Chronic Disease, Primary Care, and Rural Health

Black Cancer Disparities

Indiana Department of Health

Bottom Line

More than 41.9 million Americans identify as Non-Hispanic Black or Black (documented as Black from this point forward), they are the second largest racial and ethnic minority group in the United States.[1] It is estimated that in 2020, Black Americans accounted for 14.2 percent of the total U.S. population and 10.3 percent of Indiana's population.[1] Of all racial and ethnic groups in the U.S., Blacks have the highest death and shortest survival rates for most cancers. Black men have the highest incidence rate of cancer.[2]

These racial disparities are attributed to the complex interplay of social determinants of health-including socioeconomic status, income, housing, education, access to health care, insurance, treatment, screening, and early detection-more than biological differences. Poverty and discrimination contribute to poorer health outcomes for Blacks. Additionally, Blacks have a higher burden of other diseases, which negatively impacts cancer survival.[2] In 2020, cancer was the second leading cause of death among Blacks and accounted for 20 percent of all deaths among Blacks in Indiana.[3]

Table 15. Burden of Cancer Among Blacks- Indiana, 2016-2020*

	Average number of cases per year (2016-2020)	Rate per 100,000 people* (2016-2020)	Number of cases (2020)	Rate per 100,000 people* (2020)
Indiana Incidence	2,606	427.2	2,209	344.3
Indiana Deaths	991	164.5	897	138.6

*Age-adjusted to the US 2000 Standard Population.
Source: Indiana State Cancer Registry

Table 16. Leading Sites of New Cancer Cases and Deaths Among Black Indiana Residents By Sex, 2020

Number (%) of New Cases

Males			Females		
Prostate	338	31.7%	**Breast**	484	36.5%
Lung and Bronchus	133	12.5%	**Lung and Bronchus**	166	12.5%
Colon and Rectum	109	10.2%	**Corpus and Uterus, NOS**	90	6.8%
Kidney and Renal Pelvis	56	5.2%	**Colon and Rectum**	102	7.7%
Liver and Inrahepatic Bile Duct	41	3.8%	**Brain and Other Nervous System**	49	3.7%
Urinary Bladder	29	2.7%	**Pancreas**	48	3.6%
Non-Hodgkin Lymphoma	44	4.1%	**Kidney and Renal Pelvis**	38	2.9%
Pancreas	33	3.1%	**Myeloma**	33	2.5%
Myeloma	26	2.4%	**Thyroid**	30	2.3%
Brain and Other Nervous System	21	2.0%	**Non-Hodgkin Lymphoma**	36	2.7%
Other	237	22.2%	**Other**	249	18.8%
All Sites	1,067		**All Sites**	1,325	

Number (%) of Deaths

Males			Females		
Lung and Bronchus	117	26.1%	**Lung and Bronchus**	83	18.5%
Prostate	72	16.0%	**Breast**	88	19.6%
Colon and Rectum	47	10.5%	**Colon and Rectum**	43	9.6%
Liver and Intrahepatic Bile Duct	32	7.1%	**Pancreas**	42	9.4%
Pancreas	31	6.9%	**Corpus and Uterus, NOS**	26	5.8%
Myeloma	5	1.1%	**Leukemia**	11	2.5%
Non-Hodgkin Lymphoma	7	1.6%	**Liver and Intrahepatic Bile Duct**	15	3.3%
Esophagus	14	3.1%	**Myeloma**	11	2.5%
Kidney and Renal Pelvis	16	3.6%	**Ovary**	21	4.7%
Leukemia	14	3.1%	**Non-Hodgkin Lymphoma**	9	2.0%
Other	94	20.9%	**Other**	99	22.1%
All Sites	449		**All Sites**	448	

Figure 32. Leading Sites of New Cancer and Deaths Among Black Americans in the U.S. - 2022 Estimates*

Figure 2. Leading Sites of New Cancer Cases and Deaths among Black People in US – 2022 Estimates*

Estimated New Cases

Male			Female		
Prostate	41,600	37%	Breast	36,260	32%
Lung & bronchus	13,200	12%	Lung & bronchus	12,490	11%
Colon & rectum	10,590	9%	Colon & rectum	10,110	9%
Kidney & renal pelvis	6,340	6%	Uterine corpus	9,030	8%
Liver & intrahepatic bile duct	4,140	4%	Pancreas	4,410	4%
Pancreas	4,010	4%	Kidney & renal pelvis	4,010	4%
Myeloma	3,840	3%	Myeloma	3,970	4%
Non-Hodgkin lymphoma	3,630	3%	Non-Hodgkin lymphoma	3,240	3%
Urinary bladder	3,420	3%	Thyroid	2,890	3%
Leukemia	3,090	3%	Leukemia	2,650	2%
All sites	**111,990**		**All sites**	**112,090**	

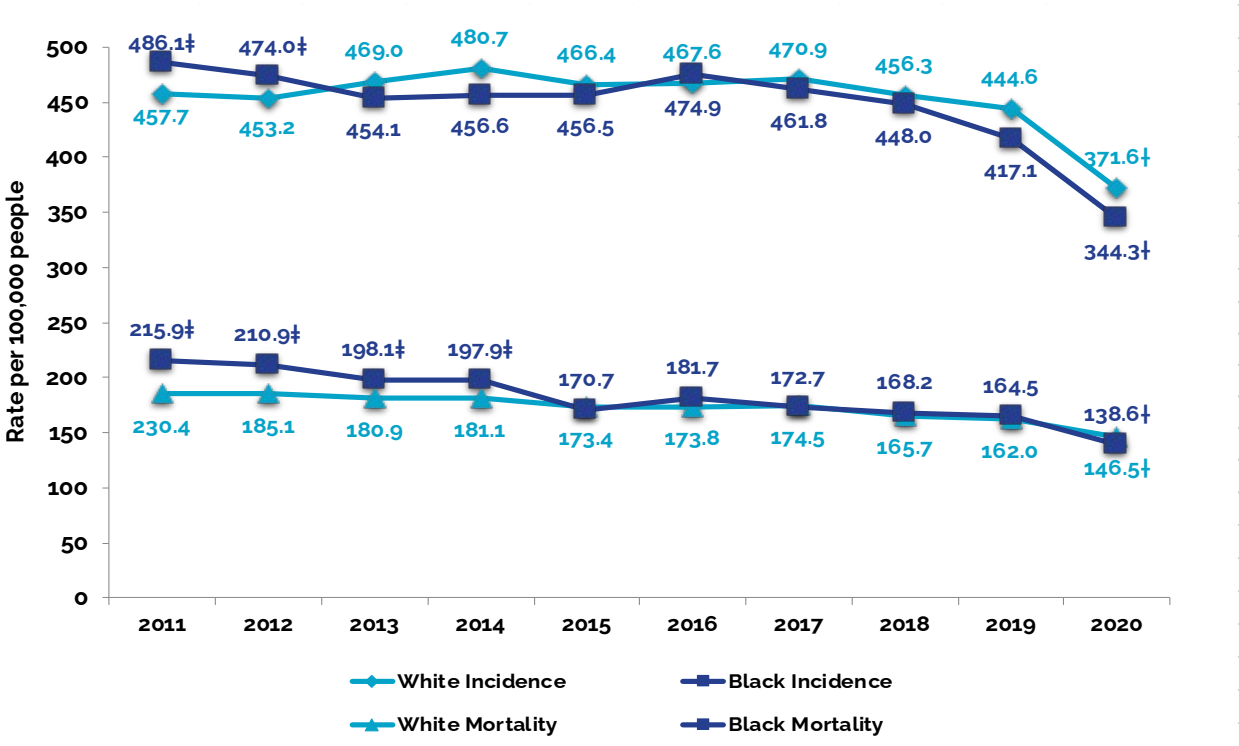
Estimated Deaths

Male			Female		
Lung & bronchus	7,890	22%	Breast	6,800	18%
Prostate	6,040	17%	Lung & bronchus	6,270	17%
Colon & rectum	3,890	11%	Colon & rectum	3,310	9%
Pancreas	3,040	8%	Pancreas	3,300	9%
Liver & intrahepatic bile duct	2,720	7%	Uterine corpus	2,680	7%
Myeloma	1,260	3%	Ovary	1,480	4%
Leukemia	1,130	3%	Myeloma	1,270	3%
Stomach	1,060	3%	Liver & intrahepatic bile duct	1,150	3%
Non-Hodgkin lymphoma	890	2%	Leukemia	1,040	3%
Urinary bladder	870	2%	Uterine cervix	780	2%
All sites	**36,430**		**All sites**	**37,250**	

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

Source: Estimated new cases are based on 2004-2018 incidence data reported by the North American Association of Central Cancer Registries. Estimated deaths are based on 2005-2019 US mortality data from the National Center for Health Statistics, Centers for Disease Control and Prevention. See Sources of Statistics on page 39 for more information.

Figure 33. Cancer Incidence and Mortality (death) Rates by Race*- Indiana 2011-2020



What Types of Cancer Impact the Black Community the Most?

According to the American Cancer Society (ACS), prostate cancer is the most common cancer diagnosis for Black men, followed by lung and colorectal cancers. The three most prevalent cancer diagnoses for Black women are breast, lung, and colorectal cancers, respectively. Overall, the four most common cancers (breast, prostate, colorectal, and lung) make up more than half of all cancer cases in the Black population.

In terms of cancer-related deaths, Blacks experience the highest mortality from lung cancer. Prostate and breast cancer are the second-leading causes of cancer deaths for Black men and women, respectively. Colorectal cancer is the third most common cause of cancer death for both sexes.[2]

What Are the Cancer Disparities in Indiana Relating to Race and Ethnicity?

The following data were collected from the Indiana State Cancer Registry and the Centers for Disease Control and Prevention Wonder U.S. Cancer Statistics Database for state and national rates, respectively.

- **Colon and Rectum (Colorectal):** In Indiana, from 2016-2020, the incidence rate among Blacks was higher than the national rate (48.4 versus 39.4 cases per 100,000 people, respectively).[4,5] During that same time period, the mortality rate in Indiana was lower than the national rate (14.1 versus 13.1 deaths per 100,000 people, respectively).[4,5] In Indiana, during 2016-2020, Blacks compared to Whites had a higher incidence rate (41.2 versus 39.5 cases per 100,000 people, respectively) and a higher mortality rate for colorectal cancer (12.5 deaths versus 11.1 deaths per 100,000 people, respectively).[5]
- **Lung:** In Indiana, from 2016-2020, the incidence rate among Blacks was higher than the national rate (71.6 versus 66.1 cases per 100,000 people, respectively).[4,5] During that same time period, the mortality rate in Indiana was higher than the national rate (45.9 versus 42.3 deaths per 100,000 people, respectively).[4,5] In Indiana, during 2016 to 2020, Blacks compared to Whites had a 6.5 percent lower incidence rate (63.9 versus 68.2 cases per 100,000 people, respectively) and a 13.1 percent lower mortality rate for lung cancer (40.4 versus 45.6 deaths per 100,000 people, respectively).[5]
- **Prostate:** In Indiana, from 2016-2020, the incidence rate among Blacks was higher than the national rate (152.7 versus 115.0 cases per 100,000 males, respectively).[4,5] During that same time period, the mortality rate in Indiana was lower than the national rate (14.1 versus 18.0 deaths per 100,000 males, respectively).[4,5] In Indiana, during 2020, Blacks compared to Whites had a higher incidence rate (106.7 versus 70.6 cases per 100,000 people, respectively) and a higher mortality rate for prostate cancer (23.8 deaths versus 11.5 deaths per 100,000 people, respectively).[5]
- **Female Breast:** In Indiana, from 2016-2020 the breast cancer incidence rates

for Black and White females were similar, but the mortality rate for Black females was significantly higher than the rate for Whites, with the mortality rate for Black females being 29.9 and the rate for White females being 22.0. [5] In Indiana, from 2016-2020, the incidence rate among Blacks was higher than the national rate (135.9 versus 127.1 cases per 100,000 females, respectively).[4,5] During that same time period, the mortality rate in Indiana was higher than the national rate (23.4 versus 22.8 deaths per 100,000 females, respectively).[4,5]

- **Underrepresentation in research and clinical trials:** A disconnection exists between the burden of disease and representation of racial and ethnic minority populations in research and clinical trials;[6] many of the same racial and ethnic groups who experience cancer disparities in cancer incidence and mortality are also underrepresented in cancer research clinical trials.[7] The lack of racial and ethnic diversity in research and clinical trials favors the continuation of health disparities and limits the understanding of factors that promote health and wellness.[6] Study participants representative of the larger U.S. population help researchers to better understand the combination of genetic influences, environmental exposures, and social factors that all racial and ethnic groups experience.[6,8]
- **Disparities in hospice and palliative care:** Studies show that minorities receive lower-quality palliative care indicated by decreased satisfaction, communication, and pain management. Evidence suggests that the stated preferences for care among Blacks with advanced-staged cancers are not consistently matched to the treatment they receive. Factors contributing to these disparities may include gaps in the understanding of palliative care among racial and ethnic minorities. Additionally, Blacks may be wary of the healthcare system due to past injustices in medical research. Research investigating disparities in racial and ethnic minorities for hospice and palliative care is essential. [9]

Can Cancer Be Prevented?

- **Body weight, diet, and physical activity:** Being overweight or obese is a major risk factor for developing cancer. In the U.S., the obesity epidemic accounts for 5 to 11 percent of total cancer deaths.[10] According to the ACS, excess body weight is associated with an increased risk of cancers of the female breast (postmenopausal), colon and rectum, endometrium, kidney, pancreas, adenocarcinoma of the esophagus, liver, cervix, prostate, ovary, gallbladder, non-Hodgkin lymphoma, and multiple myeloma.[11] Black women have the highest body mass index (BMI) of all sex-racial/ethnic groups in Indiana.[12] When compared to White women, Black women have higher rates of being overweight (28.9 and 30.4 percent respectively). Black women have a higher prevalence of obesity than White women (46.7 and 33.0 percent, respectively). Black men have a higher prevalence of being overweight than White men (39.8 and 36.1 percent, respectively). When compared to White men, Black men have a lower prevalence of obesity (34.1 and 32.1 percent, respectively).[12] From 2019-2020, 19 percent of

Blacks were living below the federal poverty level, as compared with 7 percent of Non-Hispanic Whites.[2] People of lower socioeconomic status are less likely to have opportunities to engage in physical activity and are less likely to have access to fresh fruits and vegetables, which are factors that reduce cancer risk.

- **Tobacco:** All cancers caused by tobacco use can be prevented. Smoking persists as the most preventable cause of death and accounts for approximately 40 percent of all cancers diagnosed in the U.S.[13] Smoking puts a person at increased risk for developing cancers of the oral cavity, pharynx, larynx, lung, esophagus, pancreas, uterine cervix, kidney, bladder, stomach, colon and rectum, and liver, as well as acute myeloid leukemia.[2] In 2017, 19 percent of Black men and 12 percent of Black women were current cigarette smokers compared to 17 percent of White men and 15 percent of White women.[2] Approximately 3% of cancer deaths in the U.S. are attributed to second-hand smoke exposure. Blacks experience higher second-hand smoke exposure than Non-Hispanic Whites. Current evidence indicates that e-cigarettes and vaping are less harmful than tobacco use, but long-term health impacts are still unclear.[11]
- **Socioeconomic status and health care access:** According to ACS, individuals of lower socioeconomic status have higher cancer risk and experience high cancer death rates. Access to health care is key to cancer prevention, screening, treatment, and survival. Lower socioeconomic status is a major barrier to health care, as individuals may lack adequate health insurance, lack access to preventive or treatment services, and have reduced health literacy to understand essential health information.[11] The percentage of uninsured in 2022 was 10 percent of Non-Hispanic Blacks compared to 6 percent of Non-Hispanic Whites. The Affordable Care Act passage in 2010 reduced the number of uninsured Blacks by 9 percent; however, Blacks had the lowest coverage gains among racial and ethnic groups.[2]
- **Infectious diseases:** There are racial disparities in infectious diseases which in turn impact cancer disparities. Hepatitis B (HBV) and Hepatitis C (HCV) are more common among Non-Hispanic Blacks than people of other racial and ethnic groups. Although Blacks comprise 9.6 percent of the Indiana population, they experience 33 percent of all new Human Immunodeficiency Virus (HIV) infections in the state.[2] As of 2022, Blacks accounted for 38.9 percent of persons living with HIV in Indiana. The prevalence of HIV/AIDS among Blacks is 744.1 compared to 104.1 for Non-Hispanic Whites in Indiana.[14]
- **Human Papillomavirus (HPV):** HPV is a commonly transmitted infection and is responsible for virtually all cases of cervical cancer as well as many cases of anal, penile, vulvar, vaginal, and oral pharyngeal cancers. HPV is passed person-to-person through skin-to-skin contact with an infected area of the body. Although HPV can be spread through skin-to-skin sexual contact, sex doesn't have to occur for the infection to spread. The HPV virus can be spread through hand-to-genital contact with an infected area of the body.[15] High-risk genital HPV is more common in Blacks than whites.[2] Risk of transmission can be reduced by delaying first sexual activity, limiting the number of sexual partners, and using condoms.[15]

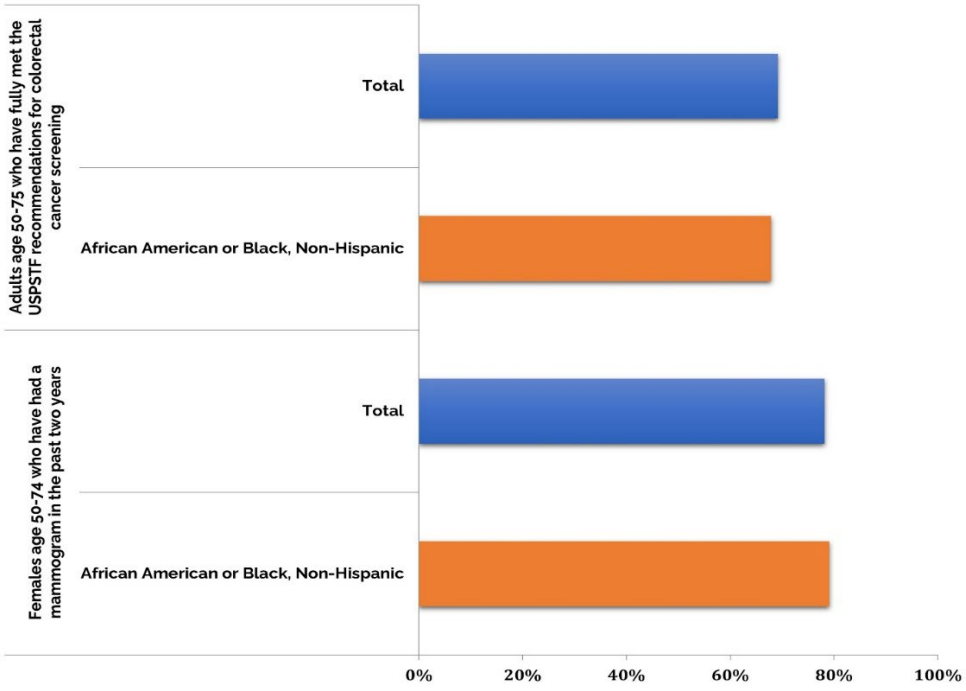
HPV vaccination is the best method of prevention. Currently, there is one HPV vaccine available in the U.S. – Gardasil-9. It is FDA-approved for both females and males, aged 9-45 years. It is most effective when given in early adolescence. Per the CDC Advisory Committee on Immunization Practices (ACIP), HPV vaccination is recommended for all girls and boys aged 11 and 12 years and catch-up HPV vaccination for all persons through age 26 years. HPV vaccination can be administered to both boys and girls starting at age 9, an approach recommended by the ACS.[15] For males and females aged 27-45 years there is a shared clinical decision-making recommendation, such that the decision regarding vaccination should involve discussions between patients and healthcare providers as to whether patients may benefit from and desire HPV vaccination.[16] If the first dose is administered before age 15, only two doses are required, six to 12 months apart. If the first dose is administered at age 15 or older, three doses are required, with the second dose administered one to two months after the first dose, and the third dose administered approximately three to four months after the second dose.[17] Black adolescent males and females have higher rates of vaccination when compared to their Non-Hispanic White peers.[11]

- **Alcohol consumption:** Alcohol consumption is linked to cancers of the mouth, pharynx, larynx, esophagus, liver, colorectal, and breast. Consumption may also increase the risk of developing stomach cancer. For each of these cancers, the more alcohol you drink, the higher your cancer risk. But for some types of cancer, most notably breast cancer, consuming even small amounts of alcohol can increase risk.[18] Black youth and adults have lower alcohol consumption when compared to Non-Hispanic Whites.[2]

Can Cancer Be Detected Early?

The United States Preventative Services Task Force and other organizations have established screening guidelines for breast, cervical, colorectal and lung cancers to promote early detection. The identification of cancer early when the cancer is at a localized stage can decrease deaths from breast, cervical, colorectal and lung cancers. Unfortunately, Blacks are more likely to be diagnosed with cancer in more advanced stages and less likely to be diagnosed with cancer at a localized stage. Early detection of cancer directly influences treatment options and ultimately survival outcomes.[2]

FIGURE 3 4. CANCER SCREENING PREVALENCE FOR AFRICAN-AMERICANS* — INDIANA, 2022



*Source: 2022 Indiana Behavioral Risk Factor Surveillance System

What Factors Influence Cancer Survival?

Blacks have lower five-year survival rates than Whites for most cancer sites at all stages of diagnosis.[2] These differences are attributed to socioeconomic barriers to receiving quality medical care, resulting in delayed diagnosis. Another factor at play is a higher prevalence of pre-existing health conditions in Blacks, such as diabetes, which adversely impacts survival rates.[2] Additionally, there is limited representation of Blacks in clinical trials, therefore limiting research on the impact of new treatments on the Black population.[7]

Be Aware and Take Charge!

What can you do to help prevent cancer?

- Maintain a healthy body weight and engage in physical activity and a healthy diet
- Limit alcohol intake
- Get immunized (HPV and hepatitis vaccines)
- Be smoke-free- Visit QuitNowindiana.com or call 1-800-Quit-Now for free tobacco dependence treatment resources
- Find and engage with a primary health care provider and regularly talk about cancer screening options and risk reduction
- Seek treatment early and avoid delaying care if diagnosed with cancer

What can the community do to help prevent cancer and improve care among Black Americans?

- Become informed about poverty and discrimination, racial disparities, and social determinants of health
- Promote cultural competency among healthcare providers and support the development of culturally relevant resources. If you are a healthcare provider, participate in cultural competency education.
- Explore social determinants of health, such as socioeconomic justice, education, employment, housing, nutrition, physical environment, and healthcare access
- Support increased opportunities for healthcare providers who are members of minority racial/ethnic groups
- Encourage and/or conduct research that includes and addresses the needs of all racial/ethnic groups and improve health literacy for all healthcare consumers
- Implement culturally competent patient navigator programs, which help guide patients and their caregivers through their cancer journey and aim to eliminate barriers to timely cancer detection, diagnosis, and treatment within the health care system

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