

Response from Dr. Daniel Kopans to Dr. Gilbert Welch's op-ed ["When screening is bad for a woman's health"](#) in the *Los Angeles Times*.

## ENOUGH IS ENOUGH

*At some point the polite suggestion that this is simply "misinformation" rather than dangerous lies needs to change.*

**Misinformation #1:** "A couple of years ago an Oregon colleague and I reported on the effect across time. We found that the initiation of widespread screening in the United States during the 1980s was associated with a substantial increase in the number of women found with early-stage breast cancer, but it didn't yield much of a decrease in the number found with serious late-stage cancer. And, remarkably, no change in the worst stage: The number diagnosed with life-threatening metastatic breast cancer didn't decrease."

**Facts:** This "report" was, subsequently shown to be made up. As his "Oregon Colleague" subsequently admitted in writing, he and Dr. Welch based their conclusions on their "best guesses". More than 40 experts in breast cancer (including surgeons, oncologists and several expert organizations) called for the paper to be withdrawn because of its fundamental flaws. There were at least three papers subsequently published that detailed the errors in Dr. Welch's paper including one that showed that the rate of advanced cancers has dramatically declined in the U.S. refuting his unsubstantiated claims.

**Misinformation #2:** "As to the effect across place, in an article published this month in *JAMA Internal Medicine*, Harvard colleagues and I reported on breast cancer in 547 counties in the United States. The study was a natural experiment: It made use of the fact that screening-mammography rates vary considerably by county."

**Facts:** Read the paper! In it Dr. Welch actually admits that his approach was not scientific and not believable, but he goes ahead, regardless, and does what he admits three times in the paper is scientifically unsupportable!

1. "4 alternatives are also logically possible: lead-time, reverse causality, confounding, and ecological bias."
2. "our conclusions are vulnerable to ecological biases"
3. "Clinicians are correct to be wary of ecological studies because of the ecological fallacy".

Dr. Welch is not entirely to blame. He told the *JAMA* reviewers that his paper was scientifically unsupportable and they still published it!

**Misinformation #3:** "We found that counties that screened more found significantly more breast cancer. But there was no relationship between how much a county screened for breast cancer and how likely its female residents were to die from breast cancer. In other words, once again the benefit of screening was very limited and once again it led to diagnoses of cancers that otherwise would have never bothered women."

**Facts:** The authors clearly stated that what they had no scientific basis in this paper because of the "ecological fallacy". They admitted that they had no direct patient data. They had no idea which women had mammograms and which women did not. They had no idea which cancers were found by mammography and which were not. The "ecological fallacy" explains that you cannot link the kind of general summary data that they had and make any valid claims about cause and effect, yet they went ahead and did just that! They couldn't have made the error any clearer, yet they were able to get past terrible peer review and now Dr. Welch is citing the nonsense in the LA Times!

**Misinformation #4:** "Over time and over place, the findings are consistent: Screening is good at finding small breast cancers. Unfortunately, the small cancers it finds often seem to be those not destined to become large, deadly cancers."

**Fact:** The only folks who are making these scientifically unsupportable claims are Dr. Welch and a few of his friends. The rest of the scientific world disagrees. All of the data and the scientific review panels have agreed that finding breast cancer earlier saves the most lives for screening starting at the age of 40.

**Misinformation #5:** "Nor am I saying you shouldn't get a mammogram if you notice a new breast lump. Doctors agree that mammography is a good diagnostic test..."

**Facts:** Dr. Welch exhibits a fundamental lack of knowledge about breast cancer and breast cancer screening. He does not know what he is talking about since he does not provide care for women with breast cancer. By the time a woman has a lump that is cancer, the mammogram is superfluous. It does not tell you whether or not the lump is cancer. In fact, the mammogram is obtained for women who have lumps, not so much to look at the lump, but to screen the rest of the breast and the other breast for unsuspected cancer since most lumps are not cancer. Dr. Welch does not know what he is talking about, but is being given plenty of room to talk about it!

**Misinformation #6:** "But a 50% rate of false alarms is neither humane nor efficient. The public health community should be outraged."

**Facts:** The rate of recalls from screening is 10% which is the same as for women having cervical cancer screening (Pap testing). The vast majority are resolved by a few extra pictures or an ultrasound. Only 20 out of 1000 women are advised to have an imaging guided needle biopsy and 20-40% of these prove to be cancer. This is a much higher rate than when women waited for "lumps" and had a surgical biopsy in an operating room, where only 15% will be cancer and will be less likely to be cured.

**Misinformation #7:** "They [Europe] get less than half the false positives we do because they do a better job reading mammograms and overseeing the process."

**Facts:** Dr. Welch has zero data to support this contention. There are no scientific studies that have accurately compared European women and screening with American women and screening so he is simply making it up along with most of his statements. The death rate from breast cancer had been unchanged in the U.S. going back to 1940. Mammography screening was introduced in the mid 1980's, and for the first time in 50 years the death rate began to decline. There are now more than 35% fewer deaths each year from breast cancer than would have occurred had screening not been introduced. Has anyone at the LA Times not wondered why there are no credible oncologists who are supporting Dr. Welch (who does not treat women with breast cancer). Therapy has improved, but therapy saves lives when breast cancers are treated earlier. Dr. Welch is making it up and risking women's lives.

**Misinformation #8:** "But the bigger harm is actually overdiagnosis. Women are being diagnosed with breast cancer, and receiving some combination of surgery, chemotherapy and/or radiation, when, in fact, that cancer was not destined to cause symptoms — a lump you can feel — or be life-threatening. Screening mammography is more likely to cause overdiagnosis than it is to help save lives"

**Facts:** Dr. Welch and a handful of others have been making this argument with no scientific support. They claim that breast cancers would melt away if left alone. Dr. Welch's paper that he cited earlier claimed that in 2008 alone there were more than 70,000 such "melt away" cancers found by mammography, yet not one (including Dr. Welch) has ever seen an invasive breast cancer disappear on its own! 70,000 in one year and not a single credible case!?? Dr. Welch is making it up. His coauthor has admitted that since they had no information on which women had mammograms and which cancers were found by mammograms his claim is fundamentally not supportable. His paper has been shown by 3 subsequent papers to be hokum. It was based on his "best guesses" (admitted by his coauthor Dr. Bleyer). He is endangering the lives of women based on his "best guesses" when

the scientific evidence clearly shows that early detection leads to fewer breast cancer deaths. All the scientific evidence shows that there is little if any overdiagnosis of invasive breast cancer.

**Misinformation #9:** "Looking harder isn't the right way to combat breast cancer. What do we get when we look harder? More false alarms and more overdiagnosis — with no obvious change in what we really care about: breast cancer deaths."

**Facts:** Dr. Welch is making it up again. Why is the death rate from breast cancer continuing to fall? The "new therapies" have been around since the 1980's and 1990's. Women have continued to participate in screening in larger and larger numbers. Improvements in detection are almost certainly the reason that the death rate continues to fall.

**Misinformation #10:** "Lawyers don't help either; doctors who might counsel fewer mammograms or be less aggressive in pursuing breast abnormalities are afraid of lawsuits in the few instances in which serious cancer later develops."

**Fact:** If Dr. Welch is correct, then doctors who follow his counseling have nothing to fear. They can cite Dr. Welch's "creative" science and convince a jury that finding the cancer earlier was unlikely to have saved the woman's life.

**Misinformation #11:** "But the biggest problem seems to be a lack of leadership in the mammography community. While their colleagues in other areas of radiology are working to mitigate false alarms and overdiagnosis in lung cancer screening and in the evaluation of thyroid nodules and small kidney masses, a small, vocal group of mammographers seems content to dismiss the problems with breast cancer screening."

**Facts:** Realizing that he is making it up, Dr. Welch now has turned to attacking the experts in the early detection of breast cancer. Many of us have lived through the time when cancers were growing through the skin and breast cancer was considered a "death sentence". Dr. Welch, with no experience in breast cancer detection, diagnosis, or treatment using his "creative", but scientifically unsupportable analyses, would like to turn back the clock to a time when thousands more women were dying from these cancers.

No one has ever said that mammography is the ultimate answer to breast cancers, but a universal cure or safe way to prevent breast cancer is not even on the horizon. Dr. Welch seems to forget that 40,000 women still die each year from breast cancer despite improvements in therapy. Although not proof, but certainly additional support is evident in a large study from the major Harvard Medical

School teaching hospitals, in which more than 70% of the women who died from breast cancer were among the 20% who were not participating in screening despite having access to modern therapies. Therapy has improved, but numerous studies have shown that even when women have access to the latest therapies, deaths from breast cancer decline at a much higher rate among women who are participating in screening.

At some point, the media need to wake up and realize they are being used. If Dr. Welch is so certain of his ideas, then he should mount a large study at Dartmouth, where he is employed, and randomly stop screening half the population of women while continuing to screen the other half of the female population and prove his approach. Instead of trying to get thousands of women killed with his scientifically unsupportable ideas, he should apply science to the question.