Cancer statistics for African American/Black People 2022

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Abstract: African American/Black individuals have a disproportionate cancer burden, including the highest mortality and the lowest survival of any racial/ethnic group for most cancers. Every 3 years, the American Cancer Society estimates the number of new cancer cases and deaths for Black people in the United States and compiles the most recent data on cancer incidence (herein through 2018), mortality (through 2019), survival, screening, and risk factors using population-based data from the National Cancer Institute and the Centers for Disease Control and Prevention. In 2022, there will be approximately 224,080 new cancer cases and 73,680 cancer deaths among Black people in the United States. During the most recent 5-year period, Black men had a 6% higher incidence rate but 19% higher mortality than White men overall, including an approximately 2-fold higher risk of death from myeloma, stomach cancer, and prostate cancer. The overall cancer mortality disparity is narrowing between Black and White men because of a steeper drop in Black men for lung and prostate cancers. However, the decline in prostate cancer mortality in Black men slowed from 5% annually during 2010 through 2014 to 1.3% during 2015 through 2019, likely reflecting the 5% annual increase in advanced-stage diagnoses since 2012. Black women have an 8% lower incidence rate than White women but a 12% higher mortality; further, mortality rates are 2-fold higher for endometrial cancer and 41% higher for breast cancer despite similar or lower incidence rates. The wide breast cancer disparity reflects both later stage diagnosis (57% localized stage vs 67% in White women) and lower 5-year survival overall (82% vs 92%, respectively) and for every stage of disease (eg, 20% vs 30%, respectively, for distant stage). Breast cancer surpassed lung cancer as the leading cause of cancer death among Black women in 2019. Targeted interventions are needed to reduce stark cancer inequalities in the Black community.

Keywords: African Americans, Black people, cancer statistics, incidence, mortality

Introduction

The Black population is the third largest racial/ethnic group in the United States after Hispanic people, accounting for approximately 14% of the total population in 2020.[1] This group includes African Americans, whose ancestors were brought to the United States involuntarily as slaves; Caribbean Americans; and recent immigrants of African descent. Although racial classification is a social construct based on phenotype, it remains useful for describing health patterns in the United States because of its association with the social determinants of health resulting from systemic racism as well as genetic ancestry.[2,3] Collectively, African American/Black people have higher mortality than any other broadly defined racial/ethnic group[4] for most cancers and other leading causes of death, including heart disease, stroke, and diabetes (Table 1). These disparities are driven by lower socioeconomic status (SES),[5-7] which is associated with a higher prevalence of risk factors for cancer and other diseases, as well as less access to high-quality health care, largely because of inadequate health insurance.[8,9] According to recent US Census Bureau data, 19% of Black people lived below the federal poverty level and 28% had completed 4 years of college, compared to 7% and 41%, respectively, of White people.[10,11]

TABLE 1. Leading Causes of Death Among Black and White People, 2019

MALES	BLACK				WHITE			
CAUSE OF DEATH	RANK	NO.	%	DEATH RATE	RANK	NO.	%	DEATH RATE
Heart diseases	1	43,633	24%	264.9	1	277,828	25%	209.9
Cancer	2	35,567	20%	210.4	2	245,904	22%	178.2
Accidents (unintentional injuries)	3	15,337	8%	77.2	3	78,975	7%	73.7
Cerebrovascular disease	4	8,986	5%	57.6	5	46,589	4%	35.7
Assault (homicide) & legal intervention	5	8,854	5%	40.6	18	3,823	<1%	4.0
All causes		182,341		1079.6		1,118,660		865.5

FEMALES	BLACK				WHITE			
CAUSE OF DEATH	RANK	NO.	%	DEATH RATE	RANK	NO.	%	DEATH RATE
Heart diseases	1	37,950	23%	163.2	1	235,845	22%	128.9
Cancer	2	35,277	21%	146.9	2	216,160	20%	130.1
Cerebrovascular disease	3	11,089	7%	48.4	5	64,471	6%	35.0
Diabetes	4	7,567	5%	32.2	7	23,833	2%	14.2
Accidents (unintentional injuries)	5	6,617	4%	29.0	6	46,780	4%	36.2
All causes		166,420		716.2		1,070,907		623.5

Note: Race is exclusive of Hispanic ethnicity. Counts include unknown age. Rates are per 100,000 and age adjusted to the 2000 US standard population.

The coronavirus disease 2019 (COVID-19) pandemic has further widened health disparities in people of color. In 2020, Black individuals were approximately 3 times more likely to be hospitalized with COVID-19 and twice as likely to die from the disease compared with White individuals.[12,13] Beyond the disease itself, Black people have been disproportionately impacted by the secondary consequences of the pandemic, including higher job loss and a slower return to employment than White people, abruptly reversing years of steady progress in narrowing the unemployment gap.[14] Additional effects, including later stage cancer diagnosis, delays in treatment, and ultimately increased cancer mortality because of pandemic-related health care disruptions, are yet unknown, but are expected to further exacerbate cancer racial disparities.

This report provides current cancer incidence, survival, and mortality statistics for Black people in the United States, including the projected number of new cases and deaths in 2022, as well as the prevalence of cancer risk factors and screening. When possible, data are confined to non-Hispanic Black people, who account for 94% of the total Black population.

Materials and Methods

Cancer Occurrence Data

There are 2 original sources for population-based cancer incidence data in the United States: the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) program and the Centers for Disease Control and Prevention's National Program of Cancer Registries (NPCR). NPCR data presented herein were accessed in combination with SEER data from the North American Association of Central Cancer Registries (NAACCR), which compiles and disseminates high-quality data from both programs for diagnoses from 1995 through 2018 covering almost 100% of the US population in the most recent years.[15] Mortality data were collected by the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS) and historically cover the entire US population. Cancer occurrence data are presented for Black and White people exclusive of persons with Hispanic ethnicity when possible (data from 1992 for incidence and 1990 for mortality). Data from states with incomplete ethnicity data on death certificates in some years were censored for those years.

All cancer incidence and mortality data were accessed using SEER*Stat software (version 8.3.9).[16] Cancer cases were classified according to the *International Classification of Diseases for Oncology*, and causes of death were classified according to the *International Classification of Diseases*.[17,18] All colorectal cancer (CRC) incidence data exclude appendiceal cancer (*International Classification of Diseases for Oncology* code C18.1). Incidence and death rates were age

adjusted to the 2000 US standard population and expressed per 100,000 population. Long-term incidence trends (1975-2018) were based on data from the 9 oldest SEER registries (Connecticut, Hawaii, Iowa, New Mexico, and Utah and the metropolitan areas of Atlanta, Detroit, San-Francisco-Oakland, and Seattle-Puget Sound) representing 9% of the US population.[19] Contemporary 5-year relative survival rates are based on patients who were diagnosed during 2011 through 2017 and followed through 2018 in 18 SEER catchment areas (SEER 9 plus Alaska Native Tumor Registry, Rural Georgia, the metropolitan areas San Jose-Monterey and Los Angeles, Greater California, Greater Georgia, Kentucky, Louisiana, and New Jersey).[20] The lifetime probability of developing cancer and the most recent 5-year and 10-year incidence trends were based on all SEER registries (SEER 18 plus Idaho, Massachusetts, and New York).[21]

The probability of developing cancer was calculated using the National Cancer Institute's DevCan software (version 6.7.9),[22] and the annual percent change in rates was calculated using the National Cancer Institute's Joinpoint Regression Program (version 4.9.0.1).[23] All tests of statistical significance were 2-sided, and a P value $< .05$ was considered statistically significant. Rates were adjusted for delays in reporting based on SEER delay factors when possible to convey the most accurate trends in recent years, including stage-specific delay adjustment for prostate cancer incidence trends by stage.[24] Some of the statistical information presented in this report was previously published in the *SEER Cancer Statistics Review 1975-2018* and is now available through the online tool SEER*Explorer.[25]

Data from the NAACCR were the source for projected new cancer cases in 2022 (for more information, see the next section), stage distribution at diagnosis (2014-2018), and cross-sectional 5-year average annual incidence rates (2014-2018) by site and state. Data for Nevada are not included in US-combined incidence or trend analysis using NAACCR data because they did not meet high-quality standards for one or more years during 2014 to 2018. Some of the data presented here were previously published in volumes 1 and 2 of *Cancer in North America: 2014–2018*.[26,27]

Projected Cancer Cases and Deaths in 2022

Incidence and mortality data lag 2 to 4 years behind the most current year because of the time required for data collection, compilation, quality control, and dissemination. Thus, to provide an estimation of the contemporary cancer burden, we projected the numbers of new cases and deaths for Black people in the United States for 2022.

To calculate the number of invasive cancers, a spatiotemporal model was first used to estimate the complete number of cases diagnosed each year from 2004 through 2018 based on data from 50 states and the District of Columbia each year that met NAACCR's high-quality standards (a handful of states did not meet standards for some years and were excluded for those years).[28] Estimated case counts were adjusted for delays in case reporting and were projected to 2022 based on the most recent 4-year average annual percent change generated by joinpoint regression modeling.[29]

The numbers of cancer deaths expected to occur in 2022 among Black people in the United States were estimated based on the same joinpoint regression model used for the temporal projection of estimated cases,[29] applying the most recent 4-year average annual percent change in the actual number of cancer deaths from 2005 to 2019, as reported to the NCHS.

Other Statistics

The estimated number of cancer deaths averted in Black men and women because of the reduction in overall cancer mortality was estimated by subtracting the number of recorded cancer deaths from the number that would have been expected if cancer death rates had remained at their peak. The expected numbers of cancer deaths were calculated by applying the 5-year age-specific cancer death rates in the peak year for age-standardized death rates (1990 in men; 1991 in women) to the corresponding age-specific populations in subsequent years through 2019. Then, the difference between the number of expected and observed deaths in each age group and calendar year was summed separately for men and women.

Risk Factors and Screening Data

Data from publicly available, population-based surveys were used to generate weighted prevalence estimates of cancer risk factors and screening utilization. The National Health Interview Survey was used to estimate the prevalence of cancer screening, cigarette smoking, and physical inactivity, and the National Health and Nutrition Examination Surveys were used to estimate overweight and obesity. Risk factor and screening estimates were calculated using SAS-callable SUDAAN (version 11.0.1; RTI International) and accounted for the complex survey designs.

Select Findings

Overall Cancer Occurrence

Incidence

In 2022, an estimated 111,990 Black men and 112,090 Black women will be newly diagnosed with invasive cancer (Fig. 1). The most commonly diagnosed cancers among Black men are prostate (37%), lung and bronchus (hereinafter *lung*) (12%), and colon and rectum (hereinafter *colorectum*) (9%). Among Black women, the most commonly diagnosed cancers are breast (32%), lung (11%), and colorectum (9%). These 4 cancers account for 55% of all cancer cases among Black people. Accounting for competing

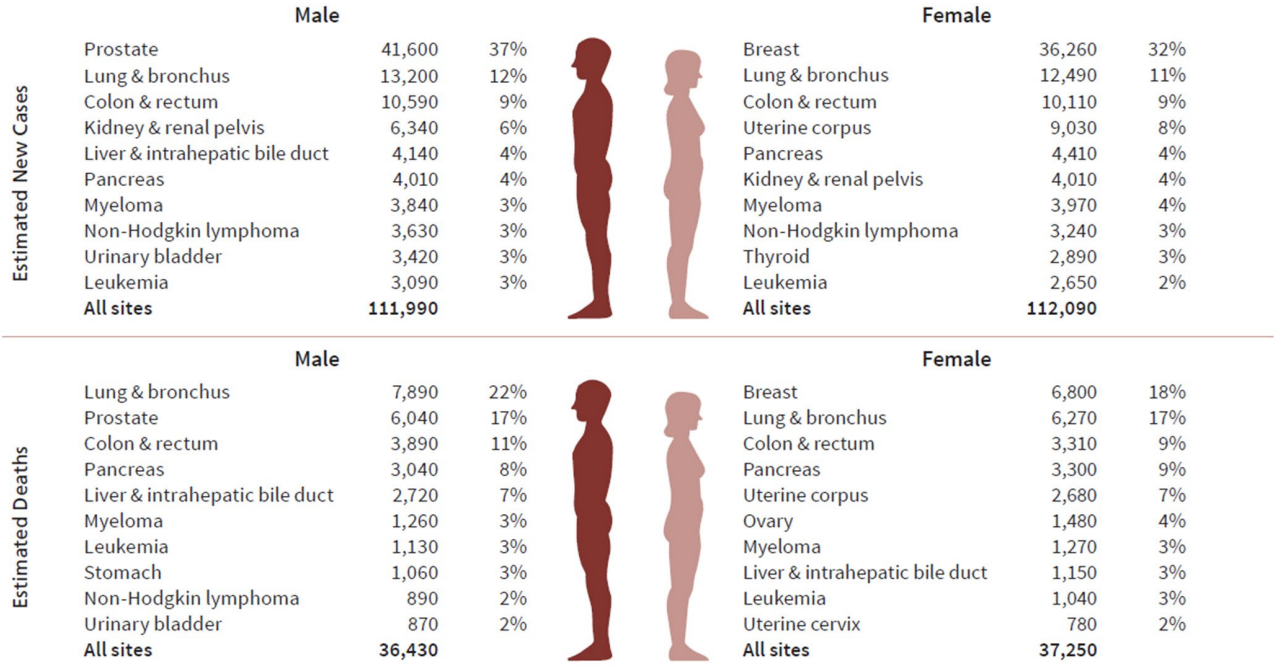

FIGURE 1. Leading Sites of New Cancer Cases and Deaths Among Black People, United States: 2022 Estimates. Ranking is based on modeled projections and may differ from the most recent observed data. Estimates are rounded to the nearest 10 and exclude basal and squamous cell skin cancers and in situ carcinoma with the exception of urinary bladder.

risks, the lifetime probability of being diagnosed with cancer among Black men and women is 38% and 34%, respectively, compared with 41% and 40%, respectively, among White men and women (Table 2).

Table 3 shows incidence rate ratios for Black versus White people for selected cancers. Among Black men, incidence rates are higher overall (6%) and for several common cancers, including prostate, lung, colorectum, kidney, liver, and pancreas. In contrast, Black women have lower incidence than White women overall (8%) and for several common cancers (eg, breast and lung) despite higher incidence for several cancers with low survival, including stomach, liver, and pancreas. Although uterine corpus cancer incidence appears similar in Black and White women, these rates are unadjusted for hysterectomy prevalence (ie, they include women in the population denominator without an intact uterus who are not at risk for the disease), which is higher in Black women.[30] On the basis of race-specific adjustment factors reported in a recent SEER study,[31] the actual uterine corpus cancer incidence rate in Black women is from 15% to 20% higher than that in White women.

Incidence rates for all cancers combined increased from the mid-1970s until the early 1990s in Black people but have since generally declined in Black men and remained stable in Black women (Fig. 2). Declines in men largely reflect decreases in lung and other tobacco-related cancers because of steep smoking declines in the latter decades of the 20th century (Fig. 3). From 2009 to 2018, incidence rates decreased in Black men by 2% per year—somewhat more steeply than the decline in White men (1% per year). Stable overall incidence among Black women in recent years contrasts with a gradual increase in White women (<0.5% per year) and likely reflects stabilizing breast cancer rates (Fig. 4), which account for approximately one-third of all new cases in Black women.

Mortality

Cancer is the second-leading cause of death in Black people after heart diseases, accounting for approximately 20% of all reported deaths in 2019 (Table 1). An estimated 36,430 Black men and 37,250 Black women are expected to die from cancer in 2022. Among Black men, the leading causes of cancer death are lung (22%), prostate (17%), and colorectal (11%) cancers. Among Black women, breast cancer leads (18%), followed by lung (17%) and colorectal (9%) cancers (Fig. 1). Breast cancer surpassed lung cancer in 2019 to resume the lead in cancer deaths among Black women after being eclipsed by lung cancer since the mid-1990s as a result of the tobacco epidemic (Fig. 5).

Overall cancer death rates were lower in Black people than in White people in the early 1950s; however, much steeper increases in Black people led to a crossover in the early 1960s[8] and a widening racial disparity until the mid-1990s.[4] Cancer death rates continued to increase until their peak in 1990 for Black men and in 1991 for Black women (Fig. 2). The decline in death rates since the early 1990s has

TABLE 2. Lifetime Probability of Developing or Dying From Invasive Cancer by Race and Sex, United States, 2016-2018

		DEVELOPING[a]		DYING	
		BLACK	NH WHITE	BLACK	NH WHITE
		(%)	(%)	(%)	(%)
All sites[b]	Male	37.8 (1 in 3)	41.0 (1 in 2)	20.2 (1 in 5)	20.8 (1 in 5)
	Female	34.3 (1 in 3)	39.9 (1 in 3)	17.9 (1 in 6)	18.2 (1 in 5)
Breast	Female	11.6 (1 in 9)	13.6 (1 in 7)	3.0 (1 in 33)	2.5 (1 in 39)
Colon & rectum	Male	4.2 (1 in 24)	4.2 (1 in 24)	2.0 (1 in 49)	1.7 (1 in 58)
	Female	4.0 (1 in 25)	3.9 (1 in 25)	1.8 (1 in 55)	1.6 (1 in 63)
Kidney & renal pelvis	Male	1.9 (1 in 52)	2.3 (1 in 44)	0.5 (1 in 215)	0.6 (1 in 172)
	Female	1.3 (1 in 80)	1.3 (1 in 79)	0.3 (1 in 367)	0.3 (1 in 306)
Leukemia	Male	1.2 (1 in 82)	2.0 (1 in 50)	0.6 (1 in 161)	1.0 (1 in 101)
	Female	1.0 (1 in 104)	1.4 (1 in 72)	0.5 (1 in 185)	0.7 (1 in 144)
Liver & bile duct	Male	1.6 (1 in 63)	1.2 (1 in 85)	1.2 (1 in 85)	0.9 (1 in 111)
	Female	0.6 (1 in 164)	0.5 (1 in 200)	0.6 (1 in 171)	0.5 (1 in 209)
Lung & bronchus	Male	6.1 (1 in 16)	6.7 (1 in 15)	4.8 (1 in 21)	5.2 (1 in 19)
	Female	4.9 (1 in 21)	6.7 (1 in 15)	3.5 (1 in 29)	4.6 (1 in 22)
Myeloma	Male	1.5 (1 in 66)	0.9 (1 in 113)	0.7 (1 in 147)	0.4 (1 in 231)
	Female	1.4 (1 in 70)	0.6 (1 in 162)	0.6 (1 in 156)	0.3 (1 in 301)
Ovary	Female	0.9 (1 in 108)	1.2 (1 in 83)	0.7 (1 in 151)	0.9 (1 in 113)
Pancreas	Male	1.6 (1 in 62)	1.7 (1 in 58)	1.4 (1 in 73)	1.4 (1 in 70)
	Female	1.8 (1 in 57)	1.6 (1 in 62)	1.5 (1 in 66)	1.3 (1 in 74)
Prostate	Male	16.7 (1 in 6)	12.0 (1 in 8)	3.8 (1 in 26)	2.3 (1 in 44)
Stomach	Male	1.2 (1 in 81)	0.8 (1 in 122)	0.7 (1 in 149)	0.3 (1 in 311)
	Female	0.9 (1 in 113)	0.5 (1 in 210)	0.4 (1 in 225)	0.2 (1 in 487)
Thyroid	Male	0.3 (1 in 336)	0.8 (1 in 132)	<0.1 (1 in 2802)	0.1 (1 in 1718)
	Female	1.1 (1 in 90)	1.9 (1 in 52)	0.1 (1 in 1553)	0.1 (1 in 1562)
Urinary bladder	Male	1.8 (1 in 55)	4.3 (1 in 23)	0.5 (1 in 187)	1.0 (1 in 101)
	Female	0.8 (1 in 121)	1.3 (1 in 76)	0.3 (1 in 296)	0.4 (1 in 284)
Uterine cervix	Female	0.8 (1 in 131)	0.6 (1 in 180)	0.3 (1 in 315)	0.2 (1 in 516)
Uterine corpus	Female	3.1 (1 in 32)	3.2 (1 in 31)	1.0 (1 in 97)	0.6 (1 in 167)

The probability of developing/dying of cancer is not available for Black people exclusive of Hispanic ethnicity. Percentages and "1 in" numbers may not be equivalent due to rounding.
Abbreviation: NH, non-Hispanic.
[a]For people not previously diagnosed with cancer.
[b]All sites excludes basal and squamous cell skin cancers and in situ cancers except urinary bladder.

been faster in Black men than in Black women, with an overall drop of 47% versus 29%, respectively, as of 2019, similar to the pattern in White people. This decline equates to approximately 656,840 fewer cancer deaths (438,460 in Black men and 218,380 in Black women) than what would have been expected if rates had remained at their peak (Fig. 6).

From 2010 to 2019, the overall cancer death rate declined somewhat faster in Black men than in White men (2.6% compared with 1.8% per year), whereas the pace was similar among Black and White women (1.6% compared with 1.5% per year, respectively) (Table 4). The Black-White cancer mortality disparity has narrowed for all cancers combined among both men and women (Fig. 7), declining from a peak of 48% in 1993 (397.8 vs 269.2 per 100,000) to 18% in 2019 (210.4 vs 178.2 per 100,000) among men and from 21% in 1997 (205.5 vs 169.9 per 100,000) to 13% in 2019 (146.9 vs 130.1 per 100,000) among women. During 2015 to 2019, the largest disparities were for myeloma and cancers of the stomach, prostate, and uterine corpus, for which death rates were twice as high in Black people (Table 5). Notably, despite lower or similar incidence in Black women for cancers of the breast and uterine corpus (unadjusted), death rates were 41% and 97% higher, respectively, than those in White women.

Although a small fraction of the variation in cancer mortality can be attributed to genetics differences, the majority of the Black-White disparity is due to variations in SES and access to care because of decades of structural racism.[5,6] For instance, historically legal lending discrimination, known

TABLE 3. Comparison of Cancer Incidence Rates Between Black and White People, United States, 2014-2018

MALE					FEMALE				
CANCER	BLACK RATE	WHITE RATE	ABSOLUTE DIFFERENCE[a]	RATE RATIO[b]	CANCER	BLACK RATE	WHITE RATE	ABSOLUTE DIFFERENCE[a]	RATE RATIO[b]
Kaposi sarcoma	1.6	0.4	1.2	4.32	Kaposi sarcoma	0.1	<0.1	0.1	3.60
Myeloma	16.7	7.8	8.9	2.14	Myeloma	12.3	4.8	7.5	2.60
Stomach	13.3	7.4	5.9	1.80	Stomach	7.4	3.5	3.9	2.14
Prostate	172.6	99.9	72.7	1.73	Liver & intrahepatic bile duct	5.5	3.9	1.6	1.40
Liver & intrahepatic bile duct	17.8	10.9	6.9	1.63	Pancreas	15.0	11.2	3.8	1.34
Breast	1.9	1.3	0.6	1.47	Uterine cervix	8.8	7.2	1.6	1.22
Larynx	7.8	5.5	2.3	1.43	Colon & rectum[c]	37.1	31.3	5.8	1.18
Colon & rectum[c]	50.4	41.5	8.9	1.21	Esophagus	2.1	1.8	0.3	1.16
Pancreas	17.8	15.1	2.7	1.18	Kidney & renal pelvis	13.5	11.8	1.7	1.14
Lung & bronchus	77.4	69.0	8.4	1.12	Uterine corpus	28.1	27.8	0.3	1.01
Kidney & renal pelvis	26.1	23.5	2.6	1.11	Breast	127.1	132.5	−5.4	0.96
Hodgkin lymphoma	3.0	3.2	−0.2	0.95	Hodgkin lymphoma	2.4	2.6	−0.2	0.92
Leukemia	13.7	19.1	−5.4	0.72	Lung & bronchus	47.2	56.0	−8.8	0.84
Non-Hodgkin lymphoma	17.3	24.2	−6.9	0.71	Ovary	8.8	11.1	−2.3	0.79
Esophagus	6.0	8.7	−2.7	0.69	Leukemia	9.0	11.5	−2.5	0.79
Oral cavity & pharynx	13.8	20.0	−6.2	0.69	Non-Hodgkin lymphoma	12.3	16.5	−4.2	0.74
Brain & other nervous system	4.8	8.6	−3.8	0.55	Oral cavity & pharynx	5.1	7.0	−1.9	0.72
Urinary bladder	19.3	38.0	−18.7	0.51	Urinary bladder	6.5	9.4	−2.9	0.69
Thyroid	3.8	8.1	−4.3	0.47	Thyroid	13.2	22.0	−8.8	0.60
Testis	1.6	7.0	−5.4	0.22	Brain & other nervous system	3.5	6.2	−2.7	0.56
Melanoma of the skin	1.1	36.4	−35.3	0.03	Melanoma of the skin	0.9	24.1	−23.2	0.04
All sites	**529.2**	**501.3**	**27.9**	**1.06**	**All sites**	**405.3**	**442.8**	**−37.5**	**0.92**

Note: Race is exclusive of Hispanic ethnicity. Sites are listed in descending order of rate ratio.
Rates are per 100,000 and age adjusted to the 2000 US standard population.
[a]The absolute difference is the rate in Black people minus the rate in White people.
[b]The rate ratio is the unrounded rate in Black people divided by that in White people.
[c]Excludes appendix.

as redlining, was an obstacle to upward mobility through the denial of loans to credit-worthy applicants who lived in predominately Black neighborhoods and thus preventing people of color from moving into middle-class or upper-class communities.[32] Areas with a history of redlining are associated with increased health risks,[33] such as later stage cancer diagnosis,[34] even if the neighborhood economic status has risen. In addition, one study found that redlined neighborhoods have 60% higher breast cancer mortality compared with other neighborhoods.[35] These types of discriminatory practices have led to a strong correlation in the United States between race and SES. Furthermore, although the risk of cancer mortality decreases with increasing SES, Black people have higher mortality than White people at every economic level.[8,36] Genetic differences do not explain the disparity because recent Black immigrants have lower cancer death rates than US-born Black people. This *healthy immigrant* phenomenon may mask Black-White disparities in states that have a large foreign-born Black population.[37,38]

Characteristics associated with lower income areas increase the risk of cancer incidence and mortality, disproportionately affecting Black people. For instance, low-income neighborhoods are more likely to have limited access to fresh or healthy food (food desert/swamp) and opportunities for safe outdoor physical activity. As a result, they are associated with poor health outcomes, including reduced survival from breast or colorectal cancer,[39-41] even after accounting for individual-level SES.[42] These communities are also targeted by companies marketing unhealthy products. For example, because of campaigns targeted at lower income Black communities, Black people are more than twice as likely as White people to smoke menthol cigarettes, which are more difficult to quit than non-flavored cigarettes.[43,44]

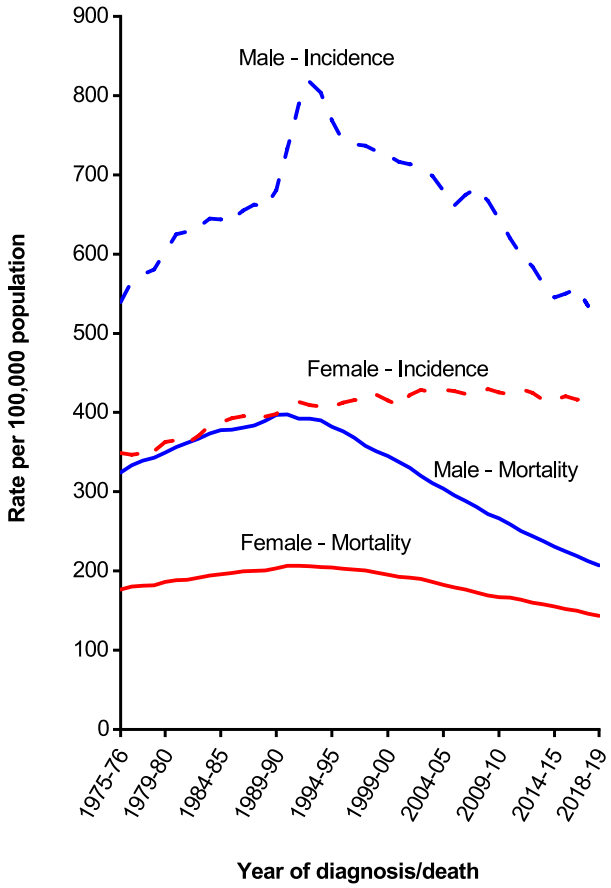

FIGURE 2. Trends in Cancer Incidence (1975-2018) and Death Rates (1975-2019) Among Black People by Sex, United States. Rates are age adjusted to the 2000 US standard population and are 2-year moving averages. Incidence rates are also adjusted for reporting delay.

Geographic Variation

Within the United States, the Black population is mainly concentrated in the South, although some cities in the Midwest and Northeast, such as Chicago, New York, Philadelphia, and Detroit, also have large Black communities. Cancer incidence and mortality vary widely by geographic location, although rates for states with a low Black population (eg, Wyoming) should be interpreted with caution because of a potentially sparse number of cases/deaths. The overall cancer incidence rate ranges from 251.4 per 100,000 in North Dakota to 670.5 per 100,000 in Wisconsin among Black men and from 204.3 per 100,000 in Wyoming to 492.8 per 100,000 in Wisconsin among Black women (Table 6). Mortality rates range from 139.7 per 100,000 in Hawaii to 270.7 per 100,000 in Wisconsin among Black men and from 106.5 per 100,000 in Alaska to 179.9 per 100,000 in Wisconsin among Black women (Table 7). Aside from Wisconsin, death rates for Black men are highest in Mississippi and Louisiana and, for Black women, are highest in the District of Columbia and Illinois. State differences in cancer occurrence and outcomes reflect variations in the prevalence of risk factors, such as smoking and obesity, as well as access to and utilization of prevention and early detection practices (eg, cancer screening) and treatment. Public health policies that affect access to care (eg, Medicaid expansion) also influence state cancer differences.

Stage at Diagnosis and Survival

The 5-year relative survival rate is lower in Black people than in White people for every stage of diagnosis for most cancer sites (Fig. 8). Most of this disparity is not genetic but, instead, is caused by socioeconomic differences that influence access to timely, high-quality cancer prevention, detection, and treatment.[8,45,46] Because of these barriers, Black people are more likely to be diagnosed with advanced-stage (regional or distant) disease (Fig. 9), when treatment is usually more costly and less effective. Once diagnosed, Black people are more likely to experience delays in treatment[47] and less likely to receive recommended treatment.[48,49] Most studies have found that, in equal-access health care systems, disparities in treatment and cancer outcomes are reduced.[50-52]

The higher prevalence of comorbidities among Black people also likely contributes to survival differences.[53] For example, diabetes is more common in Black people than in White people and is associated with an increased risk of cancer death.[54,55] In addition, there are some identified

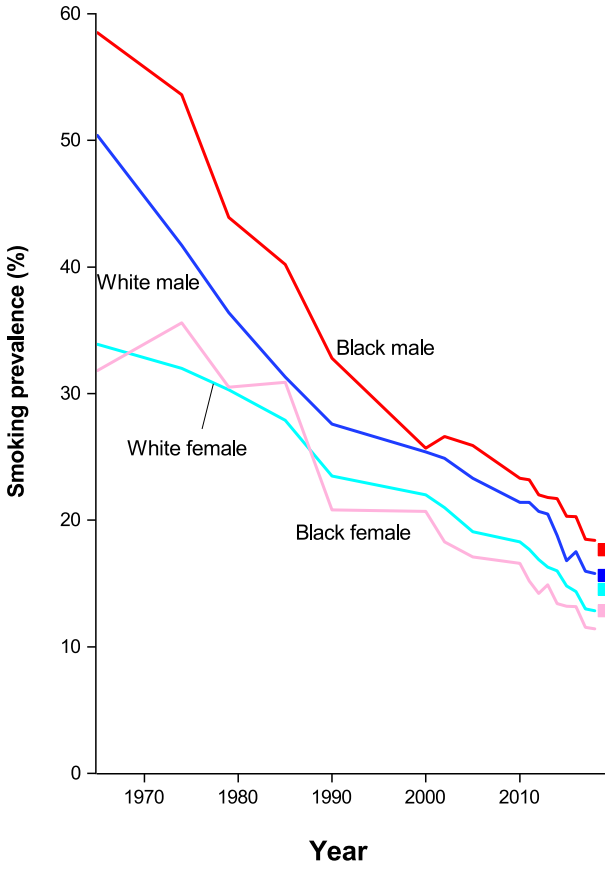

FIGURE 3. Trends in Adult Smoking Prevalence (%) by Race and Sex, United States, 1965 to 2019. Estimates include persons of Hispanic ethnicity. Due to changes in National Health Interview Survey design, 2019 estimates are not directly comparable to prior years and are separated from the trend line.

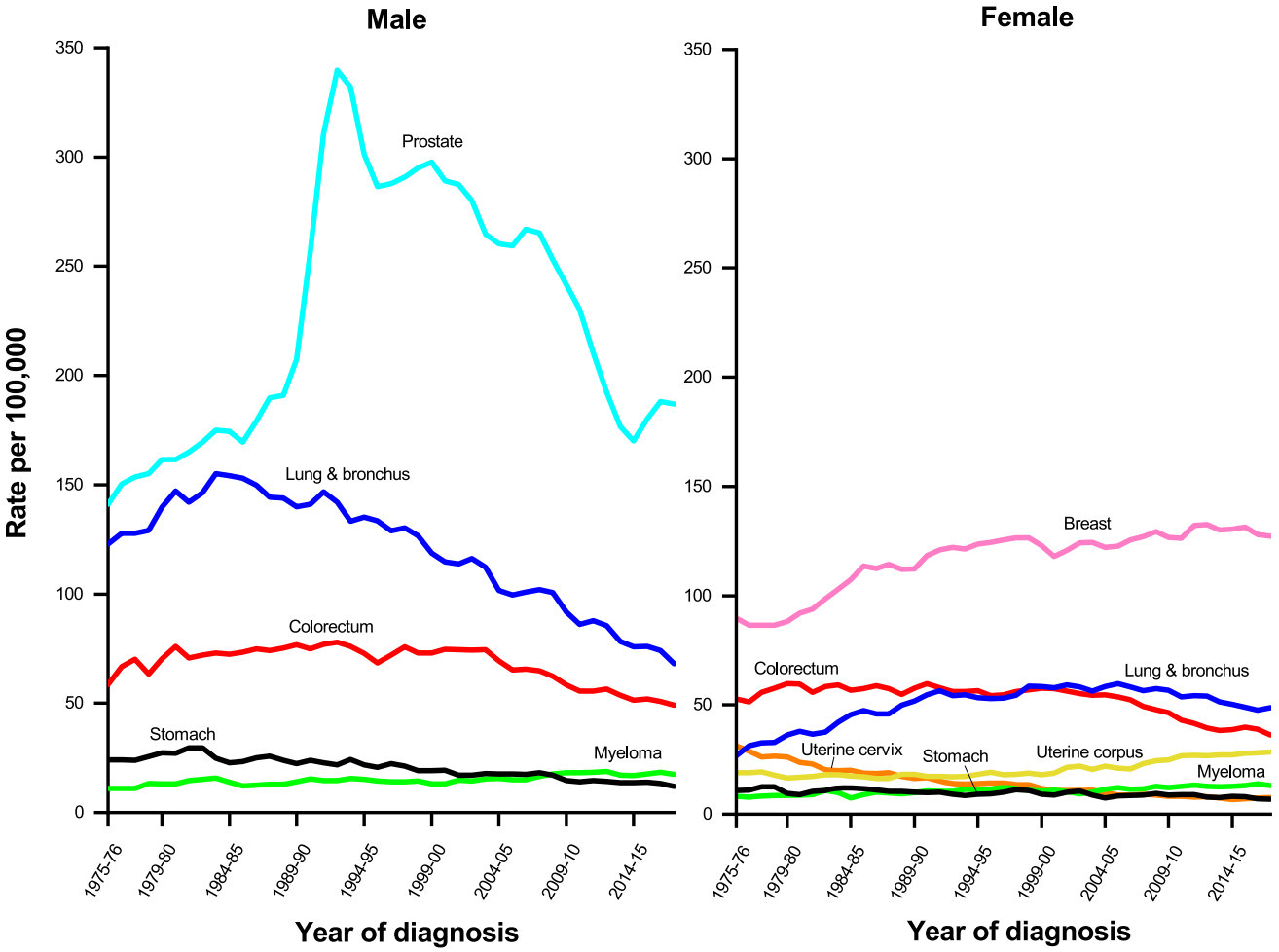

FIGURE 4. Trends in Incidence Rates Among Black People for Selected Cancers by Sex, United States, 1975 to 2018. Inclusive of Hispanic ethnicity. Rates are delayed and age adjusted to the 2000 US standard population and are 2-year moving averages. Rates for colorectal cancer exclude appendix.

prognostically unfavorable genetic mutations and other aggressive characteristics that are more common in cancers diagnosed among people of African ancestry and may contribute to survival disparities for some cancers.[56-58] The underrepresentation of people of color in clinical trials, which limits knowledge about the efficacy of new therapeutic agents in these populations specifically as well as the population at large, is also likely a factor.[59-62] From 2014 to 2018, Black individuals represented 14% of the US population but only 7% of participants in clinical trials supporting US Food and Drug Administration approval of cancer drugs.[59]

Despite these barriers, the overall 5-year relative survival rate among Black people has improved from 27% during 1960 to 1964 to 63% during 2011 to 2017.[20] This improvement reflects advancements in treatment and earlier diagnoses, although overall 5-year survival remains lower than that among White people (68% during 2011 to 2017). It is important to note, however, that improvements in survival do not always indicate progress for cancers that can be detected asymptomatically through screening (eg, breast and prostate). Examples include patients who are diagnosed with indolent cancers (overdiagnosis) and those for whom earlier diagnosis does not extend lifespan (lead time bias).

Selected Cancer Sites

Female Breast

Breast cancer has long been the most commonly diagnosed cancer in Black women and is once again the leading cause of cancer death. An estimated 36,260 new cases and 6800 cancer deaths are expected among Black women in 2022. From 2014 to 2018, the overall breast cancer incidence rate was 127.1 cases per 100,000 Black women compared with 132.5 per 100,000 White women (Table 3), although the rate among those younger than 40 years was higher among Black women.[63] As a result, and also because of lower life expectancy, the median age at diagnosis is younger in Black women (60 years) than in White women (64 years), even after adjusting for differences in population structure.[25,64] The lifetime risk of being diagnosed with breast cancer is 12% for Black women and 14% for non-Hispanic White women.

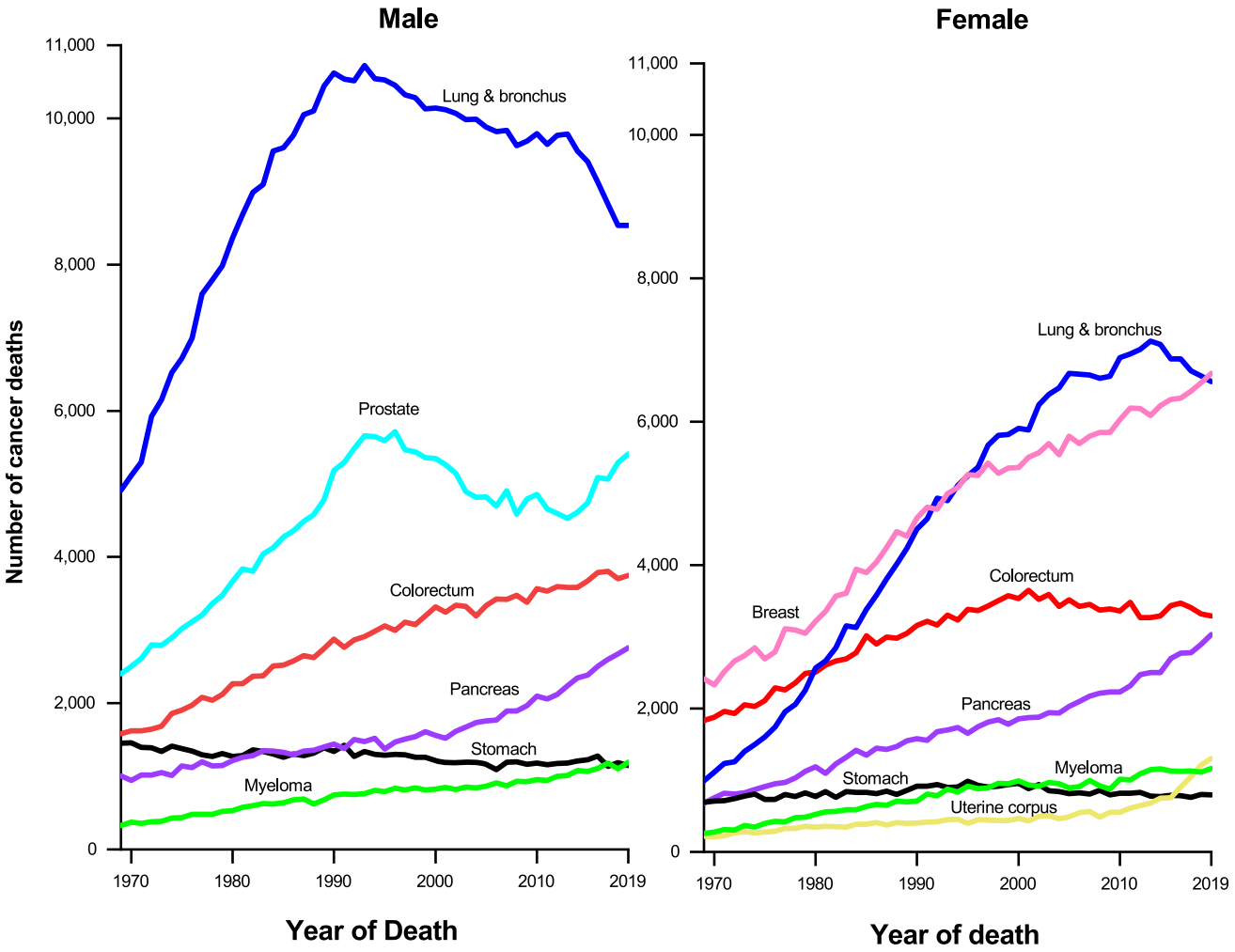

FIGURE 5. Trends in the Number of Cancer Deaths Among Black People by Sex, United States, 1969 to 2019. Inclusive of Hispanic ethnicity.

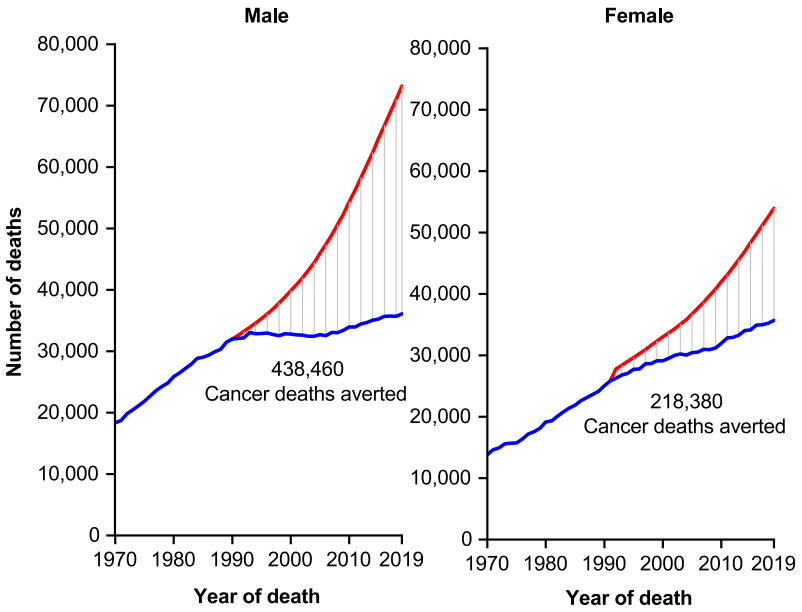

FIGURE 6. Total Number of Cancer Deaths Averted From 1991 to 2019 in Black Men and From 1992 to 2019 in Black Women, United States. Blue lines represent the actual number of cancer deaths recorded in each year, and red lines represent the expected number of cancer deaths that would be expected if cancer deaths had remained at their peak.

TABLE 4. Trends in Mortality Rates for Selected Cancers by Race and Sex, United States, 1990-2019

			TREND 1		TREND 2		TREND 3		TREND 4		TREND 5		AAPC		
Cancer Site	Sex	Race	Year Range	APC	Year Range	APC	Year Range	APC	Year Range	APC	Year Range	APC	2010-2019	2010-2014	2015-2019
All sites	Male and female	Black	1990-1994	−0.1	1994-2002	−1.6[a]	2002-2019	−2.0[a]					−2.0[a]	−2.0[a]	−2.0[a]
		White	1990-1994	0.0	1994-1998	−1.1[a]	1998-2001	−0.5	2001-2016	−1.4[a]	2016-2019	−2.2[a]	−1.6[a]	−1.4[a]	−2.0[a]
	Male	Black	1990-1994	−0.3	1994-2002	−2.1[a]	2002-2019	−2.6[a]					−2.6[a]	−2.6[a]	−2.6[a]
		White	1990-1994	−0.3[a]	1994-1997	−1.7[a]	1997-2000	−0.9[a]	2000-2015	−1.6[a]	2015-2019	−2.1[a]	−1.8*	−1.6[a]	−2.1[a]
	Female	Black	1990-1995	0.1	1995-2002	−1.0[a]	2002-2019	−1.6[a]					−1.6[a]	−1.6[a]	−1.6[a]
		White	1990-1995	0.1	1995-1998	−1.2[a]	1998-2001	−0.1	2001-2016	−1.3[a]	2016-2019	−2.0[a]	−1.5[a]	−1.3[a]	−1.8[a]
Breast	Female	Black	1990-1995	0.1	1995-2019	−1.4[a]							−1.4[a]	−1.4[a]	−1.4[a]
		White	1990-1995	−1.6[a]	1995-1998	−3.5[a]	1998-2013	−1.8[a]	2013-2019	−1.0[a]			−1.3[a]	−1.6[a]	−1.0[a]
Colon & rectum	Male and female	Black	1990-2001	−0.6[a]	2001-2019	−2.8[a]							−2.8[a]	−2.8[a]	−2.8[a]
		White	1990-2002	−1.8[a]	2002-2005	−3.9[a]	2005-2012	−2.5[a]	2012-2019	−1.7[a]			−1.8[a]	−2.1[a]	−1.7[a]
	Male	Black	1990-2002	−0.6[a]	2002-2019	−2.7[a]							−2.7[a]	−2.7[a]	−2.7[a]
		White	1990-2002	−2.1[a]	2002-2005	−4.1[a]	2005-2012	−2.7[a]	2012-2019	−1.8[a]			−2.0[a]	−2.2[a]	−1.8[a]
	Female	Black	1990-2001	−0.8[a]	2001-2019	−3.1[a]							−3.1[a]	−3.1[a]	−3.1[a]
		White	1990-2000	−1.7[a]	2000-2010	−2.9[a]	2010-2019	−1.7[a]					−1.7[a]	−1.7[a]	−1.7[a]
Lung & bronchus	Male and female	Black	1990-1994	0.0	1994-2004	−1.6[a]	2004-2013	−2.6[a]	2013-2019	−5.0[a]			−4.2[a]	−3.2[a]	−5.0[a]
		White	1990-1995	0.2	1995-2006	−0.7[a]	2006-2014	−2.3[a]	2014-2019	−4.5[a]			−3.5[a]	−2.3[a]	−4.5[a]
	Male	Black	1990-1994	−0.6[a]	1994-2004	−2.7[a]	2004-2013	−3.3[a]	2013-2019	−5.5[a]			−4.8[a]	−3.9[a]	−5.5[a]
		White	1990-1994	−1.0[a]	1994-2006	−1.7[a]	2006-2014	−3.0[a]	2014-2019	−5.1[a]			−4.1[a]	−3.0[a]	−5.1[a]
	Female	Black	1990-1997	1.5[a]	1997-2005	−0.1	2005-2013	−1.8[a]	2013-2019	−4.4[a]			−3.5[a]	−2.5[a]	−4.4[a]
		White	1990-1994	2.4[a]	1994-2002	0.7[a]	2002-2007	−0.3	2007-2014	−1.8[a]	2014-2019	−3.9[a]	−3.0[a]	−1.8[a]	−3.9[a]
Myeloma	Male and female	Black	1990-1998	0.4	1998-2009	−2.0[a]	2009-2013	1.1	2013-2019	−2.0[a]			−1.0	0.3	−2.0[a]
		White	1990-1994	1.4[a]	1994-2002	−0.5[a]	2002-2009	−1.9[a]	2009-2012	1.2	2012-2019	−1.6*	−1.0[a]	−0.2	−1.6[a]
	Male	Black	1990-2019	−1.1[a]									−1.1[a]	−1.1[a]	−1.1[a]
		White	1990-1994	2.0	1994-2019	−0.9[a]							−0.9[a]	−0.9[a]	−0.9[a]
	Female	Black	1990-1999	0.8	1999-2009	−2.6[a]	2009-2013	2.5	2013-2019	−3.1[a]			−1.3	1.1	−3.1[a]
		White	1990-1993	1.7	1993-2002	−0.5	2002-2009	−2.6[a]	2009-2012	1.5	2012-2019	−1.9[a]	−1.2[a]	−0.2	−1.9[a]
Prostate	Male	Black	1990-1996	0.1	1996-2010	−3.5[a]	2010-2013	−6.2	2013-2019	−1.3[a]			−3.0[a]	−5.0[a]	−1.3[a]
		White	1990-1994	0.1	1994-1998	−4.5[a]	1998-2012	−3.4[a]	2012-2019	−0.7[a]			−1.3[a]	−2.1[a]	−0.7[a]

TABLE 4. (Continued)

Cancer Site	Sex	Race	TREND 1		TREND 2		TREND 3		TREND 4		TREND 5		AAPC		
			Year Range	APC	Year Range	APC	Year Range	APC	Year Range	APC	Year Range	APC	2010-2019	2010-2014	2015-2019
Stomach	Male and female	Black	1990-1996	−2.0[a]	1996-2019	−3.2[a]							−3.2[a]	−3.2[a]	−3.2[a]
		White	1990-2008	−3.5[a]	2008-2019	−2.7[a]							−2.7[a]	−2.7[a]	−2.7[a]
	Male	Black	1990-2019	−3.1[a]									−3.1[a]	−3.1[a]	−3.1[a]
		White	1990-2009	−3.8[a]	2009-2019	−2.8[a]							−2.8[a]	−2.8[a]	−2.8[a]
	Female	Black	1990-1999	−1.8[a]	1999-2019	−3.4[a]							−3.4[a]	−3.4[a]	−3.4[a]
		White	1990-2019	−3.1[a]									−3.1[a]	−3.1[a]	−3.1[a]
Uterine cervix	Female	Black	1990-1992	2.4	1992-2001	−5.1[a]	2001-2019	−2.4[a]					−2.4[a]	−2.4[a]	−2.4[a]
		White	1990-1996	−1.5[a]	1996-2004	−3.3[a]	2004-2019	−0.2					−0.2	−0.2	−0.2
Uterine corpus	Female	Black	1990-2004	0.0	2004-2019	1.9[a]							1.9[a]	1.9[a]	1.9[a]
		White	1990-2007	0.0	2007-2019	1.6[a]							1.6[a]	1.6[a]	1.6[a]

Abbreviations: AAPC, average annual percent change; APC, annual percent change.
Note: Race is exclusive of Hispanic ethnicity.
[a]The APC/AAPC is statistically significantly different from zero (< 0.05).

Similar to the pattern among White women, breast cancer incidence rates among Black women increased steeply during the early 1980s (Fig. 4) because of the rapid uptake of mammography screening and diagnosis of asymptomatic disease. The continued rise thereafter (until recent years in Black women) is associated with declines in the fertility rate[65] and increased obesity.[66] Obesity prevalence rose among Black women from 31% during 1976 through 1980 to 56% during 2015 through 2016 and among White women from 15% to 39% in the same time period (Fig. 10).

The breast cancer death rate in Black women surpassed that in White women in the mid-1980s and continued to increase until the mid-1990s, several years after a decline had begun in White women.[67] Declining breast cancer mortality in all women over the past few decades is because of earlier detection through both screening and increased awareness, as well as improved treatment; however, these advances were disseminated more slowly in the Black community.[68,69] As a result, the decline among Black women was delayed and more sluggish, widening the racial disparity in breast cancer mortality until 2011 at 44% (Fig. 7); from 2015 to 2019, the rate was 41% higher in Black women than in White women (Table 5). Since the breast cancer death rate in Black women peaked in 1995, it has dropped by 28% (from 38.4 to 27.8 per 100,000) compared with a 36% decline in White women (from 30.2 to 19.3 per 100,000) over the same period. From 2010 to 2019, mortality rates decreased in Black and White women by a little over 1% per year on average (Table 4).

Higher breast cancer death rates among Black women are because of a combination of factors, including later stage of diagnosis, less access to high-quality treatment, higher prevalence of obesity and other comorbidities, and unfavorable tumor characteristics, such as triple-negative disease or inflammatory carcinoma.[48,70-75] Black women are twice as likely to be diagnosed with triple-negative breast cancers, which are aggressive and challenging to treat; nevertheless, Black women are still 30% more likely to die from these tumors than White women because of lower rates of surgery and chemotherapy.[71] Black women are also almost twice as likely to be diagnosed with inflammatory breast cancer, another aggressive but more rare disease for which 5-year survival is 30% in Black women compared with 43% in White women.[73]

Reflecting these disparities in subtype distribution and treatment, the 5-year relative survival rate for overall breast cancer diagnosed during 2011 through 2017 was 82% among Black women versus 92% among White women (Fig. 8). Later stage diagnosis is a critical factor. Only 57% of breast cancers in Black women are diagnosed at a local stage compared with 67% in White women (Fig. 9). A recent study found that almost one-half of the disparity in stage at diagnosis is because of differences in insurance

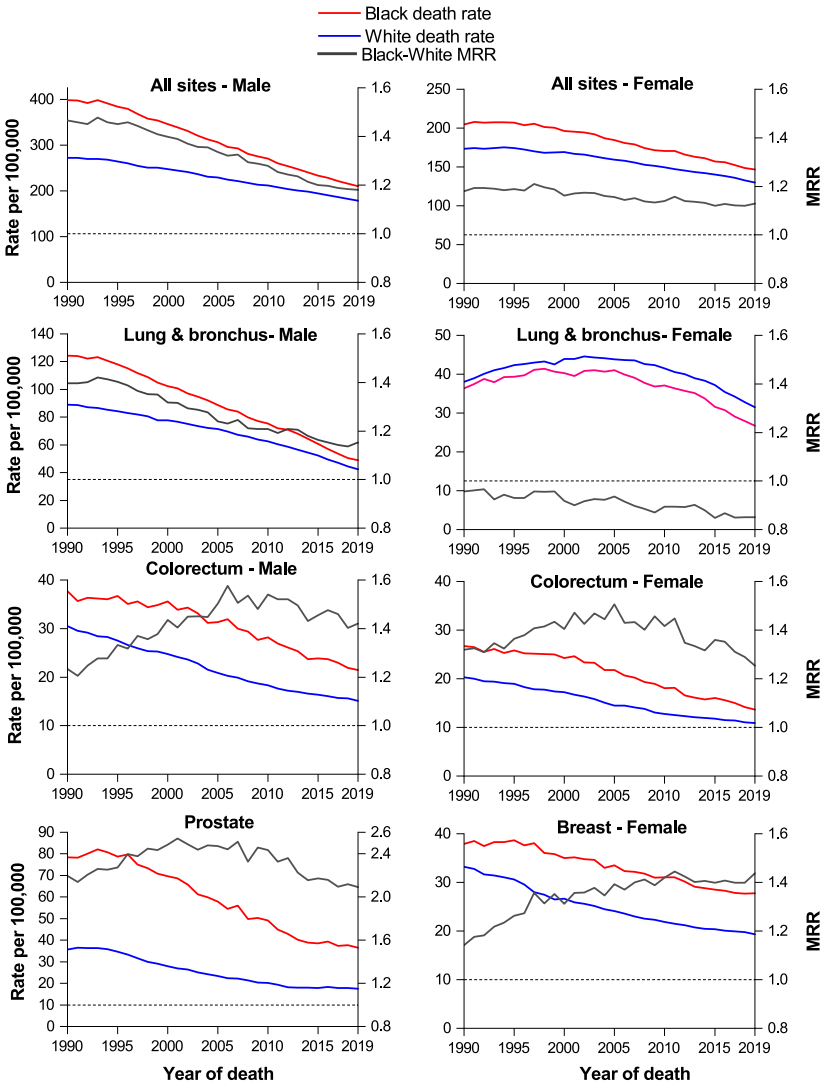

FIGURE 7. Trends in Cancer Death Rates and Mortality Rate Ratios (MMRs) Among Black and White Men and Women by Site and Sex, United States, 1990 to 2019. Race is exclusive of Hispanic ethnicity. Rates are age adjusted to the 2000 US standard population. Vertical scales (death rates and rate ratios) differ by site.

coverage.[9] Although Black and White women have similar self-reported mammography prevalence (Table 8), Black women are more likely to overreport screening[76] and are less likely to have imaging at a facility with the most current technology, such as digital breast tomosynthesis.[77] However, Black women have lower survival at every stage of diagnosis because of barriers in the timely receipt of high-quality treatment.[78] A study in North Carolina found that Black women experienced delays compared with White women not only in the initiation of treatment but throughout the treatment experience.[79]

Colorectal

CRC is the third most common cancer in Black men and women. An estimated 20,700 new cases of CRC and 7200 deaths from the disease will occur in Black people in 2022. CRC is also the third leading cause of cancer death in Black men and women. Among the five broadly defined racial/ethnic groups, Black people have the second highest CRC incidence rate in the US following American Indians and Alaska Natives.[4] Compared with White men and women, incidence rates are 21% higher in Black men and 18% higher in Black women (Table 3). Although incidence was historically higher in White people than Black people,[80] a crossover occurred in the early 1990s due to a steeper decline among White people because of changing patterns in risk factors and slower dissemination of screening in the Black community.[81-84] From 2009 to 2018, however, the decline in incidence rates was steeper in Black people than in White people (approximately 3% vs 2% per year), leading to a narrowing of the disparity. Overall trends mask increasing incidence among people younger than 50 years, which is much steeper in White people (2% per year) than in Black people (0.5% per year).[80]

TABLE 5. Comparison of Cancer Death Rates Between Black People and White People, United States, 2015-2019

	MALE					FEMALE			
CANCER	BLACK RATE	WHITE RATE	ABSOLUTE DIFFERENCE[a]	RATE RATIO[b]	CANCER	BLACK RATE	WHITE RATE	ABSOLUTE DIFFERENCE[a]	RATE RATIO[b]
Stomach	7.5	3.0	4.5	2.51	Stomach	3.5	1.5	2.0	2.31
Prostate	37.9	17.8	20.1	2.13	Myeloma	5.1	2.3	2.8	2.24
Myeloma	7.4	3.8	3.6	1.96	Uterine corpus	9.0	4.6	4.4	1.97
Larynx	2.9	1.6	1.3	1.80	Uterine cervix	3.4	2.0	1.4	1.65
Liver & intrahepatic bile duct	13.3	8.5	4.8	1.57	Breast	28.0	19.9	8.1	1.41
Colon & rectum	22.7	15.8	6.9	1.44	Liver & intrahepatic bile duct	4.8	3.6	1.2	1.35
Pancreas	15.4	13.0	2.4	1.18	Colon & rectum	14.8	11.3	3.5	1.31
Lung & bronchus	54.0	47.0	7.0	1.15	Pancreas	12.4	9.6	2.8	1.28
Oral cavity and pharynx	4.4	4.1	0.3	1.07	Esophagus	1.6	1.5	0.1	1.04
Kidney and renal pelvis	5.3	5.4	−0.1	0.98	Urinary bladder	2.3	2.2	0.1	1.04
Hodgkin lymphoma	0.3	0.4	−0.1	0.90	Kidney & renal pelvis	2.2	2.3	−0.1	0.95
Leukemia	6.8	8.7	−1.9	0.78	Leukemia	4.3	4.8	−0.5	0.91
Non-Hodgkin lymphoma	5.2	7.2	−2.0	0.72	Ovary	5.9	6.9	−1.0	0.86
Urinary bladder	5.3	8.1	−2.8	0.66	Lung & bronchus	29.2	34.2	−5.0	0.85
Esophagus	5.0	7.7	−2.7	0.65	Hodgkin lymphoma	0.2	0.2	0.0	0.83
Brain & other nervous system	3.3	6.2	−2.9	0.54	Non-Hodgkin lymphoma	3.1	4.2	−1.1	0.74
Melanoma of the skin	0.4	4.0	−3.6	0.10	Brain & other nervous system	2.3	4.1	−1.8	0.56
					Melanoma of the skin	0.3	1.8	−1.5	0.15
All sites	**221.4**	**186.2**	**35.2**	**1.19**	**All sites**	**152.1**	**135.4**	**16.7**	**1.12**

Note: Race is exclusive of Hispanic ethnicity. Sites are listed in descending order by rate ratio.
Rates are per 100,000 and age adjusted to the 2000 US standard population.
[a]The absolute difference is the rate in Black people minus the rate in White people.
[b]The rate ratio is the unrounded rate in Black people divided by the that in White people.

Patterns in CRC incidence in part reflect the prevalence of risk factors, such as obesity and physical inactivity.[85] For example, Black people are less likely to report leisure-time physical activity than White people (Table 9). There is increasing evidence that vitamin D deficiency, which is more common among Black people than among White people,[86] increases the risk of CRC.[86,87] The risk of CRC can be reduced through preventive screening that detects and allows for the removal of precancerous polyps. CRC screening disparities are narrowing; in 2018, 65% of Black people aged 50 years and older were up to date with screening compared with 68% of White people (Table 8).[84]

Similar to incidence rates, CRC mortality rates were historically higher in White people than in Black people, whereas contemporary rates are 44% higher in Black men and 31% higher in Black women compared with White men and women, respectively (Table 6). This gap is 2 times larger than the disparity for incidence but has begun to shrink in recent years because of steeper declines in death rates from 2010 to 2019 among Black people (2.8% per year) than among White people (1.8% per year) (Table 4). One study estimated that the racial disparity in mortality can be attributed to less screening (19%) as well as lower stage-specific survival (36%) among Black people.[83]

The 5-year relative survival rates for CRC improved from 45% during 1975 through 1977 to 59% during 2011 through 2017 among Black people versus from 50% to 65%, respectively, among White people. Some of the survival disparity is because of late-stage diagnosis among Black people, although this gap has narrowed: 34% of CRCs in Black people are diagnosed at a localized stage compared with 35% in White people (Fig. 9). Five-year relative survival rates remain lower in Black patients than in White patients for each stage of diagnosis (Fig. 8).

Racial disparities in stage-specific survival largely reflect differences in access to care, treatment, comorbidities, and tumor characteristics.[88-92] Numerous studies have documented that Black people with CRC are less likely than White people to receive recommended surgical treatment, radiation, and chemotherapy.[49,93] In addition, Black people are more likely to have treatment delays, even within similar socioeconomic backgrounds.[47] Differences in tumor biology may also contribute. For example, Black people are

TABLE 6. Incidence Rates for Selected Cancers in Black People by Sex and State, 2014-2018

	ALL CANCERS		LUNG & BRONCHUS		COLON & RECTUM		BREAST	PROSTATE
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	FEMALE	MALE
Alabama	537.4	385.9	82.5	37.4	54.6	41.5	126.7	186.6
Alaska	389.2	344.8	—[a]	—[a]	—[a]	—[a]	108.2	138.1
Arizona	407.2	331.2	59.6	41.2	33.0	29.9	105.3	121.5
Arkansas	601.8	413.5	108.6	51.8	60.3	46.5	121.6	195.9
California	467.3	390.3	61.7	45.8	43.6	34.9	126.1	141.4
Colorado	441.7	339.6	51.2	34.4	39.1	34.9	113.7	142.6
Connecticut	516.6	396.3	70.1	45.2	43.6	31.4	128.7	175.8
Delaware	534.5	418.2	72.7	53.4	50.1	34.3	138.7	196.0
District of Columbia	518.5	431.0	69.7	52.0	53.3	37.4	140.4	149.0
Florida	465.6	381.4	58.3	32.8	45.1	33.7	111.1	147.9
Georgia	557.3	400.9	78.7	40.0	52.6	38.6	131.2	196.6
Hawaii	468.8	348.3	—[a]	—[a]	48.0	—[a]	116.8	179.7
Idaho	496.9	331.7	—[a]	—[a]	—[a]	—[a]	—[a]	154.5
Illinois	561.1	444.9	89.6	62.6	59.9	43.4	137.0	175.2
Indiana	529.8	406.9	82.3	57.9	50.9	37.3	125.8	165.3
Iowa	597.0	473.5	96.4	68.4	57.2	40.2	127.3	178.9
Kansas	515.6	419.6	78.9	52.6	44.2	37.5	132.0	162.0
Kentucky	551.4	451.6	101.9	70.6	55.6	41.5	128.8	160.6
Louisiana	593.8	424.5	96.4	45.7	61.0	44.9	136.1	184.8
Maine	382.0	305.5	—[a]	—[a]	—[a]	—[a]	82.6	135.3
Maryland	521.5	406.4	63.8	47.7	46.7	34.2	133.0	190.7
Massachusetts	475.6	384.7	54.4	38.7	44.3	30.3	119.6	177.4
Michigan	529.9	408.8	83.2	57.5	51.9	38.5	121.2	159.3
Minnesota	547.8	403.4	76.6	52.4	44.9	31.0	108.5	169.0
Mississippi	596.0	408.0	105.9	46.0	68.2	46.3	125.0	192.2
Missouri	537.6	431.7	96.0	65.2	51.2	39.4	133.9	146.2
Montana	514.2	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
Nebraska	599.3	435.4	73.3	67.4	56.0	39.0	112.0	206.0
Nevada[b,c]	384.9	345.0	48.6	46.0	43.4	32.9	108.8	110.1
New Hampshire	376.0	278.4	—[a]	—[a]	—[a]	—[a]	—[a]	158.3
New Jersey	560.1	430.5	66.4	46.6	51.8	38.4	134.5	207.0
New Mexico	393.6	331.9	61.6	47.2	—[a]	30.8	103.9	128.4
New York	545.9	404.5	61.6	40.4	47.8	34.1	124.1	203.0
North Carolina	553.9	407.9	88.4	46.1	47.6	34.2	137.2	182.3
North Dakota	251.4	222.3	—[a]	—[a]	—[a]	—[a]	—[a]	94.9
Ohio	519.5	412.5	87.6	60.6	45.0	34.8	127.3	161.0
Oklahoma	514.7	394.0	84.3	48.9	47.5	37.5	126.1	166.6
Oregon	538.9	385.0	75.6	53.4	34.3	29.8	115.8	173.3
Pennsylvania	553.0	448.8	85.0	66.8	46.6	36.4	127.9	160.7
Rhode Island	415.6	368.1	72.5	51.6	30.7	23.1	114.3	128.3
South Carolina	528.7	386.2	83.9	39.1	52.7	34.8	128.8	167.8
South Dakota	390.6	238.6	—[a]	—[a]	—[a]	—[a]	—[a]	120.2
Tennessee	559.3	403.5	93.3	50.6	54.8	39.0	123.9	182.8
Texas	524.6	395.0	80.0	45.3	55.3	38.6	120.6	161.1

(Continues)

TABLE 6. (Continued)

	ALL CANCERS		LUNG & BRONCHUS		COLON & RECTUM		BREAST	PROSTATE
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	FEMALE	MALE
Utah	444.9	343.9	—[a]	—[a]	—[a]	—[a]	107.1	159.8
Vermont	418.5	312.1	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
Virginia	498.0	392.3	74.7	46.3	46.5	33.5	134.8	162.7
Washington	471.9	389.4	63.2	47.7	40.0	34.2	110.6	140.0
West Virginia	533.8	374.5	91.9	51.2	48.7	35.1	119.9	174.4
Wisconsin	670.5	492.8	118.9	72.9	59.2	43.0	141.5	196.6
Wyoming	305.2	204.3	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
United States	529.2	405.3	77.4	47.2	50.4	37.1	127.1	172.6

Note: Rates are for non-Hispanic Black persons per 100,000 and age adjusted to the 2000 US standard population.
[a]Rates are suppressed when based on fewer than 25 cases.
[b]Data from this registry is not included in US combined rates either because they did not consent or they did not meet North American Association of Central Cancer Registries' high-quality data standards for all years during 2014 through 2018.
[c]Colon & rectum incidence includes appendix for this state.

approximately 30% more likely to be diagnosed with proximal (right-sided) tumors, which have less favorable outcomes than distal or rectal tumors and may not benefit as greatly as distal tumors from screening.[56,94]

Lung

Lung cancer will be diagnosed in an estimated 25,690 Black people in 2022 and is the second most common cancer in both men and women. It is the leading cause of cancer death among Black men and the second leading cause among Black women, with 7890 deaths in men and 6270 deaths in women expected to occur in 2022. Black men and women are more likely to be diagnosed with lung cancer at a younger age than White men and women, with a median age at diagnosis of 67 years versus 71 years, respectively.[25,64]

Lung cancer occurrence largely reflects historical differences in smoking patterns (Fig. 3). Incidence peaked in the mid-1980s for Black men and in the mid-2000s for Black women and since has steadily declined (Fig. 4). Black women took up smoking later than men and were slower to quit; consequently, lung cancer incidence peaked later, increasing until the late 2000s before beginning to decline. Similarly, steeper smoking declines in Black people than in White people, particularly among Black youth from the mid-1970s until early 1990s,[95,96] have resulted in converging lung cancer incidence overall and an elimination in the racial disparity among individuals younger than 50 years (Fig. 11).[97,98] From 2014 to 2018, incidence rates were 12% higher in Black men than in White men but 16% lower in Black women than in White women (Table 3). From 2009 to 2018, the annual decline in incidence was approximately 3% in Black and White men, 2% in Black women, and 1% in White women.

After increasing for decades, lung cancer death rates have declined since 1990 at a generally faster pace in Black men compared with White men, reducing the racial disparity from an excess in Black men of 40% during 1990 through 1992 to 15% during 2015 through 2019 (Table 5). In women, the downturn began about a decade later than that in men, similar to incidence, but it is also steeper in Black women than in White women (Fig. 7). Consequently, although Black and White women had similar lung cancer mortality until the early 1990s, from 2015 to 2019, rates were 15% lower in Black women. From 2015 to 2019, the lung cancer death rate declined somewhat faster in Black people than in White people, with the most rapid pace in Black men (5.5% per year) (Table 4).

The 5-year relative survival rate for lung cancer is slightly lower in Black people than in White people overall (20% vs 22%), with the largest difference for localized stage disease (55% vs 60%) (Fig. 8). Localized stage lung cancer is only diagnosed in 21% of Black people and 25% of White people (Fig. 9). In 2021, the US Preventive Services Task Force updated their lung cancer screening guidelines by lowering both the age of initiation (from 55 to 50 years) and the pack-year smoking history (from 30 to 20 pack-years), consistent with the eligibility criteria for the Multicentric Italian Lung Detection Trial, which found a 39% reduction in lung cancer mortality.[99,100] Although part of the impetus in the change was to attenuate racial and socioeconomic disparities in screening by capturing a larger proportion of Black people at elevated risk,[101] one modeling study found that disparities may widen without the prioritization of individuals with the highest benefit because of unequal dissemination of screening.[102]

Survival has increased for patients with lung cancer over the past decade because of advancements in diagnostics, surgical procedures, and therapeutics.[103,104] However, differences in access or quality of care likely contribute to racial disparities. Studies have shown that, even when lung

TABLE 7. Death Rates for Selected Cancers in Black People by Sex and State, 2015-2019

	ALL CANCERS		LUNG & BRONCHUS		COLON & RECTUM		PROSTATE	BREAST
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
Alabama	241.0	150.2	65.3	25.1	25.3	16.2	40.7	27.6
Alaska	188.9	106.5	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
Arizona	184.7	134.7	42.8	24.7	18.5	13.4	32.5	27.6
Arkansas	251.0	166.0	74.9	34.5	25.6	19.7	40.2	28.2
California	215.2	157.1	46.1	29.5	20.9	14.9	42.6	30.4
Colorado	195.0	128.8	40.4	22.5	20.2	11.9	43.9	26.2
Connecticut	188.8	133.4	41.6	24.5	14.5	10.2	33.2	22.6
Delaware	200.5	157.3	47.4	35.5	17.9	12.9	32.6	27.8
District of Columbia	239.9	176.6	50.7	28.9	24.7	17.0	39.6	33.6
Florida	190.5	137.0	40.6	20.6	20.4	13.7	34.8	25.4
Georgia	218.4	142.0	52.5	24.2	23.4	14.4	41.5	27.4
Hawaii	139.7	119.0	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
Idaho	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
Illinois	248.4	175.1	62.5	38.4	28.3	18.0	43.6	31.9
Indiana	233.1	158.7	59.4	36.9	23.9	15.2	38.5	27.4
Iowa	232.8	164.4	55.2	46.2	21.8	16.4	35.8	20.9
Kansas	219.7	167.6	51.7	38.6	17.3	14.0	35.0	27.3
Kentucky	232.2	157.6	64.6	41.4	23.9	15.3	35.1	25.7
Louisiana	255.2	162.5	72.0	31.8	26.8	16.9	34.5	29.8
Maine	144.0	149.4	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
Maryland	211.6	148.3	45.8	29.3	21.1	13.9	37.0	27.4
Massachusetts	171.4	118.5	31.7	19.8	16.2	9.1	34.8	19.6
Michigan	224.2	163.7	58.1	36.5	23.3	15.4	33.5	28.8
Minnesota	205.5	146.6	50.7	27.5	15.2	11.8	28.2	23.4
Mississippi	268.1	161.5	79.2	30.6	28.0	17.0	46.8	29.5
Missouri	247.8	166.4	66.9	40.6	23.1	14.7	37.8	28.9
Montana	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
Nebraska	239.6	166.2	49.6	37.4	24.7	15.6	49.0	31.4
Nevada	202.8	150.2	43.0	30.1	27.1	16.6	37.1	32.8
New Hampshire	151.3	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
New Jersey	210.2	155.0	45.2	27.4	22.7	15.0	39.7	29.1
New Mexico	186.4	114.8	39.0	—[a]	—[a]	—[a]	34.9	27.0
New York	181.8	136.3	38.0	22.1	17.8	13.0	32.9	25.4
North Carolina	234.6	148.7	60.5	28.2	21.6	13.9	40.1	27.1
North Dakota	219.7	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
Ohio	232.3	162.1	63.4	37.5	22.6	14.9	34.9	28.2
Oklahoma	239.7	168.6	63.1	34.0	26.9	18.2	42.8	30.7
Oregon	223.0	132.8	44.8	29.7	17.5	—[a]	39.1	25.2
Pennsylvania	237.0	172.9	57.6	39.0	21.0	15.5	39.0	29.4
Rhode Island	153.8	112.1	38.3	23.1	—[a]	—[a]	—[a]	21.4
South Carolina	236.9	148.1	58.2	25.0	24.8	14.3	41.0	27.7
South Dakota	162.0	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
Tennessee	251.1	162.3	68.1	33.7	27.4	16.4	42.4	29.3
Texas	225.5	152.7	56.8	28.7	25.7	15.9	34.5	29.3

(Continues)

TABLE 7. (Continued)

	ALL CANCERS		LUNG & BRONCHUS		COLON & RECTUM		PROSTATE	BREAST
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
Utah	170.8	135.6	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
Vermont	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
Virginia	221.9	147.6	53.4	28.7	23.7	14.4	37.4	28.2
Washington	190.3	133.8	39.2	26.5	14.9	13.2	31.0	21.5
West Virginia	246.7	167.1	63.3	37.5	25.5	16.2	36.6	32.9
Wisconsin	270.7	179.9	75.2	42.7	22.6	14.9	38.6	27.8
Wyoming	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]	—[a]
United States	221.4	152.1	54.0	29.2	22.7	14.8	37.9	28.0

Rates are for non-Hispanic Black persons per 100,000 and age adjusted to the 2000 US standard population.
[a]Rates are suppressed when based on fewer than 25 deaths.

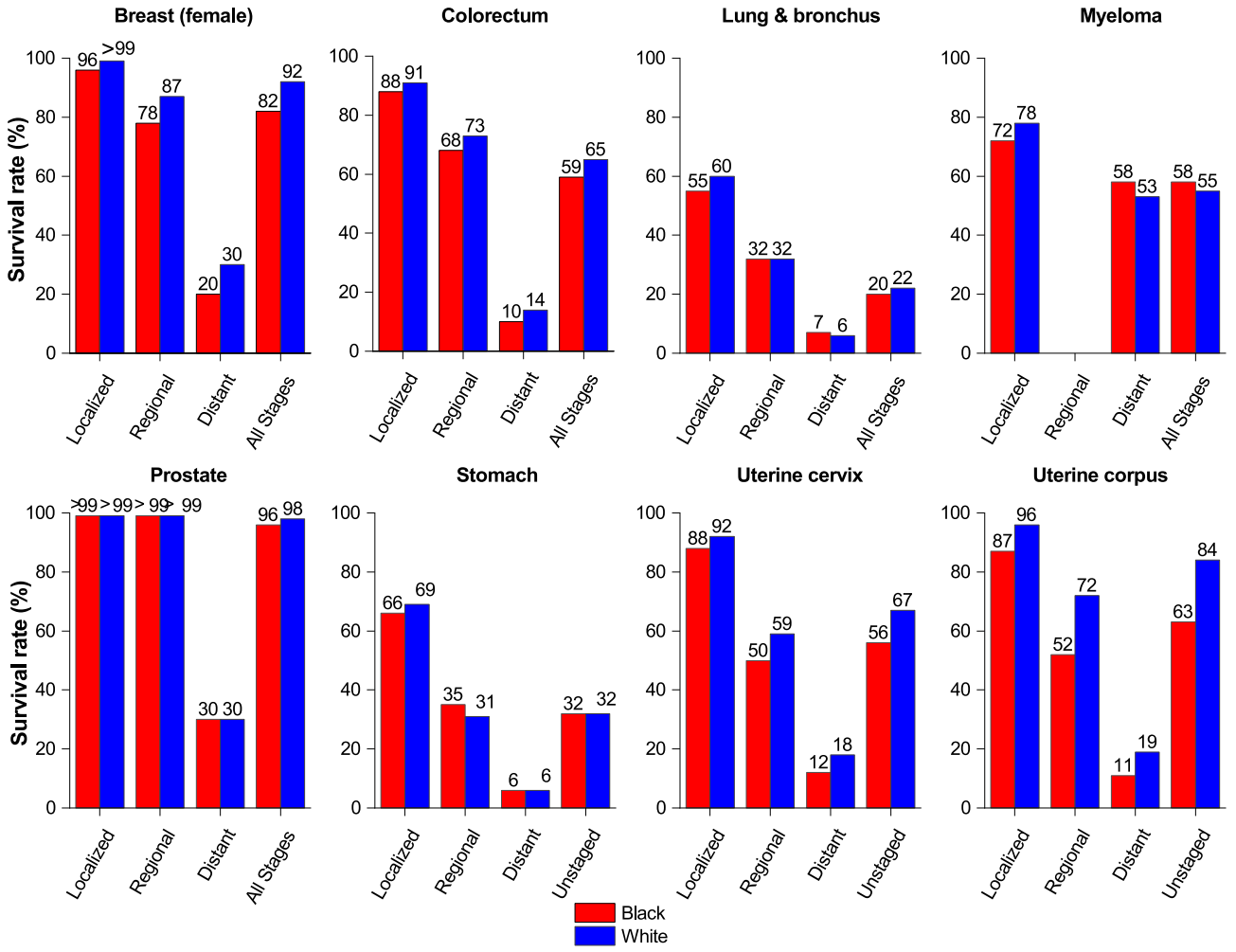

FIGURE 8. Five-Year Relative Survival Rates for Selected Cancers by Race and Stage, United States, 2011 to 2017. Race is exclusive of Hispanic ethnicity. All patients were followed through 2018. Myeloma does not spread to lymph nodes so the regional stage disease category is not applicable.

cancer is diagnosed early, Black people are less likely than White people to receive surgery, which is the most effective treatment for lung cancer.[105-108] A recent study within an equal-access care system found similar treatment and survival among White men and Black men with early stage nonsmall cell lung cancer.[51]

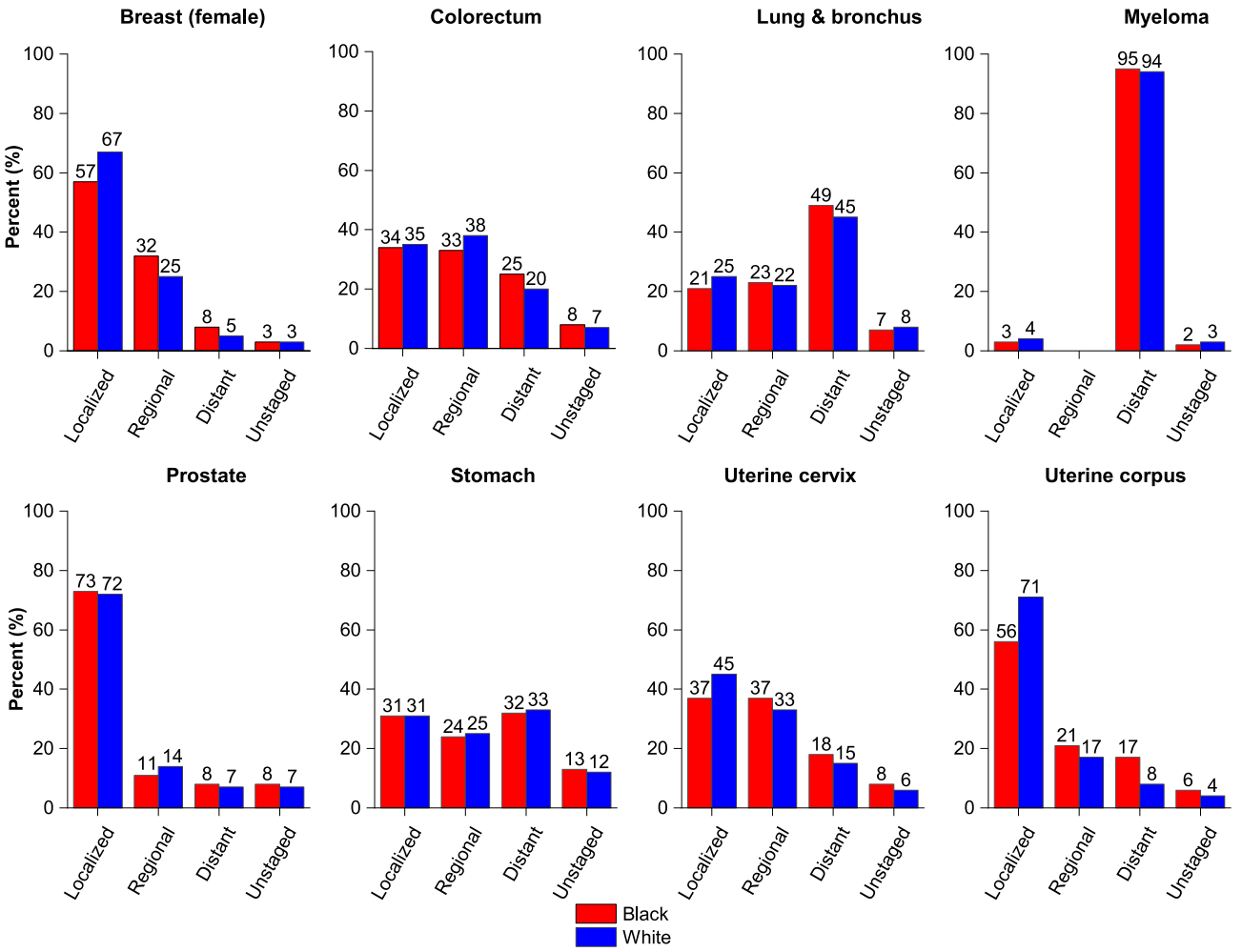

FIGURE 9. Stage Distribution for Selected Cancers by Race, United States, 2014 to 2018. Race is exclusive of Hispanic ethnicity. Percentages may not total 100% because of rounding. Myeloma does not spread to lymph nodes so the regional stage disease category is not applicable.

Myeloma

An estimated 7810 new cases of multiple myeloma and 2530 myeloma deaths are expected to occur among Black people in 2022. The incidence of myeloma is more than 2 times higher in Black people than in White people (Table 3), with a median age at diagnosis of 66 versus 70 years.[25,109] Rates for people younger than 50 years are 2.6 times higher in Black men and 3.3 times higher in Black women than the rates for White men and women, respectively. From 2009 to 2018, incidence continued to increase steadily in Black women by approximately 2% per year, whereas the rate in Black men appears to be approaching stabilization.

Excess body weight is the only known modifiable risk factor for myeloma; the risk is approximately 20% higher in adults who are overweight or obese compared with those who are normal weight.[110] Higher rates of obesity may contribute to the larger racial disparity for myeloma in women (Table 9).[111,112] Myeloma is preceded by the asymptomatic, premalignant condition *monoclonal gammopathy of undetermined significance* (MGUS); individuals with MGUS have a risk of progression to myeloma of approximately 1% to 2% per year.[113] Consistent with myeloma, MGUS is more prevalent and is diagnosed at younger ages in Black people than in any other racial/ethnic group.[114,115] A family history of blood cancers is also associated with an increased risk that is stronger among Black people than among White people.[116]

Similar to incidence, mortality rates are approximately twice as high in Black people as in White people (Table 6). From 2015 to 2019, the myeloma death rates declined by approximately 3% per year in Black women compared with 1% per year in Black men and in White men and women because of improved treatment.[117,118]

The 5-year relative survival rate improved from 29% during 1975 through 1977 to 58% during 2011 through 2017 among Black people versus 24% to 55%, respectively, among White people. The somewhat higher contemporary

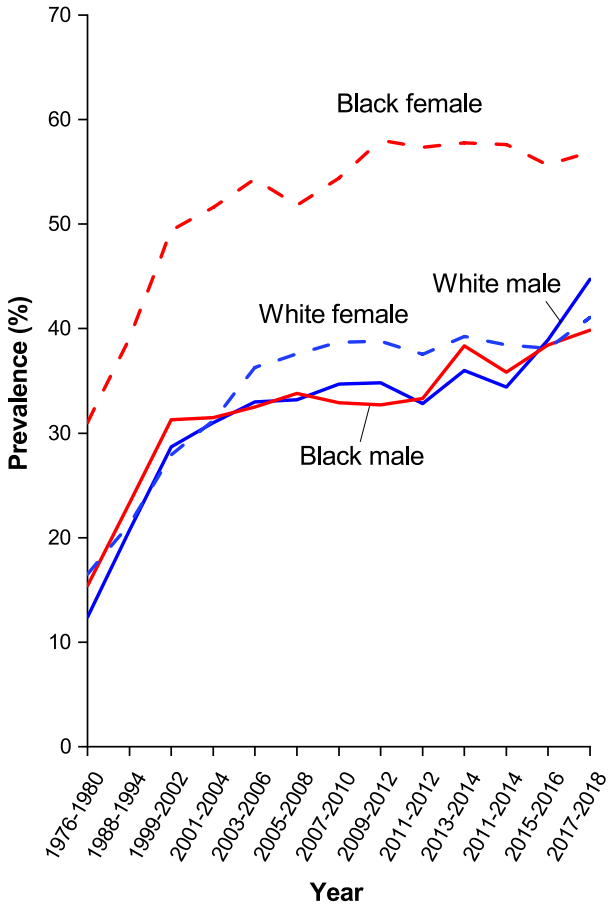

FIGURE 10. Trends in Adult Obesity Prevalence, Adults Aged 20 to 74 Years, by Sex and Race, United States, 1976 to 2018. Race is exclusive of Hispanic ethnicity. Obesity is defined as a body mass index ≥30.0 kg/m^2. Estimates are age adjusted to the 2000 US standard population.

survival among Black people may reflect a lower prevalence of aggressive disease subtypes.[115,119,120] Indeed, Black people have benefited less from recent treatment advancements because of less access to care, including lower utilization of the most recent treatment advances and more delays in treatment.[115,121]

Prostate

Prostate cancer is the most commonly diagnosed cancer among Black men, with an estimated 41,600 cases expected in 2022. Prostate cancer is also the second leading cause of cancer death in Black men, with 6040 deaths expected in 2022. Approximately 1 in 6 Black men will be diagnosed with prostate cancer in their lifetime, compared with 1 in 8 White men (Table 2). The strongest known risk factors for prostate cancer are age, a family history of the disease, African ancestry,[58] and certain inherited genetic conditions (eg, Lynch syndrome and *BRCA1* and *BRCA2* mutations).[122,123] In addition, there is increasing evidence that cigarette smoking and excess body weight may increase the risk of aggressive and/or fatal disease.[124-128]

TABLE 8. Prevalence (%) of Human Papillomavirus Vaccination (2019) and Cancer Screening (2018) by Race, United States

	BLACK	WHITE
HPV vaccination (youth 13-17 years)		
Females		
≥1 dose	72	71
Up-to-date[a]	53	54
Males		
≥1 dose	72	66
Up-to-date[a]	55	49
Breast cancer screening		
Up-to-date (women ≥45 years)[b]	66	64
Mammogram within the past 2 years (women 50-74 years) (USPSTF guidelines)	74	73
Cervical cancer screening (women 25-65 years)		
Up-to-date[c]	88	86
Colorectal cancer screening[d]		
Adults ≥50 years	65	68
Males	64	69
Females	66	66
Adults ≥ 45 years	57	58
Males	58	59
Females	57	57
Prostate-specific antigen test (men ≥50 years)[e]		
Within the past year	33	37

Abbreviations: HPV, human papillomavirus; USPSTF, US Preventive Services Task Force.
Note: Race is exclusive of Hispanic ethnicity. Estimates for screening are age-adjusted to the 2000 US standard population and do not distinguish between examinations for screening and diagnosis.
Sources: Vaccination: National Immunization Survey-Teen, 2019; Screening: National Health Interview Survey 2018.
[a]According to recommendations; see references [158].
[b]Mammogram within the past year (ages 45-54 years) or the past 2 years (aged ≥55 years).
[c]Papanicolaou (Pap) test in the past 3 years among women 25-65 years OR Pap test and HPV test within the past 5 years among women 30-65 years.
[d]For ages ≥45 and ≥50 years: fecal occult blood test/fecal immunochemical test (FOBT/FIT), sigmoidoscopy, colonoscopy, computed tomography (CT) colonography, OR multitarget stool DNA (mt-sDNA) test in the past 1, 5, 10, 5, and 3 years, respectively. For ages 50-75 years: FOBT/FIT, sigmoidoscopy, colonoscopy, CT colonography, OR mt-sDNA test in the past 1, 5, 10, 5, and 3 years, respectively, OR sigmoidoscopy in past 10 years with FOBT/FIT in past 1 year.
[e]Among men who have not been diagnosed with prostate cancer.

From 2014 to 2018, the average annual prostate cancer incidence rate was 172.6 cases per 100,000, which was 73% higher than the rate in White men (99.9 per 100,000) (Table 3). Similar to White men, incidence rates in Black men increased sharply from 1989 to 1992, then declined until the early 2010s, reflecting rapid uptake in use of the prostate-specific antigen (PSA) blood test followed by declines in the detection of asymptomatic disease among previously screened men. From 2014 to 2018, rates in Black men and White men were stable, although this reflects trends in

TABLE 9. Prevalence of Cancer Risk Factors Among Adults by Race and Sex, United States

	Black (%)	White (%)
Obesity (BMI ≥30.0 kg/m^2)[a]		
All	50	42
Males	41	45
Females	57	40
Overweight (BMI 25.0-29.9 kg/m^2)[a]		
All	27	28
Males	31	31
Females	23	26
No leisure-time physical activity[a]		
All	34	22
Males	27	20
Females	41	23
Current cigarette smoking[b,c]		
All	15	16
Males	18	16
Females	13	16

Abbreviation: BMI, body mass index.
Race is exclusive of Hispanic ethnicity. Estimates are age-adjusted to the 2000 US standard population.
Sources: BMI: National Health and Nutrition Examination Surveys, 2017-2018. Physical activity and smoking: Centers for Disease Control and Prevention, National Health Interview Survey, 2019.
[a]Among adults 20 years and older.
[b]Among adults 18 years and older.
[c]Ever smoked 100 cigarettes in lifetime and smoking every day or some days at time of survey.

local-stage disease, which accounts for 73% of cases in Black men and 72% in White men. Among Black men, diagnoses have increased for regional-stage disease by 2.7% per year since 2013 and, for distant-stage disease, by 5% per year since 2012, which is slightly later and slower than the uptick in advanced disease among White men. The upturn in advanced disease likely reflects the reduction in screening after the 2012 US Preventive Services Task Force recommendation against PSA testing.[129,130] In 2018 the US Preventive Services Task Force revised the guideline again to recommend informed decision making among men aged 55-69 years.

Black men have the highest prostate cancer death rate of any racial or ethnic group in the United States: more than 2 times higher than that in White men from 2015 to 2019 (Table 5). The larger disparity in prostate cancer mortality compared with incidence likely reflects less access to high-quality treatment, which continues to be documented in Black men.[131-134] For example, a multi-institutional study of the impact of the COVID-19 pandemic on prostate cancer treatment found that Black men experienced a 94% drop in surgery compared with no disruption in White men.[135] Despite fairly strong evidence that Black men have equivalent or higher prostate cancer-specific survival within an equal-access health care system such as the Veterans Health Administration,[52,136,137] a recent Veterans Health Administration study found that, among patients who were most likely to benefit from definitive treatment, Black men were 11% less likely than non-Black men to receive it.[138] Although there is some evidence that aggressive prostate cancer is more common in Black men,[131,139] these findings may be confounded by differences in access to high-quality treatment.[137] Treatment differences also likely play a role in the geographic variation in both the risk of prostate cancer mortality and the extent of racial disparity. The prostate cancer death rate among Black men ranges from 28 per 100,000 in Minnesota to 49 per 100,000 in Nebraska (Table 7) and the Black-White disparity ranges from 1.4 times higher among Black people in Minnesota to 3.2 times higher in Washington DC. (Fig. 12).

Prostate cancer death rates in Black men, although high, have dropped by 55% since their peak in 1993 to 2019. Factors that have likely contributed to decreased mortality include improved surgical and radiologic treatment, the use of hormonal therapy for advanced-stage disease, and earlier detection through PSA testing.[140-144] As of 2021, no organization endorses routine PSA screening for men at average risk because of the high probability of overdiagnosis and treatment-related side effects. Physicians are encouraged to engage with patients through shared decision making; however, studies have found that Black men are less likely than White men to be informed about prostate cancer testing.[145] There is a renewed interest in the missed potential of screening for earlier diagnosis of fatal disease, especially given the more conservative diagnostic criteria and increased active surveillance in recent years.[129,146-148] A recent study estimated that restricting screening in Black men to those aged 45 to 69 years could reduce mortality by 26% to 29% while minimizing overdiagnosis.[149] Rapid declines in prostate mortality since the mid-1990s have slowed in recent years, likely reflecting the uptick in distant-stage mortality.[150] Death rates for all stages were declining on average by 5% per year from 2010 to 2014 and have since slowed to an average decline of 1.3% per year in Black men from 2015 to 2019 (Table 4).

The overall 5-year relative survival rate for prostate cancer is 96% for Black men and 98% for White men (Fig. 8). Eighty-four percent of all prostate cancers among Black men 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 both Black men and White men.

Stomach

In 2022, an estimated 4510 new cases of stomach cancer and 1830 stomach cancer deaths will occur in Black men and

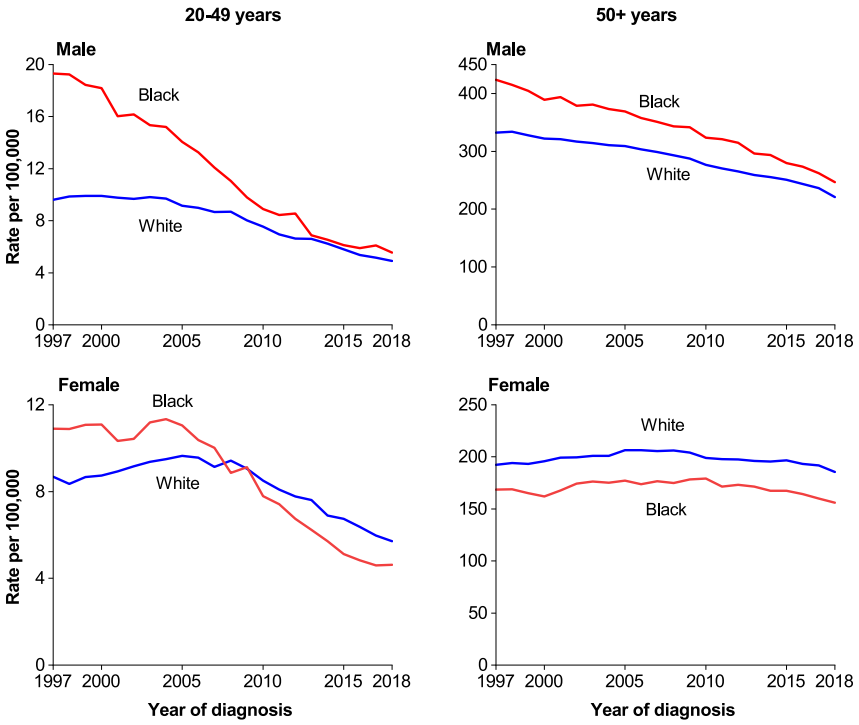

FIGURE 11. Trends in Lung Cancer Incidence Rates by Race, Sex, and Age, United States, 1997 to 2018. Race is exclusive of Hispanic ethnicity. Rates are age adjusted to the 2000 US standard population. Vertical axes differ across graphs for optimal representation of trends.

women. In the United States, stomach cancer incidence rates are approximately 2 times higher in Black people than in White people (Table 3). However, the disparity is solely limited to noncardia cancers; rates for cardia tumors are similar by race.[151] The most important risk factor for stomach cancer is *Helicobacter pylori* (*H. pylori*) infection, which is more prevalent in Black people than in White people. A recent study found that Black people were over 3 times more likely than White people to be seropositive for CagA-postive *H. pylori*, which is the most virulent form.[152] From 2009 to 2018, stomach cancer incidence rates declined more steeply in Black people (2% per year) than in White people (1% per year). Long-term progress against stomach cancer is largely attributed to decreasing *H. pylori* infection, although some smaller studies have found that decreasing prevalence is confined to White people.[153]

Similar to patterns for incidence, death rates are more than 2-fold higher in Black people than in White people, in part because of increased incidence. From 2010 to 2019, stomach cancer death rates declined in Black men and women by 3% per year, similar to declines in White people. Overall, 5-year relative survival for stomach cancer in Black people is 32%, comparable to that in White people (Fig. 8). However, more than one-half (55%) of gastric cancers in Black people are noncardia tumors, versus one-third in White people,[15,154] for which the 5-year survival rate is 36% versus 44%, respectively. Five-year relative survival rates for cardia tumors, which are less amenable to surgical treatment, is similar in Black people and White people (23% vs 24%, respectively). Survival could be further improved by eliminating disparities in surgical interventions among Black patients with gastric cancer.[151] Nearly 1 in 3 Black patients with stomach cancer are diagnosed with distant-stage disease, including 40% of those with cardia tumors and 30% of those with noncardia tumors, for which the 5-year relative survival rates are 5% for both subtypes.

Uterine Cervix

In 2022, an estimated 2460 new cases of cervical cancer and 780 deaths from the disease are expected in Black women. The incidence rate of cervical cancer is 22% higher in Black women than in White women (Table 3). However, the disparity is much wider when the rates exclude women who are not at risk of developing cervical cancer because of a hysterectomy—a procedure that is more common in Black women. One study found that, after correcting for hysterectomy,[30,155] the incidence of cervical cancer was approximately 40% higher in Black women than in White women.[155] After years of decline, from 2009 to 2018 cervical cancer incidence continued to has begun to stabilize in both Black and White women.

Most cervical cancer is caused by persistent infection with the human papillomavirus (HPV), particularly HPV types 16 and 18. Recent studies report a higher prevalence of high-risk HPV infection in Black women than in White women, especially among those aged 21 to 24

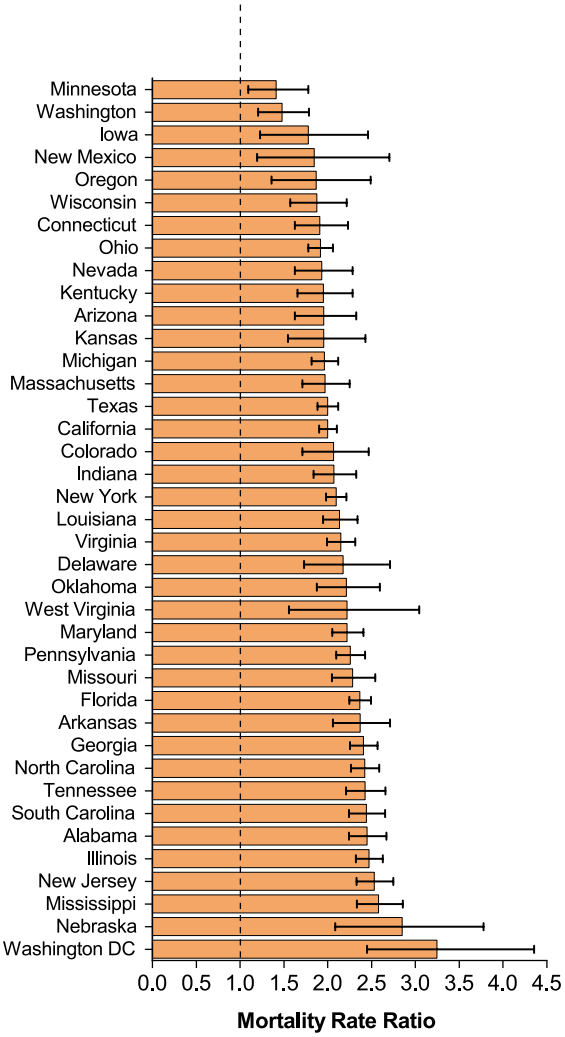

FIGURE 12. Black-White Prostate Cancer Mortality Rate Ratios by State, United States, 2015 to 2019. Race is exclusive of Hispanic ethnicity. Error bars indicate 95% confidence intervals. Data are in order of decreasing mortality rate ratio. Rate ratios are the unrounded, age-adjusted mortality rate in Black men divided by that in White men. Error bars represent 95% confidence intervals. Twelve states not shown due to suppressed data (fewer than 25 deaths).

years (Black women, 50.2%; White women, 32.1%).[156] Infection is highly preventable through vaccines, which protect against 90% of HPV types that cause cervical cancer as well as several other HPV-associated cancers. A recent study reported an 88% reduction in the risk of invasive cervical cancer among women who were vaccinated before age 17 years and a 53% reduction among those vaccinated from age 17 to 30 years.[157] The American Cancer Society currently recommends vaccination for all boys and girls between ages 9 and 12 years, with catch-up vaccination among all individuals who are inadequately vaccinated through age 26 years.[158] In 2019, 53% of Black female adolescents aged 13 to 17 years and 55% of Black male adolescents were up to date compared with 54% of White girls and 49% of White boys (Table 8).

Cervical cancer is also preventable through screening, which is recommended for people aged 25 to 65 years who are at risk of cervical cancer; screening can be discontinued after age 65 years for those who have a history of negative tests.[159] All eligible women should be screened, including those who have been vaccinated, because vaccines do not protect against all oncogenic HPV types or against infections prevalent at the time of vaccination. This is especially important for Black women, who have a higher prevalence of HPV types that are missing from currently available vaccines.[156,160]

Since the introduction of cervical cancer screening in the 1970s, mortality has declined steadily, although rates have plateaued in recent years for some groups. From 2010 to 2019, cervical cancer mortality continued to decline by 2.4% per year among Black women but stabilized in White women (Table 4). Despite this progress, cervical cancer mortality rates are 65% higher in Black women than in White women, with an even larger disparity with hysterectomy correction.[161]

The overall 5-year relative survival rate for cervical cancer among Black women is 56%, compared with 67% among White women (Fig. 8), in part because Black women are less likely to be diagnosed with localized stage disease (37% vs 45%, respectively) (Fig. 9). Screening rates are similar between Black women and White women (88% vs 86%, respectively) (Table 8), although self-reported rates may be overreported among Black women.[76] Given similar self-reported screening rates, the stage disparity is likely because of differences in the quality of screening and/or timely follow-up of abnormal results.[162-165] Black women have lower survival than White women for every stage of diagnosis (Fig. 8), likely reflecting disparities in access to care and receipt of high-quality treatment. For example, one study found that, among women with early stage disease, 17% of Black women did not receive surgery compared with just 9% of White women.[166] Furthermore, Black women are less likely to receive recommended radiation therapy for every stage of disease.[167]

Uterine Corpus

An estimated 9030 new cases and 2680 death from uterine corpus cancer will occur among Black women in 2022. Cancer of the uterine corpus is often referred to as endometrial cancer because >90% of cases occur in the endometrium.[15] The uterine cancer incidence rate in Black women (28.1 per 100,0000) is similar to that in White women (27.8 per 100,000) without correction for hysterectomy prevalence. However, hysterectomy correction results in incidence rates among Black women that are 15% to 20% higher than those among White women because the procedure is more common in Black women.[31]

Endometrial cancer incidence rates (unadjusted for hysterectomy prevalence) in Black women were approximately 50% lower than those in White women in the early 1970s but have recently converged, largely because of a steeper increase in Black women that began earlier than rising rates in White women. The increase may be related to the obesity epidemic (Fig. 10) given that 60% of uterine corpus cancers are attributable to excess body weight.[168] However, a recent study reported that nonendometrioid subtypes, which are less strongly associated with obesity than endometrioid carcinoma, appear to be driving the increasing trend.[31] From 2014 to 2018, incidence rates increased by approximately 2% per year in Black women but appeared to have stabilized in White women.[21]

From 2010 to 2019, the death rate for uterine corpus cancer increased by 1.9% per year among Black women and 1.6% per year among White women (Table 4). The death rate in Black women is nearly double that in White women (9.0 vs 4.6 deaths per 100,000, respectively), reflecting the largest Black-White disparity in 5-year relative survival of all cancers: 63% in Black women compared with 84% in White women (Fig. 8). Later stage diagnosis, more aggressive tumors, and a lower likelihood of timely optimal treatment contribute to the survival disparity.[169,170] Close to one-half (44%) of uterine corpus cancers in Black women are diagnosed at an advanced stage or are unstaged (usually advanced) compared with 29% in White women (Fig. 9). Survival is lower for Black women for every stage of diagnosis and every tumor subtype, with the largest difference for regional-stage disease (52% vs 72%) (Fig. 8) and nonendometrioid tumors (42% vs 62%).[31] A higher prevalence of aggressive uterine cancer subtypes (eg, uterine serous cancer, uterine carcinosarcoma) in Black women may contribute to the survival disparity.[31,171]

Data Limitations

Although the estimated numbers of new cancer cases and deaths expected to occur in 2022 provide a reasonably accurate portrayal of the contemporary cancer burden in Black people, they are model-based, 3-year–ahead or 4-year–ahead projections that should be interpreted with caution and should not be used to track trends over time. In addition, these estimates do not reflect the impact of the COVID-19 pandemic on cancer occurrence because the latest data years for which incidence and mortality were available at the time of production were 2018 and 2019, respectively. The most informative metrics for tracking cancer trends are age-standardized or age-specific cancer death rates from the NCHS and cancer incidence rates from SEER, the NPCR, and/or the NAACCR. Our findings should be interpreted with caution because the Black population is heterogenous; for example, foreign-born Black people have lower cancer mortality than US-born Black people.[37]

Conclusions

The overall Black-White cancer disparity is narrowing in large part because of the delayed benefit of steeper smoking downturns in Black people in the 1970s and 1980s. However, inequalities for many cancers remain undiminished. Black men continue to be more than twice as likely to die from prostate cancer as White men, with receipt of suboptimal treatment still occurring even within equal-access health systems. Similarly, Black women have lower breast cancer incidence than White women and a similar risk of endometrial cancer yet a 41% higher likelihood of dying from breast cancer and a 2-fold higher risk of dying from endometrial cancer. Reasons for continuing disparities are complex but likely are underpinned by structural racism and unequal access to care. Even when treatment is available, poorer patients may lack transportation, lack the ability to take time off from work, and face other nonmedical barriers. Continued documentation of these disparities is necessary but insufficient to effect change. Future research should not only explore the influence of systemic racism on health but also develop mechanisms to reverse course, from requirements for increased diversity in clinical trials and provider education to health system financial incentives for the provision of equitable care across the cancer continuum. ■

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