



# **Cancer Disparities in Arkansas: An Uneven Distribution**

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For the Arkansas Cancer Coalition

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## Burden of Cancer

Cancer is one of the leading causes of death in the United States (US) and Arkansas – for both genders, in all regions, for all race groups, and for most age groups. The American Cancer Society<sup>1</sup> estimates that in any given year more than 1.5 million people will receive a diagnosis of cancer and nearly 600,000 persons will die because of the disease. Some basic facts about cancer in the US overall<sup>1</sup> include:

- The most common cancers include breast cancer, lung cancer, prostate cancer, colorectal cancer, bladder cancer, non-Hodgkin lymphoma, leukemia, thyroid cancer, kidney cancer, and pancreatic cancer.
- Deaths from cancer are higher among men than among women.
- African Americans are more likely to die of cancer than their white counterparts.
- Cancer death rates are highest among African Americans and lowest among Asian Americans.
- Approximately 40 percent of US men and women will be diagnosed with cancer in their lifetime.

## Cancer Disparities

While cancer affects all groups of people, the burden of disease is not distributed equally among groups. Disparities – that is, differences between groups – can be seen in incidence (new cases), prevalence (existing cases), mortality (deaths), survivorship, screening rates, and stage at diagnosis.<sup>2</sup> Differences among groups tend to vary by cancer type and by the indicator being examined, and they may also be noted when improvements that are being seen overall are delayed in some groups.<sup>2</sup> Disparities are typically thought of as differences between racial/ethnic groups, but may also be seen relative to gender, disability, sexual identity, geographic location, income, education, and other characteristics.<sup>2</sup>

Cancer disparities are generally thought to reflect differences in socioeconomic factors (such as income and education), culture, diet, environment, occupation, diet, stress, and biology.<sup>2</sup> Members of minority groups are more likely to be poor, have less access to effective health care, and have recommended cancer screening tests than their white counterparts.<sup>2</sup> They are more likely to be diagnosed with cancer at later stages of the disease, which may limit treatment options and make treatment more complicated, more expensive, and less effective. Groups may also have higher rates of smoking, physical inactivity, obesity, and alcohol consumption. They may also have greater exposure to cancer-related toxins in their workplaces and in their neighborhoods.

Regardless of socioeconomic status, cancer disparities may be related to cultural differences in dietary habits, mistrust of the medical community, attitudes about disease or medical procedures, geographic differences in the availability of high quality medical care, and many other factors. In addition, biological differences may play a role in some disparities. Research in the area of genomics and molecular processes is helping us understand how biological factors interact with behavioral and environmental factors to impact disease occurrence and progression.

## Cost of Cancer

Cancer is an expensive disease for individuals, families, and society. Direct costs associated with cancer include costs associated with diagnosis and treatment, often for years. Those costs may include physician fees, hospital fees, outpatient facility fees, medications, home health care, and other expenses.<sup>3,4</sup> In addition, there are costs associated with child care, transportation, lost wages, and lost productivity associated with premature death,<sup>4,5</sup> along with costs associated with the time both patients and caregivers

spend getting to care, waiting for care, receiving care, and providing care.<sup>4,5</sup> These costs have been conservatively estimated to be more than \$215 billion annually.<sup>3</sup>

## Arkansas Cancer Plan

In Arkansas, efforts to reduce the burden of cancer are guided by the Arkansas Cancer Plan (2015-2020). The plan is intended to provide guidance for a wide variety of interested and engaged individuals, organizations, institutions, policy makers, and others who wish to participate in a coordinated effort to impact the incidence, prevalence and mortality associated with cancer in the state. The plan was devised by a broad group of partners representing a range of stakeholder groups, and includes an emphasis on evidence-based practices in prevention, early detection and care.

In 2012 members of the Arkansas Cancer Coalition agreed to focus on seven priority cancers for the current plan:

- Lung
- Colorectal
- Breast
- Prostate
- Oral
- Skin
- Cervical

## Disparities in Priority Cancers<sup>1</sup>

Below we consider differences between groups in both new cases (incidence) and deaths (mortality) for the seven priority cancers identified in the Arkansas Cancer Plan. These differences are presented first in table form (see Table 1 below) and in the sections to follow as graphs. This report focuses on differences between black and white Arkansans and between men and women. Data for other relevant groups (e.g., Asians, Hispanics, other gender identity groups) are not readily available or reliable.

**Table 1. Incidence<sup>1</sup> (new cases) and mortality<sup>2</sup> (death) rates<sup>3</sup> of priority cancers, Arkansas, 2014-2015**

	National	Overall	Black	Arkansas White	Male	Female
<b>Lung Cancer</b>						
New cases		77.4	76.1	76.4	95.1	63.3
Deaths	49.2	56.1	58.5	56.4	73.8	43.6
<b>Colorectal Cancer</b>						
New cases		43.9	53.5	41.6	52.2	36.9
Deaths	14.0	14.2	19.6	13.5	17.1	11.8

<sup>1</sup> While data are available to consider geographic disparities in the state, for any given cancer site, a majority of counties do not have stable estimates for either incidence or mortality rates because of the small number of cases in the county. Thus, we have chosen not to present data on geographic disparities.

	National	Overall	Black	Arkansas White	Male	Female
<b>Breast Cancer (female)</b>						
New cases		113.4	118.3	110.4		
Deaths	23.2	20.2	29.8	18.9		
<b>Prostate Cancer</b>						
New cases		105.2	170.1	95.3		
Deaths	23.7	19.3	42.2	17.2		
<b>Oral Cancer</b>						
New cases		13.5	12.0	13.4	20.2	7.8
Deaths	2.5	3.7	5.0	3.5	5.2	2.3
<b>Skin Cancer</b>						
New cases		21.2	2.8	23.8	16.4	24.1
Deaths	2.7	2.5	NA <sup>4</sup>	2.9	3.5	1.7
<b>Cervical Cancer</b>						
New cases		8.9	9.7	8.3		
Deaths	2.4	3.6	NA <sup>4</sup>	3.4		

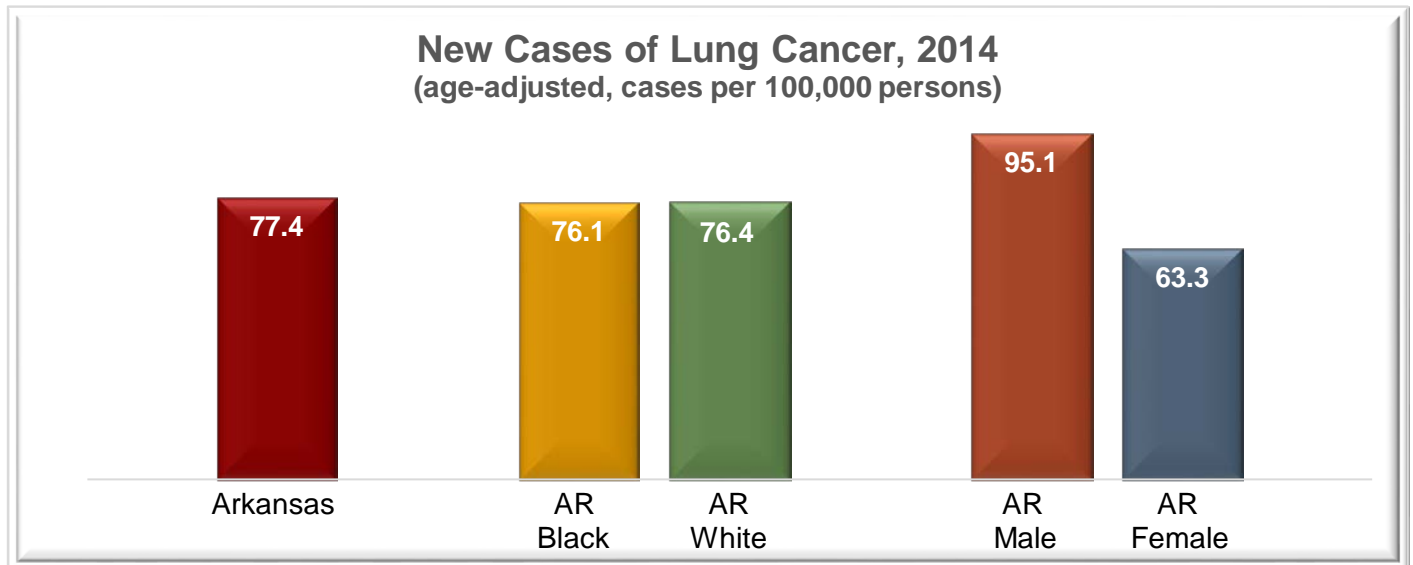
<sup>1</sup> Arkansas Department of Health Comprehensive Cancer Registry, <http://cancer-rates.info/ar>, 2014

<sup>2</sup> CDC Wonder, <http://www.wonder.cdc.gov>, 2015

<sup>3</sup> Age-adjusted, per 100,000 persons in population

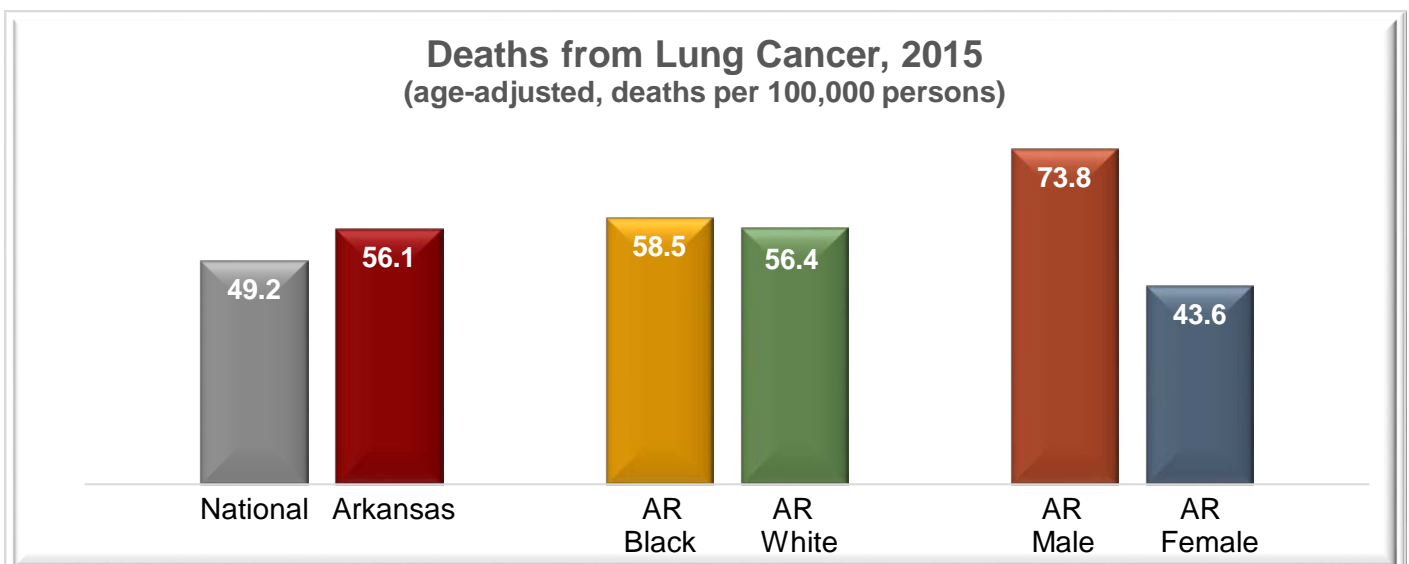
<sup>4</sup> Not available

## LUNG CANCER

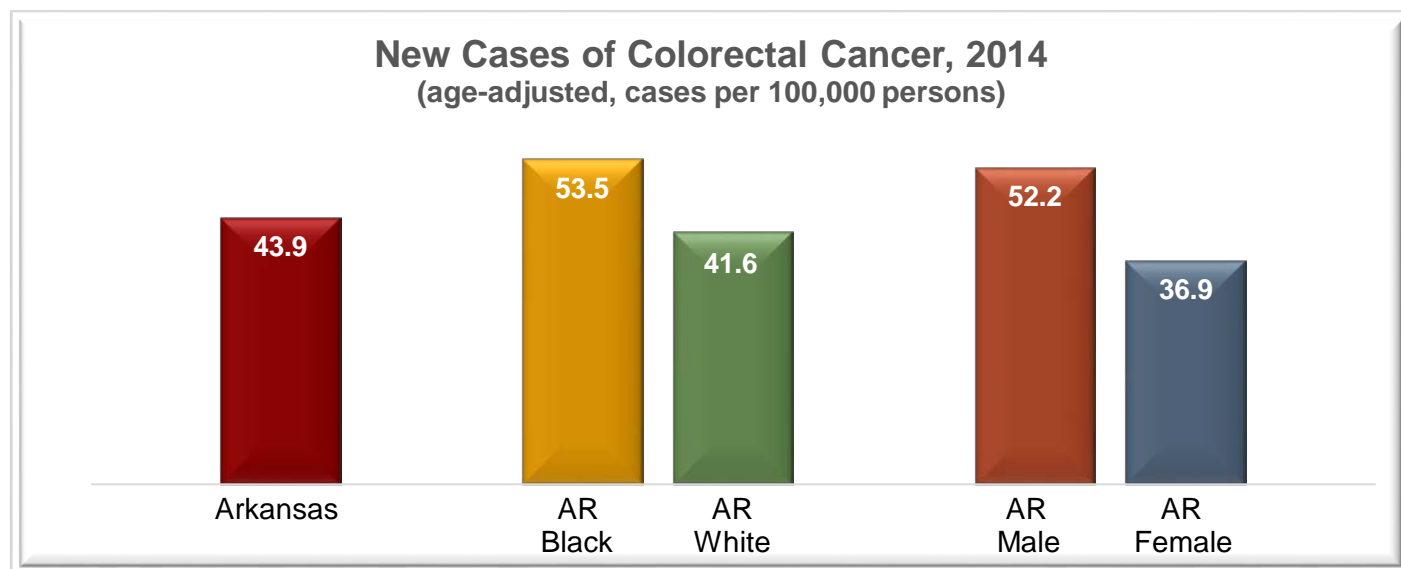


While incidence rates (that is, the number of new cases) for lung cancer are not substantially different for African American and white Arkansans, incidence rates are significantly higher for men compared to women. This is likely because historically greater proportions of men smoked compared to women.

Lung cancer death rates are somewhat higher in Arkansas than in the nation overall. As noted for incidence rates, differences between racial groups are not substantial, but many more men than women die of lung cancer each year.

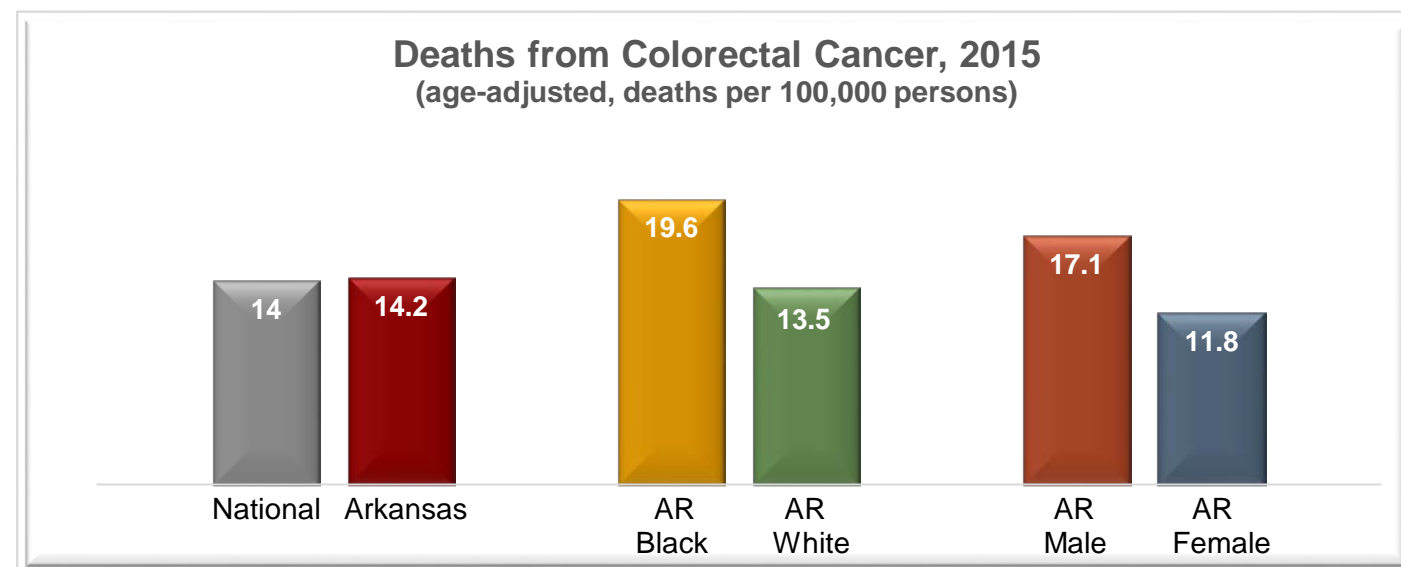


## COLORECTAL CANCER

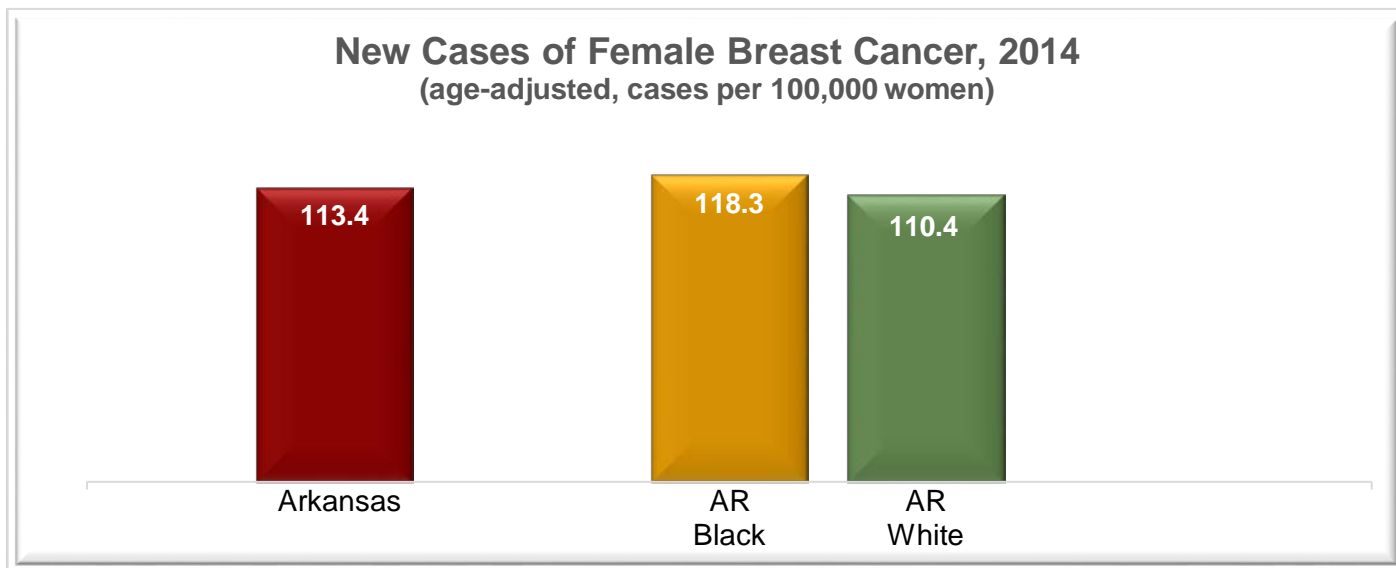


In Arkansas, incidence rates for colorectal cancer are approximately 30 percent higher for African Americans, compared to whites, and nearly 40 percent higher for men compared to women.

Mortality rates for colorectal cancer are higher in Arkansas than in the nation overall. Mortality rates are substantially higher for men (45% higher than rates for women) and for African Americans (45% higher than for whites).

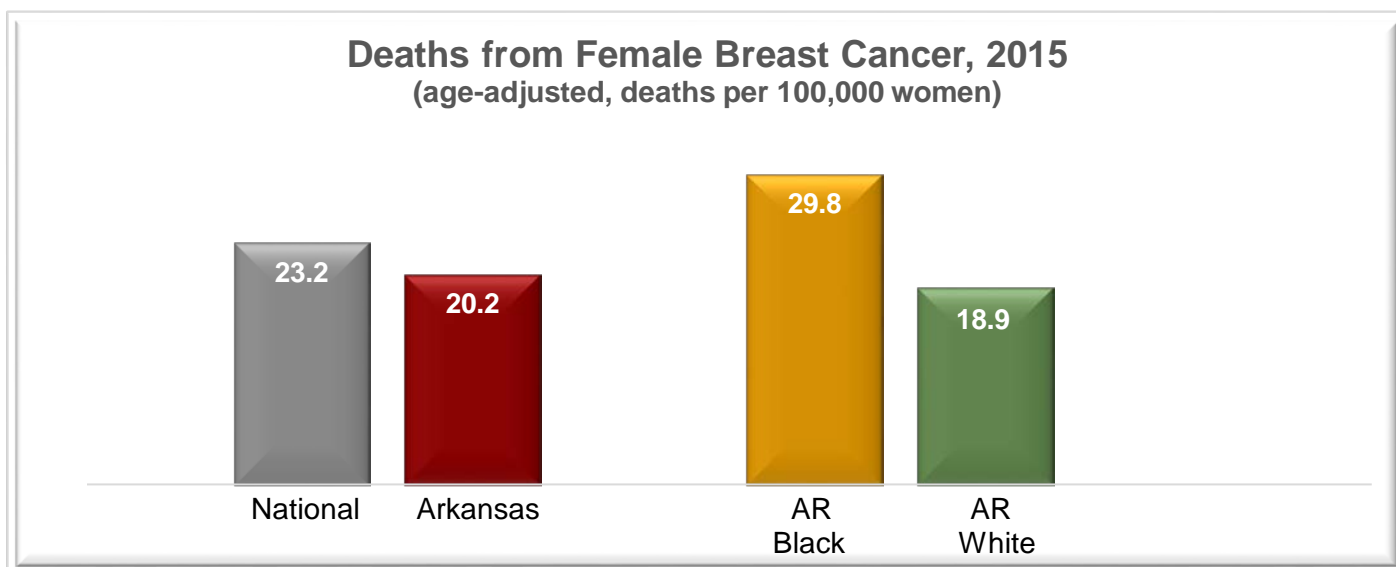


## BREAST CANCER



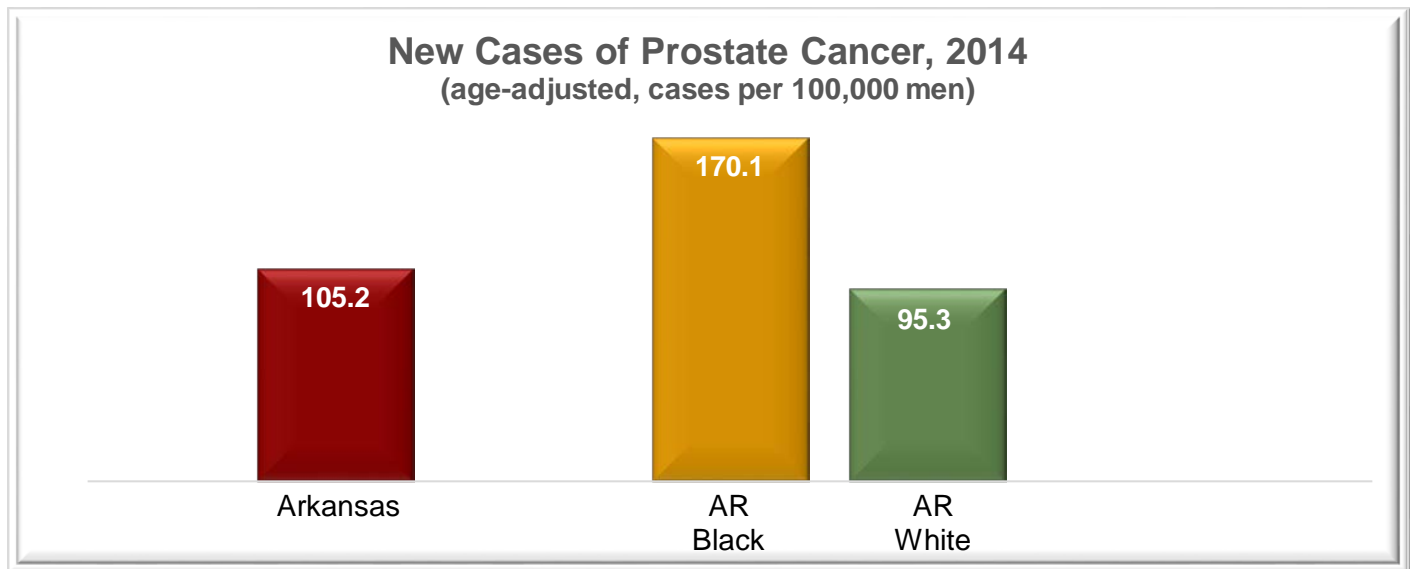
Incidence rates for breast cancer are slightly higher for black women in Arkansas, compared to white women, but the difference in rates is not significant.

However, mortality rates for black women in the state are significantly (approximately 60%) higher than those for their white counterparts.



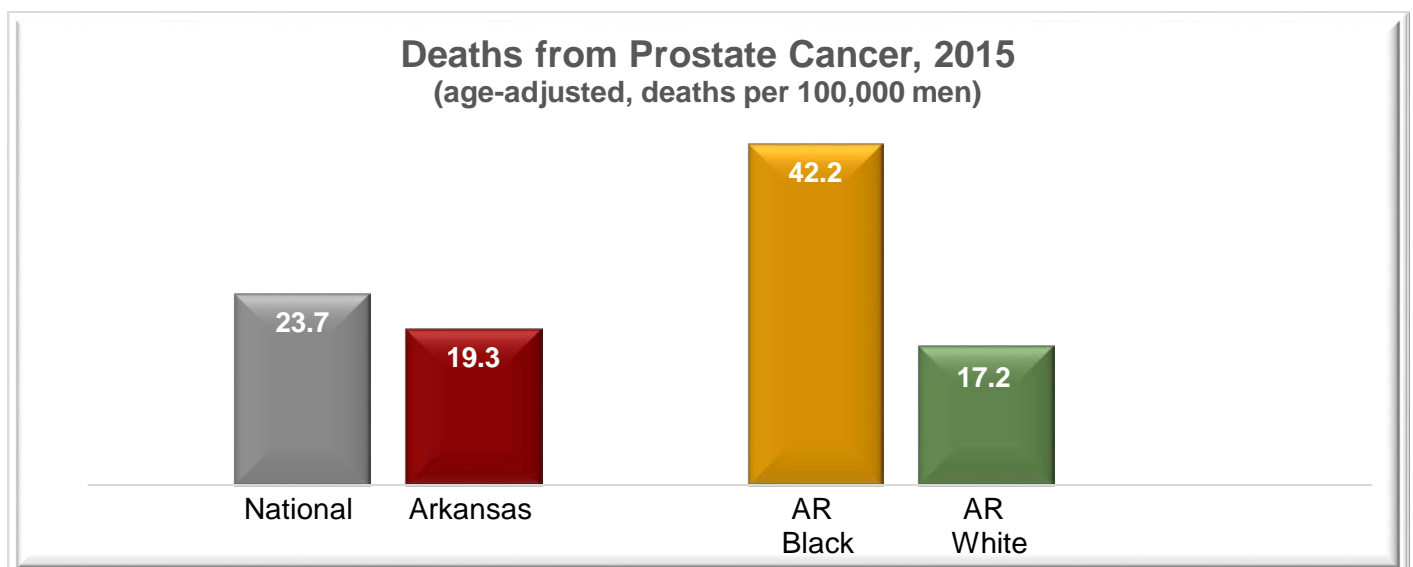


## PROSTATE CANCER

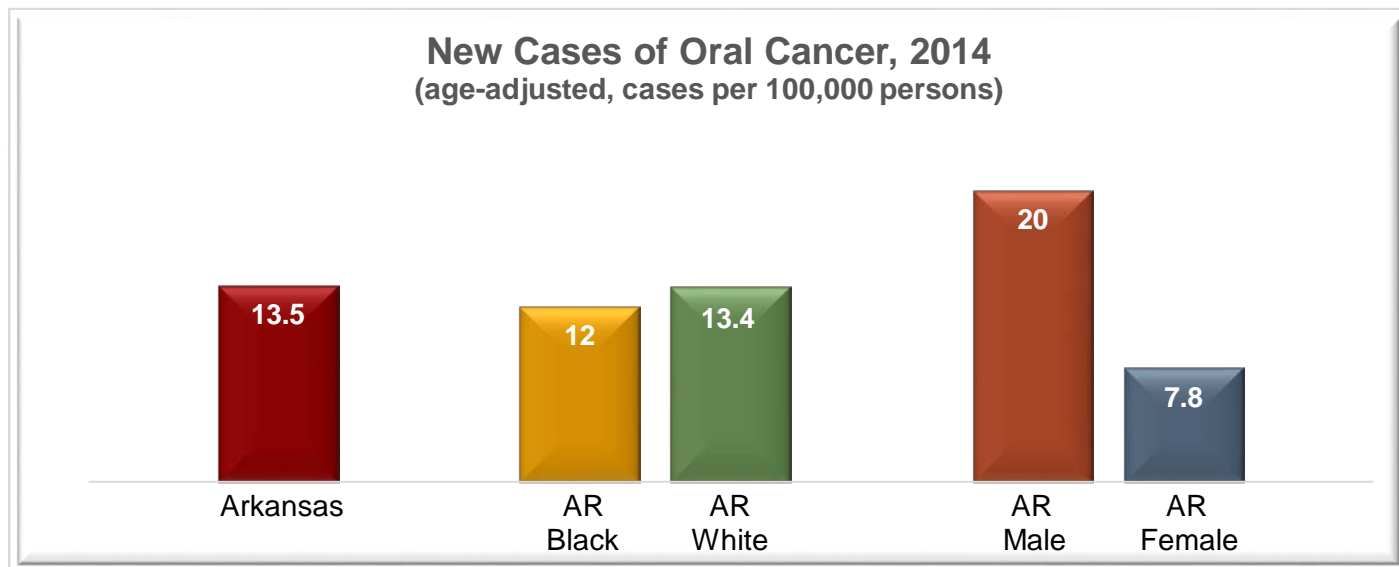


Rates of new cases of prostate cancer are significantly (nearly 80%) higher among black men in Arkansas as they are among white men.

Disturbingly, prostate cancer mortality rates among black men are nearly 2.5 times as high as they are among white men in the state.

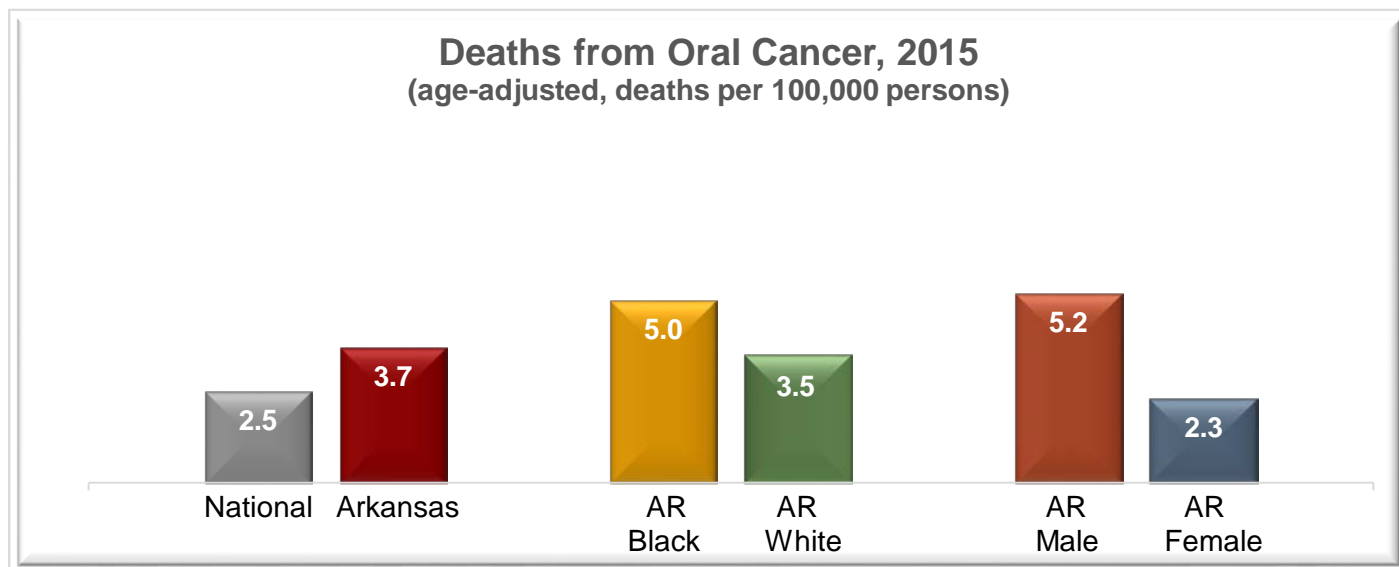


## ORAL CANCER

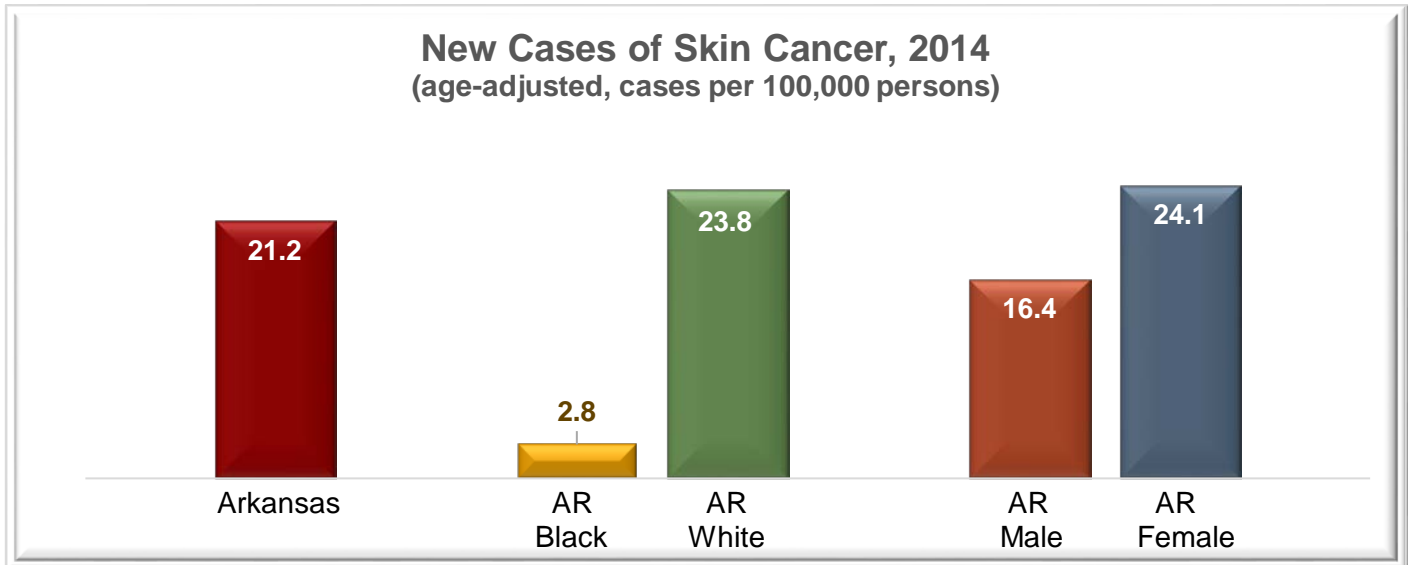


Incidence rates for oral cancers are somewhat higher among white Arkansans, compared to their African American counterparts. Rates for men are just over 2.5 times as high as those for women. The higher rates of smokeless tobacco among men compared to women may partially explain this gender difference.

Although incidence rates are slightly higher for whites, death rates for oral cancer are more than 40% higher among blacks. Death rates are also significantly higher among men (more than twice as high as rates for women).

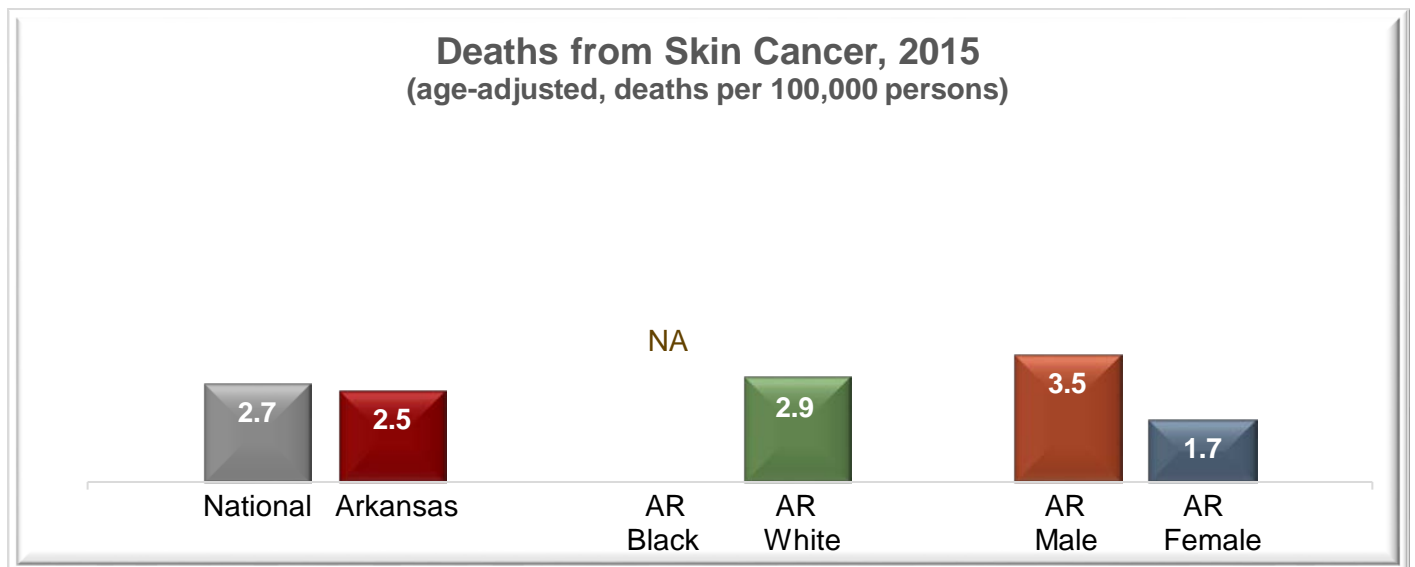


## SKIN CANCER

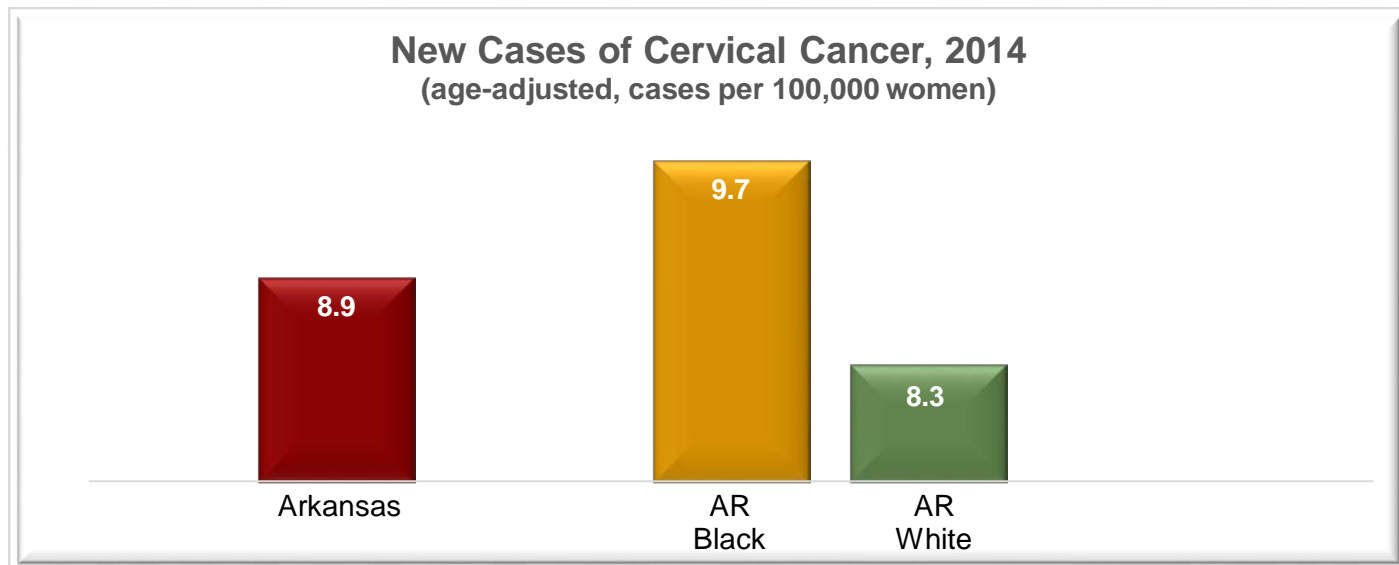


Incidence of skin cancer is very low among black Arkansans and is significantly higher among whites and women (compared to blacks and men, respectively).

Fortunately, most cases of skin cancer are treatable if identified early, so mortality rates are substantially lower than incidence rates. Mortality rates among blacks are so low that stable estimates cannot be reported. Even though incidence rates are higher among women, mortality rates among men are more than twice as high as those for women.

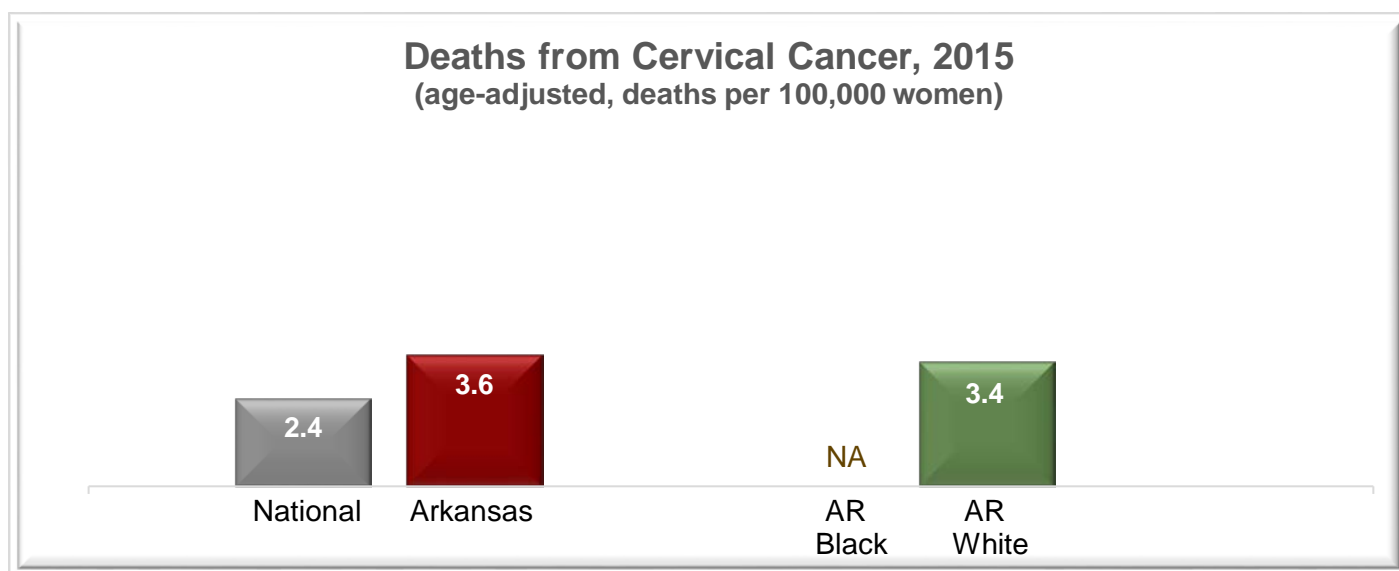


## CERVICAL CANCER



Incidence rates for cervical cancer in Arkansas are 50 percent higher among African American women than among white women.

Mortality rates in Arkansas are approximately 50% higher than national rates. Rates among African American women in the state are so low that stable estimates cannot be obtained; thus, mortality rates among white women are substantially higher than those rates observed among African American women.



## References

1. National Cancer Institute (NCI), Cancer Statistics. Accessed May 10, 2017: [www.cancer.gov/about-cancer/understanding/statistics](http://www.cancer.gov/about-cancer/understanding/statistics).
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