

## Research Article

# Cervical Cancer Screening Uptake and Barriers to Screening among Females in Somolu, South Western Nigeria

Amu EO<sup>1\*</sup>, Olatona FA<sup>2</sup> and Ndugba SC<sup>2</sup><sup>1</sup>Department of Epidemiology and Community Health, Faculty of Clinical Sciences, College of Medicine, Ekiti State University, Ado-Ekiti, Nigeria<sup>2</sup>Department of Community Health and Primary Care, College of Medicine, University of Lagos, Nigeria**\*Corresponding author:** Amu EO, Department of Epidemiology and Community Health, Faculty of Clinical Sciences, College of Medicine, Ekiti State University, Ado-Ekiti, Nigeria**Received:** June 22, 2017; **Accepted:** July 19, 2017;**Published:** July 26, 2017**Abstract**

Cancer of the cervix remains a major global cause of morbidity and mortality among women in countries with limited economic resources including Nigeria. This study was carried out to evaluate the extent of utilization of cervical screening services, identify barriers to screening and determine the willingness to screen by women in the Somolu, Southwestern Nigeria. The study was carried out in 2014 among women in Somolu, Lagos and employed a cross-sectional descriptive design. A pre-tested, self-administered, semi-structured questionnaire was used to elicit information from 272 women who were recruited by multi-stage sampling method. The data were analyzed using SPSS version 20. The results showed that 26 (10.0%) of the respondents never had cervical cancer screening while 234 (90.0%) never had accessed screening. The most important reasons for not accessing screening were insufficient medical advice 162 (69.2%), lack of health education 154 (65.8%), difficulty in accessing screening 152 (65.0%) and high cost of screening 151 (64.5%). Majority 170 (72.6%) were willing to be screened in the future. The study concluded that women in Somolu, Lagos had poor understanding of the bases of cervical cancer screening. Most did not screen because of lack of background knowledge of the importance of screening, accessibility, cost and fear of pain. Majority were however willing to screen in the future. Health education programs on cervical cancer screening and measures to reduce the barriers to screening should be put in place.

**Keywords:** Uptake; Cervical cancer; Screening services; Barriers; Nigeria**Introduction**

Cervical cancer is a leading cause of morbidity and mortality among women. Globally, it is the second most common cancer among women with 529,828 new cases being diagnosed every year; 80-85% of which are in developing countries. In Sub-Saharan Africa and Nigeria in particular, it is also the second most common cancer among women (breast cancer being the first) and the most common gynaecological cancer [1-3]. The exact cause of cervical cancer is unknown but several risk factors have been attributed. These include Human Papilloma viral infection, (a necessary risk factor) early sexual debut, multiple sexual partners, long term use of oral contraceptives, smoking, high parity, immunosuppressed states (e.g. HIV/AIDS) and low socio-economic status etc [4,5]. Most of these risk factors are modifiable, making the disease highly preventable. It is this prevention that is one of the major priorities of the global community [6,7].

The World Health Organization put in place measures to prevent and control this disease in childhood and also to prevent the advanced stage of the disease in women using primary and secondary prevention measures [8]. Primary prevention involves healthy lifestyles and vaccination with HPV vaccines. Secondary prevention involves screening in order to detect at an early stage those who are already affected by the disease and treat them [8].

Developed countries have achieved great reduction in cervical

cancer incidence through effective screening programmes. They contrast with developing countries where screening services are poor and cervical cancer still constitutes a major cause of morbidity and mortality [9-11]. Screening programmes, whether organized or opportunistic in nature consists of three major types of tests which include conventional Pap smear and liquid based cytology (cytology screening), visual inspection with acetic acid (visual screening) and HPV DNA- based screening methods [8].

In Nigeria, the government and some non-governmental organizations have made efforts to put screening services (Pap Smear) in place. However, available centres for this screening are still few and the uptake poor. Previous studies conducted in Eastern, Northern and Southern parts of Nigeria reported poor uptakes of cervical cancer screening which ranged between 4.2-20.5% [12-14]. Some studies have also documented factors associated with uptake of cervical screening test. Such factors include age, marital status, parity, risk perception, financial constraint, and knowing someone who has cervical cancer [15,16].

In order to reduce the morbidity and mortality attributable to cervical cancer, it is vital to assess the level of uptake of cervical cancer screening, identify the factors that prevent people from screening and understand contextually how some of these factors influence uptake of screening among Nigerian women. This study was therefore conducted to determine the uptake of cervical screening services, identify barriers to screening and determine willingness to screen

**Table 1:** Respondents' practice of cervical cancer screening.

Variable	Frequency	Percentage (%)
<b>Ever done a Pap smear</b>		
Yes	26	10
No	234	90
Total	260	100

It shows the uptake of cervical cancer screening among the respondents. Only 26 (10.0%) had ever had a pap smear done, while 234 (90.0%) had never done a pap smear before.

among women in Somolu, South Western Nigeria. This study will provide information that can be useful to policy makers in shaping the organization of cervical cancer screening programmes in Nigeria and also bridge the practice gap for screening among Nigerian women.

## Materials and Methods

### Study setting

Somolu Local Government Area (LGA) is one of the 18 LGAs in Lagos State. Located in Lagos East Senatorial District, it is made up of 8 wards and covers a land area of 99.0km<sup>2</sup>. It is bounded by three LGAs: Yaba, Bariga, and Mushin and has an estimated population of 402,673 according to the 2006 national census [17].

The people are predominantly Yorubas but other ethnic groups such as Igbos and Hausas also reside in the LGA. Majority of the people are printers, traders and bankers and are of medium to low socio-economic status. The LGA is plagued by problems of overcrowding, poor housing and inadequate sanitation. It has one general hospital, two primary health centers and several private health facilities. The major religions of the inhabitants are Islam and Christianity.

This was a descriptive cross-sectional survey conducted in 2014 among women between the ages of 16 and 60. Assuming a 95% level of confidence, proportion of women with awareness of cervical cancer of 80% (from a previous study) and a level of significance 5%, the formula for calculating single proportions by Abramson and Gahlinger was used to obtain a minimum sample size of 245 [18,19]. Two hundred and seventy two questionnaires were administered altogether.

Respondents were recruited into the study using multistage sampling technique. There are 8 wards in the LGA; simple random sampling was used to select 50% out of these. From each of the selected wards, 10 streets were selected by simple random sampling. Starting from the centre of each street, systematic random sampling was used to select 6 or 7 houses. From each selected house, an eligible respondent who consented was interviewed until the required number of respondents was interviewed.

A pre-tested, semi-structured questionnaire developed in English language and back translated into Yoruba in order to ensure the content validity was used. The questionnaire was pre-tested in Mushin LGA which was not utilized for this study. It elicited information on respondents' socio-demographic characteristics, previous uptake of cervical cancer screening, reasons why they did or did not access screening and attitude to future screening. The questionnaire was self-administered by the literate respondents while the non-literate ones were interviewed by trained research assistants.

Data was analyzed using the Statistical Package for Social Sciences

**Table 2:** Barriers to cervical cancer screening uptake among the respondents.

Variable	Frequency (n=234)	Percentage (%)
Insufficient medical advice	162	69.2
Lack of health education	154	65.8
Difficulty in accessing screening services	152	65.0
High cost of the test	151	64.5
Fear of pain of test	93	39.7
Previous screening	80	34.2

\*There were multiple responses

It shows the barriers to cervical screening uptake among the respondents. The most important reasons for not accessing cervical cancer screening services were insufficient medical advice 162(69.2%), lack of health education 154(65.8%), difficulty in accessing screening 152(65.0%) and high cost of screening 151(64.5%).

(SPSS) version 20. Continuous data such as age were summarized as means. Discrete data were summarized as proportions and presented as frequency tables.

Ethical clearance was obtained from LUTH College of Medicine Ethics and Research Committee. Permission to conduct the survey was obtained from the LGA authorities. Written informed consent was obtained from the respondents, the questionnaires were filled anonymously and confidentiality of information collected was ensured by the researchers.

## Results and Discussion

Out of the 272 questionnaires given out, 260 were returned, properly filled giving a response rate of 96%. The respondents consisted of 260 women; 207(79.6%) of the respondents were 20-40 years old; mean age was 28.3 years  $\pm$  8.36 years; 209(80.4%) were Christians; 120(46.2%) were Yorubas; 161(61.9%) were single; 172(66.2%) had tertiary education and 138(53.0%) were unskilled workers (Table 1, 2 & 3).

Cervical cancer screening plays a pivotal role in the control and prevention of cervical cancer. Even though HPV vaccination has been introduced, it is still expensive and only accessible to a few privileged people who are aware of its importance and can afford it. Even when HPV vaccination becomes widespread, screening will still continue to play a big role in detecting those who are already infected but asymptomatic. A good screening uptake therefore implies that more women with pre-cancerous stages of the disease are seen and treated. With poor uptakes on the other hand, more people will present at later stages of the disease causing more morbidity, mortality and disability.

The study revealed that only a tenth of the overall respondents had ever accessed cervical cancer screening (Pap's smear). Research conducted in other parts of Nigeria equally reported poor uptakes of cervical cancer screening. For example, studies conducted in Enugu, Owerri, Zaria, and Osogbo reported uptakes of 4.2, 7.1, 15.4 and 22.0% respectively [12,13,20,21].

In other developing countries outside Nigeria, the figures are also low. For example, two studies conducted among health workers in Ghana and Tanzania reported uptakes of 11.7 and 15.3% respectively while community-based studies conducted in Saudi Arabia and Malaysia reported uptakes of 16.8 and 38.0% respectively

**Table 3:** Willingness to undertake cervical cancer screening in the future among respondents who had never screened.

Willing to undertake screening?	Frequency	Percentage
Yes	170	72.6
No	42	17.9
Not sure	22	9.5
Total	234	100.0

It shows the willingness to access cervical cancer screening in the future among those who had never screened before. One hundred and seventy (72.6%) were willing, 42(17.9%) were unwilling while 22(9.5%) were not sure whether they would screen or not.

[22-25]. On the other hand, studies conducted in developed countries like United Kingdom, Canada and the United States of America reported very high uptakes of cervical cancer screening ranging between 70.0 and 90.0% [26]. These all show there is still a lot to be done in developing countries concerning cervical cancer screening if we must attain the level of control that has been achieved in the developed world. It is therefore imperative that government and policy makers intensify public education about the disease and the need to screen and also make screening programmes available and affordable.

In this study, the most important reasons for not accessing cervical cancer screening services were insufficient medical advice, lack of health education, difficulty in accessing screening services, high cost of screening and fear.

The barrier of insufficient medical advice and lack of health education was corroborated by other studies conducted in Eastern Nigeria and Tanzania where the respondents mentioned lack of awareness and lack of sufficient knowledge as reasons for not accessing cervical cancer screening [12,20,23]. However, lack of or insufficient medical advice or knowledge about cervical cancer and its screening on their own might not be sufficient to explain why people do not screen. Otherwise, one would have expected higher uptakes among health workers; which was not the case as shown by the Ghanaian and Tanzanian studies [22,23].

Difficulty in accessing screening services as noted in this study is corroborated by reports of studies conducted in Tanzania and Ghana [22,23] while the issue of cost is corroborated by report of a hospital based study conducted in South-western Nigeria [14]. Fear of pain is supported by results of studies conducted in Qatar, Tanzania and United Arab Emirates [18,23,27]. Majority of the respondents were however willing to uptake cervical cancer screening in the future.

The government, policy makers and health workers should intensify health educational campaigns about the disease, the importance of screening and also put in measures to remove the barriers that prevent women from accessing screening services.

## Conclusion

This study concludes that women in Somolu, South-western Nigeria, had poor uptake of cervical cancer screening. Most of them did not screen because of insufficient medical advice, lack of health education, difficulty in accessing screening services, high cost of screening and fear of pain. Majority of those who had never screened before were however willing to screen in the future.

## References

- World Health Organization. Global Status Report on non-communicable diseases 2014. 2014.
- Uzoigwe SA, Seleye-Fubara D. Cancers of the uterine cervix in Port Harcourt, Rivers State- a 13-year clinico-pathological review. *Niger J Med.* 2004; 13: 110-113.
- Oguntayo O, Zayyan M, Kolawole A, Adewuyi S, Ismail H, Koledade K. Cancer of the cervix in Zaria, Northern Nigeria. *EcancerMedicalScience.* 2011; 5: 219.
- Anorlu RI. Tumours of the Cervix Uteri. Heinemann Educational Books. 2006; 2: 167-182.
- Irimie S, Vlad M, Mirestean IM, Balacescu O, Rus M, Balacescu L, *et al.* Risk Factors in Sample of Patients with Advanced Cervical Cancer. *Appl Med Inform.* 2011; 29: 1-10.
- Resolution adopted by the General Assembly. 66/2. Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases. 2011.
- World Health Organization. Global Action Plan for the Prevention and Control of Non-Communicable Diseases 2013-2020. 2013.
- World Health Organization. Comprehensive Cervical Cancer Control. A guide to essential practice. 2006.
- Ferlay J, Bray F, Pisawi P, Parkin DM. GLOBOCAN 2000, Cancer Incidence, Mortality and Prevalence Worldwide. IARC Press. 2001.
- Parkin DM, Whelan SL, Ferlay J, Teppo L, Thomas DB. Cancer incidence in five continents. Volume VIII. IARC Sci Publ. 2002; 1-781.
- Lynette D, Rengaswamy S. Secondary Prevention of Cervical Cancer. *International Journal of Gynecology and Obstetrics.* 2006; 94: 65-70.
- Nwankwo KC, Aniebube UU, Aguwa EN, Anarado AN, Agunwah E. Knowledge attitudes and practices of cervical cancer screening among urban and rural Nigerian women: a call for education and mass screening. *Eur J Cancer Care.* 2011; 20: 362-367.
- Ahmed S, Sabitu K, Idris S, Ahmed R. Knowledge, attitude and practice of cervical cancer screening among market women in Zaria, Nigeria. *Niger Med J.* 2013; 54: 316-319.
- Awodele O, Adeyomoye AA, Awodele DE, Kwashi V, Awodele IO, Dolapo DC. A study on cervical cancer screening amongst nurses in Lagos University Teaching Hospital, Lagos, Nigeria. *J Cancer Educ.* 2011; 26: 497-504.
- Ncube B, Bey A, Knight J, Bessler P, Jolly PE. Factors associated with the uptake of cervical cancer screening among women in Portland, Jamaica. *N Am J Med Sci.* 2015; 7: 104-113.
- Ndikom CM, Ofi BA. Awareness, perception and factors affecting utilization of cervical cancer screening services among women in Ibadan, Nigeria: a qualitative study. *Reprod Health.* 2012; 9: 11.
- National Population Commission (NPC). Lagos State Population Document. 2006.
- Al-Meer FM, Aseel MT, Al-Khalaf J, Al-Kuwari MG, Ismail MF. Knowledge, attitude and practices regarding cervical cancer and screening among women visiting primary health care in Qatar. *East Mediterr Health J.* 2011; 17: 855-861.
- Abramson JH, Galinger PM. Computer Programs for Epidemiologists (PEPI) Version 3.01. Llanidloes: Brixton Books. 1999.
- Ezem BU. Awareness and uptake of cervical cancer screening in Owerri, South-Eastern Nigeria. *Ann Afr Med.* 2007; 6: 94-98.
- Adekanle DA, Adeyemi A, Afolabi AF. Knowledge, Attitude and Cervical Cancer Screening among Female Secondary School Teachers in Osogbo, Southwest Nigeria. *Academic Journal of Cancer Research.* 2011; 4: 24-28.
- Adageba RK, Adanso KA, Ankoeba FK, Kolbilla DZ, Opoku P. Knowledge of cervical cancer and patronage of cervical cancer screening services among female health workers in Kumasi, Ghana. *Afr J Haematol Oncol January.* 2011; 2: 157-161.

23. Urasa M, Darj E. Knowledge of cervical cancer and screening practices of nurses at a regional hospital in Tanzania. *Afr Health Sci.* 2011; 11: 48-57.
24. Sait KH. Attitudes, knowledge and practices in relation to cervical cancer and its screening among women in Saudi Arabia. *Saudi Med J.* 2009; 30:1208-1211.
25. Abdullah F, Abdul Aziz N, Su TT. Factors related to poor practice of pap smear screening among secondary school teachers in Malaysia. *Asian Pac J Cancer prev.* 2011; 12: 1347-1352.
26. Gakidou E, Nordhagen S, Obermeyer Z. Coverage of cervical cancer screening in 57 countries: low average levels and large inequalities. *PLoS Med.* 2008; 5: 132.
27. Nseem MB, Amal IH. The Knowledge, Attitude and Practice of Pap Smear among Local School Teachers in Sharjah District. *Middle East Journal of Family Medicine.* 2004; 4.