2014 Research Forum – Saturday, March 8 HealthPartners in Bloomington

Title of Research Predictors of Cervical Cancer Screening Rates in the US among women aged 21-64 between 2005 and 2008

Presenter Olusola Adegoke MD MPH, PG-Y 1 Family Medicine Resident, St. Cloud/University of Minnesota Family Medicine Residency Program

Abstract

Objective or Hypothesis Reassessing factors associated with sustaining regular cervical cancer screening is important because the detection of cervical cancer in its earliest stages is potentially lifesaving. The objective of this paper is to identify predictors of cervical cancer screening among women aged 21-64 years, using the Medical Expenditure Panel, Household Component (MEPS HC) dataset between 2005 and 2008.
Based on conceptual framework of behavioral healthcare utilization model that patients' use of health care services is a function of their disposition and factors that enable use of services, we hypothesized that Pap smear is associated with individual-level variables that represent predisposing (age, race, ethnicity, education and marital status), and enabling (insurance status) factor.

Population MEPS an ongoing yearly longitudinal survey, that draws its sample from the US civilian non-institutionalized population, representative of the United States, is the primary source of data. Study population includes US woman ages 21-64, asked about the utilization of Pap smear, who are members of the civilian non-institutionalized (not in prison or nursing homes) population at any given time between 2005 and 2008 living in the 50 States or the District of Columbia.

Methods Chi square tests and multivariate logistic regressions analyses were used to examine associations between individual characteristics and Pap smear compliance. Independent variables for regression models are chosen based on theory, and existing literature. All other variables are assessed for model fitness based on a significance level of p =0.05. Sampling weights reflect the population and standard error were calculated using Taylor Series with Stata version 10.

Main Results Pap smear compliant respondents are more likely to be married white non-Hispanics, and are less likely to have a bachelor's degree as their highest educational attainment. Single women were less likely than married women to be compliant (O.R=0.5055 95% C.I 0.457-0.558) after controlling for independent variables. Compared to respondents with no education as their highest level of educational attainment, respondents with college education had a 1.918 times higher odds of compliance (O.R=1.918 95% C.I. 1.27-2.89), while post-graduate degree had a 3.751 times higher odds (O.R=3.75 95 C.I. 2.42-5.82) of compliance.
Uninsured women were less likely to have received a pap smear over the past three years. 18% of women of those who were uninsured did not receive a Pap test screening compared to 9.8% of women with insurance within the recommended 3-year interval. 92.6% the surveyed universe received the Pap test screening within the last 3 years based on the USPTF guideline for cervical cancer screening.

Conclusions Despite significant success in cervical cancer screening rates in the US, there are obvious disparities in screening rates based on socio-demographic factors. Identifying these predictors of cervical cancer screening will help formulate targeted screening policies and interventions. Our findings indicates the importance of targeting medically underserved and uninsured women to increase use of cancer screening services. Overall effective screening intervention must include a multi-dimensional strategy that will successfully address these variables and influence behavior to generate better compliance among women at risk of developing cervical cancer.

IRB Exemption ☒ **HIPAA Compliance** ☒ **Mentor(s)** Prof Todd Rockwood,Pinar Karaca Mandic