One medical topic that is now widely debated is breast cancer screening especially when should women begin being screened, and how effective screening is in decreasing deaths from the disease. Charles Harding from Seattle, WA and colleagues from Harvard and Dartmouth examined data [1] from women living in 547 counties in the U.S., and determined the association between screening and the incidence of breast cancer and of deaths from mortality. Data from 16 million women, at least 40 years old in 2000 were included in their analysis. In that initial analysis, approximately 53,000 women were diagnosed with breast cancer, and then followed for ten years.

The researchers proposed that, since the goal of screening mammography is to detect and treat tumors when they are small that is, early in the course of the disease finding early tumors should decrease deaths from breast cancer. But does this translate into the reduction of the number of larger tumors? The answer is both yes and no.

The investigators found that, across all counties, there was indeed a positive, and significant, association between the extent of screening and the incidence of small breast cancer tumors. This is to be expected, since by definition, more screening will necessarily detect more tumors. But the increased detection had no bearing on death from the disease. Also, they determined that there was a strong correlation between the extent of screening and increased incidence of small tumors, e.g., those measuring 2 centimeters or less, but not with the incidence of large tumors.

Harding concluded, Our analysis shows that, when directed toward the general US population, the most prominent effect of screening mammography is overdiagnosis. Nonetheless, we do not believe that the right rate of screening mammography is zero. As is the case with screening in general, the balance of benefits and harms is likely to be most favorable when screening is directed to those at high risk, provided neither too frequently nor too rarely, and sometimes followed by watchful waiting instead of immediate active treatment.

American Council on Science and Health [2] Senior Nutrition Fellow Ruth Kava commented I find these results somewhat troubling, since they seem so negative with respect to the importance of screening. However, as the authors stated, it is imperative that women and their health care providers take personal history into account when deciding if and when mammographic screening
is appropriate.

Dr. Josh Bloom, ACSH's Director of Chemical and Pharmaceutical Sciences, had this to say: Right now, we are in a conundrum. The ability to detect, or even predict, disease real or not puts doctors and their patients in a difficult situation. Do the risks of screening people to detect something that is very often nothing to worry about outweigh whatever benefit the test might offer? There is no right answer to this.