

# Disparities in Human Immunodeficiency Virus (HIV) 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*).

- **HIV** is the virus that can lead to acquired immunodeficiency syndrome, or AIDS. Unlike some other viruses, the human body cannot get rid of **HIV**. Once you have **HIV**, you have it for life (*CDC*).
- In 2015, Arkansas tied with Nevada for 15<sup>th</sup> in the nation for **HIV** mortality (1<sup>st</sup> being the worst).<sup>1</sup>
- In 2015, a total of 54 Arkansans died due to **HIV**, of which 38.9% were Black.<sup>1</sup>
- In 2014, total hospitalization costs for **HIV** in Arkansas was over \$3.3 million. Sixty-three percent of those costs (\$2.1 million) were for Blacks.<sup>2</sup>

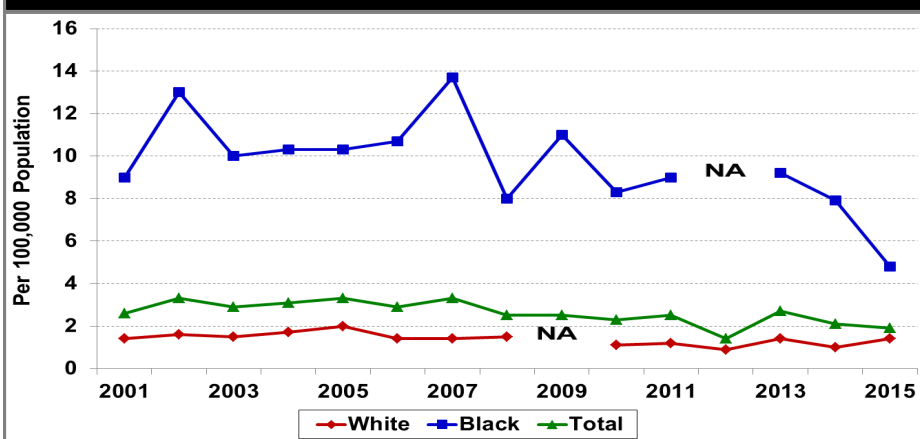
**Table 1: Leading Causes of Death by Black/White Disparity Ratio, Arkansas 2011-2015**

Cause of Death <sup>3</sup>	White Rate <sup>4</sup>	Black Rate <sup>4</sup>	Disparity Ratio <sup>5</sup>	Preventable Deaths among Blacks <sup>6</sup>
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. The ten causes with the highest disparity ratio are presented.<sup>5</sup>
- **HIV** ranked first among the diseases examined.
- The age-adjusted **HIV** mortality rate for Blacks was 7.0 per 100,000 population compared to 1.2 for Whites, 5.8 times higher than for Whites.<sup>5</sup>
- Preventable Deaths among Blacks showed that 27 Black lives could be saved if the mortality rate for Blacks was equal to the rate for Whites.<sup>6</sup>

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

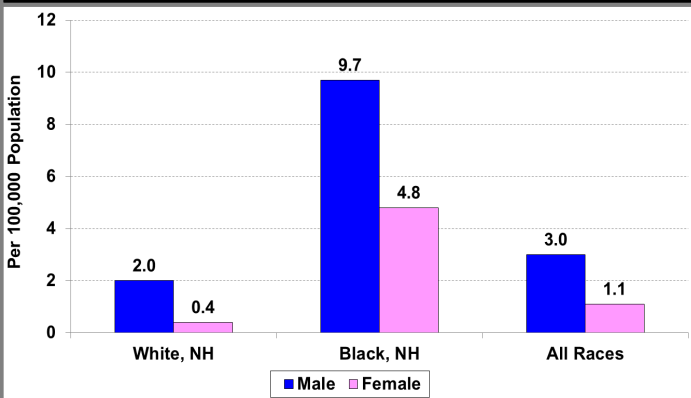


Source: Centers for Disease Control and Prevention, National Center for Health Statistics, CDC WONDER Online

- During the 2001-2015 period, **HIV** mortality rates were consistently higher for Blacks as compared to Whites. The variations in the rates for Blacks were due to small numbers.
- The rate for Whites as well as the state rate remained relatively stable during this time period.
- Blacks continued to experience severe burden of **HIV**, both in Arkansas as well as in the United States, as compared with other races and ethnicities.

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

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



- HIV mortality rates among Black males and females were significantly higher compared to their White counterparts.
- Rates were consistently higher among males within all categories. Mortality rate among Black males was twice as high compared to Black females.

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

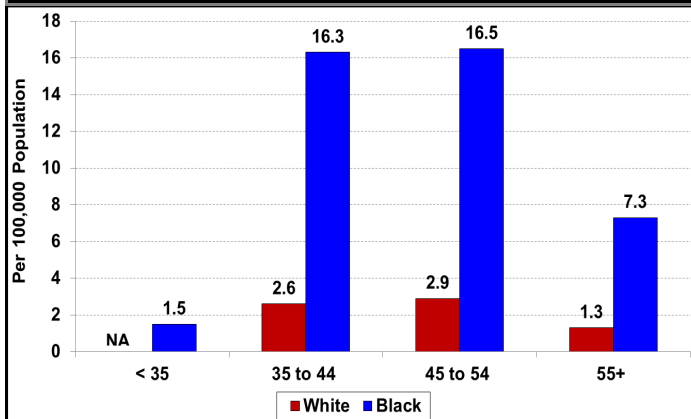
**Table 2: HIV Mortality Rates and Disparity Ratio by Race and County, Arkansas 2011-2015**

County	White Rate <sup>7</sup>	Black Rate <sup>7</sup>	Disparity Ratio <sup>8</sup>
1. Jefferson	0.6	4.5	7.5
2. Union	1.8	12.2	6.7
3. Crittenden	2.0	12.3	6.2
4. Mississippi	1.7	9.2	5.4
5. Garland	2.0	10.7	5.4

- HIV mortality rates were ranked by disparity ratio. Counties with at least five total deaths and at least four total Black deaths were used in the analysis. Five counties with the highest disparity ratio among Blacks are highlighted.
- Jefferson County had the highest disparity ratio of 7.5 in HIV mortality for the 2011-2015 time period.
- Between 2011-2015, 38 counties had less than 10 HIV deaths and another 30 counties had no deaths due to HIV.
- These counties should be continuously monitored regardless of the absence or low number of HIV-related deaths.

Source: Arkansas Health Statistics Branch Query System

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



- HIV mortality rate among Blacks was significantly higher in all age categories.
- Rates for Blacks were about five to six times higher than their White counterparts.
- These differences were most evident in the 35-44 and 45-54 years old age categories.

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

**Table 3: HIV/AIDS Prevalence by Race/Ethnicity Arkansas 2015**

Race/Ethnicity	HIV/AIDS Prevalence <sup>9</sup>	
	Number	Rate <sup>10</sup>
White, Non-Hispanic	2,608	118.1
Black, Non-Hispanic	2,459	518.9
Am Ind/AK Nat, Non-Hispanic	7	28.0
Asian/HI/PI, Non-Hispanic	27	47.9
Hispanic	310	145.1
Other, Non-Hispanic	161	NA
Unknown	14	NA
<b>Total</b>	<b>5,586</b>	<b>187.6</b>

- HIV prevalence rates among Blacks were four times as high as their White counterparts and nearly three times as high as the state rate.
- Early detection of HIV through routine testing and access to proper treatment may still be the best way to reduce this disparity.

Source: Arkansas Crime Information Center

<sup>7</sup>Age-adjusted mortality rates for Non-Hispanic Whites and Non-Hispanic Blacks. <sup>8</sup>Disparity ratio calculated by dividing the mortality rate for Blacks by the mortality rate for Whites. <sup>9</sup>HIV/AIDS Prevalence is defined as the number of persons living with HIV-NA and AIDS as of December 31, 2015. <sup>10</sup>HIV/AIDS Prevalence per 100,000 population.