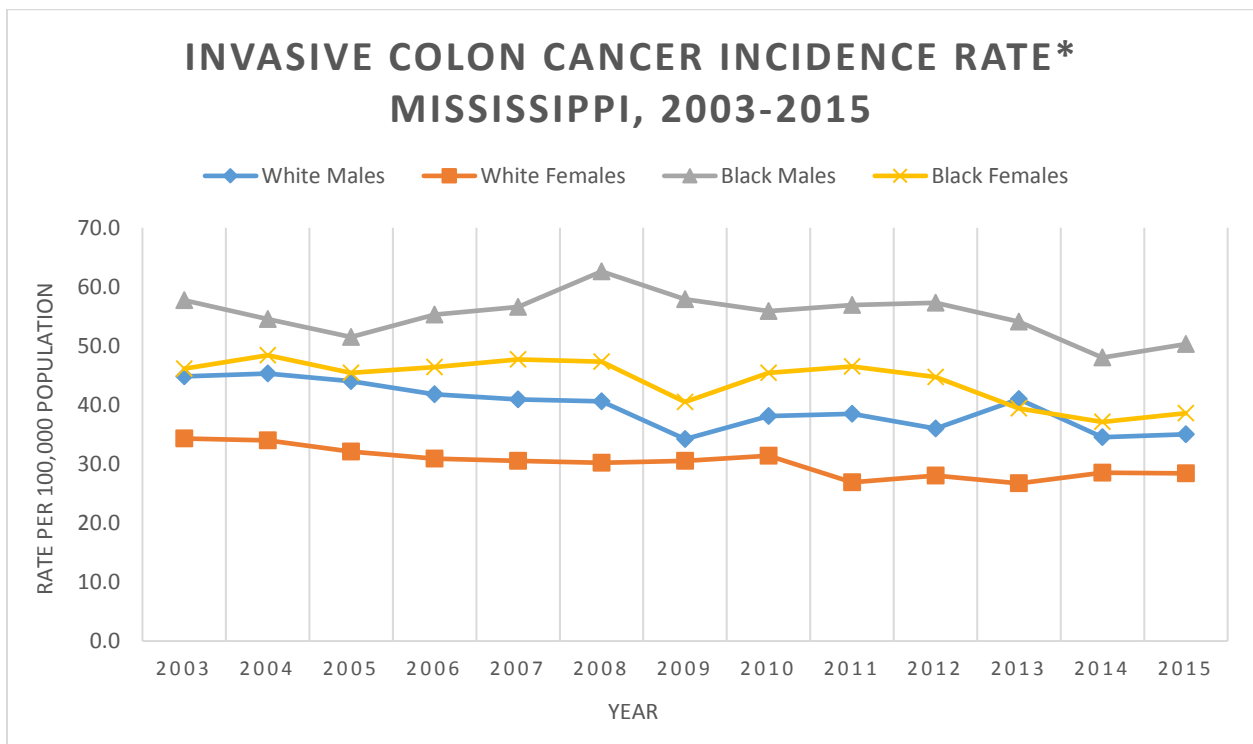


Physical Activity-Related Cancers in Mississippi, 2003-2015

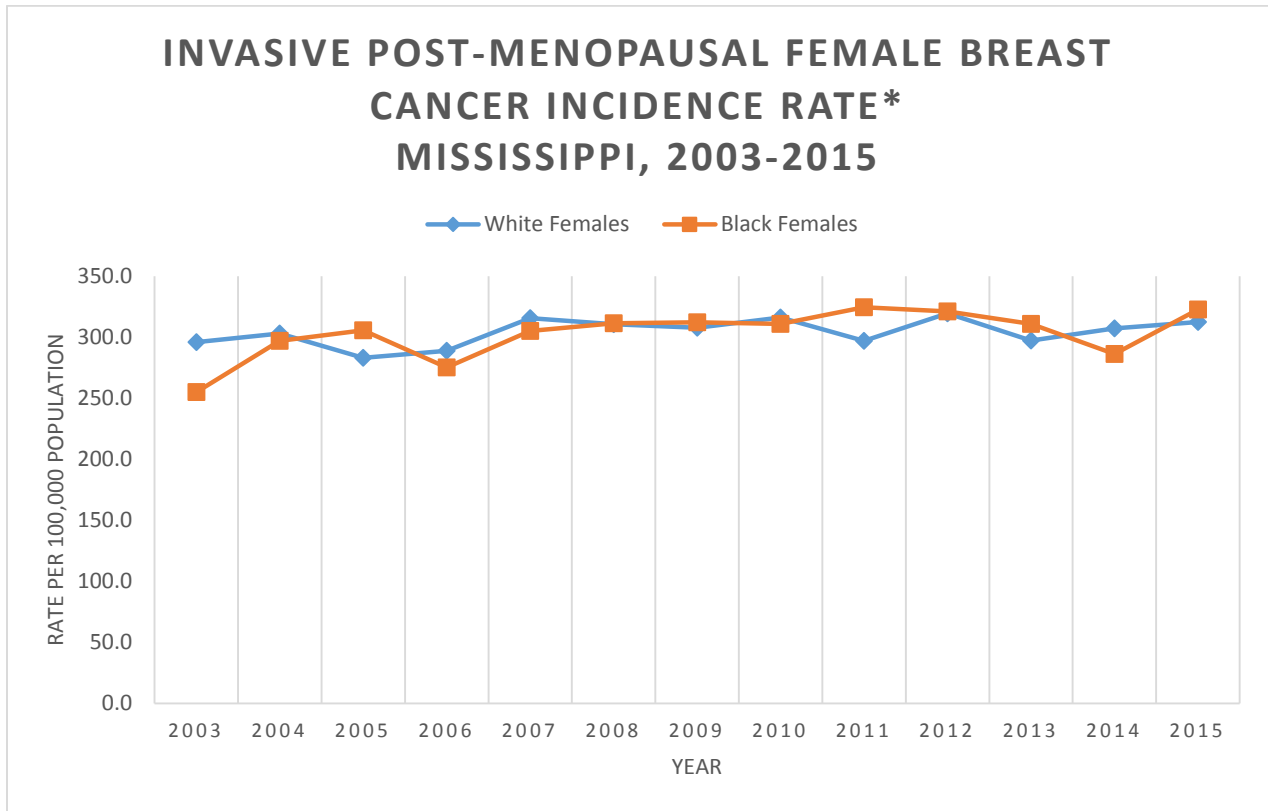
Lack of physical activity is a modifiable risk factor that increases the risk of developing certain cancers. According to data from the Behavioral Risk Factor Surveillance System for 2016, 69.7% of Mississippi adults over age 18 reported participating in any physical activity over the past month. Mississippi has the second lowest rate in the nation for participation in physical activity.¹ Lack of physical activity is associated with developing cancers of the colon and uterus, as well as, development of breast cancer after menopause. Below are graphs of the trends in physical activity-related cancers over the period 2003 to 2015 by race and sex with a description of the trends occurring in each group both for the full time period and for the most recent period between 2011 and 2015. All analysis was done using SEER*Stat software².



White females had significant lower rates of colon cancer than both black males and black females. White females had significantly lower rates than white males for all time periods except 2009, 2014, and 2015. Black males also had significantly higher rates than white males between 2006 and 2015. All groups had a decreasing trend over the period from 2003 to 2015. The decreases for white males, white females and black females were statistically significant. White males experienced an annual decrease of 2.0%. White females experienced an annual decrease of 1.8%, and black females experienced an annual decrease of 1.7%. The decrease observed for black males was a small 0.8% decrease.

For the latest five-year time period between 2011 and 2015, only black females had a significant decrease in colon cancer. The annual decrease for black females was 5.4%. White males had an observed decrease of 2.3% annually. Black males had an observed decrease of

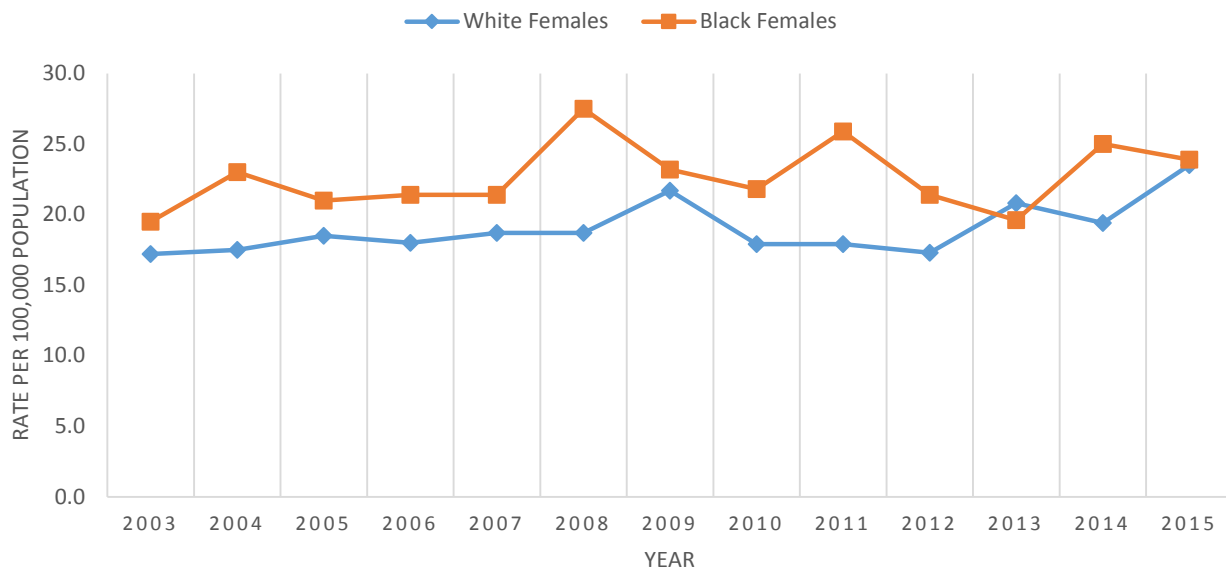
4.1% annually. In contrast, white females had an observed increase of 1.3% annually for the period from 2011 to 2015 even though for the full time period of 2003 to 2015, they had a significant decrease.



*Rates age-adjusted to the 2000 U.S. standard million population

Post-menopausal breast cancer is defined as breast cancer diagnosed in women ages 50 and older. The rates of post-menopausal breast cancer between 2003 and 2015 remained relatively unchanged. The annual percent change for white women was 0.4% and for black women was 0.9%. The rates of breast cancer by race were very similar to each other over time. For white females, the observed annual percent change was a slight increase of 0.6%. Black women experienced an annual decrease of 1.1%. The changes for neither groups were statistically significant.

INVASIVE CORPUS AND UTERUS, NOS CANCER INCIDENCE RATE*, MISSISSIPPI, 2003-2015



*Rates age-adjusted to the 2000 U.S. standard million population

Uterine cancer rates increased significantly in white women between 2003 and 2015. The annual percent change over that period of time was 1.6%. Black women experienced only a small increase of 0.8% annual. This change was not statistically significant. The trend over the latest five-year period from 2011-2015 for white women was an annual increase of 7.1% which was not statistically significant. For black women, there was no change in the rate for the latest five-year period. Rates for white and black women were similar to each other.

Definitions

Age Adjusting: A statistical method that allows comparisons of populations that take into account age-distributions differences between the populations. The 2000 U.S. standard population is used and applied to all of the time periods being considered. This assures that the rates do not reflect changes in the age distribution of the population.

Annual Percent Change (APC): The average annual percent change over several years. It is used to measure the change in rates over time. Calculating the APC involves fitting a straight line to the natural logarithm of the data when it is displayed by calendar year.

Statistical Significance: This is a mathematical measure of the difference between groups. A difference is said to be statistically significant if it is greater than what might be expected to happen by chance alone 95% of the time.

Citations

¹Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health. BRFSS Prevalence & Trends Data [online]. 2015. [accessed Jun 20, 2018]. URL: <https://www.cdc.gov/brfss/brfssprevalence/>.

²Surveillance Research Program, National Cancer Institute SEER*Stat software (seer.cancer.gov/seerstat) version 8.3.5.

Acknowledgement

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