Texas Preventable Disease NEWS

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contents:

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BREAST CANCER IN TEXAS

Breast cancer is the second most common cancer occurring among women in both Texas and the US; approximately one woman out of ten is expected to develop breast cancer sometime during her lifetime. In Texas, 2,014 women died of breast cancer in 1986, comprising 18% of all cancer deaths among women. It is estimated that 42,000 women in the US will die from breast cancer during 1988, and 1,900 of these will be Texans.

In Texas, breast cancer mortality is highest among black women and lowest among Mexican American women. In 1986, the mortality rate per 100,000 women was 19% higher among blacks than Anglos (28.3 versus 23.7, respectively) and 37% lower among Mexican Americans than Anglos (15.0 versus 23.7, respectively).

A variety of risk factors have been identified for breast cancer. Genetic susceptibility is suggested by the increased risk for women with a family history of breast cancer. A woman's risk is increased twofold if her mother or sister have had breast cancer and threefold if both have had it.[1] Women with benign fibrocystic breast disease confirmed by biopsy appear to have three to five times greater risk.[1]

A number of reproductive risk factors have also been identified.[1] Women who have never had children and those who had their first child after age 30 have a risk approximately three to five times greater than those women who had their first child before age 18. Early onset of menstruation and late menopause are both associated with increased risk. There is also evidence suggesting that the use of estrogens may increase the risk of breast cancer.

Environmental factors associated with greater risk of acquiring breast cancer include diet, alcohol consumption, high socioeconomic status, and obesity (body weight 40% above normal). Breast cancer is more common in areas of the world where diets are high in fats and animal proteins. Within countries, a high socioeconomic status increases the risk of breast cancer, possibly reflecting the fact that the affluent tend to have diets rich in fat and animal protein.[1,2]

Anatomically, the normal breast consists of lobules of glandular tissue, capable of producing milk, and ducts which carry the milk to the nipple. In cross section under a microscope, the normal duct is a hollow tube lined by a single layer of cells. In response to hormonal stimulation during the menstrual cycle, duct cells proliferate in the interior of the tube. Pathologists describe this as *intraductal hyperplasia.* After a time, the excess cells may become atypical, but not cancerous. These cells subsequently can become so numerous that they occlude the duct and assume a malignant appearance. At this stage, the diagnosis is *intraductal carcinoma in situ* (cancer confined to the duct). The term, *invasive ductal carcinoma* is given when the malignant cells break through the duct wall and invade the adjacent fatty tissue. At this stage, the disease may take the form of a lump that can be felt during a monthly breast examination or a mass detectable by routine mammography.[3]

Survival for women with non-invasive, in situ breast cancer approaches 100%, and the five-year survival rate for women with invasive cancer localized within the breast has increased to 90%. For those with metastasis to organs or lymph nodes outside the breast, the five-year survival rate is 60%.[4]

Surgery remains the most widely used form of treatment. Treatment for malignancies detected at a later stage will likely involve the use of chemotherapy, radiotherapy, or both, in addition to surgical removal of all or part of the breast and related tissues.[4]

The best method for reducing the debilitation and death that result from advanced breast disease is early detection through breast physical examination and/or mammography. Breast physical examination involves visual and manual examination of the breasts and axillae for signs of abnormality. These examinations should be performed by the woman's physician every three years for women under age 40 and yearly thereafter, and monthly by the woman herself. By conducting these examinations on a regular basis, a woman can become familiar with the structure of her own breasts and readily recognize changes in the way they look or feel. Because breast self-examination is a simple, no-cost procedure that facilitates early recognition of breast cancers while they are still small and more readily curable, the American Cancer Society recommends that all women 20 years of age or older practice monthly breast self-examination.

The American Cancer Society and the National Cancer Institute, in their joint Breast Cancer Detection Demonstration program, found that mammography could detect cancers too small to be felt by the most experienced examiner.[4] These cancers were localized to the breast in about 80% of the patients. The mammogram can detect cancerous calcifications of about 1 mm. Most women practicing frequent self-examination of the breast are unable to detect lumps until they are 8 mm, eight times larger and years of growth later.[5] The American Cancer Society, the American College of Radiology, and the American Medical Association recommend a baseline mammogram for all women 35 to 39 years of age and a yearly mammogram for asymptomatic women age 50 and over. There is no clear consensus on how often asymptomatic women 40 to 49 years of age should undergo mammography.

Little information is available on screening frequency in Texas. However, limited evidence suggests that black and Mexican American women are less likely to participate in screening activities than Anglo women. Data collected by the National Center for Health Statistics indicate that Mexican American women in Texas are less likely to have had a breast examination within the past year than US women (Figures 1 & 2). This is true for all age groups. Screening data are not available for blacks or Anglos in Texas. However, Texas Cancer Registry incidence data for Southwest and East-Central Texas indicate a lower percentage of in situ cases among black females (2.5%) than among Anglo women (4.5%). This suggests that black females are being diagnosed at a later stage of disease than Anglo females, perhaps because they are not participating in screening activities as often as their Anglo counterparts.

All women in Texas should be encouraged to participate in routine screening activities, eg, breast self-examination, physical examination by a physician or nurse, and/or mammography for women in the older age groups. Because of the higher mortality rate and data suggesting that less frequent screening may be occurring among black women, screening programs directed at this subpopulation might be particularly useful. Ideally, these programs would determine some of the barriers preventing black women from participating in screening activities, develop promotional and educational activities, and provide screening at minimal cost to participants.

Prepared by: Tricia Vowels, Quality Control and Training Coordinator, Cancer Registry Division, and Jeanne Martin, PhD, Staff Epidemiologist, Epidemiology Division, Texas Department of Health.

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Figure 1.
Females who have had a breast exam within one year

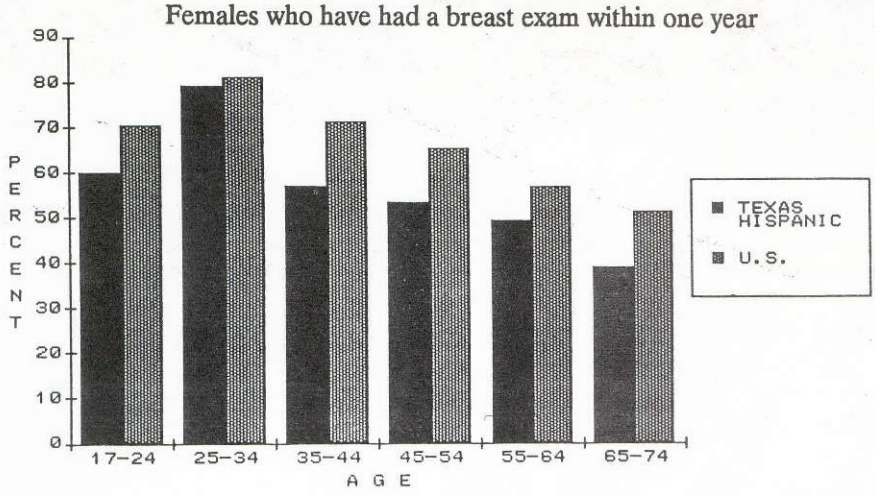
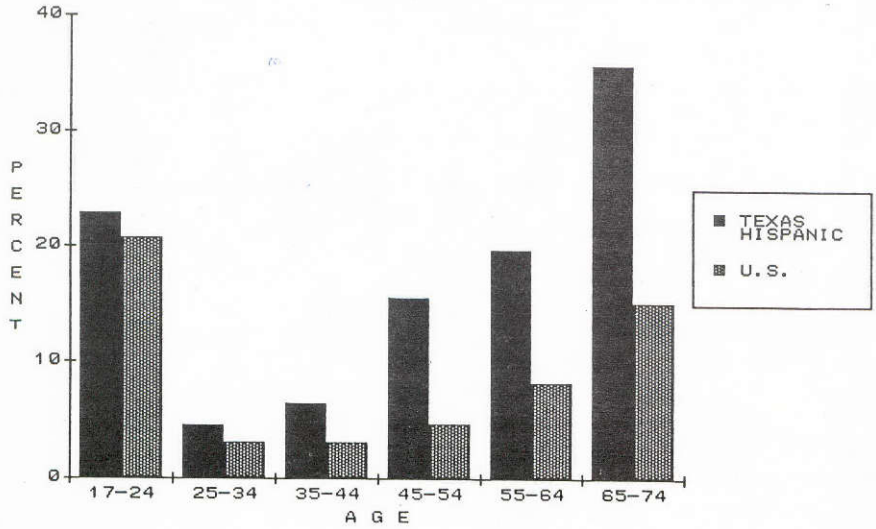


Figure 2.
Females who have never had a breast exam



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