

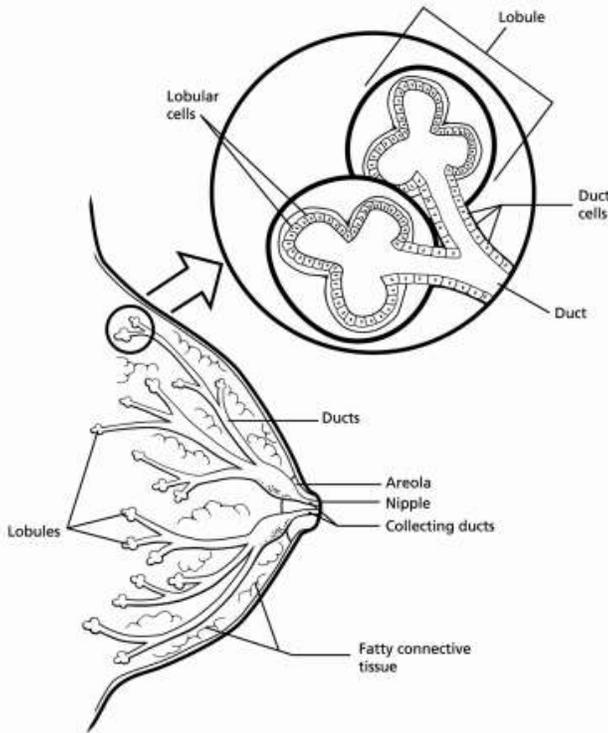


# Female Breast Cancer

## FEMALE BREAST CANCER

Breast cancer is a tumor that begins in the cells of the breast tissue. The female breast is made of lobules (glands that produce milk), ducts that carry milk from the lobules to the nipple, fatty and connective tissue, and lymphatic tissue. Most breast cancer, approximately 85%, occurs in the cells that line the ducts (ductal cancer).<sup>1,2</sup> Other types of breast cancer occur in the lobules (lobular cancer) or other breast tissues.

Figure 1: Anatomy of the Female Breast

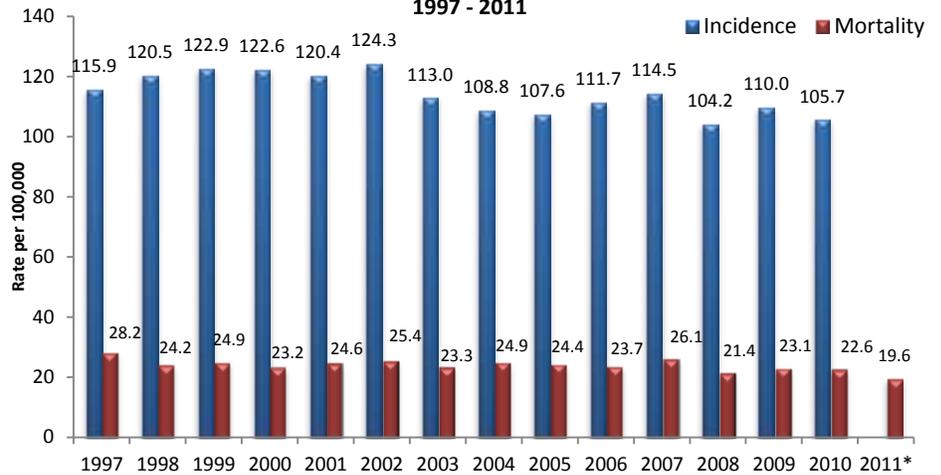


Source: American Cancer Society

## BENIGN, NON INVASIVE, OR INVASIVE

Most masses are non-cancerous, benign lesions, and do not grow uncontrollably and are not life-threatening.<sup>1</sup> Other lesions are non invasive or in situ breast cancers that occur within the milk ducts or lobules and do not invade in the surrounding tissues or other organs. Invasive or malignant tumors have grown beyond the layer of cells where the cancer began and have invaded the surrounding tissues of the

Figure 2: Incidence and Mortality of Invasive Breast Cancer, Arkansas, 1997 - 2011



Source: Arkansas Central Cancer Registry & Health Statistics Branch  
\*2011 Incidence Data not available as of 9/3/2013

breast. Most breast cancers are diagnosed as invasive ductal or lobular carcinomas.

## SIGNS AND SYMPTOMS

Early signs of breast cancer can be detected by mammogram. Some symptoms include:

- Painless mass or lump in the breast;
- Thickening, swelling, distortion, tenderness, redness, skin irritation of the breast; and
- Nipple abnormalities such as ulceration, retraction, or discharge.

Most breast pain results from benign conditions and is not an early sign of breast cancer.

## WHY IS IT IMPORTANT?

Breast cancer is the most frequently diagnosed cancer among women in Arkansas and the U.S. The disease occurs more often in women, but it is also found in men. There is a decreasing trend in the incidence of invasive breast cancer since 2002, see Figure 2. However, there is no change in the age-adjusted breast cancer mortality rates over time. According to the American Cancer Society, the decline in breast cancer incidence since 2002 – 2003 is attributable to the reductions in use of menopausal hormone therapy (MHT).<sup>2</sup>



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Increasing age is the most important risk factor for breast cancer. Other risk factors include a family history of the disease, gene changes (BRCA1, BRCA2), breast changes such as atypical hyperplasia, high dose radiation to the chest (related to cancer treatments), and high breast tissue density. Reproductive risk factors include a long menstrual cycle (starting early and/or ending late in life), recent use of oral contraceptives, never having children, or having a first child after age 30. Modifiable risk factors include weight gain after age 18, being overweight or obese, use of combined estrogen and progestin, physical inactivity, and having one or more alcoholic drinks per day.

## HOW BIG IS THE PROBLEM IN ARKANSAS?

In 2010, approximately 1,862 women in Arkansas were diagnosed with invasive breast cancer, and an additional 409 were diagnosed with in situ breast cancer. There were 365 female deaths from breast cancer in 2011.

Arkansas maintains lower rates of invasive breast cancer than the U.S.<sup>3</sup> Among race and ethnic groups, White women tend to have higher incidence rates of breast cancer than Black women, but Black women are more likely to die of breast cancer than White women, see Figures 3 & 4. In the U.S., incidence and death rates for breast cancer are lower among women of other racial and ethnic groups compared to White and Black women.<sup>1</sup>

Figure 3: Incidence Rates of Invasive Breast Cancer, By Race, Arkansas 1997 - 2010

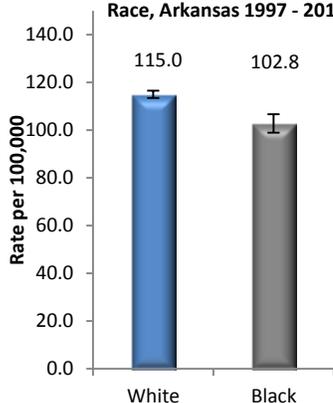
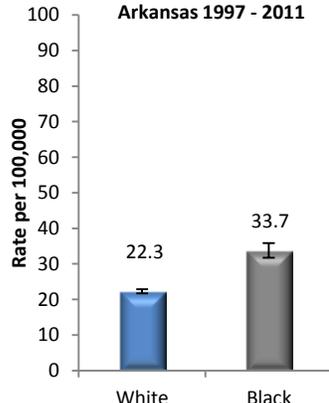
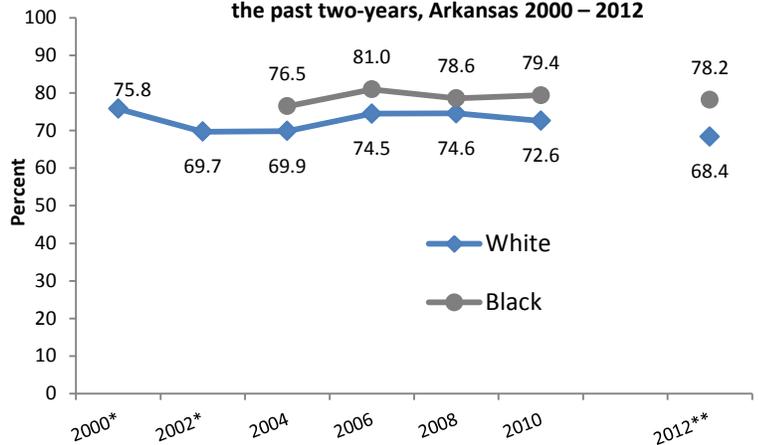


Figure 4: Mortality Rates of Breast Cancer, By Race, Arkansas 1997 - 2011



Source: Arkansas Central Cancer Registry & Health Statistics Branch

Figure 5: Women aged 50+ who have had a mammogram within the past two-years, Arkansas 2000 – 2012



Source: Arkansas Behavioral Risk Factor Surveillance System, BRFSS  
\* Data not available for Black females, (unweighted sample size <50 or CI half width was >10)  
\*\*BRFSS 2012 data should be considered a baseline year and is not directly comparable to previous years because of changes in weighting methodology and addition of cell phone sampling.

## EARLY DETECTION OF BREAST CANCER

Mammography screening can often detect breast cancer at early stages when treatment is most effective.<sup>2</sup> Screening rates for both Black and White females aged 50+ have remained stable since 2000, see Figure 5. Current evidence suggests mammography screening reduces breast cancer mortality, with a greater reduction for women aged 50–74 years.

Screening using magnetic resonance imaging (MRI) in addition to mammography is recommended for women at high risk of developing cancer.

The United States Preventive Services Task Force (USPSTF) recommends biennial screening mammography for women aged 50-74 years. Other recommendations from the American Cancer Society suggest annual mammography screening for women aged 40 and to continue as long as a woman is in good health.<sup>2,3</sup>

For more details about breast cancer in Arkansas, see the 2011 Cancer Facts and Figures Report on the Arkansas Central Cancer Registry's website: <http://www.healthy.arkansas.gov/programsServices/healthStatistics/CancerRegistry/Pages/Data.aspx>

## REFERENCES

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