During 1997, breast cancer surpassed lung cancer as the most commonly reported cancer in Oregon. A total of 3,017 cases of breast cancer was diagnosed in Oregon women,* and 484 women died of breast cancer. In this issue of the CD Summary we report on the epidemiology of breast cancer in Oregon, mammography screening rates, and the status of the Breast and Cervical Cancer Program, aimed at increasing breast screening and mammography among women 50-64 years of age.

**BREAST CANCER BURDEN**

The 3,017 cases of breast cancer diagnosed during 1997 represent a 14% increase over the 2,661 cases diagnosed during 1996. The overall rate of breast cancer increased 10% from 114.8 cases/100,000 in 1996 to 125.8/100,000 in 1997. The Oregon rate is now higher than the national rate of 110.6/100,000.

The risk of developing breast cancer rises sharply with increasing age (figure 1). About 80% of breast cancers occurred in women ≥50 years of age.

**Fig 1. Incidence and Mortality by Age**

In contrast to the increase in incidence, the number of women who died from breast cancer decreased 6% from 517 in 1996 to 484 in 1997. Oregon’s breast cancer mortality rate of 23.2/100,000 is lower than the national rate of 25.4/100,000. Why the discrepancy?

* data from the Oregon State Cancer Registry

**STAGE AT DIAGNOSIS**

At present, breast cancer cannot be prevented. However, diagnosing breast cancer in the early stages (in situ or localized) increases the probability of survival. By detecting breast cancer in its early stages when it is most easily treated, morbidity and mortality can be reduced. During 1997, 15% of breast cancers were diagnosed in situ and 58% were localized (figure 2). The percent of cancers diagnosed in situ increased slightly from 13% in 1996 to 15% in 1997.

Examining the percentage of cancers diagnosed in situ by age group shows that younger women were more likely to be diagnosed with in situ cancers than older women. However, in every age group more cancers were diagnosed in situ during 1997 than 1996 (figure 3). In addition, comparing stage at diagnosis for women 40-49 years of age living in the Portland metropolitan area with those living outside shows that 20% of breast cancers diagnosed in Portland were in situ, compared to 15% of those outside Portland.

**MAMMOGRAPHY**

Although there is some controversy about the benefits of mammography for women 40-49 years of age, there is clear agreement on the benefits of mammography for women 50 years and older. It is estimated that regular screening of women in this age group can decrease deaths from breast cancer by 30%.

During the 1990s, routine mammography every two years has been increasing in Oregon. In 1990, 68% of Oregon women 52-64 years reported‡ having had a mammogram during the last two years; by 1996, this number had increased to 81% (figure 4). In fact, the rate of mammography in Oregon women is one of the highest in the country. Self-report may over estimate mammogram rates somewhat. The rates based on claims data and chart review reported by Oregon’s health plans to the Insurance Division range from 52% to 83%.

Increasing rates of mammography should result in increased numbers of breast cancers being detected, but cancers detected should be diagnosed at an earlier more treatable stage. This should...
result in a decreasing mortality rate.

So, the good news is that while more breast cancers are being diagnosed in Oregon, more of the cancers are being diagnosed in situ, when they are most readily treatable. The bad news is that older women and those living outside the Portland metropolitan area are less likely to be diagnosed with in situ cancers than younger women and those living in Portland.

RISK FACTORS

The United States has one of the highest breast cancer rates in the world. Several epidemiological studies suggest that diet and exercise, as well as reproductive patterns, influence the risk of breast cancer. Total lifetime exposure to estrogens (natural and therapeutic) is believed to slightly raise the risk of breast cancer. The number of menstruating years for a woman is one risk; early menarche and late menopause increase the risk. An early-age first pregnancy and the number of full-term pregnancies are accepted protective factors. The effect of lactation is not clear; however, there is some indication that breast feeding is protective.

For women, genetic factors are believed to play a role. If the woman’s mother or sister has had breast cancer, the woman’s risk is 2-3 times higher; if both had breast cancer the woman’s risk is 6 times higher than the general population. Two genes have been identified as “breast cancer genes”: BRCA1 and BRCA2. Together, they account for 5-10% of breast cancers. Interestingly, studies of women immigrating from low-incidence countries to higher-incidence countries have shown that the rates of breast cancer increase to that of the new country, thereby showing that international differences are not due solely to genetic factors.

However, for the majority of women, the causes of breast cancer are not known. Approximately 80% of breast cancers occur in women with NO identifiable risk factors. This makes early detection particularly important. Regular clinical breast examinations by a health care professional and screening mammography are the most important means for early detection.

OREGON BREAST AND CERVICAL CANCER (BCC) PROGRAM

The Oregon BCC Program provides education and screening services, including a Pap test, clinical breast exam and mammogram, to uninsured women in Oregon. This program has a special emphasis on providing services to women 50-64 years and women of color who may be at an increased risk of not being screened.

The BCC Program is a collaboration between public health, private health care providers and community organizations. Since its inception in 1995, the BCC program has screened over 15,000 women; 90 breast cancers have been diagnosed.

The BCC Program is funded by the Centers for Disease Control (CDC) and Prevention and the Susan G. Komen Breast Cancer Foundation, Oregon and Southwest Washington Affiliate. It is administered by the Oregon Health Division, in cooperation with local health departments, federally recognized tribes in Oregon, and participating health care providers.

INSURANCE COVERAGE FOR MAMMOGRAPHY

This spring, the Oregon legislature renewed Senate Bill 588, which mandates insurance coverage for mammograms and Pap tests under health insurance that originates in Oregon. This means that more women have coverage. However, we know that about 20% of women 50-64 years old with health insurance still do not receive regular mammograms. Insurers and health care providers can improve screening rates even more by tracking women who have been screened and encouraging women who haven’t to come in.

RESOURCES

The BCC Program, in collaboration with the BCC Coalition Professional Education Committee and Protocol Work Groups, has developed resources that are now available. These include: “A Woman’s Guide to Breast Cancer Diagnosis and Treatment,” a 32-page booklet for women for whom a breast biopsy has been recommended, or who have been diagnosed with breast cancer; and “Breast Cancer Diagnostic & Follow-up Protocols” for health care providers. These materials are available by sending your request to: Oregon Breast & Cervical Cancer Program, 800 NE Oregon Street, Suite 730, Portland, OR 97232. For more information, call us at: 503/731-4273 or visit our web site at www.ohd.hr.state.or.us/cdpe/hpcdp.