

Identifying Clusters of Reproductive-Age Women Not Screened for Cervical and Breast Cancer in Ghana

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ABSTRACT

Purpose: There is a significant rise in mortality rates from breast and cervical cancers in Low- and Middle-Income Countries. In Ghana, approximately 4,482 women are diagnosed with these diseases at advanced stages. Unfortunately, the early detection rate for these cancers is low compared to other women's health services. This situation underscores the need to identify the locations of reproductive-age women who have not been screened for these cancers, to implement targeted public health interventions. This study aims to pinpoint these women's locations for tailored interventions.

Method: Bivariate analysis assessed the relationship between the independent and outcome variables. Hot spot analysis and Kriging Ordinary interpolation were employed to pinpoint the locations of these women.

Results: Breast cancer examination and cervical cancer test rates were low, with a strong association between the two screening services. Several significant variables were identified: place of residence ($p < 0.001$), combined wealth index ($p < 0.001$), visits by fieldworkers ($p < 0.001$), coverage by a National Health Insurance ($p < 0.001$), and awareness of family planning through various media in the past few months. It was predicted that non-screened reproductive-age women were densely concentrated in areas far from the three publicly funded hospitals designated for cancer screening.

Conclusion: Low participation in these screening services was related to women's age and the outreach efforts of fieldworkers. Breast and cervical cancer screenings are interconnected and could be combined to improve attendance rates. The Community-based Health Planning and Services (CHPS) implementation strategy could be cost-effective for screening women through targeted interventions, especially in identified clusters.

Keywords: Breast cancer examination, Cervical cancer screening, Family planning, Community-Based Health and Planning Services (CHPS), Kriging ordinary analysis, Non-screened reproductive-age women

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