

# 411P Cost effective analysis of various cancer screening methods in the community-pooled analysis of camps o 5 years from 217-2022

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## Background

- ❖ One woman dies of cervical cancer every 8 minutes in India. For every 2 women newly diagnosed with breast cancer, one woman dies of it in India
- ❖ Mortality due to tobacco use in India is estimated at upwards of 3500 persons every day
- ❖ Tobacco (smoked and smokeless) use accounted for 3,17,928 deaths (approx) in men and women in 2018.
- ❖ Top 4 cancers in India (Oral/cervical breast and lung) are screenable
- ❖ With 1.3 Billion population- we need to have a really effective tools for screening and cost, ease of doing and accuracy are important factor

## Introduction

- ❖ The cancer, which claims a million deaths per annum across India is a major concern due to presentation in later stages, owing to lack of awareness and structured screening programs.
- ❖ The fragmented screening happens through hospitals (HBS), rural camps by screening buses (CSB), awareness programs, and augmented self-examination (ASE) protocols using AI.
- ❖ This research is aimed to empower the cancer screening strategies.

## Methods-

- ❖ The effective analysis is based on the number of cancer cases detected and treated effectively. Cost data was collected as a combination of CAPEX and OPEX to do a camp and cost is derived per test using key informant interviews, patient surveys and other publicly available data sources.
- ❖ A hypothetical cohort of 5,00,000 patient was assumed for assessing each strategy. One-way, two-way, and probabilistic sensitivity analysis were performed to test the robustness of the result. Methods selected were HBS, CSB & ASE.

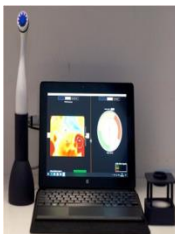
## Results

- ❖ The results showed augmented self-examination is the best strategy followed by education and lastly by screening vehicles.
- ❖ One way analysis showed that the results were sensitive to the labour cost, but the two-way analysis showed that results are not sensitive to cancer burden.
- ❖ The cost of ASE for 3 cancers (oral, cervical breast) per person is INR 150, and for CSB 1200 INR and for HBS its 650 INR

## Conclusion-

- ❖ ASE is the way forward in developing nations followed by empowering the community health centers and least effective is cancer screening buses.

## Representation of tools used for the Augmented self examination/ camps



Oral cancer screening



Cervical cancer screening



Breast cancer screening

## References-

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