

Disparities in Cerebrovascular Disease (STROKE) 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*).

- **Stroke**, sometimes called a brain attack, occurs when something blocks blood supply to part of the brain or when a blood vessel in the brain bursts. In either case, parts of the brain become damaged or die (*CDC*).
- In 2015, Arkansas ranked 3rd in the nation for **stroke** mortality (1st being the worst).¹
- In 2015, a total of 1,653 Arkansans died due to **stroke**, of which 12.6% were Black.
- In 2014, total hospitalization costs for **stroke** in Arkansas was over \$64.5 million. Seventeen percent of those costs (\$11.1 million) were for Blacks.²

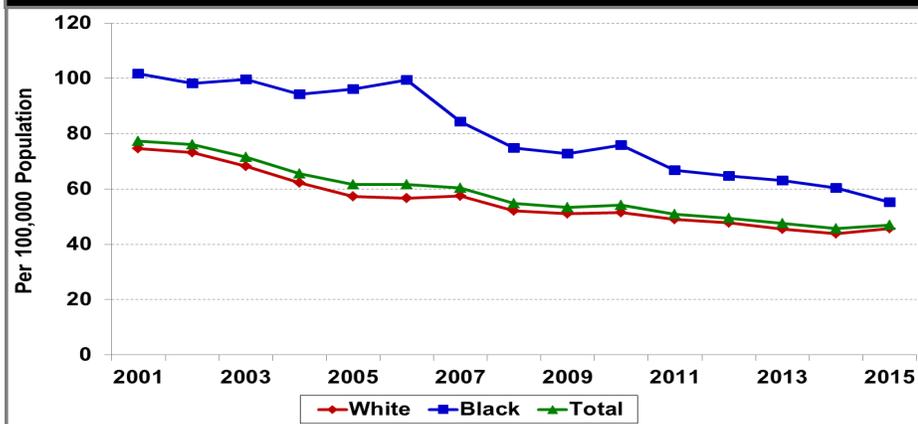
Table 1: Leading Causes of Death by Black/White Disparity Ratio, Arkansas 2011-2015

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 are presented.⁵
- **Stroke** ranked eighth among the diseases examined.
- **Stroke** age-adjusted mortality rate for Blacks was 61.9 per 100,000 population compared to 46.4 for Whites, 1.3 times higher compared to Whites.
- Preventable Deaths among Blacks showed that 73 Black lives could be saved if the mortality rate for Blacks was equal to the rate for Whites.⁶

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

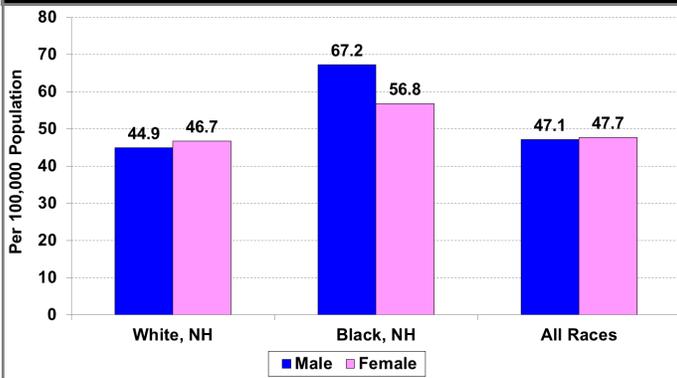


Source: Centers for Disease Control and Prevention, National Center for Health Statistics, CDC WONDER Online

- During the 2001-2015 time period, **stroke** mortality rates steadily declined among Blacks as well as Whites. The State rates also declined over the period.
- The gap between Black and White mortality rates narrowed over the years as **stroke** mortality rate declined more rapidly among Blacks.
- The 2015 **stroke** mortality rate for Blacks was nearly half that of 2001 mortality rate.

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

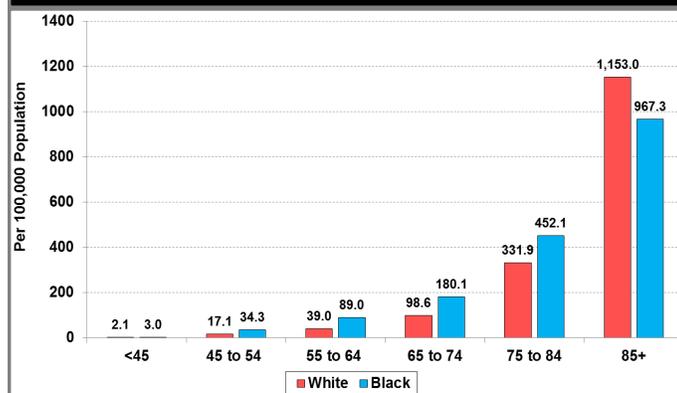
Figure 2: Age-Adjusted Stroke Mortality Rates by Gender and Race, Arkansas 2011-2015



- The **stroke** mortality rates among Black males and females were approximately one and a half times higher compared to White males and females.
- Black males had the highest **stroke** mortality rate, among all race/gender groups.

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

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



- With the exception of 85+, the **stroke** mortality among Blacks was higher in all age categories.
- Mortality rates were between one and a half to two and a half times higher than their White counterparts.
- Mortality rates for older Whites, 85+ years old, were notably higher than for Blacks.

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

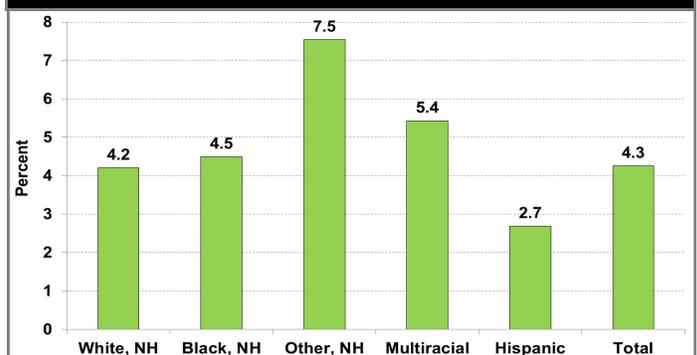
Table 2: Stroke Mortality Rates and Disparity Ratios by Race and County, Arkansas 2011-2015

County	White Rate ⁷	Black Rate ⁷	Disparity Ratio ⁸
1. Pope	43.4	115.3	2.7
2. Crittenden	19.3	41.9	2.2
3. Jackson	34.6	74.4	2.2
4. Chicot	39.1	80.5	2.1
5. Cleveland	47.1	84.5	1.8
6. Benton	43.9	78.2	1.8
7. Garland	50.2	87.4	1.7
8. Lonoke	50.8	86.0	1.7
9. Lee	43.3	70.6	1.6
10. Faulkner	49.2	77.7	1.6

- **Stroke** 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 highest disparity ratios among Blacks are highlighted.
- Pope County had the highest disparity ratio of 2.7 in **stroke** mortality for the 2011-2015 time period.
- Between 2011-2015, each Arkansas County had more than 15 **stroke** related deaths.

Source: Arkansas Health Statistics Branch Query System

Figure 4: Estimated Stroke Prevalence⁹ by Race/Ethnicity, Arkansas 2011-2015



- The **stroke** prevalence rates among Blacks and Whites were relatively even. Prevalence is highest among Other race but may not be reliable due to small numbers.
- **Stroke** was a leading cause of serious long-term disability. **Stroke** reduces mobility in more than half of **stroke** survivors age 65 and over.

NH=Non-Hispanic
Source: Centers for Disease Control and Prevention, Behavioral Risk Factor Surveillance System

⁷Age-adjusted mortality rates for Non-Hispanic Whites and Non-Hispanic Blacks. ⁸Disparity ratio calculated by dividing the mortality rate for Blacks by the mortality rate for Whites. ⁹Stroke prevalence refers to the percentage of adults reporting a healthcare professional has told them they had a stroke.