Disparities in Malignant Neoplasms (CANCER) Mortality Among Blacks in Arkansas

Health disparities are gaps in health outcomes or determinants between segments of the population. Many health disparities are related to social determinants of health *(Centers for Disease Control and Prevention, CDC).*

- **Cancer** refers to diseases in which abnormal cells divide out of control and are able to invade other tissues. Cancer cells can spread to other parts of the body through the blood and lymph systems, which help the body get rid of toxins *(CDC)*.
- In 2015, Arkansas ranked 4th in the nation for **cancer** mortality (1st being the worst).[1]
- In 2015, a total of 6,727 Arkansans died due to **cancer**, of which 12.7% were Black.
- In 2014, total hospitalization costs for **cancer** in Arkansas was over $139.4 million. Thirteen percent of those costs ($17.5 million) were for Blacks.[2]

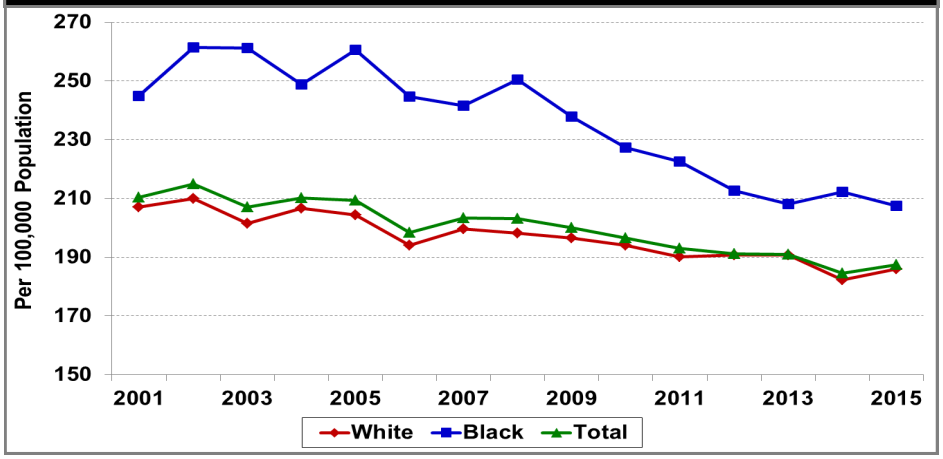
Table 1: Leading Causes of Death by Black/White Disparity Ratio, Arkansas 2011-2015

Cause of Death[3]	White Rate[4]	Black Rate[4]	Disparity Ratio[5]	Preventable Deaths among Blacks[6]
1. HIV	1.2	7.0	5.8	27
2. Homicide	4.4	23.5	5.3	89
3. Diabetes	21.9	51.2	2.3	137
4. Perinatal Conditions	3.4	7.6	2.2	20
5. Hypertension	7.3	15.7	2.2	39
6. Kidney Disease	19.0	36.9	1.9	84
7. Septicemia	14.5	23.9	1.6	44
8. Stroke	46.4	61.9	1.3	73
9. Heart Disease	215.2	261.2	1.2	215
10. Cancer	187.9	212.4	1.1	115

Source: Centers for Disease Control and Prevention, National Center for Health Statistics, CDC WONDER Online

- The 15 Leading Causes of deaths among Blacks were sorted and ranked by disparity ratio. Ten causes with the highest disparity ratios were presented.[5]
- **Cancer** ranked tenth among the diseases examined.
- The **cancer** age-adjusted mortality rate for Blacks was 212.4 per 100,000 population compared to 187.9 for Whites, 1.1 times higher than for Whites.
- Preventable Deaths among Blacks showed that 115 Black lives could be saved if the mortality rate for Blacks was equal to the rate for Whites.[6]

Figure 1: Age-Adjusted Cancer Mortality Rates by Race Arkansas 2001-2015

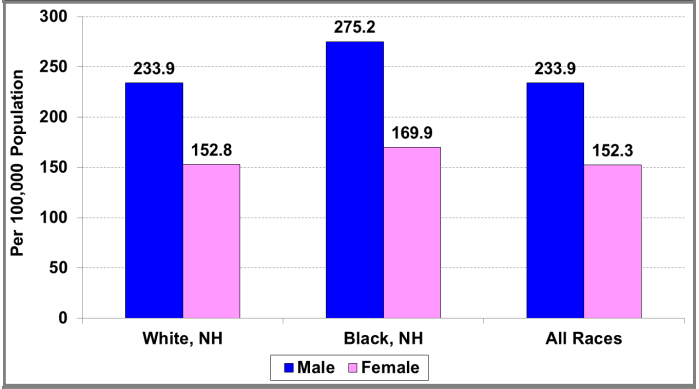


Source: Centers for Disease Control and Prevention, National Center for Health Statistics, CDC WONDER Online

- During the 2001-2015 time period, **cancer** mortality rates have been significantly higher among Blacks as compared to Whites.
- Since 2008, the **cancer** mortality rates among Blacks have been on a downward trend.
- This downward trend among Blacks gradually narrowed the gap between Black and White **cancer** mortality rate.
- Mortality trends for the State and Whites have been similar over the years.

[1]CDC Wonder. [2]HCUP State Inpatient Databases 2014. Hospitalization cost includes hospital discharges with principal diagnosis of cancer. [3]Based on the 15 leading causes of death among Blacks. [4]Age-adjusted mortality rates for Non-Hispanic Whites and Non-Hispanic Blacks. [5]Disparity ratio calculated by dividing the mortality rate for Blacks by the mortality rate for Whites. [6]Number of deaths that could have been prevented among Blacks in the absence of Black-to-White disparity.

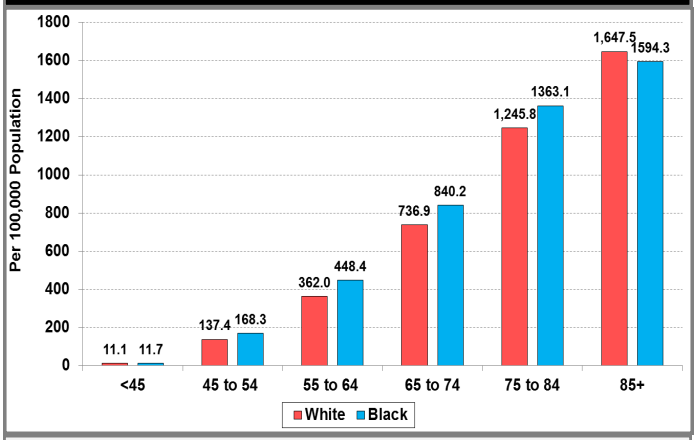
Figure 2: Age-Adjusted Cancer Mortality Rates by Gender and Race, Arkansas 2011-2015



- The **cancer** mortality rates were notably higher among Black males and females compared to White males and females.
- Regardless of race, males had significantly higher mortality rates than females.

NH=Non-Hispanic
Source: Centers for Disease Control and Prevention, National Center for Health Statistics, CDC WONDER Online

Figure 3: Cancer Mortality Rates by Age and Race Arkansas 2011-2015



- With the exception of 85+, the **cancer** mortality rates among Blacks were higher within all age categories, compared to Whites.
- Within the 85 years and older age group, the **cancer** mortality rate for Whites was slightly higher than that of Blacks.

Source: Centers for Disease Control and Prevention, National Center for Health Statistics, CDC WONDER Online

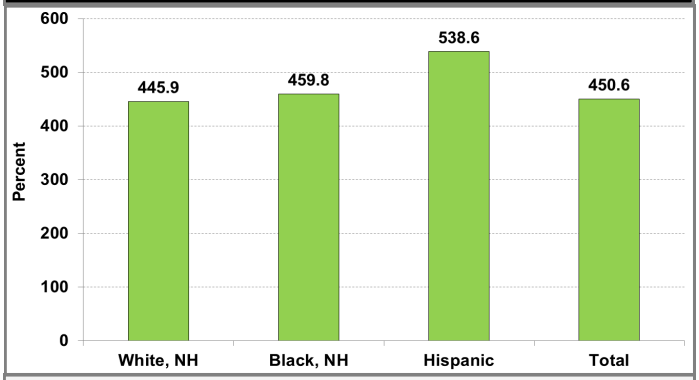
Table 2: Cancer Mortality Rates and Disparity Ratios by Race and County, Arkansas 2011-2015

County	White Rate[7]	Black Rate[7]	Disparity Ratio[8]
1. Cleveland	142.8	275.7	1.9
2. Ashley	173.6	303.2	1.7
3. Grant	214.0	340.8	1.6
4. Columbia	167.2	253.4	1.5
5. Ouachita	178.8	237.9	1.3
6. Drew	172.7	227.3	1.3
7. Chicot	208.3	264.4	1.3
8. Pulaski	166.2	207.1	1.2
9. Union	197.2	245.5	1.2
10. Poinsett	237.1	292.7	1.2

- **Cancer** mortality rates were sorted and ranked by disparity ratio. Only those counties with at least five total deaths and at least four total Black deaths were used in the analysis. Ten counties with the highest disparity ratio among Blacks were highlighted.
- Cleveland County had the highest disparity ratio of 1.9 in **cancer** mortality for the 2011-2015 time period.
- Between 2011-2015, every Arkansas county had 75 or more **cancer** deaths.

Source: Arkansas Health Statistics Branch Query System

Figure 4: Invasive Cancer Age-Adjusted Incidence[9] Rates by Race/Ethnicity, Arkansas 2009-2013



- Invasive **cancer** incidence rates were highest among Hispanics at 538.6 per 100,000 population. This rate was higher than the rate among Whites at 445.9 per 100,000 population.
- Screening for the most common types of **cancers** is vital to early detection and saves lives.

NH=Non-Hispanic
Source: Arkansas Department of Health, Cancer Registry Online Query System

[7]Age-adjusted mortality rates for Non-Hispanic Whites and Non-Hispanic Blacks. [8]Disparity ratio calculated by dividing the mortality rate for Blacks by the mortality rate for Whites. [9]Incidence rate is defined as the number of new cases per 100,000 population.