

Addressing the Social Determinant of Health for Early Cancer Detection Among Underserved Groups through Community Extension Camps

A cure is coming

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INTRODUCTION

- The burden of cancer in India is significant, with a high number of new cases reported each year, often at the late stages of the disease, leading to high mortality rates and increased out-of-pocket expenses for patients.
- Underserved communities face challenges in early cancer detection due to social determinants of health. Limited healthcare access, lack of awareness, cultural barriers, and socioeconomic inequalities contribute to disparities in cancer outcomes
- Early detection cancer camps play a crucial role in addressing these challenges by providing non-invasive, cost-effective screening methods to detect cancer at an early stage when it is more treatable.
- However, the participation of individuals in these camps and the affordability of screening and diagnostic tests remain challenges, which are being tackled through education and outreach programs as well as offering low-cost or free tests for underserved populations.

LITERATURE REVIEW

- Dinesh Sahu's study conducted in 2020 in India is an observational study that sheds light on the rising incidence of cancer in the country and the difficulties healthcare systems face in addressing this disease. The study highlights that cancer patients in low- and middle-income countries have poorer prognoses due to factors such as lack of awareness, delayed diagnosis, and unequal access to affordable treatment options. It emphasizes the importance of increasing cancer awareness and early reporting, with a specific focus on utilizing mass media and the internet for effective awareness campaigns.
- Korn, Walsh-Bailey, and Pilar conducted a systematic sampling approach study in the USA. The study aims to reduce inequities in cancer screening by addressing social determinants of health (SDOH) and promoting equitable access to screening services. SDOH include factors like socioeconomic status, education, and healthcare access that impact health outcomes.
- M. Das and Sirohi conducted an observational study in West Bengal. The study emphasizes the importance of community-based cancer screening programs to address the increasing cancer burden in low- and middle-income countries. It highlights the need for strong partnerships between the government, healthcare providers, and the community. The study identifies challenges such as funding, infrastructure, and public awareness. It suggests that sustained political commitment, adequate resources, and collaboration among stakeholders are essential in such countries.





"There is CAN in
CANCER"

RESEARCH QUESTION

What Social determinants of health among the population influence the cancer screening uptake through community extension clinics and what is the correlation between participation numbers and behavioural outcomes?

OBJECTIVES

- To identify the factors that impact the level of participation in Early detection cancer screening camps.
- To propose appropriate recommendations based on the findings to enhance participation levels and maximize the impact of camps.

METHODOLOGY



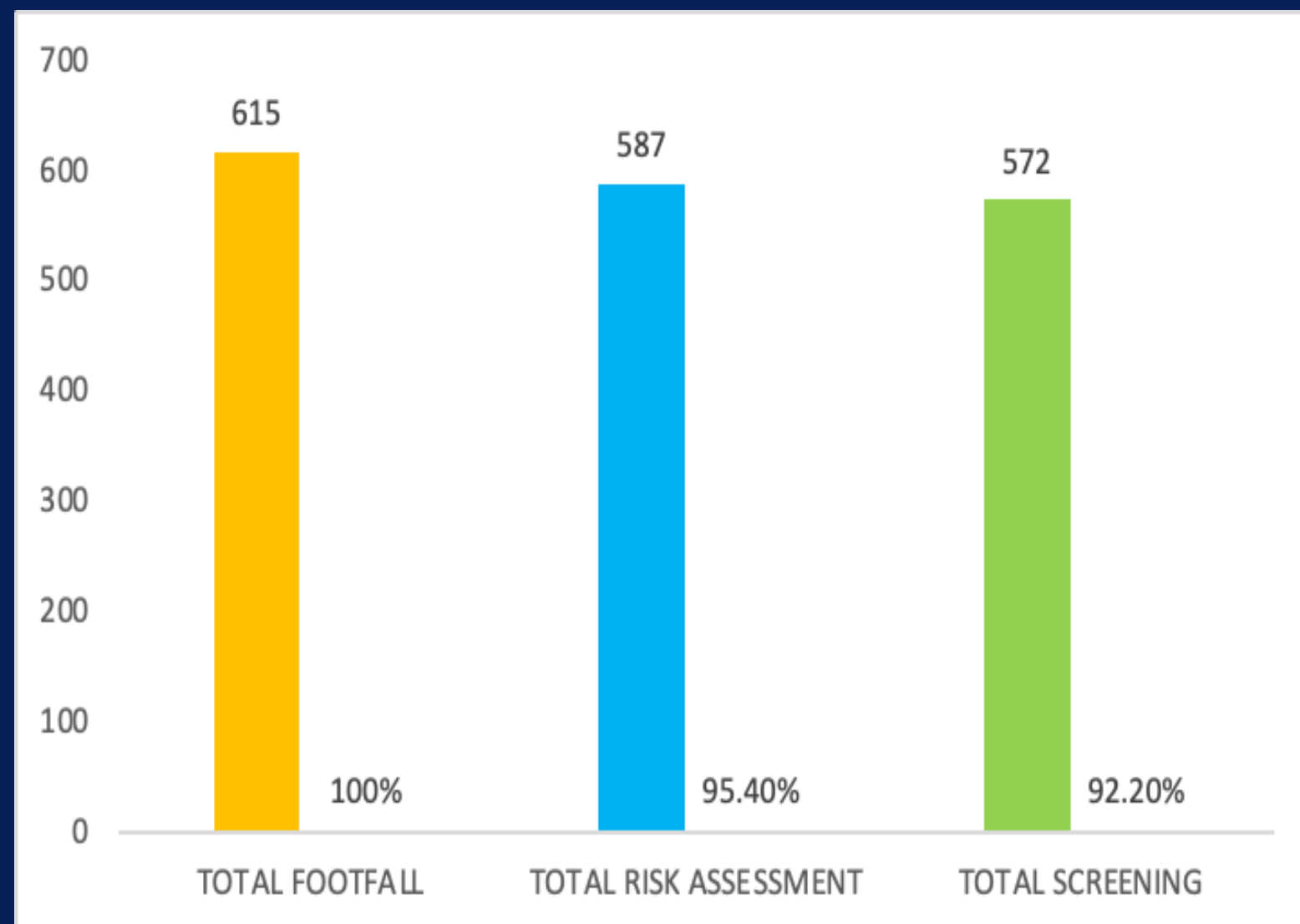
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- Study Design & Type: Cohort Study & Analytical study
 - Study Setting: The study has been conducted in Community screening camps at various locations across Delhi NCR, Rajasthan & Haryana .
 - Study Population: The study population are the individuals with Truck drivers and their families (TATA MOTORS)
 - Duration of Study: The study has been conducted over a period of Two months (15th April & 15th May2023)
 - Sample Size: The sample size has been determined using power analysis, and a minimum of 615 participants will be included in the study.
 - Data Collection Procedure: Data has been collected using a structured questionnaire. The questionnaire will include questions related to demographic information, participation in camps, and behavioural outcomes.

- Ethical Considerations: The current project was approved by the independent ethics committee. All the participants were informed about the project, the screening test, and its importance. All data were recorded through a digital application and informed user consent was taken. The consent forms were translated into local languages. The participants had a choice to decline the screening tests and further follow-up.
- Implications of Research: The findings of this study have helped healthcare organizations and policymakers to identify effective strategies for promoting participation in camps and help in early diagnosis of cancer.

RESULTS

A total of 615 population has been recorded for the study described further in detail. The camp has been conducted in TATA MOTORS 4 different locations

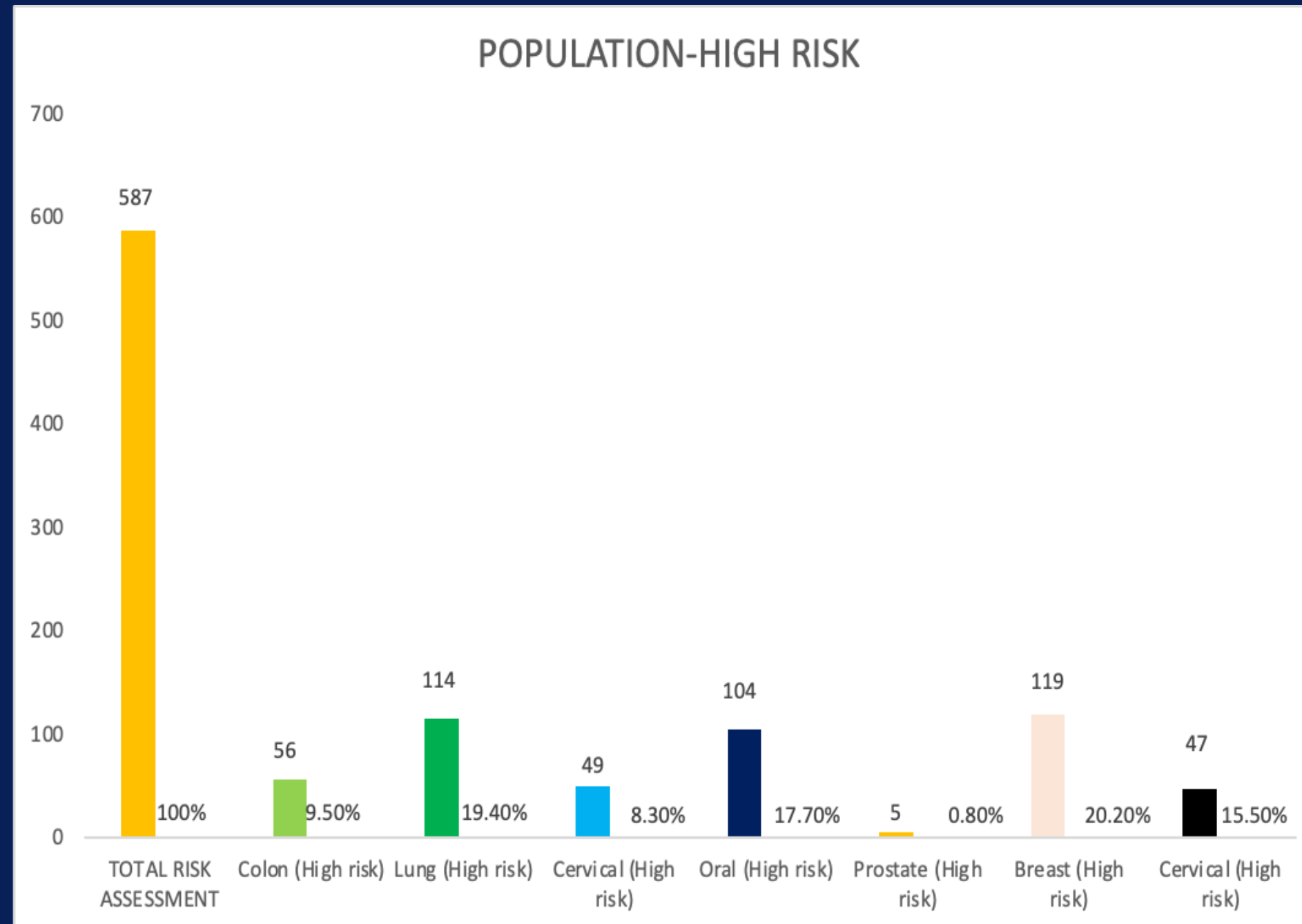
1. DELHI NCR,(1 CAMP)
2. RAJASTHAN -JAIPUR (2 CAMPS)
3. HARYANA (1 CAMP)



The Participation level has been decreasing due to Several factors in the risk assessment and screening camps. The findings suggest that factors such as lack of awareness about the importance of early cancer detection, fear or apprehension regarding the screening process, and cultural beliefs or stigmas associated with cancer may have contributed to the lower participation rate.

This indicates a participation rate of approximately 95.4%

POPULATION RISK ASSESSMENT



Risk Assessment is done based on the questionnaire:

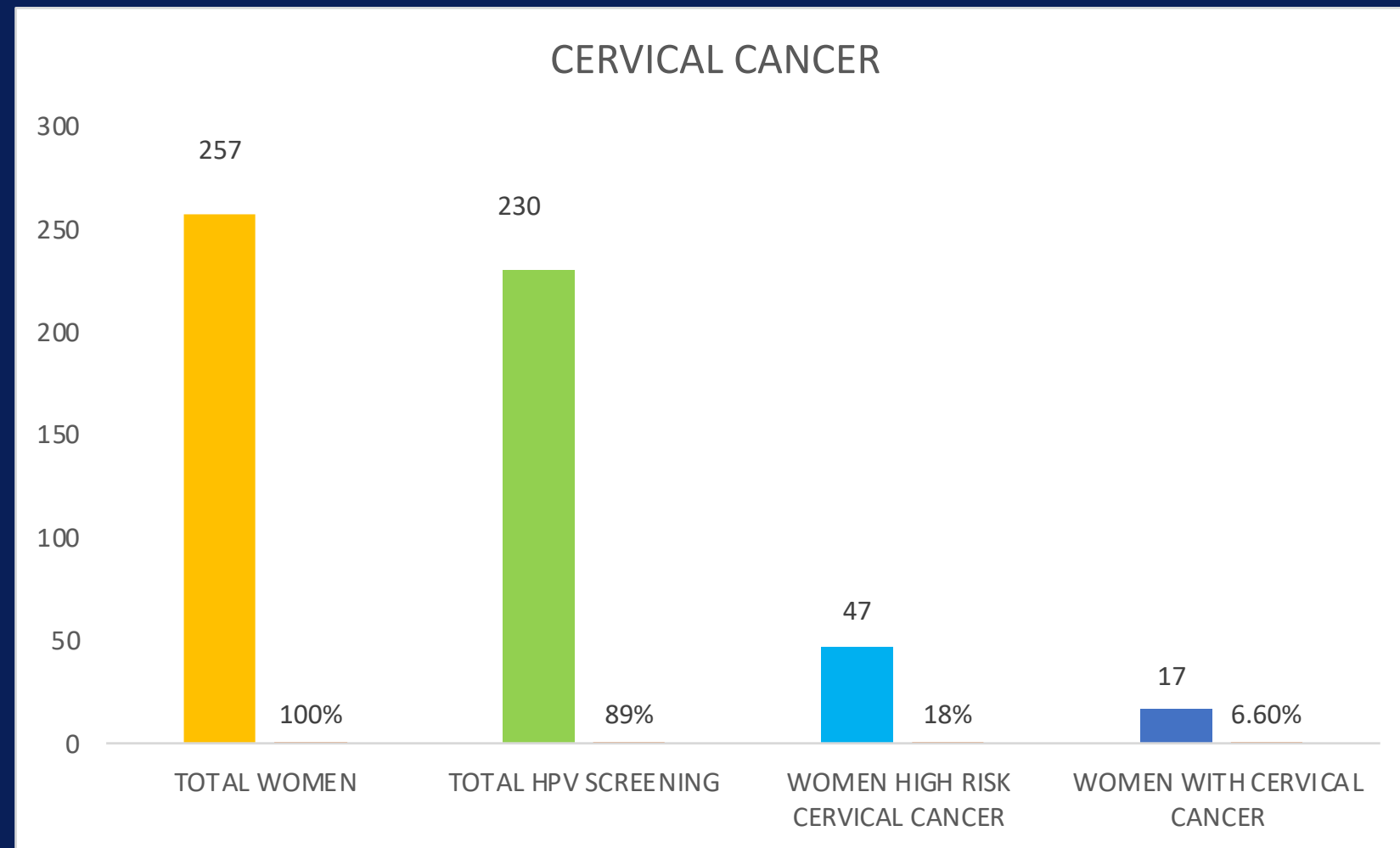
Personal history
Family History
Habit and lifestyle assessment
Assessment
Ulcer /growth in the mouth
Difficulty in swallowing
Lump in the breast
Changes in skin texture/ulcer on breast
Ever had PAP/HPV
Blood in Sputum
Sudden weight loss

Risk Assessment by Sex



Out of a total of 587 Risk Assessments done, there were 330 men(56.7%) and 257 women(43.8%) screened in the 4 camps conducted in different locations. The camps were conducted mainly for Breast, Cervical, Oral, Colorectal, Prostate, and Lung cancer.

Cervical cancer



The above-given graph shows that there were a total of 230 (approximately 89%) women screened for Cervical cancer and out of it 47 (18%) women were at a higher risk of Cervical cancer and 17 (6.6%) women were diagnosed with cervical cancer

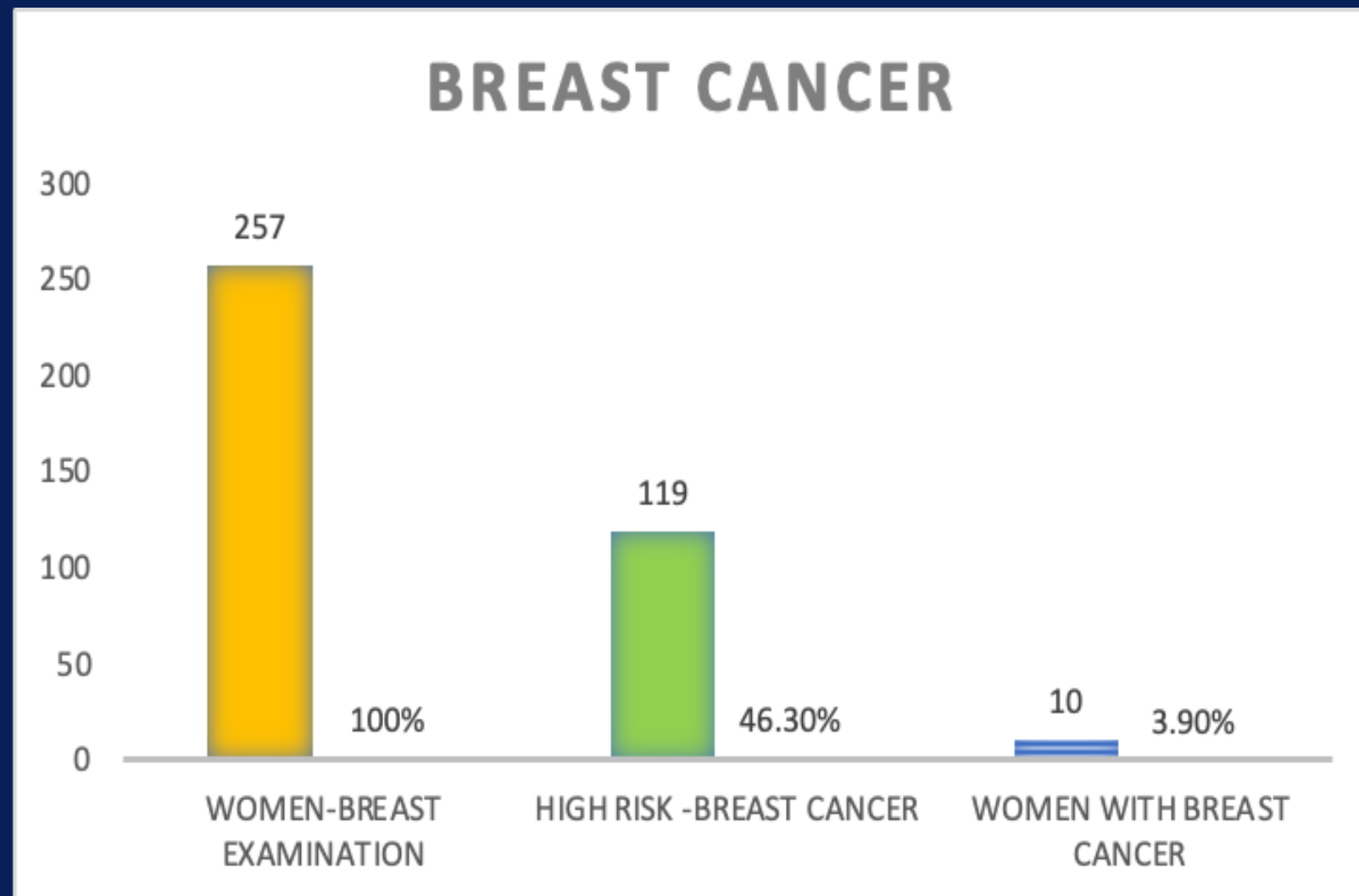
Here 11% of women wished not to continue with the screening because of the following factors:

- Fear and anxiety
- Cultural and social beliefs
- Trust and communication

These factors were observed after taking feedback from them which includes the following questions:-

- Education status ?
- Were you comfortable collecting sample ?
- Mention your problem while collecting sample?
- Did you feel anxious/stressed before/while taking a sample?
- Were you required to take consent from your family/life partner?
- Have you heard about cervical cancer ?

Breast Cancer

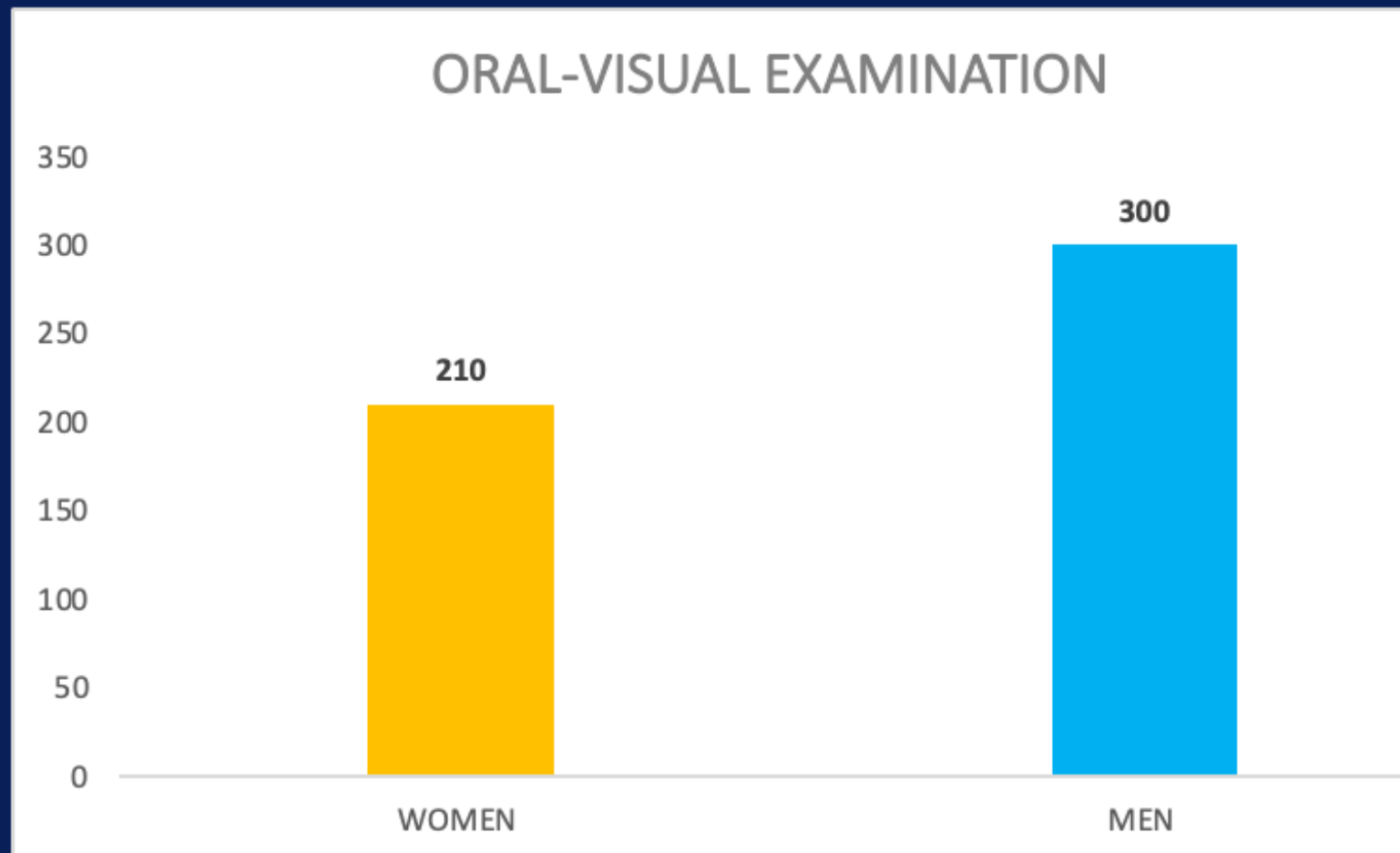


Based on the graphs, out of the total 257 women who underwent breast examination, 46.3% were identified as being at a higher risk of breast cancer. Additionally, 3.9% were diagnosed with breast cancer at a very early stage.

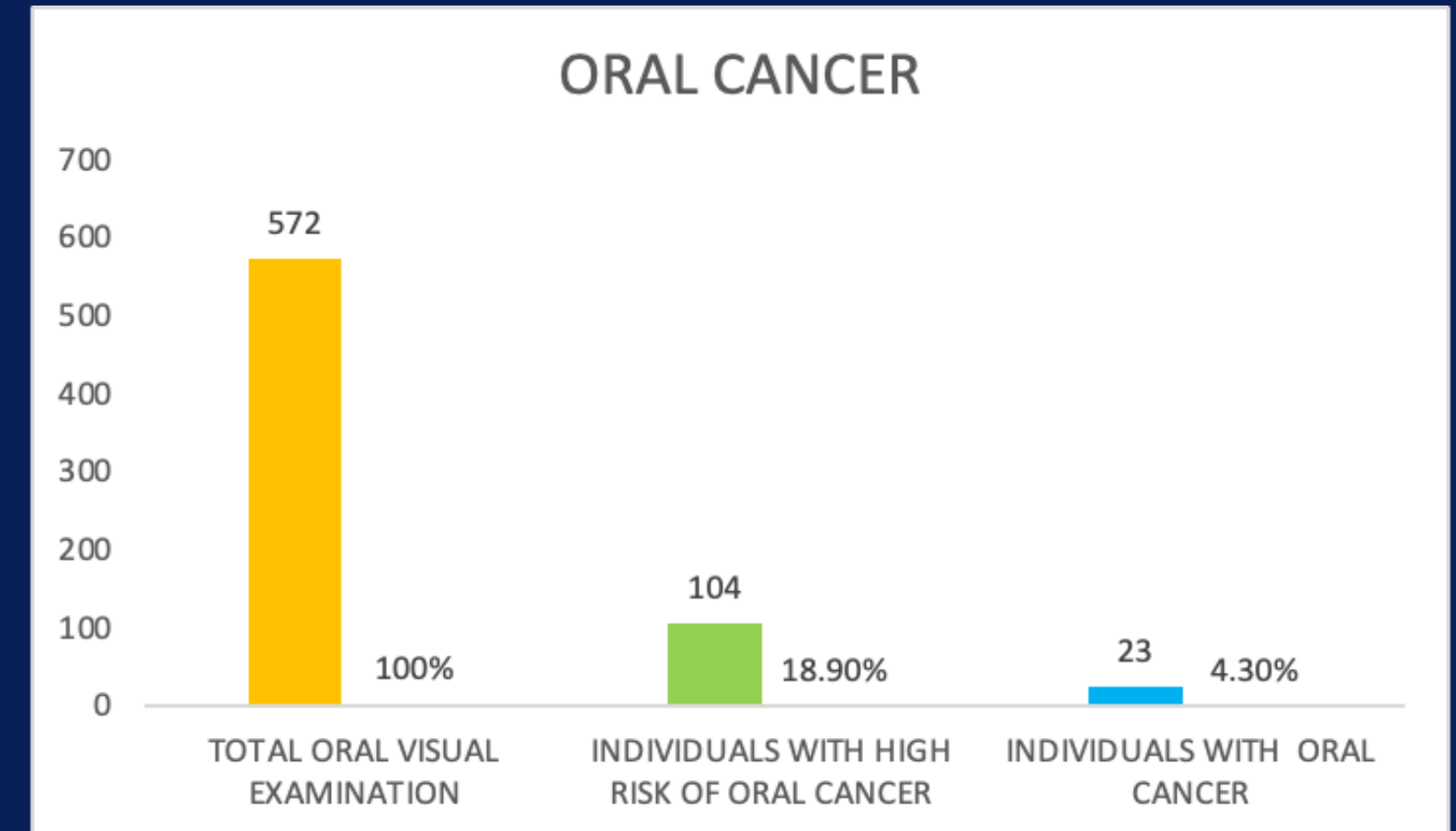
As compared to cervical cancer, women were more convinced to breast examination due to the reasons mentioned below:

- **Fear and Stigma:** Cervical cancer screening, such as Pap smears, may involve more invasive procedures and can be perceived as more uncomfortable or embarrassing compared to breast examination.
- **Cultural and Social Factors:** Cultural beliefs, societal norms, and taboos may influence women's decisions regarding cervical cancer screening. Cultural barriers, lack of open conversations about sexual health, and limited support from family or community members may contribute to lower participation rates in cervical cancer screening.
- **Perceived Risk:** Women may perceive breast cancer as a more immediate and significant threat compared to cervical cancer.

Oral Cancer



The graph represents that after the risk assessment, men were at a higher rate to get oral visual examinations as compared to women. As men showed higher risk during the risk assessment.



From the total of 572 individuals for Oral visual Examination post-risk assessment, there were 104 (approximately 18.9%) people with high risk for oral cancer and 23 (approximately 4.3%) in need of treatment.

Recommendation

To boost camp effectiveness and participation, consider the following recommendations:

- **Targeted Public Relations and Education:** Develop focused advocacy programs to raise awareness about cancer risks, prevention, and early detection. Use various channels like community leaders, local media, and social platforms.
- **Empower Local Health Workers:** Educate and empower community health workers as ambassadors for cancer prevention programs. They can address cultural beliefs, and language barriers, and facilitate access to health services. Provide education, support, and personalized counselling to community members.
- **Collaboration with Local Healthcare Providers:** Collaborate with local healthcare providers, clinics, and hospitals to ensure a seamless referral and follow-up process. Establish partnerships to provide subsidized or free cancer screening and treatment to underserved populations. Strengthen referral channels for timely and appropriate care.

CONCLUSION

In conclusion, addressing the social determinants of health for early cancer detection among underserved groups through community extension camps is crucial for improving participation levels and maximizing the impact of these camps. The study successfully identified factors that impact participation, analyzed the advantages of early diagnosis, and proposed appropriate recommendations based on the findings. The data presented demonstrates the significance of these camps in reaching underserved populations and providing essential screenings for various types of cancer. By implementing targeted outreach, mobilizing resources, and collaborating with local healthcare providers, we can enhance participation, increase early cancer detection rates, and ultimately improve outcomes for underserved communities. Continued efforts in this direction will play a vital role in reducing health disparities and promoting equitable access to cancer screening and care.

Thank you

Date/Time/Year
