cancer mortality among women since 1990 have been attributed to a combination of early detection and improvements in treatment. Mammography is a very accurate screening tool, both for women at average and increased risk; however, like most medical tests, it is not perfect. On average, mammography will detect about 80%-90% of breast cancers in women without symptoms. All suspicious abnormalities should be biopsied for a definitive diagnosis. Annual screening using magnetic resonance imaging (MRI) in addition to mammography is recommended for women at high lifetime risk of breast cancer starting at age 30. (For more information, see Saslow et al. CA Cancer J Clin 2007; 57:75-89.) Concerted efforts should be made to improve access to health care and to encourage all women 40 and older to receive regular mammograms.

**Treatment:** Taking into account tumor size, stage, and other characteristics, as well as patient preference, treatment may involve lumpectomy (surgical removal of the tumor with clear margins) or mastectomy (surgical removal of the breast). Removal of some of the axillary (underarm) lymph nodes is usually also recommended to obtain accurate information on the stage of disease. Treatment may also involve radiation therapy, chemotherapy (before or after surgery), hormone therapy (tamoxifen, aromatase inhibitors), or targeted therapy. Postmenopausal women with breast cancer that tests positive for hormone receptors benefit from treatment with an aromatase inhibitor, either after, or instead of, tamoxifen. For women whose cancer tests positive for HER2/neu, approved targeted therapies include trastuzumab (Herceptin) and, for advanced disease, lapatinib (Tykerb). The US Food and Drug Administration (FDA) approved bevacizumab (Avastin) for advanced breast cancer in 2008. Avastin slows tumor growth in women whose cancer has metastasized by blocking growth of new vessels that increase blood supply to the tumor, but it has not yet been shown to increase overall survival.

Numerous studies have shown that long-term survival rates after lumpectomy plus radiation therapy are similar to survival rates after mastectomy for women whose cancer has not spread to the skin, chest wall, or distant organs. Similarly, sentinel lymph node (the first lymph nodes to which cancer is likely to spread) biopsy is as effective and less damaging than full axillary node dissection in determining whether the tumor has spread beyond the breast in women with early stage disease. Women who elect to have sentinel lymph node biopsy should have their breast cancer surgery performed by a medical care team that is experienced with the technique. For women undergoing mastectomy, significant advances in reconstruction techniques provide several options for breast reconstruction, including the timing of the procedure (i.e., during mastectomy or in the time period following the procedure).