Table. Age 50 annual screening

What are chances of benefit and harm from screening mammography (digital tomosynthesis) done every year for 10 years for an American woman age 50? The table presents ranges for each outcome based on the US Preventive Services Task Force and additional published literature.

	No mammogram	Mammogram every year	Range of possible effects of mammograms every year for 10 years for a woman age 50
Benefit			
Chance of death overall	4.42%[1]	4.42% to 4.30%[2]	Between 0 and 1.2 *fewer* **deaths overall** per 1000 women screened
Chance of breast cancer death	0.39%[3]	0.37% to 0.27%[3]	Between 0.2 and 1.2 *fewer* **breast cancer deaths** per 1000 women screened
Harms			
Any false alarm	---	29.1% to 60.4%[4]	Between 291 and 604 **false alarms** per 1000 women because of screening
False alarm requiring a biopsy	---	4.9% to 15.1%[4]	Between 49 and 151 **false alarms requiring a biopsy** per 1000 women because of screening
Overdiagnosis [diagnosis and treatment of a cancer not destined to cause symptoms or death]	---	0.3% to 1.4%[5]	Between 3 and 14 **overdiagnosed** cancers per 1000 women because of screening

[1] The 10-year chance of death from any cause is derived from Social Security Administration (2019 "pre-covid" data) (see *Appendix - Table calculations*)

[2] The low end of the range assumes all women avoiding a breast-cancer death do <u>not</u> die from another cause; the high end assumes all women who avoid a breast cancer death die from another cause.

[3] The 10-year chance of death from breast cancer data are from the National Cancer Institute (DEVCAN) (for calculations, see *Appendix - Table calculations.xlsx*). The lowest chance of death is based on the US Preventive Services Task Force modeling report which provides the largest estimated benefit from mammography: a 30.6% reduction (ages 50-74, annual, digital tomosynthesis). The highest chance of death is based on the Cochrane Collaboration meta-analysis for the low risk of bias trials for age >50, which provides the smallest estimated benefit: 6 % risk reduction

[4]Data from Ho, et al. JAMA Netw Open. 2022;5:e222440.

[5]Data from Pace, et. al. JAMA. 2014;311:1327-1335.