

Predictors of cancer screening among urban poor women in Ghana

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Abstract

Early diagnosis of cancer is crucial for treatment and management. However, in spite of numerous programs to encourage cancer screening, there is little evidence of the determinants of cancer screening from developing countries. This paper analyses the determinants of cancer screening among poor urban women of reproductive (15-49) age in Ghana. We consider both breast and cervical cancer screening as outcomes. Our analysis shows that cancer screening is very low in our sample with 10.45% and 3.81% of reporting that they have ever been screened for breast and cervical respectively. Our analysis shows that previous history with breast cancer is the most significant predictor of cancer screening among women in our sample. Other significant predictors are age and socioeconomic status (education, occupation and wealth status).

Table 1: Descriptive Statistics

Number of households	2711
Number of women	4362
Location	
Urban	86.89%
Semi urban	13.11%
Age group	
15-19 years	17.67%
20-24 years	21.49%
25-29 years	20.55%
30-34 years	16.97%
35-39 years	11.72%
40-44 years	7.04%
45-49 years	4.57%
Marital status	
Never married	50.64%
Currently married	29.34%
Cohabiting	12.01%
Divorced/Separated/Widowed	8.00%
In a polygamous marriage	
Yes	5.27%
No	94.73%
Religion	
Christianity	92.57%
Islam	6.95%
No religion/African traditional religion	0.48%
Ethnic group	
Ga/Dangme	15.82%
Akan	41.04%
Ewe	21.92%
Mole-Dagbani	7.02%
Other	14.21%
Age at first marriage	22.21(4.29)
Children ever born	2.33(1.38)
Want to have more children	
Yes, soon	6.72%
Yes, in future	71.45%
No	21.83%
Education	
None	13.73%
Primary	12.24%

Middle School/JHS	37.96%
Secondary plus	36.06%
Occupation	
Unemployed	15.27%
Student	19.53%
Trading	35.24%
Hairdressing/dressmaking	15.61%
Civil/public servants/banks	3.67%
Others	10.68%
Household wealth quintile	
Richest	22.06%
Richer	19.83%
Middle	19.19%
Poorer	19.21%
Poorest	19.70%
Has active Insurance	
Yes	24.35%
No	75.65%
Ever screened for breast cancer	
Yes	10.45%
No	89.55%
Ever screened for cervical cancer	
Yes	3.81%
No	96.19%

Table 2: Determinants of Cancer Screening (Breast and Cervical)

VARIABLES	Ever screened for breast cancer		Ever screened for cervical cancer	
	ORs	95% CI	ORs	95% CI
Has no relative with breast cancer (ref)	1.000			

Has relative with breast cancer	2.661***	(1.738 - 4.074)		
Has no relative with cervical cancer (ref)			1.000	
Not sure if relative has cervical cancer			1.049	(0.676 - 1.630)
Has relative with cervical cancer			8.103***	(2.995 - 21.925)
Age group: 15-19 years (ref)	1.000		1.000	
Age group: 20-24 years	1.348	(0.880 - 2.063)	1.271	(0.625 - 2.583)
Age group: 25-29 years	1.670**	(1.056 - 2.640)	2.136**	(1.014 - 4.501)
Age group: 30-34 years	1.841**	(1.129 - 3.002)	2.252**	(1.022 - 4.959)
Age group: 34-35 years	1.769**	(1.051 - 2.977)	3.784***	(1.697 - 8.442)
Age group: 40-44 years	3.271***	(1.881 - 5.689)	4.814***	(2.003 - 11.569)
Age group: 45-49 years	3.386***	(1.874 - 6.118)	4.048***	(1.581 - 10.365)
Marital status: never married (ref)	1.000		1.000	
Marital status: married	1.331*	(0.998 - 1.776)	1.099	(0.704 - 1.717)
Marital status: cohabiting	1.442**	(1.013 - 2.052)	0.791	(0.405 - 1.545)
Marital status: married	1.062	(0.690 - 1.635)	0.976	(0.500 - 1.907)
Education: none (ref)	1.000		1.000	
Education: Primary	1.146	(0.739 - 1.778)	1.385	(0.695 - 2.760)
Education: Middle School/JHS	0.825	(0.576 - 1.181)	0.965	(0.534 - 1.747)
Education: Secondary+	1.616**	(1.113 - 2.345)	1.658*	(0.909 - 3.022)
Occupation: unemployed (ref)	1.000		1.000	
Occupation: student	1.801***	(1.164 - 2.787)	1.836*	(0.929 - 3.631)
Occupation: trading	1.316	(0.901 - 1.922)	1.235	(0.680 - 2.242)
Occupation: hairdressing	1.852***	(1.224 - 2.800)	1.106	(0.548 - 2.231)
Occupation: civil/public service	2.118***	(1.257 - 3.570)	2.111*	(0.982 - 4.534)
Occupation: others	1.569**	(1.025 - 2.403)	1.118	(0.553 - 2.259)
Religion: Christian (ref)	1.000		1.000	
Religion: Muslim	1.331	(0.862 - 2.055)	0.822	(0.394 - 1.714)
Religion: Traditional	2.180	(0.645 - 7.362)	1.647	(0.198 - 13.676)
Ethnicity: Ga/Dangme (ref)	1.000		1.000	
Ethnicity: Akan	0.993	(0.746 - 1.321)	0.826	(0.532 - 1.282)
Ethnicity: Ewe	0.786	(0.561 - 1.101)	0.596*	(0.345 - 1.029)
Ethnicity: Mole-Dagbani	0.511**	(0.292 - 0.895)	1.236	(0.564 - 2.711)
Ethnicity: Others	0.942	(0.649 - 1.368)	0.946	(0.533 - 1.679)
NHIS : Not enrolled (ref)	1.000		1.000	
NHIS: currently enrolled	1.107	(0.870 - 1.408)	0.790	(0.538 - 1.159)
NHIS: card not seen	0.949	(0.699 - 1.289)	0.718	(0.426 - 1.211)
Wealth quintile: Poorest (ref)				
Wealth quintile: Poorer	1.110	(0.759 - 1.624)	0.798	(0.403 - 1.580)
Wealth quintile: Middle	1.173	(0.801 - 1.718)	1.834**	(1.023 - 3.287)
Wealth quintile: Richer	1.704***	(1.191 - 2.440)	1.696*	(0.925 - 3.108)
Wealth quintile: Richest	2.052***	(1.444 - 2.918)	2.149***	(1.210 - 3.816)
Location: Semi-urban (ref)	1.000		1.000	
Location: Urban	0.655***	(0.484 - 0.887)	0.404***	(0.264 - 0.619)
Sub-Metro: Ga East (ref)	1.000		1.000	
Sub-Metro: Ga South	0.789**	(0.625 - 0.995)	0.907	(0.641 - 1.284)
Constant	0.039***	(0.020 - 0.077)	0.021***	(0.007 - 0.059)

Observations	4,244	4,244
Pseudo R ²	0.0648	0.0827
Wald Chi squared	176.17	131.62

OR: Odds-Ratio. Table reports results from logistic regression models. *** p<0.01, ** p<0.05, * p<0.1