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The 2009 Breast Cancer Screening Recommendations of the US Preventive Services Task Force

Steven H. Woolf, MD, MPH

ON NOVEMBER 16, 2009, THE US PREVENTIVE Services Task Force (USPSTF) released breast cancer screening recommendations, sparking controversy and intense media coverage.¹ As portrayed by the media, the government had recommended against mammography for women aged 40 to 49 years, despite evidence that mammograms saved lives, and against women examining their breasts, the method by which most breast cancers are detected.²

Breast cancer experts, organizations, and women reacted immediately. They discredited the panel for excluding radiologists and oncologists, relying on mathematical models rather than outcomes data, feigning frivolous concerns about potential harms, and risking lives to reduce costs, purportedly for insurers.³ The guidelines, released during the turbulent health care reform debate, were swept into the political vortex on Capitol Hill. Critics characterized the USPSTF as a harbinger of rationing and government-run health care.³ Coverage on television, talk shows, and Web sites amplified the controversy.

The combination of health care reform and women's health was an explosive mixture, but the controversy was fueled by a chain of false premises, some resulting from misunderstandings, some propagated intentionally, and some produced by the USPSTF itself. This article examines these errors and the incident's larger implications.

Understanding the USPSTF

The USPSTF does not represent government. The USPSTF is an independent, apolitical body that was established in 1984 and has issued recommendations on more than 100 services ranging from depression screening to exercise counseling. The members of the USPSTF are nonfederal experts on preventive medicine and primary care, usually drawn from academia or public health. The panel receives administrative support from government but carries no official status. The recommendations in question were first developed in 2007, long before the current administration took office.

The USPSTF does not advise insurers. Since its inception, the USPSTF has focused on the question of whether preventive services improve health outcomes. The recom-

mendations are derived by weighing benefits and harms to patients; costs and coverage issues are ignored. Clinicians, not policy makers, have always been the target audience.

The absence of topic experts on the USPSTF is not a deficiency. The USPSTF lacks a breast cancer expert and experts on lipids, depression, and dozens of other topics it examines. Experts bring deep knowledge but also biases to guideline development.⁴ Critiquing studies that they or their colleagues have conducted, contradicting entrenched beliefs from training, and voting against services that benefit themselves or their specialties are difficult challenges. Many topics experts lack training in epidemiology, biostatistics, and other skills necessary for grading study designs. Guidelines by specialists abound, but the USPSTF is unique in convening primary care clinicians and scientists whose skill lies in critiquing studies objectively, without preconceived views or a stake in the outcome. The process does involve specialists, who review draft documents and whose criticisms are carefully vetted to correct errors.

Understanding the Breast Cancer Screening Guidelines

The USPSTF did not recommend against women having mammograms. This pivotal misunderstanding resulted from poor wording of the recommendation:

The USPSTF recommends against routine screening mammography in women aged 40 to 49 years. The decision to start . . . should be an individual one and take patient context into account, including the patient's values regarding specific benefits and harms.¹

Inserting "routine" in the first sentence and adding the explanatory second sentence was meant to convey a nuance that was lost on the public. The panel did not oppose mammography, as widely misinterpreted, but recommended against automatic ("routine") imaging, without informing women about potential harms. The USPSTF was updating a 2002 B recommendation⁵ that made a similar point in different words.⁶ The 2002 guidelines recommended mammography screening starting at age 40 years but urged clinicians to inform patients about the reduced net benefit at this younger age. That message was largely ignored in practice, and for the update the USPSTF determined that the blunter language of a C recommendation⁵ was warranted.

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See also pp 164, 166, 168, and 172.

Concern about harms is not trivial. Breast cancer is an age-dependent disease; the benefit from screening increases with age. Among women aged 39 to 49 years, at least 1000 women must undergo periodic mammography to prevent 1 breast cancer death.¹ Younger women also face increased risk of harms from screening, such as false-positive findings, biopsies, anxiety, and overdiagnosis and treatment of latent disease.

Advocates of mammography and cancer survivors often belittle these harms, but a moral duty exists when subjecting millions of asymptomatic women to a procedure that benefits relatively few. Whether hundreds of women should endure the consequences of inaccurate mammograms to save 1 woman's life is a legitimate ethical question. Wisely, the USPSTF saw the subjectivity of the question and did not propose an answer, concluding instead that each woman should decide with her physician and undergo testing only after personally considering the trade-offs.

Evidence on mammography was not ignored. The USPSTF conducted a systematic review of all randomized trials and meta-analyses and commissioned its own meta-analysis to determine the pooled effect size. The panel also commissioned a modeling study, but only to augment this information with additional projections.¹ Critics faulted the review's omission of Scandinavian studies⁷ that suggest greater benefit from mammography than the USPSTF reported, but the review protocol excluded observational data due to concerns about confounding.

The recommendations did not oppose insurance coverage for mammography. The panel took no position on reimbursement, nor should its recommendation—that women aged 40 to 49 years undergo mammography if properly informed—argue against coverage.

The USPSTF did not oppose breast self-examination. The panel recommended against teaching women standardized examination procedures, a practice proven to induce harms without incremental benefit.⁸ Here again, the word “teaching” went unnoticed by reporters and the public. Women find most breast cancers through ad hoc self-inspection and should promptly contact physicians when they discover abnormalities.

Lessons Learned

In the weeks that followed this incident, the controversial recommendation statement was pulled from the USPSTF Web site, Congress convened hearings, and the Senate passed legislation to override the USPSTF recommendations. The full aftermath and consequences of this incident for the USPSTF are still unfolding. One certainty is that the mammography controversy, now 2 decades old, is not going away. Several larger lessons are also apparent.

First, scientific panels on controversial topics should gauge public sensibilities and communicate clearly when releasing recommendations. Scientists are wise to banish politics from their recommendations but are unwise not to plan for the political reception that awaits them.

Second, society needs a forum for intelligent public debate, a challenge in today's media environment. The USPSTF

tempest was fomented by the 24-hour news cycle, talk shows, and blogs that ridiculed the panel and disseminated erroneous claims, conspiracy theories, and rhetoric contributed by reporters, pundits, politicians, and callers. Perversely, the information age now makes it easy to trample facts with misinformation, “breaking” news, and talking points. This helps politicians, the media, and special interests earn votes, profits, and ratings but does harm to public enlightenment.

Third, if today's public sphere cannot escape these influences, the responsible recourse is to preserve independent bodies that can deliberate with clarity, insulated from interference. The public should safeguard these efforts, even if they disagree with the findings, but too often the reverse occurs, as the hostility to the USPSTF illustrates. Independent panels should not be intimidated for political reasons, but they are. In the 1990s, Congress coerced one agency⁹ and nearly abolished another¹⁰ when their guideline panels issued unpopular recommendations. Today's health care crisis demands efforts to curtail overutilization and maximize the health benefits of spending. Independent commissions are proposed to find solutions, but lawmakers who fear rationing have barred them from examining costs, even as costs threaten health care and the economy. Their scrutiny of effectiveness may also founder, judging from the USPSTF experience. The nation cannot afford this approach to decision making.

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Additional Information: Dr Woolf has served the US Preventive Services Task Force as scientific advisor (1987-1995), member (1998-2003), and senior advisor (2004-2007) but holds no current role.

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