


BMJ Open Cost of breast cancer diagnosis and treatment in India: a scoping review protocol

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ABSTRACT

Introduction Breast cancer is the foremost cause for mortality among women. The non-communicable disease imposes significant economic expenses to communities. Its economic impact includes both direct and indirect healthcare costs. This scoping review will map key concepts underpinning the current direct and indirect expenses of breast cancer in India.

Methods and analysis This scoping review will follow 'Arksey and O'Malley's' approach and updated methodological guidance from the Joanna Briggs Institute. The Cochrane library, Econ Papers, Embase, ProQuest central, PubMed and SCOPUS will be searched for peer-reviewed scientific journal publications from the year 2000 to 2021. Reference lists of included articles and preprint repositories will be searched for additional and unpublished literature. Independent screening (title, abstract and full text) and data extraction will be carried out against the defined inclusion criteria. The results will be narratively summarised and charted under the conceptual areas of this scoping review. The research gaps and scope for future research on the topic will be identified. Findings will be reported using the Preferred Reporting Items for Systematic Reviews extension for Scoping Reviews.

Ethics and dissemination Ethics clearance will not be obligatory because this scoping review will only involve publicly available data. The review's findings will be disseminated through social media and a presentation in a national or international conference related to economics and healthcare. The findings will be published in a scientific journal that is peer-reviewed.

INTRODUCTION

India's epidemiological transition has increased the burden of both communicable and non-communicable disease (NCD). Among the NCD, cancers are the most prevalent. Within the Indian context, breast cancer, lung cancer, oral cancer, stomach and cervical cancer are commonly predominant.¹ Breast cancer is a severe illness, mainly affecting the women of reproductive age in India, with high medical costs and economic impact.² In 2020, the worldwide cancer incidence and

Strengths and limitations of this study

- Breast cancer diagnosis and treatment costs in India will be investigated using an established, rigorous and systematic approach.
- The extensive search in databases and grey literature is aimed at including published and unpublished research from the past two decades.
- The literature search is limited to English language.
- The quality of articles in the scoping review will not be assessed.

fatalities reached 19.3 million and 10 million, respectively. For the year 2020, the estimated incidence of cancer among females in India was 712 758 (104 per 100 000).^{3 4} The origin of breast cancer is unclear. However, several risk factors are known to be associated with the disease, such as age, genetics, genes, radiation exposure, obesity, delayed pregnancy and alcohol.⁵ According to the 'International Agency for Research on Cancer' (IARC), delayed diagnosis leads to poorer probable outcome or prognosis of the breast cancer disease.⁶ It is the most predominant cancer in women, accounting for about a quarter of all cancer cases in Indian cities, and ranking second in rural India.^{3 7}

According to the 'National Cancer Registry Programme', breast cancer accounts for 25%–32% of all female cancers in cities like Ahmedabad, Bengaluru, Bhopal, Chennai, Delhi, Hyderabad and Kolkata.⁵ Breast cancer incidence rates are growing with an annual percentage rise ranging from 1.4% to 2.8%, which is more evident in urban regions such as Bengaluru, Chennai, Delhi and Hyderabad than in rural areas.^{1 4 8} The Indian Council for Medical Research (ICMR) reported 1.5 lakh new breast cancer cases in 2019, with 70 000 deaths per year. In India, only 66% of women with breast cancer survive for 5 years, compared with 90% of women in the USA.⁹