The quantitative findings reveal disparities in facility coverage for cervical cancer screening across different regions in Ghana. In Greater Accra, approximately 68.4% of facilities offer screening, while Ashanti shows an availability of around 52.6%. In contrast, the Northern zone records only 15.8–21.1% coverage. The statistical trends indicate that screening services are not uniformly distributed, highlighting significant infrastructural and logistical challenges in achieving universal cervical cancer screening in Ghana. Qualitative insights from interviews uncover several barriers to effective screening. A lack of awareness and education about the importance of early screening, along with misconceptions about cervical cancer, hinder uptake. Additionally, resource constraints, such as inadequate trained personnel and screening equipment, are reported by many facilities. Cultural and social factors, including stigma and beliefs in some regions, also contribute to delays or the complete avoidance of regular screenings. These multifaceted issues, encompassing resource limitations, lack of awareness, and regional disparities, drive the low rates of screening. Graphical representations confirm that Western regions tend to have better screening coverage compared to Northern regions, underscoring the need for targeted interventions in areas with lower coverage.

Conclusions

This research on cervical cancer screening in Ghana indicates that while some regions are capable of providing adequate screening, there remain substantial gaps that contribute to the persistently high incidence and mortality rates associated with cervical cancer.

LITERATURE

1. World Health Organization (WHO). Global Cancer Observatory [web]. – 2023. – URL: https://gco.iarc.fr/ (date of access : 11.03.2025).

2. International Agency for Research on Cancer (IARC). Cancer Incidence in Ghana [web]. – 2022. – URL: https://www.iarc.who.int/ (date of access : 11.03.2025).

3. Ghana Health Service. Cervical Cancer Screening Report [web]. – 2022. – URL: https://www.ghanahealthservice.org/ (date of access : 11.03.2025).

4. Epidemiological Trends and Challenges in Cervical Cancer Screening in Ghana / D. Mensah [et al.]. // Journal of Public Health. – 2021. – Vol. 44, № 2. – P. 123–134.

5. Cervical Cancer Prevention and Screening in Low-Resource Settings / K. Johnson [et al.]. // International Journal of Gynecological Cancer. – 2020. – Vol. 30, № 7. – P. 1019–1027.

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ANALYSIS OF CURRENT PRACTICES AND STATISTICAL INSIGHTS OF BREAST CANCER SCREENING IN LEBANON

Introduction

Breast cancer is the most prevalent cancer among women globally, and early detection is crucial for effective treatment and improved survival rates. In Lebanon, breast cancer accounts for approximately 35% of all cancers among women. The age-standardized incidence rate is estimated at 69 new cases per 100,000 women per year. Notably, almost 50% of breast cancer patients in Lebanon are below the age of 50. These statistics highlight the importance of implementing robust screening programs to identify the disease at its earliest stages. This research study focuses on evaluating the current breast cancer screening practices in Lebanon, aiming to provide insights that can inform and enhance the country's healthcare strategies.

Goal

To investigate the current state of breast cancer screening practices in Lebanon by analyzing the results of various screening tests and their corresponding data.

Material and methods of research

The study employed a cross-sectional design, collecting data from various healthcare facilities in Lebanon that offer breast cancer screening services. The screening tests included in the analysis were:

1. Mammography
2. Clinical Breast Examination (CBE)
3. Breast Self-Examination (BSE)
4. Ultrasound

Data were gathered on the number of individuals who underwent each screening test, as well as the corresponding positive and negative results. The data were then analyzed to calculate the percentages of individuals with positive and negative findings for each screening modality.

The Results of the Study and Their Discussion

The data in Figure 1 shows a significant increase in annual new breast cancer cases in Lebanon, from 350 cases in 2012 to 980 cases in 2017, representing a 180% increase over five years.

The findings suggest that all screening methods provide a reasonable balance of positive and negative results, with mammography and ultrasound being more established diagnostic tools. Meanwhile, Breast Self-Examination (BSE) offers accessibility and encourages personal health monitoring. However, the variations in positive percentages across different methods highlight the need for combined screening approaches to maximize accuracy and reliability. Each method has its strengths, and using them together could improve early detection rates and treatment outcomes (Table 1).

Table 1 – The Results of Breast Cancer Screening Tests in Lebanon

Screening Test	Total Participants	Positive Results	Negative Results	Positive Results (%)	Negative Results (%)
Mammography	8,200	1,000	7,200	12.2%	87.8%
CBE	6,700	780	5,920	11.6%	88.4%
BSE	9,500	1,500	8,000	15.8%	84.2%
Ultrasound	6,100	740	5,360	12.1%	87.9%

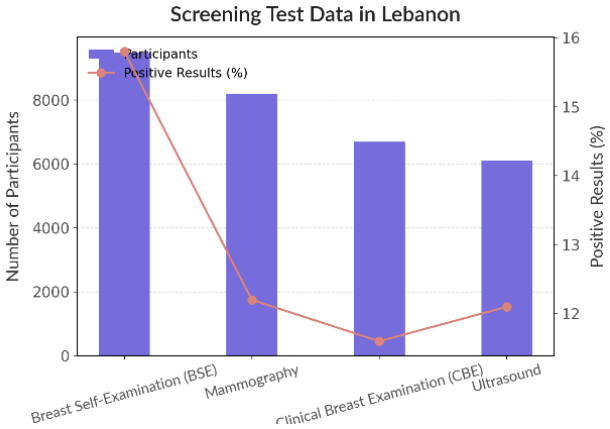

Figure 1 – The Results of Breast Cancer Screening Tests in Lebanon

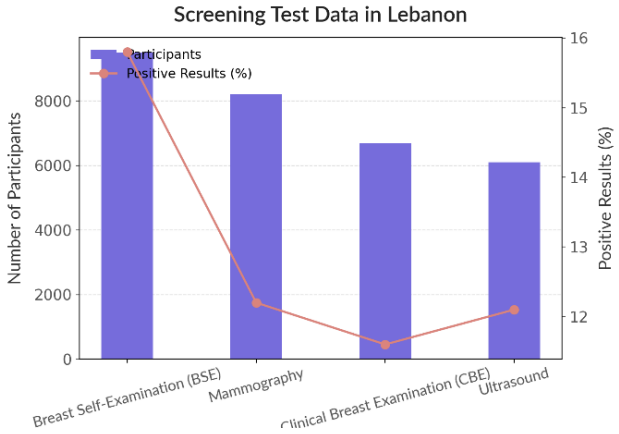

Figure 2 – The Results of Breast Cancer Screening Tests in Lebanon

The data indicates that the most commonly utilized screening test in Lebanon was Breast Self-Examination (BSE), with 9,500 participants, followed by Mammography (8,200 participants), Clinical Breast Examination (CBE) (6,700 participants), and Ultrasound (6,100 participants).

The highest percentage of positive results was observed in BSE at 15.8%, followed by Mammography at 12.2%, Ultrasound at 12.1%, and CBE at 11.6% (Figure 2).

The findings of this study provide valuable insights into the current state of breast cancer screening in Lebanon. The high participation rate in BSE suggests that public awareness campaigns have been effective in encouraging women to actively monitor their breast health. However, the relatively lower participation rates in more advanced screening methods like Mammography and Ultrasound highlight the need for increased promotion and accessibility of these comprehensive screening tools.

The variations in positive detection rates across different screening tests emphasize the importance of a multi-modal screening approach. Since each screening method detects different abnormalities, combining them can increase the chances of early diagnosis and improve patient outcomes.

Conclusions

This research study has shed light on the current breast cancer screening practices in Lebanon, providing numerical data and percentages on the results of various screening tests. The findings suggest that while public awareness and engagement in self-examination are encouraging, there is a need to further strengthen the utilization of more advanced screening modalities, such as Mammography and Ultrasound, to enhance the early detection of breast cancer in the country. Continued efforts to improve access, awareness, and adherence to comprehensive screening protocols can contribute to better health outcomes for the Lebanese population.

LITERATURE

1. Guidelines for breast cancer screening in Lebanon / S. M. Adib [et al.]. // Lebanese Medical Journal. – 2009. – Vol. 57, № 2. – P. 72–74.

2. LBC Foundation. Facts & Figures [site]. – URL: https://www.lbcfoundation.org/ (date of access : 11.03.2025).

3. National Cancer Registry – MOPH [site]. – URL: https://www.moph.gov.lb/ (date of access : 11.03.2025).

4. World Health Organization. Cancer Lebanon 2020 country profile [site]. – 2020. – URL: https://www.who.int/ (date of access : 11.03.2025).

5. Burden of female breast cancer in the Middle East and North Africa region, 1990–2019 / S. Safiri [et al.]. // Archives of Public Health. – 2022. – Vol. 80, № 1. – P. 1–13.