, or Texas.²

The African American population is not homogenous and includes individuals whose ancestors were brought to the US as slaves, as well as more recent immigrants. Of the more than 3 million foreign-born African Americans, the majority were born in the Caribbean (53%) or Africa (35%).³

This report presents updated statistics on cancer incidence, mortality, survival, and risk factors for African Americans. All incidence and mortality rates have been age adjusted to the US population in 2000 in order to allow comparison between groups with different age distributions. This publication is intended to provide information to cancer control advocates, community leaders, public health and health care workers, and others interested in cancer prevention, early detection, and treatment for African Americans.

Figure 1. African American Population (%) in the US by State, 2010



Source: US Census Bureau, 2010 Census.²

Table 1. Leading Causes of Death among African Americans and Whites, 2009

Cause of Death	Number of Deaths (%)		Death Rate*	
	African American	White	African American	White
All Ages				
Heart diseases	69,681 (24.3)	515,566 (24.7)	235.1	175.8
Cancer	64,645 (22.6)	486,987 (23.3)	207.7	172.4
Cerebrovascular diseases	15,878 (5.5)	108,761 (5.2)	54.7	37.1
Accidents (unintentional injuries)	12,069 (4.2)	102,130 (4.9)	32.0	38.9
Diabetes	11,960 (4.2)	54,113 (2.6)	39.7	19.0
All causes	286,593	2,086,139	924.7	729.0
Children Ages 1-14				
Accidents	686 (28.9)	2,301 (32.2)	7.3	5.1
Homicide	258 (10.9)	397 (5.6)	2.7	0.9
Cancer	192 (8.1)	977 (13.7)	2.1	2.2
Congenital anomalies (birth defects)	173 (7.3)	609 (8.5)	1.8	1.3
Heart diseases	114 (4.8)	228 (3.2)	1.2	0.5
All causes	2,377	7,146	25.3	15.9

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

Source: National Center for Health Statistics, Centers for Disease Control and Prevention, as provided by the SEER program in the SEER*Stat database.⁴

Table 2. Lifetime Probability (%) of Developing or Dying from Invasive Cancers by Race and Sex, US, 2007-2009

		Developing		Dying	
		African American	White	African American	White
All Sites*	Male	42.77 (1 in 2)	44.55 (1 in 2)	23.67 (1 in 4)	23.16 (1 in 4)
	Female	33.72 (1 in 3)	38.87 (1 in 3)	19.23 (1 in 5)	19.58 (1 in 5)
Prostate	Male	19.74 (1 in 5)	15.39 (1 in 6)	4.52 (1 in 22)	2.58 (1 in 39)
Breast	Female	10.87 (1 in 9)	12.73 (1 in 8)	3.25 (1 in 31)	2.73 (1 in 37)
Lung & bronchus	Male	7.95 (1 in 13)	7.82 (1 in 13)	6.70 (1 in 15)	6.81 (1 in 15)
	Female	5.40 (1 in 19)	6.67 (1 in 15)	4.11 (1 in 24)	5.23 (1 in 19)
Colorectum	Male	5.07 (1 in 20)	5.11 (1 in 20)	2.41 (1 in 41)	2.08 (1 in 48)
	Female	5.04 (1 in 20)	4.69 (1 in 21)	2.27 (1 in 44)	1.90 (1 in 53)
Uterine corpus	Female	2.30 (1 in 44)	2.72 (1 in 37)	0.83 (1 in 120)	0.51 (1 in 197)
Kidney	Male	1.90 (1 in 53)	2.10 (1 in 48)	0.49 (1 in 203)	0.63 (1 in 160)
	Female	1.24 (1 in 80)	1.23 (1 in 81)	0.32 (1 in 317)	0.35 (1 in 285)
Urinary bladder	Male	1.71 (1 in 59)	4.13 (1 in 24)	0.46 (1 in 216)	0.94 (1 in 107)
	Female	0.76 (1 in 131)	1.22 (1 in 82)	0.34 (1 in 294)	0.34 (1 in 292)
Pancreas	Male	1.48 (1 in 68)	1.48 (1 in 67)	1.30 (1 in 77)	1.33 (1 in 75)
	Female	1.59 (1 in 63)	1.42 (1 in 70)	1.50 (1 in 67)	1.28 (1 in 78)
Non-Hodgkin lymphoma	Male	1.30 (1 in 77)	2.46 (1 in 41)	0.48 (1 in 210)	0.93 (1 in 108)
	Female	1.14 (1 in 88)	2.03 (1 in 49)	0.39 (1 in 259)	0.75 (1 in 133)
Uterine cervix	Female	0.84 (1 in 119)	0.65 (1 in 153)	0.40 (1 in 250)	0.21 (1 in 479)
Thyroid	Male	0.25 (1 in 398)	0.56 (1 in 179)	0.04 (1 in 2,846)	0.06 (1 in 1,815)
	Female	0.86 (1 in 117)	1.61 (1 in 62)	0.07 (1 in 1,457)	0.07 (1 in 1,484)
Liver & bile duct	Male	1.28 (1 in 78)	1.03 (1 in 97)	1.00 (1 in 100)	0.78 (1 in 129)
	Female	0.48 (1 in 209)	0.43 (1 in 235)	0.46 (1 in 220)	0.41 (1 in 243)
Leukemia	Male	1.00 (1 in 100)	1.67 (1 in 60)	0.70 (1 in 143)	1.07 (1 in 94)
	Female	0.80 (1 in 125)	1.18 (1 in 85)	0.55 (1 in 180)	0.74 (1 in 135)

*All sites excludes basal and squamous cell skin cancers and in situ cancers except urinary bladder.
Note: Percentages and "1 in" numbers may not be equivalent due to rounding.

Source: DevCan: Probability of Developing or Dying of Cancer Software, Version 6.6.1.¹²⁸

What Is Cancer?

Cancer is a group of diseases characterized by uncontrolled growth and spread of abnormal cells. If the spread is not controlled, it can result in death. Cancer is caused by both external factors (tobacco, infectious organisms, poor nutrition, chemicals, and radiation) and internal factors (inherited genetic mutations, hormones, immune conditions, and mutations that occur from metabolism). These causal factors may act together or in sequence to initiate or promote the development of cancer. Ten or more years often pass between exposure to external factors and detectable cancer. Most cancers are treated with surgery, radiation, chemotherapy, hormone therapy, biologic therapy, targeted therapy, or some combination of these.

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 are thought to reflect social and economic disparities more than biological differences associated with race. Socioeconomic disparities include inequities in work, wealth, income, education, housing

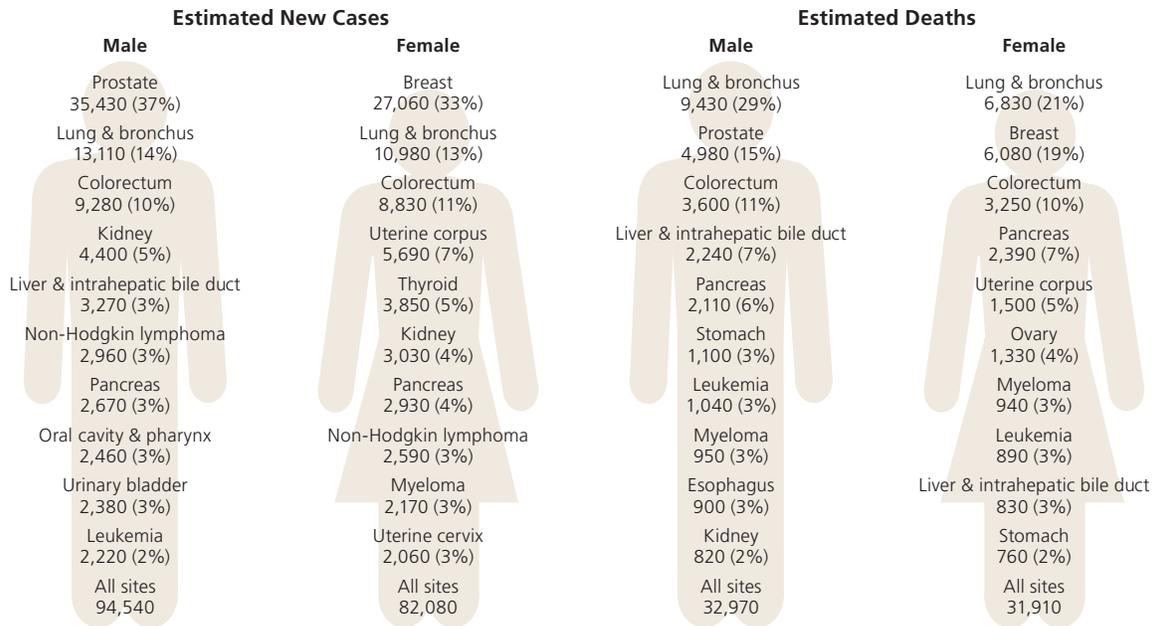
and overall standard of living, as well as barriers to high-quality cancer prevention, early detection, and treatment services.

Although the overall racial disparity in cancer death rates is decreasing, in 2009, the death rate for all cancers combined continued to be 31% higher in African American men and 15% higher in African American women than in white men and women, respectively.⁴ Similarly, African Americans bear a disproportionately high burden of other diseases. For example, the death rate for heart diseases is 34% higher in African Americans than in whites (Table 1, page 1). Consequently, life expectancy is lower for African Americans than whites among both men (70.6 vs. 76.1 years) and women (77.2 vs. 80.9 years).⁵

Can Cancer Be Prevented?

A substantial proportion of cancer cases and deaths could be prevented with the adoption of healthier lifestyles, such as avoiding tobacco products, maintaining a healthy body weight, and being physically active. All cancers caused by tobacco and heavy alcohol use could be completely prevented. Many of the cancers

Figure 2. Leading Sites of New Cancer Cases and Deaths among African Americans, 2013 Estimates*



*Excludes basal cell and squamous cell skin cancers and in situ carcinoma except urinary bladder.
Note: Percentages may not total 100% due to rounding.

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caused by other external factors are also preventable. For example, a large proportion of colorectal cancers could be prevented by avoiding risk factors such as obesity, physical inactivity, and high consumption of red and processed meat. In addition, many of the cancers caused by infectious agents could be prevented. For example, cervical cancers, which are caused by persistent infection with human papillomavirus (HPV), could be prevented by vaccination against cancer-causing types of HPV. In addition to avoiding risk factors, cancers of the colon, rectum, and cervix can also be prevented through screening, which allows for the removal of precancerous lesions.

What Is the Risk of Developing or Dying of Cancer?

Although anyone can develop cancer, risk generally increases with age because most cancers require many years to develop. Overall, about 1 in 2 African American men and 1 in 3 African American women will be diagnosed with cancer in their lifetime (Table 2). The lifetime probability of dying from cancer is about 1 in 4 for African American men and 1 in 5 for African American women.

How Many African Americans Alive Today Have Ever Had Cancer?

The National Cancer Institute estimates that approximately 1,045,935 African Americans with a history of cancer were alive on January 1, 2009.⁶ Some of these individuals were cancer-free,

while others still had evidence of cancer and may have been undergoing treatment.

How Many New Cases and Deaths Are Expected to Occur among African Americans in 2013?

New cases: About 94,540 cancer cases in men and 82,080 cases in women are expected to be newly diagnosed among African Americans in 2013 (Figure 2). Prostate cancer is expected to be the most commonly diagnosed cancer in men, and breast cancer the most common in women. Cancers of the lung and colorectum will be the second- and third-most commonly diagnosed cancers in both African American men and women. The four most common cancers (breast, prostate, colorectal, and lung) account for more than half of all cancer cases among African Americans.

Deaths: About 32,970 African American men and 31,910 African American women are expected to die from cancer in 2013 (Figure 2). Lung cancer accounts for the largest number of cancer deaths among men (29%) and women (21%), followed by prostate cancer in men (15%) and breast cancer in women (19%) (Figure 2). For both men and women, colorectal cancer is expected to be the third leading cause of cancer death.

How Do Death Rates Vary by State?

Table 3 (page 4) shows variations by state in the death rates for all cancers combined and selected cancer sites. For all cancers combined, the highest death rates among African American men

Table 3. Death Rates* for Selected Cancers in African American Males and Females by State, 2005-2009

	All Cancers		Lung & Bronchus		Colorectum		Prostate	Breast	Uterine Cervix
	Male	Female	Male	Female	Male	Female	Male	Female	Female
Alabama	329.9	172.0	94.3	31.9	33.4	20.9	68.4	32.1	5.3
Alaska	255.4	111.3	†	†	†	†	†	†	†
Arizona	201.5	140.2	56.4	33.1	22.2	13.3	31.6	27.1	†
Arkansas	341.6	187.7	111.1	39.7	33.6	24.4	63.1	32.6	5.8
California	273.3	181.6	72.8	40.4	28.1	20.3	53.9	32.7	3.3
Colorado	228.4	148.8	54.4	31.4	23.8	17.8	40.5	22.9	†
Connecticut	239.3	156.3	61.3	31.0	21.2	16.1	43.5	27.2	†
Delaware	263.6	173.3	74.6	48.4	22.2	16.7	50.8	22.6	†
District of Columbia	318.7	186.3	82.3	40.8	30.7	21.4	55.4	32.4	4.1
Florida	253.5	152.0	67.7	26.3	25.4	18.1	52.7	30.3	4.5
Georgia	287.4	159.0	79.6	31.5	28.6	19.0	60.3	29.7	4.3
Hawaii	154.2	68.4	†	†	†	†	†	†	†
Illinois	315.1	198.7	90.7	49.1	33.8	23.2	58.5	34.4	5.3
Indiana	300.3	197.3	97.5	50.6	31.0	21.2	45.3	34.0	3.8
Iowa	340.2	182.3	113.2	43.8	41.6	24.4	64.7	28.4	†
Kansas	307.7	197.3	92.0	49.0	35.3	22.1	51.0	28.9	†
Kentucky	329.3	197.2	114.3	58.1	32.4	24.6	54.3	32.2	3.8
Louisiana	331.5	191.4	104.0	40.6	35.6	21.8	52.4	35.0	5.7
Maryland	276.9	172.9	74.1	38.0	30.6	19.0	52.2	30.9	3.7
Massachusetts	240.3	154.0	62.5	28.3	21.3	15.1	42.6	27.5	†
Michigan	292.7	192.9	88.7	47.1	31.2	20.0	43.9	34.3	4.3
Minnesota	298.7	171.5	78.2	40.5	22.7	10.4	44.6	28.1	†
Mississippi	346.7	179.3	108.1	35.7	35.6	21.8	66.3	34.2	6.7
Missouri	315.7	188.2	92.5	47.0	32.3	20.6	50.9	32.2	5.5
Nebraska	268.9	202.4	75.5	49.6	30.4	29.2	40.4	23.7	†
Nevada	220.0	153.9	56.5	38.4	23.2	19.2	36.8	26.0	†
New Jersey	264.2	174.1	69.0	36.5	28.9	21.2	49.0	31.1	4.0
New Mexico	159.0	120.7	52.7	†	†	†	†	†	†
New York	215.5	145.6	51.6	28.2	23.1	16.4	45.0	27.2	4.5
North Carolina	306.6	169.6	91.0	33.1	29.8	18.7	59.2	31.3	3.9
Ohio	316.2	194.4	98.6	50.1	31.8	19.6	53.4	33.2	3.8
Oklahoma	298.6	182.7	88.7	41.6	35.1	19.6	54.3	33.5	†
Oregon	220.8	156.5	77.1	40.9	†	†	36.7	24.7	†
Pennsylvania	312.2	196.4	89.2	53.0	33.1	18.9	54.5	33.0	3.8
Rhode Island	225.0	147.0	66.4	45.6	†	†	†	†	†
South Carolina	311.0	167.8	87.8	30.8	30.6	19.8	58.4	30.6	4.9
Tennessee	339.4	195.5	104.7	45.7	36.4	23.2	61.9	36.2	5.4
Texas	301.4	181.9	93.7	39.8	34.0	21.7	45.4	34.2	4.1
Utah	163.5	101.7	†	†	†	†	†	†	†
Virginia	305.2	179.0	89.5	38.8	29.9	19.8	55.4	34.2	3.4
Washington	253.1	173.2	67.3	45.0	26.6	18.2	51.4	26.2	†
West Virginia	279.6	180.7	85.0	43.0	34.4	23.7	59.8	30.8	†
Wisconsin	333.6	196.5	110.5	49.0	27.3	21.7	48.5	27.4	4.5
US	288.3	174.6	82.6	38.0	29.8	19.8	53.1	31.6	4.3

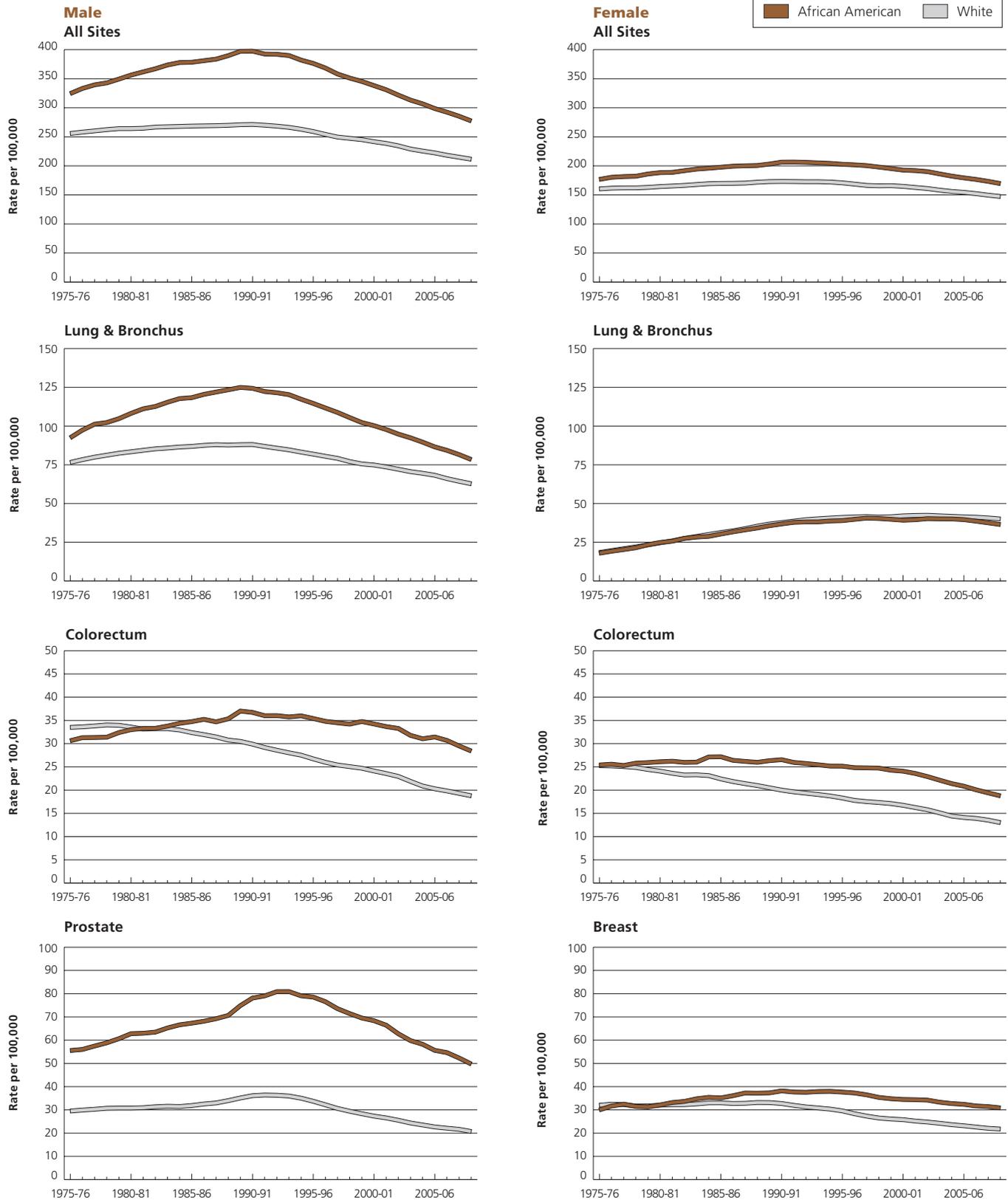
* Rates are per 100,000 and age adjusted to the 2000 US standard population.

† Rates are suppressed when based on fewer than 25 deaths.

Note: Idaho, Maine, New Hampshire, North Dakota, South Dakota, Vermont, and Wyoming are not included in the table because fewer than 25 cancer deaths occurred in these states among both African American men and women during 2005-2009.

Source: National Center for Health Statistics, Centers for Disease Control and Prevention as provided by the SEER program in the SEER*Stat database.⁴

Figure 3. Trends in Death Rates* for Selected Cancer Sites among African Americans and Whites, US, 1975 to 2009



*Rates are per 100,000 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 as provided by the SEER program in the SEER*Stat database.⁴

Table 4. Comparison of Cancer Incidence Rates between African Americans and Whites, US, 2005-2009

Male					Female				
Cancer	African American Rate*	White Rate*	Difference†	Rate Ratio‡	Cancer	African American Rate*	White Rate*	Difference†	Rate Ratio‡
Kaposi sarcoma	1.8	0.7	1.1	2.66	Kaposi sarcoma	0.2	0.1	0.1	3.59
Myeloma	13.6	6.6	7.0	2.06	Myeloma	9.8	4.1	5.7	2.41
Stomach	16.3	8.4	7.9	1.94	Stomach	8.2	4.0	4.2	2.04
Prostate	228.8	140.3	88.5	1.63	Esophagus	2.7	1.8	0.9	1.45
Liver & intrahepatic bile duct	14.9	9.2	5.7	1.62	Liver & intrahepatic bile duct	4.2	3.1	1.1	1.36
Larynx	10.4	6.6	3.8	1.57	Pancreas	13.9	10.2	3.7	1.36
Breast	1.9	1.3	0.6	1.40	Uterine cervix	10.5	7.8	2.7	1.34
Pancreas	16.9	13.4	3.5	1.26	Colorectum	48.0	39.2	8.8	1.22
Colorectum	65.1	52.8	12.3	1.23	Kidney & renal pelvis	12.1	11.2	0.9	1.08
Lung & bronchus	99.3	82.6	16.7	1.20	Breast	118.1	123.2	-5.1	0.96
Kidney & renal pelvis	23.3	21.2	2.1	1.09	Uterine corpus	22.5	24.9	-2.4	0.91
Esophagus	9.2	8.8	0.4	1.04	Lung & bronchus	51.3	57.7	-6.4	0.89
Oral cavity & pharynx	15.7	16.6	-0.9	0.95	Hodgkin lymphoma	2.2	2.6	-0.4	0.85
Hodgkin lymphoma	3.0	3.3	-0.3	0.93	Oral cavity & pharynx	5.3	6.2	-0.9	0.85
Leukemia	12.2	16.4	-4.2	0.75	Leukemia	7.7	9.9	-2.2	0.78
Non-Hodgkin lymphoma	17.0	23.8	-6.8	0.71	Ovary	9.5	12.9	-3.4	0.74
Brain & other nervous system	4.7	8.4	-3.7	0.56	Non-Hodgkin lymphoma	11.6	16.7	-5.1	0.70
Thyroid	3.2	6.3	-3.1	0.51	Urinary bladder	6.6	9.7	-3.1	0.68
Urinary bladder	19.4	39.5	-20.1	0.49	Brain & other nervous system	3.6	6.1	-2.5	0.60
Testis	1.3	6.2	-4.9	0.21	Thyroid	10.8	18.6	-7.8	0.58
Melanoma of the skin	1.1	27.2	-26.1	0.04	Melanoma of the skin	1.0	17.8	-16.8	0.05
All Sites	613.1	533.7	79.4	1.15	All Sites	391.7	418.3	-26.6	0.94

Note: Sites listed in descending order by rate ratio. *Rates are per 100,000 and age adjusted to the 2000 US standard population. †Difference is the rate in African Americans minus the rate in whites. ‡Rate ratio is the unrounded rate in African Americans divided by the unrounded rate in whites.

Source: North American Association of Central Cancer Registries.²⁹

are found in Mississippi and Arkansas. Among African American women, the highest death rates are reported in Nebraska and Illinois.

How Has the Occurrence of Cancer Changed over Time?

Trends in cancer incidence rates: Incidence rates for all cancers combined increased from the mid-1970s to the early 1990s in African Americans; rates were higher and increased faster in males than in females. Since the early 1990s, rates have generally decreased in males and have been stable in females.⁶ During the most recent time period (2000-2009), overall cancer incidence rates decreased faster in African American males (1.4% per year) compared to white males (1.2%).⁷ The declines in overall cancer incidence largely involved cancers of the lung and prostate. Incidence rates declined slightly among white females (0.3% per year) and were stable among African American females during 2000-2009.⁷

Trends in cancer death rates: Similar to whites, death rates among African Americans for all cancers combined have been

decreasing since the early 1990s, with larger declines in men than in women (Figure 3, page 5). From 2000 to 2009, the death rate among males declined faster among African Americans than whites (2.4% vs. 1.7% per year), but among females, the rate of decline was similar (1.5% vs. 1.4% per year, respectively). As a result, the overall racial disparity has narrowed, particularly in males.⁷

Despite these declines, death rates for all cancers combined continued to be higher among African Americans than whites during 1975-2009, with the gap much larger for men than for women (Figure 3, page 5). Notably, the higher death rate in African American women compared to white women occurs despite a lower cancer incidence rate. The racial difference in overall cancer death rates is due largely to cancers of the breast and colorectum in women and cancers of the prostate, lung, and colorectum in men. In recent years, death rates for lung and other smoking-related cancers and for prostate cancer have decreased faster in African Americans than whites, which has contributed to the recent narrowing of the racial disparity in overall cancer death rates. In fact, lung (male and female) and cervical cancer

Table 5. Comparison of Cancer Death Rates between African Americans and Whites, US, 2005-2009

Male					Female				
Cancer	African American Rate*	White Rate*	Difference†	Rate Ratio‡	Cancer	African American Rate*	White Rate*	Difference†	Rate Ratio‡
Prostate	53.1	21.7	31.4	2.44	Stomach	4.8	2.2	2.6	2.16
Stomach	10.3	4.3	6.0	2.37	Myeloma	5.4	2.5	2.9	2.15
Larynx	4.2	2.0	2.2	2.16	Cervix uteri	4.3	2.2	2.1	1.97
Myeloma	8.0	4.1	3.9	1.95	Corpus & uterus, NOS	7.3	3.9	3.4	1.88
Liver & intrahepatic bile duct	11.9	7.4	4.5	1.60	Colorectum	19.8	13.6	6.2	1.46
Oral cavity & pharynx	5.7	3.6	2.1	1.56	Esophagus	2.2	1.6	0.6	1.42
Colorectum	29.8	19.5	10.3	1.53	Breast	31.6	22.4	9.2	1.41
Lung & bronchus	82.6	65.3	17.3	1.26	Pancreas	12.6	9.3	3.3	1.35
Pancreas	15.5	12.4	3.1	1.25	Liver & intrahepatic bile duct	4.0	3.1	0.9	1.30
Esophagus	8.2	7.9	0.3	1.04	Urinary bladder	2.6	2.2	0.4	1.20
Kidney & renal pelvis	6.0	5.9	0.1	1.02	Kidney & renal pelvis	2.6	2.7	-0.1	0.99
Hodgkin lymphoma	0.5	0.5	0.0	0.96	Lung & bronchus	38.0	40.8	-2.8	0.93
Leukemia	8.5	9.9	-1.4	0.85	Leukemia	4.8	5.5	-0.7	0.88
Urinary bladder	5.6	8.0	-2.4	0.70	Hodgkin lymphoma	0.3	0.3	0.0	0.86
Non-Hodgkin lymphoma	6.1	8.7	-2.6	0.70	Ovary	6.8	8.6	-1.8	0.80
Brain & other nervous system	3.1	5.6	-2.5	0.55	Non-Hodgkin lymphoma	3.6	5.4	-1.8	0.67
Melanoma of the skin	0.5	4.6	-4.1	0.12	Brain & other nervous system	2.1	3.8	-1.7	0.54
					Melanoma of the skin	0.4	2.0	-1.6	0.19
All sites	288.3	216.7	71.6	1.33	All sites	180.6	155.0	25.6	1.17

Note: Sites listed in descending order by rate ratio. *Rates are per 100,000 and age adjusted to the 2000 US standard population. †Difference is the rate in African Americans minus the rate in whites. ‡Rate ratio is the unrounded rate in African Americans divided by the unrounded rate in whites.

Source: National Center for Health Statistics, Centers for Disease Control and Prevention as provided by the SEER program in the SEER*Stat database.⁴

death rates have recently converged for young African Americans and whites.^{8,9} In contrast, the racial disparity has widened for colorectal cancer in both men and women and for breast cancer in women – cancers that are most affected by access to screening and treatment (Figure 3, page 5).

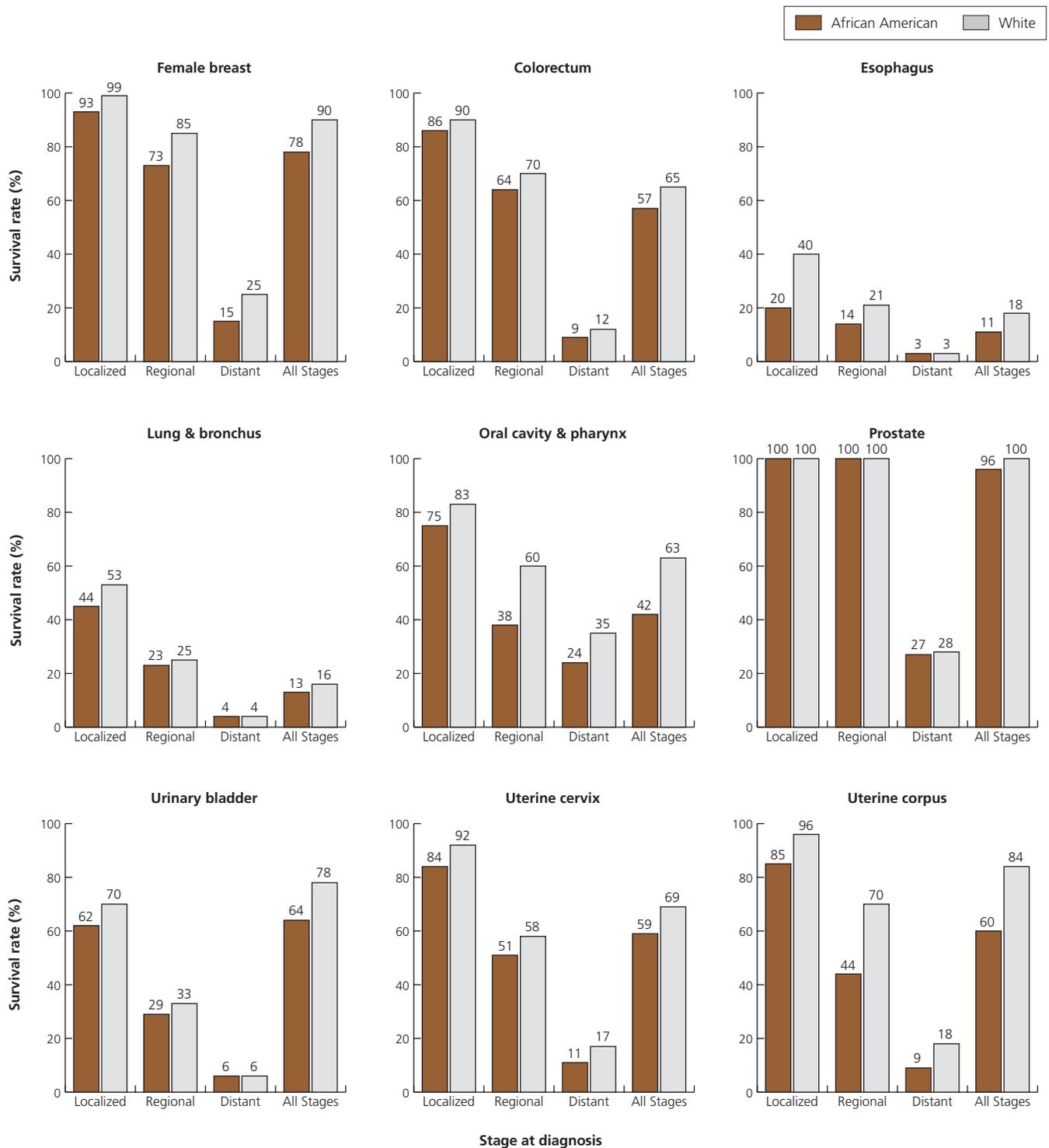
Major Differences in the Cancer Burden between African Americans and Whites

Incidence and death rates: Tables 4 and 5 show differences in cancer incidence and death rates between African Americans and whites in the US using whites as a reference. Rate ratios greater than 1 indicate cancers for which the rate is higher in African Americans compared to whites, and ratios less than 1 indicate cancers for which the rate is lower in African Americans. Among males, incidence and death rates are higher among African Americans than whites for all cancers combined and for the most common cancers (including prostate, lung, colorectal, kidney, and pancreas). In contrast, African American women have a lower risk of cancer overall than white women, largely due to lower incidence rates for the two most common cancers, breast and lung. However, African American women have higher death rates overall and for breast and several other cancer sites.

Incidence rates for Kaposi sarcoma (KS), stomach cancer, and multiple myeloma are about twice as high in African Americans compared to whites (Table 4). Although KS is now a relatively rare cancer, incidence rates are 2.7 times higher in African American men compared to white men and 3.6 times higher in African American women compared to white women. In the US, KS primarily occurs among people infected with human immunodeficiency virus (HIV). Higher rates of stomach cancer in African Americans are limited to non-cardia gastric cancers (cancers that occur in all areas of the stomach other than the uppermost portion, where the stomach meets the esophagus). This disparity may reflect higher rates of *Helicobacter pylori* infection among African Americans, which is the most important risk factor for stomach cancer.¹⁰ High consumption of salt and grilled meat also increases risk.¹¹ The reasons for higher rates of myeloma among African Americans are not known.¹²

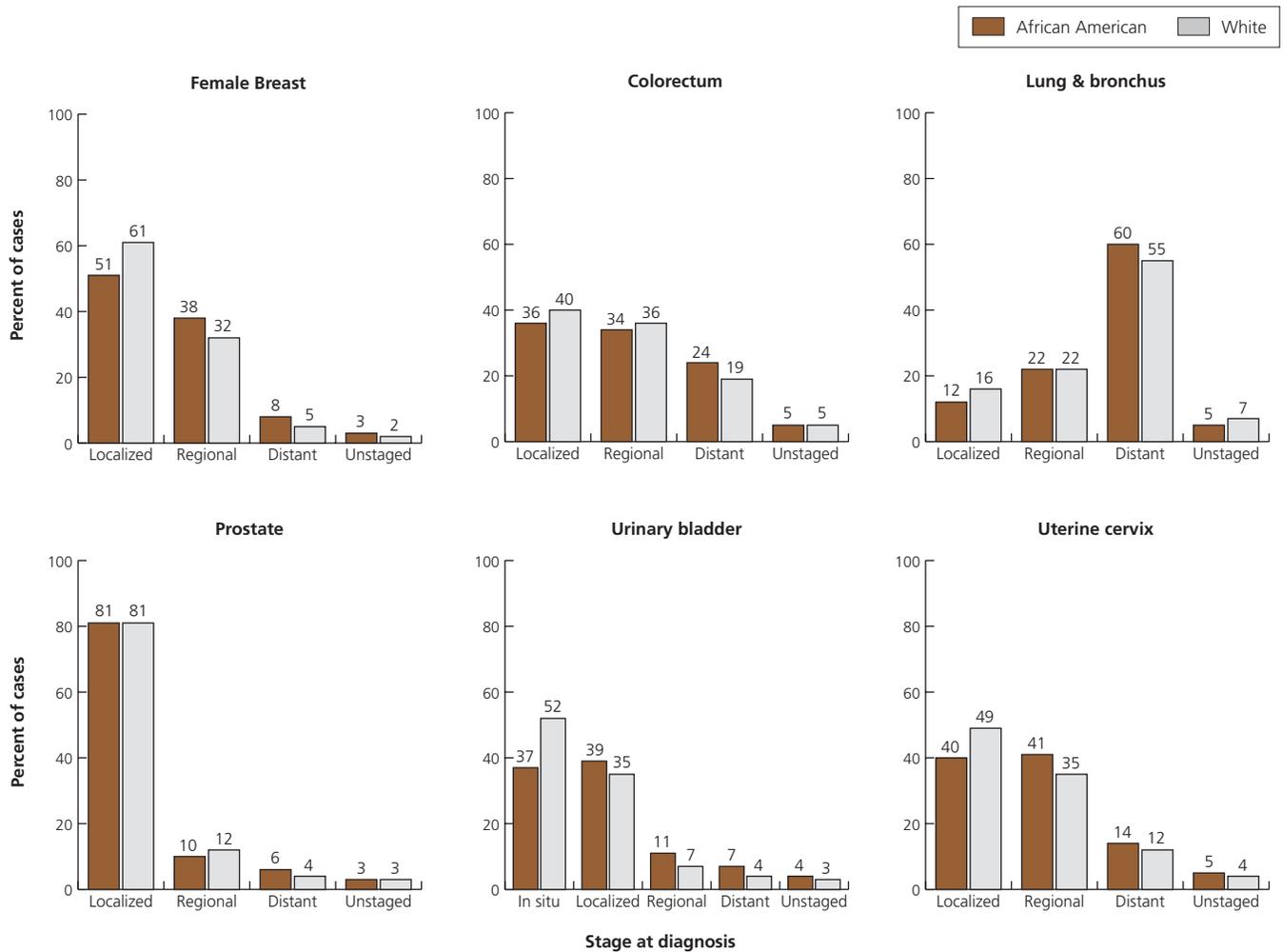
Cancer survival and stage distribution: Five-year relative survival rates indicate the likelihood of surviving at least 5 years from the time of diagnosis, taking into account deaths from other causes. Survival rates are commonly used to monitor progress in the early detection and treatment of cancer. The overall 5-year relative survival rate among African Americans has improved from approximately 27% during 1960-1963 to 60%

Figure 4. Five-year Relative Survival Rates* for Selected Cancers by Race and Stage, US, 2002-2008



*Survival rates are based on patients diagnosed between 2002 and 2008 and followed through 2009. **Local:** An invasive cancer confined entirely to the organ of origin. **Regional:** A malignant cancer that either 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 malignant 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. **Source:** Howlader et al, 2012.⁶

Figure 5. Stage Distribution for Selected Cancers in African Americans and Whites, 2002-2008



Percentages may not total 100% due to rounding.

Source: Howlader et al, 2012.⁶

during 2002-2008.⁶ However, African Americans continue to have lower 5-year survival than whites overall (60% versus 69%) and for each stage of diagnosis for most cancer sites (Figure 4). Much of the difference in survival is believed to be due to barriers that limit access to timely, high-quality medical care.¹³⁻¹⁸ Furthermore, African Americans are more likely to be diagnosed at a later stage of disease (Figure 5), when treatment choices are more limited and less effective. These issues are recognized to largely reflect socioeconomic disparities associated with race. Some studies suggest that African Americans who receive cancer treatment and medical care similar to that of whites experience similar outcomes.^{14,18} However, other studies report that racial disparities persist even after accounting for socioeconomic factors and access to care.¹⁹⁻²² A higher prevalence of comorbid conditions (health conditions in addition to cancer)

among African American patients, which can affect delivery of optimal treatment, are also thought to contribute to differences in survival.^{23,24} Although there is limited evidence that differing responses to cancer therapy contribute to racial disparities in survival, African Americans and other racial minorities are underrepresented in clinical trials, which makes it more difficult to assess the efficacy of cancer therapies among different racial/ethnic groups.^{25,26}

Although 5-year relative survival rates for all cancers combined are useful in monitoring trends over time and for comparing survival differences between groups, they are not useful for predicting individual prognosis because many important factors that influence individual survival are not reflected in the estimate. Five-year relative survival rates for specific cancers and factors that influence survival are discussed in the next section.

Selected Cancers

Female Breast

New Cases

Breast cancer is the most commonly diagnosed cancer among African American women and an estimated 27,060 new cases are expected to occur in 2013 (Figure 2, page 3). Similar to the pattern among white women, breast cancer incidence rates among African American women increased rapidly during the 1980s (Figure 6), largely due to increased detection as the use of mammography screening increased, then rates increased more gradually during the 1990s.⁶ In the most recent time period (2000-2009), breast cancer incidence rates increased slightly among African American women (0.7% per year) and decreased among white women (1.0% per year).⁷ The decrease in white women during this time period in part reflects the sharp decline between 2002 and 2003 that was related to a drop in use of menopausal hormones.²⁷ A similar drop in incidence was not observed in African American women among whom menopausal hormone use is historically lower.²⁸

During 2005-2009, the average annual breast cancer incidence rate in African American women was 118.1 cases per 100,000 women, 4% lower than in white women (123.2) (Table 4, page 6). However, among younger women (less than 45 years), incidence rates are higher among African Americans than whites.²⁹ The median age of diagnosis is 57 years for African American women, compared to 62 years for white women.⁶

Breast cancers diagnosed in African American women are more likely to have factors associated with poor prognosis, such as higher grade, advanced stage, and negative hormone (estrogen [ER] and progesterone [PR]) receptor status, than those diagnosed in white women.³⁰⁻³² Furthermore, premenopausal African American women in particular appear to have a higher risk for triple-negative (ER negative, PR negative, and human epidermal growth factor receptor [HER] 2 negative) and basal-like breast cancers, which are distinct but overlapping aggressive subtypes of breast cancer that are associated with shorter survival.^{30,33} Studies have shown that certain reproductive patterns that are more common among African American women (including giving birth to more than one child, younger age at menarche, early age at first pregnancy), may be associated with increased risk for aggressive subtypes of breast cancer.³⁴⁻³⁷

All women can help reduce their risk of breast cancer by avoiding weight gain and obesity (for postmenopausal breast cancer), engaging in regular physical activity, and minimizing alcohol intake. Women should consider the increased risk of breast

cancer associated with combined estrogen and progestin menopausal hormone therapy use when evaluating treatment options for menopausal symptoms.

Deaths

Breast cancer is the second most common cause of cancer death among African American women, surpassed only by lung cancer. An estimated 6,080 deaths from breast cancer are expected to occur among African American women in 2013 (Figure 2, page 3). Breast cancer death rates among African American women increased from 1975 to 1992, but declined thereafter as a result of improvements in both early detection and treatment.³⁸ However, breast cancer death rates have declined more slowly in African American women (1.4% per year from 2000-2009) compared to white women (2.1% per year), which has resulted in a growing disparity (Figure 3, page 5).

During the early 1980s, breast cancer death rates for white and African American women were similar; yet in the most recent time period (2005-2009), African American women had a 41% higher death rate than white women, despite a lower incidence rate (Tables 4 and 5, pages 6 and 7, respectively). Factors that contribute to higher death rates among African American women include differences in access to and utilization of early detection and treatment, as well as differences in tumor characteristics; however, it is believed that much of this disparity remains unexplained.³⁹⁻⁴¹

Survival and Stage Distribution

The overall 5-year relative survival rate for breast cancer diagnosed in 2002-2008 among African American women was 78%, compared to 90% among white women (Figure 4, page 8). This difference can be attributed to both later stage at detection and poorer stage-specific survival among African American women. Only about half (51%) of breast cancers diagnosed among African American women are at a local stage, compared to 61% among white women (Figure 5, page 9).

Later stage at diagnosis among African American women has been largely attributed to lower frequency of and longer intervals between mammograms, and lack of timely follow-up of suspicious results.^{42,43} Lower stage-specific survival has been explained in part by unequal receipt of prompt, high-quality treatment among African American women compared to white women.⁴⁴⁻⁴⁶ There is also evidence that aggressive tumor characteristics are more common in African American than white women.^{30,33} Other studies suggest factors associated with socioeconomic status may influence the biological behavior of breast cancer.^{47,48} Poverty likely influences disease pathology and genetic markers of disease through lifelong dietary and environmental exposures, physical activity, and reproductive behaviors.^{32,49,50}

For more information about breast cancer, see the American Cancer Society publication *Breast Cancer Facts & Figures*, available online at cancer.org.

Cervix

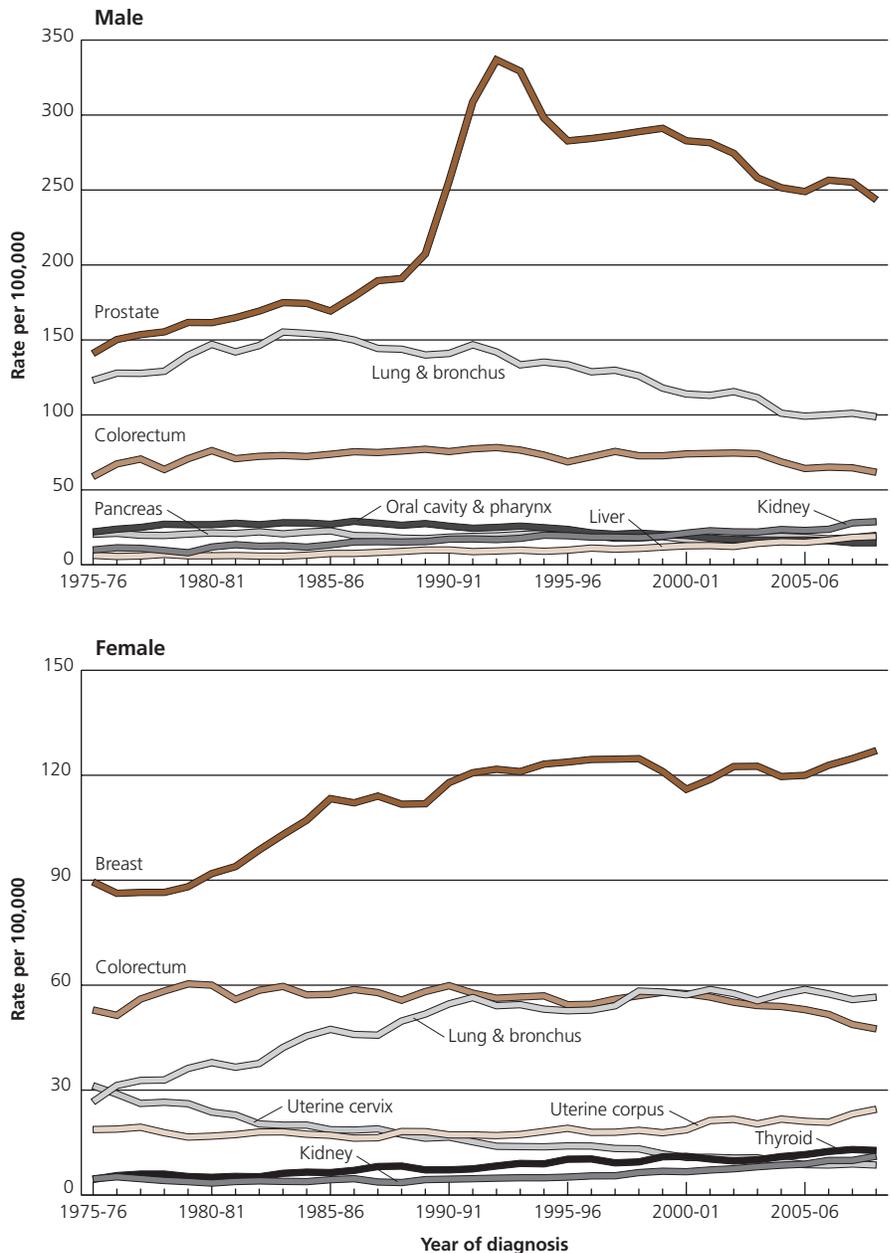
New Cases

An estimated 2,060 cases of invasive cervical cancer are expected to be newly diagnosed among African American women in 2013 (Figure 2, page 3). The incidence rate of cervical cancer is 34% higher in African American than white women (Table 4, page 6), though the racial disparity has narrowed substantially as rates have dropped faster among African American than white women in recent years.⁷ Indeed, among women under age 50, incidence rates of cervical cancer have recently converged.⁹

Cervical cancer is one of only two cancers (colorectal is the other) that can actually be prevented through screening. As Pap screening has become more common, most cervical abnormalities are detected at a pre-invasive stage rather than as invasive cancer. For more information on cervical cancer screening, see page 15.

Cervical cancer is caused by persistent infection with certain types of human papillomavirus (HPV). The Food and Drug Administration has approved two vaccines for the prevention of the most common cancer-causing HPV infections. The Advisory Committee on Immunization Practices recommends routine HPV vaccination for all adolescent girls (ages 11 to 12, but as early as age 9). Girls ages 13 to 26 years who have not yet started a vaccine series or who have started but have not completed the series should also be vaccinated. Vaccinated women should continue getting Pap tests because these vaccines target only the most common strains of cancer-causing HPV and do not provide protection for those already infected with HPV. See page 14 for more information on HPV vaccination.

Figure 6. Age-adjusted Incidence Rates* for African Americans by Site and Sex, US, 1975 to 2009



*Rates are delay adjusted and age adjusted to the 2000 US standard population and are 2-year moving averages.
Source: Surveillance, Epidemiology, and End Results (SEER) Program, 9 SEER Registries, Division of Cancer Control and Population Sciences, National Cancer Institute.¹²⁷

Deaths

An estimated 720 deaths from cervical cancer are expected among African American women in 2013. Cervical cancer death rates have declined steadily over the past several decades due to the prevention and early detection of cervical cancer as a result of screening. In fact, during 2000 to 2009, rates decreased faster in African American women than among white women (2.6%

per year vs. 1.9% per year, respectively).⁷ Despite this progress, African American women remain nearly twice as likely to die from cervical cancer as white women (Table 4, page 6). Higher death rates among African American women have been largely attributed to socioeconomic disparities and a lack of access to care.⁵¹ It has been estimated that as many as 80% of deaths from cervical cancer could be prevented by regular screening coupled with adequate patient follow-up and treatment.⁵²

Survival and Stage Distribution

The overall 5-year relative survival rate for cervical cancer among African American women is 59%, compared to 69% among white women (Figure 4, page 8). African American women are also more likely to be diagnosed with regional- or distant-stage disease (Figure 5, page 9) despite similar screening rates reported in national surveys (Table 6, page 15). Racial differences in stage at diagnosis may be due to differences in the quality of screening and follow-up after abnormal results.⁵³⁻⁵⁵ Lower socioeconomic status is also associated with lower screening rates, increased risk of late-stage diagnosis, and poorer survival.⁵⁶⁻⁵⁸

Colon and Rectum

New Cases

An estimated 18,110 cases of colorectal cancer are expected to occur among African Americans in 2013 (Figure 2, page 3). Colorectal cancer is the third most common cancer in both African American men and women. From 2000 to 2009, incidence rates for colorectal cancer decreased by 1.9% per year among African American men and by 2.1% per year among African American women, compared to 3.5% and 3.0% per year among white men and women, respectively.⁷

Prior to 1989, incidence rates were predominantly higher in white men than in African American men and were similar for women of both races. Since 1989, however, incidence rates have been higher for African Americans than whites in both men and women. This crossover may reflect racial differences in the trends of risk factors for colorectal cancer and/or greater access to and utilization by whites of recommended screening tests that detect and remove precancerous polyps.⁵⁹

Major modifiable factors that increase risk for colorectal cancer include obesity, diabetes, high consumption of red or processed meats, alcohol consumption, and smoking. Studies consistently report that regular physical activity (occupational or recreational) is associated with a lower risk of colon cancer.⁶⁰ Non-modifiable risk factors for colorectal cancer include a personal or family history of adenomatous polyps or colorectal cancer and a personal history of chronic inflammatory bowel disease (Crohn disease or ulcerative colitis). Colorectal cancer risk is also increased by certain inherited genetic conditions, such as hereditary non-polyposis colorectal cancer (HNPCC), also known as Lynch syndrome, and familial adenomatous polyposis (FAP).

Screening tests that detect and remove adenomatous polyps are the most reliable method of preventing colorectal cancer. Colorectal cancer screening rates remain lower among African Americans compared to whites, 56% versus 62%, respectively (Table 6, page 15). The American Cancer Society has identified increasing colorectal screening as a priority for cancer prevention and control. For more information on colorectal cancer screening, see page 17.

Deaths

An estimated 6,850 deaths from colorectal cancer are expected to occur among African Americans in 2013 (Figure 2, page 3). Colorectal cancer is the third leading cause of cancer death in both African American men and women. Similar to the pattern for incidence rates, colorectal cancer mortality rates were historically higher in whites compared to African Americans, with the crossover occurring around 1979 for women and 1984 for men (Figure 3, page 5). Although colorectal cancer death rates have decreased in African American men and women over the past two decades, the declines began later and have been slower among African Americans compared to whites, resulting in a widening racial disparity. Recently, American Cancer Society researchers reported that the mortality gap is growing for each stage of the diagnosis, with the greatest disparity observed for distant-stage colorectal cancer.⁶¹ Differences in access to screening and treatment have been found to account for more than half of the racial disparity in colorectal cancer mortality rates.⁶²

Survival and Stage Distribution

The 5-year relative survival rate for colorectal cancer among African Americans improved from 46% in 1975-1977 to 57% in 2002-2008; however, this improvement was smaller than that for whites (51% to 65% over the same period).⁶ Some of the disparity in survival is due to a later stage at diagnosis among African Americans – 36% of colorectal cancers in African Americans are diagnosed at a localized stage, compared to 40% in whites (Figure 5, page 9). However, African Americans also have lower 5-year relative survival rates within each stage at diagnosis (Figure 4, page 8), largely due to less access to and receipt of high-quality treatment.⁶³⁻⁶⁵ For example, numerous studies document that African Americans with colorectal cancer are less likely than white patients to receive recommended surgical treatment and adjuvant chemotherapy.⁶⁶⁻⁶⁸

For more information on colorectal cancer, see the American Cancer Society publication *Colorectal Cancer Facts & Figures*, available online at cancer.org.

Lung and Bronchus

New Cases

An estimated 24,090 cases of lung cancer are expected to be newly diagnosed among African Americans in 2013, accounting

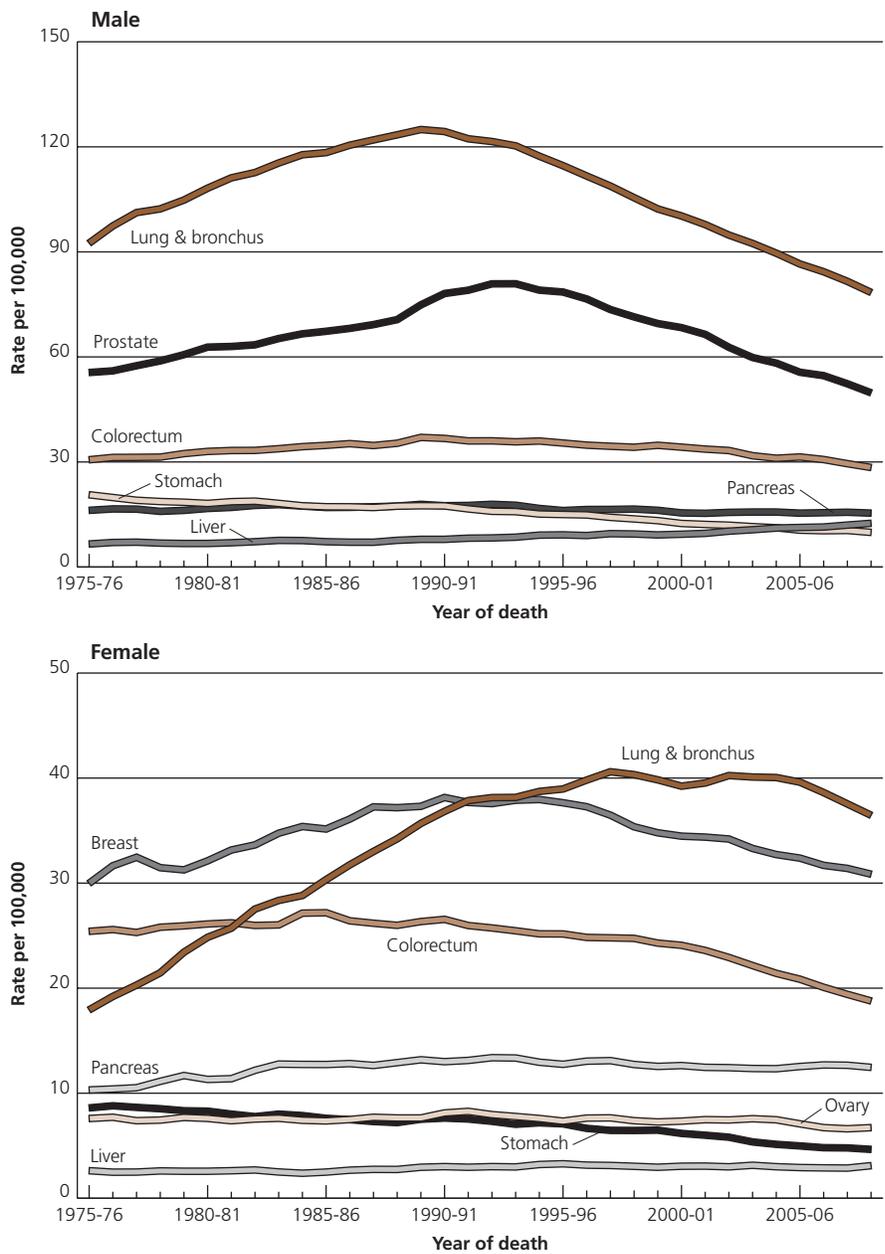
for about 14% of the cancer diagnoses in this group (Figure 2, page 3). Cancer of the lung is the second most common cancer in both African American men and women. The average incidence rate for cancers of the lung and bronchus during 2005-2009 was 20% higher in African American men than in white men, but 11% lower in African American women than white women (Table 4, page 6). From 2000 to 2009, lung cancer incidence rates decreased in African American men (2.4% per year) and white men (1.9%) and were stable in women of both races.⁷

Deaths

An estimated 16,260 deaths from lung cancer are expected to occur among African Americans in 2013 (Figure 2, page 3). Lung cancer kills more African Americans than any other cancer. Lung cancer death rates in men began to decline in 1990, with acceleration in the decline beginning in 1994. During 2000-2009, lung cancer death rates declined faster in both African American men and women (3.0% per year and 1.0% per year, respectively) compared to white men and women (2.2% per year and 0.6% per year, respectively).⁷ The declines in lung cancer death rates are the result of decreases in smoking prevalence over the previous 40 years.

Faster declines in lung cancer mortality rates in African American men compared to white men has led to a substantial reduction in the racial disparity (from an excess of 50% in 1990-1992 to 26% in 2005-2009) (Figure 3, page 5). In younger adults (under age 40), the disparity has been eliminated. The convergence of lung cancer death rates between young African Americans and whites likely reflects the greater decrease in smoking initiation among African Americans adolescents since the late 1970s.^{8,69} Smoking prevalence has also decreased more rapidly in African Americans ages 25 to 34 compared to whites.⁷⁰ If young African Americans continue to have low smoking prevalence as they age, racial differences in lung cancer death rates should be eliminated among men in the next 40 to 50 years.⁸

Figure 7. Age-adjusted Mortality Rates* for African Americans by Site and Sex, US, 1975 to 2009



*Rates are 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 as provided by the SEER program in the SEER*Stat database.⁴

Survival and Stage Distribution

The overall 5-year relative survival rate for lung cancer is lower in African Americans than in whites: 13% versus 16%, respectively (Figure 4, page 8). When lung cancer is detected at a localized stage, the 5-year relative survival rate among African Americans is 44%; however, only 12% of lung cancer cases are detected at this early stage because symptoms generally do not appear until

the disease is advanced. Studies have shown that when lung cancer is diagnosed early, African Americans are less likely than whites to receive surgery, the treatment with the best chance for cure, even after accounting for socioeconomic factors.⁷¹⁻⁷³ A recent study of early stage lung cancer treatment decisions found that perceptions of poor patient-physician communication and less diagnostic certainty were associated with a lower likelihood of surgery among both African American and white patients, while lack of a regular source of care and the presence of other illnesses were associated with lower surgical rates only for African Americans.⁷¹

Prostate

New Cases

An estimated 35,430 cases of prostate cancer are expected to be newly diagnosed among African American men in 2013, accounting for 37% of all cancers diagnosed in this group (Figure 2, page 3). It is estimated that 1 in 5 African American men will be diagnosed with prostate cancer in his lifetime (Table 2, page 2). During 2005-2009, the average annual prostate cancer incidence rate among African American men was 228.8 cases per 100,000 men, which was 63% higher than the rate in white men (Table 4, page 6). Similar to whites, incidence rates of prostate cancer in African American men increased sharply between 1989 and 1992, but have since been generally declining (Figure 6, page 11). The dramatic changes in prostate cancer incidence rates reflect the use of the prostate-specific antigen (PSA) blood test for the detection of prostate cancer. During 2000 to 2009, prostate cancer incidence rates dropped by 2.0% per year in African American men and 2.3% per year in whites.⁷

The only well-established risk factors for prostate cancer are age, race, and family history of the disease. African American men and Jamaican men of African descent have the highest prostate cancer incidence rates worldwide. The reasons for this are not clear, but in part may reflect genetic factors that vary in populations originating in different parts of the world.^{74,75}

Deaths

Prostate cancer is the second leading cause of cancer death in African American men. It is estimated that 4,980 deaths from prostate cancer will occur in African American men in 2013 (Figure 2, page 3). African American men have the highest mortality rate for prostate cancer of any racial or ethnic group in the US.⁶ The death rate for prostate cancer is 2.4 times higher in African American men than in white men (Table 5, page 7). This difference may reflect variations in treatment patterns by race, as well as higher incidence rates among African Americans.⁷⁶

After a long period of increase, prostate cancer death rates in African American men peaked in 1993 and declined steadily thereafter (Figure 7, page 13). Between 2000 and 2009, the death rate for prostate cancer decreased faster in African American men than white men (3.7% per year vs. 3.4% per year, respectively) (Figure 3, page 5).⁷ Factors that may have contributed to the decrease in prostate cancer mortality include improved surgical and radiologic treatment, the use of hormonal therapy for advanced-stage disease, and early detection by PSA.⁷⁷⁻⁸³ However, the contribution of PSA testing is not clear. Recently released long-term results from a large, US-based randomized trial indicated a lack of benefit of PSA testing in reducing deaths from prostate cancer, while two European trials showed a modest benefit.⁸⁴⁻⁸⁶

Survival and Stage Distribution

The overall 5-year relative survival rate for prostate cancer among African Americans is 96%, compared to nearly 100% among whites (Figure 4, page 8). Ninety-one percent of all prostate cancers among African Americans are diagnosed at a local or regional stage, compared to 93% in whites (Figure 5, page 9); the 5-year relative survival rate for African Americans whose tumors are diagnosed at these early stages approaches 100%. Among African American men, the 5-year survival rate drops to 28% when the cancer has spread to distant sites (compared to 27% in white men).

For more information on prostate cancer, see the Special Section of the American Cancer Society publication *Cancer Facts & Figures 2010*, available online at cancer.org.

Cancer Prevention & Early Detection

Human Papillomavirus (HPV) Vaccination

Persistent infection with HPV, especially HPV 16 and HPV 18, causes many types of cancer, including cervical, anal, vaginal, vulvar, penile, and some head and neck cancers.^{87,88} The Food and Drug Administration has approved two vaccines for the prevention of the most common HPV infections. Gardasil protects

against four HPV types (HPV 16, 18, 11, and 6) and is approved for use in males and females; Cevaxix protects against two HPV types (HPV 16 and 18) and is approved for use in females. The Advisory Committee on Immunization Practices recommends routine HPV vaccination for all adolescent girls and boys (ages 11 to 12) and for those ages 13 to 26 who have not been previously vaccinated. Data from the 2011 National Immunization Survey

found that although HPV vaccine initiation was higher among African American adolescent girls (56%) compared to white girls (48%), completion of the 3-vaccine series among those who initiated immunization was lower among African Americans than whites (61% vs. 75%, respectively).⁸⁹ (These data are not available for boys because the recommendation to vaccinate boys is too recent.) It is important that vaccinated women continue getting Pap tests because these vaccines target only the most common strains of HPV and they also do not provide protection for those women who are already infected with HPV.

Cancer Screening Tests

Screening tests are used to detect some cancers at stages when they are still highly curable. In fact, for cancers of the cervix and colorectum, early detection tests can lead to the prevention of the disease through the identification and removal or destruction of precancerous lesions. Screening can also detect cancer at an earlier stage, which can reduce the extent of treatment, improve the chances of cure, and thereby improve the quality of life for cancer survivors.

Breast Cancer Screening

The American Cancer Society recommends that average-risk women age 40 and older get annual mammograms, as well as regular clinical breast exams. (See screening guidelines, page 16.) For women at high risk for breast cancer, the Society recommends annual screening using magnetic resonance imaging (MRI) in addition to mammography, typically starting at age 30; the high-risk status of these women (lifetime risk approximately 20%-25% or greater) is based on the presence of mutations in the breast cancer susceptibility genes, *BRCA1* and *BRCA2*, strong family history of breast and/or ovarian cancer, or prior chest radiation therapy (e.g., for Hodgkin disease). For more information, see *Breast Cancer Facts & Figures* at cancer.org/statistics.

Since 2000, mammography use in African American women has been relatively stable.⁹⁰ In 2010, 51% of African American women reported having received a mammogram within the past year, compared to 52% of white women (Table 6). Despite generally similar screening rates, breast cancer is detected at an advanced stage more often in African American than in white women (Figure 5, page 9). This difference has been largely attributed to longer intervals between mammograms and lack of timely follow-up of suspicious results.^{42,43} In addition, the difference in the prevalence of screening between African American and white women is probably larger than it appears based on national survey data because African American women tend to overestimate self-reported mammography utilization more often than white women.⁹¹

Cervical Cancer Screening

The American Cancer Society, in collaboration with the American Society for Colposcopy and Cervical Pathology and the American Society for Clinical Pathology, issued new screening

Table 6. Use of Cancer Screening Examinations and Tests, 2010

	African American (non-Hispanic) %	White (non-Hispanic) %
Breast cancer (women 40 and older)		
Mammogram		
(within past year)	51	52
(within past 2 years)	66	67
Cervical cancer (women 18 and older)		
Pap test*	78	78
Colon & rectum cancer (adults 50 and older)		
Endoscopy†	53	59
Fecal occult blood test (FOBT)‡	8	9
FOBT or endoscopy§	56	62
Prostate cancer (men 50 and older)		
Prostate-specific antigen (PSA) test¶	35	44

Percentages are age adjusted to the 2000 US standard population.

* Pap test within the past 3 years. † Flexible sigmoidoscopy within 5 years or colonoscopy within 10 years. ‡ Home FOBT within past year. § Home FOBT within past year, or flexible sigmoidoscopy within 5 years, or colonoscopy within 10 years. ¶ PSA test within past year.

Source: National Health Interview Survey, Public Use Data File, 2010.

guidelines for the prevention and early detection of cervical cancer in 2012.⁹² The most important changes to the guidelines are the age range for which screening is appropriate and the emphasis on the incorporation of HPV testing in addition to the Pap test. Among women at average risk, screening is now recommended for ages 21 to 65; the preferred screening method for women ages 30 to 65 is now HPV and Pap “co-testing” every five years. For more detailed information on the American Cancer Society’s screening guidelines for the early detection of cervical cancer, see page 16.

In 2010, the rate of Pap testing within the previous 3 years was similar among African American and white women (78%) (Table 6). However, among women of all races, screening rates are lower in older women, women with no health insurance, and recent immigrants.⁹³

The Centers for Disease Control and Prevention’s (CDC) National Breast and Cervical Cancer Early Detection Program (NBCCEDP) was begun in 1990 to improve access to breast and cervical cancer screening and diagnostic services for low-income women. This program, now available in all 50 states, the District of Columbia, five US territories, and 12 American Indian/Alaska Native tribal organizations, helps low-income, uninsured, and underinsured women gain access to breast and cervical cancer screening and diagnostic services. However, of the women who are eligible for the program, it is estimated that

Screening Guidelines for the Early Detection of Cancer in Average-risk Asymptomatic People

Cancer Site	Population	Test or Procedure	Frequency
Breast	Women, ages, 20+	Breast self-examination	It is acceptable for women to choose not to do BSE or to do BSE regularly (monthly) or irregularly. Beginning in their early 20s, women should be told about the benefits and limitations of BSE. Whether or not a woman ever performs BSE, the importance of prompt reporting of any new breast symptoms to a health professional should be emphasized. Women who choose to do BSE should receive instruction and have their technique reviewed on the occasion of a periodic health examination.
		Clinical breast examination	For women in their 20s and 30s, it is recommended that CBE be part of a periodic health examination, preferably at least every three years. Asymptomatic women age 40 and over should continue to receive a CBE as part of a periodic health examination, preferably annually.
		Mammography	Begin annual mammography at age 40.*
Cervix	Women, ages 21-65	Pap test & HPV DNA test	Cervical cancer screening should begin at age 21. For women ages 21-29, screening should be done every 3 years with conventional or liquid-based Pap tests. For women ages 30-65, screening should be done every 5 years with both the HPV test and the Pap test (preferred), or every 3 years with the Pap test alone (acceptable). Women age 65+ who have had ≥ 3 consecutive negative Pap tests or ≥ 2 consecutive negative HPV and Pap tests within the past 10 years, with the most recent test occurring within 5 years, and women who have had a total hysterectomy should stop cervical cancer screening. Women should not be screened annually by any method at any age.
Colorectal	Men and women, ages 50+	Fecal occult blood test (FOBT) with at least 50% test sensitivity for cancer, or fecal immunochemical test (FIT) with at least 50% test sensitivity for cancer, or	Annual, starting at age 50. Testing at home with adherence to manufacturer's recommendation for collection techniques and number of samples is recommended. FOBT with the single stool sample collected on the clinician's fingertip during a digital rectal examination is not recommended. Guaiac-based toilet bowl FOBT tests also are not recommended. In comparison with guaiac-based tests for the detection of occult blood, immunochemical tests are more patient-friendly, and are likely to be equal or better in sensitivity and specificity. There is no justification for repeating FOBT in response to an initial positive finding.
		Stool DNA test**, or	Interval uncertain, starting at age 50
		Flexible sigmoidoscopy (FSIG), or	Every 5 years, starting at age 50. FSIG can be performed alone, or consideration can be given to combining FSIG performed every 5 years with a highly sensitive FOBT or FIT performed annually.
		Double-contrast barium enema (DCBE), or	Every 5 years, starting at age 50
		Colonoscopy	Every 10 years, starting at age 50
CT Colonography	Every 5 years, starting at age 50		
Endometrial	Women, at menopause	At the time of menopause, women at average risk should be informed about risks and symptoms of endometrial cancer and strongly encouraged to report any unexpected bleeding or spotting to their physicians.	
Lung	Current or former smokers ages 55-74 in good health with at least a 30 pack-year history	Low-dose helical CT (LDCT)	Clinicians with access to high-volume, high-quality lung cancer screening and treatment centers should initiate a discussion about lung cancer screening with apparently healthy patients ages 55-74 who have at least a 30 pack-year smoking history, and who currently smoke or have quit within the past 15 years. A process of informed and shared decision making with a clinician related to the potential benefits, limitations, and harms associated with screening for lung cancer with LDCT should occur before any decision is made to initiate lung cancer screening. Smoking cessation counseling remains a high priority for clinical attention in discussions with current smokers, who should be informed of their continuing risk of lung cancer. Screening should not be viewed as an alternative to smoking cessation
Prostate	Men, ages 50+	Digital rectal examination (DRE) and prostate-specific antigen test (PSA)	Men who have at least a 10-year life expectancy should have an opportunity to make an informed decision with their health care provider about whether to be screened for prostate cancer, after receiving information about the potential benefits, risks, and uncertainties associated with prostate cancer screening. Prostate cancer screening should not occur without an informed decision-making process.
Cancer-related checkup	Men and women, ages 20+	On the occasion of a periodic health examination, the cancer-related checkup should include examination for cancers of the thyroid, testicles, ovaries, lymph nodes, oral cavity, and skin, as well as health counseling about tobacco, sun exposure, diet and nutrition, risk factors, sexual practices, and environmental and occupational exposures.	

*Beginning at age 40, annual clinical breast examination should be performed prior to mammography. **The stool DNA test approved for colorectal cancer screening in 2008 is no longer commercially available. New stool DNA tests are presently undergoing evaluation and may become available at some future time.

only 13% are screened for breast cancer and 9% are screened for cervical cancer.⁹⁴ The American Cancer Society is committed to helping increase funding for NBCCEDP in order to reach more eligible women. See page 23 for more information on the NBCCEDP.

Colorectal Cancer Screening

Beginning at age 50, men and women who are at average risk for developing colorectal cancer should begin screening. Screening can result in the detection and removal of colorectal polyps that might have become cancerous, as well as the detection of cancer at an early stage, when treatment may be less extensive and more successful. In 2008, the American Cancer Society collaborated with several other organizations to release updated colorectal cancer screening guidelines.⁹⁵ These joint guidelines emphasize cancer prevention and draw a distinction between colorectal screening tests that primarily detect cancer and those that can detect both cancer and precancerous polyps. There are a number of recommended screening options that vary by the extent of bowel preparation, as well as test performance, limitations, time interval, and cost. Individuals at increased or high risk of developing colorectal cancer (e.g., those with a personal or family history of colorectal cancer or polyps, chronic inflammatory bowel disease, or inherited genetic mutations) should discuss their risk status with their physician to determine whether earlier and/or more intensive screening is indicated. For detailed information on colorectal cancer screening options, see *Colorectal Cancer Facts & Figures* at cancer.org/statistics; for screening guidelines for colorectal cancer, see page 16.

The use of colorectal screening tests among African Americans has increased over the past several decades. In 1987, only 18% of African American women and 15% of African American men

reported having had a recent colorectal screening test.⁹⁶ By 2010, the prevalence of a recent screening for colorectal cancer among African Americans had increased to 56%, compared to 62% in whites (Table 6, page 15).

Prostate Testing

At this time, there are insufficient data to recommend for or against routine testing for early prostate cancer detection with the PSA test. The American Cancer Society recommends that asymptomatic men who have at least a 10-year life expectancy have an opportunity to make an informed decision with their health care provider about whether to be screened for prostate cancer, after receiving information about the uncertainties, risks, and potential benefits associated with prostate cancer screening. This screening should not occur without an informed decision-making process. Although men at average risk should receive this information at age 50, African American men are at a high risk of prostate cancer and should receive this information beginning at age 45, as should other men at higher risk (men who have a father or brother diagnosed with prostate cancer before age 65). Men who are at even higher risk (because they have several close relatives diagnosed with prostate cancer at an early age) should have this discussion with their provider at age 40.

The use of the prostate-specific antigen (PSA) blood test to test for prostate cancer is lower in African American males than in white males age 50 and older (35.2% vs. 44.4%, respectively) (Table 6, page 15).

For more information on prostate cancer testing, see the Special Section of *Cancer Facts & Figures 2010*, available online at cancer.org/statistics.

Risk Factor Statistics

Socioeconomic Status

Socioeconomic status (SES) is highly correlated with cancer risk and outcomes across the continuum from prevention to palliative care. Persons with lower SES are more likely to engage in behaviors that increase cancer risk, such as tobacco use and physical inactivity, in part because of marketing strategies that target these populations and in part because of environmental and community factors, such as fewer opportunities for physical activity and less access to fresh fruits and vegetables. Lower SES is also associated with financial, structural, and personal barriers to health care, including lack of or inadequate health insurance, reduced access to recommended preventive care and treatment services, and lower literacy levels. Individuals with no health insurance and those with Medicaid insurance are more

likely to be diagnosed with advanced cancer.¹³ These factors disproportionately affect African Americans because 20% of African Americans are uninsured compared to only 11% of whites.⁹⁷ In addition, 28% of African Americans live below the federal poverty threshold compared to 10% of non-Hispanic whites.⁹⁷

No single factor (such as education or income) fully captures all of the important characteristics that may influence the association between SES and health, but for most cancers, risk is inversely related to SES, regardless of which measure is used. Moreover, factors associated with SES contribute to substantial differences in cancer incidence and mortality within, as well as among, racial and ethnic groups.⁹⁸ Persons with lower SES have higher cancer death rates than those with higher SES, regardless of demographic factors such as race or ethnicity. For example, for

all cancer sites combined, mortality rates among both African American and white men with 12 or fewer years of education are more than twice those in men with higher levels of education.⁹⁹ Similarly, death rates for each of the four major cancer sites are higher for African American men and women with fewer years of education. Furthermore, progress in reducing cancer death rates has been slower among persons with lower SES.^{56, 100}

Eliminating disparities in health care access is a daunting task for health care policy in the US. The 2010 passage of the Affordable Care Act (ACA) offers some future prospects for reducing the number of uninsured, particularly among those with lower SES. For more information about how the ACA will impact families affected by cancer, see the Fight Back section on page 22.

Tobacco Use

Smoking is the most preventable cause of premature death in the US and is responsible for about 30% of all cancer deaths.^{101,102} Smoking is associated with increased risk of at least 16 types of cancer: nasopharynx, nasal cavity and paranasal sinuses, lip, oral cavity, pharynx, larynx, lung, esophagus, pancreas, uterine cervix, ovary (mucinous), kidney, bladder, stomach, colorectum, and acute myeloid leukemia.^{103,104} Both incidence and death rates for lung cancer are higher among African American men than among white men, due in part to differences in historical smoking behaviors. For most of the past four decades, the rate of adult smoking has been higher in African American men than in white men, though in recent years rates have converged (Figure 8).

Adult Cigarette Smoking

In 2011, the prevalence of current cigarette smoking was slightly higher in African American men compared to white men (24% vs. 23%, respectively). The reverse is true for women – the smoking prevalence was lower in African Americans than whites (16% vs. 19%, respectively).

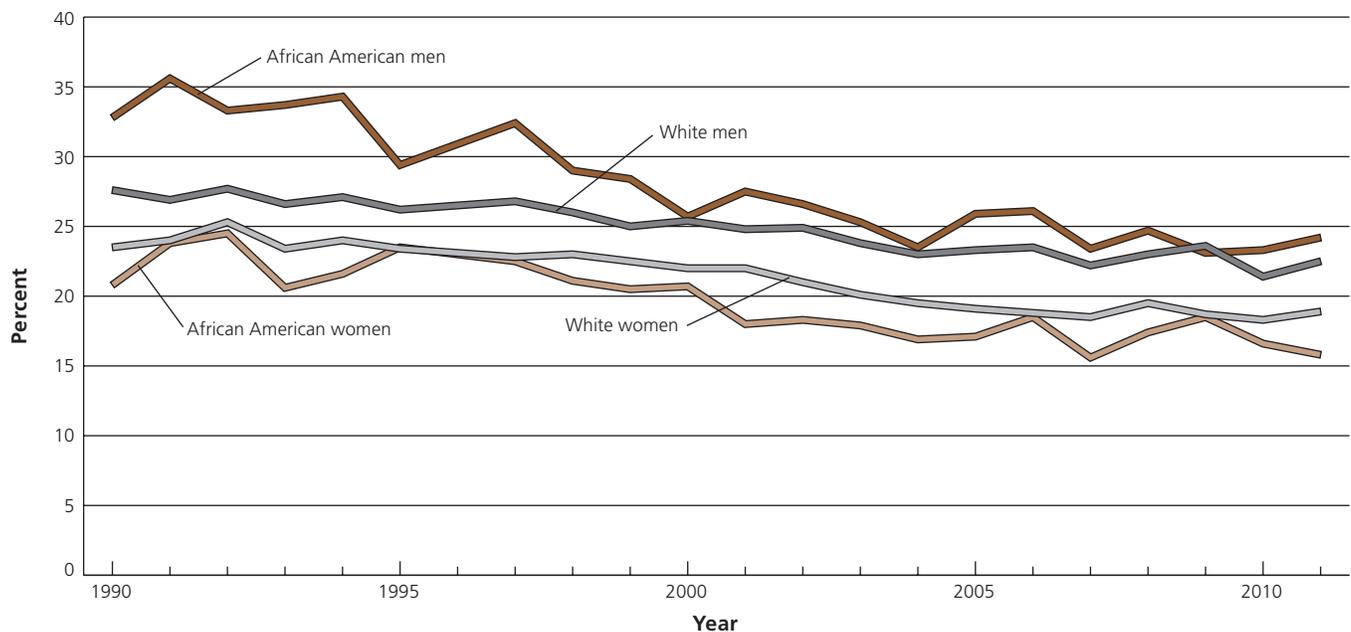
Youth Tobacco Use

For more than a decade, African American high school students have had a lower prevalence of cigarette smoking than other racial and ethnic groups. According to the Youth Risk Behavior Surveillance Survey, the prevalence of current cigarette smoking among African American high school students peaked in 1997 in boys and 1999 in girls, and has since been generally decreasing (Figure 9). As of 2011, 14% of African American boys and 7% of African American girls smoked cigarettes, compared to 22% of white boys and 19% of white girls.¹⁰⁵

Overweight, Obesity, and Physical Activity

Maintaining a healthy body weight, being physically active on a regular basis, and eating a healthy diet reduce the risk of developing cancer.¹⁰⁶ The American Cancer Society’s nutrition and physical activity guidelines emphasize the importance of weight control, physical activity, dietary patterns, and limited, if any, alcohol consumption in reducing cancer risk; unfortunately, the majority of Americans are not meeting these recommendations.¹⁰⁷ Increasing trends in unhealthy eating and physical

Figure 8. Trends in Cigarette Smoking (%), Adults 18 and Older, US, 1990 to 2011



Source: 1990-2007: *Health, United States*, 2009. 2008-2011: National Health Interview Survey Public Use Data Files.

inactivity – and resultant increases in overweight and obesity – have largely been influenced by the environments in which people live, learn, work, and play. As a result, the guidelines include explicit recommendations for community action to facilitate the availability of healthy, affordable food choices and opportunities for physical activity in communities, schools, and workplaces.

Overweight and Obesity

Overweight and obesity are clearly associated with increased risk for developing many cancers, including cancers of the breast in postmenopausal women, colon and rectum, endometrium, adenocarcinoma of the esophagus, kidney, and pancreas.¹⁰⁶ Overweight and/or obesity may also be associated with increased risk of cancers of the liver, cervix, ovary, and gallbladder; non-Hodgkin lymphoma; multiple myeloma; and aggressive prostate cancer.¹⁰⁷ In addition, abdominal fatness is convincingly associated with colorectal cancer, and probably related to higher risk of pancreatic, endometrial, and postmenopausal breast cancers.¹⁰⁶

It has been estimated that 14% to 20% of all cancer deaths in the US can be attributed to overweight and obesity.¹⁰⁸ Increasing evidence also suggests that being overweight increases the risk for cancer recurrence and decreases the likelihood of survival for several cancers. Some studies have shown that surgery to treat morbid

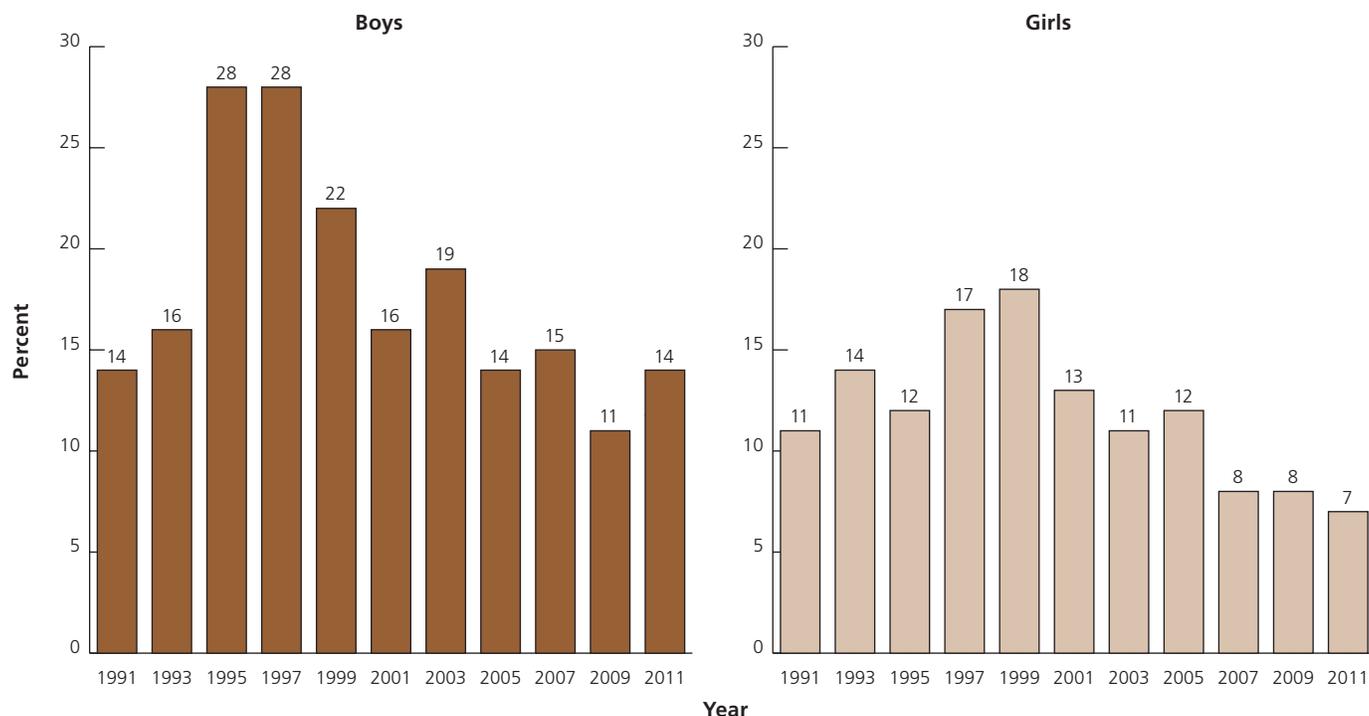
obesity reduces mortality from major chronic diseases, including cancer.^{109,110} Although knowledge about the relationship between weight loss and cancer risk is incomplete, individuals who are overweight should be encouraged and supported in their efforts to reduce weight.

One-half of all African American adults are considered obese (BMI ≥ 30 kg/m²), and 77% of African American adults are considered overweight (BMI ≥ 25.0 kg/m²) (Figure 10, page 20). Overweight and obesity are more common among African American women and girls than white women and girls, while there is little racial difference among men and boys. The prevalence of obesity increased significantly from 1999 to 2010 among men of every racial/ethnic group, but only among women of African American and Mexican descent.¹¹¹

Among youth, 24% of African Americans ages 2 to 19 are obese, compared to 16% of whites (Figure 10, page 20).¹¹² The only significant increase in obesity among US children between 1999-2000 and 2009-2010 was among African American boys.¹¹²

Although BMI is highly correlated with body fat, it may be less so for African Americans than whites; therefore, racial differences in obesity prevalence based on BMI may not represent actual differences in body fat.¹¹¹

Figure 9. Trends in Current Cigarette Use (%) among African American High School Students, US, 1991 to 2011*



*Data are only available for every other year.

Source: Youth risk behavior surveillance – United States, 2011.¹⁰⁵

Physical Activity

Living a physically active lifestyle is important to reduce the risk of a variety of types of cancer, as well as heart disease and diabetes. Scientific evidence indicates that physical activity may reduce the risk of cancers of the breast, colon, and endometrium, as well as advanced prostate cancer.^{106,113,114} Physical activity also indirectly reduces the risk of developing the many types of obesity-related cancers because of its role in helping to maintain a healthy weight. Being active is thought to reduce cancer risk largely by improving energy metabolism and reducing circulating concentrations of estrogen, insulin, and insulin-like growth factors.¹¹⁵ Physical activity also improves the quality of life of cancer patients and is associated with a reduction in the risk of cancer recurrences and improved overall mortality in multiple cancer survivor groups, including breast, colorectal, prostate, and ovarian cancer.¹¹⁶⁻¹¹⁹

The American Cancer Society recommends that adults engage in at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity activity each week.¹⁰⁷ Children and teens should get at least 1 hour of moderate- or vigorous-intensity activity each day, with vigorous activity on at least 3 days each week.¹⁰⁷ Sedentary activities, such as sitting, lying down, and watching

television and other forms of screen-based entertainment, should be limited for both adults and children. Any physical activity above usual activity levels can have many health benefits.

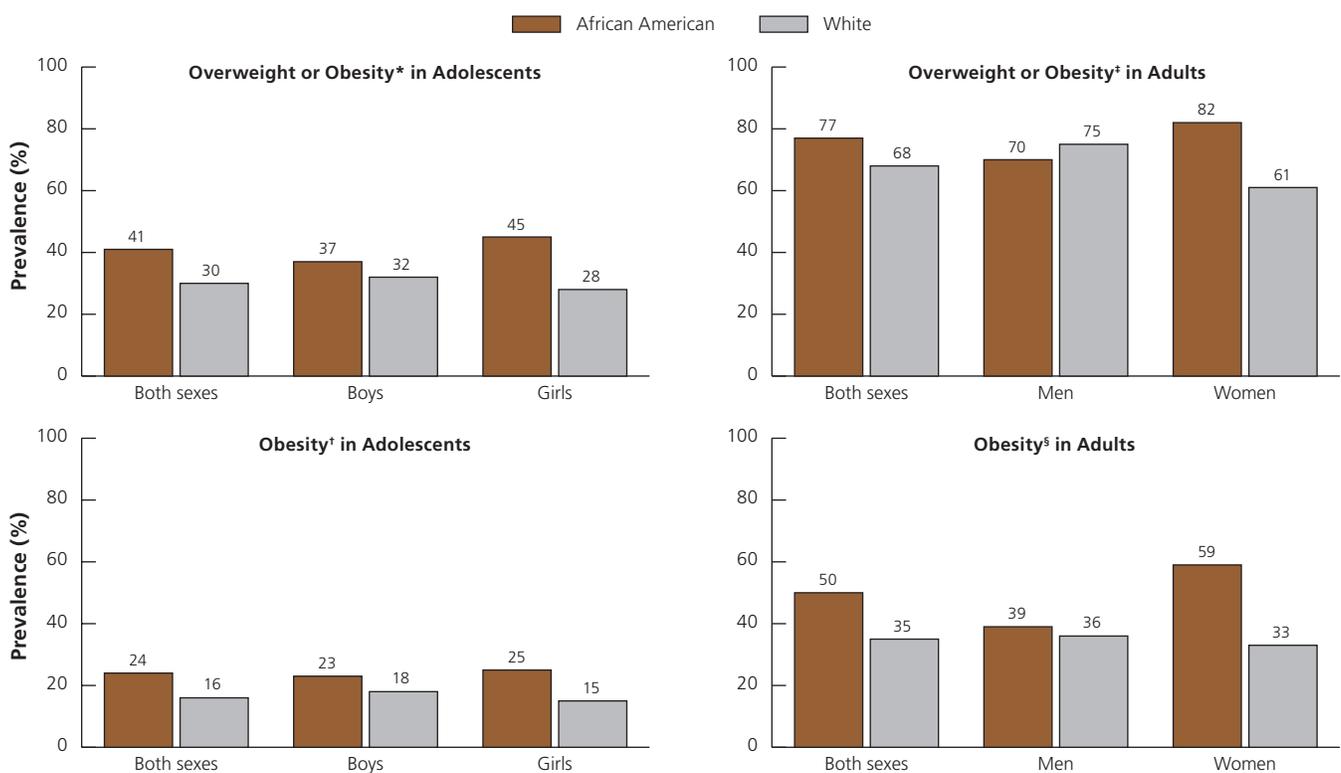
Data from the 2010 National Health Interview Survey (NHIS) shows that 41% of African American adults report no leisure-time physical activity, with African American women more likely than men to be physically inactive (47% vs. 35%, respectively) (Table 7). While the level is low for both sexes, African American men were more likely than African American women to meet minimum physical activity recommendations (45% vs. 31%, respectively). Note that these estimates do not include physical activity that occurs at the workplace.

Nutrition and Diet

The American Cancer Society recommends choosing food and beverages in amounts that help achieve and maintain a healthy weight, with an emphasis on plant foods. Specifically, the guidelines suggest:

- Eating at least 2½ cups of vegetables and fruits each day
- Choosing whole grains instead of refined grain products
- Limiting consumption of processed and red meats¹⁰⁷

Figure 10. Prevalence of Overweight and Obesity in Adolescents and Adults by Sex and Race, US, 2009-2010



Note: Adolescents are ages 12-19 years of age, and adults are 20 and over. *BMI for Age ≥ 85th percentile, rounded to the nearest tenth. †BMI for Age ≥ 95th percentile, rounded to the nearest tenth. ‡BMI ≥ 25, rounded to the nearest tenth. §BMI ≥ 30, rounded to the nearest tenth. Source: Data for adolescents were previously published in Ogden et al, 2012.¹¹² Data for adults were previously published in Flegal et al, 2012.¹¹¹

There is strong scientific evidence that healthy dietary patterns, in combination with regular physical activity, are needed to maintain a healthy body weight and to reduce cancer risk. Studies have shown that individuals who eat more processed and red meat, potatoes, refined grains, and sugar-sweetened beverages and foods are at a higher risk of developing or dying from a variety of cancers. Alternatively, adhering to a diet that contains a variety of fruits and vegetables, whole grains, and fish or poultry and fewer red and processed meats is associated with lower risk. A recent study found that dietary and lifestyle behaviors consistent with the American Cancer Society nutrition and physical activity guidelines are associated with lower mortality rates for all causes of death combined, and for cancer and cardiovascular diseases, specifically.¹²⁰ Despite the known benefits of a healthy diet, Americans are not following recommendations; according to the US Department of Agriculture, the majority of Americans would need to substantially lower their intake of added sugars, added fats, refined grains, and sodium, and increase their consumption of fruits, vegetables, whole grains, and low-fat dairy products in order to meet the Dietary Guidelines for Americans, 2010.

Community Strategies

There is growing recognition that multiple aspects of social environments where people live, work, and play appear to be linked to overweight and obesity.¹²¹⁻¹²³ Although healthy eating and physical activity are a matter of individual choice, the local food environment (e.g., fast-food outlet density vs. supermarkets) and built-environment features (e.g., accessibility to parks, gyms, or other recreational settings) can influence individuals' choice and ability to adopt a healthy lifestyle.¹²⁴⁻¹²⁶ Therefore, the American Cancer Society nutrition and physical activity guidelines

Table 7. Leisure-time Physical Activity (%) in Adults (18+ years) by Race and Sex, US, 2010

	Non-Hispanic African American (%)	Non-Hispanic White (%)
Inactive*		
Total	41	31
Male	35	28
Female	47	33
Meets physical activity recommendations†		
Total	37	51
Male	45	54
Female	31	47

Note: Does not include physical activity that occurs at the workplace. Estimates are age adjusted to the 2000 US standard population.

* No physical activity of at least 10 minutes per week; † At least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity activity each week.

Source: National Health Interview Survey, 2010.

include recommendations for community-level actions. They suggest the need for public, private, and community organizations to work together to facilitate and promote policies to effect changes in social and physical environments in order to enable people to adopt and maintain healthy nutrition and physical activity behaviors.¹⁰⁷ Specifically, community-level actions are needed to: (1) increase access to healthy foods in schools, work-sites, and communities and decrease access to and marketing of foods and beverages of low nutritional value (particularly to youth); (2) provide safe, enjoyable spaces for physical activity in schools; (3) provide safe, physically active transportation (such as biking and walking) and recreation in communities.

How the American Cancer Society Helps Reduce Cancer Disparities

The American Cancer Society works relentlessly to save lives from cancer by helping people stay well and get well, by finding cures, and by fighting back against the disease. This section provides highlights and information on some of these efforts.

Stay Well and Get Well

The American Cancer Society helps people everywhere stay well by preventing cancer or detecting it early, when it is most treatable. For people who are diagnosed with cancer, the Society provides the information, day-to-day help, and emotional support to guide them through every step of their experience and to help them get well.

Cancer Information

The American Cancer Society provides accurate, up-to-date information spanning the cancer continuum from prevention to palliative care in English and Spanish, 24 hours a day, 7 days a week, via 1-800-227-2345 and through its Web site, cancer.org.

The Health Equity program of the American Cancer Society supports activities and relationships that focus on eliminating health disparities. One example of this work is a collaboration with health communications researchers at Morehouse School of Medicine in Atlanta, Georgia, which sought to identify the most effective, relevant, and desired communication messages and sources for delivery of cancer information. A partnership with world-renowned comedian, actor, and radio personality

Steve Harvey resulted in the production of a video in which he narrated his personal journey of colorectal cancer screening. The video, *All Jokes Aside Featuring Steve Harvey*, won a Telly Award for best health video, and has been used nationwide to build awareness of the importance of colorectal cancer screening among African American men. The Society continues to seek collaborations with partners such as professional societies, faith-based organizations, and Greek letter fraternities and sororities, and community-based organizations as a means of achieving its goals of saving lives and improving quality of life among all populations.

Programs and Services

Several American Cancer Society programs and services have been developed or tailored to be culturally appropriate for African American audiences. Examples include the following:

- **Community Health Initiatives:** The American Cancer Society has ongoing efforts to address cancer screening disparities in breast and colorectal cancer. In 2011, the Society expanded existing efforts to decrease the burden of cancer within populations at greatest risk of adverse cancer outcomes through the funding of the Community Health Initiatives project, which includes 90 evidence-based interventions to increase age- and risk-appropriate cancer screening rates among uninsured, underinsured, and racially diverse communities. Given the unequal burden of cancer within the African American community, many of the 90 interventions are implemented within African American communities throughout the country. All interventions are executed in partnership with community health systems, community health workers, and culturally diverse volunteers who ensure access to culturally appropriate outreach and education, screening resources and follow-up care.
- **Patient Navigator Program:** This hospital-based service provides a “navigator,” a non-medical professional who can help guide patients through the maze of the health care system – helping patients with a range of tasks, including transportation to appointments, finding ways to pay for care, connecting patients with community support services and other resources, and facilitating communication with physicians and other providers. This program has been implemented in select hospital sites throughout the country where patients face the greatest disparities in cancer care outcomes.

Visit cancer.org to learn more about these programs and other support services in your area.

Find Cures

The American Cancer Society, the largest non-government, not-for-profit funding source of cancer research and training in the United States, has dedicated a portion of its research funding

toward studies of cancer in poor and medically underserved populations. The Society is currently funding 82 studies totaling nearly \$67 million in disparities research. Of those, 32 grants totaling nearly \$28 million involve research specifically related to African Americans. In addition, the Society’s intramural research departments focus substantial resources on community-based interventions and disparities research.

Specific examples of ongoing intramural and extramural research include:

- Assessing the specific needs of African American breast cancer survivors through focus groups and surveys and using this information to develop programs and resources to educate and support African American breast cancer survivors
- Investigating to what extent African Americans and whites who are diagnosed with colon cancer make changes in health behaviors (e.g., diet, physical activity, and dietary supplement use) and what effect these changes may have on colorectal recurrence
- Researching treatment delays and the types of treatment received among African American breast cancer patients and exploring reasons for the less frequent treatment among African American women in an effort to improve breast cancer outcomes
- Monitoring racial and socioeconomic disparities in the cancer burden, including differences in screening, stage at diagnosis, treatment, survival, and mortality

Fight Back

The American Cancer Society and the American Cancer Society Cancer Action NetworkSM (ACS CAN), the Society’s nonprofit, nonpartisan advocacy affiliate, are dedicated to reducing cancer incidence and mortality rates among minority and medically underserved populations. One way this goal can be achieved is by instituting effective policies and public health programs that promote overall wellness and help save lives. ACS CAN is involved in advocacy efforts at both the state and federal level. Listed below are some of the efforts that ACS CAN has been involved with recently:

Key provisions of the Patient Protection and Affordable Care Act are improving access to quality, affordable health care for people with cancer. These provisions include:

- A ban on pre-existing condition exclusions
- The guarantee of quality, affordable coverage to all applicants
- Free coverage for preventive services for patients in new insurance plans and people in Medicare
- The elimination of annual and lifetime limits on health benefits
- Incentives to focus our health care system toward cancer prevention

Additional Resources

Other provisions of the law will help address disparities by providing funding to expand community health centers; improving the way information on race, ethnicity, sex, primary language, and disability status is collected and used; and expanding Medicaid coverage to all adults who qualify for the program, which will allow all low-income adults below 133% of the federal poverty level to become eligible for Medicaid beginning in 2014. ACS CAN is working to make sure that these provisions are fully implemented and protected.

A high priority for ACS CAN at both the state and federal level is fighting to increase funding for the National Breast and Cervical Cancer Early Detection Program (NBCCEDP). This successful program provides community-based breast and cervical cancer screening to low-income, uninsured, and underinsured women. More than 50% of the women screened are from racial/ethnic minority groups. ACS CAN is asking Congress to increase funding to ensure more women will have access to the lifesaving program. While the Affordable Care Act will greatly improve insurance coverage, the NBCCEDP will remain an essential program for improving access to breast and cervical cancer screening and treatment in our nation's most vulnerable populations. ACS CAN also works at the state level to protect Medicaid coverage to ensure cancer patients have access to the treatment they need if they are diagnosed with cancer through the NBCCEDP.

Additionally, ACS CAN is advocating for a national screening, treatment, and outreach program to increase colorectal cancer screening rates in low-income, medically underserved populations. The Colorectal Cancer Prevention, Early Detection, and Treatment Act would have a direct impact on reducing colon cancer deaths by focusing on screening more uninsured and underinsured individuals for colorectal cancer and providing them with treatment when needed.

ACS CAN continues to work with Congress to increase access to patient navigators, which helps patients in medically underserved communities work their way through the health care system, provides outreach and education for patients to encourage preventive screenings, and addresses needs that may affect compliance with screening and treatment. ACS CAN supports the Patient Navigation Assistance Act and the Affordable Care Act's reauthorization of the Health Resources and Services Administration Patient Navigator Program until 2015.

ACS CAN is also leading the fight to increase the investment the nation has made in biomedical and cancer research at the National Institutes of Health. These efforts include increased funding for cancer research at the National Institute on Minority Health and Health Disparities and the National Cancer Institute, which houses the Center to Reduce Cancer Health Disparities.

To learn more, to get involved, and to make a difference in the fight against cancer, visit acschan.org.

Center to Reduce Cancer Health Disparities (CRCHD)

In 2001, the National Cancer Institute (NCI) established the Center to Reduce Cancer Health Disparities (CRCHD) to serve as the cornerstone of the NCI's efforts to reduce the unequal burden of cancer in our nation. The CRCHD is working to strengthen and integrate the NCI's studies in basic, clinical, translational, and community-based research that offer opportunities to advance our understanding of cancer-related health disparities and ways to effectively address them. The center manages specific programs and grants aimed at examining the diverse aspects of cancer-related disparities. It is also leading the NCI's efforts to train students and investigators from diverse populations to pursue research in cancer, as well as research examining factors that contribute to cancer health disparities. For additional information, visit crchd.cancer.gov.

National Breast and Cervical Cancer Early Detection Program (NBCCEDP)

This CDC-administered program helps low-income, uninsured, and underinsured women gain access to breast and cervical cancer screening and diagnostic services. Medical assistance and treatment for women who are diagnosed with cancer through the NBCCEDP are available through Medicaid. The program is currently implemented in all 50 states, the District of Columbia, 5 US territories, and 12 American Indian/Alaska Native organizations. Each state Department of Health will have information about how to contact the nearest screening center. For additional information, visit cdc.gov/cancer/nbccedp.

Colorectal Cancer Control Program (CRCCP)

Thanks in part to many years of advocating for increased funding by ACS CAN volunteers, the CDC in 2009 had sufficient resources to launch a robust colorectal cancer screening program. The CRCCP provides funding over 5 years to 25 states and 4 tribes to increase colorectal cancer screening and provide follow-up care to low-income adults ages 50 to 64 who are underinsured or uninsured. For additional information, visit cdc.gov/cancer/crccp.

Project Brotherhood Colorectal Cancer Prevention

Funded by the American Cancer Society, Project Brotherhood developed a 12-hour culturally specific curriculum to train barbers about colorectal cancer in order to increase screening rates among African American men. To learn more about this program, visit projectbrotherhood.net.

Deep South Network for Cancer Control

The purpose of the Deep South Network for Cancer Control is to eliminate the disparity in cancer death rates between African Americans and whites in the Deep South. This initiative has increased mammography screening in Mississippi and Alabama and is working toward reducing racial disparities in breast and cervical cancer mortality by encouraging coalition development, community empowerment, and the utilization of community health advisors. To learn more about this program, visit mhrc.dopm.uab.edu/research/deepsouth.html.

Cancer Prevention and Control Research Network (CPCRN)

The CPCRN is a subgroup of the CDC's Prevention Research Centers and currently comprises 10 funded academic research institutions. The network provides an infrastructure for applying relevant research to local cancer prevention and control needs, particularly in underserved and minority communities. Its members conduct community-based participatory cancer research across its 10 network centers, crossing academic affiliations and geographic boundaries. For additional information, visit cpcrn.org.

Intercultural Cancer Council (ICC)

The 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 iccnetwork.org.

National Medical Association (NMA)

The NMA, the largest and oldest national organization representing African American physicians and their patients in the US, is committed to the elimination of health disparities and the promotion of healthy lifestyles among African Americans and other underserved populations. The American Cancer Society and the NMA have collaborated to develop and distribute culturally relevant consumer and professional materials that focus on the prevention, early detection, and treatment of breast, prostate, and colorectal cancers, as well as nutrition and physical activity. For additional information, visit nmanet.org.

National African American Tobacco Education Network (NAATEN)

NAATEN is a collaboration of national, state, and community-based organizations serving the African American community. The network's goal is to eliminate tobacco use in the African American community by serving as a leader and unified voice on a national level and by engaging African American organizations in the prevention and reduction of tobacco use. For additional information, visit healthedcouncil.org/naaten.

African American Collaborative Obesity Research Network (AACORN)

AACORN is a collaboration of US researchers, scholars-in-training, and community-based research partners dedicated to improving the quality and quantity of research to address weight-related health issues in African American communities. For additional information, visit aacorn.org.

Sources of Statistics

New Cancer Cases. The numbers of new US cancer cases among African Americans in 2013 are projected using a two-step process. First, the total number of cases in each state is estimated using a spatiotemporal model based on incidence data from 49 states and the District of Columbia for the years 1995-2009 that met the North American Association of Central Cancer Registries' (NAACCR) high-quality data standard for incidence. This method considers geographic variations in sociodemographic and lifestyle factors, medical settings, and cancer screening behaviors as predictors of incidence, as well as accounting for expected delays in case reporting. The number of new cases is then projected four years ahead using a temporal projection method.

Incidence Rates. Incidence rates are defined as the number of people per 100,000 who are diagnosed with a disease during a given period of time. Incidence data for this publication were col-

lected either by the Surveillance, Epidemiology, and End Results (SEER) program or the National Program of Cancer Registries as reported by NAACCR. All incidence rates in this publication are age adjusted to the 2000 US standard population. Long-term incidence trends (1975-2009) were based upon data from the SEER 9 registries.¹²⁷ Ten-year trends (2000-2009) in incidence are based on data from NAACCR that combine incidence data from NPCR and SEER and were previously published in the *Annual Report to the Nation on the Status of Cancer, 1975-2009*.⁷

Cancer Deaths. The estimated numbers of US cancer deaths among African Americans are calculated by fitting the numbers of cancer deaths for 1995-2009 to a statistical model that forecasts the numbers of deaths expected to occur in 2013. Data on the number of deaths are obtained from the National Center for Health Statistics (NCHS) at the Centers for Disease Control and Prevention (CDC).

Mortality Rates. Mortality rates or death rates are defined as the number of people per 100,000 who die from a disease during a given year. Death rates were reported by the SEER program using data on cancer deaths from the National Center for Health Statistics along with population data from the US Census Bureau.⁴ All death rates in this publication were age adjusted to the 2000 US standard population. Ten-year trends (2000-2009) in death rates were previously published in the *Annual Report to the Nation on the Status of Cancer, 1975-2009*.⁷

Survival. Five-year relative survival rates are presented in this report for cancer patients diagnosed between 2002 and 2008 and followed through 2009. 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, 1975-2009*.⁶

Probability of Developing or Dying of Cancer. Probabilities of developing or dying of cancer were calculated using DevCan 6.6.1, developed by the National Cancer Institute.¹²⁸ 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 13 developing lung cancer in a lifetime underestimates the risk for smokers and overestimates the risk for nonsmokers.

National Health Interview Survey (NHIS). The NHIS is a survey of the NCHS. The survey is designed to provide national prevalence estimates on personal, socioeconomic, demographic, and health characteristics, such as cigarette smoking and physical activity. Data are gathered through a computer-assisted personal interview of adults ages 18 and older. The NHIS is an annual survey that has been conducted by NCHS since 1957. For more information, visit cdc.gov/nchs/nhis.htm.

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