consideration of prevention options; decision-making processes and networks, and psychosocial well-being. Transcribed data are analyzed with NVivo 10, using grounded theory methods. Results: Prevention decision making by women who have had close contact with the cancer diagnosis and treatment of a loved one (most often a mother or grandmother, but sometimes a sister, cousin, or close friend) is importantly influenced by these experiences. The process of deciding whether and when to undertake prophylactic mastectomy or oophorectomy, chemoprevention, enhanced surveillance, and/or genetic testing is substantially different in women who have and have not had close personal experience with the cancer of a loved one. Women who have experienced the deaths of one or more loved ones express strong motivation and willingness to undertake definitive interventions; most often this means prophylactic surgery, but this can also include chemoprevention. These women often feel that they are likely to be diagnosed with breast cancer eventually, and seek decisive methods to avoid what they perceive as a life-threatening diagnosis. Women whose loved ones have survived and thrived after a cancer diagnosis are more oriented toward careful surveillance through screening tests and physician checks. These women usually see breast cancer as a challenge they may have to deal with in the future, and they are motivated to set the stage for treatment success by establishing ongoing relationships with highly competent healthcare providers, and by being diagnosed as early as possible. Conclusions: Cancer care has strong effects beyond the cancer patient herself, affecting the decision-making processes and the prevention-related decisions of loved ones as well. Future prevention research for women at elevated risk should consider how their prior experiences with the cancer of friends or family members structure women's expectations of cancer risk, prevention, and outcomes.

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Active Tobacco Smoke and Environmental Tobacco Smoke Exposure During Potential Biological Windows of Susceptibility in Relation to Breast Cancer

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Purpose: Our objective was to prospectively examine active smoking and environmental tobacco smoke (ETS) in relation to breast cancer risk, with a focus on exposures during potential windows of susceptibility. Methods: Sister Study cohort participants (n = 50,884) were enrolled between 2003 and 2009 and were followed for a breast cancer diagnosis. Women ages 35–74 in the United States and Puerto Rico were eligible if they had a sister who had been diagnosed with breast cancer. Study participants completed extensive telephone and paper questionnaires including information on established breast cancer risk factors as well as active smoking history and exposure to ETS while in utero and during childhood and adult years. Cox regression analysis was used to estimate adjusted hazard ratios (HRs) and 95% confidence intervals (95% CIs) for invasive breast cancer incidence associated with active smoking and ETS exposure. Results: During follow-up (mean = 6.4 years), 1,843 invasive breast cancers were diagnosed in the study population. Exposure to ETS in adulthood was not associated with increased breast cancer risk. However, nonsmoking women who were exposed to ETS throughout their childhood (18 years) had an 18% higher risk of breast cancer (95% CI, 1.02–1.38) relative to those without any childhood ETS. In utero ETS exposure also was associated with a modest increase in breast cancer incidence (HR = 1.16, 95% CI, 1.01–1.32) among nonsmokers as was paternal smoking prior to the participant's mother's pregnancy (HR = 1.12, 95% CI, 0.98–1.29). Additionally, active smoking prior to first pregnancy for 10 or more pack-years (HR = 1.31, 95% CI, 1.02–1.67) was associated with an elevated risk of breast cancer. Conclusions: In this large, prospective study, we report evidence that both active smoking and ETS exposure during potential windows of susceptibility, including in utero exposure, childhood and prior to first pregnancy, are associated with higher risk of breast cancer.

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Neighborhood Socioeconomic Deprivation and Geographic Heterogeneity of Tobacco Environment in Missouri

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Purpose: To examine neighborhood characteristics associated with geographic distribution of tobacco sale outlets in Missouri. Methods: We obtained the addresses of tobacco outlets in Missouri from the Missouri Department of Mental Health. We geocoded these addresses and computed the outlet density by 5-digit ZIP codes. Using the data from the 2008–2012 American Community Survey, we developed a ZIP Code Tabulation Area (ZCTA)-level socioeconomic deprivation (SED) index. We analyzed the relationships of tobacco outlet density with neighborhood SED index and five separate socioeconomic indicators (%population with less than high school, %population unemployed, %households below the poverty, % population under the poverty, and %African Americans). Results: There were more than 5,000 tobacco retailers within Missouri in January, 2014. The number of tobacco retailers ranged from 0 to 56 (median = 2) per ZIP code, while tobacco outlet density ranged from 0 to 29 per 1,000 persons age 18+ (median: 1.18). Tobacco outlet density was significantly correlated with neighborhood SED (rho = 0.21, $P < 0.001$). The consistency of quartiles of both variables was also statistically significant (weighted Kappa = 0.11, $P < 0.001$). Logistic regression analysis indicated that neighborhood SED was associated with more than 3 times higher odds of denser tobacco outlets (>median density) (the most vs. least deprived quartile: odd ratio = 3.24, 95% confidence interval = 2.26–4.65). Similar results were also found for each of the five individual socioeconomic indicators. Conclusion: Geographic distribution of tobacco retailing outlets was strongly associated with neighborhood SED environment. Neighborhoods with greater SED