

Written Testimony

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Committee on Appropriations
Subcommittee on Labor, Health and Human Services

and the

Committee on Health, Education, Labor, and Pensions
Subcommittee on Public Health

Submitted by the Agency for Healthcare Research and Quality

Hearing on Mammography Screening
February 28, 2002

The Agency for Healthcare Research and Quality (AHRQ) respectfully submits the following testimony on the effectiveness of screening mammography for the record.

Today's hearing is very timely in light of the recommendation from the U.S. Preventive Services Task Force (USPSTF) released last week on February 21, 2002, by HHS Secretary Tommy G. Thompson. The USPSTF is a leading independent panel of private-sector experts in prevention and primary care sponsored by AHRQ that conducts rigorous, impartial assessments of scientific evidence for a broad range of preventive services. In its new recommendation, the USPSTF endorsed screening mammography every 1-2 years for women ages 40 and over.

AHRQ's mission is to support research designed to improve the outcomes and quality of health care, reduce its costs, address patient safety and medical errors, and broaden access to effective services. The research sponsored, conducted, and disseminated by AHRQ provides information that helps people make better decisions about health care.

With this mission, AHRQ-funded research activities provide meaningful, evidence-based information on screening mammography to women and their clinicians. The Agency does this in three ways: first, supporting research that informs the quality of mammography and interpretation of mammograms; second, supporting a review of the up-to-date evidence on mammography screening by the U.S. Preventive Services Task Force (USPSTF); and third, developing evidence-based materials for patients and clinicians.

Quality Mammograms

Screening mammography is an important tool for reducing deaths from breast cancer in women 40 and older. However, it is not a perfect tool. Because it is not as specific a test as it could be, false positives can occur which often require repeat screening and/or biopsies. This can cause significant anxiety among patients and their families, as well as unnecessary health care expenditures. In addition, problems with mammogram interpretation and communication of results to patients can result in cancers that are missed and treatment that is delayed.

As a result, the effectiveness and usefulness of mammography have been the subject of controversy for many years. AHRQ, along with other agencies of the Department of Health and Human Services, have worked to build the foundation of evidence for the effectiveness of mammography and to ensure that patients have access to high quality screening.

One of AHRQ's earliest activities in this area was the development of a clinical practice guideline on how to identify the elements of high quality mammography screening.

The guideline, developed in 1994 by an independent panel sponsored by AHRQ's predecessor, the Agency for Health Care Policy and Research, was entitled *Quality Determinants of Mammography*. The multidisciplinary panel that developed the guideline comprised radiologists, radiologic technologists, medical physicists, family practice physicians, a nurse, an obstetrician-gynecologist, a surgeon, a pathologist, an internist/oncologist, and consumer representatives. Many of these panel members also served on the original Food and Drug Administration (FDA) National Mammography Quality Assurance Advisory Committee.

The guideline provided information to clinicians on providing high quality mammography services and also gave patients information on how to determine the quality of the mammography services they received.

It is important to note that science and research are continually moving forward, and that medical practice must keep pace. In 2001, AHRQ reviewed the guidelines it had developed in the 1990s to determine which were still scientifically valid. Among those found to be out of date was the *Quality Determinants of Mammography*, a guideline that was published in 1994 and is therefore 8 years old.

Given the restructuring of AHRQ's guideline development activities in 1996, the evidence base for the guideline has not been updated since its initial release. A recent study sponsored by AHRQ has shown that the lifetime of a guideline is variable, but, generally, guidelines should be reviewed every 3 years

AHRQ now makes evidence-based guidelines available through the National Guideline Clearinghouse™ (NGC), an Internet-based compendium of more than 1,000 evidence-based clinical practice guidelines found at <http://www.guideline.gov>. At this time, the site contains 76 guidelines related to breast cancer and 23 related to mammography. AHRQ sponsors the NGC in partnership with the American Medical Association and the American Association of Health Plans. The NGC Web site provides the most current recommendations on screening mammography from leading guideline developers in the United States and around the world.

The NGC is an internationally recognized source of high-quality, evidence-based clinical information. Currently, NGC has approximately 55,000 user sessions and 950,000 hits a week. Guideline developers are contacted yearly to verify that their guidelines are considered current. After 5 years, if the developer has not reviewed its guideline, it is withdrawn from the site.

Research on Mammography

AHRQ sponsors health services research that helps to inform the delivery and quality of health care services. The Agency has supported a number of important studies on the quality of mammography, its interpretation, and access to screening.

A study by Craig Beam, Ph.D., of the Medical College of Virginia, found that U.S. radiologists looking at the same mammogram are likely to interpret it quite differently. In their study sample, Dr. Beam and his colleagues found that some radiologists referred 100 percent of women with cancer for biopsy, while others referred only 47 percent. Inaccuracy in mammogram interpretation may mean that breast cancer goes undetected or is detected at a later stage, when it is more difficult to treat successfully.

Another AHRQ study, co-funded with the National Institutes of Health, is attempting to identify reasons for variability in the interpretation of mammograms. The study, led by Joann Elmore, M.D., at the University of Washington, is a unique collaboration among three geographically distinct breast cancer surveillance programs in the states of Washington, New Hampshire, and Colorado. This collaboration will permit the collection of breast cancer outcome and interpretive data on more than 500,000 mammograms from 91 facilities and 279 radiologists.

Dr. Elmore's study is especially timely because it takes place in the community setting where the majority of mammograms occur. Although mammography facilities are subject to rigorous accreditation standards regulated by the FDA, requirements do not include an evaluation of radiologists' accuracy levels in mammography or address the issue of variability in interpretation. Identifying the causes of variability of interpretation will be extremely important in enhancing the quality of screening mammography.

The Agency also is supporting research to understand barriers to breast cancer screening and improve access. For example, a study funded by AHRQ found that negative attitudes about mammography might play a role in the disproportionate number of breast cancer deaths among African American women compared with white women. Knowledge of screening recommendations and access to free mammograms were not enough to get some low-income black women to keep their mammography appointments. Most of the women who skipped their appointments said they were embarrassed or believed that a mammogram was unnecessary if they didn't have any symptoms.

Another study funded by AHRQ found that a major reason women cite for not undergoing breast and cervical cancer screening is that their physicians never recommend it. Older women, in particular, are less likely to be screened. This may be due in part to conflicting professional recommendations for screening older women, the many competing causes of mortality as women age, and possible negative attitudes about screening held by doctors and their older female patients.

An important element of AHRQ's research agenda is helping to ensure that the research it sponsors is translated into improved clinical practice. The first step in this translation is the publication of these findings in the professional literature. The Agency also works with professional and patient groups to disseminate the findings to those who can put them to work in routine medical practice.

New USPSTF Mammography Recommendation

The debate over the usefulness of mammography has recently intensified. Much of this debate has focused on the critiques of the scientific literature on mammography screening by Olsen and Gotzsche of the Nordic Cochrane Center in Copenhagen.

Over the last two years, the USPSTF has been reviewing the same scientific literature. The findings from this review were the foundation of the mammography recommendations released by Secretary Thompson on February 21.

Acknowledging that the scientific evidence is not perfect, but not as flawed as others have claimed, the USPSTF recommends screening mammography every 1 to 2 years for women age 40 and older. Evidence of benefit and reduced mortality is strongest for women aged 50-69, the age group generally included in screening trials.

The evidence was unclear on when women should have their first mammogram and how frequently they should be screened, so the Task Force recommends that women should discuss their personal preferences and the harms and benefits of mammography with their clinicians to determine when to start routine screening mammography and the optimal interval for screening.

AHRQ is working to get the new USPSTF recommendation translated into improved clinical practice and into information that will help reduce confusion and anxiety among patients.

As a start, AHRQ has made the new recommendation on mammography available on our Web site at <http://www.ahrq.gov/clinic/3rduspstf/breastcancer/index.html>. Also available are a fact sheet for clinicians and information for patients.

AHRQ also will use the Put Prevention Into Practice (PIIP) program to help get this information out to preventive services providers and patients around the country. PIIP, an AHRQ program, is designed to increase the appropriate use of clinical preventive services, such as screening tests, immunizations, and counseling, which are based on USPSTF recommendations.

Conclusion

AHRQ has a tradition of supporting and conducting evidence-based research and translating that research into improved clinical practice. The Agency also has led the way in providing evidence-based information for health care decision making for mammography, other important screening tools, and other clinical issues.

As HHS Secretary Tommy G. Thompson said on February 21, screening mammography can save lives. But this test is not perfect, and we need more research to improve the mammography and the interpretation of results. We also must ensure that women have the information they need to make decisions about their own health. Finally, it is particularly important that we continue periodic evaluations of the available scientific literature to ensure that medical practice and patient decisionmaking are based on an up-to-date foundation of evidence.

Thank you very much for the opportunity to comment on this important issue, and we look forward to any questions that you may have.