Cancer Statistics for African Americans, 2016: Progress and Opportunities in Reducing Racial Disparities

Carol E. DeSantis, MPH1; Rebecca L. Siegel, MPH2; Ann Goding Sauer, MPH3; Kimberly D. Miller, MPH4; Stacey A. Fedewa, MPH5; Kassandra I. Alcaraz, PhD, MPH6; Ahmedin Jemal, DVM, PhD7

In this article, the American Cancer Society provides the estimated number of new cancer cases and deaths for blacks in the United States and the most recent data on cancer incidence, mortality, survival, screening, and risk factors for cancer. Incidence data are from the National Cancer Institute, the Centers for Disease Control and Prevention, and the North American Association of Central Cancer Registries, and mortality data are from the National Center for Health Statistics. Approximately 189,910 new cases of cancer and 69,410 cancer deaths will occur among blacks in 2016. Although blacks continue to have higher cancer death rates than whites, the disparity has narrowed for all cancers combined in men and women and for lung and prostate cancers in men. In contrast, the racial gap in death rates has widened for breast cancer in women and remained level for colorectal cancer in men. The reduction in overall cancer death rates since the early 1990s translates to the avoidance of more than 300,000 deaths among blacks. In men, incidence rates from 2003 to 2012 decreased for all cancers combined (by 2.0% per year) as well as for the top 3 cancer sites (prostate, lung, and colorectal). In women, overall rates during the corresponding time period remained unchanged, reflecting increasing trends in breast cancer combined with decreasing trends in lung and colorectal cancer rates. Five-year relative survival is lower for blacks than whites for most cancers at each stage of diagnosis. The extent to which these disparities reflect unequal access to health care versus other factors remains an active area of research. Progress in reducing cancer death rates could be accelerated by ensuring equitable access to prevention, early detection, and high-quality treatment. CA Cancer J Clin 2016;66:290-308. © 2016 American Cancer Society.

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Introduction

In the United States, African Americans bear a disproportionate share of the cancer burden, having the highest death rate and shortest survival of any racial or ethnic group for most cancers. The causes of these inequalities are complex and reflect social and economic disparities more than biological differences. For example, in 2014, 26% of blacks, compared with 10% of non-Hispanic whites, were living below the federal poverty level, and 22% of blacks had completed 4 years of college compared with 36% of non-Hispanic whites.1,2 Persons with lower socioeconomic status are more likely to engage in behaviors that increase cancer risk, in part because of marketing strategies that target these populations as well as environmental and community factors, such as fewer opportunities for physical activity and less access to fresh fruits and vegetables. We recognize that race is a social construct; however, because much US health data are reported by race, racial classification remains useful for describing general patterns of health within the nation. Although we use the terms African Americans and blacks interchangeably, the data provided herein are for those identified by black race and exclude those of Hispanic ethnicity when possible. A report on cancer statistics for Hispanics was published previously in this journal.3 Herein, we provide cancer incidence, survival, and mortality statistics for blacks, including the estimated numbers of new cases and deaths in 2016, as well as the prevalence of cancer risk factors and screening uptake. We also estimate the total number of cancer deaths averted among blacks as a result of the decline in cancer death rates since the early 1990s.

1Director, Breast and Gynecological Cancer Surveillance, Surveillance and Health Services Research, American Cancer Society, Atlanta, GA; 2Strategic Director, Surveillance Information Services, Surveillance and Health Services Research, American Cancer Society, Atlanta, GA; 3Epidemiologist, Surveillance and Health Services Research, American Cancer Society, Atlanta, GA; 4Epidemiologist, Surveillance and Health Services Research, American Cancer Society, Atlanta, GA; 5Director, Risk Factor and Screening Surveillance, Surveillance and Health Services Research, American Cancer Society, Atlanta, GA; 6Strategic Director, Health Equities Research, Behavioral Research Center, American Cancer Society, Atlanta, GA; 7Vice President, Surveillance and Health Services Research, American Cancer Society, Atlanta, GA.

Corresponding author: Carol E. DeSantis, MPH, Surveillance and Health Services Research, American Cancer Society, 250 Williams Street NW, Atlanta, GA 30303; carol.desantis@cancer.org

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Materials and Methods

Incidence and Mortality Data

There are two sources for cancer incidence data reported in this article. The Surveillance, Epidemiology, and End Results (SEER) program of the National Cancer Institute (NCI) reports long-term, high-quality, population-based incidence data covering up to 28% of the US population. Long-term incidence trends (1975-2012) were based upon data from the SEER 9 registries (Connecticut, Hawaii, Iowa, New Mexico, Utah, and the metropolitan areas of Atlanta, Detroit, San Francisco-Oakland, and Seattle-Puget Sound), representing approximately 9% of the US population. As of 1992, SEER data have been available for 4 additional SEER registries (Alaska Natives, Los Angeles County, San Jose-Monterey, and rural Georgia), which increase coverage of minority groups, allowing for stratification by race and ethnicity. Delay-adjusted data from these (SEER 13) registries, which represent 14% of the US population, were the source for the annual percent change in incidence from 2003 to 2012. Five-year relative survival rates, stage at diagnosis, and the lifetime probability of developing cancer were based upon data from the SEER 18 registries, which also include data from Greater California, Greater Georgia, Kentucky, Louisiana, and New Jersey and are available from 2000 onward. The probability of developing cancer was calculated using NCI's DevCan software (version 6.7.3). Much of the statistical information presented here was previously published in the SEER Cancer Statistics Review 1975-2012.

The North American Association of Central Cancer Registries (NAACCR) compiles and reports incidence data for 1995 forward from cancer registries that participate in the SEER program or from the Centers for Disease Control and Prevention’s National Program of Cancer Registries. These data approach 100% coverage of the US population in the most recent time period and were the source for the projected new cancer cases in 2016 and incidence rates in the most recent time period (2008-2012). Overall US rates based on data from NAACCR include all states except Arkansas, Minnesota, and Nevada, because these states did not submit data or failed to meet NAACCR high-quality standards for 1 or more years during 2008 through 2012. Some of the data presented here were previously published in volumes 1 and 2 of Cancer in North America: 2008-2012.

Mortality data were obtained from the National Center for Health Statistics as reported by the SEER program. Data are available for whites and blacks beginning in 1969 and by Hispanic ethnicity since 1990. When available, data are presented for non-Hispanic blacks and non-Hispanic whites. All cancer cases and deaths were accessed using SEER*Stat software (version 8.2.1). Population data were obtained from the US Census Bureau. Incidence and death rates were age-standardized to the 2000 US standard population and expressed per 100,000 persons.

FIGURE 1. Leading Sites of New Cancer Cases and Deaths Among Blacks, 2016 Estimates.

Estimates are rounded to the nearest 10 cell and exclude basal cell and squamous cell skin cancers and in situ carcinoma except urinary bladder.
All cancer cases were classified according to the International Classification of Diseases for Oncology. Causes of death were classified according to the International Classification of Diseases. The annual percent change in rates was quantified using NCI’s Joinpoint Regression Program (version 4.2.0.2).

Projected Cancer Cases and Deaths in 2016

The most recent year for which incidence and mortality data are available lags 2 to 4 years behind the current year because of the time required for data collection, compilation, quality control, and dissemination. Therefore, we projected the numbers of new cancer cases and deaths for blacks in the United States in 2016 to provide an estimate of the contemporary cancer burden. The number of invasive cancer cases that occurred each year during 1998 through 2012 was estimated using a 3-step spatiotemporal model based on high-quality incidence data from 49 states and the District of Columbia, representing approximately 94% population coverage (data were lacking for all years for Minnesota and for some years for other states). This method accounts for expected delays in case reporting and considers geographic variations in sociodemographic and lifestyle factors, medical settings, and cancer screening behaviors as predictors of incidence. Finally, a temporal projection method (vector autoregression) was applied to all 15 years of data to estimate counts for 2016. For complete details of the case projection methodology, please refer to Zhu et al.

The number of cancer deaths expected to occur in 2016 among blacks in the United States was estimated based on the annual percent change in the actual number of cancer deaths from 1998 through 2012 as reported to the National Center for Health Statistics. For the complete details of this methodology, please refer to Chen et al.

Estimated Cancer Deaths Averted

The estimated numbers of cancer deaths averted in black men and women because of the reduction in overall

### TABLE 1. Lifetime Probability (%) of Developing or Dying From Invasive Cancers by Race/Ethnicity and Sex, United States, 2010-2012 *

| Cancer Site          | Developing   | Dying        |
|----------------------|--------------|--------------|
|                      | BLACK        | NH WHITE     | BLACK        | NH WHITE     |
| All sites†           | Male 40.8 (1 in 2) 42.4 (1 in 2) | 23.4 (1 in 4) 22.8 (1 in 4) | 19.4 (1 in 5) 19.5 (1 in 5) |
|                      | Female 34.3 (1 in 3) 39.0 (1 in 3) | 19.4 (1 in 5) 19.5 (1 in 5) |
| Prostate             | Male 18.2 (1 in 6) 13.3 (1 in 8) | 4.4 (1 in 23) 2.4 (1 in 42) | 3.3 (1 in 31) 2.7 (1 in 37) |
|                      | Female 11.1 (1 in 9) 13.1 (1 in 8) | 3.3 (1 in 31) 2.7 (1 in 37) |
| Breast               | Male 7.5 (1 in 13) 7.5 (1 in 13) | 6.4 (1 in 16) 6.6 (1 in 15) | 4.2 (1 in 24) 5.3 (1 in 19) |
|                      | Female 5.4 (1 in 19) 6.7 (1 in 15) | 4.2 (1 in 24) 5.3 (1 in 19) |
| Lung & bronchus       | Male 4.9 (1 in 21) 4.6 (1 in 22) | 2.4 (1 in 42) 1.9 (1 in 52) | 2.1 (1 in 47) 1.8 (1 in 56) |
|                      | Female 4.7 (1 in 21) 4.3 (1 in 23) | 2.1 (1 in 47) 1.8 (1 in 56) |
| Colon & rectum        | Male 2.5 (1 in 39) 2.9 (1 in 35) | 0.9 (1 in 108) 0.5 (1 in 184) |
|                      | Female 2.0 (1 in 51) 2.1 (1 in 48) | 0.5 (1 in 204) 0.6 (1 in 158) |
| Kidney               | Male 1.3 (1 in 79) 1.2 (1 in 83) | 0.3 (1 in 328) 0.3 (1 in 288) |
|                      | Female 0.8 (1 in 124) 1.3 (1 in 79) | 0.3 (1 in 328) 0.3 (1 in 288) |
| Urinary bladder       | Male 1.5 (1 in 67) 1.5 (1 in 65) | 1.4 (1 in 74) 1.4 (1 in 72) | 1.5 (1 in 66) 1.3 (1 in 76) |
|                      | Female 1.7 (1 in 58) 1.4 (1 in 69) | 1.5 (1 in 66) 1.3 (1 in 76) |
| Pancreas              | Male 1.4 (1 in 70) 2.5 (1 in 40) | 0.5 (1 in 201) 0.9 (1 in 110) | 0.4 (1 in 239) 0.7 (1 in 140) |
|                      | Female 1.2 (1 in 84) 2.0 (1 in 50) | 0.4 (1 in 239) 0.7 (1 in 140) |
| Non-Hodgkin lymphoma  | Male 0.8 (1 in 130) 0.6 (1 in 176) | 0.4 (1 in 265) 0.2 (1 in 506) |
|                      | Female 0.3 (1 in 368) 0.7 (1 in 148) | 0.2 (1 in 290) 0.1 (1 in 1783) |
| Thyroid               | Male 1.0 (1 in 98) 1.9 (1 in 54) | 0.1 (1 in 1,536) 0.1 (1 in 1,581) |
|                      | Female 0.5 (1 in 195) 0.4 (1 in 249) | 0.1 (1 in 1,536) 0.1 (1 in 1,581) |
| Liver & bile duct     | Male 1.5 (1 in 69) 1.0 (1 in 99) | 1.1 (1 in 88) 0.8 (1 in 123) | 0.5 (1 in 193) 0.4 (1 in 237) |
|                      | Female 0.1 (1 in 88) 1.8 (1 in 53) | 0.7 (1 in 147) 1.1 (1 in 92) |
| Leukemia              | Male 0.92 (1 in 109) 1.28 (1 in 77) | 0.6 (1 in 176) 0.7 (1 in 134) |

NH indicates non-Hispanic.

*For people who have not been previously diagnosed with cancer.
†All sites excludes basal cell and squamous cell skin cancers and in situ cancers except urinary bladder.

Note: Percentages and “1 in” numbers may not be equivalent due to rounding.
Source: DevCan: Probability of Developing or Dying of Cancer Software, Version 6.7.3.7
Cancer death rates were determined by subtracting the number of recorded cancer deaths from the number that would have been expected if cancer death rates had remained at their peak. The expected numbers of deaths were calculated by applying the 5-year age-specific cancer death rates in the peak year for age-standardized cancer death rates (1990 in men, 1991 in women) to the corresponding age-specific populations in the subsequent years through 2012. We then summed the difference between the number of expected and observed deaths in each age group and calendar year for men and women separately.

Risk Factors and Screening Data

Data on behavioral risk factors (cigarette smoking, obesity, and physical inactivity) and receipt of cancer screening were obtained from two national surveys: the National Health Interview Survey (NHIS) and the National Health and Nutrition Examination Survey (NHANES). NHANES is the preferred source of information for obesity prevalence in the United States, because height and weight are measured rather than reported by participants. All surveys were analyzed using SUDAAN statistical software (version 11.0.1; RTI International, Research Triangle Park, NC) to obtain weighted prevalence estimates, which are considered representative of the noninstitutionalized civilian population.

Selected Findings

Overall Cancer Occurrence

Incidence

About 189,910 new cancer cases are expected to be diagnosed among blacks in 2016, including 93,990 cases in men and 95,920 cases in women (Fig. 1). Prostate cancer is expected to be the most commonly diagnosed cancer in men, and breast cancer is expected to be the most commonly diagnosed cancer in women. Cancers of the lung and colorectum will be the second-most and third-most commonly diagnosed cancers in both black men and black women. The four most common cancers (breast, prostate, colorectal, and lung) account for more than half of all cancer deaths.
of new HIV cases among blacks was 55.9 per 100,000 population compared with 6.6 per 100,000 population among whites.\textsuperscript{23} Higher rates of stomach cancer in blacks are limited to noncardia gastric cancers. This disparity may reflect higher rates of \textit{Helicobacter pylori} infection among blacks, which is the most important risk factor for noncardia tumors.\textsuperscript{24} High consumption of salt and grilled meat also increase risk for this type of stomach cancer.\textsuperscript{25} The reasons for higher rates of myeloma among blacks are not currently known.\textsuperscript{26}

Incidence rates for all cancers combined increased in blacks from the mid-1970s to the early 1990s; with a steeper slope in males than in females (Fig. 2). However, during the most recent time period (2003–2012), incidence rates decreased by 2.0% per year in black males but were stable in females, similar to the pattern in whites (Table 3). The declines in men are largely driven by cancers of the lung and prostate.

**Mortality**

About 69,410 blacks are expected to die from cancer in 2016, including 35,660 men and 33,750 women. Cancer is the second leading cause of death in blacks, accounting for 23% of all deaths in 2012 (Table 4). Lung cancer accounts for the largest number of cancer deaths among both men (27%) and women (22%), followed by prostate cancer in men (12%), and breast cancer in women (19%) (Fig. 1). For both men and women, colorectal cancer (CRC) is expected to be the third leading cause of cancer death.

**TABLE 3. Fixed-Interval Trends (Annual Percent Change) in Cancer Incidence and Death Rates, 2003 to 2012**

|                  | MALE BLACK | MALE WHITE | FEMALE BLACK | FEMALE WHITE |
|------------------|------------|------------|--------------|--------------|
| All sites        | −2.0*      | −1.2*      | 0.1          | 0.1          |
| Death            | −2.5*      | −1.6*      | −1.5*        | −1.3*        |
| Lung & bronchus  | −2.5*      | −2.3*      | −1.1*        | −1.0*        |
| Death            | −3.3*      | −2.5*      | −1.6*        | −1.2*        |
| Prostate         | −3.4*      | −4.2*      | —            | —            |
| Incidence        | −3.6*      | −3.4*      | —            | —            |
| Death            | −3.6*      | −3.4*      | —            | —            |
| Female breast    | —          | 0.3*       | −0.1         | −0.1         |
| Incidence        | —          | −1.4*      | −1.8*        | −1.8*        |
| Death            | −3.0*      | −3.3*      | −3.1*        | −2.9*        |
| Colorectum       | −2.5*      | −3.0*      | −3.3*        | −2.9*        |
| Incidence        | —          | −3.8*      | −2.6*        | −2.6*        |
| Death            | −2.6*      | −0.9*      | —            | —            |

*The annual percent change from 2003 to 2012 is significantly different from zero.

Sources: \textit{Incidence:} Surveillance, Epidemiology, and End Results (SEER) Program, SEER 13 registries, National Cancer Institute.\textsuperscript{5} \textit{Mortality:} National Center for Health Statistics, Centers for Disease Control and Prevention.\textsuperscript{12} Death rates for blacks and whites exclude those of Hispanic ethnicity.
Death rates are higher in blacks than in whites for most cancers (Table 5).

Death rates among blacks for all cancers combined have been decreasing since the early 1990s, with larger declines in men than in women (Fig. 2). The reduction in overall cancer death rates since 1990 in men and since 1991 in women translates to the avoidance of more than 300,000 deaths from cancer (Fig. 3). In fact, since the mid-1990s, death rates have declined faster among blacks than among whites (Table 3). As a result, the overall racial gap is narrowing, particularly among men. In 1990, the cancer death rate in males was 47% higher in blacks than in whites, but was 24% higher in 2012. Among females, the disparity decreased from 19% higher in 1991 to 14% higher in 2012.

Notably, the higher death rate in black women compared with white women occurs despite their lower incidence rate. Higher death rates in blacks are due largely to cancers of the breast and colorectum in women and to cancers of the prostate, lung and bronchus, and colorectum in men. However, in recent years, death rates for lung and prostate cancer have decreased faster in black men than in white men, contributing to the recent narrowing of the overall racial disparity (Fig. 4). In addition, lung (male and female) and cervical cancer death rates have converged for young blacks and whites. \(^{27,28}\) In contrast, the racial disparity continues to widen for breast cancer in women and remains level for CRC in men (Fig. 4): cancers for which incidence and mortality are largely influenced by access to screening and treatment.

Variations in cancer incidence and death rates for selected cancers by state are presented in Tables 6 and 7. There is wide variation in rates by state, particularly for cancers closely tied to behavioral factors like smoking. For example, the lung cancer incidence rate in black men in Kentucky (136 per 100,000) is double that in Colorado (64 per 100,000) due to historic differences in smoking prevalence.

### Survival and stage distribution

The 5-year relative survival rate is lower in blacks than in whites for every stage of diagnosis for most cancer sites (Fig. 5). Much of the difference in survival is believed to be due to barriers that limit access to timely, appropriate, and high-quality medical care.\(^{29-33}\) Furthermore, blacks are more likely to be diagnosed at later stages of the disease for most cancer sites (Fig. 6) when treatment choices are more limited and often less effective. It is recognized that these issues largely reflect socioeconomic disparities. Some studies suggest that blacks who receive cancer treatment and medical care similar to

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**TABLE 4. Leading Causes of Death Among Non-Hispanic (NH) Blacks and Whites, 2012**

| CAUSE OF DEATH                        | ALL AGES | CHILDREN AGES 1–14 |
|---------------------------------------|----------|---------------------|
|                                       | NH BLACK | NH WHITE            |
|                                      |          |                     |
|                                       | RANK     | NUMBER              | RANK     | NUMBER              |
|                                       | PERCENT  | DEATH RATE*         | PERCENT  | DEATH RATE*         |
|                                       | OF TOTAL DEATHS |            | OF TOTAL DEATHS |            |
| Heart diseases                        | 1        | 69,139               | 1        | 481,976             |
| Cancer                               | 2        | 66,560               | 2        | 462,493             |
| Cerebrovascular diseases              | 3        | 15,712               | 4        | 100,152             |
| Diabetes                             | 4        | 12,835               | 7        | 50,442              |
| Accidents (unintentional injuries)   | 5        | 12,447               | 5        | 99,284              |
| All causes                            | 291,148  | 889.0                | 2,016,830| 742.3              |

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

Source: National Center for Health Statistics, Centers for Disease Control and Prevention.\(^{12}\)
TABLE 5. Comparison of Cancer Death Rates Between Non-Hispanic (NH) Blacks and Whites, United States, 2008–2012

| CANCER            | NH BLACK RATE* | NH WHITE RATE* | ABSOLUTE DIFFERENCE† | RATE RATIO‡ | CANCER            | NH BLACK RATE* | NH WHITE RATE* | ABSOLUTE DIFFERENCE† | RATE RATIO‡ |
|-------------------|----------------|----------------|----------------------|------------|-------------------|----------------|-----------------|----------------------|------------|
| Stomach           | 9.4            | 3.6            | 5.8                  | 2.58§      | Stomach           | 4.5            | 1.8             | 2.7                  | 2.48§      |
| Prostate          | 47.2           | 19.9           | 27.3                 | 2.38§      | Myeloma           | 5.4            | 2.4             | 3.0                  | 2.23§      |
| Larynx            | 3.7            | 1.8            | 1.9                  | 2.02§      | Uterine cervix    | 4.1            | 2.0             | 2.1                  | 2.00§      |
| Myeloma           | 7.8            | 4.0            | 3.8                  | 1.95§      | Uterine corpus    | 7.8            | 4.1             | 3.7                  | 1.92§      |
| Liver & IHB       | 12.8           | 7.6            | 5.2                  | 1.69§      | Liver & IHB       | 4.4            | 3.1             | 1.3                  | 1.43§      |
| Colon & rectum    | 27.6           | 18.2           | 9.4                  | 1.52§      | Breast            | 31.0           | 21.9            | 9.1                  | 1.42§      |
| Oral cavity & pharynx | 5.2         | 3.8            | 1.4                  | 1.36§      | Colon & rectum    | 18.2           | 12.9            | 5.3                  | 1.41§      |
| Pancreas          | 15.4           | 12.7           | 2.7                  | 1.21§      | Pancreas          | 12.6           | 9.5             | 3.1                  | 1.32§      |
| Lung & bronchus   | 74.9           | 62.2           | 12.7                 | 1.20§      | Urinary bladder   | 2.6            | 2.3             | 0.3                  | 1.12§      |
| Kidney & renal pelvis | 5.7        | 5.9            | −0.2                  | 0.97       | Kidney & renal pelvis | 2.6        | 2.6             | 0.0                  | 1.02       |
| Esophagus         | 7.1            | 8.0            | −0.9                 | 0.89§      | Lung & bronchus   | 36.7           | 41.1            | −4.4                 | 0.89§      |
| Leukemia          | 8.1            | 9.9            | −1.8                 | 0.82§      | Leukemia          | 4.8            | 5.4             | −0.6                 | 0.89§      |
| Non-Hodgkin lymphoma | 5.9          | 8.3            | −2.4                 | 0.71§      | Hodgkin lymphoma  | 0.3            | 0.3             | 0.0                  | 0.89       |
| Urinary bladder   | 5.4            | 8.4            | −3.0                 | 0.63§      | Ovary             | 6.8            | 8.2             | −1.4                 | 0.83§      |
| Brain & ONS       | 3.2            | 6.0            | −2.8                 | 0.53§      | Non-Hodgkin lymphoma | 3.6      | 5.0             | −1.4                 | 0.71§      |
| Melanoma of the skin | 0.5           | 5.0            | −4.5                 | 0.09§      | Brain & ONS       | 2.2            | 3.9             | −1.7                 | 0.55§      |
| Melanoma of the skin | 0.4           | 2.1            | −1.7                 | 0.18§      | All sites         | 267.7          | 210.6           | 57.1                  | 1.27§      |
| All sites         | 170.4          | 149.2          | 21.2                  | 1.14§      |

IHB indicates intrahepatic bile duct; ONS, other nervous system.

* Rates are per 100,000 and age adjusted to the 2000 US standard population.
† The absolute difference is the rate in blacks minus the rate in whites.
‡ The rate ratio is the unrounded rate in blacks divided by the unrounded rate in whites.
§ The rate ratio is significantly different from one (P < .05).

Note: Sites are listed in descending order by rate ratio.

Source: National Center for Health Statistics, Centers for Disease Control and Prevention.12

FIGURE 3. Total Number of Cancer Deaths Averted From 1991 to 2012 in Black Men and From 1992 to 2012 in Black Women. The blue line represents the actual number of cancer deaths recorded in each year, and the red line represents the expected number of cancer deaths if cancer death rates had remained at peak rates.
that of whites experience similar outcomes. However, other studies report that racial disparities persist even after controlling for socioeconomic factors and access to care. Higher rates of comorbid health conditions (eg, obesity, diabetes, and hypertension) among black patients can affect the delivery of optimal treatment and are also thought to contribute to differences in survival. Although there is limited evidence that differing responses to cancer therapy contribute to racial disparities in survival, blacks and other racial minorities are underrepresented in clinical trials, which makes it more difficult to assess the efficacy of cancer therapies in these groups.

The overall 5-year relative survival rate among blacks has improved from approximately 27% during 1960 through 1963 to 62% during 2005 through 2011. Survival during the corresponding period in whites increased from 39% to 70%. Increases in survival over time reflect earlier diagnoses and improvements in treatment;
however, not all persons have benefited equally from these advances. Importantly, improvements in survival do not always indicate progress against cancer, such as when they result from the detection of indolent cancers (overdiagnosis) or when early diagnosis does not extend lifespan (lead time bias).

### TABLE 6. Incidence Rates* for Selected Cancers in Non-Hispanic Black Males and Females by State, 2008–2012

| State                | ALL CANCERS | LUNG AND BRONCHUS | COLON AND RECTUM | PROSTATE | BREAST | UTERINE CERVIX |
|----------------------|-------------|-------------------|------------------|----------|--------|----------------|
|                      | MALE        | FEMALE            | MALE             | FEMALE   | MALE   | FEMALE         |
| Alabama              | 602.3       | 378.9             | 103.6            | 38.2     | 65.9   | 46.5           |
| Alaska               | 564.8       | 360.8             | 91.6             | †        | †      | †              |
| Arizona              | 423.1       | 347.9             | 65.9             | 51.4     | 45.2   | 37.3           |
| Arkansas§            | 597.8       | 357.5             | 115.4            | 49.1     | 62.2   | 48.9           |
| California           | 572.3       | 417.5             | 79.7             | 51.7     | 61.3   | 47.3           |
| Colorado             | 502.1       | 374.2             | 64.3             | 47.1     | 48.9   | 36.7           |
| Connecticut          | 592.8       | 408.8             | 77.7             | 47.9     | 62.0   | 42.5           |
| Delaware             | 612.3       | 414.9             | 87.5             | 53.4     | 47.9   | 36.8           |
| District of Columbia | 654.2       | 453.3             | 99.4             | 57.4     | 63.2   | 48.4           |
| Florida              | 533.2       | 363.9             | 75.1             | 36.9     | 54.4   | 39.1           |
| Georgia              | 609.0       | 392.0             | 91.7             | 42.4     | 60.3   | 44.5           |
| Hawaii               | 473.6       | 360.2             | †                | †        |       | 39.6           |
| Idaho                | 468.7       | 366.6             | †                | †        |       | †              |
| Illinois             | 622.5       | 437.7             | 102.1            | 65.3     | 71.3   | 50.5           |
| Indiana              | 544.0       | 421.3             | 109.5            | 63.6     | 58.8   | 47.5           |
| Iowa                 | 586.9       | 453.6             | 99.8             | 86.4     | 58.5   | 51.2           |
| Kansas               | 621.0       | 450.7             | 104.0            | 64.7     | 62.8   | 51.5           |
| Kentucky             | 636.8       | 458.4             | 135.6            | 81.6     | 65.9   | 52.5           |
| Louisiana            | 655.9       | 422.6             | 113.1            | 52.0     | 72.6   | 51.8           |
| Maine                | 425.8       | 272.8             | †                | †        | †      | †              |
| Maryland             | 547.1       | 402.3             | 76.4             | 49.3     | 50.7   | 39.6           |
| Massachusetts        | 568.2       | 387.1             | 72.9             | 41.5     | 49.3   | 37.0           |
| Michigan             | 636.1       | 429.3             | 104.0            | 63.1     | 59.4   | 44.5           |
| Minnesota†           | -           | †                 | †                | †        |       | †              |
| Mississippi          | 648.8       | 408.5             | 116.2            | 47.7     | 75.8   | 55.8           |
| Missouri             | 582.1       | 450.2             | 106.5            | 70.8     | 67.2   | 49.1           |
| Montana              | 489.9       | †                 | †                | †        |       | †              |
| Nebraska             | 594.6       | 456.2             | 107.6            | 61.0     | 80.8   | 57.7           |
| Nevada§              | 468.9       | 379.9             | 69.6             | 48.0     | 57.8   | 47.4           |
| New Hampshire        | 497.5       | 288.9             | †                | †        |       | †              |
| New Jersey           | 606.7       | 415.0             | 80.6             | 50.4     | 59.7   | 44.9           |
| New Mexico           | 405.6       | 320.6             | 81.8             | 32.7     | 28.5   | 31.5           |
| New York             | 613.1       | 406.2             | 74.6             | 45.0     | 57.5   | 41.2           |
| North Carolina       | 609.1       | 403.2             | 103.6            | 47.2     | 58.4   | 41.2           |
| North Dakota         | 541.0       | †                 | †                | †        |       | †              |
| Ohio                 | 572.1       | 405.7             | 102.8            | 64.2     | 56.1   | 38.9           |
| Oklahoma             | 613.2       | 421.0             | 104.8            | 56.4     | 55.3   | 46.4           |
| Oregon               | 531.3       | 392.2             | 87.8             | 59.1     | 63.4   | 39.4           |
| Pennsylvania         | 624.6       | 467.1             | 104.3            | 71.8     | 60.9   | 43.6           |
| Rhode Island         | 505.3       | 380.6             | 67.6             | 66.2     | 31.9   | 33.1           |
| South Carolina       | 583.8       | 388.0             | 94.4             | 41.0     | 57.1   | 40.6           |
| South Dakota         | 315.2       | 309.8             | †                | †        |       | †              |
| Tennessee            | 602.8       | 407.3             | 109.6            | 53.1     | 64.0   | 45.9           |
| Texas                | 572.4       | 406.8             | 99.9             | 52.3     | 63.9   | 45.1           |
| Utah                 | 551.7       | 386.1             | †                | †        |       | †              |
| Vermont              | 325.9       | †                 | †                | †        |       | †              |
| Virginia             | 578.8       | 392.8             | 95.1             | 49.5     | 54.2   | 41.0           |
| Washington           | 573.1       | 417.1             | 80.9             | 55.8     | 47.4   | 36.0           |
| West Virginia        | 565.2       | 369.3             | 99.5             | 47.1     | 65.6   | 38.2           |
| Wisconsin            | 684.9       | 458.7             | 127.8            | 74.1     | 69.4   | 44.1           |
| Wyoming              | 264.2       | 236.7             | †                | †        |       | †              |
| United States        | 592.3       | 408.1             | 93.4             | 51.4     | 60.3   | 44.1           |

*Rates are per 100,000 and age adjusted to the 2000 US standard population.
†Rates are suppressed when they are based on fewer than 25 cases.
§This state’s data are not included in US combined rates.
¶Rates are based on incidence data for 2008–2010.
North American Association of Central Cancer Registries.

Source: North American Association of Central Cancer Registries.
Breast cancer is the most common cancer among black women and is the second leading cause of cancer death, with an estimated 30,700 new cases of breast cancer and 6310 deaths expected to occur in 2016. During 2008 through 2012, the overall breast cancer incidence rate in black women was 124.3 cases per 100,000 women, which was 3% lower than that in white women (128.1 per 100,000 women) (Table 2). However, rates were higher in...
black women than in white women in 7 states (Alabama, Kentucky, Louisiana, Mississippi, Missouri, Oklahoma, and Tennessee) and were not significantly different in 24 states. Breast cancer incidence rates are also higher among blacks than whites for women under age 45. The median age of diagnosis is 58 years for black women, compared with 62 years for white women. One in 9 black women is expected to be diagnosed with breast cancer in her lifetime, compared with 1 in 8 white women (Table 1).

Long-term breast cancer incidence trends are shown in Figure 7. Similar to the pattern among white women, rates among black women increased rapidly during the 1980s, largely because of increased detection due to mammography screening uptake. However, rates stabilized in white women (since 2004) but continued to increase in black women from 1986 to 2012 by 0.5% per year. As a result, incidence rates in black and white women converged in 2012. The continued increase in breast cancer
incidence rates in black women may in part reflect the obesity epidemic. The prevalence of obesity (body mass index ≥30 kg/m²) increased from 38% during 1988 through 1994 to 57% in 2013 and 2014 for black women and from 23% to 38% over the same period for white women (Fig. 8).

Prior to the mid-1980s, breast cancer death rates for white and black women were similar. However, a larger increase in black than in white women from the mid-1970s to the early 1990s, followed by a slower decline in black women, has resulted in a widening disparity. Since 1990, breast cancer death rates dropped 23% in black women and 37% in white women (Fig. 4). As a result, breast cancer death rates in the most recent time period (2008–2012) are 42% higher in black women compared with white women (Fig. 8). As a result, breast cancer death rates in the most recent time period (2008–2012) are 42% higher in black women compared with white women, despite historically lower incidence rates. Higher death rates among black women likely reflect a combination of factors, including differences in stage at diagnosis, obesity, comorbidities, and tumor characteristics as well as access, adherence, and response to high-quality cancer treatment.46-52

The 5-year relative survival rate for breast cancer diagnosed in 2005 through 2011 among black women was 80%, compared with 91% among white women (Fig. 5). This difference can be attributed to both later stage at detection and poorer stage-specific survival among black women. Despite similar reported mammography screening rates (Table 8), only about half (52%) of breast cancers are diagnosed at a local stage among black women, compared with 63% among white women (Fig. 6).

Later stage at diagnosis among black women has been largely attributed to lower frequency of and longer intervals between mammograms and lack of timely follow-up of abnormal results.53-55 Lower stage-specific survival has been explained in part by unequal access to and receipt of prompt, high-quality treatment among black women compared with white women.48,56-59 Aggressive tumor characteristics are more common in breast cancers diagnosed in black women than in other racial/ethnic groups.45,60-62 For example, 22% of breast cancers in black women are triple negative (estrogen receptor-negative, progesterone receptor-negative, and human epidermal growth factor receptor 2-negative) compared with 10% to 12% of those among women of other races/ethnicities in the United States.45 These proportions are even higher among premenopausal black breast cancer patients.63 Triple-negative breast cancers, which include the basal-type subset

FIGURE 6. Stage Distribution for Selected Cancers in Non-Hispanic (NH) Blacks and Whites, United States, 2005 to 2011. Percentages may not total 100% because of rounding. Source: North American Association of Central Cancer Registries.9
of breast cancers, are more aggressive and have a poorer prognosis, in part because there are currently no targeted therapies for these tumors. Some studies suggest that black women are more likely to be diagnosed with triple-negative and basal-like breast cancers as a result of shared African ancestry. A recent analysis from the African American Breast Cancer Epidemiology and Risk (AMBER) Consortium identified eight genes that may be involved in the etiology of breast cancer in black women, including three linked to estrogen receptor-negative disease. Other studies have found that risk factors vary for breast cancer subtypes and that obesity and certain reproductive patterns (including multiparty, early age at first pregnancy, and lower rates of breastfeeding) which are more common in black women, are linked to increased risk for aggressive breast cancer subtypes.

Colon and rectum

CRC is the third most common cancer diagnosed among both black men and women and the second most common for both sexes combined, with 17,240 new cases expected to be diagnosed in 2016 (Fig. 1). The median age of diagnosis for CRC is 66 years for black men and 70 years for black women, compared with ages 72 and 77 years for white men and women, respectively. CRC is also the third leading cause of cancer death in black men and women, with 7030 CRC deaths expected in 2016.

Incidence rates for CRC are 27% higher in black men and 22% higher in black women compared with white men and women, respectively (Table 2). Blacks have higher rates of obesity and higher rates of physical inactivity (Table 9), which are known risk factors for CRC. Results from the National Institutes of Health–AARP Diet and Health Study suggest that health behaviors (diet, physical activity, and smoking) and body mass index explain more than a third (36%) of the increased risk for CRC associated with low socioeconomic status, for which blacks are disproportionately represented. In addition, uptake of CRC screening, which can prevent cancer through the removal of precancerous polyps as well as detect cancer at an early stage, has been slower in blacks than in whites and remains slightly lower. From 2000 to 2013, CRC screening increased from 32% to 59% in blacks and from 40% to 61% in whites. Before 1989, incidence rates were

FIGURE 7. Trends in Cancer Incidence Rates Among Blacks, United States, 1975 to 2012.
Rates are delay adjusted and age adjusted to the 2000 US standard population and are 2-year moving averages.
Source: SEER Program, SEER 9 registries, National Cancer Institute.

FIGURE 8. Trends in Adult Obesity (Body Mass Index ≥30 kg/m²) Prevalence (%) by Sex and Race/Ethnicity, United States, 1988 to 2014.
NH indicates non-Hispanic.
Sources: 1988-2012: Health, United States, 2014: With Special Feature on Adults Ages 55-64, 2013-2014: Centers for Disease Control and Prevention. National Health and Nutrition Examination Survey, 2014. Public use data file.

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TABLE 8. Human Papillomavirus Vaccination (2014) and Use of Cancer Screening Examinations and Tests (2013), United States

|                     | NH BLACK (%) | NH WHITE (%) |
|---------------------|--------------|--------------|
| **HPV vaccination** |              |              |
| Girls               |              |              |
| ≥ 1 dose            | 66           | 56           |
| ≥ 3 doses           | 39           | 38           |
| Boys                |              |              |
| ≥ 1 dose            | 42           | 36           |
| ≥ 3 doses           | 20           | 19           |
| Breast cancer       |              |              |
| (women 40 years and older) | 66 | 66 |
| Mammogram in the past 2 years | 82 | 83 |
| Cervical cancer     |              |              |
| (women ages 21–65 years)† | 57 | 58 |
| Pap test in the past 3 years | 57 | 58 |
| Colorectal cancer   |              |              |
| (adults 50 years and older) | 57 | 58 |
| FOBT in the past year | 9   | 7  |
| Endoscopy†          |              |              |
| FOBT or endoscopy§  | 59           | 61           |
| Prostate cancer     |              |              |
| (men 50 years and older) | 33 | 37 |
| PSA test in the past year | 33 | 37 |

NH indicates non-Hispanic; Pap, Papanicolaou; FOBT, fecal occult blood test; PSA, prostate-specific antigen.

*Complete vaccination series consists of 3 doses.
†Among women with intact uteri.
§FOBT in the past 5 years or colonoscopy in the past 10 years.
§FOBT in the past year, sigmoidoscopy in the past 5 years, or colonoscopy in the past 10 years.

Note: Estimates for screening are age-adjusted to the 2000 US standard population.

Sources: Vaccination: National Immunization Survey-Teen, 2014.114 Screening: Centers for Disease Control and Prevention. National Health Interview Survey, 2013. Public use data file.20

remained about 50% higher in blacks than in whites since 2005 (Fig. 4). Smaller declines in death rates for distant-stage disease in blacks than in whites (5% vs 33%) appear to be driving the overall mortality differential.76

The 5-year relative survival rate for CRC among blacks improved from 45% during 1975 through 1977 to 59% during 2005 through 2011; however, this improvement was smaller than that in whites (from 50% to 67% over the same period).8 Some of the racial disparity in survival is because of later stage at diagnosis—37% of CRCs in blacks are diagnosed at a localized stage compared with 40% in whites (Fig. 6). However, lower 5-year relative survival rates are also seen in black CRC patients within each stage at diagnosis (Fig. 5). Racial disparities in CRC survival largely reflect differences in treatment, socioeconomic status, and comorbidities.35,77-80 Numerous studies document that black CRC patients are less likely than white patients to receive recommended surgical treatment and adjuvant chemotherapy.81-83 Notably, a recent study reported that, when black and white stage III CRC patients received similar adjuvant chemotherapy (combined folinic acid, fluorouracil, and oxaliplatin

TABLE 9. Risk Factors for Cancer by Sex and Race/Ethnicity, Adults, United States, 2013–2014

|                    | NH BLACK (%) | NH WHITE (%) |
|--------------------|--------------|--------------|
| Obesity (BMI ≥ 30.0)* |              |              |
| All                | 48           | 36           |
| Men                | 38           | 35           |
| Women              | 57           | 38           |
| Overweight (BMI 25.0–29.9)* | 28 | 33 |
| All                | 31           | 40           |
| Men                | 25           | 26           |
| Women              | 34           | 25           |
| No leisure-time physical activity† | 38 | 26 |
| All                | 34           | 25           |
| Men                | 41           | 27           |
| Met recommendations for aerobic activity‡ |  |  |
| All                | 44           | 54           |
| Men                | 51           | 56           |
| Women              | 38           | 52           |
| Current cigarette smoking‡§ |  |  |
| All                | 18           | 19           |
| Men                | 22           | 20           |
| Women              | 14           | 18           |

NH indicates non-Hispanic; BMI, body mass index, kg/m².

*Among adults 20 years and older.
†Among adults 18 years and older.
‡Includes 150 minutes of moderate-intensity activity or 75 minutes of vigorous-intensity activity each week.
§Ever smoked 100 cigarettes in lifetime and smoking every day or some days at time of survey.

Note: Estimates are age-adjusted to the 2000 US standard population.

Sources: BMI: Centers for Disease Control and Prevention. National Health and Nutrition Examination Survey, 2013-2014. Public use data file.11 Physical activity and smoking: Centers for Disease Control and Prevention. National Health Interview Survey, 2014. Public use data file.20

predominantly higher in white men than in black men and were similar for women of both races. Since 1989, however, incidence rates have been higher for blacks than for whites in both men and women. This crossover likely reflects racial differences in risk factor trends and/or greater access to and utilization of recommended screening tests by whites.74 From 2003 to 2012, incidence rates decreased by 3.0% per year in black men and by 3.1% per year in black women, similar to declines in whites (Table 3).

The racial disparity is more striking for CRC death rates: rates are 52% higher in black men and 41% higher in black women (Table 5). One model-based study estimated that 19% of the racial disparity in CRC mortality rates can be attributed to lower screening rates and 36% can be attributed to lower stage-specific survival among blacks.75 Similar to the pattern for incidence rates, CRC mortality rates were historically higher in whites compared with blacks, with the crossover occurring around 1979 for women and 1984 for men. From 2003 through 2012, annual declines in mortality rates were higher in black women than white women (3.3% vs 2.9%) but were lower in black men than in white men (2.5% vs 3.0%) (Table 3). As a result, the racial gap appears to be shrinking in women, whereas rates in men have
...phase 3 clinical trial, those aged 50 years and older had similar outcomes; however, younger blacks had shorter disease-free survival (hazard ratio, 1.80; 95% confidence interval, 1.21-2.66) and time to recurrence (hazard ratio, 1.77; 95% confidence interval, 1.18-2.65) compared with whites.84

Lung and bronchus

Lung cancer is the second leading cause of cancer in black men and women, with 13,720 men and 11,010 women expected to be newly diagnosed in 2016 (Fig. 1). Lung cancer is also the leading cause of cancer death in blacks, with 9710 men and 7340 women expected to die from this disease in 2016. Black men have higher lung cancer rates than white men, but the reverse is true for women, reflecting race and sex differences in historic smoking patterns (Fig. 9). The lung cancer incidence rate is 18% higher in black men compared with white men; however, among women, the rate is 13% lower among blacks (Table 2). Lung cancer trends are similar in blacks and whites. In black men, lung cancer incidence rates increased rapidly until the mid-1980s, but have since been steadily declining (Fig. 7). In contrast, in black women, rates increased until the early 2000s and have subsequently begun to decline. From 2003 to 2012, lung cancer incidence rates decreased slightly faster in black men and women than in white men and women (Table 3).

The lung cancer mortality rate is higher for black men than for any other racial or ethnic group. After increasing for decades, lung cancer death rates in men began to decline in 1990, with acceleration in the decline beginning in 1994. Similar to the pattern for incidence trends, the decline in lung cancer death rates has been faster in black men and women (3.3% per year and 1.6% per year from 2003-2012, respectively) compared with white men (2.5% per year) and women (1.2% per year) (Table 3). The disparity in lung cancer death rates between black and white men has been substantially reduced overall (from an excess of 40% in the early 1990s to 20% in 2012) (Fig. 4) and has been eliminated in adults younger than 40 years.28 The declines in lung cancer death rates are the result of decreases in smoking prevalence over the previous 40 years, which have been more rapid in blacks than in whites (Fig. 9). Furthermore, black adolescents initiate smoking at a much lower rate than their white counterparts.85 If black youths continue to have lower smoking prevalence as they age, racial differences in lung cancer death rates should be eliminated in the next 40 to 50 years.28

The 5-year overall survival rate for lung cancer is lower in blacks than in whites; 14% versus 18%, respectively (Fig. 5). When lung cancer is detected at a local stage, the 5-year relative survival rate in blacks is 47%; however, only 15% of lung cancer cases in blacks are detected at this early stage, because symptoms generally do not appear until the disease is advanced. Studies have shown that even when lung cancer is diagnosed early, blacks are less likely than whites to receive curative-intent surgery, even after accounting for socioeconomic factors.86-88 Other studies have found that, among lung cancer patients treated at Veterans Affairs or US Military Health System facilities, racial disparities in lung cancer outcomes diminished, although differences in receipt of treatment remained.89-91

Prostate

Prostate cancer is the most commonly diagnosed cancer among black men and the second leading cause of cancer death. In 2016, approximately 29,530 cases of prostate cancer will be newly diagnosed and 4450 prostate cancer deaths will occur among black men. The median age of diagnosis for prostate cancer is 63 years for black men compared with 66 years for white men.8 It is estimated that 1 in 6 black men will be diagnosed with prostate cancer in their lifetime compared with 1 in 8 white men (Table 1).

During 2008 through 2012, the average annual prostate cancer incidence rate was 208.7 cases per 100,000 black men, which was 70% higher than the rate in white men (Table 2). Similar to the pattern in white men, incidence rates in black men increased sharply between 1989 and 1992—reflecting increased use of the prostate-specific antigen (PSA) blood test for the detection of prostate cancer—but have generally decreased thereafter (Fig. 7). During 2003 through 2012, prostate cancer incidence rates declined on average by 3.4% per year in black men and 4.2% per year in white men (Table 3). The decrease in incidence was driven by declines in early stage disease, and a recent study noted that the sharpest drop occurred after the release of...
the US Preventive Services Task Force draft recommendation against PSA screening for men of all ages in 2011.

The only well-established risk factors for prostate cancer are age, race, and family history of the disease. Men who have a first-degree relative with a history of prostate cancer are 2 to 3 times more likely to be diagnosed with the disease than men without a family history. Black men and Jamaican men of African descent have the highest prostate cancer incidence rates worldwide, which may reflect differences in inherited genetic susceptibility.

Similarly, black men have the highest mortality rate for prostate cancer of any racial or ethnic group in the United States, 2.4 times higher than the rate in white men (Table 5), in part reflecting higher incidence rates among black men. After a long period of increase, prostate cancer death rates in black men peaked in 1993 and declined steadily thereafter. Rates have been declining since 1996, by 3.6% per year in blacks and by 3.4% in whites, resulting in a narrowing disparity (Fig. 4). The decrease in prostate cancer mortality has been attributed to improved surgical and radiologic treatment and dissemination of hormonal therapy for advanced-stage disease. The contribution of PSA testing is not clear. Results from a US-based randomized trial indicated no reduction in prostate cancer mortality as a result of PSA testing, while two European trials showed a modest benefit. Studies also suggest that black men are less likely to receive surgical treatment than white men with similar disease characteristics.

Furthermore, a recent analysis of SEER-Medicare data concluded that, among localized prostate cancer patients who underwent radical prostatectomy, blacks were more likely to experience treatment delays and postoperative complications and were less likely to receive lymph node dissection compared with whites, although prostate cancer-specific and all-cause mortality were similar in both groups. The lack of a difference in outcome despite treatment differences suggests that some patients with early stage disease may be overtreated.

The overall 5-year relative survival rate for prostate cancer is 97% among blacks and 99% among whites (Fig. 5). Eighty-eight percent of prostate cancers in black men are diagnosed at a local or regional stage (Fig. 6), for which the 5-year relative survival rate approaches 100%. Five-year survival rates drop to 28% when the cancer is diagnosed at distant stage.

**Uterine cervix**

An estimated 2290 new cases of invasive cervical cancer and 750 deaths are expected to occur among black women in 2016. The incidence rate of cervical cancer is 41% higher in black women than in white women (Table 2). However, a recent study suggests that the racial disparity may be even wider after adjusting incidence rates to account for women who have had a hysterectomy and thus are not at risk for cervical cancer.

Nevertheless, the racial disparity has narrowed substantially, as rates have dropped faster among black women than among white women in recent years (Table 3). Notably, among women under age 50 years, incidence rates of cervical cancer converged between black and white women in the mid-2000s. The median age of cervical cancer diagnosis is 51 years for black women compared with 48 years for white women.

The overall 5-year relative survival rate for cervical cancer among black women is 58%, compared with 69% among white women (Fig. 5), partly because black women are more likely than white women to be diagnosed with regional-stage or distant-stage disease (Fig. 6) despite similar screening rates (Table 8). Racial differences in stage at diagnosis may be because of differences in the quality of screening and follow-up after abnormal results. Lower socioeconomic status is also associated with lower screening rates, later stage at diagnosis, and poorer survival.

Virtually all cervical cancers are caused by persistent human papillomavirus (HPV) infection, particularly HPV types 16 and 18. The US Food and Drug Administration has approved and three vaccines are recommended for the prevention of the most common HPV genotypes. Two of the vaccines provide protection against HPV types causing approximately 70% of cervical cancers, while the third provides protection against HPV types associated with approximately 90% of invasive cervical cancers.

Data from the 2014 National Immunization Survey-Teen found that, although HPV vaccine initiation was higher among black girls (66%) than among white girls (56%), completion of the three-vaccine series was similar (blacks, 39%; whites, 38%) (Table 8). Vaccinated women need to continue to receive recommended cervical cancer screening, because these vaccines only target the most common strains of HPV, and they also do not provide protection for those women who are already infected with HPV.

**Data Limitations**

The projected numbers of new cancer cases and cancer deaths should be interpreted cautiously, because these estimates are model-based and may vary considerably from year to year for reasons other than changes in cancer occurrence, including changes in methodology. Therefore, we discourage the use of these estimates to track year-to-year changes in cancer occurrence and death. The preferred data sources used for tracking cancer trends are age-standardized or age-specific cancer death rates from the National Center for Health Statistics and cancer incidence rates from SEER or NAACCR, although these data are 2 to 4 years old by the time they become available. Nevertheless, the American Cancer Society projections of the number of new cancer cases and deaths provide a reasonably accurate estimate of the current cancer burden in the United States.
Conclusions

Substantial progress has been made over the last several decades to reduce the disproportionate burden of cancer in blacks in the United States. The black-white disparity in cancer death rates has narrowed for all cancers combined in men and women and for lung and prostate cancer in men. However, the racial gap in death rates has widened for breast cancer in women and remained level for CRC in men, likely because of suboptimal screening and treatment for blacks. Accelerating progress in eliminating racial disparities requires equitable access to services for prevention, early detection, and high-quality treatment.

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