

provider in the previous 12 months, having had a lapse of insurance in the previous 3 years, and having had a mammogram in the previous 12 months. Associations were examined with Spearman correlation analyses. A logistic regression analysis was performed to identify variables associated with having had a mammogram in the previous 12 months. **Results:** Over ninety percent of respondents (91.2%; 563 of 617) self-reported having had a mammogram in their lifetime and 62.4% (385 of 617) reported having had a mammogram in the previous 12 months. Of the females who had a mammogram in the previous 12 months, 14.0% (24 of 171) reported having not visited a medical provider in the previous 12 months. Having received a mammogram in the previous year was significantly correlated with having more education ($p=0.083$, $P<0.05$) and not having a lapse in health insurance coverage over the previous 3 years ($p=0.155$, $P<0.01$). Having received a mammogram in the previous 12 months was significantly associated with having visited a medical provider in the previous 12 months ($OR=28.352$, $P<0.001$). **Conclusion:** Most women have had at least one mammogram, which suggests the successful dissemination of preventive cancer screening guidelines and minimal evidence of health disparities. Routine check-ups are the major driver for meeting prior mammogram recommendations, which emphasizes the importance of access to regular care when implementing the new screening guidelines.

Keywords: Breast cancer, Mammograms, Preventive cancer screening
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C-C3-04:

Neighborhood Socioeconomic Conditions and Use of Preventive Health Care Services in Insured Populations

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Background and Aims: Several studies have found variations in cancer health outcomes among persons in different socioeconomic (SES) groups, but the presence and extent of such disparities in insured populations is unclear. The objective of this study was to determine whether, among persons enrolled in HMOs, there are differences in the use of services for early detection of cancer according to neighborhood SES. **Methods:** This was a retrospective cohort study of men and women aged 50+ years, enrolled for at least 1 calendar year beginning in 2000 at one of 3 health plans participating in the Cancer Research Network. Follow-up was to the date of disenrollment from the health plan, or December 31, 2007, whichever was earlier. Using administrative data, we obtained dates of examinations and tests related to screening for colorectal cancer (CRC) for men and women and mammography among women. CRC tests were defined as time to the first colonoscopy or sigmoidoscopy (endoscopy) during the follow-up period; and also time to an endoscopy that was not preceded by gastrointestinal conditions in the 6 months prior to the test. SES neighborhood measure was computed using 12 US Census (2000) measures of racial and SES composition and context at the tract level. **Results:** A total of 123,222 members, 54% women and average age 64 years, were followed for an average of 5.5 (SD=2.8) years. During 673,938 person-years of follow-up, about 41% had at least 1 endoscopy and 32% had an endoscopy not associated with prior GI-related diagnoses. Among women, 77% had at least 1 mammogram during the study period; 7% had mammograms during each of the first 5 years of follow-up. In Cox regression models, compared to lowest quartile of SES, persons residing in the highest quartile had a hazard ratio (HR) of 0.76: (95% confidence interval (CI): 0.75-0.78) for receipt of any endoscopy; 0.72: (CI: 0.70-0.74) for 'screening' endoscopy; and 0.86: (CI: 0.84-0.88) for mammography. **Conclusion:** Even among patients receiving care in HMOs, those in socioeconomically deprived neighborhoods are less likely to undergo cancer early detection services. Interventions targeting enrollees residing in lower SES neighborhoods may help reduce cancer health disparities.

Keywords: Cancer health outcomes, Socioeconomic status, Health disparities

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PS3-07:

A Microsimulation Model of the Natural History of Smoking in the US

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Background: Smoking and other forms of tobacco use is the largest preventable cause of morbidity and mortality in the US. An understanding of the natural history of this behavior can help in improving smoking cessation efforts. **Aim:** To develop a microsimulation model to depict the natural history of smoking in the US using data from the National Health Interview Survey (NHIS) and a structured literature review. **Methods:** Data from NHIS and the literature were used to model smoking prevalence by year of age over the lifetime of a birth cohort of US teenagers. The model accounted for age at initiation, quit attempts by age, success of quit attempts, and relapse. Smoking states in the model were "never smoker," "current smoker," "recent quitter," and "former smoker." Demographic variables such as age, gender and race/ethnicity were also analyzed to understand variations in smoking behavior by individual characteristics. Utilization of clinical interventions to promote cessation was built-in to the model in order to create two scenarios for use in evaluating the benefit of interventions to reduce smoking. In these two scenarios, lifetime smoking patterns in the absence and presence of clinical intervention were estimated. Use of these scenarios facilitated the comparison of smoking patterns with and without clinical intervention. The second scenario was also used to validate the model against observed prevalence rates and will facilitate future analyses of smoking patterns with selected community interventions incremental to current use of clinical interventions. **Results:** Model estimate of overall smoking prevalence of approximately 20% (for ages 18-65 years) was comparable to the available national estimates for the US. The model also successfully reproduced the smoking prevalence by age, gender and race/ethnicity, thus allowing for future analyses of various interventions at the clinic and at the community level. The model predicts a reduction of smoking prevalence by 4% at age 65, due to clinical interventions. **Conclusions:** Microsimulation modeling provides a useful framework for understanding smoking prevalence by individual variables such as age, gender and race/ethnicity. The current model will be expanded to include the impact of community interventions targeted at smoking reduction/cessation.

Keywords: Variables in smoking prevalence, Microsimulation modeling, Smoking cessation

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PS3-10:

Barriers to Screening Colonoscopy Differ Among Health Plan Member Groups

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Background/Aim: Colorectal cancer screening for average risk patients is recommended beginning at age 50, with screening colonoscopy every 10 years considered by many to be the gold standard for screening (USPSTF, 2008). The purpose of this study is to explore the differences in barriers to colonoscopy between men and women. **Methods:** A stratified random sample of Scott & White Health Plan members was drawn—1000 50-year-old men, 1000 50-year-old women, 1000 men aged 51-80, and 1000 women aged 51-80. Sampled members received surveys by mail requesting information about colonoscopy in the past 10 years, readiness to have colonoscopy in the next six months, demographic information, time since last primary care visit and barriers to colonoscopy for those who had not had the procedure in the past 10 years. We compared barriers to colonoscopy between males versus females by the chi-square test or Fisher's exact test. **Results:** Response rate was 31% (1234 of 4000). Over 35% of the sample (438/1234) reported not having a colonoscopy in the past 10 years. The most commonly reported barriers were "My regular doctor has not told me I need a