

# **Association Between Receipt of Cancer Screenings and Prior Experience with Cancer Screenings**

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### **Abstract**

An individual's decision to screen for various cancers may be influenced by his/her prior experience with cancer screenings. Bad experiences, such as a false positive test result, might increase or decrease an individual's willingness to continue screening for cancer in the future. Using 8 years of electronic medical records data, we identified 78,188 individuals aged 50-75 y who received regular primary care from 45 locations of a single healthcare system between 2006-2013. We then examined the association between patients' prior experience with colorectal, breast, and prostate cancer screenings, and future receipt of these screenings. We found that individuals who received one cancer screening were more likely to obtain other cancer screenings. For example, women who had received breast cancer screening in the prior 2 years were more likely to be up-to-date with colorectal cancer screening (AOR=1.86,  $P<0.001$ ), as were men who had received prostate cancer screening in the prior 2 years (AOR=1.62,  $P<0.001$ ). Associations were stronger for individuals who previously had a false positive test. For example, women who previously had a false positive mammogram were more likely to be up-to-date with breast cancer screening (AOR=2.47,  $P<0.001$ ) and colorectal cancer screening (AOR=1.37,  $P<0.001$ ). We concluded that a patient's prior experience with cancer screenings may influence his/her future willingness to obtain cancer screenings. In particular, patients who previously had received a false positive test result or cancer diagnosis were more likely to engage in future screening for all cancers.