A Response to the U.S. Preventive Services Task Force Recommendations on Screening Mammography

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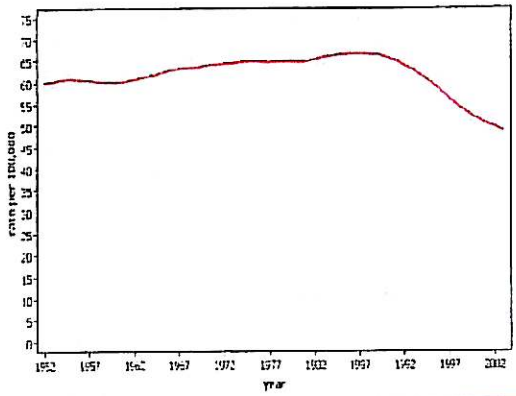
Breast cancer is the second leading cause of death among women in the U.S. The death rate from breast cancer in the U.S. increased slightly from 1940-1987, prior to widespread use of screening mammography (Figure 1). In the mid-1980s, the American Cancer Society embarked on an aggressive campaign to promote screening mammography and its use increased dramatically over the following decade. In 1987, only about 30% of women aged 40 and over were getting screened with mammography. By 1998, over two-thirds of U.S. women were getting screening mammography at least every two years. As a result, since 1987, the death rate from breast cancer has declined by about 30% (Figure 1). This 30% mortality reduction means that approximately 10,000 more women each year survive breast cancer than did two decades ago. Screening mammography has played an important role in reducing breast cancer deaths by decreasing the incidence of advanced stage breast cancer.

Figure 1: Age-standardized U.S. Mortality Rate from Breast Cancer, Ages 40-85+ (from the International Agency on Research from Cancer (IARC) – December 2009)



Screening Recommendations Cont'd

In November 2009, the U.S. Preventive Services Task Force (USPSTF) issued new recommendations dropping their previous (2002) recommendation that women 40-49 should get regular screening mammography. They suggested that only women at high-risk for breast cancer get screening mammography prior to age 50. They also recommended that women aged 50-74 should get screened only once every two years and women aged 75 and older should not get screening mammography. They also recommended against clinical breast exams and breast self-exams. Needless to say, these recommendations have created confusion among women and their referring physicians.

Here, we address the USPSTF recommendations on screening mammography.

- The majority of women diagnosed with breast cancer (75%) have no identifiable risk factors. Screening only those women in their 40s with risk factors would result in the majority of breast cancer being missed until they present clinically, when it is often too late to treat conservatively or successfully. A woman's chances of surviving breast cancer are increased markedly if her cancer is diagnosed before symptoms develop. For this reason, regular mammograms are an important part of women's preventive health care beginning at age 40.

- In recommending against screening mammography in asymptomatic, normal risk women aged 40-49, the USPSTF ignored its own (and other recent) summaries of randomized controlled trials (RCTs) of screening mammography, which showed a statistically significant 15% (or higher) mortality benefit in women aged 39-49. In fact, this benefit is remarkably similar to the mortality benefit shown by RCTs in women age 50-59. Nothing happens at age 50 to make a breast cancer more detectable than it was a year (or several years) prior.

- In recommending against screening mammography for women 40-49, the USPSTF focused on computer modeling to emphasize the "harms" of mammography, such as recall and biopsy, while minimizing the direct data from RCTs on over 360,000 women demonstrating the benefit of screening. They also ignored modeling results (their own and others) showing the improved mortality results from annual mammography (compared to biennial) mammography in women 50-74.

- In examining screening mammography, the USPSTF ignored the fact that RCTs underestimate the true benefit of screening. This is because RCTs randomly assign women to an "invited to screen" group or a control group, but an average of about 30% of women assigned to the "invited to screen" group failed to attend screening, yet their deaths from breast cancer were still attributed to the "screening" group.

- The USPSTF failed to consider more recent evidence showing the benefit of screening mammography outside of RCTs. Data from service screening in Sweden show that women aged 40-74 who actually attend mammography screening had a 44% lower breast cancer death rate than women not getting screened, and women aged 40-49 who attended screening had a 48% lower rate of breast cancer deaths compared to women not getting screened. Similar data from British Columbia show a 40% decrease in deaths among women aged 40-79 who attended screening mammography, and a 39% reduction in deaths among women aged 40-49 at the time of their first screen, compared to women who were not screened.

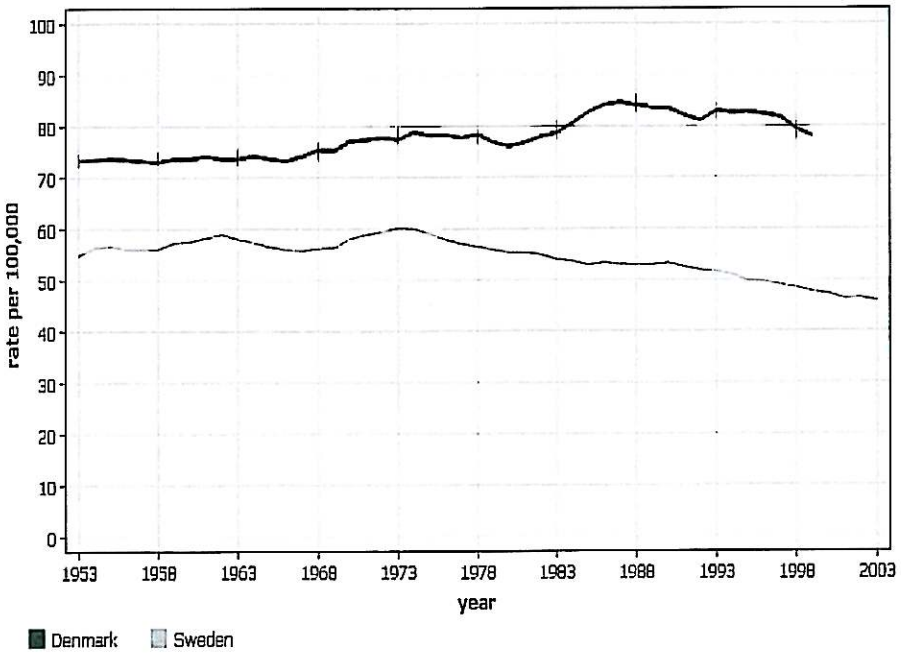
- The USPTF failed to consider the improvements that have occurred in mammography practice in the U.S. in the past several decades. These include standardized quality control at every site in the U.S., standardized mammography reporting, and the improvement in mammography quality since the RCTs were conducted, including the shift from screen-film to digital mammography. As of January 1, 2010, over 60% of mammography in the U.S. is performed on digital equipment.

- The USPSTF failed to consider the dramatic improvements that have occurred in patient care when suspicious findings a detected at screening mammography. Ultrasound and follow-up mammography resolve most of those findings and when tissue histology is needed, procedures are minimally invasive through the use of image-guided needle biopsy (techniques pioneered right here in Colorado).

Screening Recommendations Cont'd

In spite of the fact that a number of members of the USPSTF come from public health backgrounds, the USPSTF squandered a unique opportunity to advance public health and further reduce breast cancer deaths by failing to recommend a national mammography screening program in conjunction with health care reform. Most developed countries have nationally-based mammography screening programs. One country that has, until recently, failed to adopt screening mammography is Denmark. Figure 2 compares the breast cancer mortality rate in Denmark to that of Sweden, one of the earliest adopters of screening mammography. In Denmark, the decision to screen is made on a county-by-county basis. Today, some counties in Denmark would like to begin screening, but cannot, because of the lack of radiologists and technologists with mammography experience. The USPSTF failed to consider the "non-scientific" concept that once dismantled, the elements needed for an effective national mammography screening program are not easily recovered.

Figure 2: Age-standardized Breast Cancer Mortality Rates in Denmark (red) and Sweden (green), Ages 40-85+ (from the International Agency on Research from Cancer (IARC) – December 2009)



For additional information about screening mammography, see
http://www.sbi-online.org/associations/8199/files/Detailed_Response_to_USPSTF_Guidelines-12-11-09-Berg.pdf