When Evidence Collides With Anecdote, Politics, and Emotion: Breast Cancer Screening

In the turbulent wake of the 17 November 2009 publication of the U.S. Preventive Services Task Force (USPSTF) recommendations on screening for breast cancer (1), Annals shares results of a readers’ survey, a selection of Letters to the Editor (2–12), and responses from the authors of the recommendations (13) and the authors of the background review (14). We also reflect on the value of the Task Force’s work and how these recommendations may change the nature of preventive care encounters.

The outcry over the Task Force’s recommendation shocked many. Over the past decade, Annals has peer-reviewed and published over 50 USPSTF recommendation statements and background reviews. Although prevention is vital to public health, none of the previous guidelines grabbed the public’s attention as much as the Task Force’s recommendation against “routine screening mammography in women aged 40 to 49 years.” For example, although depression is far more common than breast cancer, the Task Force’s December 2009 recommendations that advised against routine depression screening in the many primary care settings where depression care supports are not in place (15) were met with relative silence. Yet, the media and politicians presented the breast cancer screening recommendations as a major departure from existing guidelines that heralded an age of rationed care. Confrontation, politics, conflicted experts, anecdote, and emotion ruled front pages, airwaves, the Internet, and dinner-table conversations.

The heart of the updated guideline is the recommendation that women do not need routine mammography screening for breast cancer until age 50 years and that biennial screening intervals are sufficient. Between 2002 and 2009, the Task Force recommendations about screening women aged 40 to 49 years changed from grade B (reasonable certainty that the net benefit is moderate to substantial) to grade C (reasonable certainty that the net benefit is small). Although some subspecialty organizations advocate more aggressive routine breast cancer screening (16, 17), the update actually aligned the USPSTF recommendations more closely with guidelines from the American College of Physicians (18), the World Health Organization (19), and the United Kingdom’s National Health Service (20).

Annals posted a survey on our Web site to solicit readers’ impressions. The responses suggest that clinicians are more inclined to change what they do in light of the new recommendations than are members of the general public. Of the 651 individuals who responded to the survey, 53% were physicians, 9% were nonphysician health care providers, and 37% were members of the general public. Among respondents who were health care providers, a little more than half reported that the new recommendations would definitely or probably change how they advise patients about breast cancer screening and fewer than one quarter reported that they definitely will not change. Of these clinician respondents, 67% reported that they will stop offering routine mammograms to women aged 40 to 49 years, 62% will advise women aged 50 to 74 years to have mammography every 2 years instead of yearly, 54% will stop advising routine screening mammograms for women older than 75 years, 41% will stop advising patients to do monthly breast self-examinations, and 19% will stop doing breast examinations in asymptomatic women. Clinicians who offer advice compatible with the new USPSTF recommendations are likely to meet resistance. Most women who responded to the survey resolved to continue as routine the practices that the USPSTF advises against being routine. For example, 71% said that they were very or somewhat unlikely to forgo routine mammograms in their 40s even if their physicians recommended that they do so. About as many will be very unlikely to change to every-other-year mammography or to stop routine self-examination even if their physicians advised that they do so. Fewer than 20% said they will wait until age 50 years or will opt for every-other-year mammograms.

Echoing the media cacophony, survey respondents’ strong emotions ranged from “I am furious!” to “What a relief!” Many respondents were incredulous, but their incredulity had very different forms. One stated, “I really have to wonder what the members of the Task Force were smoking when they came up with these recommendations.” Another expressed disbelief at the political response, “I found it particularly disturbing that the Secretary of the Department of Health and Human Services was on television, dismissively waving her hand, stating that the USPSTF recommendations were wrong and would not change breast cancer screening. We need to expect better health literacy and dialogue from such an important position.”

It is difficult to be dispassionate about breast cancer. Nearly everyone knows (or is) someone whose breast cancer was found on a mammogram. Many perceive that the mammogram “saved a life.” Unfortunately, only a fraction of abnormalities initially detected on mammography and subsequently treated truly represents a life saved rather than unnecessary or premature treatment. Sadly, it is also true that many women who have cancer detected by screening die of the disease despite early detection and treatment. Furthermore, despite evidence that offering mammography screening to women reduces breast cancer mortality, it may not reduce all-cause mortality (21)—an important outcome that encompasses both benefits and unintended risks of screening (22). Breast cancer prematurely claims the lives of many, but it is wrong to mislead women about the effectiveness of current screening methods. Women deserve to make decisions about screening for breast cancer armed with the best available information about potential benefits and harms.
We suggest that people consider the potential consequences had the USPSTF issued a strong recommendation for routine yearly mammography starting at age 40 years and continuing past age 75 years, despite limited evidence for these practices. Would patients and physicians who did not adhere to this screening schedule be considered negligent? Could an insurer use the recommendation to justify limiting coverage of treatment for late-stage breast cancer diagnosed in a woman who had not availed herself of yearly mammograms starting at age 40 years? Indeed, a survey respondent wrote, “I was already advising patients aged 40 to 49 that mammography screening is marginally effective, especially for average- to low-risk women. These guidelines confirm my practice but do help from a medicolegal risk perspective.” The initial reaction to the Task Force recommendations might have been less vehement had the potential negative consequences of alternative recommendations also been considered.

The Task Force’s charge is to provide evidence-based, population-level guidance. Rarely does evidence unequivocally support a single, definite “one-size-fits-all” recommendation. As the breast cancer recommendations illustrate, clinicians must often invoke the art of medicine to apply available evidence to an individual patient. Before these most recent guidelines, many clinical encounters about breast cancer screening probably involved little more than the physician handing the patient a mammography referral. Going forward, these interactions will surely involve more discussion about risks, harms, benefits, and preference. The Task Force’s intent was to motivate such rational discussion, not to ration care.

One survey respondent wrote, “This Task Force has performed a vital service for years. It brings a welcome dose of science to the politics of screening.” The editors heartily agree. While any guideline development process has the potential for improvement, the USPSTF’s methods for developing its recommendations are state-of-the-art, are free from biases caused by financial conflicts of interest, and are outlined in sufficient detail such that others could replicate the process (23). The Task Force has responsibly reexamined its processes and messages in response to the controversy and has acknowledged that the recent recommendation “was poorly communicated to the broader health care community and public” (13). Because the USPSTF issued recommendations that were politically unpopular among some constituents, there have been calls to curtail this independent body’s work. If the USPSTF sinks in turbulent waters whipped up by emotion, anecdotes, and politics, Americans should mourn its loss.

—The Editors

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