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Denying Women Access to Mammography Screening

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By Daniel Kopans MD

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In observance of National Breast Cancer Awareness Month, MedPage Today is publishing editorial contributions that address various aspects of the disease and the month-long awareness campaign. The following contribution is by [Daniel B. Kopans, MD](#), senior radiologist in breast imaging at Massachusetts General Hospital in Boston.

Mammography screening and the reduction in breast cancer deaths in the U.S. rank among the major advances in healthcare over the last 50 years, but you would never know it, given all of the controversy that has arisen.

Women and their physicians are unaware that there has been a consistent effort to reduce access to mammography screening that goes back decades and is based on faulty science and flawed analyses that have made their way into an uncritical medical literature, and on to the public by media that find it too complicated to unravel.

Randomized, controlled trials (RCTs) are the only way to prove that an intervention like breast cancer screening is efficacious. Multiple RCTs have proven that screening, statistically significantly, saves lives.

In the U.S. the death rate from breast cancer had been unchanged going back to 1940. Mammography screening began in the mid-1980s at a national level, and, as predicted, the death rate began to fall, for the first time in 50 years, in 1990. There are now more than 30% fewer women who die each year from breast cancer than would have died had screening not been available.

Arguments Against Screening

It is significant that the major arguments against screening are being made by those who do not even provide care for women with breast cancer. They claim that therapy is completely responsible for the decline in deaths since 1990. In fact, there are no direct data to support this contention. Whereas, there are numerous studies showing that when women have access to screening, the death rate declines. A few studies have looked at access to modern therapy, and the death rate does not decline until mammography screening is instituted.

Approximately 2,000 men are diagnosed with breast cancer each year. Men have access to the same therapies as women, but, in 1990, instead of our death rate going down, it went up

and stayed up until 2005. It then returned to 1990 levels, where it has remained while the death rate for women has continued to fall, as more and more women participate in screening. Men are not screened for breast cancer. Therapy has improved, but therapy saves lives when cancers are treated earlier.

The effort to reduce access to screening goes back decades. In this short space I cannot possibly cover all of the misinformation that has been promulgated over the years.

For example, as someone who was invited to review the quality of the mammography in the [Canadian National Breast Screening Study](#), I can attest to the fact that it was poor to unacceptable for most of the study. The "randomization" process violated the fundamental rules for RCTs (CBE before allocation and then assignment on open lists) leading to a loading of the sides against mammography. Despite the fact that it was a completely corrupted trial whose results are not reliable, it is being touted, by those who do not know the facts, as proving that there is no benefit from screening.

Early-Detection Argument

Years ago it was argued that you could not find breast cancers early enough to make a difference. Once the RCTs proved a benefit, the argument was raised that you could not possibly screen all the women in the U.S. The [Breast Cancer Detection Demonstration Project](#) proved that it was possible. Then opponents tried to claim, using inappropriate statistical methods, that screening did not save lives until the age of 50.

Once it became clear that they were incorrect and that the most lives are saved by annual screening beginning at the age of 40, they claimed that they wanted to protect women from "false-positives." These sound ominous until you know that the vast majority of so-called "false-positives" are simply being recalled from a screening mammogram for additional evaluation.

Approximately 10% of women being screened will be recalled (the same rate as for a Pap test by the way). The vast majority of these are resolved by a few extra pictures or an ultrasound. Only 1% to 2% of women screened will be advised to have an imaging-guided needle biopsy using local anesthesia, and 20% to 40% of these will reveal cancer.

In the past when surgeons biopsied women based a palpable lump, only 15% were cancer and most were large and later stage and less curable than those found by mammography. Opponents do not explain what they mean by "false-positives." I think most women would agree that the anxiety and inconvenience of being recalled for additional evaluation are not comparable to dying from breast cancer.

Undeclared Biases

Unfortunately, a few high profile medical journals including the *New England Journal of Medicine (NEJM)*, *Annals of Internal Medicine*, *Journal of the American Medical Association*, and *Journal of the National Cancer Institute* (which by the way is NOT the National Cancer Institute's journal) have undeclared publication biases against screening mammography and, in particular, screening for women ages 40 to 49. They have refused to publish papers in support of screening and will only publish material that cast doubt on screening.

One paper in the *NEJM* from Norway claimed that mammography had little effect on deaths

following the start of their screening program. Deaths are expected to begin to fall 5 to 7 years after a program begins; yet this paper had only 2.2 years of follow-up. Furthermore, the authors neglected to explain that more than 40% of women were already being screened on their own before the program began, so that deaths had already declined.

The *NEJM*, subsequently, published a paper claiming that mammography screening was leading to massive "overdiagnosis" of cancers that if left alone would regress or disappear. Not only did one of the authors, subsequently, admit that since they had no idea which cancers were detected by mammography, they really could not fault mammography (oops ??). They claimed that in 2008 alone, there were 70,000 of these cancers. Not only had the authors never seen an invasive breast cancer disappear on its own, but no one else has ever seen one do this -- 70,000 in one year and not single example!?

Even more egregious, instead of using 40 years of data from 1940 to 1980, the authors used their "best guess" to arrive at their conclusions. "Best guesses" are not the best way to determine healthcare guidelines. Using real data and their methods, there has been no evidence of "overdiagnosis" of invasive breast cancers. Yet the conclusions of this paper have been picked up as the major reason to deny women access to screening.

Recently, the *NEJM* published a paper entitled "Abolishing Mammography Screening Programs?" with the very official sounding "A view from the Swiss Medical Board." It turns out that this was simply a small group with no official standing that chose an official-sounding name to pass on misinformation that suggested that Switzerland was likely going to stop all breast cancer screening. Incredibly, a letter to the editor from breast cancer experts explaining that this was false was refused publication by the *NEJM*.

Not Perfect

Unfortunately, I have only been able to scratch the surface of the **misinformation** that has been irresponsibly promulgated about mammography screening. No one has ever said that mammography screening is the ultimate answer to breast cancer. It is far from perfect. It does not find all cancers and does not find all cancers early enough to result in a cure.

We all hope for a safe way to prevent cancer or a universal cure but none is on the horizon, and wishful thinking is no substitute for the facts. Thousands of lives are being saved each year. Even the **CISNET models** used by the **U.S. Preventive Services Task Force** show that the most lives are saved by annual screening, beginning at the age of 40.

The "nonscience" should stop. While we work day and night to find a cure or prevention, women should be advised that the scientific evidence strongly supports mammography screening each year beginning at the age of 40.



Primary source: The Oncologist

Source reference: [Kopans DB "Arguments against mammography screening continue to be based on faulty science" *Oncologist* 2014; 19: 107-112.](#)

Additional source: Radiology Clinics of North America

Source reference:Kopans DB "The 2009 US Preventive Services Task Force (USPSTF) guidelines are not supported by science: The scientific support for mammography screening" *Radiol Clin N Am* 2010; 48: 843-857.

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