

# Increasing uptake of Basic Breast Examination Procedures through Breast Cancer Awareness in Jos, Nigeria

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## Abstract

Breast cancer is now the leading cancer in Nigerian women with a rising prevalence of 33.6/100,000 to 116/100,000. Increased number of prominent Nigeria women dying from the disease prompted the community leader to organize a cancer prevention program and breast cancer screening. We analyzed the data obtained from three days of community based prevention awareness program consisting of Breast self examination (BSE), clinical breast examination (CBE), breast ultrasound and mammography recommended for women above 40 years of age, women found to have positive lump at CBE or Ultrasound. All the screening programs were analyzed. Data was analyzed using Epinfo version 3.4.3. A total of 2048 women participated in the community sensitization program, the mean age 34.40 +12.98 with a range of 12-90years. Among the participants, only 55(2.7%) were not aware of breast cancer, 100(4.9%) practiced BSE, 644(31.4%) had breast related problems, 465(22.7) had family history of breast disease while 6(0.3%) previous biopsy. Lump detection: CBE 189(9.2%) 95% CI: 8.0%-10.6%, Ultrasound 314(15.3%) 95% CI: 13.8%-17.0%; Mammography: Only 320 results received at the time of analysis, lump detection 130(40.6%) lumps were detected. Community based cancer prevention is a useful tool for awareness and early detection of lumps in the breast in developing countries where other techniques are not readily available. Linkage to mammography and biopsy was done for those found to have or suspected to have a lump. All women 40years and above were encouraged on the need for regular mammography.

**Keywords:** Breast cancer, Community, Prevention, Outreach.

## 1. INTRODUCTION

Breast cancer is on the increase in our country and has the potential of becoming a public health problem(1). It is the major cause of death due to cancer in Nigerian women. Findings from breast cancer screening studies show that breast cancer prevention among women in Nigeria is very low including among health workers(2). Breast cancer prevention programs geared towards increasing awareness among Nigerian women are becoming more frequent but the gap between awareness and putting into practice is still very wide (3).

Breast self examination(BSE) is a cheap and easy to learn method of examining and detecting palpably enlarged lump in the breast irrespective of a person's level of education. BSE has been in practice for decades in developed countries but in developing nations like ours, it is just being introduced. Despite the gains of BSE, some school of thought thinks it is not a good screening tool because of over diagnosis. In developing countries however it maybe the best option for early detection and diagnosis because one of the most important factor for the high morbidity and mortality in breast cancer is delayed diagnosis(4). Breast ultrasound is another available and affordable screening procedure although not useful in all women; studies have found cancer in Nigerian women to occur in younger age (5). Ultrasound may then be a very useful for screening and to aid diagnosis. Death of prominent Nigerian women from cancer prompted the local government chairman to request for prevention programs on breast cancer in his community.

## 1.1 PATIENTS AND METHODS

This is a cross sectional study of a community sensitization program on clinical breast examination and Breast ultrasound. Four communities were visited over a three months period in Jos South local government. A radio jingle, community announcement using public address system and addressing religious gatherings was done following positive advocacy to community leaders. Teaching on cancer prevention and breast cancer screening for women who voluntarily present at the designated clinic was done at each community. We collected information on sociodemographics, awareness of breast cancer and BSE practice. Free clinical breast examination CBE was done on all women and Breast ultrasound was carried out for women less <40 years, with palpable lump or >40 years with dense breast. We analyzed the data obtained from three months of community based prevention awareness program consisting of Breast self examination (BSE), clinical breast examination (CBE) and breast ultrasound with a view to assessing the level of BSE uptake, the relevance of CBE and Breast ultrasound in breast cancer prevention in rural areas.

## 1.1.1 RESULTS

2048 women participated; the mean age 34.40 +12.98 with a range of 12 – 90years. Among the participants, 55(2.7%) were not aware of breast cancer, 100(4.9%) practiced BSE, 644(31.4%) had breast related problems,

465(22.7) had family history of breast disease while 6(0.3%) previous biopsy.

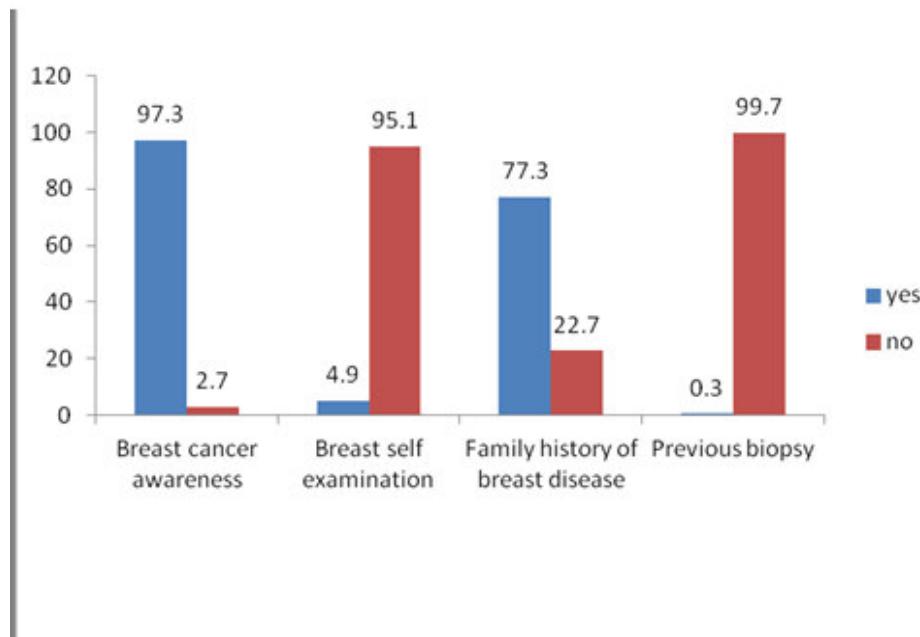


Figure 1: Level of awareness and practice among respondents at community breast cancer outreach Jos North, Nigeria

Lump detection: CBE 189(9.2%) 95% Conf: 8.0%-10.6%, Ultrasound 314(15.3%) 95% Conf: **13.8%-17.0%**. Awareness of a breast lump prior to CBE 20(10%), prior to breast ultrasound 20(6.37%).

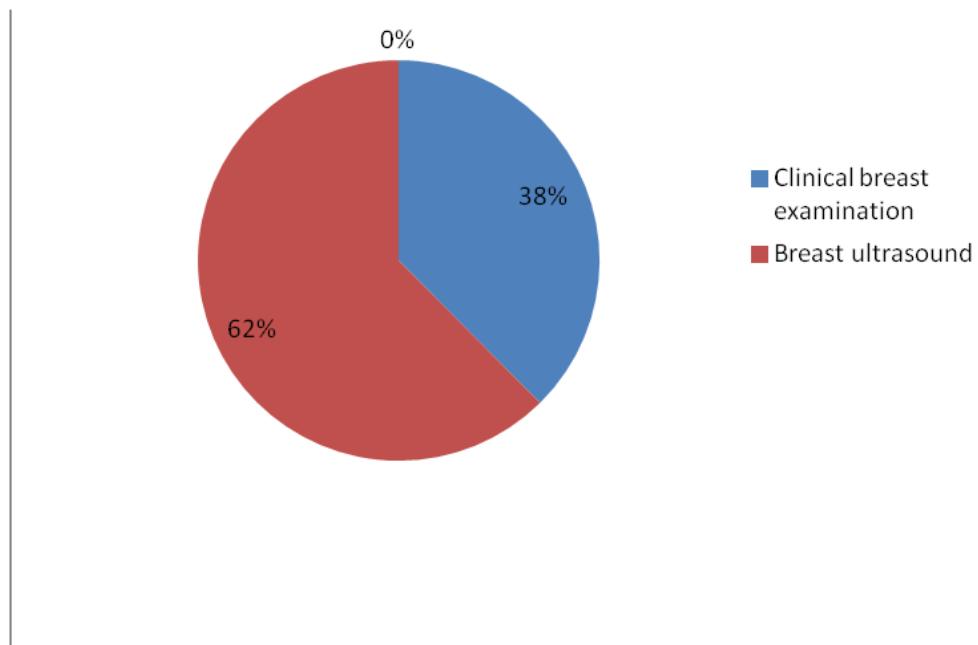


Figure 2: Lump detection rate of two methods of breast examination among respondents at Jos South community outreach

### 1.1.2 DISCUSSION

Number of women who volunteered to participate was significant of the estimated 32,000 women in the community; this indicates that people are curious to know about breast cancer and how they can control it. Breast cancer awareness among the group is high but only few practices BSE despite the relatively high number of women with some breast problem"Fig 1". Studies in some parts of the country show similar findings, they found that awareness of breast cancer in Nigerian communities studied is increasing but the practice of prevention methods is low (6-7). The reason for the BSE practice found in our study could be that the women are not

familiar with the method of performing BSE, they may not understand the interpretation nor the importance of the procedure so did not make it a regular part of life for the female.

CBE detected a significant number of lumps among participants who had no prior knowledge of the presence of a lump in their breast for which otherwise would have remained undetected. Although biopsy was not taken on the spot, these participants were linked to a facility for histological diagnosis and further management evaluation. Among the women diagnosed with breast lump at CBE very few were aware they had lump and even those who knew they had lump did not seek for medical intervention. Similar findings were reported in Osogbo Nigeria among health practitioners and lay women(8).

The lump detection rate by ultrasound is twice that of CBE 'Fig 2'. Ultrasound is cheap and readily available compared to mammography in our setting. Previous studies show breast cancer in Nigerian women occurs at younger age (9-10). Ultrasound in this age group if started earlier is likely to detect changes before it eventually presents as cancer. Iruhe et al compared the breast ultrasound findings with histological diagnosis in their patients and found high sensitivity and specificity which decreased with increasing age(11).

Mammography and biopsy was recommended for participants who met the indication for the procedures. The program provided the opportunity to be examined and referred for appropriate management of breast diseases picked up at CBE and breast ultrasound.

### 1.1.3 CONCLUSION

Breast cancer prevention program is necessary for early detection and control of the rising trend of the disease in our country. BSE, CBE and Breast ultrasound are cheap, affordable, readily available and acceptable methods of breast cancer screening that should be encouraged in our country. Follow up and linkage to mammography or biopsy can easily be done depending on individual need.

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