International Journal of Population Data Science

Journal Website: www.ijpds.org

Sociodemographic correlates of cervical cancer screening rates in Calgary, AB: Matched Trend analysis of 2006, 2011 and 2016

Sayed, SA¹, Naugler, C¹, and Dickinson, J¹

¹University of Calgary

Introduction

Cervical Cancer Screening (CCS) has reduced the incidence and mortality rates of cervical cancer (CC). However, the benefits are distributed unevenly since 30% of eligible women have not been screened within three years in Alberta. Women who have never been screened or are screened irregularly are most at risk for CC.

overuse. Understanding current testing patterns are important in assessing the benefit to harm ratio of CCS and for monitoring and evaluation of CCS program.

Objectives and Approach

The aim of this study was to understand who gets CCS and who does not, in Calgary, Alberta and analyze the CC policy implications since 2006-2016. CCS information of women aged 25-69 were obtained from Calgary Laboratory Services for the years 2006, 2011 and 2016 and matched with Canadian Census data. Negative binomial regression and Generalized Estimating Equations were used to test associations of CCS rates with socio-demographic variables for eligible women. CCS spatial trends over the years was studied using the GIS Hotspot analysis.

Results

Major age and geographical variations were observed in CCS rates in Calgary. CCS rates in the recommended age groups varied from 40.6 % to 23.6 %. For age groups between 25 and 54, CCS rates were above 33%, which implies that many women are having tests more than once every three years. Use was positively associated with median household income, education, Chinese ethnicity and negatively associated with 'Black' visible minority status. Women living in lower socio-economic areas of Calgary are screened at lower rates. Hotspot analysis maps revealed heterogeneous testing patterns in the city with relatively higher testing in the downtown, Southeast and Northwest quadrants of the city and relatively decreased CCS in the Northeast quadrant of Calgary.

Conclusion/Implications

Screening programs need to be strengthened with greater focus on including specific demographic groups and reducing