ARTICLE

Cancer Facts & Figures Series

Cancer statistics for African American and Black people, 2025

Anatu H. Saka MPH¹ | Angela N. Giaquinto MSPH¹ | Lauren E. McCullough PhD² | Katherine Y. Tossas PhD, MS³ | Jessica Star MA, MPH⁴ | | Ahmedin Jemal DVM, MPH⁵ | Rebecca L. Siegel MPH¹ |

Correspondence

Anatu H. Saka, Surveillance and Health Equity Science Research, American Cancer Society, 270 Peachtree Street NW, Suite 1300, Atlanta, GA 30303, USA.

Email: anatu.saka@cancer.org

Abstract

African American and other Black individuals (referred to as Black people in this article) have a disproportionate cancer burden, including the lowest survival of any racial or 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 2021), mortality (through 2022), survival, screening, and risk factors using population-based data from the National Cancer Institute and the Centers for Disease Control and Prevention. In 2025, there will be approximately 248,470 new cancer cases and 73,240 cancer deaths among Black people in the United States. Black men have experienced the largest relative decline in cancer mortality from 1991 to 2022 overall (49%) and in almost every 10-year age group, by as much as 65%-67% in the group aged 40-59 years. This progress largely reflects historical reductions in smoking initiation among Black teens, advances in treatment, and earlier detections for some cancers. Nevertheless, during the most recent 5 years, Black men had 16% higher mortality than White men despite just 4% higher incidence, and Black women had 10% higher mortality than White women despite 9% lower incidence. Larger inequalities for mortality than for incidence reflect two-fold higher death rates for prostate, uterine corpus, and stomach cancers and for myeloma, and 40%-50% higher rates for colorectal, breast, cervical, and liver cancers. The causes of ongoing disparities are multifactorial, but largely stem from inequalities in the social determinants of health that trace back to structural racism. Increasing diversity in clinical trials, enhancing provider education, and implementing financial incentives to ensure equitable care across the cancer care continuum would help close these gaps.

KEYWORDS

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

This is an open access article under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs License, which permits use and distribution in any medium, provided the original work is properly cited, the use is non-commercial and no modifications or adaptations are made.

© 2025 The Author(s). CA: A Cancer Journal for Clinicians published by Wiley Periodicals LLC on behalf of American Cancer Society.

¹Cancer Surveillance Research, American Cancer Society, Atlanta, Georgia, USA

²Department of Epidemiology, Emory University, Atlanta, Georgia, USA

³Department of Social and Behavioral Sciences, School of Public Health, Virginia Commonwealth University, Richmond, Virginia, USA

⁴Risk Factors and Screening Research, American Cancer Society, Atlanta, Georgia, USA

⁵Surveillance and Health Equity Science, American Cancer Society, Atlanta, Georgia, USA

INTRODUCTION

Black people represent the third largest racial and ethnic group in the United States after White and Hispanic people, accounting for approximately 14% of the total population in 2022. This group includes African Americans, whose ancestors were brought to the United States involuntarily as enslaved people; Caribbean Americans; and recent immigrants of African descent. Although racial classification is a social construct largely used as a tool for oppression, 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 some of the highest mortality rates of any other broadly defined racial/ethnic group for most cancers⁴ and other leading causes of death, including heart disease and stroke (Table 1). These disparities are driven in part by lower socioeconomic status (SES), 5-7 resulting in a higher prevalence of risk factors for cancer and other diseases as well as less access to high-quality health care.^{8,9} According to recent US Census Bureau data in 2023, 18% of Black people lived below the federal poverty level, and 8% of Black people were uninsured compared with just 8% and 5% of White people, respectively. 10,11

The coronavirus disease 2019 (COVID-19) pandemic further widened health disparities in people of color. From March 2020 to January 2023, Black individuals were approximately twice as likely to be hospitalized and to die from COVID-19 compared with White individuals. 12 Beyond the disease itself, Black people have been disproportionately affected by the secondary consequences of the pandemic, including a slower return to cancer screening 13 and to employment and a higher rate of job loss than White people, abruptly reversing years of steady progress in narrowing the unemployment gap. 14 Although additional fallout from pandemic-related health care disruptions, such as later stage cancer diagnosis, delays in treatment, and ultimately increased cancer mortality, are just being analyzed and reported, these too will likely further exacerbate 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 2025, as well as the prevalence of cancer risk factors and screening.

MATERIALS AND METHODS

Cancer occurrence data

There are two original sources for population-based cancer incidence data in the United States: the National Cancer Institute's (NCI'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 2021, 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 presented for Black and White people are exclusive of persons with Hispanic ethnicity when possible (data from 1998 for incidence and from 1990 for mortality). Data from states with incomplete ethnicity data on death certificates were censored for those years.

All cancer incidence and mortality data were accessed using SEER*Stat software (version 8.4.4).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), except for estimated cases in 2025. Incidence and death rates were age adjusted to the 2000 US standard population and expressed per 100,000 population. Long-term incidence trends (1995-2021) were based on data from the NAACCR, representing nearly 99% of the US population. 15,19 Contemporary 5-year relative survival rates are based on patients who were diagnosed during 2014 through 2020 and followed through 2021 in 22 SEER catchment areas excluding Illinois and Massachusetts (Alaska, Connecticut, greater California, greater Georgia, Hawaii, Idaho, Iowa, Louisiana, Kentucky, New Jersey, New York, New Mexico, Utah, rural Georgia, and the metropolitan areas of Atlanta, Los Angeles, San Francisco-Oakland, San Jose-Monterey, Seattle-Puget Sound, and Texas).²⁰ The probability of developing cancer was calculated using the NCI's DevCan software (version 6.7.9),²¹ and the annual percent change in rates was calculated using the NCI's Joinpoint Regression Program (version 5.2.0.0).²² All tests of statistical significance were two-sided, and a p value < .05 was considered statistically significant. Trend and lifetime risk analyses exclude incidence from 2020 because of pandemic-associated disruptions in cancer screening and diagnosis.^{23,24} Incidence rates were adjusted for delays in reporting based on composite national delay factors provided by the NAACCR. 19

Data from the NAACCR were the source for projected new cancer cases in 2025, stage distribution at diagnosis (2017–2021), and cross-sectional 5-year average annual incidence rates (2017–2021) by site and state. Data for Alaska, Arkansas, and Indiana are not included in US-combined incidence using NAACCR data because they did not meet high-quality standards for one or more years during 2017 through 2021. When possible, data are confined to non-Hispanic Black people, who account for 94% of the total Black population.

Projected cancer cases and deaths in 2025

Incidence and mortality data lag 2–4 years behind the most recent year because of the time required for data collection, compilation, quality control, and dissemination. Therefore, we projected the numbers of new cases and deaths for Black people in the United States for 2025 to provide an estimation of the contemporary cancer burden using two-step statistical modeling described in detail

TABLE 1 Leading causes of death among Black and White people, 2022.

	Black				White			
Cause of death	Rank	No.	%	Death rate	Rank	No.	%	Death rate
Males								
Heart diseases	1	48,620	22	278.1	1	295,473	23	219.8
Cancer	2	35,601	16	200.7	2	246,288	19	173.5
Accidents (unintentional injuries)	3	25,172	11	120.6	3	98,141	8	91.3
Assault (homicide) and legal intervention	4	11,641	5	52.3	18	4542	<1	4.7
COVID-19	5	10,812	5	65.9	5	75,303	6	55.8
All causes		221,025	100	1240.4		1,271,521	100	969.4
Females								
Heart diseases	1	40,671	21	167.0	1	243,725	21	133.2
Cancer	2	35,417	18	139.8	2	217,757	18	128.6
Cerebrovascular disease	3	12,419	6	51.7	5	69,049	6	37.3
COVID-19	4	11,177	6	45.6	6	60,533	5	34.6
Accidents (unintentional injuries)	5	10,067	5	42.8	7	55,522	5	44.3
All causes		193,532	100	796.5		1,183,800	100	688.1

Note: Excludes unknown age. Race is exclusive of Hispanic ethnicity. Rates are per 100,000 and age adjusted to the 2000 US standard population. Abbreviation: COVID-19, coronavirus disease 2019.

elsewhere.^{25,26} Briefly, the number of invasive cancers was estimated for every state from 2007 through 2021 based on high-quality, delayadjusted incidence data from 50 states and the District of Columbia, with considerations for state variation in sociodemographic lifestyle factors, medical settings, and cancer screening behaviors.²⁶ Counts were adjusted for the deficit in cases during March through May 2020 because of health care closures during the first months of the COVID-19 pandemic using data from 2018 and 2019. Then, estimated case counts were projected to 2025 based on the most recent 4-year average annual percent change generated by joinpoint regression modeling.

The numbers of cancer deaths expected to occur in 2025 among Black people in the United States were estimated based on the same joinpoint regression model used for cases, applying the most recent 4-year average annual percent changes in the actual number of cancer deaths from 2008 to 2022, as reported to the NCHS.

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 11.0.4; RTI International) and accounted for the complex survey designs.

SELECTED FINDINGS

Overall cancer occurrence

Incidence

In 2025, an estimated 129,080 Black men and 119,390 Black women will be newly diagnosed with invasive cancer (Figure 1). The most commonly diagnosed cancers among Black men are prostate (44%), lung and bronchus (hereinafter *lung*; 10%), and colon and rectum (CRC; 8%). Among Black women, the most commonly diagnosed cancers are breast cancer (34%), lung cancer (10%), and CRC (8%). These four cancers account for 58% of all cancer cases among Black people. The lifetime probability of being diagnosed with cancer among Black men and women is 37% and 35%, respectively, compared with 41% and 40%, respectively, among White men and women.

Table 2 lists incidence rate ratios (IRRs) for Black versus White people for selected cancers most common among the Black population. Among Black men, incidence rates are higher than among White men overall (4%), with the largest disparities (IRR, 1.7-4.7) for Kaposi sarcoma, myeloma, and stomach and prostate cancers. In contrast, Black women have lower incidence than White women overall (9%) and for the two most common cancers (breast and lung), despite higher incidence for several cancers with low survival (e.g., stomach, liver, and pancreas) and higher overall cancer mortality (Table 3). Although uterine corpus cancer incidence only appears to be 6% higher in Black women compared with White women, these rates are unadjusted for hysterectomy prevalence (i.e., they include women in

	Male				Female		
	Prostate	57,330	44%		Breast	40,530	34%
	Lung & bronchus	12,640	10%		Lung & bronchus	12,300	10%
ses	Colon & rectum	10,610	8%		Colon & rectum	9,950	8%
Estimated New Cases	Kidney & renal pelvis	6,420	5%		Uterine corpus	9,380	8%
Š.	Pancreas	4,170	3%		Pancreas	4,740	4%
ž	Myeloma	4,070	3%		Myeloma	4,230	4%
ted	Urinary bladder	3,800	3%		Kidney & renal pelvis	4,130	3%
Ja.	Non-Hodgkin lymphoma	3,700	3%		Non-Hodgkin lymphoma	3,210	3%
sti	Liver & intrahepatic bile duct	3,380	3%		Thyroid	2,920	2%
ш	Leukemia	3,230	3%		Leukemia	2,850	2%
	All sites	129,080			All sites	119,390	
	Male				Female		
	Male Lung & bronchus	7,310	20%		Female Lung & bronchus	6,290	17%
		7,310 6,150	20% 17%	9		6,290 6,170	17% 17%
8	Lung & bronchus	•		1 :	Lung & bronchus		
aths	Lung & bronchus Prostate	6,150	17%	1 8	Lung & bronchus Breast	6,170	17%
Oeaths	Lung & bronchus Prostate Colon & rectum	6,150 3,980	17% 11%		Lung & bronchus Breast Colon & rectum	6,170 3,270	17% 9%
ed Deaths	Lung & bronchus Prostate Colon & rectum Pancreas	6,150 3,980 3,040	17% 11% 8%		Lung & bronchus Breast Colon & rectum Pancreas	6,170 3,270 3,210	17% 9% 9%
ated Deaths	Lung & bronchus Prostate Colon & rectum Pancreas Liver & intrahepatic bile duct	6,150 3,980 3,040 2,270	17% 11% 8% 6%		Lung & bronchus Breast Colon & rectum Pancreas Uterine corpus	6,170 3,270 3,210 3,060	17% 9% 9% 8%
timated Deaths	Lung & bronchus Prostate Colon & rectum Pancreas Liver & intrahepatic bile duct Myeloma	6,150 3,980 3,040 2,270 1,210	17% 11% 8% 6% 3%		Lung & bronchus Breast Colon & rectum Pancreas Uterine corpus Ovary	6,170 3,270 3,210 3,060 1,260	17% 9% 9% 8% 3%
Estimated Deaths	Lung & bronchus Prostate Colon & rectum Pancreas Liver & intrahepatic bile duct Myeloma Leukemia	6,150 3,980 3,040 2,270 1,210 1,180	17% 11% 8% 6% 3% 3%		Lung & bronchus Breast Colon & rectum Pancreas Uterine corpus Ovary Liver & intrahepatic bile duct	6,170 3,270 3,210 3,060 1,260 1,170	17% 9% 9% 8% 3% 3%
Estimated Deaths	Lung & bronchus Prostate Colon & rectum Pancreas Liver & intrahepatic bile duct Myeloma Leukemia Stomach	6,150 3,980 3,040 2,270 1,210 1,180 1,050	17% 11% 8% 6% 3% 3% 3%		Lung & bronchus Breast Colon & rectum Pancreas Uterine corpus Ovary Liver & intrahepatic bile duct Myeloma	6,170 3,270 3,210 3,060 1,260 1,170 1,170	17% 9% 9% 8% 3% 3% 3%

FIGURE 1 Leading sites of new cancer cases and deaths among Black People in United States, 2025 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.

the denominator who do not have an intact uterus and thus are not at risk for the disease). Black women have a higher prevalence of hysterectomy than White women, ^{27,28} and based on the race-specific hysterectomy prevalence adjustment reported in one study, ²⁹ the uterine corpus cancer incidence rate in Black women is 15%–20% higher than that in White women.

Incidence rates for all cancers combined generally declined in Black men from the mid-1990s until 2014 and remained stable thereafter through 2021 (Figure 2), similar to trends in White men (Table 4). The steep decline in Black men from 2008 to 2014 (by 2.8% per year) is largely driven by prostate cancer (which declined by 6.2% per year) because of reductions in prostate-specific antigen (PSA) testing after the US Preventive Services Task Force (USPSTF) recommended against screening in men aged 75 years and older in 2008 and in all men in 2012. 30.31 Overall incidence among Black women is also stable in recent years after increasing slowly (by 0.5% per year) during the 2000s. The rising trend continued in White women during 1998 through 2021 (by 0.3% per year) and, in part, likely reflects faster increases in breast cancer incidence (Table 4) and slower declines in CRC incidence compared with Black women.

Mortality

Cancer is the second leading cause of death in Black men and women after heart diseases, accounting for approximately 16% and 18% of all reported deaths in 2022, respectively (Table 1). Approximately

one in six Black men and one in seven Black women in the United States will die from cancer in their lifetime. An estimated 37,000 Black men and 36,240 Black women are expected to die from cancer in 2025 (Figure 1). Among Black men, the leading causes of cancer death are lung cancer (20%), prostate cancer (17%), and CRC (11%). Breast cancer (17%) and lung cancer (17%) each cause almost twice as many deaths in Black women as third-ranking CRC (9%; Figure 1).

Overall cancer death rates were lower in Black people than in White people in the early 1950s; however, higher smoking prevalence in Black men led to steeper increases in mortality among Black people, resulting in a crossover in the early 1960s⁸ and a widening racial disparity until the mid-1990s.³² In 1993, the death rate was 33% higher in Black people than in White people, but this gap narrowed to 10% in 2022. The decreasing racial disparity is driven by a faster decline in cancer mortality in Black people, especially men. because of steeper reductions in lung and other smoking-related cancers (Figure 3) resulting from the precipitous decline in smoking initiation unique among Black youth during the 1970s and 1980s.33 Consequently, Black men experienced the largest relative decline in overall cancer mortality from 1991 to 2022 (49%) compared with 36% in White men, 33% in Black women, and 26% in White women. Black men had the largest decrease for every 10-year age group except those aged 20-29 years, including a 65%-67% drop among those aged 40-59 years (Figure 4). Over the past decade (2013-2022), the cancer death rate declined in Black men and women overall by 2.4% and 1.8% per year, respectively, versus 1.6% and 1.3% per year in White men and women, respectively (Table 5).

TABLE 2 Comparison of cancer incidence rates between Black and White people: United States, 2017-2021.

Male					Female				
	Rate			Absolute		Rate			Absolute
Cancer	Black	White	Rate ratio ^a		Cancer	Black	White	Rate ratio ^a	difference ^b
Kaposi sarcoma	1.5	0.3	4.66	1.2	Kaposi sarcoma	0.1	0.0	4.76	0.1
Myeloma	18.1	8.3	2.17	9.8	Myeloma	13.7	5.2	2.63	8.5
Stomach	13.0	7.1	1.82	5.9	Stomach	7.8	3.5	2.20	4.3
Prostate	191.5	114.5	1.67	77.0	Pancreas	15.4	11.8	1.30	3.6
Liver & intrahepatic bile duct	16.4	11.2	1.46	5.2	Liver & intrahepatic bile duct	5.5	4.3	1.28	1.2
Larynx	7.1	5.1	1.39	2.0	Uterine cervix	8.5	7.2	1.19	1.3
Colon & rectum	48.2	40.1	1.20	8.1	Colon & rectum	34.7	30.5	1.14	4.2
Pancreas	18.1	15.8	1.14	2.3	Kidney & renal pelvis	13.8	12.2	1.13	1.6
Lung & bronchus	70.2	63.9	1.10	6.3	Uterine corpus	29.7	28.1	1.06	1.6
Kidney & renal pelvis	26.3	24.3	1.08	2.0	Esophagus	3.9	3.8	1.02	0.1
Hodgkin lymphoma	3.0	3.0	0.98	0.0	Breast	131.3	137.9	0.95	-6.5
Leukemia	14.3	20.6	0.69	-6.3	Hodgkin lymphoma	2.4	2.5	0.93	-0.1
Non-Hodgkin lymphoma	17.1	24.2	0.71	-7.1	Lung & bronchus	45.4	54.4	0.83	-9.0
Oral cavity & pharynx	13.3	20.7	0.64	-7.4	Ovary	8.7	10.5	0.83	-1.8
Esophagus	11.1	17.9	0.62	-6.8	Leukemia	9.7	12.5	0.77	-2.8
Brain & other nervous system	9.7	17.2	0.56	-7.5	Non-Hodgkin lymphoma	12.1	16.4	0.74	-4.3
Urinary bladder	19.8	37.9	0.52	-18.1	Oral cavity & pharynx	4.9	7.3	0.68	-2.4
Thyroid	3.5	7.8	0.45	-4.3	Urinary bladder	6.4	9.4	0.69	-3.0
Testis	1.6	7.0	0.23	-5.4	Thyroid	11.8	20.1	0.59	-8.3
Melanoma of the skin	1.1	38.1	0.03	-37.0	Brain & other nervous system	7.2	12.4	0.58	-5.2
					Melanoma of the skin	0.9	25.9	0.04	-25.0
All sites	535.0	513.0	1.04	22.0	All sites	413.5	454.0	0.91	-40.5

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.

Table 3 presents a comparison of death rates by cancer type for Black people versus White people during 2018 to 2022. The largest disparities are for myeloma and cancers of the stomach, prostate, and uterine corpus, for which death rates were twice as high in Black people (Table 3). Notably, despite lower or similar incidence in Black women for cancers of the breast and uterine corpus, death rates are 38% and 101% higher, respectively, than in White women. Although a small fraction of the variation in cancer mortality can be attributed to genetics, the majority of the Black-White disparity is caused by a higher likelihood of lower SES and less access to high-quality cancer screening and care among Black people because of decades of structural racism. ^{5,6} The legacy of slavery and the systemic inequities that followed have profoundly shaped SES disparities in the United States. After emancipation,

exploitative labor practices, such as sharecropping, trapped many Black families in cycles of poverty, while wage theft and the absence of labor protections further limited economic mobility.^{34–36} Black Americans were also systematically excluded from wealth-building opportunities through land ownership restrictions and prejudiced housing policies like mortgage lending discrimination, known as redlining, which began in the 1930s and continued during the Jim Crow era.^{37–39} This practice, which denied loans to credit-worthy applicants, not only restricted homeownership but also prevented the accumulation of generational wealth, perpetuating a racial wealth gap that persists today.^{40,41} Furthermore, areas with a history of redlining are associated with increased health risks,⁴² such as later stage cancer diagnosis,⁴³ and mortality, even if the neighborhood economic status has risen.⁴⁴ For

^aRate ratio is the unrounded rate in Black people divided by the unrounded rate in White people.

^bAbsolute difference is the rate in Black people minus the rate in White people.

TABLE 3 Comparison of cancer death rates between Black and White people: United States, 2018-2022.

Male					Female				
	Rate			Absolute		Rate			Absolute
Cancer	Black	White	Rate ratio ^a	difference ^b	Cancer	Black	White	Rate ratio ^a	difference ^b
Stomach	6.6	2.8	2.39	3.80	Stomach	3.3	1.4	2.34	1.9
Prostate	37.2	18.1	2.05	19.10	Myeloma	4.9	2.1	2.26	2.8
Myeloma	7.2	3.6	1.97	3.60	Uterine corpus	9.5	4.7	2.01	4.8
Larynx	2.7	1.6	1.69	1.10	Uterine cervix	3.2	2.1	1.53	1.1
Liver & intrahepatic bile duct	12.3	8.4	1.45	3.90	Breast	26.8	19.4	1.38	7.4
Colon & rectum	21.3	15.2	1.40	6.10	Pancreas	12.3	9.8	1.26	2.5
Pancreas	15.3	13.2	1.16	2.10	Colon & rectum	13.5	10.9	1.25	2.6
Lung & bronchus	46.7	41.2	1.13	5.50	Liver & intrahepatic bile duct	4.6	3.8	1.22	0.8
Oral cavity and pharynx	4.3	4.3	1.00	0.00	Urinary bladder	2.1	2.2	0.98	-0.1
Hodgkin lymphoma	0.3	0.3	1.00	0.00	Esophagus	1.5	1.5	0.97	0.0
Kidney and renal pelvis	4.9	5.3	0.94	-0.40	Kidney & renal pelvis	2.1	2.2	0.94	-0.1
Leukemia	6.6	8.4	0.78	-1.80	Leukemia	4.1	4.6	0.88	-0.5
Non-Hodgkin lymphoma	4.9	6.9	0.71	-2.00	Ovary	5.5	6.3	0.87	-0.8
Urinary bladder	5.3	8.0	0.66	-2.70	Lung & bronchus	25.9	31.0	0.84	-5.1
Esophagus	4.5	7.5	0.60	-3.00	Hodgkin lymphoma	0.2	0.2	0.84	0.0
Brain & other nervous system	3.4	6.2	0.54	-2.80	Non-Hodgkin lymphoma	2.8	3.9	0.71	-1.1
Melanoma of the skin	0.4	3.8	0.09	-3.40	Brain & other nervous system	2.3	4.1	0.57	-1.8
					Melanoma of the skin	0.3	1.7	0.16	-1.4
All sites	208.3	179.0	1.16	29.30	All sites	144.7	131.0	1.10	13.7

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.

example, one study among older patients with breast cancer demonstrated that women living in historically redlined areas were more likely to receive substandard treatment for and die from breast cancer compared with women in other neighborhoods. These types of discriminatory practices, in addition to decades of structural inequities within the education, criminal justice, and health care systems, have led to a strong correlation in the United States between race and SES. Furthermore, for most cancers, the risk of mortality decreases with increasing SES, Black people have higher mortality than White people at every economic level; and, in some cases, Black people with high SES have higher mortality rates than White people with low SES. 8.46

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. Consequently, individuals residing in such neighborhoods are more likely to

have poor health outcomes, including increased risk of obesity-related cancer mortality ^{47,48} and reduced survival of breast cancer and CRC, even after accounting for individual-level SES.⁴⁹ These communities are also targeted by companies that market unhealthy products. For example, because of campaigns targeted at lower income Black communities, Black people have had historically higher rates of menthol cigarette use compared with other racial/ethnic groups, which are more difficult to quit than nonflavored cigarettes.⁵⁰⁻⁵²

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

^aRate ratio is the unrounded rate in Black people divided by the unrounded rate in White people.

^bAbsolute difference is the rate in Black people minus the rate in White people.

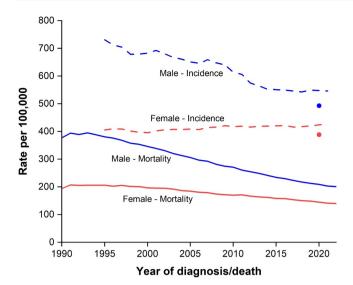


FIGURE 2 Trends in cancer incidence (1995–2021) and death rates (1990–2022) among Black people by sex, United States. Rates are age adjusted to the 2000 US standard population, and incidence rates (excluding 1995–1997) are also adjusted for reporting delay. Incidence data for 2020 are shown separate from trend lines.

low Black population (e.g., Wyoming) should be interpreted with caution because of a potentially sparse number of cases/deaths. The overall cancer incidence rate ranges from 294.2 per 100.000 in Wyoming to 690.2 per 100,000 in Wisconsin among Black men and from 183.4 per 100,000 in Wyoming to 496.7 per 100,000 in Iowa among Black women (Table 6). Mortality rates range from 122.6 per 100,000 in Idaho to 266.3 per 100,000 in Wisconsin among men and from 88.0 per 100,000 in Maine to 182.2 per 100,000 in Wisconsin among women (Table 7). In addition to Wisconsin, death rates for men are especially high in Mississippi and the District of Columbia and for women in Iowa and the District of Columbia. 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 (e.g., cancer screening) and treatment. Public health policies that affect access to care (e.g., Medicaid expansion) also influence state cancer differences. Notably, recent Black immigrants have lower cancer death rates than US-born Black people, a healthy immigrant phenomenon that may contribute to the lower Black-White disparity in mortality during the most recent period, especially in states that have a large foreign-born Black population.53

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 (Figure 5). Most of this disparity is caused by socioeconomic differences that influence access to timely, high-quality cancer

prevention, early detection, and treatment, largely through inequalities in insurance status. ^{8,54–56} For example, Black people are more likely to be diagnosed with advanced-stage (regional or distant) disease ⁴ and to experience delays in treatment, ⁵⁷ and they are less likely to receive recommended treatment. ^{58,59} Many studies have demonstrated that in equal-access health care systems, disparities in treatment and cancer outcomes are reduced, although they are not eliminated. ^{60–62}

Sociodemographic factors also contribute to a higher prevalence of comorbidities among Black people, which have a negative influence on cancer survival.⁶³ For example, diabetes is more common in Black people than in White people and also is associated with an increased risk of cancer death.^{64,65} In addition, Black people have higher incidence of tumors with aggressive molecular characteristics for several cancers (e.g., breast, prostate, and uterine corpus).⁶⁶⁻⁶⁸ The underrepresentation of people of color in clinical trials, which limits knowledge about racial variation in the efficacy of new therapeutic agents in these populations, contributes to, and exacerbates, racial disparities.⁶⁹⁻⁷¹ A nationwide study during 2017 to 2022 indicated that Black individuals had among the lowest representation (only 4%) among oncology clinical trial participants for five major cancer types,⁹ despite accounting for 14% of the US population.

The overall 5-year relative survival rate among Black people has improved from 27% during 1960 through 1964 to 65% during 2014 through 2020. This progress reflects advancements in treatment and earlier diagnoses, although overall 5-year survival remains lower than that in White people (70% during 2014 through 2020). It is important to note, however, that improvements in survival do not always indicate progress for cancers that can be detected asymptomatically through screening (e.g., 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, in 2022, was once again the leading cause of cancer death (Figure 6). An estimated 40,530 new cases and 6170 cancer deaths are expected among Black women in 2025 (Figure 1). Approximately one in nine Black women will be diagnosed with breast cancer in their lifetime, and one in 38 will die from the disease. Black women are more likely to be diagnosed at younger ages than White women, with a median age at diagnosis of 61 years versus 65 years, respectively,⁷² in part because of shorter life expectancy as well as higher rates of cancer at younger ages. The current (2017–2021) breast cancer incidence rate is 131.3 cases per 100,000 Black women compared with 137.9 per 100,000 White women (Table 2),

TABLE 4 Trends in incidence rates for selected cancer sites by race, ethnicity, and sex: United States, 1998–2021.

			Trend 1		Trend 2		Trend 3		Trend 4		Trend 5		AAPC		
	Sex	Race	Years	APC	Years	APC	Years	APC	Years	APC	Years A	APC	2012-2016	2017-2021	2012-2021
All sites	Male and female	Black	1998-2009	-0.1	2009-2014	-1.5ª	2014-2021	0.1				·	-0.7ª	0.1	-0.3ª
		White	1998-2001	1.2ª	2001-2004	-1.1	2004-2007	1.0	2007-2012	-1.1^{a}	2012-2021	0.2ª	0.2ª	0.2ª	0.2ª
	Male	Black	1998-2001	0.7	2001-2005	-1.5ª	2005-2008	0.2	2008-2014	-2.8ª	2014-2021 -	-0.1	-1.5ª	-0.1	-0.7ª
		White	1998-2001	1.5	2001-2004	-1.5	2004-2007	0.7	2007-2013	-1.9^{a}	2013-2021	0.08	-0.4ª	0.08	-0.1
	Female	Black	1998-2009	0.5ª	2009-2021	0.1							0.1	0.1	0.1
		White	1998-2021	0.3ª									0.3ª	0.3ª	0.3ª
Breast (female)		Black	1998-2005	-0.3	2005-2008	2.4	2008-2018	0.4ª	2018-2021	1.5ª			0.4ª	1.3ª	0.8ª
		White	1998-2001	-0.4	2001-2004	-3.3ª	2004-2016	0.6 ^a	2016-2021	1.4ª			0.6 ^a	1.4ª	1.0ª
Colon & rectum ^b	Male and female	Black	1998-2003	-0.4ª	2003-2008	-2.1ª	2008-2011	-4.1ª	2011-2017	-2.3ª	2017-2021 -	-1.2ª	-2.3ª	-1.2ª	-1.8^{a}
		White	1998-2001	-1.4ª	2001-2008	-2.9ª	2008-2011	-4.2ª	2011-2021	-1.1^{a}		·	-1.1ª	-1.1ª	-1.1ª
	Male	Black	1998-2004	-0.3	2004-2016	-2.9ª	2016-2021	-1.1				·	-2.9ª	-1.1	-1.9ª
		White	1998-2001	-1.4ª	2001-2012	-3.5ª	2012-2021	-1.1^{a}				·	-1.1ª	-1.1ª	-1.1^{a}
	Female	Black	1998-2005	-0.8ª	2005-2012	-3.5ª	2012-2021	-2.0ª				·	-2.0ª	-2.0ª	-2.0ª
		White	1998-2001	-1.4ª	2001-2008	-2.6ª	2008-2011	-4.2ª	2011-2021	-1.1^{a}		·	-1.1^{a}	-1.1ª	-1.1ª
Lung & bronchus	Male and female	Black	1998-2009	-0.9ª	2009-2021	-2.3ª						·	-2.3ª	-2.3ª	-2.3ª
		White	1998-2006	-0.1	2006-2018	-1.4ª	2018-2021	-3.2ª				·	-1.4ª	-2.7ª	-2.0
	Male	Black	1998-2009	-2.0ª	2009-2021	-3.2ª						·	-3.2ª	-3.2ª	-3.2ª
		White	1998-2006	-1.1^{a}	2006-2018	-2.2ª	2018-2021	-4.0 <mark>ª</mark>				·	-2.2ª	-3.6ª	-2.8ª
	Female	Black	1998-2008	0.6ª	2008-2021	-1.4ª							-1.4ª	-1.4ª	-1.4ª
		White	1998-2007	0.8ª	2007-2011	-1.4ª	2011-2018	-0.3ª	2018-2021	-2.7ª		·	-0.3ª	-2.1ª	-1.1^{a}
Myeloma	Male and female	Black	1998-2007	1.2ª	2007-2010	4.0	2010-2021	1.4ª					1.4ª	1.4ª	1.4ª
		White	1998-2007	0.8ª	2007-2014	2.3ª	2014-2021	0.7 ^a					1.5ª	0.7ª	1.0ª
	Male	Black	1998-2021	1.8ª									1.8ª	1.8ª	1.8ª
		White	1998-2007	1.0ª	2007-2014	2.3ª	2014-2021	0.5					1.4ª	0.5	0.9ª
	Female	Black	1998-2021	1.9ª									1.9ª	1.9ª	1.9ª
		White	1998-2007	0.5	2007-2015	2.0ª	2015-2021	0.7					1.7ª	0.7	1.1ª
Prostate		Black	1998-2009	-1.0^{a}	2009-2014	-6.2ª	2014-2021	2.6 ^a				·	-1.9ª	2.6ª	0.5
		White	1998-2001	3.2	2001-2004	-5.7	2004-2007	3.2	2007-2014	-6.6ª	2014-2021	3.5ª	-1.7ª	3.5ª	1.1
Stomach	Male and female	Black	1998-2018	-1.6^{a}	2018-2021	3.6ª						·	-1.6ª	2.3ª	0.1
		White	1998-2008	-1.9^{a}	2008-2011	1.6	2011-2018	-1.1^{a}	2018-2021	1.7ª			-1.1ª	1.0ª	-0.2
	Male	Black	1998-2018	-1.9^{a}	2018-2021	1.3						·	-1.9ª	0.5	-0.8

ABLE 4 (Continued)

			Trend 1		Trend 2		Trend 3		Trend 4		Trend 5	AAPC		
	Sex	Race	Years	APC	Years	APC	Years	APC	Years	APC	Years APC		2012-2016 2017-2021 2012-2021	2012-2021
		White	White 1998–2008 –2.3 ^a		2008-2011 1.8	1.8	2011-2018 -1.6 ^a 2018-2021 0.1	-1.6ª	2018-2021	0.1		-1.6ª	-0.3	-1.0ª
	Female	Black	1998-2018	-1.2ª	2018-2021	6.5a						-1.2ª	4.5 ^a	1.3ª
		White	1998-2008	-1.6^{a}	2008-2018 -0.1	-0.1	2018-2021	3.8ª				-0.1	2.8ª	1.2ª
Uterine cervix		Black	1998-2006	-4.3ª	2006-2009	6.0	2009-2012	-4.1ª	2009-2012 -4.1 ^a 2012-2021 -1.2 ^a	-1.2ª		-1.2ª	-1.2ª	-1.2ª
		White	1998-2003 -3.6ª		2003-2013 -0.5ª	-0.5ª	2013-2016	2.3	2.3 2016-2021 -1.3 ^a	-1.3ª		1.6	-1.3ª	-0.04
Uterine corpus		Black	1998-2021	2.3 <mark>ª</mark>								2.3ª	2.3ª	2.3ª
		White	White 1998-2004 -0.7 ^a 2004-2016 1.2 ^a	-0.7ª	2004-2016	1.2ª	2016–2021 0.0	0.0				1.2ª	0.03	0.6 ^a

Note: Race is exclusive of Hispanic ethnicity.

Abbreviations: AAPC, average annual percent change; APC, annual percent change (based on incidence rates age adjusted to the 2000 US standard population and adjusted for delays in reporting) ^aThe APC or AAPC is statistically significantly different from zero (two-sided p < .5). ^bExcludes appendix. although the rate among those younger than 40 years is higher among Black women. 73,74

Similar to the pattern among White women, breast cancer incidence rates among Black women increased steeply during the early 1980s because of the rapid uptake of mammography screening and diagnosis of asymptomatic disease. The slower increase in incidence since the mid-2000s (by approximately 1% per year during 2012 through 2021: Table 4) is attributed to declines in the fertility rate and increases in excess body weight.⁷⁵ Obesity prevalence rose from 31% in 1976-1980 to 57% in 2017-2020 among Black women and from 15% to 40% among White women (Figure 7). In contrast, the breast cancer death rate has been decreasing in Black women since the mid-1990s, several years after the downturn in White women, because of earlier detection and improved treatment.^{76,77} The later and slower decline among Black women widened the racial disparity in breast cancer mortality until circa 2011 at 44% (Figure 3), although the rate still remains 38% higher in Black women than in White women (Table 3). The breast cancer death rate in Black women has dropped by 28% since its peak in 1995 (from 38.4 to 25.6 per 100,000) compared with a 36% decline (from 30.2 to 18.8 per 100,000) in White women over the same time period. From 2013 to 2022, mortality rates decreased in both Black and White women by slightly more than 1% per year on average (Table 5).

Higher breast cancer death rates among Black women are caused by a combination of factors, including later stage diagnosis, less access to timely high-quality treatment, barriers to treatment completion, a higher prevalence of obesity and other comorbidities, and a higher prevalence of more aggressive subtypes. 58,73,78-83 For example, only 58% of Black women are diagnosed with localizedstage disease compared with 68% in White women, 73 and Black women are twice as likely to be diagnosed with triple-negative or inflammatory breast cancers, which have the worst prognosis. Nevertheless, Black women have lower survival than White women for every stage and breast cancer subtype, 73 in part because of lower rates of surgery and chemotherapy. 79,81 One study estimated that almost one half of the disparity in stage at diagnosis is because of differences in insurance coverage, 84 which also influences treatment. Although Black women have higher self-reported mammography prevalence than White women (Table 8), they are more likely to overreport screening.85 Black women are also less likely to have imaging at a facility with the most current technology, such as digital breast tomosynthesis, 86 and are more likely to experience delays in follow-up after an abnormal screening.⁸⁷ A study in North Carolina indicated that Black women experienced delays compared with White women not only in the initiation of treatment but also throughout the treatment experience.⁸⁸ The 5-year relative survival rate for breast cancers diagnosed during 2014 through 2020 was 84% among Black women versus 93% among White women (Figure 5). However, survival varies by nativity and is higher among Caribbean-born versus US-born Black women, underscoring heterogeneity within Black women in the social determinants of health and subtype distribution.89,90

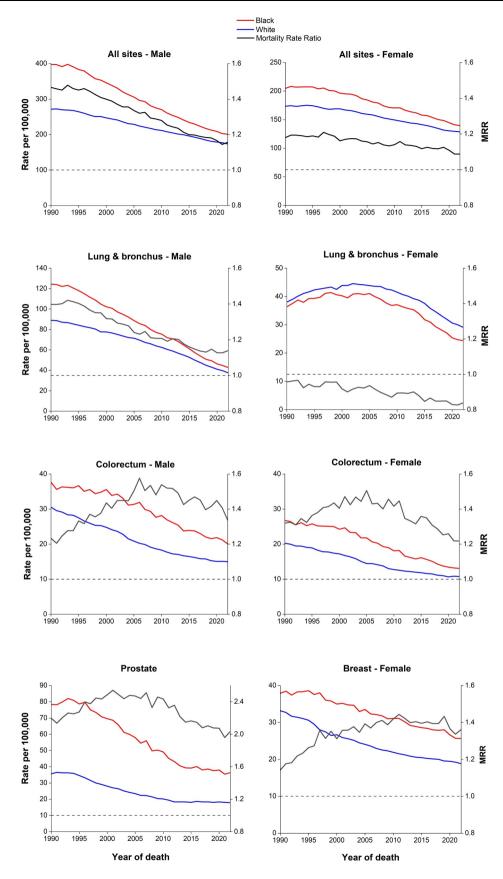


FIGURE 3 Trends in cancer death rates and mortality rate ratios among Black and White people by site and sex, United States, 1990–2022. Race is exclusive of Hispanic ethnicity. Rates are age adjusted to the 2000 US standard population. Vertical scales (death rates and rate ratios) differ by site. MRR indicates mortality rate ratio.

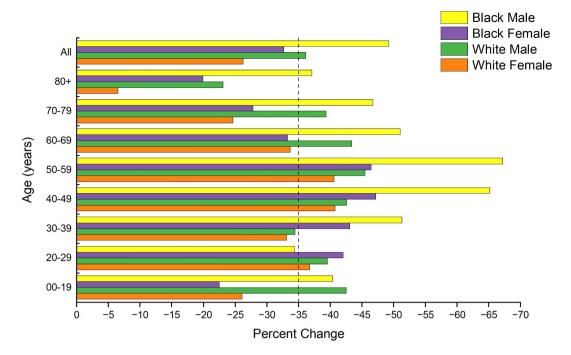


FIGURE 4 Relative decline in cancer death rates from 1991 to 2022 by age, race, and sex. Race is exclusive of Hispanic ethnicity. Rates are age adjusted to the 2000 US standard population. Louisiana, Oklahoma, and New Hampshire were excluded from the year 1991 because of death misclassification for those states.

Colorectal cancer

CRC is the third most common cancer and the third leading cause of cancer death in Black men and women, accounting for an estimated 20,560 new cancer cases and 7250 cancer deaths in 2025 (Figure 1). Among the five broadly defined racial/ethnic groups, Black people have the second highest CRC incidence in the United States after American Indian and Alaska Native people.4 Compared with White men and women, incidence rates were 20% higher in Black men and 14% higher in Black women in 2017-2021 (Table 2), despite lower incidence in Black people prior to the early 1990s, before the introduction of screening. 91 The racial disparity peaked in 2010 and has narrowed in recent years because of steeper declines in incidence in Black people than in White people (1.8% vs. 1.1% per year from 2012 to 2021). Overall trends mask increasing incidence among people younger than 50 years that has been slower in Black people compared to those in other racial and ethnic groups. 92 However, the rate in Black people aged 20-49 years jumped from 13.7 per 100,000 in 2019 to 15.4 per 100,000 in 2021, consistent with the trend for all races combined and likely reflecting the uptake of screening,⁴ which was recommended to begin at age 45 years by the USPSTF in a draft statement in 2020 that was finalized in May 2021.93

Patterns in CRC incidence reflect the prevalence of both risk factors, such as obesity, physical inactivity, and unhealthy diet, which increase risk, ⁹⁴ and screening, which decreases risk through the removal of adenomatous polyps. Smoking, which accounts for the largest proportion of preventable CRC, ⁹⁵ was historically most common in Black men. ⁹⁶ Black people are also less likely to report leisure-time physical activity and eating a healthy diet (Table 9),

although data are sparse.⁹⁷ There is increasing evidence that vitamin D deficiency, which is more common among Black people compared with White people,⁹⁸ may increase CRC risk.^{99,100} CRC screening prevalence in 2023 was equivalent in Black people and White people aged 45 years and older (64%: Table 8), although, historically, it was lower in Black people.¹⁰¹

Similar to incidence, CRC mortality was historically higher in White people than in Black people, whereas contemporary rates are 40% higher in Black men and 25% higher in Black women compared with White men and women, respectively (Table 3). This gap is roughly two times larger than the disparity for incidence but has also begun to shrink in recent years because of steeper declines in death rates from 2013 to 2022 in Black people (2.7% per year) compared with White people (1.3% per year; Table 5). Although previous reports attributed higher mortality among Black people to disproportionate diagnoses of proximal (right-sided) tumors, 102 recent cancer registry data covering 99% of the population has shown that the distribution is similar (41%) to that of White individuals (40%), consistent with recent literature. 92,103,104 The larger disparity for mortality than for incidence stems from differences in access to care, treatment, comorbidities, neighborhood SES, and tumor characteristics. 105-110 Numerous studies have documented that Black people with CRC are less likely than White people to receive recommended surgical treatment, radiation, and chemotherapy. 35,59 In addition, Black people are more likely to have treatment delays, even within similar socioeconomic backgrounds.⁵⁷ Consequently, 5-year relative survival rates remain lower in Black patients than in White patients overall (59% vs. 65%) and for each stage of diagnosis (Figure 5).

TABLE 5 Trends in mortality rates for selected cancer sites by race, ethnicity, and sex, United States, 1990-2022.

			Trend 1		Trend 2	Tre	Trend 3		Trend 4		Trend 5	F	Trend 6	AAPC		
	Sex	Race	Years	APC	Years AI	APC Years		APC	Years	APC	Years AP	APC Y	Years APC	2014- 2018	2018- 2022	2013- 2022
All sites	Male and	Black	1990-1994	-0.2	1994-2001 -:	-1.6ª 200	2001-2022 -	-2.0ª						-2.0ª	-2.0ª	-2.0ª
	female	White	1990-1994	-0.01	1994-1997	-1.3ª 199	1997-2000	-0.5	2000-2016	-1.3^{a}	2016-2019 -1	-1.9^{a} 20	2019-2022 -1.1ª	a -1.6ª	-1.3ª	-1.4ª
	Male	Black	1990-1994	-0.3	1994-2001 -2	-2.1ª 200	2001-2018 -	-2.6ª	2018-2022	-2.1ª				-2.6ª	-2.1ª	-2.4ª
		White	1990-1994	-0.5ª	1994-2002 -:	-1.3° 200	2002-2022	-1.6^{a}						-1.6ª	-1.6ª	-1.6^{a}
	Female	Black	1990-1997	-0.03	1997-2016	-1.4^{a} 201	2016-2022	-2.0ª						-1.7ª	-2.0ª	-1.8^{a}
		White	1990-1994	0.1	1994-2002 –(-0.6ª 200	2002-2022	-1.3ª						-1.3ª	-1.3ª	-1.3ª
Breast (female)		Black	1990-1995	0.2	1995-2022 -:	-1.4ª								-1.4ª	-1.4ª	-1.4ª
		White	1990-1995	-1.6^{a}	1995-1998 –3	-3.5ª 199	1998-2012 -	-1.8^{a}	2012-2022	-1.0^{a}				-1.0^{a}	-1.0ª	-1.0ª
Colon & rectum		Black	1990-2001	-0.7ª	2001-2022 -2	-2.7ª								-2.7ª	-2.7ª	-2.7ª
	Female	White	1990-2002	-1.8^{a}	2002-2005	-3.9ª 200	2005-2011 -	-2.5ª	2011-2020	-1.7^{a}	-1.7ª 2020-2022 -0.1).1		-1.7ª	-0.9ª	-1.3ª
	Male	Black	1990-2002	-0.7ª	2002-2022 -2	-2.6ª								-2.6ª	-2.6ª	-2.6ª
		White	1990-2002	-2.1ª	2002-2005	-4.1ª 200	2005-2012 -	-2.6ª	2012-2020	-1.7ª	2020-2022 -0	-0.3		-1.7ª	-1.0	-1.4ª
	Female	Black	1990-2001	-0.8 <mark>a</mark>	2001-2022	-3.0ª								-3.0ª	-3.0ª	-3.0ª
		White	1990-2000	-1.6^{a}	2000-2010 -3	-3.0ª 201	2010-2022 -	-1.6^{a}						-1.6ª	-1.6ª	-1.6^{a}
Lung &	Male and	Black	1990-1994	-0.03	1994-2004	-1.6ª 200	2004-2013 -	-2.5ª	2013-2020	-4.9ª	2020-2022	-3.3ª		-4.9ª	-4.1ª	-4.5ª
bronchus	female	White	1990-1995	0.2	1995-2006 –(-0.7ª 200	2006-2014 -	-2.3ª	2014-2022	-4.2ª				-4.2ª	-4.2ª	-4.0ª
	Male	Black	1990-1994	-0.7ª	1994-2003 -2	-2.7ª 200	2003-2013 -	-3.2ª	2013-2018	-5.6ª	2018-20224	-4.4ª		-5.6ª	-4.4ª	-5.1ª
		White	1990-1994	-1.0^{a}	1994-2005 -:	-1.6^{a} 200	2005-2013 -	-2.7ª	2013-2022	-4.6ª				-4.6ª	-4.6ª	-4.6ª
	Female	Black	1990-1997	1.5ª	1997-2005 –(-0.1 200	2005-2013 -	-1.8ª	2013-2022	-4.2ª				-4.2ª	-4.2ª	-4.2ª
		White	1990-1994	2.4ª	1994-2002 (0.7ª 200	2002-2007	-0.4	2007-2014	-1.7^{a}	2014-2022 -3	-3.6ª		-3.6ª	-3.6ª	-3.4ª
Myeloma	Male and	Black	1990-1998	0.4	1998-2009 -2	-2.0ª 200	2009-2013	1.2	2013-2022	-1.8ª				-1.8ª	-1.8ª	-1.8ª
	female	White	1990-1994	1.4ª	1994-2002 –(-0.5 200	2002-2009	-1.8ª	2009-2014	0.5	2014-2022 -2	-2.0ª		-2.0ª	-2.0ª	-1.8ª
	Male	Black	1990-2022	-1.0^{a}										-1.0^{a}	-1.0ª	-1.0ª
		White	1990-1994	1.8	1994-2019 —(-0.8^{a} 201	2019-2022 -	-3.3ª						-0.8 <mark>a</mark>	-2.7ª	-1.6ª
	Female	Black	1990-1999	0.8	1999-2009 -2	-2.6ª 200	2009-2013	2.4	2013-2022	-2.5ª				-2.5ª	-2.5ª	-2.5ª
		White	1990-1993	1.7	1993-2002 –(-0.5 200	2002-2009	-2.6ª	2009-2012	1.8	2012-2022 -2	-2.0ª		-2.0ª	-2.0ª	-2.0ª
Prostate		Black	1990-1996	90:0	1996-2010	-3.5^{a} 201	2010-2013 -	-5.8	2013-2022	-1.2ª				-1.2ª	-1.2ª	-1.2ª
		White	1990-1994	0.1	1994-1998	-4.6ª 199	1998-2012 -	-3.4 <mark>ª</mark>	2012-2022	-0.3ª				-0.3ª	-0.3ª	-0.3ª

TABLE 5 (Continued)

			Trend 1		Trend 2		Trend 3		Trend 4		Trend 5		Trend 6		AAPC		
	Sex	Race	Race Years	APC Years		APC Years		APC	Years	APC	Years	APC	Years	APC	2014- 2018	2018- 2022	2013- 2022
Stomach	Male and	Black	Black 1990–1996 –2.0 ^a 1996–2022 –3.2 ^a	-2.0ª	1996-2022	-3.2ª									-3.2ª	-3.2ª	-3.2ª
	female	White	White 1990–2008 –3.5ª 2008–2022	-3.5ª	2008-2022	-2.6ª									-2.6ª	-2.6ª	-2.6ª
	Male	Black	Black 1990–2022 –3.2 ^a	-3.2ª											-3.2ª	-3.2^{a}	-3.2ª
		White	White 1990-2009 -3.8ª 2009-2022	-3.8ª	2009-2022	-2.6ª									-2.6ª	-2.6ª	-2.6ª
	Female	Black	Black 1990-1995 -0.7 1995-2022	-0.7		-3.1ª									-3.1ª	-3.1^{a}	-3.1ª
		White	White 1990-2009 -3.2ª 2009-2022	-3.2ª	2009-2022	-2.5ª									-2.5ª	-2.5ª	-2.5ª
Uterine cervix		Black	Black 1990–1992 2.4 1992–2001	2.4	1992-2001	-5.1^{a}	2001-2022 -2.5ª	-2.5ª							-2.5ª	-2.5ª	-2.5ª
		White	White 1990-1996 -1.5a 1996-2004	-1.5^{a}		-3.3ª	2004-2022	-0.03							-0.03	-0.03	-0.03
Uterine corpus		Black	Black 1990-2004 -0.03 2004-2022	-0.03		1.9ª									1.9ª	1.9ª	1.9ª
		White	White 1990-2008 -0.01 2008-2016	-0.01		2.0ª	2.0 ^a 2016-2022	0.8ª							1.4ª	0.8ª	1.2ª

Abbreviations: AAPC, average annual percent change; APC, annual percent change (based on mortality rates age adjusted to the 2000 US standard population) The APC or AAPC is statistically significantly different from zero (two-sided p<.5).

Note: Race is exclusive of Hispanic ethnicity

Lung

Lung cancer will be diagnosed in an estimated 24,940 Black people in 2025 and is the second most common cancer in both men and women. It is the leading cause of cancer death among Black men and women combined, with 13,600 deaths expected to occur in 2025 (Figure 1). Lung cancer occurrence largely reflects historical smoking patterns, and smoking has declined considerably (approximately 23%-44% among Black men and women) since 1965 (Figure 8). Lung cancer incidence has steadily declined after peaking in the mid-1980s for Black men and the mid-2000s in Black women (Figure 9), reflecting later and slower uptake of smoking among Black women. Steeper smoking declines in Black people than in White people, particularly among youth in the 1970s and 1980s, 33,111 have resulted in converging lung cancer incidence overall and an elimination in the racial disparity among individuals younger than 50 years (Figure 10). 112 During 2017 through 2021, incidence rates were 10% higher in Black men than in White men but were 17% lower in Black women than in White women (Table 2) because of historically (and persistently) lower smoking prevalence among Black women. From 2012 to 2021, the annual decline in incidence was approximately 3% in Black and White men and 1% in Black and White women (Table 4).

Similar to incidence, lung cancer death rates have declined at a generally faster pace in Black men compared with White men, reducing the racial disparity from an excess in Black men of 40% in 1990 to 14% in 2022 (Figure 3). In the past decade (2013 to 2022), the lung cancer death rate declined by 5.1% per year in Black men and by 4.6% per year in White men (Table 5). In women, the downturn began about a decade later than that in men, consistent with incidence, and was also steeper in Black women than in White women (Figure 3). Consequently, although Black and White women had similar lung cancer mortality until the early 1990s, from 2018 to 2022, rates were 16% lower in Black women, consistent with incidence.

The 5-year relative survival rate for lung cancer is slightly lower in Black people than in White people overall (24% vs. 27%; Figure 5), with the largest stage-specific difference for localized-stage disease (60% vs. 63%),4 reflecting the lower receipt of surgery reported in several studies. 113-115 Although early diagnosis improves lung cancer survival dramatically, localized-stage disease is diagnosed in only 24% of Black people and 28% of White people. In 2021, the USPSTF lowered the recommended age to begin lung cancer screening (from 55 to 50 years) and the pack-year smoking history (from 30 to 20 pack-years), in part to attenuate racial and socioeconomic disparities in mortality by capturing a larger proportion of the Black population at elevated risk. 116,117 However, one modeling study indicated that disparities may widen without the prioritization of individuals who have the highest benefit because of unequal dissemination of screening. 118 The American Cancer Society currently recommends annual low-dose helical computed tomography in men and women aged 50-80 years who have a ≥20 pack-year smoking history without regard to quit history, 119 in contrast with the 15-year quit criteria of the USPSTF. 116 In 2022, 17% of eligible Black adults aged

TABLE 6 Incidence rates for selected cancers in Black people by sex and state, 2017–2021.

	All cancer	s	Lung & bi	ronchus	Colon &	rectum	Breast	Prostate
	Male	Female	Male	Female	Male	Female	Female	Male
Alabama	526.1	387.8	75.7	35.4	53.9	37.8	132.9	190.7
Alaska ^b	463.2	335.0	_a	_a	_a	_a	108.0	183.0
Arizona	413.5	339.0	54.3	40.3	36.2	30.0	108.0	132.6
Arkansas ^b	604.9	432.2	102.5	50.5	62.7	47.3	128.0	202.3
California	467.5	395.7	55.5	43.0	41.9	33.6	127.1	160.5
Colorado	434.5	380.9	44.8	34.5	36.5	33.0	126.2	152.2
Connecticut	559.3	426.9	70.0	47.3	46.0	34.0	138.0	217.8
Delaware	514.4	400.5	58.0	40.6	41.5	26.2	137.4	199.5
District of Columbia	552.3	456.5	71.7	53.4	52.9	34.3	147.0	173.1
Florida	481.4	401.9	55.2	33.0	45.2	32.0	119.1	160.6
Georgia	569.4	416.1	68.9	40.4	51.8	36.9	136.6	224.0
Hawaii	388.7	305.3	_a	_a	41.6	_a	118.9	140.5
Idaho	495.1	269.7	_a	_a	_a	_a	_a	186.9
Illinois	554.7	440.1	80.0	58.9	55.4	39.2	136.3	189.7
Indiana ^c	552.0	415.6	84.1	60.1	53.1	36.2	126.7	181.8
Iowa	661.2	496.7	83.9	79.4	59.0	46.8	136.7	233.3
Kansas	519.1	437.6	67.4	52.8	43.8	35.3	137.5	183.7
Kentucky	582.3	462.7	87.7	70.0	51.1	39.9	135.7	200.8
Louisiana	618.0	436.0	90.7	45.0	60.4	43.1	139.9	210.4
Maine	477.8	267.5	_a	_a	_a	_a	_a	209.2
Maryland	529.4	412.9	57.5	44.2	44.3	31.8	137.0	209.0
Massachusetts	503.9	391.8	56.4	37.4	36.5	26.3	123.2	199.3
Michigan	532.8	413.5	74.5	55.7	48.4	35.2	123.4	180.8
Minnesota	537.9	416.5	70.2	52.6	47.0	29.6	114.7	180.3
Mississippi	608.1	418.2	97.8	46.0	66.1	42.9	132.3	212.5
Missouri	525.7	439.8	87.2	62.6	49.8	35.9	136.8	148.1
Montana	490.7	278.1	_a	_a	_a	_a	_a	234.4
Nebraska	586.7	426.0	75.8	59.3	44.2	31.2	132.4	219.6
Nevada ^c	451.7	383.6	51.3	44.1	48.6	34.8	121.3	163.3
New Hampshire	379.5	271.7	_a	_a	_a	_a	83.6	164.8
New Jersey	571.8	428.0	57.7	40.1	49.4	36.6	133.9	235.7
New Mexico	381.2	305.3	38.9	38.0	28.5	21.6	119.3	128.5
New York	524.1	400.0	54.9	37.4	42.6	31.9	126.2	215.4
North Carolina	577.6	431.3	84.1	46.9	44.1	32.9	145.8	209.7
North Dakota	303.0	353.3	_a	_a	_a	_a	_a	151.6
Ohio	535.1	419.2	80.0	61.1	45.2	31.5	130.2	180.4
Oklahoma	522.8	423.1	77.8	53.2	48.3	35.5	134.9	184.2
Oregon	529.8	368.7	49.4	36.5	33.4	29.8	113.1	177.6
Pennsylvania	534.5	439.7	75.7	62.7	43.3	31.3	127.3	175.8
Rhode Island	414.6	401.0	52.4	55.3	34.1	21.8	131.0	149.7

TABLE 6 (Continued)

	All cancer	s	Lung & br	onchus	Colon & ı	rectum	Breast	Prostate
	Male	Female	Male	Female	Male	Female	Female	Male
South Carolina	512.7	393.2	74.4	38.9	49.4	32.5	134.9	176.6
South Dakota	355.0	197.8	_a	_a	_a	_a	_a	144.1
Tennessee	548.7	401.1	79.5	49.1	50.5	36.0	124.6	193.5
Texas	555.0	417.1	75.6	43.4	54.1	37.6	130.8	188.2
Utah	503.9	298.9	_a	_a	51.6	_a	78.9	195.4
Vermont	384.5	343.4	_a	_a	_a	_a	_a	181.2
Virginia	516.4	398.6	70.4	44.4	45.9	31.3	136.3	184.4
Washington	509.2	400.2	56.7	50.0	38.4	33.0	110.7	174.5
West Virginia	510.0	404.2	74.9	57.5	46.3	36.5	120.6	169.7
Wisconsin	690.2	496.3	110.0	68.9	56.8	37.3	145.7	215.6
Wyoming	294.2	183.4	_a	_a	_a	_a	_a	_a
United States	535.0	413.5	70.2	45.4	48.2	34.7	131.3	191.5

Note: Rates are per 100,000 and age adjusted to the 2000 US standard population. Rates are adjusted for delay using national composite factors.
^aRates are suppressed when they are based on fewer than 25 cases.

50-79 years had been screened based on the American Cancer Society guidelines compared with 14% of eligible White adults (Table 8).

Survival has increased for patients with lung cancer over the past decade because of advancements in diagnostics, surgical procedures, and therapeutics, 120,121 although inequalities in access to these interventions have been reported. A recent literature review indicated that Black patients with lung cancer were less likely to receive genetic testing, systemic treatments, and high-cost treatments and were less often eligible for screening, 122 although recent guideline changes may affect this disparity. Within an equal-access care system, equitable treatment resulted in similar survival for White and Black men with early stage nonsmall cell lung cancer. 61

Myeloma

An estimated 8300 new cases of multiple myeloma and 2380 myeloma deaths are expected to occur among Black people in 2025 (Figure 1). The incidence of myeloma is more than two times higher in Black people compared with White people (Table 2) overall, and rates for people younger than 50 years are 2.7 times higher in Black men and 3.4 times higher in Black women than in their White counterparts. Since the late 1990s, incidence has continued to increase steadily in both Black men and Black women by approximately 2% per year, whereas the rate in both White men and White women has been stable since the mid-2010s (Table 4).

Excess body weight is the only known modifiable risk factor for myeloma, with incidence approximately 20% higher in adults who are overweight or obese compared with those who are normal weight. ¹²³

Black women have higher obesity prevalence than White women (Figure 7 and Table 9), which may contribute to the larger racial disparity for myeloma in women. 124,125 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 about 1%–2% per year. 126 Consistent with myeloma, MGUS is more prevalent and is diagnosed at younger ages in Black people than in any other racial/ethnic group. 127,128 A family history of blood cancers is also associated with an increased risk that is stronger among Black people than White people. 129

Similar to incidence, mortality rates are approximately twice as high in Black people as in White people (Table 5). However, temporal trends contrast with incidence; during 2018 through 2022, the myeloma death rate declined by approximately 3% per year in both Black women and White men, by 2% per year among White women, and by 1% per year in Black men because of improved treatment. 130,131 The 5-year relative survival rate for myeloma has improved from 29% during 1975 through 1977 to 62% during 2014 through 2020 among Black people, similar to the progress among White people (from 24% to 61%). Although Black people have a lower prevalence than White people of aggressive disease subtypes, 128,132,133 they have lower utilization of the most recent treatment advances and more delays in treatment. 128,134

Prostate

Prostate cancer is the most commonly diagnosed cancer among Black men, with an estimated 57,330 cases expected in 2025, accounting

^bYears of diagnosis are 2016–2020.

^cYears of diagnosis are 2015-2019.

TABLE 7 Death rates for selected cancers in Black people by sex and state, 2018–2022.

	All cancer	's	Lung & b	ronchus	Colon &	rectum	Prostate	Breast
	Male	Female	Male	Female	Male	Female	Male	Female
Alabama	220.4	141.8	54.8	22.5	23.7	14.5	37.6	26.8
Alaska	176.2	132.6	_a	_a	_a	_a	_a	_a
Arizona	181.9	144.9	37.9	25.9	17.7	14.3	34.9	31.1
Arkansas	243.5	152.7	65.2	29.8	26.4	17.2	41.2	28.0
California	207.1	152.9	39.6	26.9	19.9	14.1	43.7	29.3
Colorado	183.1	126.4	31.5	20.7	18.4	13.8	44.7	22.4
Connecticut	188.1	137.2	39.8	22.4	16.2	11.3	34.8	23.8
Delaware	204.8	148.7	43.0	26.5	18.3	8.2	35.2	28.2
District of Columbia	246.5	170.8	48.6	29.2	23.7	16.3	47.9	32.0
Florida	179.4	132.2	35.1	18.9	19.6	12.6	34.2	24.8
Georgia	205.1	138.2	45.3	22.1	21.4	13.3	40.1	26.4
Hawaii	143.5	111.0	_a	_a	_a	_a	_a	_a
Idaho	122.6	_a	_a	_a	_a	_a	_a	_a
Illinois	226.2	162.6	52.2	32.0	25.8	15.5	40.7	30.7
Indiana	223.7	150.0	54.7	31.9	23.7	13.9	39.9	25.9
Iowa	245.6	175.1	48.8	52.1	30.1	20.0	41.4	25.4
Kansas	212.7	157.7	43.0	35.7	19.6	12.4	34.3	26.3
Kentucky	226.1	158.4	53.9	39.4	23.7	15.4	38.0	26.1
Louisiana	245.9	154.2	65.7	28.8	25.0	15.6	34.5	28.1
Maine	158.6	88.0	_a	_a	_a	_a	_a	_a
Maryland	198.9	137.4	39.0	24.6	20.2	12.3	37.3	25.9
Massachusetts	168.9	116.1	31.3	17.5	13.4	9.1	33.8	18.6
Michigan	215.4	153.3	49.8	32.1	22.5	13.4	34.2	27.2
Minnesota	189.1	140.1	41.6	29.3	16.2	9.3	25.6	23.3
Mississippi	259.0	161.7	70.2	30.8	27.9	17.7	44.3	30.4
Missouri	231.5	161.1	58.3	34.8	21.2	15.3	35.2	28.4
Montana	_a	_a	_a	_a	_a	_a	_a	_a
Nebraska	204.7	155.4	43.7	37.8	17.1	13.3	42.9	27.5
Nevada	200.0	149.5	42.4	26.5	20.4	15.5	42.3	31.8
New Hampshire	157.2	_a	_a	_a	_a	_a	_a	_a
New Jersey	187.6	138.4	37.6	22.2	20.9	12.8	34.7	25.6
New Mexico	169.6	110.0	18.9	_a	_a	_a	45.7	28.7
New York	156.5	122.6	30.3	17.5	16.3	11.4	28.7	23.0
North Carolina	223.6	147.1	53.8	27.0	20.6	12.9	39.5	26.5
North Dakota	172.1	_a	_a	_a	_a	_a	_a	_a
Ohio	218.1	151.1	53.4	32.9	20.6	12.7	33.9	26.5
Oklahoma	232.5	165.6	56.9	32.4	23.2	16.7	43.1	29.2
Oregon	212.8	133.1	30.8	23.6	16.4	_a	37.2	18.9
Pennsylvania	224.2	160.8	50.3	33.6	19.5	13.1	39.4	27.3
Rhode Island	143.0	116.9	24.1	19.1	_a	_a	26.9	16.9

TABLE 7 (Continued)

	All cancer	s	Lung & b	ronchus	Colon & ı	rectum	Prostate	Breast
	Male	Female	Male	Female	Male	Female	Male	Female
South Carolina	229.3	143.5	54.4	23.1	23.7	14.1	40.0	26.2
South Dakota	131.2	_a	_a	_a	_a	_a	_a	_a
Tennessee	227.4	151.0	54.7	30.2	25.3	14.7	38.7	28.8
Texas	215.3	146.6	49.7	25.7	24.4	14.5	35.5	28.7
Utah	162.3	123.1	_a	_a	_a	_a	_a	_a
Vermont	167.7	_a	_a	_a	_a	_a	_a	_a
Virginia	212.7	145.5	49.2	27.1	21.7	13.8	38.1	27.0
Washington	191.1	131.9	36.9	27.4	16.6	12.2	36.5	19.3
West Virginia	230.3	140.0	63.8	32.7	15.8	15.4	32.2	28.6
Wisconsin	266.3	182.2	60.1	40.5	26.2	13.0	42.9	26.4
Wyoming	_a	_a	_a	_a	_a	_a	_a	_a
United States	208.3	144.7	46.7	25.9	21.3	13.5	37.2	26.8

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

for 44% of total diagnoses. Prostate cancer is the second leading cause of cancer death in Black men, with 6150 deaths expected in 2025. Approximately one in six Black men will be diagnosed with prostate cancer in his lifetime, and one in 35 will die from the disease. The strongest known risk factors for prostate cancer are age, a family history of the disease, African ancestry, ⁶⁸ and certain inherited genetic conditions (e.g., Lynch syndrome and *BRCA1* and *BRCA2* mutations). ^{135,136} In addition, there is some evidence that cigarette smoking and excess body weight may increase the risk of aggressive or fatal disease. ^{137–141}

The average annual prostate cancer incidence rate was 191.5 cases per 100,000 Black men in 2017-2021, which is 67% higher than the rate in White men (114.5 per 100,000) (Table 2). However, temporal trends in incidence are similar by race. Rates increased sharply in Black and White men circa 1990 (Figure 9) because of rapid uptake of the PSA blood test and an increase in asymptomatic disease diagnoses among previously unscreened men. Incidence generally declined until 2014 but has since increased among Black men by approximately 3% per year, similar to the pattern in White men (Table 4). The recent increase is largely driven by diagnoses of regional-stage disease (by 5.4% per year since 2013) and distantstage disease (by 4.8% per year since 2011), although the rate of localized-stage disease has also increased by 2.2% per year since 2014. The upturn in advanced disease is thought to reflect the reduction in screening after the USPSTF recommendation against PSA testing for men aged 75 years and older in 2008 and for all men in 2012. 142,143

Black men have the highest prostate cancer death rate of any racial or ethnic group in the United States, more than two times higher than that in White men during 2018 through 2022 (Table 3). 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. 144-147 For example, a multi-institutional study of the impact of the COVID-19 pandemic on prostate cancer treatment indicated that Black men experienced a 94% drop in surgery compared with no disruption in White men. 148 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, 62,149,150 a 2021 Veterans Health Administration study demonstrated that Black men were 11% less likely than non-Black men to receive definitive treatment. 151

Prostate cancer death rates in Black men have dropped by 56% since their peak in 1993 because of improved surgical and radiologic treatment, the use of hormone therapy for advanced-stage disease, and earlier detection through PSA testing. 152-156 As of 2021, no organization endorses routine PSA screening for men at average risk because of the high probability of overdiagnosis and treatmentrelated side effects. Physicians are encouraged to educate men about the benefits and limitations of PSA testing and make a shared decision about whether to screen. However, studies have indicated that Black men are less likely than White men to be informed about prostate cancer testing. 157 There is a renewed interest in the potential of screening for earlier diagnosis of fatal disease, especially among Black men who have greater benefit. Advances in the past decade include more targeted screening and biopsy using magnetic resonance imaging and molecular markers, more conservative diagnostic criteria, immunotherapy, and increased management with active surveillance instead of immediate treatment in men with lowrisk disease. 142,158-161 A recent study estimated that restricting screening in Black men to those aged 45-69 years could reduce mortality by 26%-29% while minimizing overdiagnosis. 162 Rapid

^aRates are suppressed when they are based on fewer than 25 deaths.

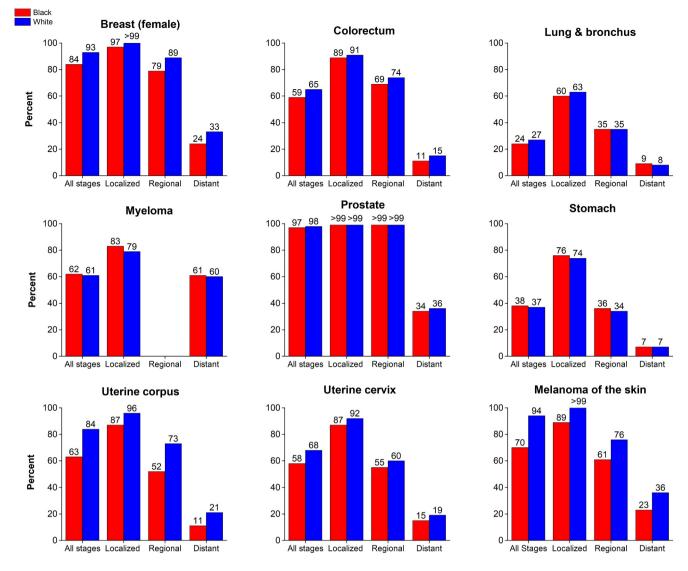


FIGURE 5 Five-year relative survival rates by race, stage at diagnosis, and cancer type, United States, 2014–2020. Race is exclusive of Hispanic ethnicity. All patients were followed through 2021. Colorectum excludes appendiceal cancers. The standard error of the survival rate is between 5 and 10 percentage points.

declines in prostate mortality since the mid-1990s have slowed to 1.2% per year in Black men from 2013 through 2022 (Table 5), in part likely reflecting the uptick in distant-stage diagnosis. The 5-year relative survival rate for prostate cancer is 97% for Black men overall (Figure 5) and approaches 100% for the 86% of Black men diagnosed at a local or regional stage. When prostate cancer is diagnosed at a distant stage, the 5-year survival rate drops to approximately 34%–36% in both Black men and White men (Figure 5).

Stomach

In 2025, an estimated 5300 new cases of stomach cancer and 1820 stomach cancer deaths will occur in Black men and women. In the United States, stomach cancer incidence rates are approximately two

times higher in Black people than in White people (Table 2). However, the disparity is confined to noncardia cancers, and the rates for cardia tumors are similar by race. 163 Chronic infection with Helicobacter pylori accounts for 48% of all stomach cancers⁹⁵ and is more prevalent in Black people than in White people. 164 One study indicated that Black people were greater than three times more likely than White people to be seropositive for cytotoxin-associated gene antigen A-positive H. pylori, which is the most virulent form. 165 Stomach cancer incidence rates steadily decreased from the late 1990s until 2018 but have increased in recent years; however, this at least partly reflects the histologic change in the World Health Organization classification of gastrointestinal stromal tumors from nonmalignant to malignant, and thus reportable to cancer registries. 166 These findings are consistent with other reports of the increasing incidence of gastrointestinal stromal tumors across racial and ethnic groups in recent years. 167

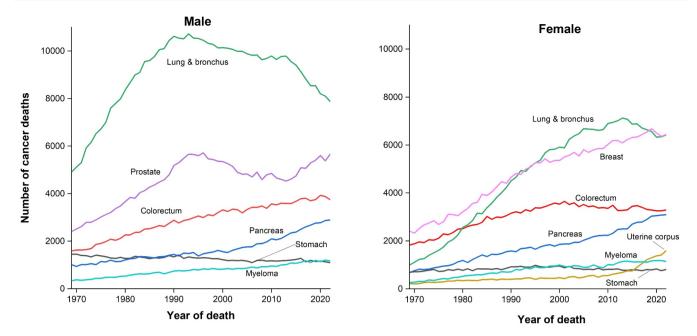


FIGURE 6 Trends in the leading cause of cancer death among Black men and women, United States, 1969–2022. Race includes Hispanic ethnicity. Rates are age adjusted to the 2000 US standard population.

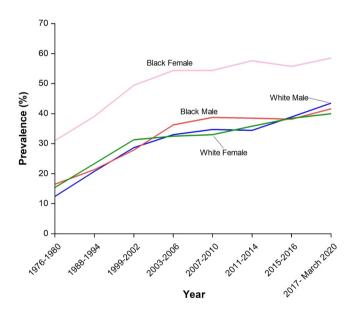


FIGURE 7 Trends in adult obesity prevalence, adults aged 20 –74 years, by sex and race/ethnicity, United States, from 1976 to March 2020. Race is exclusive of Hispanic ethnicity. Obesity is defined as a body mass index ≥30.0 kg/m². Estimates are age adjusted to the 2000 US standard population.

Similar to patterns for incidence, death rates are more than two-fold higher in Black people than in White people (Table 3). From 2013 to 2022, stomach cancer death rates declined in Black men and women by 3% per year, comparable to trends in White people. The 5-year relative survival rate for stomach cancer in Black people is 38% overall, similar to that in White people (Figure 5). However, variation in subsite distribution masks a disparity for noncardia tumors (40% vs. 46% in White people), which is diagnosed in more than one half

(55%) of Black people but in only one third of White people. ¹⁵ The 5-year relative survival rate for cardia tumors, which are less amenable to surgical treatment, is similar in Black people and White people (26% vs. 27%, respectively). Survival could be further improved by eliminating disparities in surgical interventions among Black patients with gastric cancer. ¹⁶³ Nearly one in three Black patients with stomach cancer are diagnosed with distant-stage disease, including 39% of those with cardia tumors and 28% of those with noncardia tumors, for which the 5-year relative survival rate is only 6%–7% for both subtypes.

Uterine cervix

In 2025, an estimated 2180 new cases of cervical cancer and 610 deaths from the disease are expected in Black women. The incidence rate of cervical cancer is 19% higher in Black women than in White women (Table 2). However, the disparity is much wider when the rates exclude women who are not at risk of developing the disease because they have had their cervix removed during a hysterectomy, which is more common in Black women. One study indicated that, after correcting for hysterectomy, the incidence of cervical cancer was approximately 40% higher in Black women than in White women. ¹⁶⁸ Cervical cancer incidence continued to decline in Black women by about 1% per year from 2012 to 2021 while stabilizing in White women (Table 4).

Almost all cervical cancer is caused by persistent infection with the human papillomavirus (HPV). Recent studies report a higher prevalence of high-risk HPV infection in Black women than in White women, especially among those aged 21–24 years (Black women, 50%; White women, 32%).¹⁶⁹ Infection is highly preventable through vaccination,

TABLE 8 Prevalence (%) of human papillomavirus vaccination (2022) and cancer screening (2021–2023), United States.

	Black, %	White, %
HPV vaccination (adolescents aged 13–17 years) ^a		
Females		
One or more dose(s)	82	76
Up-to-date	69	63
Males		
One or more dose(s)	75	71
Up-to-date	62	57
Breast cancer screening		
Up-to-date (females aged 45 years and older) ^b	75	69
Mammogram within the past 2 years (females aged 40–74 years; USPSTF guidelines) ^c	80	72
Cervical cancer screening (females aged 25-65 years)		
Up-to-date ^d	76	80
Colorectal cancer screening ^e		
Adults aged 50 years and older ^f	70	71
Males	70	72
Females	70	71
Adults aged 45 years and older ^g	64	64
Males	63	65
Females	65	64
Lung cancer screening (adults aged 50–79 years) ^h		
Up-to-date ⁱ	17	14
Prostate-specific antigen test (males aged 50 years and older) ⁱ		
Within the past year	34	41

Note: Race is exclusive of Hispanic ethnicity. Respondents' sex was self-reported. Estimates for screening do not distinguish between examinations for screening and diagnosis.

Abbreviations: HPV, human papillomavirus; USPSTF, US Preventive Services Task Force.

^aEstimates are crude. Initiation is defined as one or more dose(s) of the HPV vaccine. Up-to-date HPV vaccination is defined as two doses separated by 5 months (minus 4 days) for immunocompetent adolescents initiating the HPV vaccine series before their 15th birthday and three doses for all others.
^bMammogram within the past year (females aged 45–54 years) or the past 2 years (females aged 55 years and older). Estimates are age adjusted to the year 2000 US population standard using three age groups: 45–49 years, 50–64 years, and 65 years and older.

^cMammogram within the past 2 years (females aged 40–74 years). Estimates are age adjusted using three age groups: 40–49, 50–64, and 65–74 years. ^dPapanicolaou test in the past 3 years OR a Papanicolaou test and an HPV test within the past 5 years among females aged 25–65 years without a hysterectomy. Estimates are age adjusted to the year 2000 US census population standard using four age groups: 25–29, 30–39, 40–49, and 50–65 years. Primary HPV testing estimates are not available because of questionnaire limitations.

^eFecal occult blood test/fecal immunochemical test, sigmoidoscopy, colonoscopy, computed tomography colonography, OR multitarget stool DNA-fecal immunochemical test in the past 1, 5, 10, 5, and 3 years, respectively.

fln those aged 50 years and older, estimates age adjusted to the year 2000 US census population standard using two age groups: 50-64 years and 65 years and older.

glin those aged 45 years and older, estimates are age adjusted to the year 2000 US census population standard using three age groups: 45–49 years, 50–64 years, and 65 years and older.

^hEstimates are age adjusted using three age groups: 50–59, 60–69, and 70–79 years.

ⁱThe American Cancer Society recommends annual screening for lung cancer with a low-dose computed tomography scan for people aged 50–80 years who smoke or used to smoke and have at least a 20 pack-year history of smoking. Due to survey questionnaire limitations, estimates are among individuals ages 50 to 79 years instead of among ages 50–80 years.

^jAmong men who have not been diagnosed with prostate cancer. Estimates are age adjusted to the year 2000 US census standard population using two age groups: 50–64 years and 65 years and older.

Source: National Immunization Survey-Teen, 2022; screening, National Health Interview Survey, 2021 (cervical only) and 2023; Behavioral Risk Factor Surveillance System, 2022.

TABLE 9 Risk factors for cancer among Black and White adults by sex, United States.

	Black, %	White, %
Obesity (BMI ≥30.0 kg/m²)	a	
All	50	42
Males	41	43
Females	57	40
Overweight (BMI 25.0-29.	9 kg/m²) ^a	
All	27	30
Males	32	33
Females	23	28
No leisure-time physical ac	tivity ^b	
All	33	23
Males	28	22
Females	37	24
Current cigarette smoking		
All	12	12
Males	15	13
Females	9	12

Note: Race is exclusive of Hispanic ethnicity.

Abbreviation: BMI, body mass index.

^aAmong adults aged 20 years and older. Estimates are age adjusted to the year 2000 US census population standard using five age groups: 20–34, 35–44, 45–54, and 55–64 years and 65 years and older. Obesity is defined as a BMI \geq 30.0 kg/m², and overweight is defined as a BMI 25.0–29.9 kg/m².

^bNo leisure-time physical activity in the past week. Estimates are age adjusted to the year 2000 US population standard using five age groups: 18–24, 25–34, 35–44, and 45–64 years and 65 years and older.

^cAmong adults aged 18 years and older, those who ever smoked 100 cigarettes in their lifetime and now smoke every day or some days. Estimates are age adjusted to the year 2000 US census population standard using five age groups: 18–24, 25–34, 35–44, and 45–64 years and 65 years and older.

Source: BMI, National Health and Nutrition Examination Survey, 2017 to March 2020; physical activity, National Health Interview Survey, 2022; smoking, National Health Interview Survey, 2023.

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 at ages 17–30 years. ¹⁷⁰ The American Cancer Society currently recommends vaccination for all boys and girls between ages 9 and 12 years, with catch-up vaccination through age 26 years among all individuals who are inadequately vaccinated. ¹⁷¹ In 2022, 69% of Black female adolescents aged 13–17 years and 62% of Black male adolescents were up to date compared with 63% of White girls and 57% of White boys (Table 8).

Cervical cancer is also preventable through screening, which is recommended to begin at age 25 years for people with a cervix,

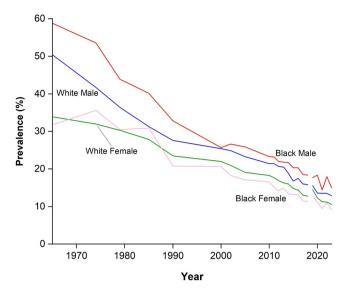


FIGURE 8 Adult current smoking cigarette prevalence (%) by race and sex, United States, 1965–2023. Race includes Hispanic ethnicity. Ever smoked 100 cigarettes in lifetime and smoking every day or some days at time of survey. Estimates are age adjusted to the year 2000 US census population standard using five age groups: 18–24, 25–34, 35–44, and 45–64 years and 65 years and older. Because of changes in National Health Interview Survey design, 2019 estimates are not directly comparable to prior years and are separated from the trend line.

regardless of HPV vaccination status, and can be discontinued at age 65 years for those with a history of negative tests. ¹⁷² Screening is not influenced by vaccination because vaccines do not protect against all oncogenic HPV types or against infections established before vaccination. This is especially important for Black women, who have a higher prevalence of HPV types that current vaccines do not protect against. ^{169,173}

Since the introduction of cervical cancer screening in the 1960s and 1970s, mortality has declined steadily among Black women, decreasing by 3% per year from 2013 to 2022. In contrast, rates among White women stabilized during the most recent time period at about two per 100,000 compared to approximately three per 100,000 in Black women. Nevertheless, cervical cancer mortality rates are 53% higher in Black women than in White women, with an even larger disparity for hysterectomy-corrected rates.²⁸ This disparity is conveyed in the wide gap in 5-year relative survival of 58% among Black women compared with 68% among White women (Figure 5), in part because of a lower likelihood of localized-stage disease at diagnosis (35% vs. 43%, respectively).4 Given the similarity in self-reported screening rates (Table 8), the stage disparity is likely caused by differences in the quality of screening and/or timely follow-up of abnormal results. 174-177 One study reported that being uninsured or underinsured accounted for approximately one half of the disparity in those with advanced-stage diagnoses among Black women compared with White women. 178 However, Black women have lower survival than White women for every stage of diagnosis,4 likely reflecting less access to high-quality treatment. Several studies have demonstrated that Black women

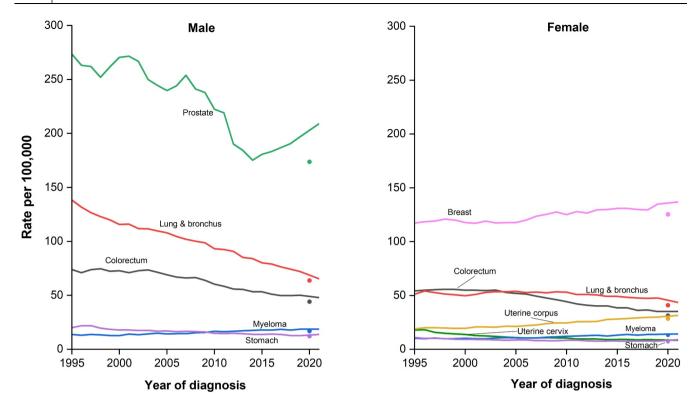


FIGURE 9 Trends in incidence rates among Black people for selected cancers by sex, 1995–2021. Race excludes Hispanic ethnicity. Rates (excluding 1995–1997) are delay adjusted and age adjusted to the 2000 US standard population. Incidence data for 2020 are shown separate from trend lines.

are less likely to receive recommended treatment (i.e., surgery, radiation therapy) for cervical cancer. ^{179,180}

Uterine corpus

An estimated 9380 new cases and 3060 deaths from uterine corpus cancer will occur among Black women in 2025. Cancer of the uterine corpus is often referred to as endometrial cancer because >90% of cases occur in the endometrium. The uterine cancer incidence rate in Black women (29.7 per 100,0000) is similar to that in White women (28.1 per 100,000) without correction for hysterectomy prevalence, but higher after accounting for hysterectomy, although this disparity varies by state and nativity within the Black population in the United States. A population-based study reported that hysterectomy-corrected incidence rates for type 2 endometrial cancer (i.e., subtypes with poorer prognoses) were highest among US-born Black women (24.4 per 100,000) followed by Caribbean-born Black women (18.2 per 100,000).

Endometrial cancer incidence rates were approximately 50% lower in Black women than in White women in the early 1970s but have recently converged, largely because of steeper increases in Black women that also began earlier than in White women. Some of the increase may be related to the obesity epidemic (Figure 7) because 53% of uterine corpus cancers are attributable to excess body weight.⁹⁵ However, a recent study reported that non-endometrioid subtypes, which are less strongly associated with

obesity than endometrioid carcinoma, are driving the trend.²⁹ From 2017 to 2021, incidence rates increased by about 2% per year in Black women but appeared to have stabilized in White women (Table 4).

The death rate for uterine corpus cancer in Black women increased by 1.9% per year from 2018 through 2022, twice the magnitude of increase among White women (0.8% per year; Table 5), and the age-standardized rate is nearly double that in White women in 2018–2022 (9.5 vs. 4.7 deaths per 100,000, respectively). A recent study indicated that hysterectomy-corrected mortality rates were highest among Black women overall, by histologic subtype, and by stage at diagnosis. ¹⁸²

Uterine corpus cancer also reflects one of the largest Black-White disparity in 5-year relative survival of all cancers: 63% in Black women compared with 84% in White women (Figure 5). Later stage diagnosis, more aggressive tumors, and a lower likelihood of timely guideline-concordant treatment contribute to the survival disparity. 183,184 Close to one half (46%) of uterine corpus cancers in Black women are diagnosed at an advanced stage or are unstaged (usually advanced) compared with 30% of uterine corpus cancers in White women. 4 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. 73%) and nonendometrioid tumors (42% vs. 62%).²⁹ This survival disparity is also observed in Black patients younger than 50 years. 185 A higher prevalence of aggressive uterine cancer subtypes (e.g., uterine serous cancer, uterine carcinosarcoma) in Black women may contribute to the survival disparity. 29,185,186

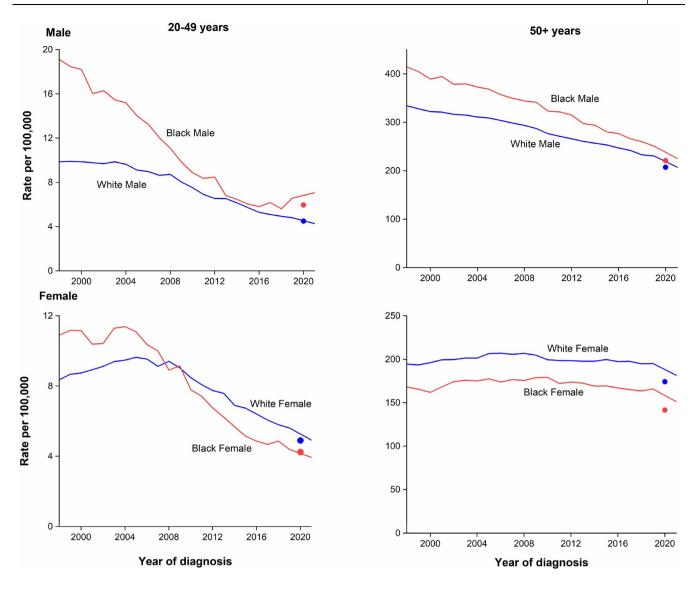


FIGURE 10 Trends in lung cancer incidence rates by race, sex, and age, United States, 1998–2021. Race is exclusive of Hispanic ethnicity. Rates are adjusted for delays in reporting and age adjusted to the 2000 US standard population. Incidence data for 2020 are shown separate from trend lines.

Data limitations

Although the estimated numbers of new cancer cases and deaths expected to occur in 2025 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 not used to track trends over time. 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 the NAACCR. Data presented herein are not adjusted for comorbidities, such as insurance, education, SES, and other factors. Furthermore, the uterine corpus and cervical cancer rates presented are not adjusted for hysterectomy and are likely underestimated in the population. In addition, aggregated data for Black people mask differences within this heterogeneous population.

CONCLUSIONS

The overall Black–White cancer disparity is narrowing in large part because of the delayed benefit of a steeper reduction of smoking initiation among Black teens in the 1970s and 1980s. Black men had the largest relative decline in cancer mortality from 1991 to 2022 overall and in nearly every 10-year age group, including a 65%–67% drop in men aged 40–59 years. However, inequalities for many cancers persist. Black men continue to be more than twice as likely to die from prostate cancer than White men, with receipt of suboptimal treatment still occurring even within equal-access health systems. Similarly, Black women have lower or similar breast and uterine corpus cancer incidence than White women yet have a 38% higher likelihood of dying from breast cancer and a two-fold higher risk of dying from uterine corpus cancer. Reasons for continuing disparities largely reflect the direct and indirect

effects of structural racism, including biases in the health care system and inequitable health care access. Even when treatment is available, patients with limited financial resources may face nonmedical barriers, such as the lack of transportation, the inability to take time off from work, and other logistical challenges. Continued documentation of these disparities is necessary but insufficient to eliminate these inequalities. Future efforts must go beyond research to disentangle the influence of structural racism on health and actively develop mechanisms to reverse course. This includes requirements for increased diversity in clinical trials, improving provider education, and strengthening our health care system through policies that eliminate cost-sharing copays. In addition, pathways to ensure timely diagnostic follow-up and treatment must be prioritized, alongside innovative strategies and financial incentives to promote equitable care delivery across the cancer continuum.

ACKNOWLEDGMENTS

The authors thank Natalia Mazzitelli, MPH, from the American Cancer Society who provided screening data and also gratefully acknowledge all cancer registries and their staff for their hard work and diligence in collecting cancer information, without which this research could not have been accomplished.

CONFLICT OF INTEREST STATEMENT

Anatu H. Saka, Angela N. Giaquinto, Jessica Star, Ahmedin Jemal, and Rebecca L. Siegel are employed by the American Cancer Society, which receives grants from private and corporate foundations, including foundations associated with companies in the health sector, for research outside of the submitted work. The authors are not funded by or key personnel for any of these grants, and their salary is solely funded through American Cancer Society funds. The remaining authors disclosed no conflicts of interest.

ORCID

Angela N. Giaquinto https://orcid.org/0000-0003-2548-9693

Lauren E. McCullough https://orcid.org/0000-0001-6723-9540

Katherine Y. Tossas https://orcid.org/0000-0001-6872-2294

Jessica Star https://orcid.org/0000-0003-3522-9609

Rebecca L. Siegel https://orcid.org/0000-0001-5247-8522

REFERENCES

- U.S. Census Bureau. Table DP05. American Community Survey (ACS)
 Demographic and Housing Estimates. ACS 1-Year Estimates Data
 Profiles. U.S. Census Bureau; 2022.
- Mahal BA, Alshalalfa M, Kensler KH, et al. Racial differences in genomic profiling of prostate cancer. N Engl J Med. 2020;383(11): 1083-1085. doi:10.1056/nejmc2000069
- Brawley OW. Prostate cancer and the social construct of race. Cancer. 2021;127(9):1374-1376. doi:10.1002/cncr.33417
- Siegel RL, Kratzer TB, Giaquinto AN, Sung H, Ahmedin J. Cancer statistics. 2025. CA Cancer J Clin. 2025. doi:10.3322/caac.21871
- Williams DR, Lawrence JA, Davis BA. Racism and health: evidence and needed research. Annu Rev Public Health. 2019;40(1):105-125. doi:10.1146/annurev-publhealth-040218-043750

- Bailey ZD, Krieger N, Agénor M, Graves J, Linos N, Bassett MT. Structural racism and health inequities in the USA: evidence and interventions. *Lancet.* 2017;389(10077):1453-1463. doi:10.1016/ s0140-6736(17)30569-x
- Bailey ZD, Feldman JM, Bassett MT. How structural racism works
 -racist policies as a root cause of U.S. racial health inequities. N
 Engl J Med. 2021;384(8):768-773. doi:10.1056/nejmms2025396
- Singh GK, Jemal A. Socioeconomic and racial/ethnic disparities in cancer mortality, incidence, and survival in the United States, 1950–2014: over six decades of changing patterns and widening inequalities. *J Environ Public Health*. 2017;2017:2819372. doi:10. 1155/2017/2819372
- Pittell H, Calip GS, Pierre A, et al. Racial and ethnic inequities in US oncology clinical trial participation From 2017 to 2022. JAMA Netw Open. 2023;6(7):e2322515. doi:10.1001/jamanetworkopen.2023. 22515
- Keisler-Starkley K, Bunch L. Table A-1. Percentage of People by Health Insurance Coverage Status and Type by Selected Characteristics: 2022 and 2023. Health Insurance Coverage in the United States: 2023. Report Number P60-284. U.S. Census Bureau; 2024. Accessed February 10, 2025. https://www2.census.gov/programssurveys/demo/tables/p60/284/tableA1.pdf
- Shrider E. Table A-1. People in Poverty by Selected Characteristics: 2022 and 2023. Poverty in the United States: 2023. Report Number P60-283. U.S. Census Bureau; 2024. February 10, 2025. https://www.census.gov/library/publications/2024/demo/ p60-283.html
- Jason K, Wilson M, Catoe J, Brown C, Gonzalez M. The impact of the COVID-19 pandemic on black and Hispanic Americans' work outcomes: a scoping review. J Racial Ethn Health Disparities. 2024; 11(3):1157-1172. doi:10.1007/s40615-023-01594-6
- Richman I, Tessier-Sherman B, Galusha D, Oladele CR, Wang K. Breast cancer screening during the COVID-19 pandemic: moving from disparities to health equity. J Natl Cancer Inst. 2023;115(2): 139-145. doi:10.1093/jnci/djac172
- Smith S, Edwards R, Duong H. Unemployment rises in 2020, as the country battles the COVID-19 pandemic. Monthly Labor Review; June 2021. US Bureau of Labor Statistics. Accessed October 20, 2024. https://www.bls.gov/opub/mlr/2021/article/ unemployment-rises-in-2020-as-the-country-battles-the-covid-19-pandemic.htm
- 15. Surveillance Epidemiology and End Results (SEER) Program. SEER*Stat Database: North American Association of Central Cancer Registries (NAACCR) Incidence Data—Cancer in North America Analytic File, 1995–2021, for NAACCR Hispanic Identification Algorithm version 2 (NHIAv2) Origin, Standard File, American Cancer Society Facts and Figures Projection Project. National Cancer Institute, Division of Cancer Control and Population Sciences, Surveillance Research Program, Surveillance Systems Branch; 2024.
- Surveillance Research Program, National Cancer Institute. SEER*-Stat software, version 8.3.9. National Cancer Institute, Surveillance Research Program; 2021.
- Jack A, Percy C, Sobin L, Whelan S. International Classification of Diseases for Oncology: ICD-O. World Health Organization; 2000.
- World Health Organization (WHO). International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Volumes I-III. WHO: 2011.
- 19. Surveillance Epidemiology and End Results (SEER) Program. SEER*Stat Database: North American Association of Central Cancer Registries (NAACCR) Incidence Data—Cancer in North America Research Data, 1998–2021, Delay Adjusted Factors—American Cancer Society Facts and Figures (which includes data from the Centers for Disease Control and Prevention's National Program of Cancer Registries, the Canadian Cancer Registry's Provincial and Territorial Registries, and the National

Cancer Institute's SEER Registries), certified by the NAACCR as meeting high-quality incidence data standards for the specified time periods (submitted December 2023). National Cancer Institute, Division of Cancer Control and Population Sciences, Surveillance Research Program, Surveillance Systems Branch; 2024

- Surveillance Epidemiology and End Results (SEER) Program. SEER*Stat Database: Incidence—SEER Research Limited-Field Data, 22 Registries (excluding Illinois and Massachusetts), released April 2024, November 2023 Submission (2000–2021)—Linked To County Attributes—Time Dependent (1990–2022) Income/Rurality, 1969– 2022 Counties. National Cancer Institute, Division of Cancer Control and Population Sciences, Surveillance Research Program, Surveillance Systems Branch; 2024.
- 21. Surveillance Research Program, Statistical Methodology and Applications Branch. *DevCan. Probability of Developing or Dying of Cancer Software, version 6.7.9.* National Cancer Institute; 2021.
- Surveillance Research Program. Statistical Methodology and Applications Branch. Joinpoint Regression Program, version 5.2.0.0.
 National Cancer Institute; 2024.
- Howlader N, Bhattacharya M, Scoppa S, et al. Cancer and COVID-19: US cancer incidence rates during the first year of the pandemic. JNCI Cancer Spectr. 2024;116(2):7-215. doi:10.1093/jnci/djad205
- Mariotto AB, Feuer EJ, Howlader N, Chen HS, Negoita S, Cronin KA. Interpreting cancer incidence trends: challenges due to the COVID-19 pandemic. J Natl Cancer Inst. 2023;115(9):1109-1111. doi:10.1093/jnci/djad086
- Miller KD, Siegel RL, Liu B, et al. Updated methodology for projecting U.S.- and state-level cancer counts for the current calendar year: part II: evaluation of incidence and mortality projection methods. Cancer Epidemiol Biomarkers Prev. 2021;30(11):1993-2000. doi:10.1158/1055-9965.epi-20-1780
- Liu B, Zhu L, Zou J, et al. Updated methodology for projecting U.S.and state-level cancer counts for the current calendar year: part I: spatio-temporal modeling for cancer incidence. *Cancer Epidemiol Biomarkers Prev.* 2021;30(9):1620-1626. doi:10.1158/1055-9965. epi-20-1727
- Jamison PM, Noone AM, Ries LA, Lee NC, Edwards BK. Trends in endometrial cancer incidence by race and histology with a correction for the prevalence of hysterectomy, SEER 1992 to 2008. Cancer Epidemiol Biomarkers Prev. 2013;22(2):233-241. doi: 10.1158/1055-9965.epi-12-0996
- Beavis AL, Gravitt PE, Rositch AF. Hysterectomy-corrected cervical cancer mortality rates reveal a larger racial disparity in the United States. Cancer. 2017;123(6):1044-1050. doi:10.1002/cncr. 30507
- Clarke MA, Devesa SS, Harvey SV, Wentzensen N. Hysterectomycorrected uterine corpus cancer incidence trends and differences in relative survival reveal racial disparities and rising rates of nonendometrioid cancers. *J Clin Oncol*. 2019;37(22):1895-1908. doi:10.1200/jco.19.00151
- Jemal A, Fedewa SA, Ma J, et al. Prostate cancer incidence and PSA testing patterns in relation to USPSTF screening recommendations. JAMA. 2015;314(19):2054-2061. doi:10.1001/jama.2015.14905
- Moyer VA; U.S. Preventive Services Task Force. Screening for prostate cancer: U.S. Preventive Services Task Force recommendation statement. Ann Intern Med. 2012;157(2):14. doi:10.7326/ 0003-4819-157-2-201207170-00459
- 32. Siegel RL, Giaquinto AN, Jemal A. Cancer statistics, 2024. CA Cancer J Clin. 2024;74(1):12-49. doi:10.3322/caac.21820
- Nelson DE, Mowery P, Asman K, et al. Long-term trends in adolescent and young adult smoking in the United States: metapatterns and implications. Am J Public Health. 2008;98(5):905-915. doi:10.2105/ajph.2007.115931

34. Ikoma N, Cormier JN, Feig B, et al. Racial disparities in preoperative chemotherapy use in gastric cancer patients in the United States: analysis of the National Cancer Data Base, 2006–2014. *Cancer*. 2018;124(5):998-1007. doi:10.1002/cncr.31155

- Lai Y, Wang C, Civan JM, et al. Effects of cancer stage and treatment differences on racial disparities in survival from colon cancer:
 a United States population-based study. *Gastroenterology*. 2016; 150(5):1135-1146. doi:10.1053/j.gastro.2016.01.030
- Booth CM, Li G, Zhang-Salomons J, Mackillop WJ. The impact of socioeconomic status on stage of cancer at diagnosis and survival: a population-based study in Ontario, Canada. Cancer. 2010; 116(17):4160-4167. doi:10.1002/cncr.25427
- Aaronson D, Hartley D, Mazumder B. The effects of the 1930s HOLC "redlining" maps. Am Econ J. 2021;13(4):355-392. doi:10. 1257/pol.20190414
- Dik VK, Aarts MJ, Van Grevenstein WMU, et al. Association between socioeconomic status, surgical treatment and mortality in patients with colorectal cancer. *Br J Surg.* 2014;101(9):1173-1182. doi:10.1002/bjs.9555
- Bristow RE, Chang J, Ziogas A, Randall LM, Anton-Culver H. Highvolume ovarian cancer care: survival impact and disparities in access for advanced-stage disease. *Gynecol Oncol.* 2014;132(2):403-410. doi:10.1016/j.ygyno.2013.12.017
- van Ravesteyn NT, Schechter CB, Near AM, et al. Race-specific impact of natural history, mammography screening, and adjuvant treatment on breast cancer mortality rates in the United States. Cancer Epidemiol Biomarkers Prev. 2011;20(1):112-122. doi:10. 1158/1055-9965.epi-10-0944
- McCarthy AM, Dumanovsky T, Visvanathan K, Kahn AR, Schymura MJ. Racial/ethnic and socioeconomic disparities in mortality among women diagnosed with cervical cancer in New York City, 1995– 2006. Cancer Causes Control. 2010;21(10):1645-1655. doi:10. 1007/s10552-010-9593-7
- Nardone A, Chiang J, Corburn J. Historic redlining and urban health today in US cities. *Environ Justice*. 2020;13(4):109-119. doi: 10.1089/env.2020.0011
- Krieger N, Wright E, Chen JT, Waterman PD, Huntley ER, Arcaya M. Cancer stage at diagnosis, historical redlining, and current neighborhood characteristics: Breast, cervical, lung, and colorectal cancers, Massachusetts, 2001–2015. Am J Epidemiol. 2020;189(10): 1065-1075. doi:10.1093/aje/kwaa045
- Miller-Kleinhenz JM, Barber LE, Maliniak ML, et al. Historical redlining, persistent mortgage discrimination, and race in breast cancer outcomes. JAMA Netw Open. 2024;7(2):e2356879. doi:10. 1001/jamanetworkopen.2023.56879
- Bikomeye JC, Zhou Y, McGinley EL, et al. Historical redlining and breast cancer treatment and survival among older women in the United States. J Natl Cancer Inst. 2023;115(6):652-661. doi:10. 1093/jnci/djad034
- Siegel RL, Jemal A, Wender RC, Gansler T, Ma J, Brawley OW. An assessment of progress in cancer control. CA Cancer J Clin. 2018; 68(5):329-339. doi:10.3322/caac.21460
- Bevel MS, Tsai MH, Parham A, Andrzejak SE, Jones S, Moore JX. Association of food deserts and food swamps with obesity-related cancer mortality in the US. JAMA Oncol. 2023;9(7):909-916. doi:10. 1001/jamaoncol.2023.0634
- Fong AJ, Lafaro K, Ituarte PHG, Fong Y. Association of living in urban food deserts with mortality from breast and colorectal cancer. Ann Surg Oncol. 2021;28(3):1311-1319. doi:10.1245/ s10434-020-09049-6
- Cheng E, Soulos PR, Irwin ML, et al. Neighborhood and individual socioeconomic disadvantage and survival among patients with nonmetastatic common cancers. JAMA Netw Open. 2021;4(12): e2139593. doi:10.1001/jamanetworkopen.2021.39593

- Cheng YJ, Tsai J, Cornelius ME, Mahoney M, Neff LJ. Sociodemographic and temporal differences in menthol cigarette use Among US adults who smoke, 1999–2018. Prev Chronic Dis. 2024;21: 230291. doi:10.5888/pcd21.230291
- Goodwin RD, Ganz O, Weinberger AH, Smith PH, Wyka K, Delnevo CD. Menthol cigarette use among adults who smoke cigarettes, 2008–2020: rapid growth and widening inequities in the United States. Nicotine Tob Res. 2023;25(4):692-698. doi:10.1093/ntr/ ntac214
- Villanti AC, Collins LK, Niaura RS, Gagosian SY, Abrams DB. Menthol cigarettes and the public health standard: a systematic review. BMC Public Health. 2017;17(1):983. doi:10.1186/s12889-017-4987-z
- Yu M, Liu L, Gibson JT, et al. Assessing racial, ethnic, and nativity disparities in US cancer mortality using a new integrated platform. J Natl Cancer Inst. 2024;116(7):1145-1157. doi:10.1093/jnci/ djae052
- Guadamuz JS, Wang X, Ryals CA, et al. Socioeconomic status and inequities in treatment initiation and survival among patients with cancer, 2011–2022. JNCI Cancer Spectr. 2023;7(5):pkad058. doi:10. 1093/jncics/pkad058
- Zavala VA, Bracci PM, Carethers JM, et al. Cancer health disparities in racial/ethnic minorities in the United States. Br J Cancer. 2021;124(2):315-332. doi:10.1038/s41416-020-01038-6
- Ellis L, Canchola AJ, Spiegel D, Ladabaum U, Haile R, Gomez SL. Racial and ethnic disparities in cancer survival: the contribution of tumor, sociodemographic, institutional, and neighborhood characteristics. J Clin Oncol. 2018;36(1):25-33. doi:10.1200/jco.2017.74. 2049
- Bui A, Yang L, Myint A, May FP. Race, ethnicity, and socioeconomic status are associated with prolonged time to treatment after a diagnosis of colorectal cancer: a large population-based study. *Gastroenterology*. 2021;160(4):1394-1396.e3. doi:10.1053/j.gastro. 2020.10.010
- Jemal A, Robbins AS, Lin CC, et al. Factors that contributed to black-white disparities in survival among nonelderly women with breast cancer between 2004 and 2013. J Clin Oncol. 2018;36(1):14-24. doi:10.1200/jco.2017.73.7932
- Tramontano AC, Chen Y, Watson TR, Eckel A, Hur C, Kong CY. Racial/ethnic disparities in colorectal cancer treatment utilization and phase-specific costs, 2000–2014. PLoS One. 2020;15(4): e0231599. doi:10.1371/journal.pone.0231599
- Riviere P, Luterstein E, Kumar A, et al. Survival of African American and non-Hispanic white men with prostate cancer in an equalaccess health care system. *Cancer*. 2020;126(8):1683-1690. doi: 10.1002/cncr.32666
- Williams CD, Alpert N, Redding TS IV, et al. Racial differences in treatment and survival among veterans and non-veterans with stage I NSCLC: an evaluation of Veterans Affairs and SEER– Medicare populations. *Cancer Epidemiol Biomarkers Prev.* 2020; 29(1):112-118. doi:10.1158/1055-9965.epi-19-0245
- Cole AP, Herzog P, Iyer HS, et al. Racial differences in the treatment and outcomes for prostate cancer in Massachusetts. *Cancer*. 2021;127(15):2714-2723. doi:10.1002/cncr.33564
- Kucera CW, Tian C, Tarney CM, et al. Factors associated with survival disparities between non-Hispanic black and white patients with uterine cancer. JAMA Netw Open. 2023;6(4):e238437. doi:10. 1001/jamanetworkopen.2023.8437
- 64. Division of Diabetes Translation, National Center for Chronic Disease Prevention and Health Promotion (U.S.). National diabetes statistics report, 2020: estimates of diabetes and its burden in the United States. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention; 2020. Accessed October 20, 2024. https://stacks.cdc.gov/view/cdc/85309
- 65. Lam C, Cronin K, Ballard R, Mariotto A. Differences in cancer survival among white and black cancer patients by presence of

- diabetes mellitus: estimations based on SEER-Medicare-linked data resource. *Cancer Med.* 2018;7(7):3434-3444. doi:10.1002/cam4.1554
- Tadros M, Mago S, Miller D, Ungemack JA, Anderson JC, Swede H. The rise of proximal colorectal cancer: a trend analysis of subsite specific primary colorectal cancer in the SEER database. *Ann Gastroenterol.* 2021;34(4):559-567. doi:10.20524/aog.2021.0608
- McCarthy AM, Friebel-Klingner T, Ehsan S, et al. Relationship of established risk factors with breast cancer subtypes. *Cancer Med*. 2021;10(18):6456-6467. doi:10.1002/cam4.4158
- Conti DV, Darst BF, Moss LC, et al. Trans-ancestry genome-wide association meta-analysis of prostate cancer identifies new susceptibility loci and informs genetic risk prediction. *Nat Genet*. 2021; 53(1):65-75. doi:10.1038/s41588-020-00748-0
- Al Hadidi S, Mims M, Miller-Chism CN, Kamble R. Participation of African American persons in clinical trials supporting U.S. Food and Drug Administration approval of cancer drugs. *Ann Intern Med.* 2020;173(4):320-322. doi:10.7326/m20-0410
- Nazha B, Mishra M, Pentz R, Owonikoko TK. Enrollment of racial minorities in clinical trials: old problem assumes new urgency in the age of immunotherapy. Am Soc Clin Oncol Educ Book. 2019;39:3-10. doi:10.1200/edbk_100021
- Grant SR, Lin TA, Miller AB, et al. Racial and ethnic disparities among participants in US-based phase 3 randomized cancer clinical trials. JNCI Cancer Spectr. 2020;4(5):pkaa060. doi:10.1093/jncics/ pkaa060
- 72. Surveillance Epidemiology and End Results (SEER) Program. SEER*Explorer: An interactive website for SEER cancer statistics (data sources: SEER incidence data, November 2023 submission [1975–2021]; SEER 22 registries, 2024). Surveillance Research Program, National Cancer Institute, Division of Cancer Control and Population Sciences, Surveillance Research Program; 2024. Accessed October 20, 2024. https://seer.cancer.gov/statistics-network/explorer/
- Giaquinto AN, Sung H, Newman LA, et al. Breast cancer statistics 2024. CA Cancer J Clin. 2024;74(6):477-495. doi:10.3322/caac. 21863
- Hendrick RE, Monticciolo DL, Biggs KW, Malak SF. Age distributions of breast cancer diagnosis and mortality by race and ethnicity in US women. Cancer. 2021;127(23):4384-4392. doi:10.1002/cncr. 33846
- Pfeiffer RM, Webb-Vargas Y, Wheeler W, Gail MH. Proportion of US trends in breast cancer incidence attributable to long-term changes in risk factor distributions. *Cancer Epidemiol Biomarkers Prev.* 2018;27(10):1214-1222. doi:10.1158/1055-9965.epi-18-0098
- Berry DA, Cronin KA, Plevritis SK, et al. Effect of screening and adjuvant therapy on mortality from breast cancer. N Engl J Med. 2005;353(17):1784-1792. doi:10.1056/neimoa050518
- Miller AB, et al. Canadian National Breast Screening Study-2: 13year results of a randomized trial in women aged 50-59 years. J Natl Cancer Inst. 2000;92(18):1490-1499. doi:10.1093/jnci/92.18.
- Lubarsky M, Hernandez AE, Collie BL, et al. Does structural racism impact receipt of NCCN guideline-concordant breast cancer treatment? *Breast Cancer Res Treat*. 2024;206(3):509-517. doi:10. 1007/s10549-024-07245-6
- Cho B, Han Y, Lian M, et al. Evaluation of racial/ethnic differences in treatment and mortality among women with triple-negative breast cancer. JAMA Oncol. 2021;7(7):1016-1023. doi:10.1001/ jamaoncol.2021.1254
- Molina Y, Silva A, Rauscher GH. Racial/ethnic disparities in time to a breast cancer diagnosis: the mediating effects of health care facility factors. *Med Care*. 2015;53(10):872-878. doi:10.1097/mlr. 0000000000000417

81. Abraham HG, Xia Y, Mukherjee B, Merajver SD. Incidence and survival of inflammatory breast cancer between 1973 and 2015 in the SEER database. *Breast Cancer Res Treat*. 2021;185(1):229-238. doi:10.1007/s10549-020-05938-2

- Warnecke RB, Campbell RT, Vijayasiri G, Barrett RE, Rauscher GH. Multilevel examination of health disparity: the role of policy implementation in neighborhood context, in patient resources, and in healthcare facilities on later stage of breast cancer diagnosis. Cancer Epidemiol Biomarkers Prev. 2019;28(1):59-66. doi:10.1158/ 1055-9965.epi-17-0945
- 83. Siddharth S, Sharma D. Racial disparity and triple-negative breast cancer in African-American women: a multifaceted affair between obesity, biology, and socioeconomic determinants. *Cancers (Basel)*. 2018;10(12):514. doi:10.3390/cancers10120514
- 84. Ko NY, Hong S, Winn RA, Calip GS. Association of insurance status and racial disparities with the detection of early-stage breast cancer. *JAMA Oncol.* 2020;6(3):385-392. doi:10.1001/jamaoncol. 2019.5672
- Burgess DJ, Powell AA, Griffin JM, Partin MR. Race and the validity of self-reported cancer screening behaviors: development of a conceptual model. *Prev Med.* 2009;48(2):99-107. doi:10.1016/j. ypmed.2008.11.014
- Alsheik N, Blount L, Qiong Q, et al. Outcomes by race in breast cancer screening with digital breast tomosynthesis versus digital mammography. J Am Coll Radiol. 2021;18(7):906-918. doi:10.1016/ j.jacr.2020.12.033
- Miller-Kleinhenz JM, Collin LJ, Seidel R, et al. Racial disparities in diagnostic delay among women with breast cancer. J Am Coll Radiol. 2021;18(10):1384-1393. doi:10.1016/j.jacr.2021.06.019
- Emerson MA, Golightly YM, Aiello AE, et al. Breast cancer treatment delays by socioeconomic and health care access latent classes in Black and White women. Cancer. 2020;126(22):4957-4966. doi: 10.1002/cncr.33121
- 89. Barreto-Coelho P, Cerbon D, Schlumbrecht M, Parra CM, Hurley J, George SHL. Differences in breast cancer outcomes amongst black US-born and Caribbean-born immigrants. *Breast Cancer Res Treat*. 2019;178(2):433-440. doi:10.1007/s10549-019-05403-9
- Sung H, DeSantis CE, Fedewa SA, Kantelhardt EJ, Jemal A. Breast cancer subtypes among Eastern-African-born Black women and other Black women in the United States. *Cancer.* 2019;125(19): 3401-3411. doi:10.1002/cncr.32293
- 91. Siegel RL, Miller KD, Goding Sauer A, et al. Colorectal cancer statistics, 2020. CA Cancer J Clin. 2020;70(3):145-164. doi:10. 3322/caac.21601
- Siegel R, Wagle NS, Cercek A, Smith RA, Jemal A. Colorectal cancer statistics, 2023. CA Cancer J Clin. 2023;73(3):21-254. doi:10.3322/ caac.21772
- Davidson KW, Barry MJ, Mangione CM, et al. Screening for colorectal cancer: US Preventive Services Task Force recommendation statement. JAMA. 2021;325(19):1965-1977. doi:10.1001/jama. 2021.6238
- 94. World Cancer Research Fund International/American Institute for Cancer Research. Continuous Update Project: Diet, Nutrition, Physical Activity and Colorectal Cancer. World Cancer Research Fund/American Institute for Cancer Research; 2018.
- Islami F, Marlow EC, Thomson B, et al. Proportion and number of cancer cases and deaths attributable to potentially modifiable risk factors in the United States, 2019. CA Cancer J Clin. 2024;74(5): 405-432. doi:10.3322/caac.21858
- Ho JY, Elo IT. The contribution of smoking to black-white differences in U.S. mortality. *Demography*. 2013;50(2):545-568. doi:10. 1007/s13524-012-0159-z
- August KJ, Sorkin DH. Racial/ethnic disparities in exercise and dietary behaviors of middle-aged and older adults. J Gen Intern Med. 2011;26(3):245-250. doi:10.1007/s11606-010-1514-7

 Ames BN, Grant WB, Willett WC. Does the high prevalence of vitamin D deficiency in African Americans contribute to health disparities? *Nutrients*. 2021;13(2):499. doi:10.3390/nu13020499

- Kim Y, Chang Y, Cho Y, et al. Serum 25-hydroxyvitamin D levels and risk of colorectal cancer: an age-stratified analysis. Gastroenterology. 2023;165(4):920-931. doi:10.1053/j.gastro.2023.06.029
- McCullough ML, Zoltick ES, Weinstein SJ, et al. Circulating vitamin D and colorectal cancer risk: an international pooling project of 17 cohorts. J Natl Cancer Inst. 2018;111(2):158-169. doi:10.1093/jnci/ djy087
- American Cancer Society. Cancer Prevention & Early Detection Facts
 Figures 2023–2024. American Cancer Society; 2024.
- Sineshaw HM, Ng K, Flanders WD, Brawley OW, Jemal A. Factors that contribute to differences in survival of black vs white patients with colorectal cancer. *Gastroenterology*. 2018;154(4):906-915.e7. doi:10.1053/j.gastro.2017.11.005
- Ulanja MB, Ntafam C, Beutler BD, et al. Race, age, and sex differences on the influence of obesity on colorectal cancer sidedness and mortality: a national cross-sectional study. J Surg Oncol. 2023; 127(1):109-118. doi:10.1002/jso.27096
- Snyder RA, He J, Le-Rademacher J, et al. Racial differences in survival and response to therapy in patients with metastatic colorectal cancer: a secondary analysis of CALGB/SWOG 80405 (Alliance A151931). Cancer. 2021;127(20):3801-3808. doi:10. 1002/cncr.33649
- Yousef M, Yousef A, Chowdhury S, et al. Molecular, socioeconomic, and clinical factors affecting racial and ethnic disparities in colorectal cancer survival. *JAMA Oncol.* 2024;10(11):1519. doi:10. 1001/jamaoncol.2024.3666
- 106. Pan HY, Walker GV, Grant SR, et al. Insurance status and racial disparities in cancer-specific mortality in the United States: a population-based analysis. Cancer Epidemiol Biomarkers Prev. 2017; 26(6):869-875. doi:10.1158/1055-9965.epi-16-0976
- May FP, Glenn BA, Crespi CM, Ponce N, Spiegel BM, Bastani R. Decreasing black-white disparities in colorectal cancer incidence and stage at presentation in the United States. *Cancer Epidemiol Biomarkers Prev.* 2017;26(5):762-768. doi:10.1158/1055-9965.epi-16-0834
- Silber JH, Rosenbaum PR, Ross RN, et al. Racial disparities in colon cancer survival: a matched cohort study. Ann Intern Med. 2014; 161(12):845-854. doi:10.7326/m14-0900
- Carethers JM, Doubeni CA. Causes of socioeconomic disparities in colorectal cancer and intervention framework and strategies. Gastroenterology. 2020;158(2):354-367. doi:10.1053/j.gastro.2019. 10.029
- Eaglehouse YL, Georg MW, Shriver CD, Zhu K. Racial comparisons in timeliness of colon cancer treatment in an equal-access health system. J Natl Cancer Inst. 2019;112(4):410-417. doi:10.1093/jnci/ diz135
- 111. Gentzke AS, Wang TW, Jamal A, et al. Tobacco product use among middle and high school students—United States, 2020. MMWR Morb Mortal Wkly Rep. 2020;69(50):1881-1888. doi:10.15585/ mmwr.mm6950a1
- 112. Johnston LD, O'Malley PM, Miech RA, et al. Demographic Subgroup Trends among Adolescents in the Use of Various Licit and Illicit Drugs, 1975–2016. Monitoring the Future Occasional Paper 88. Institute for Social Research, The University of Michigan; 2017. Accessed October 20, 2024. https://monitoringthefuture.org/wp-content/ uploads/2022/08/mtf-occ88.pdf
- 113. Blom EF, ten Haaf K, Arenberg DA, de Koning HJ. Disparities in receiving guideline-concordant treatment for lung cancer in the United States. Ann Am Thorac Soc. 2020;17(2):186-194. doi:10. 1513/annalsats.201901-094oc
- Check DK, Albers KB, Uppal KM, et al. Examining the role of access to care: racial/ethnic differences in receipt of resection for early-

- stage non-small cell lung cancer among integrated system members and non-members. *Lung Cancer*. 2018;125:51-56. doi:10. 1016/j.lungcan.2018.09.006
- Soneji S, Tanner NT, Silvestri GA, Lathan CS, Black W. Racial and ethnic disparities in early-stage lung cancer survival. *Chest.* 2017; 152(3):587-597. doi:10.1016/j.chest.2017.03.059
- Krist AH, Davidson KW, Mangione CM, et al. Screening for lung cancer: US Preventive Services Task Force recommendation statement. JAMA. 2021;325(10):962-970. doi:10.1001/jama.2021.
 1117
- 117. Ritzwoller DP, Meza R, Carroll NM, et al. Evaluation of population-level changes associated with the 2021 US Preventive Services Task Force lung cancer screening recommendations in community-based health care systems. JAMA Netw Open. 2021;4(10): e2128176. doi:10.1001/jamanetworkopen.2021.28176
- Landy R, Young CD, Skarzynski M, et al. Using prediction models to reduce persistent racial and ethnic disparities in the draft 2020 USPSTF lung cancer screening guidelines. J Natl Cancer Inst. 2021; 113(11):1590-1594. doi:10.1093/jnci/djaa211
- Wolf AMD, Oeffinger KC, Shih TY, et al. Screening for lung cancer:
 2023 guideline update from the American Cancer Society. CA
 Cancer J Clin. 2024;74(1):50-81. doi:10.3322/caac.21811
- Howlader N, Forjaz G, Mooradian MJ, et al. The effect of advances in lung-cancer treatment on population mortality. N Engl J Med. 2020;383(7):640-649. doi:10.1056/nejmoa1916623
- Jones GS, Baldwin DR. Recent advances in the management of lung cancer. Clin Med (Lond). 2018;18(suppl 2):s41-s46. doi:10.7861/ clinmedicine.18-2-s41
- 122. Dwyer LL, Vadagam P, Vanderpoel J, Cohen C, Lewing B, Tkacz J. Disparities in lung cancer: a targeted literature review examining lung cancer screening, diagnosis, treatment, and survival outcomes in the United States. J Racial Ethn Health Disparities. 2024;11(3): 1489-1500. doi:10.1007/s40615-023-01625-2
- Lauby-Secretan B, Scoccianti C, Loomis D, Grosse Y, Bianchini F, Straif K. Body fatness and cancer—viewpoint of the IARC Working Group. N Engl J Med. 2016;375(8):794-798. doi:10.1056/nejmsr16 06602
- Sonderman JS, Bethea TN, Kitahara CM, et al. Multiple myeloma mortality in relation to obesity among African Americans. J Natl Cancer Inst. 2016;108(10):djw120. doi:10.1093/jnci/djw120
- 125. Marinac CR, Birmann BM, Lee IM, et al. Body mass index throughout adulthood, physical activity, and risk of multiple myeloma: a prospective analysis in three large cohorts. Br J Cancer. 2018;118(7):1013-1019. doi:10.1038/s41416-018-0010-4
- Kyle RA, Therneau TM, Rajkumar SV, et al. A long-term study of prognosis in monoclonal gammopathy of undetermined significance. N Engl J Med. 2002;346(8):564-569. doi:10.1056/nejmoa011 33202
- 127. Landgren O, Graubard BI, Kumar S, et al. Prevalence of myeloma precursor state monoclonal gammopathy of undetermined significance in 12,372 individuals 10-49 years old: a population-based study from the National Health and Nutrition Examination Survey. Blood Cancer J. 2017;7(10):e618. doi:10.1038/bcj.2017.97
- Marinac CR, Ghobrial IM, Birmann BM, Soiffer J, Rebbeck TR. Dissecting racial disparities in multiple myeloma. Blood Cancer J. 2020;10(2):19. doi:10.1038/s41408-020-0284-7
- 129. Schinasi LH, Brown EE, Camp NJ, et al. Multiple myeloma and family history of lymphohaematopoietic cancers: results from the International Multiple Myeloma Consortium. *Br J Haematol.* 2016; 175(1):87-101. doi:10.1111/bih.14199
- Kumar SK, Dispenzieri A, Lacy MQ, et al. Continued improvement in survival in multiple myeloma: changes in early mortality and outcomes in older patients. *Leukemia*. 2014;28(5):1122-1128. doi: 10.1038/leu.2013.313

- 131. Sonneveld P, De Wit E, Moreau P. How have evolutions in strategies for the treatment of relapsed/refractory multiple myeloma translated into improved outcomes for patients? Crit Rev Oncol Hematol. 2017;112:153-170. doi:10.1016/j.critrevonc.2017.02.007
- Kazandjian D, Hill E, Hultcrantz M, et al. Molecular underpinnings of clinical disparity patterns in African American vs. Caucasian American multiple myeloma patients. *Blood Cancer J.* 2019;9(2):15. doi:10.1038/s41408-019-0177-9
- Greenberg AJ, Philip S, Paner A, et al. Racial differences in primary cytogenetic abnormalities in multiple myeloma: a multi-center study. *Blood Cancer J.* 2015;5(1):e271. doi:10.1038/bcj.2014.91
- Jayakrishnan TT, Bakalov V, Chahine Z, Lister J, Wegner RE, Sadashiv S. Disparities in the enrollment to systemic therapy and survival for patients with multiple myeloma. *Hematol Oncol Stem Cell Ther*. 2021;14(3):218-230. doi:10.1016/j.hemonc.2020.09.005
- Watkins Bruner D, Moore D, Parlanti A, Dorgan J, Engstrom P. Relative risk of prostate cancer for men with affected relatives: systematic review and meta-analysis. *Int J Cancer*. 2003;107(5): 797-803. doi:10.1002/ijc.11466
- 136. Oh M, Alkhushaym N, Fallatah S, et al. The association of BRCA1 and BRCA2 mutations with prostate cancer risk, frequency, and mortality: a meta-analysis. *Prostate*. 2019;79(8):880-895. doi:10. 1002/pros.23795
- 137. World Cancer Research Fund International/American Institute for Cancer Research. Continuous Update Project Expert Report: Diet, Nutrition, Physical Activity and Prostate Cancer. World Cancer Research Fund/American Institute for Cancer Research; 2018.
- 138. Vidal AC, Freedland SJ. Obesity and prostate cancer: a focused update on active surveillance, race, and molecular subtyping. *Eur Urol.* 2017;72(1):78-83. doi:10.1016/j.eururo.2016.10.011
- Gansler T, Shah R, Wang Y, et al. Smoking and prostate cancerspecific mortality after diagnosis in a large prospective cohort. Cancer Epidemiol Biomarkers Prev. 2018;27(6):665-672. doi:10. 1158/1055-9965.epi-17-0890
- 140. Barrington WE, Schenk JM, Etzioni R, et al. Difference in association of obesity with prostate cancer risk between US African American and non-Hispanic white men in the Selenium and Vitamin E Cancer Prevention Trial (SELECT). JAMA Oncol. 2015;1(3):342-349. doi:10.1001/jamaoncol.2015.0513
- 141. Murphy AB, Akereyeni F, Nyame YA, et al. Smoking and prostate cancer in a multi-ethnic cohort. *Prostate*. 2013;73(14):1518-1528. doi:10.1002/pros.22699
- Shoag JE, Nyame YA, Gulati R, Etzioni R, Hu JC. Reconsidering the trade-offs of prostate cancer screening. N Engl J Med. 2020; 382(25):2465-2468. doi:10.1056/nejmsb2000250
- Hu JC, Nguyen P, et al. Increase in prostate cancer distant metastases at diagnosis in the United States. JAMA Oncol. 2017;3(5): 705-707. doi:10.1001/jamaoncol.2016.5465
- 144. Miller EA, Pinsky PF, Black A, Andriole GL, Pierre-Victor D. Secondary prostate cancer screening outcomes by race in the Prostate, Lung, Colorectal, and Ovarian (PLCO) Screening Trial. Prostate. 2018;78(11):830-838. doi:10.1002/pros.23540
- McGinley KF, Tay KJ, Moul JW. Prostate cancer in men of African origin. Nat Rev Urol. 2016;13(2):99-107. doi:10.1038/nrurol. 2015.298
- 146. Lee DJ, Barocas DA, Zhao Z, et al. Contemporary prostate cancer radiation therapy in the United States: patterns of care and compliance with quality measures. *Pract Radiat Oncol.* 2018;8(5): 307-316. doi:10.1016/j.prro.2018.04.009
- Spencer BA, Miller DC, Litwin MS, et al. Variations in quality of care for men with early-stage prostate cancer. *J Clin Oncol*. 2008; 26(22):3735-3742. doi:10.1200/jco.2007.13.2555
- Bernstein A, Talwar R, Handorf E, et al. PD03-02 Racial disparities in prostate cancer treatment in a multi-institutional regional

collaborative [abstract]. *J Urol.* 2021;206(suppl 3):e43. doi:10. 1097/ju.000000000001967.02

- 149. McKay RR, Sarkar RR, Kumar A, et al. Outcomes of black men with prostate cancer treated with radiation therapy in the Veterans Health Administration. *Cancer*. 2021;127(3):403-411. doi:10.1002/cncr.33224
- Dess RT, Hartman HE, Mahal BA, et al. Association of black race with prostate cancer-specific and other-cause mortality. JAMA Oncol. 2019;5(7):975-983. doi:10.1001/jamaoncol.2019.0826
- Rude T, Walter D, Ciprut S, et al. Interaction between race and prostate cancer treatment benefit in the Veterans Health Administration. *Cancer*. 2021;127(21):3985-3990. doi:10.1002/cncr. 33643
- 152. Brawley OW, Ankerst DP, Thompson IM. Screening for prostate cancer. CA Cancer J Clin. 2009;59(4):264-273. doi:10.3322/caac. 20026
- Chu KC, Tarone RE, Freeman HP. Trends in prostate cancer mortality among black men and white men in the United States. *Cancer*. 2003;97(6):1507-1516. doi:10.1002/cncr.11212
- Cooperberg MR, Grossfeld GD, Lubeck DP, Carroll PR. National practice patterns and time trends in androgen ablation for localized prostate cancer. J Natl Cancer Inst. 2003;95(13):981-989. doi: 10.1093/jnci/95.13.981
- 155. Hankey BF, Feuer EJ, Clegg LX, et al. Cancer surveillance series: interpreting trends in prostate cancer—part I: evidence of the effects of screening in recent prostate cancer incidence, mortality, and survival rates. J Natl Cancer Inst. 1999;91(12):1017-1024. doi: 10.1093/jnci/91.12.1017
- 156. Risdon EN, Chau CH, Price DK, Sartor O, Figg WD. PARP inhibitors and prostate cancer: to infinity and beyond BRCA. *Oncologist*. 2021;26(1):e115-e129. doi:10.1634/theoncologist.2020-0697
- 157. Leyva B, Persoskie A, Ottenbacher A, et al. Do men receive information required for shared decision making about PSA testing? Results from a national survey. *J Cancer Educ.* 2016;31(4):693-701. doi:10.1007/s13187-015-0870-8
- 158. Varaprasad GL, Gupta VK, Prasad K, et al. Recent advances and future perspectives in the therapeutics of prostate cancer. Exp Hematol Oncol. 2023;12(1):80. doi:10.1186/s40164-023-00444-9
- 159. Cooperberg MR, Meeks W, Fang R, Gaylis FD, Catalona WJ, Makarov DV. Time trends and variation in the use of active surveillance for management of low-risk prostate cancer in the US. JAMA Netw Open. 2023;6(3):e231439. doi:10.1001/jamanetwork open.2023.1439
- Wang I, Song L, Wang BY, Kalebasty AR, Uchio E, Zi X. Prostate cancer immunotherapy: a review of recent advancements with novel treatment methods and efficacy. Am J Clin Exp Urol. 2022; 10(4):210-233.
- Washington SL III, Jeong CW, Lonergan PE, et al. Regional variation in active surveillance for low-risk prostate cancer in the US. JAMA Netw Open. 2020;3(12):e2031349. doi:10.1001/jamanetworkopen. 2020.31349
- Nyame YA, Gulati R, Heijnsdijk EAM, et al. The impact of intensifying prostate cancer screening in black men: a model-based analysis. J Natl Cancer Inst. 2021;113(10):1336-1342. doi:10.1093/jnci/djab072
- 163. Bliton JN, Parides M, Muscarella P, Papalezova KT, In H. Understanding racial disparities in gastrointestinal cancer outcomes: lack of surgery contributes to lower survival in African American patients. Cancer Epidemiol Biomarkers Prev. 2021;30(3):529-538. doi: 10.1158/1055-9965.epi-20-0950
- Brown H, Cantrell S, Tang H, Epplein M, Garman KS. Racial differences in Helicobacter pylori prevalence in the US: a systematic review. Gastro Hep Adv. 2022;1(5):857-868. doi:10.1016/j.gastha. 2022.06.001

- Varga MG, Butt J, Blot WJ, et al. Racial differences in Helicobacter pylori CagA sero-prevalence in a consortium of adult cohorts in the United States. Cancer Epidemiol Biomarkers Prev. 2020;29(10):2084-2092. doi:10.1158/1055-9965.epi-20-0525
- North American Association of Central Cancer Registries (NAACCR). ICD-O-3 Coding Updates. NAACCR; 2024. Accessed October 18, 2024. https://www.naaccr.org/icdo3/
- 167. Alvarez CS, Piazuelo MB, Fleitas-Kanonnikoff T, Ruhl J, Pérez-Fidalgo JA, Camargo MC. Incidence and survival outcomes of gastrointestinal stromal tumors. JAMA Netw Open. 2024;7(8): e2428828. doi:10.1001/jamanetworkopen.2024.28828
- Islami F, Fedewa SA, Jemal A. Trends in cervical cancer incidence rates by age, race/ethnicity, histological subtype, and stage at diagnosis in the United States. *Prev Med.* 2019;123:316-323. doi: 10.1016/j.ypmed.2019.04.010
- 169. Clarke MA, Risley C, Stewart MW, et al. Age-specific prevalence of human papillomavirus and abnormal cytology at baseline in a diverse statewide prospective cohort of individuals undergoing cervical cancer screening in Mississippi. Cancer Med. 2021;10(23): 8641-8650. doi:10.1002/cam4.4340
- Lei J, Ploner A, Elfström KM, et al. HPV vaccination and the risk of invasive cervical cancer. N Engl J Med. 2020;383(14):1340-1348. doi:10.1056/nejmoa1917338
- 171. Saslow D, Andrews KS, Manassaram-Baptiste D, Smith RA, Fontham ETH. Human papillomavirus vaccination 2020 guideline update: American Cancer Society guideline adaptation. CA Cancer J Clin. 2020;70(4):274-280. doi:10.3322/caac.21616
- 172. Fontham ETH, Wolf AMD, Church TR, et al. Cervical cancer screening for individuals at average risk: 2020 guideline update from the American Cancer Society. CA Cancer J Clin. 2020;70(5): 321-346. doi:10.3322/caac.21628
- 173. Vidal AC, Smith JS, Valea F, et al. HPV genotypes and cervical intraepithelial neoplasia in a multiethnic cohort in the southeastern USA. *Cancer Causes Control*. 2014;25(8):1055-1062. doi:10.1007/s10552-014-0406-2
- 174. Churilla T, Egleston B, Dong Y, et al. Disparities in the management and outcome of cervical cancer in the United States according to health insurance status. *Gynecol Oncol.* 2016;141(3):516-523. doi: 10.1016/j.ygyno.2016.03.025
- Simard EP, Fedewa S, Ma J, Siegel R, Jemal A. Widening socioeconomic disparities in cervical cancer mortality among women in 26 states, 1993–2007. Cancer. 2012;118(20):5110-5116. doi:10. 1002/cncr.27606
- Brookfield KF, Cheung MC, Lucci J, Fleming LE, Koniaris LG. Disparities in survival among women with invasive cervical cancer: a problem of access to care. Cancer. 2009;115(1):166-178. doi:10.1002/cncr.24007
- 177. Ford S, Tarraf W, Williams KP, Roman LA, Leach R. Differences in cervical cancer screening and follow-up for black and white women in the United States. *Gynecol Oncol.* 2021;160(2):369-374. doi:10. 1016/j.ygyno.2020.11.027
- 178. Holt HK, Peterson CE, MacLaughlan David S, et al. Mediation of racial and ethnic inequities in the diagnosis of advanced-stage cervical cancer by insurance status. *JAMA Netw Open.* 2023; 6(3):e232985. doi:10.1001/jamanetworkopen.2023.2985
- 179. Bruce SF, Joshi TV, Chervoneva I, et al. Disparities among cervical cancer patients receiving brachytherapy. Obstet Gynecol. 2019; 134(3):559-569. doi:10.1097/aog.000000000003401
- Markt SC, Tang T, Cronin AM, et al. Insurance status and cancer treatment mediate the association between race/ethnicity and cervical cancer survival. *PLoS One*. 2018;13(2):e0193047. doi:10. 1371/journal.pone.0193047
- 181. Pinheiro PS, Medina HN, Koru-Sengul T, et al. Endometrial cancer type 2 incidence and survival disparities within subsets of the US

- black population. Front Oncol. 2021;11:699577. doi:10.3389/fonc. 2021.699577
- Clarke MA, Devesa SS, Hammer A, Wentzensen N. Racial and ethnic differences in hysterectomy-corrected uterine corpus cancer mortality by stage and histologic subtype. *JAMA Oncol.* 2022; 8(6):895-903. doi:10.1001/jamaoncol.2022.0009
- Sud S, Holmes J, Eblan M, Chen R, Jones E. Clinical characteristics associated with racial disparities in endometrial cancer outcomes: a Surveillance, Epidemiology and End Results analysis. Gynecol Oncol. 2018;148(2):349-356. doi:10.1016/j.ygyno.2017. 12.021
- 184. Baskovic M, Lichtensztajn DY, Nguyen T, Karam A, English DP. Racial disparities in outcomes for high-grade uterine cancer: a California Cancer Registry study. Cancer Med. 2018;7(9):4485-4495. doi:10.1002/cam4.1742
- 185. Wijayabahu AT, Shiels MS, Arend RC, Clarke MA. Uterine cancer incidence trends and 5-year relative survival by race/ethnicity and histology among women under 50 years. Am J Obstet Gynecol. 2024;231(5):526.e1-526.e22. doi:10.1016/j.ajog.2024.06.026
- Dubil EA, Tian C, Wang G, et al. Racial disparities in molecular subtypes of endometrial cancer. *Gynecol Oncol.* 2018;149(1):106-116. doi:10.1016/j.ygyno.2017.12.009

How to cite this article: Saka AH, Giaquinto AN, McCullough LE, et al. Cancer statistics for African American and Black people, 2025. *CA Cancer J Clin.* 2025;75(2):111-140. doi:10. 3322/caac.21874