

# Cancer Facts & Figures

## for African Americans 2019-2021



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

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# Cancer Statistics

## Introduction

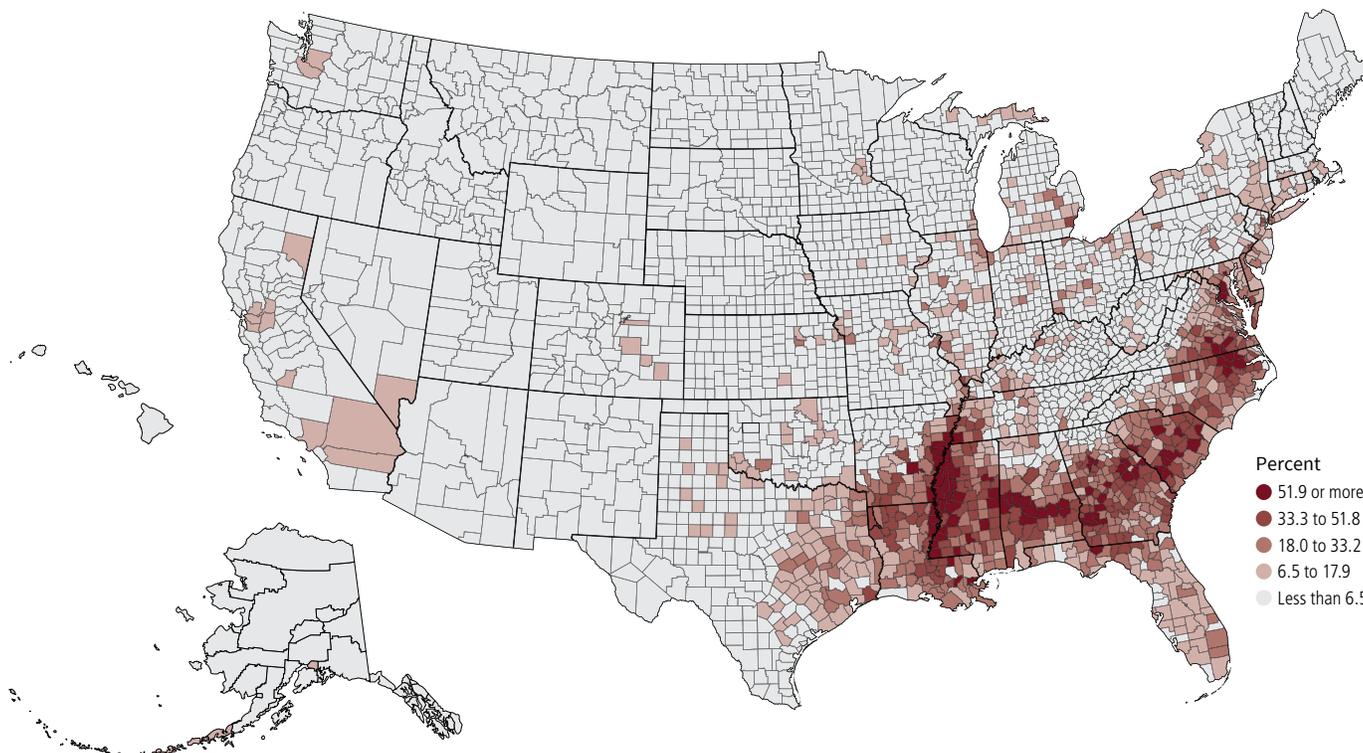
The US Census Bureau estimates that in 2017 there were 43.5 million Americans who identified as non-Hispanic (NH) black or African American, comprising 13% of the total US population.<sup>1</sup> Although racial classification is a social construct, it remains useful for describing general patterns of health because much data in the US are reported by race. In addition, some cancer-associated genetic mutations are more common among certain genetic ancestry groups, for which self-identified race can be used as a proxy. In this report, data are presented for NH blacks specifically when available.

Blacks are the second-largest racial/ethnic minority group in the US, following Hispanics. It is projected that by 2060, there will be 60.7 million blacks living in the US, making up 15% of the total population.<sup>2</sup> The black population in

the US is primarily concentrated in the South (Figure 1). It is a diverse group that includes individuals whose ancestors were brought to the US as slaves, as well as nearly 10% who are more recent immigrants or their descendants. The black immigrant population has increased five-fold over the past four decades, from 816,000 in 1980 to more than 4.1 million in 2017. Approximately half of these immigrants were born in Caribbean countries, including Jamaica (18%) and Haiti (17%) and about 38% were from African countries (7% from Nigeria).<sup>3</sup> Previous studies have documented differences in the cancer profile for blacks born outside of the US compared to US-born blacks, including notably lower rates for smoking-related cancers.<sup>4,5</sup>

Collectively, blacks have the highest death rate and shortest survival of any racial/ethnic group in the US for most cancers. Black men also have the highest cancer incidence rate. The causes of these inequalities are complex and reflect social and economic disparities and cultural differences that affect cancer risk, as well as

**Figure 1. Non-Hispanic Black Population as a Percentage of Total County Population, 2016**



Source: US Census Bureau, Population Estimates, July 1, 2016. Released 2017.

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**Table 1. Leading Causes of Death by Sex among Non-Hispanic Blacks and Whites, US, 2016**

<b>Males</b>		<b>NH Black</b>			<b>NH White</b>			
<b>Cause of Death</b>	<b>Rank</b>	<b>Number</b>	<b>%</b>	<b>Death Rate*</b>	<b>Rank</b>	<b>Number</b>	<b>%</b>	<b>Death Rate*</b>
Heart diseases	1	40,040	24%	267.2	1	266,981	25%	214.1
Cancer	2	35,215	21%	228.1	2	247,202	23%	190.7
Accidents (unintentional injuries)	3	12,452	7%	65.8	3	76,025	7%	72.4
Cerebrovascular diseases	4	8,114	5%	57.4	5	43,711	4%	35.8
Diabetes	5	6,976	4%	45.3	6	30,010	3%	23.6
All causes		168,742		1088.7		1,077,329		880.6

<b>Females</b>		<b>NH Black</b>			<b>NH White</b>			
<b>Cause of Death</b>	<b>Rank</b>	<b>Number</b>	<b>%</b>	<b>Death Rate*</b>	<b>Rank</b>	<b>Number</b>	<b>%</b>	<b>Death Rate*</b>
Heart diseases	1	36,563	23%	171.2	1	233,632	22%	131.3
Cancer	2	34,510	22%	156.1	2	219,262	21%	138.2
Cerebrovascular diseases	3	10,074	6%	48.0	5	63,776	6%	35.6
Diabetes	4	7,077	4%	32.8	7	23,389	2%	14.4
Alzheimers	5	6,126	4%	30.3	4	67,893	6%	35.6
All causes		158,057		735.4		1,056,078		635.4

NH: Non-Hispanic. \*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.

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differences in access to high-quality health care, more than biological differences. Socioeconomic disparities result in unequal access to opportunities and resources, such as work, wealth, income, education, housing, healthy food, and overall standard of living. Structural racism – the combination of institutions, culture, history, ideology, and codified practices that generate and perpetuate inequity among racial and ethnic groups – also contributes to disparate health outcomes.<sup>6,7</sup> Moreover, black men and women bear a disproportionately high burden of other diseases, which influences cancer survival. In 2016, the death rate in the US was higher for blacks than whites for heart disease, stroke, influenza and pneumonia, diabetes, hypertension, HIV/AIDS, kidney disease, and homicide (Table 1). Consequently, life expectancy is lower for blacks than whites among both men (71.5 versus 76.1 years) and women (77.9 versus 81.0 years).<sup>8</sup>

This report presents updated statistics on cancer incidence, mortality, survival, and risk factors for blacks in the US. It 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 in the US black population.

## 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. Although the causes of cancer are not completely understood, numerous factors are known to increase the disease’s occurrence, including many that are modifiable (e.g., tobacco use and excess body weight) and those that are not (e.g., inherited genetic mutations and immune conditions). These risk factors may act simultaneously or in sequence to initiate and/or promote cancer growth.

## Can Cancer Be Prevented?

A substantial proportion of cancers could be prevented, including all cancers caused by tobacco use. Among all racial/ethnic groups combined in the US, at least 42% of newly diagnosed cancers are potentially avoidable, including the 19% caused by smoking and the 18% that are caused by a combination of excess body weight, physical inactivity, excess alcohol consumption, and poor nutrition.<sup>9</sup> Many of the cancers caused by infectious organisms could also be prevented through behavioral changes, vaccination, or treatment of the infection. For more information on cancer risk factors, see page 20.

**Table 2. Lifetime Probability of Developing or Dying from Invasive Cancers\* by Race and Sex, US, 2013-2015**

		Developing		Dying	
		Black (%)	NH White (%)	Black (%)	NH White (%)
All sites <sup>†</sup>	Male	36.6 (1 in 3)	39.9 (1 in 3)	22.0 (1 in 5)	21.9 (1 in 5)
	Female	34.0 (1 in 3)	39.2 (1 in 3)	18.7 (1 in 5)	18.9 (1 in 5)
Breast	Female	11.5 (1 in 9)	13.2 (1 in 8)	3.1 (1 in 32)	2.6 (1 in 39)
Colon & rectum	Male	4.4 (1 in 23)	4.3 (1 in 23)	2.2 (1 in 46)	1.8 (1 in 55)
	Female	4.2 (1 in 24)	4.0 (1 in 25)	2.0 (1 in 51)	1.7 (1 in 59)
Kidney & renal pelvis	Male	2.0 (1 in 50)	2.2 (1 in 46)	0.5 (1 in 195)	0.6 (1 in 159)
	Female	1.3 (1 in 79)	1.2 (1 in 83)	0.3 (1 in 336)	0.3 (1 in 297)
Leukemia	Male	1.2 (1 in 86)	1.9 (1 in 52)	0.7 (1 in 150)	1.0 (1 in 96)
	Female	0.9 (1 in 109)	1.3 (1 in 74)	0.5 (1 in 191)	0.7 (1 in 139)
Liver & intrahepatic bile duct	Male	1.6 (1 in 62)	1.1 (1 in 89)	1.2 (1 in 83)	0.9 (1 in 114)
	Female	0.6 (1 in 173)	0.5 (1 in 212)	0.5 (1 in 182)	0.5 (1 in 219)
Lung & bronchus	Male	6.9 (1 in 15)	7.0 (1 in 14)	5.8 (1 in 17)	6.0 (1 in 17)
	Female	5.1 (1 in 19)	6.5 (1 in 15)	3.9 (1 in 26)	5.0 (1 in 20)
Myeloma	Male	1.4 (1 in 73)	0.8 (1 in 122)	0.7 (1 in 142)	0.5 (1 in 221)
	Female	1.2 (1 in 80)	0.6 (1 in 175)	0.7 (1 in 141)	0.3 (1 in 291)
Ovary	Female	0.9 (1 in 107)	1.3 (1 in 75)	0.7 (1 in 140)	0.9 (1 in 106)
Pancreas	Male	1.6 (1 in 64)	1.6 (1 in 62)	1.4 (1 in 73)	1.4 (1 in 71)
	Female	1.7 (1 in 59)	1.5 (1 in 66)	1.5 (1 in 65)	1.3 (1 in 76)
Prostate	Male	14.8 (1 in 7)	10.6 (1 in 9)	4.0 (1 in 25)	2.2 (1 in 45)
Stomach	Male	1.2 (1 in 83)	0.8 (1 in 119)	0.8 (1 in 132)	0.4 (1 in 278)
	Female	0.8 (1 in 118)	0.4 (1 in 227)	0.5 (1 in 206)	0.2 (1 in 436)
Thyroid	Male	0.3 (1 in 325)	0.7 (1 in 137)	<0.1 (1 in 2,893)	0.1 (1 in 1,743)
	Female	1.1 (1 in 87)	2.0 (1 in 51)	0.1 (1 in 1,273)	0.1 (1 in 1,576)
Urinary bladder <sup>‡</sup>	Male	1.8 (1 in 56)	4.2 (1 in 24)	0.5 (1 in 183)	1.0 (1 in 99)
	Female	0.8 (1 in 123)	1.2 (1 in 82)	0.3 (1 in 295)	0.4 (1 in 283)
Uterine cervix	Female	0.7 (1 in 140)	0.6 (1 in 177)	0.4 (1 in 281)	0.2 (1 in 506)
Uterine corpus	Female	2.7 (1 in 37)	3.0 (1 in 34)	1.0 (1 in 101)	0.6 (1 in 176)

NH= non-Hispanic. \*For those who have not been previously diagnosed with cancer. †All sites excludes basal and squamous cell skin cancers and in situ cancers except urinary bladder. ‡Includes in situ cancers. Note: Percentages and “1 in” numbers may not be equivalent due to rounding.

Source: DevCan: Probability of Developing or Dying of Cancer Software, Version 6.7.6.<sup>10</sup>

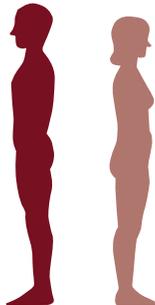
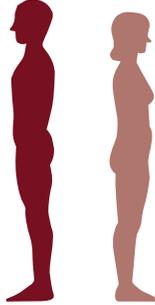
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Screening can prevent colorectal and cervical cancers through the detection and removal of precancerous growths and can also reduce mortality for cancers of the breast, colon, rectum, cervix, prostate, and lung (among current or former heavy smokers) through early detection. In addition, a heightened awareness of changes in certain parts of the body, such as the breast, skin, mouth, eyes, or genitalia, may also result in the early detection of cancer. See page 28 for more information on cancer screening.

## What Is the Risk of Developing or Dying of Cancer?

The risk of being diagnosed with cancer increases with age because most cancers require many years to develop. The risk of cancer and cancer death overall is similar in blacks and whites, but varies by cancer type. About 1 in 3 black men and women will be diagnosed with cancer in their lifetime and 1 in 5 will die from the disease (Table 2).

**Figure 2. Leading Sites of New Cancer Cases and Deaths among Blacks in the US – 2019 Estimates\***

	Male				Female		
Estimated New Cases	Prostate	29,570	30%		Breast	33,840	32%
	Lung & bronchus	13,730	14%		Lung & bronchus	11,660	11%
	Colon & rectum	9,880	10%		Colon & rectum	9,860	9%
	Kidney & renal pelvis	5,510	6%		Uterine corpus	7,460	7%
	Liver & intrahepatic bile duct	4,590	5%		Pancreas	3,980	4%
	Pancreas	3,690	4%		Thyroid	3,520	3%
	Myeloma	3,410	3%		Myeloma	3,500	3%
	Non-Hodgkin lymphoma	3,400	3%		Kidney & renal pelvis	3,380	3%
	Urinary bladder	3,160	3%		Non-Hodgkin lymphoma	2,910	3%
	Leukemia	3,080	3%		Leukemia	2,600	2%
	<b>All sites</b>	<b>98,020</b>			<b>All sites</b>	<b>104,240</b>	
Estimated Deaths	Male				Female		
	Lung & bronchus	9,280	25%		Lung & bronchus	7,270	20%
	Prostate	5,350	15%		Breast	6,540	18%
	Colon & rectum	3,810	10%		Colon & rectum	3,300	9%
	Pancreas	2,690	7%		Pancreas	2,940	8%
	Liver & intrahepatic bile duct	2,670	7%		Uterine corpus	2,500	7%
	Stomach	1,230	3%		Ovary	1,400	4%
	Myeloma	1,160	3%		Liver & intrahepatic bile duct	1,350	4%
	Leukemia	1,140	3%		Myeloma	1,200	3%
	Kidney & renal pelvis	940	3%		Leukemia	980	3%
	Esophagus	850	2%		Uterine cervix	770	2%
	<b>All sites</b>	<b>36,840</b>			<b>All sites</b>	<b>36,190</b>	

\*Estimates are rounded to the nearest 10, and exclude basal and squamous cell skin cancers and in situ carcinoma with the exception of urinary bladder. Ranking is based on modeled projections and may differ from the most recent observed data.

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## How Many African Americans Alive Today Have Ever Had Cancer?

More than 1.3 million African Americans with a history of cancer were alive on January 1, 2016, many of whom were diagnosed years earlier.<sup>11</sup>

## How Many New Cancer Cases and Deaths Are Expected in 2019?

**New cases:** About 98,020 cancer cases in black men and 104,240 cases in black women are expected to be newly diagnosed in 2019 (Figure 2). Prostate cancer is the most commonly diagnosed cancer in black men, and breast cancer the most common in black women. Cancers of the lung and colorectum are the second and third most commonly diagnosed cancers in both black men and women. The four most common cancers (lung, breast, prostate, and colorectal) account for more than half of all cancer cases among blacks.

**Deaths:** About 36,840 black men and 36,190 black women are expected to die from cancer in 2019 (Figure 2). Lung cancer accounts for the largest number of cancer deaths among men (25%) and women (20%), followed by breast cancer in women (18%) and prostate cancer in men (15%). For both men and women, colorectal cancer is expected to be the third-leading cause of cancer death.

## Does Cancer Occurrence Vary by State?

Incidence and death rates for NH blacks by state for all cancers combined and selected cancer sites are shown in Table 3 and Table 4. There is wide variation in rates by state, particularly for cancers closely tied to behavioral factors like smoking. For example, the lung cancer incidence rates for black men residing in the Southern states of Arkansas, Mississippi, and Kentucky are nearly twice those in Colorado and Nevada due to historic differences in smoking prevalence.

**Table 3. Incidence Rates\* for Selected Cancers in Non-Hispanic Blacks by Sex and State, 2011-2015**

State	All Cancers		Lung and Bronchus		Colon and Rectum		Prostate	Breast
	Male	Female	Male	Female	Male	Female	Male	Female
Alabama	556.9	380.1	90.1	38.6	62.2	44.3	188.9	124.5
Alaska	386.3	324.2	76.8	†	†	†	113.8	111.4
Arizona	392.1	360.7	67.3	43.2	37.0	35.1	116.8	113.4
Arkansas	586.0	390.6	114.9	50.4	60.2	46.6	179.4	117.2
California	510.3	403.4	68.9	48.2	52.0	40.9	161.6	130.3
Colorado	474.6	351.2	56.1	41.1	50.7	32.5	154.1	116.1
Connecticut	539.1	407.6	75.3	44.5	51.9	35.9	172.3	126.6
Delaware	589.2	432.4	81.3	59.1	51.2	37.7	214.7	133.2
District of Columbia†§	606.4	472.9	88.6	59.2	62.5	45.5	180.4	143.9
Florida	478.8	360.1	64.1	35.6	50.3	36.6	165.2	108.7
Georgia	564.2	399.8	83.8	40.7	57.7	41.8	194.3	128.4
Hawaii	522.2	354.3	†	†	49.9	†	181.6	120.3
Idaho	362.1	353.9	†	†	†	†	†	†
Illinois	587.9	442.1	100.1	63.2	66.5	47.5	178.6	134.9
Indiana	517.3	422.1	91.8	63.1	52.0	41.5	141.6	130.2
Iowa	572.6	453.5	98.1	65.6	52.3	42.1	172.5	110.4
Kansas†	–	–	–	–	–	–	–	–
Kentucky	580.1	454.7	110.6	76.9	59.9	47.7	157.6	129.2
Louisiana	616.0	423.3	106.5	49.1	67.0	48.6	191.8	134.2
Maine	365.4	295.3	†	†	†	†	107.2	†
Maryland	530.2	404.6	70.7	46.9	49.0	36.8	188.9	132.5
Massachusetts	504.5	393.7	63.6	42.7	45.7	34.7	179.5	119.9
Michigan	571.6	426.8	95.3	62.2	54.5	41.3	181.7	127.5
Minnesota†	530.7	402.2	77.8	53.8	45.8	42.9	159.3	102.6
Mississippi	604.3	402.2	111.5	46.4	72.2	50.8	196.3	121.0
Missouri	568.3	444.9	107.9	65.5	57.0	42.8	159.4	134.1
Montana	586.6	†	†	†	†	†	†	†
Nebraska	625.2	422.6	99.2	60.3	78.0	43.6	203.9	120.1
Nevada†	380.2	326.0	62.5	47.9	49.7	35.6	101.2	102.5
New Hampshire	408.4	227.1	†	†	†	†	150.5	†
New Jersey	555.2	421.4	72.8	49.2	54.3	42.6	202.2	128.7
New Mexico†	392.2	335.4	62.6	41.7	33.0	30.4	125.9	109.1
New York	571.2	407.5	68.0	42.1	52.1	37.7	217.4	122.0
North Carolina	565.6	410.3	96.1	47.3	51.9	37.3	183.8	134.0
North Dakota	329.3	224.6	†	†	†	†	†	†
Ohio	531.9	412.5	94.3	63.4	49.6	37.9	167.2	127.5
Oklahoma	578.8	407.2	97.1	56.9	54.2	42.5	186.2	119.7
Oregon	526.6	409.1	83.4	57.8	51.1	33.1	169.8	123.9
Pennsylvania	592.6	465.4	94.7	68.9	55.6	42.3	171.9	130.5
Rhode Island	447.0	367.6	74.2	45.0	33.9	27.9	127.7	114.8
South Carolina	560.6	392.5	90.2	41.5	54.8	36.9	186.0	127.8
South Dakota	263.4	203.1	†	†	†	†	†	†
Tennessee	563.7	402.9	102.6	51.7	57.8	41.1	179.5	126.3
Texas	535.0	399.7	90.1	48.2	58.0	41.2	153.6	120.0
Utah	504.0	372.5	72.6	†	64.2	†	172.2	99.8
Vermont	305.3	328.1	†	†	†	†	†	†
Virginia	528.5	398.6	84.8	47.9	49.0	38.8	175.3	135.1
Washington	500.8	383.3	71.4	45.1	44.3	32.3	148.3	123.1
West Virginia	533.4	390.5	96.1	47.6	56.8	42.4	157.2	124.7
Wisconsin	674.1	493.5	118.6	75.0	62.1	42.8	204.4	138.9
Wyoming	182.7	171.2	†	†	†	†	†	†
<b>US</b>	<b>549.1</b>	<b>407.0</b>	<b>85.4</b>	<b>49.2</b>	<b>55.2</b>	<b>40.7</b>	<b>179.2</b>	<b>126.5</b>

– Data unavailable. \*Rates are per 100,000 and age adjusted to the 2000 US standard population. †Rates are suppressed when they are based on fewer than 25 cases. ‡Data from these registries are not included in US combined rates either because they did not consent or did not meet NAACCR high-quality data standards for all years during 2011-2015. §Rates are for cases diagnosed 2011-2014.

Source: North American Association of Central Cancer Registries, 2018.

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**Table 4. Death Rates\* for Selected Cancers in Non-Hispanic Blacks by Sex and State, 2012-2016**

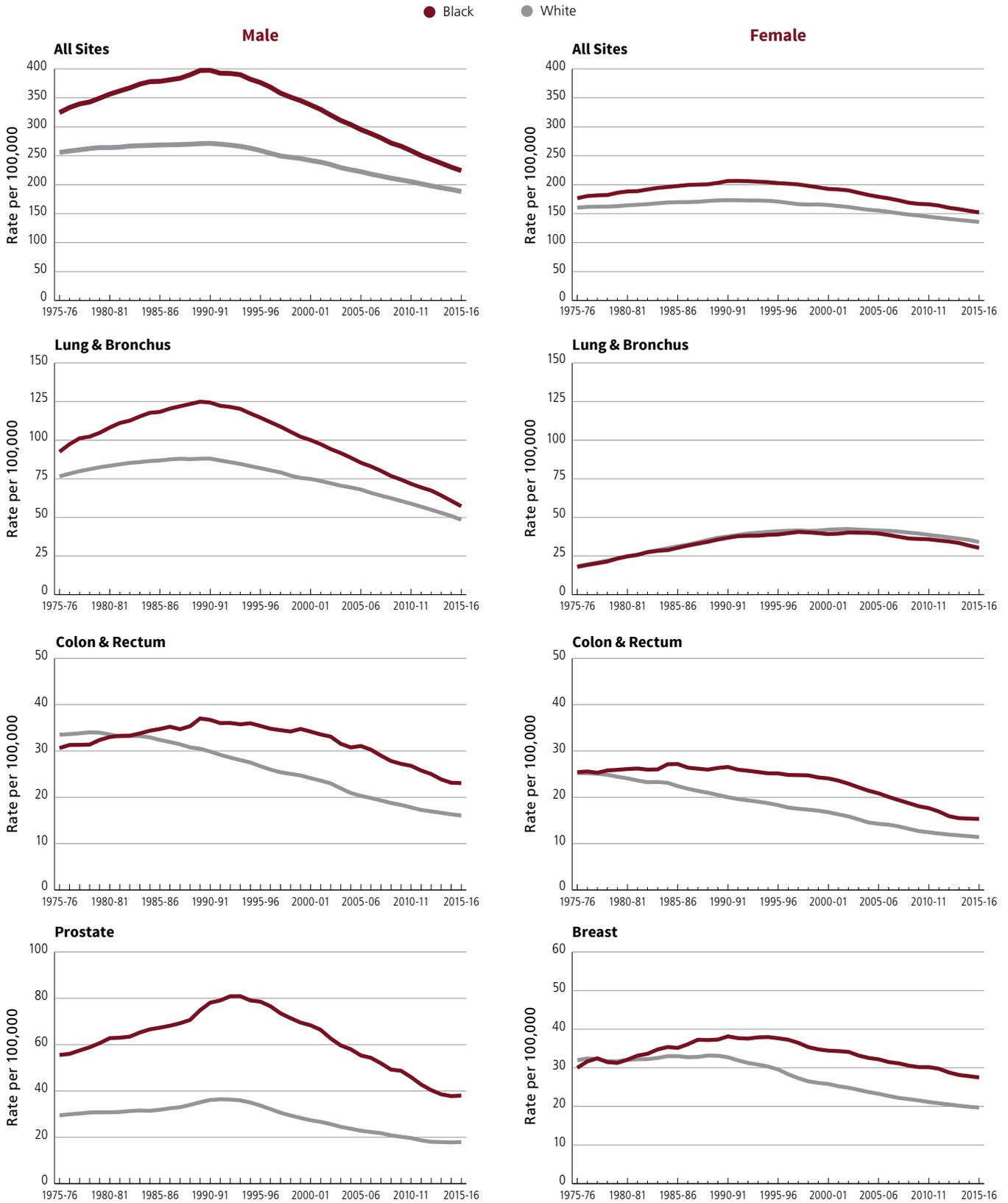
State	All Cancers		Lung and Bronchus		Colon and Rectum		Prostate	Breast
	Male	Female	Male	Female	Male	Female	Male	Female
Alabama	265.3	158.4	75.2	28.9	27.4	17.9	45.1	28.2
Alaska	210.2	138.2	†	†	†	†	†	†
Arizona	188.7	146.2	47.0	27.8	19.9	16.4	28.3	25.2
Arkansas	274.0	172.2	88.8	36.7	27.1	19.8	41.7	29.6
California	225.4	166.9	52.2	34.1	22.3	16.9	43.2	31.6
Colorado	209.2	143.6	43.8	26.5	21.7	10.9	49.4	29.0
Connecticut	203.4	142.8	48.8	25.8	18.5	12.3	33.0	21.8
Delaware	212.9	163.5	58.8	39.0	17.4	14.2	33.6	25.2
District of Columbia	262.0	189.3	61.9	37.0	26.7	17.9	40.8	34.3
Florida	200.8	138.0	46.9	22.9	21.0	14.3	37.6	25.8
Georgia	241.7	148.7	62.1	26.5	26.3	15.3	44.2	28.8
Hawaii	173.9	105.8	†	†	†	†	†	†
Idaho	†	†	†	†	†	†	†	†
Illinois	269.2	182.5	73.9	43.8	29.6	19.0	44.5	31.3
Indiana	254.0	175.9	70.2	44.7	25.2	18.3	38.6	29.1
Iowa	234.8	176.4	66.1	47.5	19.5	17.9	†	19.9
Kansas	240.6	170.4	70.7	40.1	25.1	15.9	41.4	28.1
Kentucky	250.4	173.8	78.4	49.2	23.2	17.2	34.5	27.7
Louisiana	278.4	174.6	85.0	36.3	28.4	18.1	37.0	32.5
Maine	152.9	131.2	†	†	†	†	†	†
Maryland	229.0	154.1	55.3	32.3	23.9	14.3	37.5	27.9
Massachusetts	190.7	129.3	42.1	26.1	14.9	12.2	36.5	19.0
Michigan	245.2	173.4	70.6	40.8	24.5	16.8	35.9	29.1
Minnesota	220.1	158.5	56.5	32.4	13.2	11.8	36.3	22.6
Mississippi	292.2	169.9	91.0	33.3	31.1	19.0	49.9	31.4
Missouri	270.1	178.7	82.3	45.0	26.6	16.2	37.7	31.3
Montana	†	†	†	†	†	†	†	†
Nebraska	244.3	172.8	66.9	47.7	35.4	20.0	34.9	26.9
Nevada	203.1	146.5	48.4	36.9	26.5	15.0	31.4	27.4
New Hampshire	127.9	†	†	†	†	†	†	†
New Jersey	228.5	162.7	54.4	31.9	25.3	15.0	44.4	31.4
New Mexico	208.7	128.5	45.7	†	†	†	37.8	†
New York	202.9	145.7	46.7	26.5	19.5	14.5	36.9	26.3
North Carolina	251.6	155.2	71.2	30.3	24.1	15.2	39.6	28.2
North Dakota	†	†	†	†	†	†	†	†
Ohio	243.9	173.3	72.5	44.9	23.4	15.9	36.6	30.5
Oklahoma	259.2	171.3	69.7	38.8	28.4	17.1	42.9	34.0
Oregon	236.7	158.1	49.9	39.8	23.0	†	44.0	30.8
Pennsylvania	259.7	183.7	69.8	44.6	24.5	15.9	42.7	30.9
Rhode Island	154.9	96.2	37.1	20.4	†	†	†	23.1
South Carolina	261.1	154.3	69.0	27.1	25.1	15.0	45.7	27.9
South Dakota	†	†	†	†	†	†	†	†
Tennessee	278.0	174.4	83.1	40.4	30.1	18.0	45.4	30.4
Texas	241.1	159.0	66.9	32.5	26.8	16.5	34.2	29.7
Utah	155.2	154.3	†	†	†	†	†	†
Vermont	†	†	†	†	†	†	†	†
Virginia	241.8	157.8	63.9	32.9	25.0	15.8	39.7	29.0
Washington	207.0	135.5	46.7	29.3	17.4	10.8	31.4	23.7
West Virginia	258.0	176.3	66.0	39.7	28.0	15.3	38.4	32.5
Wisconsin	289.6	192.8	88.4	50.1	26.7	17.1	35.7	30.8
Wyoming	†	†	†	†	†	†	†	†
<b>US</b>	<b>239.8</b>	<b>160.4</b>	<b>63.9</b>	<b>33.3</b>	<b>24.5</b>	<b>16.0</b>	<b>39.8</b>	<b>28.9</b>

\*Rates are per 100,000 and age adjusted to the 2000 US standard population. †Rates are suppressed when they are based on fewer than 25 deaths.

Source: National Center for Health Statistics, Centers for Disease Control and Prevention, 2018.

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**Figure 3. Trends in Death Rates\* for Selected Cancer Sites among Blacks and Whites, US, 1975-2016**



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

Source: National Center for Health Statistics, Centers for Disease Control and Prevention, 2018.

## How Have Cancer Rates Changed over Time?

### Trends in Cancer Incidence Rates

Incidence rates for all cancers combined increased from the mid-1970s to the early 1990s in blacks; rates were higher and increased faster in males than in females. Since the early 1990s, rates have decreased in males, but remained stable in females. During the most recent time period (2006-2015), overall cancer incidence rates decreased faster in NH black males (2.4% per year) compared to NH white males (1.7%).<sup>12</sup> These declines largely reflect trends in cancers of the lung, prostate, and colorectum. In contrast, among women, the overall cancer incidence rate has been stable among NH blacks, but has slowly increased (0.2% per year) in NH whites during the past decade.<sup>12</sup>

### Trends in Cancer Death Rates

Overall cancer death rates were lower in blacks than whites during the early 1950s; however, rates increased sharply in blacks during 1950-1990 and have remained higher compared to whites since the 1960s.<sup>13</sup> Cancer death rates have decreased since the early 1990s, with larger declines in black men than women (Figure 3). This progress translates to the avoidance of more than 462,000 cancer deaths in blacks.<sup>12</sup> From 2007 to 2016, the death rate declined faster in blacks than whites among both males (2.6% versus 1.6% per year) and females (1.5% versus 1.3% per year).<sup>12</sup> As a result, the overall black-white disparity has narrowed, particularly in males (Figure 3).

The higher overall cancer death rate in blacks 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, as well as colorectal, prostate, and

**Table 5. Comparison of Cancer Incidence Rates between Non-Hispanic (NH) Blacks and Whites, US, 2011-2015**

Male					Female				
Cancer	NH Black Rate*	NH White Rate*	Rate Difference†	Rate Ratio‡	Cancer	NH Black Rate*	NH White Rate*	Rate Difference†	Rate Ratio‡
Kaposi sarcoma	1.6	0.4	1.2	3.75	Kaposi sarcoma	0.2	<0.01	0.2	3.89
Myeloma	15.9	7.5	8.4	2.13	Myeloma	11.7	4.5	7.2	2.60
Stomach	14.1	7.8	6.3	1.81	Stomach	7.7	3.5	4.2	2.18
Prostate	179.2	101.7	77.5	1.76	Liver & intrahepatic bile duct	5.2	3.6	1.6	1.46
Liver & intrahepatic bile duct	17.6	10.3	7.3	1.70	Pancreas	14.8	10.9	3.9	1.36
Breast	1.9	1.3	0.6	1.44	Uterine cervix	9.2	7.1	2.1	1.30
Larynx	8.5	5.9	2.6	1.43	Esophagus	2.3	1.8	0.5	1.24
Colon & rectum	55.2	44.6	10.6	1.24	Colon & rectum	40.7	34.2	6.5	1.19
Pancreas	17.3	14.6	2.7	1.19	Kidney & renal pelvis	13.1	11.4	1.7	1.14
Lung & bronchus	85.4	74.3	11.1	1.15	Breast	126.5	130.1	-3.6	0.97
Kidney & renal pelvis	25.4	22.5	2.9	1.13	Uterine corpus	24.4	26.1	-1.7	0.93
Hodgkin lymphoma	3.2	3.2	0.0	0.98	Hodgkin lymphoma	2.4	2.6	-0.2	0.93
Esophagus	6.8	8.7	-1.9	0.79	Lung & bronchus	49.2	57.4	-8.2	0.86
Oral cavity & pharynx	14.6	19.3	-4.7	0.76	Leukemia	8.9	11.2	-2.3	0.80
Leukemia	13.7	18.5	-4.8	0.74	Ovary	9.3	11.9	-2.6	0.78
Non-Hodgkin lymphoma	17.0	23.9	-6.9	0.71	Oral cavity & pharynx	5.1	6.9	-1.8	0.75
Brain & other nervous system	4.9	8.7	-3.8	0.57	Non-Hodgkin lymphoma	12.0	16.2	-4.2	0.74
Urinary bladder	19.9	39.5	-19.6	0.50	Urinary bladder	6.6	9.7	-3.1	0.68
Thyroid	3.9	8.2	-4.3	0.48	Thyroid	14.0	23.0	-9.0	0.61
Testis	1.5	6.8	-5.3	0.22	Brain & other nervous system	3.6	6.3	-2.7	0.57
Melanoma of the skin	1.2	34.0	-32.8	0.03	Melanoma of the skin	1.0	22.1	-21.1	0.04
<b>All sites</b>	<b>549.1</b>	<b>505.5</b>	<b>43.6</b>	<b>1.09</b>	<b>All sites</b>	<b>407.0</b>	<b>438.4</b>	<b>-31.4</b>	<b>0.93</b>

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

Source: North American Association of Central Cancer Registries, 2008.

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**Table 6. Comparison of Cancer Death Rates between Non-Hispanic (NH) Blacks and Whites, US, 2012-2016**

Male					Female				
Cancer	NH Black Rate*	NH White Rate*	Rate Difference†	Rate Ratio‡	Cancer	NH Black Rate*	NH White Rate*	Rate Difference†	Rate Ratio‡
Stomach	8.4	3.3	5.1	2.55	Myeloma	5.6	2.4	3.2	2.32
Prostate	39.8	18.1	21.7	2.20	Stomach	3.9	1.7	2.2	2.32
Myeloma	7.6	4.0	3.6	1.92	Uterine corpus	8.7	4.4	4.3	1.98
Larynx	3.2	1.7	1.5	1.88	Uterine cervix	3.6	2.1	1.5	1.75
Liver & intrahepatic bile duct	13.6	8.3	5.3	1.64	Breast	28.9	20.6	8.3	1.41
Colon & rectum	24.5	16.6	7.9	1.47	Liver & intrahepatic bile duct	4.8	3.4	1.4	1.40
Oral cavity & pharynx	4.8	4.0	0.8	1.20	Colon & rectum	16.0	11.9	4.1	1.34
Pancreas	15.2	12.9	2.3	1.18	Pancreas	12.5	9.5	3.0	1.31
Lung & bronchus	63.9	54.1	9.8	1.18	Esophagus	1.8	1.5	0.3	1.15
Kidney & renal pelvis	5.6	5.7	-0.1	0.99	Urinary bladder	2.4	2.3	0.1	1.08
Hodgkin lymphoma	0.4	0.4	0.0	0.92	Kidney and renal pelvis	2.3	2.4	-0.1	0.97
Leukemia	7.4	9.3	-1.9	0.80	Hodgkin lymphoma	0.2	0.2	0.0	0.93
Esophagus	5.7	7.9	-2.2	0.72	Lung & bronchus	33.3	37.9	-4.6	0.88
Non-Hodgkin lymphoma	5.3	7.6	-2.3	0.70	Leukemia	4.5	5.1	-0.6	0.88
Urinary bladder	5.5	8.4	-2.9	0.66	Ovary	6.3	7.5	-1.2	0.84
Brain & other nervous system	3.3	6.1	-2.8	0.55	Non-Hodgkin lymphoma	3.4	4.6	-1.2	0.74
Melanoma of the skin	0.4	4.7	-4.3	0.10	Brain & other nervous system	2.2	4.1	-1.9	0.54
					Melanoma of the skin	0.3	2.0	-1.7	0.15
<b>All sites</b>	<b>239.8</b>	<b>197.3</b>	<b>42.5</b>	<b>1.22</b>	<b>All sites</b>	<b>160.4</b>	<b>141.8</b>	<b>18.6</b>	<b>1.13</b>

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

Source: National Center for Health Statistics, Centers for Disease Control and Prevention, 2018.

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cervical cancers, have decreased faster in NH blacks than NH whites, contributing to the narrowing racial disparity in overall cancer death rates.<sup>14</sup> In fact, lung and cervical cancer death rates have converged for young blacks and whites.<sup>15, 16</sup>

## Major Differences in the Cancer Burden between Blacks and Whites

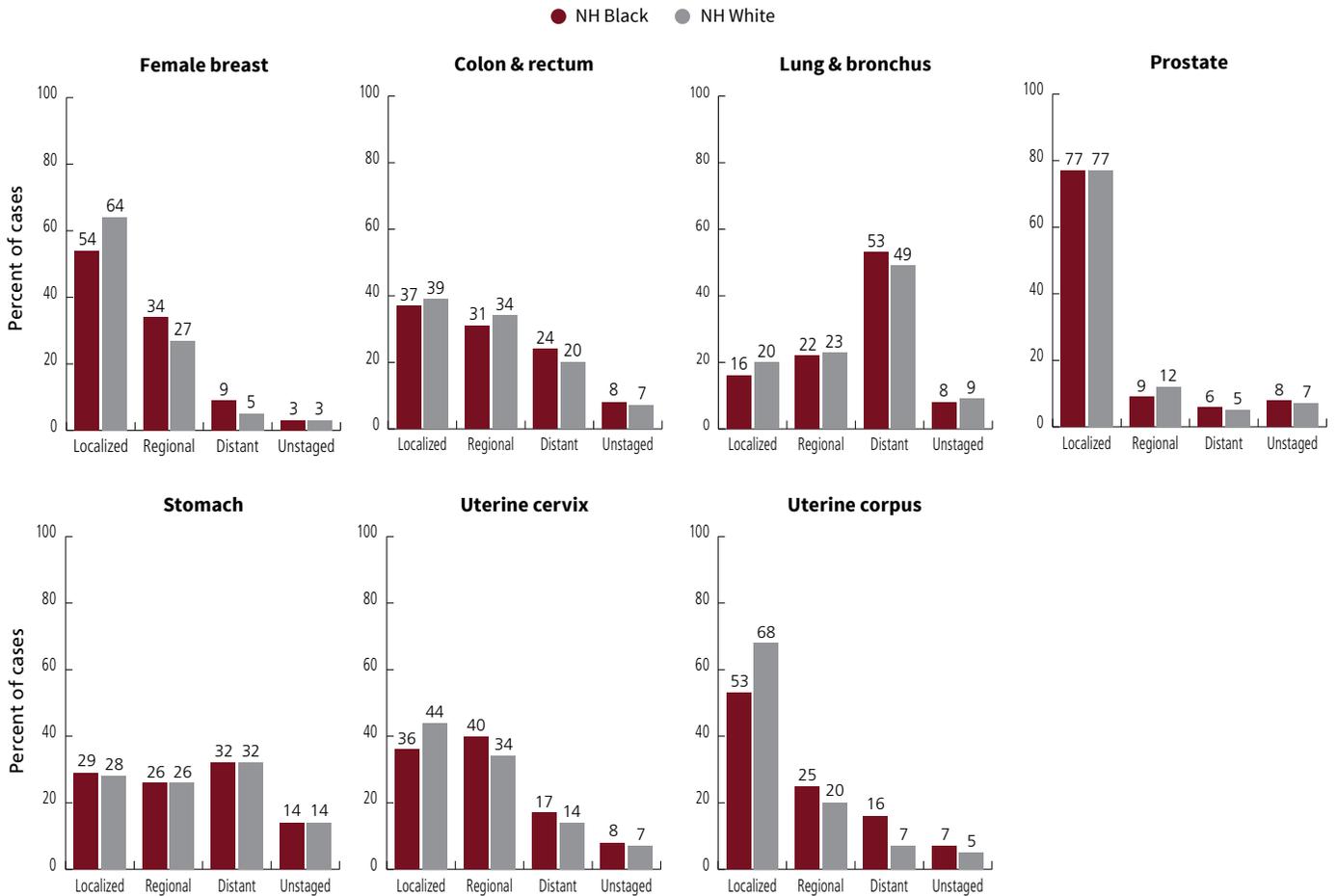
### Incidence and Death Rates

Table 5 and Table 6 show differences in cancer incidence and death rates between NH blacks and NH whites using NH whites as the reference group. Rate ratios greater than 1 indicate cancers for which the rate is higher in NH blacks compared to NH whites, and ratios less than 1 indicate cancers for which the rate is lower in NH blacks. Among males, incidence and death rates are higher among NH blacks than NH whites for all cancers combined (9% and 22%, respectively), and are also higher for the most common cancers, including prostate, lung, colorectal, kidney, liver, and pancreas.

In contrast, NH black women have a 7% lower risk of a cancer diagnosis than NH white women, but a 13% higher risk of cancer death. Notably, despite slightly lower incidence rates for breast and uterine corpus cancers, NH black women have death rates for these cancers that are 41% and 98% higher, respectively, than NH white women. Importantly, however, uterine corpus cancer incidence rates in blacks and whites are similar when they exclude women who have undergone hysterectomy, and are not at risk for the disease, because hysterectomy is more common among black women.<sup>17, 18</sup>

Incidence rates for Kaposi sarcoma (KS), myeloma, and stomach cancer are about 2-4 times higher in NH blacks than NH whites (Table 5). In the US, KS is now a relatively rare cancer that primarily occurs among people infected with the human immunodeficiency virus (HIV), which is more common among NH blacks than NH whites (see page 27 for more information on HIV infection). More information on racial disparities for specific cancers is provided in the next sections (see page 12).

**Figure 4. Stage Distribution for Selected Cancers in Non-Hispanic (NH) Blacks and Whites, US, 2008-2014**



Percentages may not total 100% due to rounding.

Source: North American Association of Central Cancer Registries, 2018.

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## Stage at Diagnosis and Survival

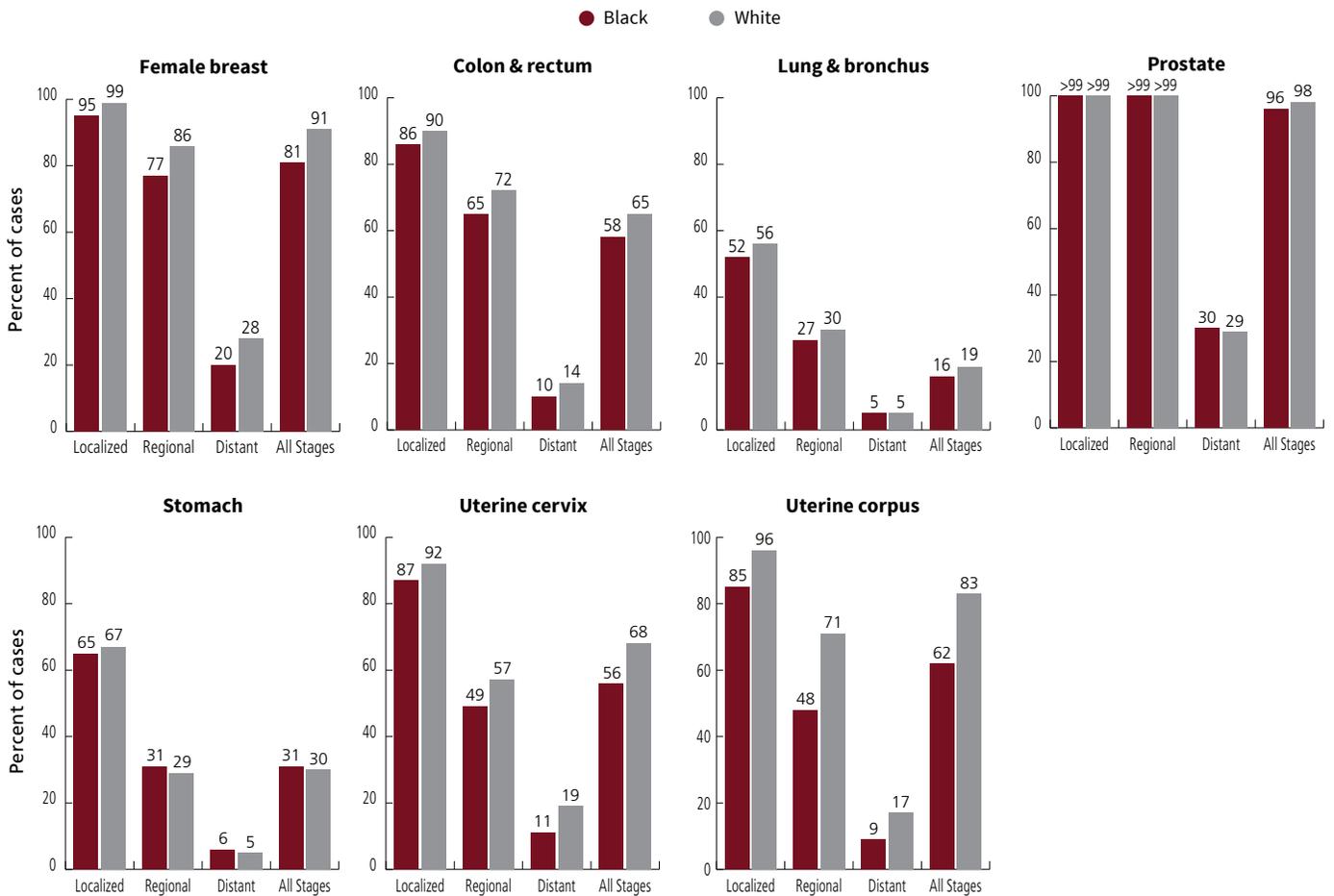
Stage of disease is the extent or spread of cancer at the time of diagnosis. Local stage describes an invasive cancer that is confined to the organ of origin, whereas regional-stage cancer has spread into surrounding organs, tissues, or nearby lymph nodes and distant-stage disease has spread to distant organs and/or distant lymph nodes. NH blacks are more likely than NH whites to be diagnosed with cancer at regional or distant stages for most cancers (Figure 4).

A common measure for cancer survival is relative survival, which is the percentage of cancer patients alive after a specified time following diagnosis (typically 5 years), divided by the percentage expected to be alive in

the absence of cancer based on normal life expectancy. 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 do not predict individual prognosis because many important factors that influence individual survival, such as tumor characteristics and other patient illnesses, are not accounted for. It is also important to note that relative survival rates do not include persons of Hispanic ethnicity because necessary life tables are not available by ethnicity.

The overall 5-year relative survival rate among blacks has improved from approximately 27% during 1960-1963 to 63% during 2008-2014.<sup>11</sup> Still, blacks continue to have

**Figure 5. Five-year Relative Survival Rates\* for Selected Cancers by Race and Stage, US, 2008-2014**



\*Survival rates are based on patients diagnosed between 2008 and 2014 and followed through 2015. **Local:** an invasive cancer confined entirely to the organ of origin. **Regional:** a malignant cancer that 1) has extended beyond the limits of the organ of origin directly into surrounding organs or tissues; 2) involves regional lymph nodes; 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:** Surveillance, Epidemiology, and End Results (SEER) Program, 18 SEER Registries, National Cancer Institute, 2018.

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lower 5-year survival than whites overall (62% versus 67%) and for each stage of diagnosis for most cancer sites (Figure 5). Much of the difference in survival is believed to be due to socioeconomic barriers that limit access to timely, appropriate, and high-quality medical care.<sup>19-21</sup> Many studies have found that in equal-access health care systems, racial disparities in cancer outcomes are eliminated.<sup>22</sup> However, other studies report that racial disparities persist even after accounting for socioeconomic factors and access to care.<sup>13,23-26</sup> For example, a recent comprehensive study of socioeconomic and racial disparities in cancer in the US found that even

within each socioeconomic group, blacks have higher death rates than whites.<sup>13</sup> A higher prevalence of preexisting health conditions among black cancer patients likely contributes to survival differences.<sup>27,28</sup> A recent study reported that diabetes significantly increases risk of cancer death, and diabetes is more common among blacks than other racial/ethnic groups.<sup>27</sup> Differences in tumor characteristics also contribute to these disparities for some cancers.<sup>29,30</sup> Furthermore, blacks and other racial/ethnic minorities are underrepresented in clinical trials, which makes it more difficult to assess the efficacy of cancer therapies among

these groups.<sup>31-33</sup> In 2012, only 17% of patients participating in industry-funded clinical trials were from a racial/ethnic minority group, despite these groups representing one-third of the US population.<sup>31</sup>

For more information on how socioeconomic status and access to care contribute to racial disparities, see Factors That Influence Health on page 30.

## Selected Cancers

### Female Breast

#### New Cases

Breast cancer is the most commonly diagnosed cancer among black women, and an estimated 33,840 new cases are expected to be diagnosed in 2019. Similar to the pattern among white women, breast cancer incidence rates among black women increased rapidly during much of the 1980s (Figure 6a), largely due to increased detection of asymptomatic lesions by mammography screening. In the most recent period (2006-2015), incidence rates increased slightly more rapidly in NH black women (0.9% per year) than in NH white women (0.4% per year), contributing to a convergence in incidence rates.<sup>34,35</sup>

During 2011-2015, the overall breast cancer incidence rate in NH black women was 126.5 cases per 100,000 women compared to 130.1 in NH white women. However, rates were higher in NH black women than NH white women in eight US states (Alabama, Indiana, Louisiana, Michigan, Mississippi, Missouri, North Carolina, and Virginia), and were not significantly different in 20 other states.<sup>36</sup> Breast cancer incidence rates are also higher among blacks than whites for women under age 45. The median age of diagnosis is 59 for black women, compared to 63 for white women.<sup>11</sup>

Black women are twice as likely as women of other racial and ethnic groups in the US to be diagnosed with triple negative breast cancers, so called because they lack estrogen receptors, progesterone receptors, and human epidermal growth factor receptor-2.<sup>36</sup> Women with these tumors generally have poorer outcomes because effective treatments have not been developed. A recent analysis comparing molecular features of breast cancers in black and white women estimated that 40% of the racial

variation in breast cancer subtype are due to inherited genetic mutations.<sup>37</sup> Inflammatory breast cancer, a rare but aggressive subtype, is also more common in black women than white women.<sup>38</sup> For more information about breast cancer subtypes, see *Breast Cancer Facts & Figures* at [cancer.org/statistics](http://cancer.org/statistics).

#### Prevention and Early Detection

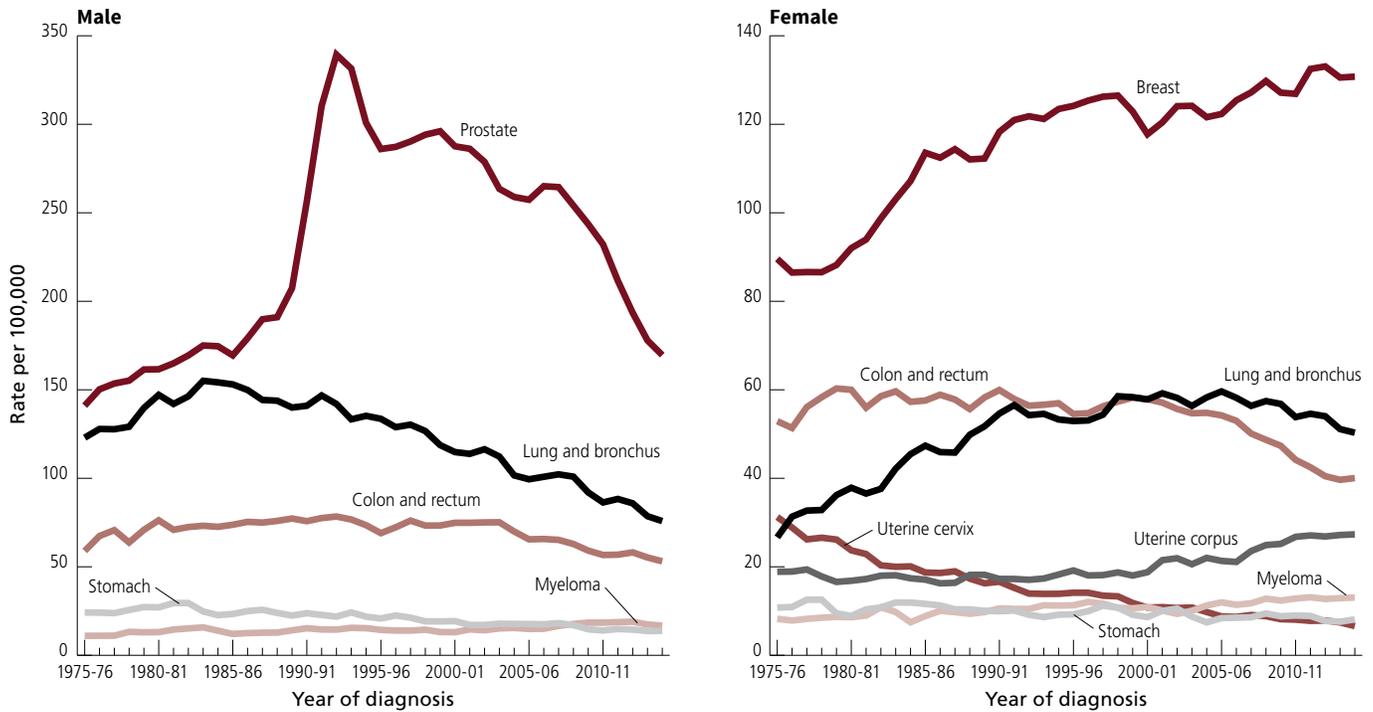
Potentially modifiable factors that increase breast cancer risk include weight gain after the age of 18 and/or being overweight or obese (for postmenopausal breast cancer); menopausal hormone therapy (combined estrogen and progestin); alcohol consumption; and physical inactivity.<sup>39</sup> There is growing evidence that high consumption of non-starchy vegetables may be associated with lower risk for hormone receptor-negative breast cancers.<sup>39</sup>

Screening mammography can detect breast cancer at an early stage, when treatment is usually less extensive and more likely to be successful. For more information on breast cancer screening, see page 28.

#### Deaths

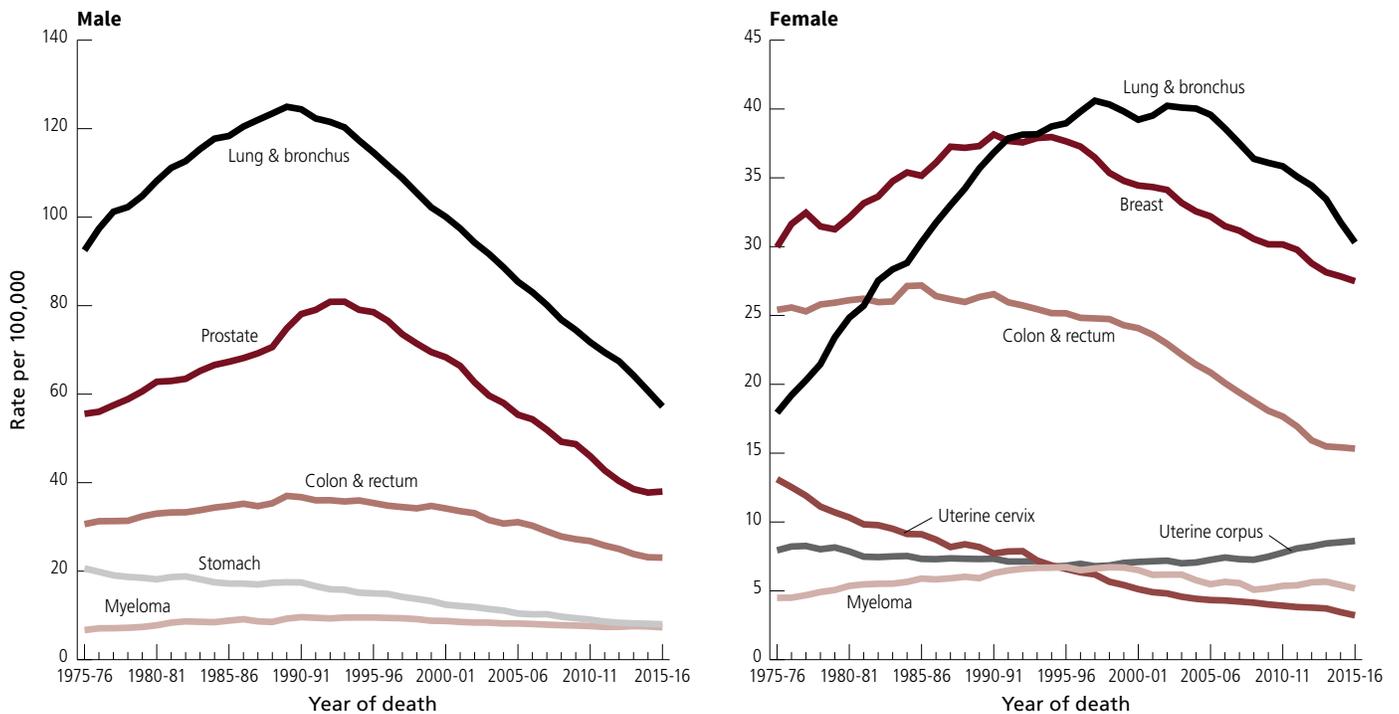
Breast cancer is the second most common cause of cancer death among black women, surpassed only by lung cancer. An estimated 6,540 deaths from breast cancer are expected to occur among black women in 2019. Breast cancer death rates among black women increased from 1975 to 1991, but declined thereafter as a result of improvements in both early detection and treatment. Prior to the mid-1980s, breast cancer death rates for white and black women were similar (Figure 3). However, a larger increase in black women from the mid-1970s to the early 1990s, followed by a slower decline, led to a widening racial disparity that peaked around

**Figure 6a. Trends in Incidence Rates\* among Blacks for Selected Cancers by Sex, US, 1975-2015**



\*Rates are delay adjusted and age adjusted to the 2000 US standard population and are 2-year moving averages.  
**Source:** SEER Program, 9 SEER Registries, National Cancer Institute, 2018.

**Figure 6b. Trends in Death Rates\* among Blacks for Selected Cancers by Sex, US, 1975-2016**



\*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, 2018.

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2010. Since 1990, breast cancer death rates dropped by 26% in NH black women compared to 40% in NH white women. Breast cancer death rates in the most recent time period (2012-2016) are about 40% higher in black women compared to white women. The racial disparity is largely due to more advanced stage at diagnosis, higher prevalence of obesity, comorbidities, and unfavorable tumor characteristics (e.g., triple negative breast cancers), as well as access and adherence to high-quality cancer treatment.<sup>30</sup> A recent study by American Cancer Society researchers found that lack of private/Medicare insurance and unfavorable tumor characteristics were the most important factors contributing to the higher risk of death among black breast cancer patients under age 65 with early-stage disease, explaining one-third and one-fifth of the disparity, respectively.<sup>40</sup>

### Survival and Stage Distribution

The overall 5-year relative survival rate for breast cancers diagnosed in 2008-2014 was 81% for black women compared to 91% for white women (Figure 5). This difference can be attributed to both more advanced stage at detection and poorer stage-specific survival among black women. Only about half (54%) of breast cancers in black women are diagnosed at a local stage, compared to 64% in white women (Figure 4).

More advanced stage at diagnosis among black women has been largely attributed to issues related to access to high-quality health care, including fewer screening mammograms, lack of timely follow-up of abnormal results, and receipt of health care at lower resourced or unaccredited facilities.<sup>41-45</sup> Lower stage-specific survival has been explained in part by unequal access to and receipt of prompt, high-quality treatment among black women compared to white women.<sup>40,46,47</sup> The greater burden of triple negative breast cancers in black women also contributes to disparate outcomes.<sup>48,49</sup> However, one study found the greatest survival disparities were for patients with hormone receptor-positive tumors.<sup>50</sup> Racial disparities are typically larger when effective treatment is available, highlighting the influence of access to care.

Visit [cancer.org/statistics](http://cancer.org/statistics) for additional information about breast cancer in the latest edition of *Breast Cancer Facts & Figures*.

## Colon and Rectum

### New Cases

Colorectal cancer is the third most common cancer in both black men and women. An estimated 19,740 cases of colorectal cancer are expected to occur among blacks in 2019. Blacks have the highest rates of colorectal cancer of any racial/ethnic group in the US. Compared to NH whites, incidence rates are 24% higher in NH black males and 19% higher in NH black females (Table 5). From 2006 to 2015, incidence rates for colorectal cancer decreased by 2.7% per year among black men and by 2.8% per year among black women, similar to declines in whites.<sup>12</sup>

Prior to 1989, incidence rates were predominantly higher in white men than in black men and were similar for women of both races. Since 1989, however, incidence rates have been higher for blacks 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.

### Prevention and Early Detection

Major modifiable factors that increase risk for colorectal cancer include excess body weight, physical inactivity, long-term smoking, high consumption of red or processed meat, low calcium intake, moderate to heavy alcohol consumption, and very low intake of fruits and vegetables and whole-grain fiber.<sup>51</sup> Many of these risk factors disproportionately affect blacks and are described in the section on Risk Factors for Cancer on page 20.

Screening tests that detect and remove adenomatous polyps are the most reliable method of preventing colorectal cancer. For more information on colorectal cancer screening, see page 29.

## Deaths

An estimated 7,110 deaths from colorectal cancer are expected to occur among blacks in 2019. Colorectal cancer is the third-leading cause of cancer death in both black men and women. Colorectal cancer death rates are 47% higher in NH black men and 34% higher in NH black women compared to NH white men and women (Table 6). One study estimated that 19% of the racial disparity in colorectal cancer mortality rates can be attributed to lower screening rates and 36% to lower stage-specific survival among blacks.<sup>52</sup> Similar to incidence rates, colorectal cancer mortality rates were historically higher in whites compared to blacks, with the crossover occurring around 1979 for women and 1984 for men (Figure 3). Although mortality rates in blacks remain substantially higher than those in whites, the gap has begun to shrink in recent years. From 2007-2016, the decline in death rates was slightly larger in NH black men and women (2.7% and 3.2% per year, respectively) than in NH white men and women (2.3% and 2.1%, respectively).<sup>12</sup>

## Survival and Stage Distribution

The 5-year relative survival rate for colorectal cancer among blacks improved from 45% in 1975-1977 to 58% in 2008-2014, a smaller improvement than that for whites (50% to 67% over the same period).<sup>11</sup> Some of the disparity in survival is due to a later stage at diagnosis among blacks, although this gap is narrowing; 37% of colorectal cancers in blacks are diagnosed with local-stage disease compared to 39% in whites (Figure 4). In addition, 5-year relative survival rates remain lower in black colorectal cancer patients for each stage at diagnosis (Figure 5).

Racial disparities in stage-specific survival largely reflect differences in treatment, comorbidities, and tumor characteristics.<sup>53-57</sup> Numerous studies have documented that black patients with colorectal cancer are less likely than white patients to receive recommended surgical treatment, radiation, and chemotherapy.<sup>56-59</sup> Notably, one study found that when black and white patients with stage III colorectal cancer received the same treatments through a clinical trial, they had similar outcomes.<sup>60</sup> American Cancer Society researchers recently concluded that access to care, as indicated by insurance status,

accounted for half of the survival disparity in black and white patients under age 65.<sup>56</sup> Unfavorable tumor characteristics are estimated to account for 26% of the black-white survival disparity in patients younger than age 65, but 40%-50% in older patients.<sup>54,56,57</sup> For example, black patients are about 4 times more likely to be diagnosed with proximal (right-sided) tumors, which have less favorable outcomes than whites.<sup>61</sup>

Visit [cancer.org/statistics](http://cancer.org/statistics) for more information on colorectal cancer in the latest edition of *Colorectal Cancer Facts & Figures*.

## Lung and Bronchus

### New Cases

An estimated 25,390 cases of lung cancer are expected to be newly diagnosed among blacks in 2019. Lung cancer is the second most common cancer in both black men and women. NH black men have higher lung cancer rates than white men, but the reverse is true for women, reflecting racial and gender differences in historic smoking patterns (Figure 7).<sup>62</sup> During 2011-2015, the incidence rate for cancers of the lung and bronchus was 15% higher in NH black men than in NH white men, but 14% lower in NH black women than NH white women (Table 5).

Lung cancer trends are generally similar in blacks and whites although declines in men began earlier in blacks. In black men, incidence rates increased rapidly until the mid-1980s, but have since been steadily declining, with an average annual decline of 3.1% during 2006-2015 (Figure 6a).<sup>12</sup> In contrast, rates in black women increased until the late-2000s but have decreased 1.1% annually over the past decade.<sup>12</sup>

### Prevention and Early Detection

Cigarette smoking is the most important risk factor for lung cancer, accounting for about 80% of lung cancer deaths in the US among all races/ethnicities combined.<sup>9</sup> Risk increases with both quantity and duration of smoking. Cigar and pipe smoking also increase risk.

Screening with low-dose spiral computed tomography has been shown to reduce lung cancer mortality by about 20% among current or former (quit within 15 years) heavy smokers. See page 29 for more information on lung cancer screening.

## Deaths

Lung cancer is the leading cause of cancer death in black men and women. An estimated 16,550 deaths from lung cancer are expected to occur among blacks in 2019. After increasing for decades, lung cancer death rates in black and white men began to decline in 1990 (Figure 3). A faster decline in black men compared to white men has led to a substantial reduction in the racial disparity in lung cancer death rates (from an excess of 40% among black men in 1990-1992 to 18% in 2012-2016). In fact, in adults under age 40, the disparity has been eliminated.<sup>13</sup> Black adolescents have initiated smoking at a much lower rate than their white counterparts since the early 1980s.<sup>63</sup> If black youth continue to have lower smoking prevalence as they age, racial differences in lung cancer mortality in men could be eliminated in the next several decades. (See page 20 for more information on smoking trends.) During 2007-2016, the lung cancer death rate declined by 4.1% per year and 2.7% per year in NH black men and women, respectively (Figure 6b), and by 3.3% per year and 2.3% per year in NH white men and women, respectively.<sup>12</sup>

## Survival and Stage Distribution

The overall 5-year relative survival rate for lung cancer is lower in blacks than in whites: 16% versus 19%, respectively (Figure 5). When lung cancer is detected at a localized stage, the 5-year relative survival rate among blacks is 52%; however, only 16% of lung cancer cases are detected at this early stage because symptoms generally do not appear until the disease is advanced. Numerous studies have shown that even when lung cancer is diagnosed early, blacks are less likely than whites to receive surgery, the treatment with the best chance for cure.<sup>64-68</sup> One recent study of early-stage lung cancer patients found that surgery was less often recommended for black lung cancer patients compared to other racial/ethnic groups, and as a result, 47% of black patients did not receive surgical treatment compared to 38% of Hispanics and NH whites and 34% of Asians.<sup>69</sup> In contrast, another study

found that racial differences in receipt of surgery were eliminated in 2010 for early-stage lung cancer patients treated at Veterans Affairs facilities, and in fact there were no differences in survival outcomes between blacks and whites in the equal access health care system.<sup>70</sup>

## Myeloma

### New Cases

An estimated 6,910 new cases of multiple myeloma are expected to be diagnosed among blacks in 2019. Myeloma is a cancer of immune system cells called plasma cells. Incidence rates for myeloma are 2.1 times higher in NH black men and 2.6 times higher in NH black women compared to NH white men and women (Table 5). The racial disparity is even greater before age 50, with rates 2.5 and 3.5 times higher in NH black men and women. During 2006-2015, incidence rates increased in NH black men and women (by 1.6% and 1.3% per year, respectively) as well as NH white men and women (in both by 1.8% per year).<sup>12</sup>

### Prevention

Excess body weight is the only known modifiable risk factor for myeloma; risk is about 20% higher in adults who are overweight or obese compared to those who are normal weight.<sup>71</sup> Higher rates of obesity among blacks (see “Excess Body Weight” on page 22) may contribute to their excess risk.<sup>72</sup> Myeloma is preceded by an asymptomatic premalignant condition known as monoclonal gammopathy of undetermined significance (MGUS), and individuals with MGUS have a risk of progression to myeloma of about 1%-2% per year.<sup>73</sup> MGUS is also more prevalent and diagnosed at earlier ages in blacks than other racial/ethnic groups.<sup>74</sup> A family history of blood cancers is also associated with increased risk, with a stronger association observed among blacks than whites.<sup>75</sup>

### Deaths

An estimated 2,360 myeloma deaths are expected to occur among black men and women in 2019. During 2007-2016, myeloma death rates declined annually by 1.1% among NH black men, 0.6% per year among NH white men, 0.6% in NH white women, but were level in NH black women.<sup>12</sup>

## Survival

Five-year relative survival improved from 29% during 1975-77 to 54% during 2008-2014, similar to the improvement among whites.<sup>11</sup> Improvements in survival reflect major advances in treatment over the past several decades.<sup>76</sup> Notably, 5-year relative survival during 2008-2014 is slightly higher in blacks compared to whites for both men (51% versus 50%) and women (53% versus 50%).<sup>11</sup>

## Prostate

### New Cases

An estimated 29,570 cases of prostate cancer are expected to be newly diagnosed among black men in 2019, accounting for 30% of all cancers diagnosed in this group. It is estimated that 1 in 7 black men will be diagnosed with prostate cancer in his lifetime, compared to 1 in 8 white men. During 2011-2015, the average annual prostate cancer incidence rate was 179 cases per 100,000 NH black men, 76% higher than the rate in NH white men (Table 5).

Similar to whites, incidence rates in black men increased sharply between 1989 and 1992 (reflecting increased use of prostate-specific antigen [PSA] blood test) but have since been generally declining with an acceleration in the decline in recent years (Figure 6a). During 2006 to 2015, prostate cancer incidence rates dropped by 4.5% per year in NH black men and 5.5% per year in NH whites.<sup>12</sup> Possible reasons include less screening following the 2012 recommendation against routine PSA testing and a reduced pool of indolent cancers (i.e., those that are slow-growing and not likely to cause harm), but the extent to which the decline reflects these or other factors is not known.<sup>78</sup>

### Prevention and Early Detection

Increasing evidence suggests obesity and smoking may be associated with increased risk of aggressive disease, with some studies suggesting the links are stronger for black men.<sup>80-84</sup>

Early-stage prostate cancer usually has no symptoms; however, prostate cancer can be detected early with a

PSA test. No organizations presently endorse routine prostate cancer screening for men at average risk because of concerns about the high rate of overdiagnosis (detecting disease that would never have caused symptoms or harm), along with the high potential for serious side effects associated with prostate cancer treatment. However, the American Cancer Society recommends that beginning at age 45, black men who are at average risk of prostate cancer and have a life expectancy of at least 10 years have a conversation with their health care provider about the benefits and limitations of PSA testing and make an informed decision about whether to be tested based on their personal values and preferences. For more information on PSA testing, see page 30.

### Deaths

Prostate cancer is the second-leading cause of cancer death in black men, with an estimated 5,350 deaths expected in 2019. NH black men have the highest death rate for prostate cancer of any racial or ethnic group in the US, 2.2 times higher than in NH white men (Table 6), in part reflecting their higher incidence rate. There is also evidence that suggests that aggressive prostate cancers are more common in black men.<sup>85, 86</sup>

The prostate cancer death rate in black men has dropped by more than 50%, from a peak of 81.9 deaths per 100,000 in 1993 to 39.8 deaths per 100,000 during 2012-2016. Rates have also declined among white men, although to a lesser extent. However, rates have stabilized in recent years in both groups (Figure 3). Factors that likely contributed to the decrease include improved surgical and radiologic treatment, the use of hormonal therapy for advanced-stage disease, and early detection through PSA testing.<sup>87-90</sup> The extent of the contribution of PSA testing is particularly unclear. Long-term follow-up results from US-based and UK-based randomized trials indicated no reduction in prostate cancer deaths as a result of PSA testing, while another European trial showed a modest benefit.<sup>91</sup> Notably, black men represented only 4.4% of the participants in the US study.<sup>92</sup> Furthermore, studies continue to document that black men are relatively more likely to receive substandard treatment for prostate cancer.<sup>29, 85, 93, 94</sup> A recent study of local-stage prostate

cancer patients reported that 64% of black men received guideline-compliant radiation therapy compared to 77% of white men.<sup>93</sup>

## Survival and Stage Distribution

The overall 5-year relative survival rate for prostate cancer is 96% in blacks and 98% in whites (Figure 5). Eighty-six percent of all prostate cancers among blacks are diagnosed at a local or regional stage, for which the 5-year relative survival rate approaches 100%. When prostate cancer is diagnosed at a distant stage, 5-year survival drops to 30% in blacks, similar to survival in whites (29%).

## Stomach

### New Cases

An estimated 4,340 new cases of stomach cancer are expected to be diagnosed in black men and women in 2019. Compared to whites, stomach cancer incidence rates are 1.8 times higher in NH black men and 2.2 times higher in NH black women (Table 5). Higher rates of stomach cancer in blacks are limited to non-cardia cancers, meaning those that occur in parts of the stomach other than the cardia, where the stomach meets the esophagus.<sup>95</sup> During 2006-2015, stomach cancer incidence rates decreased by 2.1% per year in NH black men and 1.6% per year in NH black women compared to declines of 2.0% per year and 0.7% per year, respectively, in NH whites.<sup>12</sup>

### Prevention

*Helicobacter (H.) pylori* infection is the most important risk factor for stomach cancer and is more common in blacks and Hispanics compared to NH whites.<sup>96</sup> See page 26 for more information on *H. pylori*. Other risk factors for stomach cancer include excess body weight (cardia cancer), smoking, high consumption of grilled and salt-preserved meat, and possibly alcohol consumption.<sup>97</sup>

### Deaths

Approximately 1,990 deaths from stomach cancer are expected to occur among blacks in 2019. Stomach cancer death rates are 2.6 times higher in NH black men than

NH white men and 2.3 times higher in NH black women than NH white women. The racial disparity in stomach cancer death rates reflects higher risk in blacks compared to whites. Interestingly, the racial disparity in mortality is greater for men, whereas the racial disparity in incidence is greater for women (Table 5 and Table 6). Similar to incidence trends, stomach cancer death rates have sharply declined in NH blacks by more than 3% per year during 2007-2016.<sup>12</sup>

## Survival and Stage Distribution

Stomach cancer stage at diagnosis and survival are similar between blacks and whites. Nearly 1 in 3 stomach cancer patients are diagnosed with distant-stage disease, for which the 5-year relative survival is only 6% (Figure 5).

## Uterine Cervix

### New Cases

In 2019, an estimated 2,250 cases of invasive cervical cancer are expected to be newly diagnosed among black women. The incidence rate of cervical cancer is 30% higher in NH black women than NH white women (Table 5). However, the true racial disparity is even wider according to a study that adjusted incidence rates to account for women who have had a hysterectomy and are thus not at risk for cervical cancer.<sup>98</sup> Nevertheless, the racial disparity has narrowed substantially over the past several decades due to faster declines in NH black women than NH white women. Indeed, among women under age 50, incidence rates of cervical cancer converged between blacks and whites in the mid-2000s.<sup>16</sup> Cervical cancer incidence rates have declined for decades; however, the decrease has slowed in black women and white women over the past decade.<sup>12</sup>

## Prevention and Early Detection

Cervical cancer is highly preventable. It is one of only two cancers (colorectal is the other) that can be prevented through screening. As Pap testing has become more common, most cervical abnormalities are detected as preinvasive lesions rather than invasive cancer. For more information on cervical cancer screening, see page 28. Cervical cancer is caused by persistent infection with

certain types of human papillomavirus (HPV). Vaccines are available that protect against the most common cancer-causing HPV infections. See page 26 for more information on HPV infection.

## Deaths

An estimated 770 deaths from cervical cancer are expected among black women in 2019. 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. During 2007 to 2016, cervical cancer death rates decreased 2.6% per year in NH black women while rates were stable in NH white women.<sup>12</sup> Despite this progress, NH black women remain 80% more likely to die from cervical cancer than NH white women (Table 6). In fact, a recent study that corrected for hysterectomy prevalence concluded that the true racial disparity is even greater.<sup>99</sup>

## Survival and Stage Distribution

The overall 5-year relative survival rate for cervical cancer among black women is 56%, compared to 68% among white women, partly because black women are more likely than white women to be diagnosed with regional- or distant-stage disease (Figure 4). Racial differences in stage at diagnosis may be due to differences in the quality of screening and follow-up after abnormal results, as well as less screening.<sup>100</sup> Lower socioeconomic status and lack of health insurance are also associated with lower screening rates and increased risk of late-stage diagnosis.<sup>101-104</sup> A recent study estimated that treatment differences accounted for 47% of black-white differences in cervical cancer mortality and lack of insurance explained 19% of the excess risk for blacks.<sup>105</sup> The study found that among early-stage cervical cancer patients, a greater proportion of black women (17%) failed to receive surgery, which is the standard of care, compared to white (9%) and Hispanic (12%) women.

## Uterine Corpus (Endometrial)

### New Cases

An estimated 7,460 cases of cancer of the uterine corpus (body of the uterus) will be diagnosed in black women in

2019. Cancer of the uterine corpus is often referred to as endometrial cancer because more than 90% of cases occur in the endometrium (lining of the uterine corpus). The uterine cancer incidence rate in NH black women (24.4 per 100,000) is 7% lower than that for NH white women (26.1 per 100,000). However, women who undergo hysterectomy are not at risk for uterine cancer, and studies that account for hysterectomy prevalence report that incidence rates are similar or even higher in NH black women.<sup>17,18</sup> From 2006 to 2015, the incidence rate increased by about 2.5% per year among NH black women and by 1.0% per year among NH white women, likely due to the rising prevalence of obesity.<sup>12</sup> However, these trends may not accurately reflect disease occurrence because they do not account for changing hysterectomy prevalence, which differs in black and white women.<sup>106</sup>

## Prevention and Early Detection

An estimated 71% of uterine corpus cancers among women of all races are attributable to excess body weight and insufficient physical activity.<sup>9</sup> Other potentially modifiable risk factors include the use of postmenopausal estrogen (estrogen plus progestin does not appear to increase risk) and Tamoifen, a drug used to prevent and treat breast cancer that increases risk slightly. Pregnancy, use of oral contraceptives or intrauterine devices, and physical activity are associated with reduced risk.

Although there is no recommended screening test for women at average risk, early signs of the disease include postmenopausal bleeding or bleeding between periods for premenopausal women. Women are encouraged to report any unexpected bleeding or spotting to their physicians.

## Deaths

In 2019, an estimated 2,500 deaths from uterine corpus cancer will occur among black women. Despite similar incidence rates, the uterine corpus cancer death rate in black women is nearly double that in white women (8.7 versus 4.4 deaths per 100,000, respectively). From 2007 to 2016, the death rate for cancer of the uterine corpus increased by 2.2% per year in NH black women and by 1.7% per year in white women, mirroring trends for incidence rates.<sup>12</sup>

## Survival and Stage Distribution

The overall 5-year relative survival rate for cancers of the uterine corpus is 62% in black women compared to 83% in white women. A recent study concluded that later stage at diagnosis, more aggressive tumors, and lower likelihood of optimal surgical treatment accounted for

most of this disparity.<sup>107</sup> About 41% of uterine corpus cancers are diagnosed at a regional or distant stage in black women compared to 27% in white women (Figure 4). Black women are also more likely to be diagnosed with aggressive uterine cancer subtypes (e.g., uterine serous cancer, uterine carcinosarcoma).<sup>16, 108</sup>

## Risk Factors for Cancer

American Cancer Society researchers estimate that 42% of cancer cases and 45% of cancer deaths among persons of all races combined in the US could be attributed to modifiable risk factors, including cigarette smoking, excess body weight, alcohol intake, poor nutrition, lack of physical activity, and exposure to cancer-associated infectious agents.<sup>9</sup> This section provides information about major cancer risk factors and their prevalence among the black population. For information about risk factors for cancer beyond what is included in this section, visit [cancer.org/statistics](https://www.cancer.org/statistics) to review the most recent edition of *Cancer Prevention & Early Detection Facts & Figures*.

### Tobacco

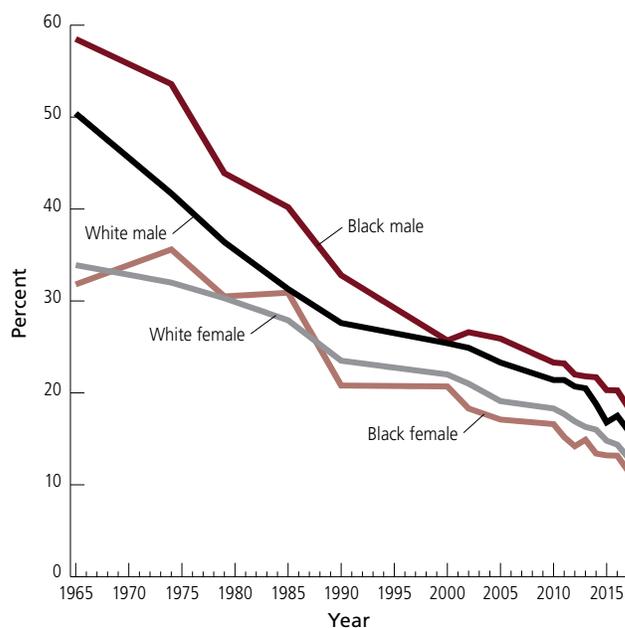
#### Cigarette Smoking

Tobacco use remains the most preventable cause of deaths in the US. Cigarette smoking increases the risk of at least 12 cancers: oral cavity and pharynx, larynx, lung, esophagus, pancreas, uterine cervix, kidney, bladder, stomach, colorectum, liver, and acute myeloid leukemia.<sup>109</sup> Smoking may also increase the risk of fatal prostate cancer and a rare ovarian cancer subtype (mucinous).<sup>109-111</sup> Smoking is estimated to cause about 30% of all cancer deaths in the US<sup>9, 112</sup> and as much as 40% in men in some Southern states.<sup>113</sup>

- Historically, smoking prevalence has been higher in black men compared to white men, but differences have narrowed during the past 20 years (Figure 7). In contrast, the smoking pattern among women has been similar between blacks and whites.<sup>114</sup>

- In 2017, current smoking prevalence was slightly higher in black men (19%) compared to white men (17%), but the reverse was true among women (black: 12%, white: 15%) (Figure 8).
- Among adult smokers in 2015, 63% of blacks (versus 53% of whites) reported a quit attempt within the previous year.<sup>115</sup>

**Figure 7. Adult Cigarette Smoking Prevalence (%) by Sex and Race, US, 1965-2017**



Note: Estimates for whites and blacks include persons of Hispanic ethnicity.

Sources: 1965-2015: *Health, United States*, 2016. 2016-2017: National Health Interview Surveys, 2016 and 2017.

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- Smoking prevalence was substantially lower among black high school students compared to white students. In 2017, only 3% of black boys and 2% of black girls were current cigarette smokers compared to 9% and 10% of white boys and girls, respectively (Figure 8).<sup>116</sup>

### E-cigarettes (Vaping Devices)

A new category of devices emerged in the mid-to-late 2000s that aerosolizes a liquid nicotine solution, known as electronic nicotine delivery systems (ENDS), “e-cigarettes,” or “vaporizers.” While evidence suggests that the current generation of these battery-powered devices is less harmful than conventional cigarettes, risks associated with long-term use are not known.<sup>117, 118</sup>

- In 2017, 2% of black adults were current e-cigarette users compared to 4% of whites.<sup>119</sup>
- Since 2014, e-cigarettes have been the most commonly used tobacco product among high school students. In 2017, 5% of black high school students were current e-cigarette users compared to 14% of whites.<sup>120</sup> Preliminary data from 2018 indicate a sharp increase in e-cigarette use to 21% among high school students of all races combined.<sup>119</sup> Adolescent and young adult e-cigarette users are more likely than non-users to begin using combustible tobacco products.<sup>121-123</sup>

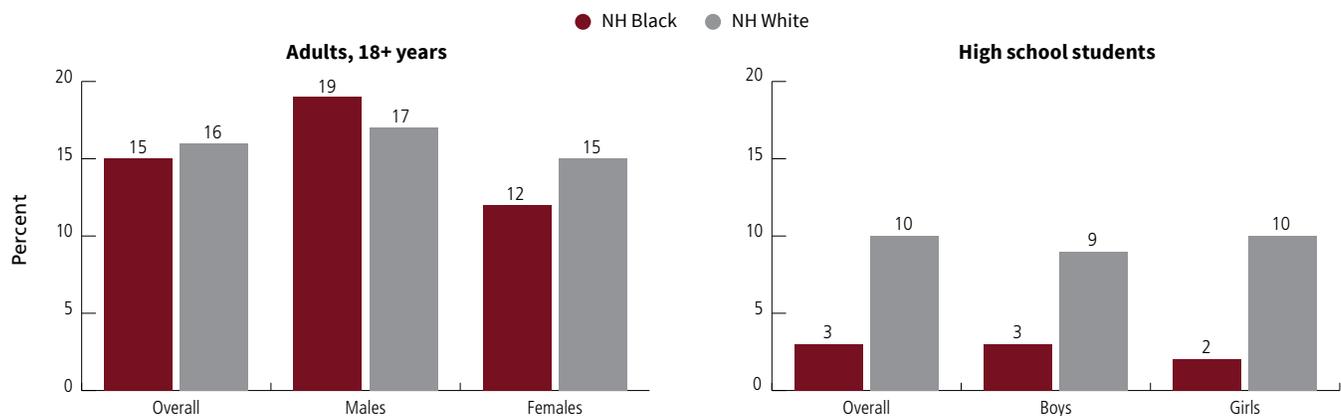
### Secondhand Smoke

About 3% of all lung cancers in the US can be attributed to secondhand smoke exposure.<sup>9</sup> Although exposure to secondhand smoke has declined since the early 1990s, the decline among blacks has been slower and exposure remains higher compared to whites.<sup>124, 125</sup> Among nonsmokers ages 20 and older, 40% of NH blacks compared to 18% of NH whites had serum markers of secondhand smoke. Secondhand smoke exposure was even higher among children; 68% of NH black children ages 3-11 had evidence of exposure compared to 37% of NH white children.<sup>125</sup>

### Excess Body Weight, Alcohol, Diet, and Physical Activity

Aside from avoiding tobacco use, maintaining a healthy weight and limiting alcohol consumption are among the most effective strategies for reducing cancer risk.<sup>126</sup> An estimated 18% of all cancers can be attributed to the combined effects of excess body weight, alcohol consumption, physical inactivity, and an unhealthy diet.<sup>9</sup> The American Cancer Society’s 2012 nutrition and physical activity guideline provides recommendations to help individuals adopt healthy behaviors.<sup>126</sup> Those who most closely follow these recommendations are 10%-20% less likely to be diagnosed with cancer and 25% less likely to die from cancer.<sup>127</sup> Community action strategies are also included in the guideline because of the strong

**Figure 8. Current\* Cigarette Smoking Prevalence (%) by Sex and Race/Ethnicity, US, 2017**



NH: non-Hispanic. \*Adults: Ever smoked 100 cigarettes in lifetime and smoking every day or some days at time of survey. High school students: Smoked on at least 1 day out of the 30 days preceding the survey. Note: Adult estimates are age adjusted to 2000 US standard population.

Sources: Adults: National Health Interview Survey, 2017. High school students: National Youth Tobacco Survey, 2017.

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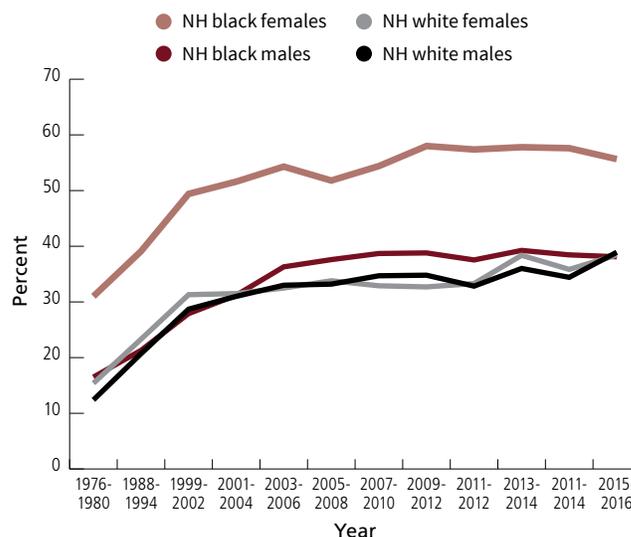
environmental influence on individual food and activity behaviors.

## Excess Body Weight

An estimated 5% of all cancer cases in men and 11% in women can be attributed to excess body weight.<sup>9</sup> Excess body weight (being overweight [body mass index (BMI) 25.0-29.9 kg/m<sup>2</sup>] or obese [BMI ≥ 30.0 kg/m<sup>2</sup>]) is associated with increased risk for developing several types of cancer: uterine corpus, esophagus (adenocarcinoma), liver, stomach (gastric cardia), kidney (renal cell), brain (meningioma), multiple myeloma, pancreas, colorectum, gallbladder, ovary, female breast (postmenopausal), and thyroid.<sup>71</sup> Excess body weight may also increase the risk of non-Hodgkin lymphoma (diffuse large B-cell lymphoma), male breast cancer, and fatal prostate cancer. Some studies have found that intentional weight loss is associated with decreased cancer risk among women; evidence is less clear for men.<sup>128</sup> Additionally, unhealthy dietary habits, physical inactivity, and excessive weight gain that begin during childhood often continue into adulthood, resulting in long-term cumulative exposure to excess body weight and subsequent health consequences.<sup>129, 130</sup> Furthermore, overweight black youth are even more likely to become obese adults than their white counterparts.<sup>131</sup>

- Over the past four decades, the prevalence of obesity has markedly increased among all adults (Figure 9).<sup>114, 132</sup>
- In 2015-2016, 55% of NH black women were obese, the highest prevalence of obesity of any race/sex group (Table 7).<sup>133</sup>

**Figure 9. Trends in Obesity\* Prevalence (%), Adults 20-74 Years, by Sex and Race/Ethnicity, US, 1976-2016**



NH: non-Hispanic. \*Body mass index ≥30.0 kg/m<sup>2</sup>. Note: Estimates are age adjusted to the 2000 US standard population.

Sources: 1976-2010: *Health, United States, 2013*. 2011-2016: National Health and Nutrition Examination Surveys, 2011-2016.

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- In contrast, the prevalence of overweight was slightly lower in NH black women (24%) compared to NH white women (27%), but due to their high obesity prevalence, excess body weight prevalence was greater in black women than white women (Table 7).
- Among men, obesity prevalence was similar in NH blacks and NH whites (37% and 38%, respectively); overweight prevalence was as well (Table 7).

**Table 7. Excess Body Weight Prevalence (%), Youth and Adults, US, 2015-16**

	Overweight*				Obese†				Excess body weight (overweight or obese)			
	Males		Females		Males		Females		Males		Females	
	NH Black	NH White	NH Black	NH White	NH Black	NH White	NH Black	NH White	NH Black	NH White	NH Black	NH White
<b>Children</b> (6-11 years)	12	19	16	11	15	17	27	10	27	36	43	21
<b>Adolescents</b> (12-19 years)	13	16	20	22	24	13	30	16	37	29	50	38
<b>Adults</b> (≥20 years)	34	37	24	27	37	38	55	38	71	74	78	65

NH: non-Hispanic. \*For youth: Body mass index (BMI) at or above 85th percentile but below 95th percentile of CDC growth chart. For adults: BMI 25.0-29.9 kg/m<sup>2</sup>. †For youth: BMI at or above 95th percentile of CDC growth chart. For adults: BMI ≥30.0 kg/m<sup>2</sup>. Note: Sum of estimates for overweight and obese may not equal total excess body weight value presented due to rounding. Estimates for adults are age adjusted to 2000 US standard population.

Source: National Health and Nutrition Examination Surveys, 2015-2016. Hales CM, et. al., 2017.<sup>133</sup>

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## American Cancer Society Guideline on Nutrition and Physical Activity<sup>126</sup>

### Individual Choices

#### *Achieve and maintain a healthy weight throughout life.*

- Be as lean as possible throughout life without being underweight.
- Avoid excess weight gain at all ages. For those who are currently overweight or obese, losing even a small amount of weight has health benefits and is a good place to start.
- Engage in regular physical activity and limit consumption of high-calorie foods and beverages as key strategies for maintaining a healthy weight.

#### *Consume a healthy diet with an emphasis on plant sources.*

- Eat at least 2½ cups of vegetables and fruits each day.
- Choose whole-grain instead of refined-grain products.
- Limit consumption of processed and red meats.
- Choose foods and beverages in amounts that help achieve and maintain a healthy weight.
- Limit alcohol consumption (no more than 1 drink per day for women and 2 per day for men).

#### *Adopt a physically active lifestyle.*

- Adults should engage in at least 150 minutes of moderate-intensity or 75 minutes of vigorous-intensity physical activity each week, or an equivalent combination, preferably spread throughout the week.
- Children and adolescents should engage in at least 1 hour of moderate- or vigorous-intensity physical activity each day, with vigorous-intensity activity at least 3 days each week.
- Limit sedentary behavior such as sitting, lying down, and watching television and other forms of screen-based entertainment.
- Doing any intentional physical activity above usual activities can have many health benefits.

### Community Action

Public, private, and community organizations should work collaboratively at national, state, and local levels to implement environmental policy changes that:

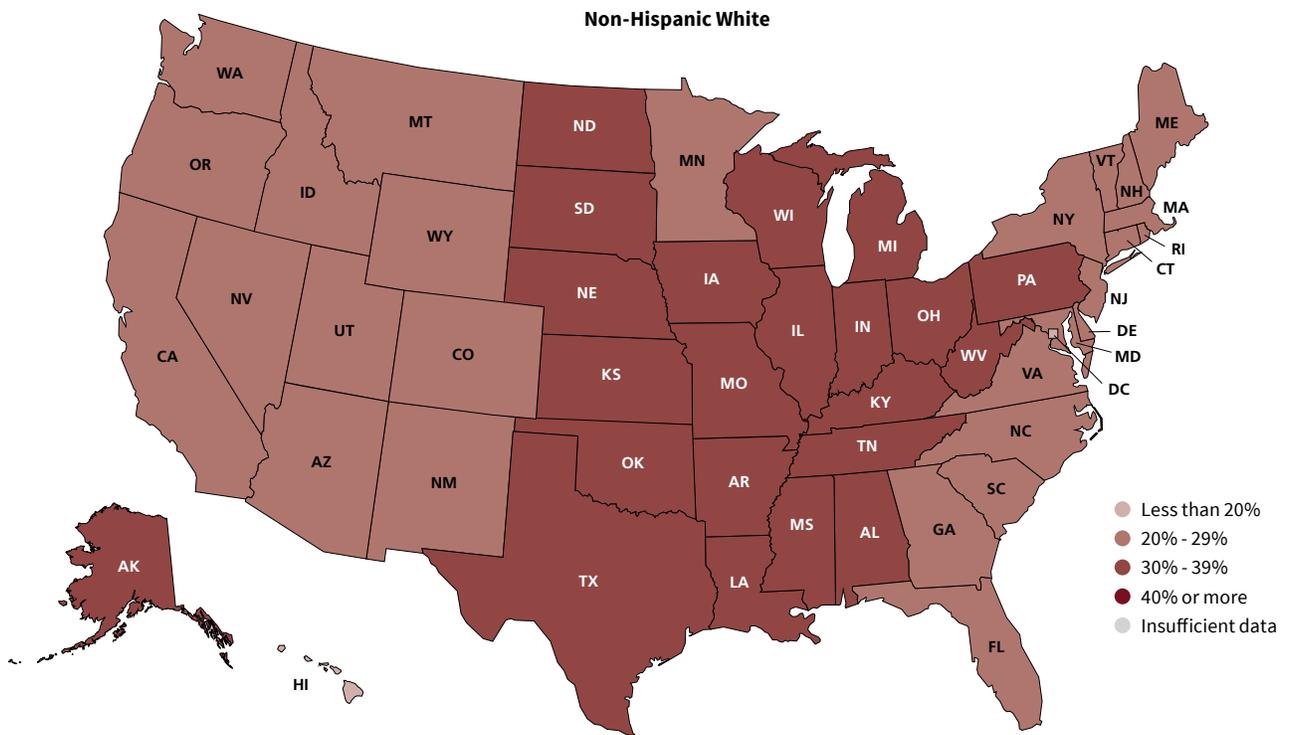
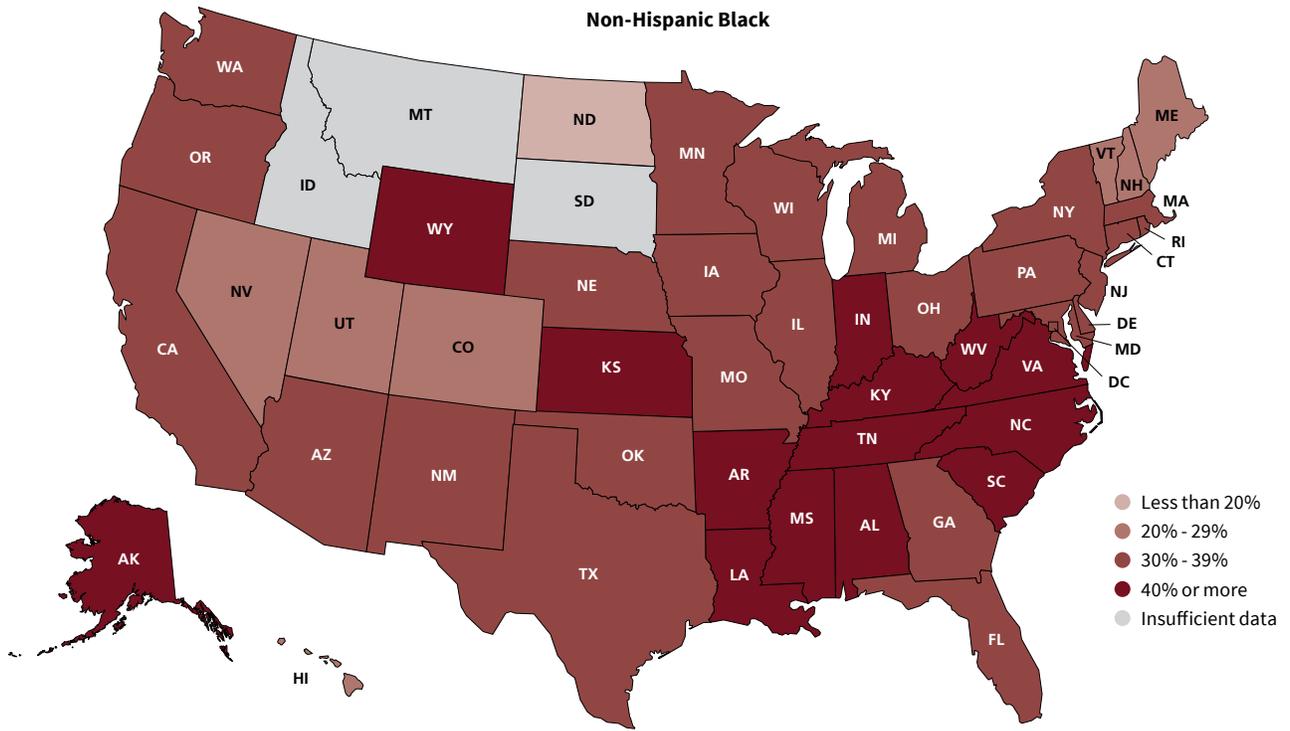
- Increase access to affordable, healthy foods in communities, worksites, and schools; and decrease access to and marketing of foods and beverages of low nutritional value, particularly to youth.
- Provide safe, enjoyable, and accessible environments for physical activity in schools and worksites, and for transportation and recreation in communities.

- In 2015-2017, the prevalence of obesity among NH blacks was greater than 40% in 14 states and less than 20% only in North Dakota (Figure 10). In contrast, among NH whites, the obesity prevalence did not exceed 40% in any state and was less than 20% in Hawaii and the District of Columbia.
- From 1971 to 2016, the overall prevalence of obesity among youth ages 2-19 more than tripled from 5% to 19%, with increases among boys and girls in all racial/ethnic groups.<sup>134</sup>
- Among girls, the disparity in obesity prevalence was apparent even at young ages. Among girls ages 6-11, 27% of blacks were obese compared to 10% of whites (Table 7). Among boys, the prevalence of obesity was lower in NH black (12%) compared to NH white (19%) boys.

### Alcohol

An estimated 6% of cancer cases can be attributed to alcohol consumption.<sup>9</sup> Alcohol consumption increases risk for cancers of the mouth, pharynx, larynx, esophagus, liver, colorectum, and female breast.<sup>135</sup> Drinking ≥3 drinks daily may also increase risk of stomach and pancreatic cancer.<sup>135, 136</sup> Cancer risk increases with alcohol volume, and even a few drinks per week may be associated with a slightly increased risk of female breast cancer.<sup>137</sup> Furthermore, the combined use of alcohol and tobacco increases the risk of cancers of the mouth, pharynx, larynx, and esophagus far more than the independent effect of either drinking or smoking alone.<sup>138</sup> Alcohol use is lower among black adults and teens in the US compared to whites.

Figure 10. Prevalence of Obesity\* (%), Adults 18 years and Older, 2015-2017



\*BMI  $\geq 30$  kg/m<sup>2</sup>

Source: Centers for Disease Control and Prevention, 2018.

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- In 2017, reported current alcohol consumption (12+ drinks in lifetime and ≥12 drinks in past year) among adults was 42% in NH blacks compared to 58% in NH whites.<sup>139</sup>
- Among high school students, about 24% of NH black females and 17% of NH black males reported current (past month) alcohol consumption compared to 33% and 32% of NH white males and females, respectively.<sup>139</sup>

## Diet

An estimated 4% of cancer cases can be attributed to poor diet.<sup>9</sup> Diet patterns high in processed and red meat, starchy foods, refined carbohydrates, and sugary drinks are associated with a higher risk of developing cancer (predominantly colon).<sup>140</sup> Conversely, dietary patterns emphasizing a variety of fruits and vegetables, whole grains, legumes, and fish or poultry and fewer red and processed meats are associated with lower cancer risk.<sup>141</sup>

- From 1999-2000 to 2011-2012, among NH black adults, consumption of whole grains, nuts/seeds, and processed meats increased while consumption of red meat and sugar-sweetened beverages decreased.<sup>142</sup>
- Among adults in 2017, 14% of NH blacks consumed three or more servings of vegetables per day, which was similar to NH whites (16%). Additionally, about 34% of NH black and 32% of NH white adults reported eating two or more servings of fruits daily.<sup>143</sup>
- Among high school students in 2017, about 16% of NH blacks consumed vegetables three or more times per day compared to 13% of NH whites.<sup>139</sup>
- About 37% of NH black high school students consumed fruit/100% fruit juices two or more times per day compared to 29% of NH white students.<sup>139</sup>

## Physical Activity

Approximately 3% of all cancer cases can be attributed to lack of physical activity.<sup>9</sup> There is strong evidence that physical activity decreases the risk of colon (but not rectal), endometrial, and postmenopausal breast cancer.<sup>144</sup> Physical activity may also reduce the risk of other cancers including esophageal, liver, and premenopausal breast cancers.<sup>144</sup> In addition, there is mounting evidence that

greater time spent in sedentary behavior may increase risk of colon and endometrial cancers.<sup>145, 146</sup>

The benefits of physical activity are observed even among people who are overweight, obese, and have a history of smoking.<sup>147</sup> Furthermore, cancer patients who are physically active are less likely to experience treatment-related side effects and to die from their cancer than those who are inactive.<sup>148</sup> Even low amounts of physical activity appear to reduce cancer mortality.<sup>148, 149</sup>

- Among adults, 35% of NH blacks and 22% of NH whites reported no leisure-time physical activity in 2017 (Table 8). The racial difference for women (NH black: 38%; NH white: 23%) was greater than for men (NH black: 31%; NH white: 21%).
- NH black high school girls were more likely to report no physical activity compared to NH white girls (27% versus 17%, respectively) (Table 7). Physical inactivity among boys was similar (NH black: 13%; NH white: 10%).<sup>139</sup>

## Type 2 Diabetes

Type 2 diabetes, a chronic condition in which the body loses its ability to respond to insulin, shares several modifiable risk factors with cancer, including excess body weight, poor diet, and lack of physical activity. Accumulating evidence suggests that type 2 diabetes may independently increase risk for several cancers including liver, endometrium, pancreas, colorectum, kidney, bladder, breast, and ovary.<sup>150-152</sup> The biology underlying the association between type 2 diabetes and cancer risk is not completely understood but may involve abnormal glucose control and related factors, including inflammation. The prevalence of diabetes among black adults (13%) is nearly double that among whites (7%).<sup>153</sup>

## Infectious Agents

About 3% of all cancers in the US are attributable to infections caused by agents such as human papillomavirus, *Helicobacter pylori*, and hepatitis B and C viruses.<sup>9</sup> Fortunately, there are opportunities to prevent or treat many of these infections.

**Table 8. Physical Inactivity Prevalence (%), Adults and High School Students, by Sex and Race/Ethnicity, US, 2017**

No leisure-time physical activity	NH Black	NH White
Adults (≥18 yrs)		
All	35	22
Males	31	21
Females	38	23
High School Students*		
All	20	14
Males	13	10
Females	27	17

NH: non-Hispanic. \*Not physically active for a total of at least 60 minutes on at least 1 day out of the past week. Note: Estimates for adults are age-adjusted to the 2000 standard US population.

Source: Adults: National Health Interview Survey, 2017.

Youth: Kann et al, 2018.<sup>139</sup>

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## Human Papillomavirus (HPV)

HPV is the most common sexually transmitted infection in the US, with approximately 14 million people newly infected annually.<sup>154</sup> Although most HPV infections are cleared by the body and do not cause cancer, virtually all cervical cancers are caused by persistent HPV infection. Persistent HPV infection also causes approximately 90% of anal cancers, 70% of oropharyngeal cancers, and 60%-70% of vaginal, vulvar, and penile cancers.<sup>155</sup> Cervical cancer is the most common HPV-related cancer in women, and oropharyngeal cancer is the most common in men. The virus is spread primarily through direct sexual contact and is usually asymptomatic.

While there are more than 100 types of HPV, only about 13 types cause cancer. The HPV vaccine currently used in the US protects against 9 HPV types and has the potential to avert 90% of HPV cancers.<sup>155</sup> The American Cancer Society's 2017 HPV vaccination guideline recommends routine vaccination of both girls and boys beginning at age 11 or 12; the series can be started at age 9 (see sidebar).<sup>156, 157</sup> In accordance with the Advisory Committee on Immunization Practices, the number of recommended doses is dependent upon age. Vaccination does not prevent established infections from progressing to precancer or cancer and does not protect against all

HPV subtypes; therefore, all women ages 21-65 should receive regular cervical cancer screening.

- In 2011-2014, the prevalence of high-risk oral HPV among adults was 4% in both blacks and whites. However, the prevalence of high-risk genital HPV was 34% among blacks compared to 22% among whites.<sup>158</sup> There is some evidence of variations in the prevalence of specific HPV genotypes in black compared to white women.<sup>159</sup>
- Among adolescent girls, 73% of NH blacks had at least one dose of HPV vaccine compared to 64% of NH whites; 56% of NH blacks were up-to-date compared to 50% of NH whites (Table 8).
- Among adolescent boys, 67% of NH blacks had at least one dose of the vaccine compared to 57% of NH whites; 45% of NH blacks were up-to-date compared to 40% of NH whites (Table 8).

## *Helicobacter Pylori (H. Pylori)*

Chronic infection with *H. pylori*, a bacterium that grows in and causes damage to the stomach lining, may lead to adenocarcinoma of the stomach (the most common type of stomach cancer), as well as lymphoma of the stomach.<sup>160</sup> *H. pylori* is thought to spread from person to person through fecal-oral and oral-oral routes and is facilitated by crowded living conditions and relatively poor sanitation. According to 1999-2000 data, *H. pylori* infection in the US was more than twice as high in NH blacks (52%) as NH whites (21%).<sup>96</sup> The relatively high prevalence of *H. pylori* infection in black men was confirmed in a more recent study of US veterans.<sup>161</sup>

## Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV)

Chronic infection with HBV or HCV can cause cirrhosis and liver cancer, and has been associated with increased risk of non-Hodgkin lymphoma.<sup>162-164</sup>

**HBV:** About 7% of all liver cancers in the US are attributable to HBV.<sup>9</sup> The virus is transmitted through blood or mucosal contact with infectious blood or body fluids (e.g., semen, saliva). Most new HBV infections occur in unvaccinated adults who practice risky behaviors (e.g., injection drug users, men who have

## American Cancer Society Recommendations for HPV Vaccine Use

- Routine HPV vaccination for girls and boys should be started at age 11 or 12. The vaccination series can be started at age 9.
- HPV vaccination is also recommended for females ages 13 to 26 and for males ages 13 to 21 who have not started the vaccines, or who have started but not completed the series. Males ages 22 to 26 may also be vaccinated.\*
- HPV vaccination is also recommended through age 26 for men who have sex with men and for people with weakened immune systems (including people with HIV infection), if they have not previously been vaccinated.

\*For people ages 22 to 26 who have not started the vaccines, or who have started but not completed the series, it is important to know that vaccination at older ages is less effective in lowering cancer risk.

unprotected sex with men, and adults who have sex with multiple partners).<sup>165</sup> HBV can also be passed from an infected mother to her child during childbirth. While nearly all (95%) newly infected adults will clear the virus within six months of infection, the majority of infected infants will become chronically infected.

Vaccination against HBV is the primary prevention strategy to reduce prevalence of the virus. Those who should be vaccinated include infants, youth under age 19 who have not been vaccinated, and unvaccinated adults who are at high risk of infection (e.g., health care workers, travelers to regions where HBV infection is endemic).<sup>165</sup> HBV vaccination coverage in 2017 was 92% among both black and white adolescents.<sup>166</sup>

In the US, the overall prevalence of chronic HBV infection has remained unchanged since 1999, with an estimated 850,000 to 2.2 million people currently living with chronic HBV infection.<sup>167</sup> During 2007-2012, 0.6% of NH blacks had chronic HBV infection compared to an estimated 0.1% of whites.<sup>167</sup> Chronic HBV infection is about six times higher among foreign-born blacks compared to those born in the US.<sup>167</sup>

**HCV:** Nearly one-quarter of liver cancers in the US are attributable to HCV.<sup>9</sup> Most HCV is transmitted through intravenous drug use, but can also occur through needle-stick injuries in health care settings, mother-to-child transmission during birth, and less commonly through sexual contact with an infected partner. Most people with HCV will become chronically infected and remain unaware of their infection until liver disease develops. In contrast to HBV infection, there is no vaccine to protect against HCV infection. Primary prevention strategies include both educating uninfected individuals who are at high risk for infection about exposure prevention and counseling infected individuals about how to avoid transmission to others.

The US Preventive Services Task Force recommends one-time screening among those born between 1945 and 1965, who represent the majority of the HCV infections and HCV-associated deaths in the US.<sup>168</sup> However, in 2015, only 14% of adults in this birth cohort had ever been tested, with similar screening prevalence in NH blacks and whites.<sup>169</sup> Those who test positive for HCV are advised to begin antiviral treatment to reduce health effects related to HCV infection.<sup>168</sup>

In the US, approximately 3.5 million persons are living with chronic HCV infection.<sup>170</sup> In an analysis of people born between 1945 and 1970, HCV infection was twice as high in NH blacks (5.6%) compared to NH whites (2.8%).<sup>171</sup>

## Human Immunodeficiency Virus (HIV)

HIV is a virus that may be present in the body for a long period of time without resulting in symptoms; however, as HIV progresses, the immune system is weakened, and acquired immunodeficiency syndrome (AIDS) develops. HIV is primarily transmitted through sexual intercourse and injection drug use. There are several AIDS-defining cancers, including Kaposi sarcoma, high-grade non-Hodgkin lymphoma, and cervical cancer. The term AIDS-defining means that if people who are infected with HIV develop one of these cancers, HIV has progressed to AIDS.<sup>172</sup> HIV-infected individuals are also at an increased risk of developing other cancers, including Hodgkin lymphoma, some head and neck cancers, anal, and liver cancers.<sup>162</sup> The weakened immune

system, along with shared routes of transmission with other cancer-causing infectious agents (e.g., HPV, HCV), increases the risk of cancers in this population.<sup>173</sup> There are several primary prevention strategies for HIV, such as safe sex practices and using sterile needles. There is no vaccine against HIV, but prophylaxis is available for people who have been recently exposed to the virus.

Treatment is available for individuals with HIV, which has been shown to reduce cancer risk.<sup>174</sup> The prevalence of persons diagnosed with HIV is 7 times higher in blacks compared to whites.<sup>175</sup> In 2016, HIV infection was diagnosed at a rate of 43.6 per 100,000 population among blacks compared to 5.2 per 100,000 among whites.<sup>175</sup>

## Cancer Screening

Early detection of cancer through screening reduces mortality from cancers of the colon and rectum, breast, uterine cervix, and lung. In addition to detecting cancer early, screening for colorectal and cervical cancers can prevent these cancers by identifying and removing precancerous lesions. The American Cancer Society guidelines for the early detection of cancer are available at <https://www.cancer.org/healthy/find-cancer-early/cancer-screening-guidelines/american-cancer-society-guidelines-for-the-early-detection-of-cancer.html>. For information on cancer screening beyond what is included in this section, please visit [cancer.org/statistics](https://www.cancer.org/statistics) to review the latest edition of *Cancer Prevention & Early Detection Facts & Figures*.

### Breast Cancer Screening

The American Cancer Society's 2015 breast cancer screening guideline for average-risk women recommends that those ages 40 to 44 have the option to begin annual mammography; those ages 45 to 54 should undergo annual mammography; and those ages 55 and older may transition to mammography every two years or continue annual mammography.<sup>176</sup> Women should continue screening as long as their overall health is good and they have a life expectancy of 10 years or more. It is especially important that women are screened regularly to increase the chance that a breast cancer is detected at an early stage.

- Mammography screening in women ages 40 and older peaked in 2000 for NH white women (72%) and in 2003 for NH black women (71%).<sup>119</sup>

- In 2015, 69% of NH black women and 65% of NH white women ages 40 and older reported receiving a mammogram within the past two years (Table 9). However, studies have found that self-reported survey data overestimate screening prevalence, particularly for black women.<sup>177, 178</sup>

### Cervical Cancer Screening

The American Cancer Society's 2012 cervical cancer screening guideline recommends Pap testing every three years for women ages 21-29 and HPV testing with Pap testing every five years for women ages 30-65, although Pap testing without HPV testing every three years is acceptable in this age group.<sup>179</sup> After age 65, most women with a recent Pap test should discontinue screening. Cervical cancer screening is not recommended for women of any age who have had a hysterectomy. Even women who have been vaccinated against HPV should be screened, because the vaccine does not protect against established infections or all HPV types.

- In 2015, cervical cancer screening in NH black and NH white women was similar; about 85% of black and 83% of white women reported having had a Pap test in the past three years (Table 9). These estimates may overestimate Pap testing, particularly among black women.<sup>178</sup>
- Among women of all races, cervical cancer screening prevalence is lower in women with no health insurance and women with lower levels of educational attainment, as well as recent immigrants.<sup>180</sup>

## Colorectal Cancer Screening

The American Cancer Society's 2018 colorectal cancer screening guideline recommends that adults ages 45 and older undergo regular screening with a high-sensitivity stool-based or structural examination depending on patient preference and test availability.<sup>181</sup> Structural (visual) examinations include colonoscopy, computed tomography colonography, and flexible sigmoidoscopy. The recommended high-sensitivity stool-based tests include the fecal immunochemical test (FIT), the guaiac-based fecal occult blood test, and the multi-target stool DNA (MT-sDNA) test, which combines a FIT test with an sDNA test. Positive results from any non-colonoscopy test should be followed up with a timely colonoscopy. Delays in follow-up are associated with increased risk of being diagnosed with more advanced colorectal cancer.<sup>182, 183</sup>

- From 2000 to 2015, colorectal cancer screening among adults ages 50 and older increased from 32% to 62% in NH blacks compared to an increase from 40% to 65% in NH whites.<sup>180, 184</sup>
- Among those ages 45 and older, 53% of NH blacks were up-to-date with CRC screening compared to 56% of NH whites (Table 9). A recent study by American Cancer Society researchers found that blacks were 30% more likely than whites to be diagnosed with an interval cancer (after a negative colonoscopy but before the next recommended screening) and more often received colonoscopies from less-skilled physicians.<sup>185</sup>

## Lung Cancer Screening

The American Cancer Society recommends annual screening for lung cancer with low-dose spiral computed tomography (LDCT) in adults ages 55 to 74 in relatively good health who have at least a 30 pack-year smoking history and who currently smoke or quit within the past 15 years; receive evidence-based smoking cessation counseling, if they are current smokers; have undergone a process of informed/shared decision making; and have access to a high-volume, high-quality lung cancer screening and treatment center.<sup>157</sup> For current smokers, health care providers should prioritize cessation

**Table 9. Prevalence (%) of HPV Vaccination (2017) and Cancer Screening (2015), US**

	NH Black	NH White
<b>HPV vaccination (adolescents 13-17 years)</b>		
Females		
≥ 1 dose	73	64
Up-to-date*	56	50
Males		
≥ 1 dose	67	57
Up-to-date*	45	40
<b>Breast cancer screening (women 40+ years)</b>		
Mammogram within the past year	55	50
Mammogram within the past two years	69	65
<b>Cervical cancer screening (women 21-65 years)†</b>		
Pap test within the past three years	85	83
Up-to-date‡	86	85
<b>Colorectal cancer screening (adults 50+ years)§</b>		
Overall	62	65
Males	63	66
Females	61	65
<b>Colorectal cancer screening (adults 45+ years)§</b>		
Overall	53	56
Males	54	57
Females	53	56
<b>Prostate-specific antigen test (men 50+ years)¶</b>		
Within the past year	31	37

NH: non-Hispanic. HPV: human papillomavirus. \*Includes those who received ≥3 doses, and those who received 2 doses when the first HPV vaccine dose was initiated before age 15 years. †Among women with intact uteri. ‡Pap test in the past 3 years among women 21-65 years of age or Pap test and HPV test within the past 5 years among women 30-64 years of age. §Either a fecal occult blood test or fecal immunochemical test within the past year, sigmoidoscopy within the past 5 years, or a colonoscopy within the past 10 years. ¶Among men with no prior prostate cancer diagnosis. Note: Estimates for screening are age-adjusted to the 2000 US standard population and do not distinguish between examinations for screening and diagnosis.

**Sources:** Vaccination: Walker TY, et al.<sup>166</sup> Screening: National Health Interview Survey, 2015.

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counseling, medications approved for cessation, and information on their continued risk of lung cancer. Screening should not be viewed as an alternative to smoking cessation. Among all races combined, the prevalence of LDCT screening for lung cancer for both 2010 and 2015 was low (less than 5%) and unchanged, reflecting the present challenges of implementing the various elements required for screening.<sup>186</sup>

## Prostate Cancer Screening

Currently, no organization recommends routine prostate-specific antigen (PSA) testing for early prostate cancer detection given growing concerns about frequent overdiagnosis (diagnosis of cancer that would not have caused harm) and substantial risk for serious side effects from prostate cancer treatment.<sup>157</sup> The American Cancer Society recommends that asymptomatic men who have life expectancy of at least 10 years have an opportunity to make an informed decision with their health care provider about whether to be screened for prostate cancer (i.e., shared decision making).<sup>187</sup> The decision should be made only after receiving information about the uncertainties, risks, and potential benefits associated with prostate cancer screening. Although men at average risk should receive this information beginning at age 50, black men are at a higher risk of prostate cancer and should receive

this information at age 45, as should other men at higher risk. Men who are at even higher risk (i.e., those with multiple family members diagnosed with prostate cancer before age 65) should have this discussion with their provider beginning at age 40. Asymptomatic men who have less than a 10-year life expectancy should not be offered prostate cancer screening.

- Among men ages 50 and older, 31% of NH blacks in 2015 reported having had a PSA test in the past year compared to 37% of their NH white counterparts (Table 8).
- In 2015, 63% of men ages 50 and older reported receiving at least one element of shared decision making, but only 17% of men with a recent PSA test reported participating in full shared decision making.<sup>188</sup> Among those with a recent PSA test, receipt of full shared decision making was higher among black than white men.

## Factors That Influence Health

### Socioeconomic Status

In 2017, 21% of blacks compared to 9% of NH whites were living below the federal poverty level and 22% of blacks had completed four years of college compared to 36% of NH whites.<sup>189, 190</sup> Because of historical context and social structure, race is strongly correlated with socioeconomic status (SES) in the United States. In turn, SES is the most critical factor affecting health and longevity in this country. SES influences cancer risk and outcomes across the cancer continuum from prevention to palliative care. Persons with lower SES are more likely to engage in behaviors that increase cancer risk because of marketing strategies that target these populations, as well as environmental and community factors, such as fewer opportunities for physical activity and less access to fresh fruits and vegetables. 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 increases as SES decreases, regardless of which measure is used. Similarly, people with lower SES also have higher cancer death rates than those with higher SES, regardless of

demographic factors such as race/ethnicity.<sup>191</sup> Furthermore, socioeconomic disparities in cancer mortality have widened over the past several decades for all cancers combined and for cancers of the lung, prostate, and cervix.<sup>13</sup>

### Access to Care

Access to health care influences the use of preventive and early detection services (e.g., tobacco use screening and cessation counseling and cancer screening), as well as receipt of cancer treatment and survivorship care. In the US, health care access is closely related to insurance coverage. Individuals with no health insurance are more likely to be diagnosed with advanced cancer and have a higher risk of cancer death compared to those who are privately insured.<sup>55, 192, 193</sup> Compared to whites, blacks are more likely to be uninsured and less likely to have private insurance. In 2017, 11% of blacks were uninsured compared to 6% of NH whites, and only 57% of blacks had private insurance versus 73% of whites.<sup>194</sup> Remarkably, some of the largest black-white survival disparities are found among patients with private insurance, but these

disparities are absent among the uninsured, which suggests that the benefits of private health insurance are not experienced equally for all racial/ethnic groups.<sup>55</sup>

The 2010 passage of the Affordable Care Act (ACA) and subsequent expansion of Medicaid have helped to mitigate the financial burden of health care and reduced the number of uninsured blacks, particularly among those with lower SES. The initial open enrollment period under the ACA coincided with a 9% reduction in the

uninsured rate for black Americans.<sup>195</sup> Although the overall proportion of those without insurance was reduced by half as a result of the ACA, coverage gains were lowest among blacks.<sup>196, 197</sup> Compared to their uninsured counterparts, the newly insured are more likely to have a usual source of care, seek care when it is needed, and utilize preventive services.<sup>198</sup> For more information about how the ACA will impact families affected by cancer, see the Advocacy section on page 33.

## How the American Cancer Society Helps Reduce Cancer Disparities

With a dedicated team of volunteers and staff, the American Cancer Society is leading the fight for a world without cancer. This section provides highlights and information on some of these efforts.

### Prevention and Early Detection

One of the ways we are leading the fight is by encouraging evidence-based cancer screening for early detection and promoting healthy lifestyles by bringing attention to obesity, healthy diets, physical activity, and avoiding tobacco.

The Community Health Advocates implementing Nationwide Grants for Empowerment and Equity (CHANGE) Program awards community grants to promote health equity within underserved communities. Since 2011, over 600 CHANGE grants have been awarded, reaching individuals through more than 3.2 million outreach and education interactions, contributing more than 915,000 cancer screenings at low or no cost, and implementing sustainable policy and system changes.

### Cancer Information

Caring, trained American Cancer Society staff connect people to answers about a cancer diagnosis, health insurance assistance, American Cancer Society programs and services, and referrals to other services at our 24/7 helpline at 1-800-227-2345. Our website, [cancer.org](http://cancer.org), offers

reliable and accurate information and news, including current information on treatments and side effects for every major cancer type, and programs and services nearby.

### Programs and Services

Many American Cancer Society programs and services have been developed to reach diverse audiences. Examples include the following:

#### Transportation to Treatment

One of the biggest roadblocks to treatment can be the lack of transportation. That's why the American Cancer Society started the Road To Recovery® program. It's at the very heart of our work of removing barriers to quality health care by providing patients transportation to treatment through volunteer drivers, partners, or community organizations.

#### Lodging during Treatment

The American Cancer Society Hope Lodge® program provides a free home away from home for cancer patients and their caregivers when they must travel for treatment. More than just a roof over their heads, it's a nurturing community that helps patients access the care they need. Through our Hotel Partners Program, we also partner with local hotels to provide free or discounted lodging for

patients who are not able to make frequent trips for treatment appointments.

## Help Navigating the Health Care System

Learning how to navigate the cancer journey and the health care system can be overwhelming for anyone, but it is particularly difficult for those who are medically underserved, those who experience language or health literacy barriers, and those with limited resources. The American Cancer Society Patient Navigator Program reaches those most in need. It has specially trained patient navigators across the country who can help find transportation to treatment and other cancer-related appointments; assist with medical financial issues, including insurance navigation; identify community resources; and provide information on a patient's cancer diagnosis and treatment process.

## Support for Quitting Tobacco

The American Cancer Society Quit for Life® Program is the nation's leading tobacco cessation program, offered by 25 states and territories, including Guam and Washington, DC, and more than 700 employers and health plans throughout the US. Operated and managed by Optum, the program is built on the organizations' more than 35 years of combined experience in tobacco cessation. It employs an evidence-based combination of physical, psychological, and behavioral strategies to enable participants to overcome their addiction to tobacco. A critical mix of medication support, phone-based cognitive behavioral coaching, text messaging, web-based learning, and support tools produces a higher-than-average quit rate.

## Breast Cancer Support

Through the American Cancer Society Reach To Recovery® program, breast cancer patients are paired with trained volunteers who have had similar diagnoses and treatment plans to provide peer-to-peer support on everything from practical and emotional issues to helping them cope with their disease, treatment, and long-term survivorship issues.

## Finding Hope and Inspiration

The American Cancer Society Cancer Survivors Network® provides a safe online connection where cancer patients can find others with similar experiences and interests. At [csn.cancer.org](https://csn.cancer.org), members can join chat rooms and build their own support network from among the members. Other online resources, including MyLifeLine and Springboard Beyond Cancer, provide additional support for patients, survivors, and caregivers and allow them to better communicate to receive the help they need during and after cancer.

## Research

Research is at the heart of the American Cancer Society's mission. During the past decade, our Extramural Grants program has awarded 178 grants, totaling nearly \$125 million, for research in poor and underserved populations, and offers priority funding for psychosocial, behavioral, health policy, and health services research to help reduce cancer health disparities.

Examples of the American Cancer Society's current intramural and extramural research include:

- Examining how social inequalities, including factors such as socioeconomic status and racial discrimination, contribute to racial/ethnic differences in cancer occurrence
- Developing a genetically based predictive tool for prostate cancer in order to make it easier for doctors to find and treat aggressive tumors within the prostate gland, particularly in black men
- Exploring how women make decisions about ovarian cancer treatment in order to increase receipt of guideline-recommended treatment, particularly in black women and those who do not have health insurance
- Monitoring progress in reducing racial and socioeconomic disparities in the cancer burden, including differences in prevention, early detection, treatment, survival, and mortality

## Advocacy

The American Cancer Society and the American Cancer Society Cancer Action Network<sup>SM</sup> (ACS CAN), the American Cancer Society's nonprofit, nonpartisan advocacy affiliate, are dedicated to reducing cancer incidence and mortality rates among minority and medically underserved populations. This goal can be achieved by instituting effective policies and public health programs that promote overall wellness and save lives. ACS CAN is involved in advocacy efforts at both the state and federal levels. Listed below are some of the efforts that ACS CAN has been involved with in the past few years:

ACS CAN and the American Cancer Society are working to improve access to health care for people with cancer, cancer survivors, and those who will be diagnosed with the disease in the future, which will help save lives. This includes ACS CAN's work to help ensure the implementation and protection of provisions under the Affordable Care Act, the health care law that has improved access to care for cancer patients and their families by:

- Ending discrimination against people with cancer and other life-threatening diseases
- Expanding access to care for people with cancer or at risk for cancer
- Refocusing the health care system on disease prevention

Each year, ACS CAN works hard to ensure that the agencies overseeing cancer research and prevention programs receive the funding needed to continue the battle against cancer. The organization continues to lead the fight to maintain and increase the investment the US has made in biomedical and cancer research and cancer programs at the National Institutes of Health (NIH), the National Cancer Institute (NCI), and the Centers for Disease Control and Prevention (CDC). This investment includes increased funding for cancer research at the National Institute on Minority Health and Health Disparities, which the American Cancer Society was instrumental in helping to establish.

Protecting state and federal funding for the CDC's National Breast and Cervical Cancer Early Detection Program is a high priority for ACS CAN. This successful program provides community-based breast and cervical cancer screening, diagnosis, and treatment to low-income, uninsured, and medically underserved women ([cdc.gov/cancer/nbccedp](https://www.cdc.gov/cancer/nbccedp)). However, under current funding the program only serves 1 in 10 eligible women nationwide. Cuts to the program would mean even fewer women would be served.

Colorectal cancer screening by colonoscopy can remove precancerous polyps during the procedure, thereby making it a unique preventive service. ACS CAN has been instrumental in the introduction of the Removing Barriers to Colorectal Cancer Screening Act of 2017, which would fix a loophole in the Medicare program for the colorectal cancer preventive service. Under current law, a screening colonoscopy is given without cost sharing under the Medicare program. However, seniors on Medicare face a 20% coinsurance if one or more polyps or abnormal growths are removed during a screening colonoscopy, likely costing the patient as much as \$350. This is because under Medicare coding rules, removal of any polyp reclassifies the screening as a therapeutic procedure, which requires coinsurance. Importantly, those who have private insurance do not face this same cost barrier. The Removing Barriers to Colorectal Cancer Screening Act would fix this inequity in Medicare and remove the coinsurance requirement.

ACS CAN was also a leading partner in the successful passage of the Family Smoking Prevention and Tobacco Control Act, which was signed into law in 2009. This law gives the Food and Drug Administration (FDA) the authority to regulate all tobacco products and stop companies from marketing their deadly product to children, racial and ethnic minority communities, and other vulnerable populations. ACS CAN advocates for the FDA to use the full weight of its authority to reduce the deadly toll of tobacco in the US.

## Additional Resources

### Center to Reduce Cancer Health Disparities (CRCHD)

The CRCHD is central to the National Cancer Institute's efforts to reduce the unequal burden of cancer in our society and train the next generation of competitive researchers in cancer health disparities research. The CRCHD initiates, integrates, and engages in collaborative research studies to promote research and training in cancer health disparities and to identify new and innovative scientific opportunities to improve cancer outcomes in communities experiencing an excess burden of cancer. Visit [crchd.cancer.gov](http://crchd.cancer.gov) for additional information.

### Cancer Prevention and Control Research Network (CPCRN)

The CPCRN is a national network of academic, public health, and community partners who work together to reduce the burden of cancer, especially among underserved communities. Its members conduct community-based participatory cancer research across its eight network centers, crossing academic affiliations and geographic boundaries. Visit [cpcrn.org](http://cpcrn.org) for additional information.

### 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. Visit [iccnetwork.org](http://iccnetwork.org) for additional information.

### National Medical Association (NMA)

The largest and oldest national organization representing African American physicians and patients in the US, the NMA is committed to improving the quality of health among minorities and disadvantaged people through its membership, professional development, community health education, advocacy, research, and partnerships with federal and private agencies. 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. Visit [nmanet.org](http://nmanet.org) for additional information.

### African American Collaborative Obesity Research Network (AACORN)

The 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. Visit [aacorn.org](http://aacorn.org) for additional information.

## Sources of Statistics

**Estimated New Cancer Cases.** The estimated number of new cancer cases diagnosed among African Americans in the US in 2019 were projected using a spatiotemporal model and time series projection based on incidence during 2001-2015 from 48 states and the District of Columbia that provided consent and met the North American Association of Central Cancer Registries'

(NAACCR) high-quality data standard. The method for estimating incidence prior to projection considers geographic variations in sociodemographic and lifestyle factors, medical settings, and cancer screening behaviors, and also accounts 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 calculated by dividing the number of people who are diagnosed with cancer during a given time period by the number of people at risk for the disease in a population. In this publication, incidence rates are reported as the average number of cases diagnosed per 100,000 people per year and are age adjusted to the 2000 US standard population. Incidence data for this publication were collected by the Surveillance, Epidemiology, and End Results (SEER) program and the National Program of Cancer Registries and compiled by NAACCR.<sup>199</sup> Analyses of trends in cancer incidence rates for selected cancers were based on black and white cases (excluding persons with Hispanic ethnicity) diagnosed during 1995-2015 from 26 states and were adjusted for delays in case reporting.

**Estimated Cancer Deaths.** The estimated numbers of US cancer deaths among blacks are calculated by fitting the numbers of cancer deaths from 2002 through 2016 to a statistical model that forecasts the numbers of deaths expected to occur in 2019. Data on the number of deaths are obtained from the National Center for Health Statistics (NCHS) at the CDC.

**Death Rates.** Similar to incidence rates, death rates or mortality rates are defined as the number of people who die from cancer during a given time period divided by the number of people at risk in the population. Death rates herein are based on counts of cancer deaths compiled by the NCHS and population data from the US Census Bureau.<sup>200</sup> Death rates in this publication are presented as average, annual cancer deaths per 100,000 people and are age adjusted to the 2000 US standard population. Trends in cancer mortality rates provided for selected cancer sites in blacks and whites were based on mortality data from 1990 to 2016 and exclude persons with Hispanic ethnicity.

**Survival.** Five-year relative survival rates are presented in this report for black and white cancer patients diagnosed between 2008 and 2014 and followed through 2015. 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. Note that survival statistics do not exclude persons with Hispanic ethnicity. Five-year survival statistics presented in this publication were originally published in the SEER, Cancer Statistics Review 1975-2015.<sup>11</sup>

**Probability of Developing or Dying of Cancer.**

Probabilities of developing or dying of cancer were calculated using DevCan 6.7.6, developed by the National Cancer Institute.<sup>9</sup> 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 black man in 15 developing lung cancer in a lifetime underestimates the risk for smokers and overestimates the risk for nonsmokers.

**National Health and Nutrition Examination Survey (NHANES).** The CDC's NHANES is a national survey that assesses the health and nutritional status of adults and children in the US. The survey is designed to provide prevalence estimates on the health and nutritional status of US adults and children. Data are gathered through in-person interviews and direct physical exams in mobile examination centers.

Visit [cdc.gov/nchs/nhanes.htm](https://cdc.gov/nchs/nhanes.htm) for more information.

**National Health Interview Survey (NHIS).** The CDC's NHIS has monitored the health of the nation since 1957. The survey is designed to provide national prevalence estimates on personal, socioeconomic, demographic, and health characteristics (such as cigarette smoking and physical activity) of US adults. Data are gathered through a computer-assisted personal interview of adults ages 18 and older living in households in the US.

Visit [cdc.gov/nchs/nhis/index.htm](https://cdc.gov/nchs/nhis/index.htm) for more information.

**National Immunization Survey-Teen (NIS-Teen).**

Sponsored by the National Center for Immunizations and Respiratory Diseases (NCIRD), this annual survey is conducted jointly by the NCIRD, the NCHS, and the CDC. It is designed to monitor national, state, and selected local area vaccination coverage among children ages

13-17 in the US. Data are provided by both surveyed households and immunization providers. Telephone interviews are conducted in all 50 states and the District of Columbia, with oversampling in select areas. Beginning in 2011, the NIS-Teen sample was expanded to include cellular telephones in addition to landlines. Immunization data for surveyed adolescents are also collected through a mail survey of their pediatricians, family physicians, and other health care providers. The parents and guardians of eligible adolescents are asked during the telephone interview for consent to contact the adolescents' vaccination providers. Types of immunizations, dates of administration, and additional data about facility characteristics are requested from

immunization providers. Visit [cdc.gov/vaccines/imz-managers/nis/about.html](http://cdc.gov/vaccines/imz-managers/nis/about.html) for more information.

**National Youth Tobacco Survey (NYTS).** This national survey was first conducted in fall 1999. Now an annual survey, it is designed to provide national data for public and private students in grades six through 12. The survey includes detailed tobacco-related questions, including topics such as bidis, secondhand smoke exposure, smoking cessation, and school curriculum. Data are gathered through a self-administered questionnaire.

Visit [cdc.gov/tobacco/data\\_statistics/surveys/nyts/index.htm](http://cdc.gov/tobacco/data_statistics/surveys/nyts/index.htm) for more information.

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## American Cancer Society Recommendations for the Early Detection of Cancer in Average-risk Asymptomatic People\*

Cancer Site	Population	Test or Procedure	Recommendation
<b>Breast</b>	Women, ages 40-54	Mammography	Women should have the opportunity to begin annual screening between the ages of 40 and 44. Women should undergo regular screening mammography starting at age 45. Women ages 45 to 54 should be screened annually.
	Women, ages 55+		Transition to biennial screening, or have the opportunity to continue annual screening. Continue screening as long as overall health is good and life expectancy is 10+ years.
<b>Cervix</b>	Women, ages 21-29	Pap test	Screening should be done every 3 years with conventional or liquid-based Pap tests.
	Women, ages 30-65	Pap test & HPV DNA test	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, ages 66+	Pap test & HPV DNA test	Women ages 66+ who have had $\geq 3$ consecutive negative Pap tests or $\geq 2$ consecutive negative HPV and Pap tests within the past 10 years, with the most recent test occurring in the past 5 years, should stop cervical cancer screening.
	Women who have had a total hysterectomy		Stop cervical cancer screening.
<b>Colorectal<sup>†</sup></b>	Men and women, ages 45+	Guaiac-based fecal occult blood test (gFOBT) with at least 50% sensitivity or fecal immunochemical test (FIT) with at least 50% sensitivity, <b>OR</b>	Annual testing of spontaneously passed stool specimens. Single stool testing during a clinician office visit is not recommended, nor are “throw in the toilet bowl” tests. 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.
		Multi-target stool DNA test, <b>OR</b>	Every 3 years
		Flexible sigmoidoscopy (FSIG), <b>OR</b>	Every 5 years alone, or consideration can be given to combining FSIG performed every 5 years with a highly sensitive gFOBT or FIT performed annually
		Colonoscopy, <b>OR</b>	Every 10 years
		CT Colonography	Every 5 years
<b>Endometrial</b>	Women at menopause		Women should be informed about risks and symptoms of endometrial cancer and encouraged to report unexpected bleeding to a physician.
<b>Lung</b>	Current or former smokers ages 55-74 in good health with 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 annual 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.
<b>Prostate</b>	Men, ages 50+	Prostate-specific antigen test with or without digital rectal examination	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. African American men should have this conversation with their provider beginning at age 45.

CT-Computed tomography. \*All individuals should become familiar with the potential benefits, limitations, and harms associated with cancer screening.  
<sup>†</sup>All positive tests (other than colonoscopy) should be followed up with colonoscopy.



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