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New Delhi**

Economic Burden of Cancer Care in India – A Scoping Review

by

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PG/23/019

Under the guidance of

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PGDM (Hospital & Health Management)

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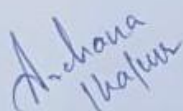
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1st March 2025 – 15th June 2025

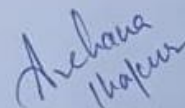
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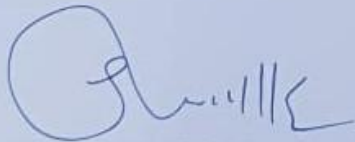
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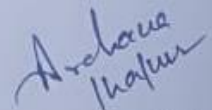
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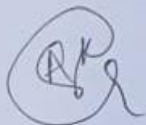
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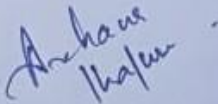
Objectives achieved: Systematically reviewed existing literature on household expenditure for cancer care in India. Analysed direct medical, non-medical, and indirect costs, as well as catastrophic health expenditure (CHE) and distress financing. Identified key policy gaps and recommendations for mitigating financial burdens.

Deliverables: Comprehensive scoping review report with structured methodology, results, and discussion. Detailed analysis of financial burden across different cancer types. Policy recommendations for improving health financing and insurance coverage.

Strengths: Ankita is very sincere, hard-working and passionate about her work. She has dedicatedly worked on her dissertation and has timely concluded it with high quality evidence.

Suggestions for Improvement: She needs to learn to be highly focussed and oriented to the path she chooses in her career.

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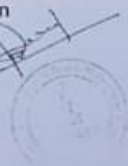
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Abstract

Objective: This scoping review aimed to systematically collate and summarize evidence on annual household expenditure for cancer care in India, focusing on direct medical, direct non-medical, and indirect costs, as well as catastrophic health expenditure (CHE) and distress financing. This study provides estimates of household expenditure to understand economic burden of cancer care from household perspective and contribute to generate evidence-based recommendations for innovations in health financing and policy reforms to mitigate catastrophic health expenditures. **Methods:** A comprehensive search was conducted across PubMed, Cochrane CENTRAL, and ProQuest databases for studies published between 2010 and 2025. Inclusion criteria encompassed primary quantitative studies reporting household expenditure related to cancer care in India. Data extraction followed a structured template, capturing study characteristics, patient demographics, and expenditure variables. Costs were adjusted to 2025 values using India-specific inflation rates. The review adhered to PRISMA-ScR guidelines, with 30 studies meeting the eligibility criteria after screening 2,977 records. **Results:** The review revealed substantial out-of-pocket expenditures (OOPE), with annual mean costs ranging from ₹32,000 to ₹9,98,406, depending on cancer type and treatment setting. Breast cancer incurred the highest costs (up to ₹9,98,406), while cervical cancer was relatively lower (₹13,362). Catastrophic health expenditure affected 34%–96% of households, with uninsured and rural populations disproportionately impacted. Distress financing, including borrowing and asset sales, was reported in 25%–72% of cases. Only 20% of studies documented indirect costs, such as lost wages, suggesting underestimation of the total financial burden. Regional disparities were evident, with Maharashtra, Delhi, and Chandigarh overrepresented in the data. **Conclusion:** Cancer

care imposes a severe financial strain on Indian households, exacerbated by inadequate insurance coverage and high treatment costs. Policy interventions, including expanded insurance schemes and subsidized care, are urgently needed to mitigate economic distress and ensure equitable access to cancer treatment. The findings underscore the need for targeted measures to protect vulnerable populations from financial catastrophe.

Acknowledgement

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With regards,

Ankita

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ABBREVIATIONS

APL	Above Poverty Line
ASCT	Autologous Stem Cell Transplantation
BPL	Below Poverty Line
CHE	Catastrophic Health Expenditure
CI	Confidence Interval
COI	Cost of Illness
FY	Fiscal Year
HICs	High-Income Countries
ICMR	Indian Council of Medical Research
IIHMR	International Institute of Health Management Research
ICU	Intensive Care Unit
IMRT	Intensity-Modulated Radiation Therapy
IQR	Interquartile Range
LMICs	Low- and Middle-Income Countries
NCRP	National Cancer Registry Programme
NHA	National Health Accounts
NITI Aayog	National Institution for Transforming India
NSS	National Sample Survey
OOPE	Out-of-Pocket Expenditure
OPD	Outpatient Department
PGDM	Post Graduate Diploma in Management
PM-JAY	Pradhan Mantri Jan Arogya Yojana
PRISMA-ScR	Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews
SD	Standard Deviation
WHO	World Health Organization

Introduction

Cancer is one of the leading causes of morbidity and mortality worldwide with almost 10 million deaths, or roughly one in six deaths, caused by cancer in 2020, globally (1). According to WHO estimates, 9.7 million people died from cancer worldwide in 2022, and there were an anticipated 20 million new cases. About 1 in 5 people will get cancer at some point in their lives, and 1 in 9 men and 1 in 12 women will pass away from it. It is estimated that there would be over 35 million new instances of cancer in 2050, a 77% increase over the 20 million cases that were anticipated in 2022 (2). India accounts for a significant share of the global cancer burden. As per the National Cancer Registry Programme (NCRP) Report 2020 by the Indian Council of Medical Research (ICMR), India had approximately 1.39 million cancer cases in 2020. The number is projected to reach 1.57 million by 2025 (3). India contributes about 7.3% of global cancer incidence and approximately 8.4% of global cancer deaths, indicating both high prevalence and relatively poor survival outcomes (4).

Annual household health expenditure refers to the total amount of money spent on health care services by an individual/household in a fiscal year. It includes, consultation and diagnostics, hospitalization, medicines and treatments, transportation, accommodation (related to care), loss of income. As per NSS 2017-18, hospitalisation cases where expenses were financed from household income/savings were 79.5% for rural and 89.7% for urban. Average medical expenditure during hospital stay per hospitalisation case for cancer was Rs. 22,520 in public hospitals and Rs. 93,305 in private hospitals (5). On an average, about Rs. 15,937 in rural India and Rs. 22,031 in urban India were spent as out-of-pocket medical expenditure for hospitalisation (6). About 28% of the households incurred CHE and faced distress financing. OOPE for cancer accounts for 2nd highest hospitalization cost after cardiovascular diseases. Among all the diseases, cancer caused the highest CHE (79%) and distress financing (43%) (7).

According to the NHA 2019-20 and PM-JAY Dashboard, public Insurance (PM-JAY and state schemes), covers ~50 crore beneficiaries (bottom 40% of the population). Cancer-related packages are available, but package cap is low (₹50,000–₹1,50,000 per year per family). Tertiary-level cancer care (e.g., radiation, chemotherapy, ICU care) often exceeds the cap. Private Insurance covers ~18% of the Indian population (urban-biased). It often excludes pre-existing cancer, long-term follow-up care & expensive treatments like immunotherapy or robotic surgery. As per NITI Aayog Report 2021, 30% of the Indian population has no health insurance (8). This group incurs entire cancer treatment costs out-of-pocket, making them most vulnerable to catastrophic health expenditure. Thus, cancer treatment imposes an enormous financial strain on Indian households. Previous studies have addressed health expenditure broadly, but this data needs to be updated and expanded upon, particularly considering recent policy developments such as the implementation of Ayushman Bharat. The most recent comprehensive dataset on cancer care costs in India is from the **NSSO 2017-18 survey**, leaving a critical gap in understanding the current financial burden amid policy changes like Ayushman Bharat. Additionally, this scoping review is critical to map existing evidence and identify knowledge gaps and will also help inform evidence-based policy decisions on cancer financing and healthcare coverage in India by highlighting the disparity in economic burden between households with and without insurance.

Literature Review

Research on the financial burden of cancer care, especially from the household viewpoint, has become crucial, particularly in low- and middle-income (LMIC) nations like India. Numerous studies have demonstrated the extreme financial burden that cancer treatment places on households as a result of high out-of-pocket expenses (OOPE), catastrophic health expenditures (CHE), and distress finance. The systematic review by Donkor et al. (2022) highlights the prevalence and determinants of financial toxicity among cancer patients in LMICs, including India. This meta-analysis reveals a pooled prevalence of objective financial toxicity of 56.96%, with significant variations based on household size, treatment cycles, and type of health facility (9). The study underscores the high direct medical costs, averaging \$2,740.18 per patient, with surgery, chemotherapy, and palliative care being major cost drivers (9). Another systematic review by Dhankhar et al. (2021) provides a focused analysis of the economic impact of cancer in India, emphasizing the high OOPE and CHE faced by households. Their meta-analysis reports a pooled mean direct OOPE of 83,396 INR (approximately \$4,405) for inpatient care and 2,653 INR (approximately \$140) for outpatient care, with 62.7% of cancer patients experiencing CHE (10). The study identifies savings, borrowing, and asset sales as common distress financing mechanisms, reflecting the severe financial strain on households. The review also highlights regional disparities in healthcare costs and the inadequacy of existing insurance schemes, such as Ayushman Bharat, to fully mitigate the financial burden (10). According to Kitaw et al.'s systematic review and meta-analysis (2025), 56.1% of cancer patients experience CHE, which offers a thorough worldwide overview of financial toxicity in cancer therapy (11). Key risk variables, including big family size, low income, lack of health insurance, prolonged disease duration, older age, and multiple therapies, were identified in 35 observational studies that included 428,373 individuals (11). In contrast to middle-income (57.6%) and high-income (26%), the

frequency of CHE was notably greater in low-income countries (73.3%), highlighting the disproportionate burden on disadvantaged individuals in settings with limited resources (11).

The systematic review by Yeong et al. from 2024 looks at the cost of sickness (COI) associated with breast cancer in LMICs, including India. It draws attention to the significant direct medical expenses of treating breast cancer, which can range from \$195 to \$11,866 per year, with hospital stays and prescription drugs being the main causes of these costs (12). The systematic review by Irigorri et al. (2021) also gives a thorough summary of the out-of-pocket (OOP) expenses incurred by cancer patients and their caregivers in high-income countries (HICs) and LMICs. The study found that cancer patients in HICs, such as the U.S., Canada, and Western Europe, incurred monthly OOP costs ranging from USD 15 to USD 2600, with medications being the largest expense category (13). In contrast, patients in LMICs spent a substantially higher proportion of their annual income on cancer care—42% on average—compared to 16% in HICs. This disparity underscores the vulnerability of households in LMICs, where limited insurance coverage and high treatment costs exacerbate financial distress. The review also highlighted that pediatric cancer patients and their caregivers faced the highest OOP costs, averaging USD 800 per month, due to prolonged and intensive treatment requirements (13). The literature reviewed highlights the severe financial burden of cancer care on Indian households, driven by high OOPE, CHE, and distress financing. The findings from these studies underscore the need for comprehensive strategies to mitigate this burden, including expanding insurance coverage, subsidizing essential treatments, and addressing non-medical costs. The scoping review has built on this foundation by systematically synthesizing existing evidence, identifying knowledge gaps, and providing recommendations for policymakers to reduce the economic strain on households affected by cancer.

Research Question

What is the average annual household expenditure incurred on cancer care in India?

- Population (P): The households that reported cancer by any member who were seeking treatment in India.
- Intervention (I): Not applicable
- Comparator (C): Not applicable
- Outcome (O): Household expenditure incurred on cancer care including direct medical, direct non-medical, indirect expenditure, catastrophic expenditure and distress financing.

Methodology

Operational Definitions:

Catastrophic Health Expenditure: Catastrophic health spending is defined as out-of-pocket spending exceeding 10% of total household consumption or income by the budget-share approach, as well as out-of-pocket spending exceeding 40% of non-food consumption.

Impoverishment: Impoverishment is when households fall below the poverty line due to healthcare seeking.

Financial Hardship/Distress Financing: Distress financing defines funding for out-of-pocket expenditures by selling or mortgaging household assets/lands, borrowing money from lender/banks/friends/relatives, and by receiving assistance from friends/relatives.

(Source: International Journal for Equity in Health)

Search Strategy:

The scoping review employed a systematic search strategy to identify relevant studies on the economic burden of cancer care from a household perspective in India. PubMed, Cochrane Central Register of Controlled Trials (CENTRAL), and ProQuest databases were searched to find the relevant studies. The search combined terms related to *Cancer*, *Household Expenditure*, and *India* using Boolean operators.

Selection Criteria:

The search was designed to capture studies published in English within the last 15 years (2010–2025) to ensure relevance to contemporary healthcare financing and policy contexts. Studies that focused on household spending, catastrophic health expenditures (CHE), or distress finance associated with cancer care were included in the inclusion criteria. Both direct and indirect costs were considered in household expenditures. Medical and non-medical charges were two additional categories for direct costs. While non-medical expenses included lodging, meals, and transportation, medical expenses included consultations, tests, prescription drugs, and treatments. Indirect costs involved loss of wages and productivity due to illness or psychosocial factors, insurance costs such as co-payments and deductibles. Studies reporting a confirmed diagnosis of cancer and focused either solely on cancer or included cancer as a comorbidity were considered. Studies conducted in both hospital-based and community-based settings were included. The review included primary quantitative studies (observational and experimental) with population base in India. Case series and economic evaluations related to cancer care and abstracts without full-text availability but contain sufficient data on household expenditure were also included in the review. Studies focusing solely on clinical outcomes without any expenditure-related data, health system perspectives were excluded. Studies lacking primary data (e.g. policy briefs, expert opinions), editorials, case reports, commentaries, letter to editor and narrative/systematic reviews were also excluded. We

excluded studies that reported cancer expenditure based on National Sample Survey Organisation (NSSO) healthcare expenditure data, as the government raised concerns about data quality and subsequently withheld the related survey findings.

Screening:

Two authors independently screened the studies with resolution of any type of disagreement through discussion. The screening process followed a two-phase approach. First, titles and abstracts (TiAb) of retrieved records were screened using Rayyan software to eliminate irrelevant studies. In the second phase, full texts of shortlisted studies were rigorously evaluated against predefined inclusion/exclusion criteria. Studies that met the criteria were selected for final inclusion. This dual screening process minimized bias and enhanced the reliability of the study selection.

Data Extraction:

Data extraction was performed using a predefined template in Microsoft Excel to standardize the collection of study variables. The template captured four major categories: (1) Study Characteristics (2) Patient Demographics & Clinical Details (3) Expenditure & Financial Impact Variables and (4) Additional Variables (Table 1). This structured approach ensured comprehensive data capture and facilitated cross-study comparisons.

Table 1: Study Variables

Study Characteristics	Patient Demographics & Clinical Details	Expenditure & Financial Impact Variables	Additional Variables
• Author(s) • Year of Publication • Title • Journal • Study Design • Study Setting/ Data Source • Region/State • Duration of Study • Sampling Method • Sample Size • Target Population • Study Limitations	• Age Group • Gender • Socioeconomic Status • Type of Residence • Type of Cancer • Stage of Cancer • Type of Care • Treatment Duration	• Direct Costs ▪ Direct Medical Expenditure (Total) ○ Outpatient (%) ○ Consultation (%) ○ Diagnostics/Investigations (%) ○ Chemotherapy (%) ○ Inpatient (%) ○ Hospitalisation (%) ○ Surgery (%) ○ Palliative Care/Supportive Care (%) ○ Direct Medical Exp. (Stage-wise) ▪ Direct Non-Medical Expenditure (Total) ○ Transportation (%) ○ Accommodation (%) ○ Food & Living Expenses (%) ○ Non-medical Exp. (Stage-wise) • Indirect Costs • Summary Estimate of OOPE (Mean/Median) • Total Direct Costs • Catastrophic Health Expenditure (CHE) ○ % Facing CHE by Stage ○ % Facing CHE by Residence Type • % Facing Impoverishment • % Facing Financial Hardship • % Used Distress Financing • Health Insurance Status • Uninsured Proportion	• Currency & Conversion Rate • Cost Data Source • Year of Cost Estimation

Data Collation and Summarization:

PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) guidelines were followed in synthesizing the findings. Study characteristics and expenditure data were tabulated by cancer type, with costs adjusted to 2025 values using an India-specific inflation calculator to ensure comparability. Quantitative data, including annual mean/median direct costs and CHE rates, were summarized to illustrate trends and gaps.

(Inflation Adjustment Formula

The future value (FV) of an amount (PV) adjusted for inflation is calculated as:

$$FV = PV \times (1+i_1) \times (1+i_2) \times \dots \times (1+i_n)$$

Where:

- PV = Original amount (in base year).
- $i_1, i_2, \dots, i_n$ = Inflation rates for each subsequent year.)

(Source: World Bank)

Results

A total of 2977 records were found after searching the Cochrane Central Register of Controlled Trials (CENTRAL), ProQuest, and PubMed databases. Duplication led to the exclusion of 638 items in total. Titles and abstracts were examined for 2150 records following de-duplication. Fifty-two of these were selected for full-text screening. 26 studies were determined to be eligible for inclusion in the systematic review after rigorous inclusion and exclusion criteria were followed. After manually searching the references of the chosen research, four records were found. The review comprised 30 studies in total. (Fig. 1)

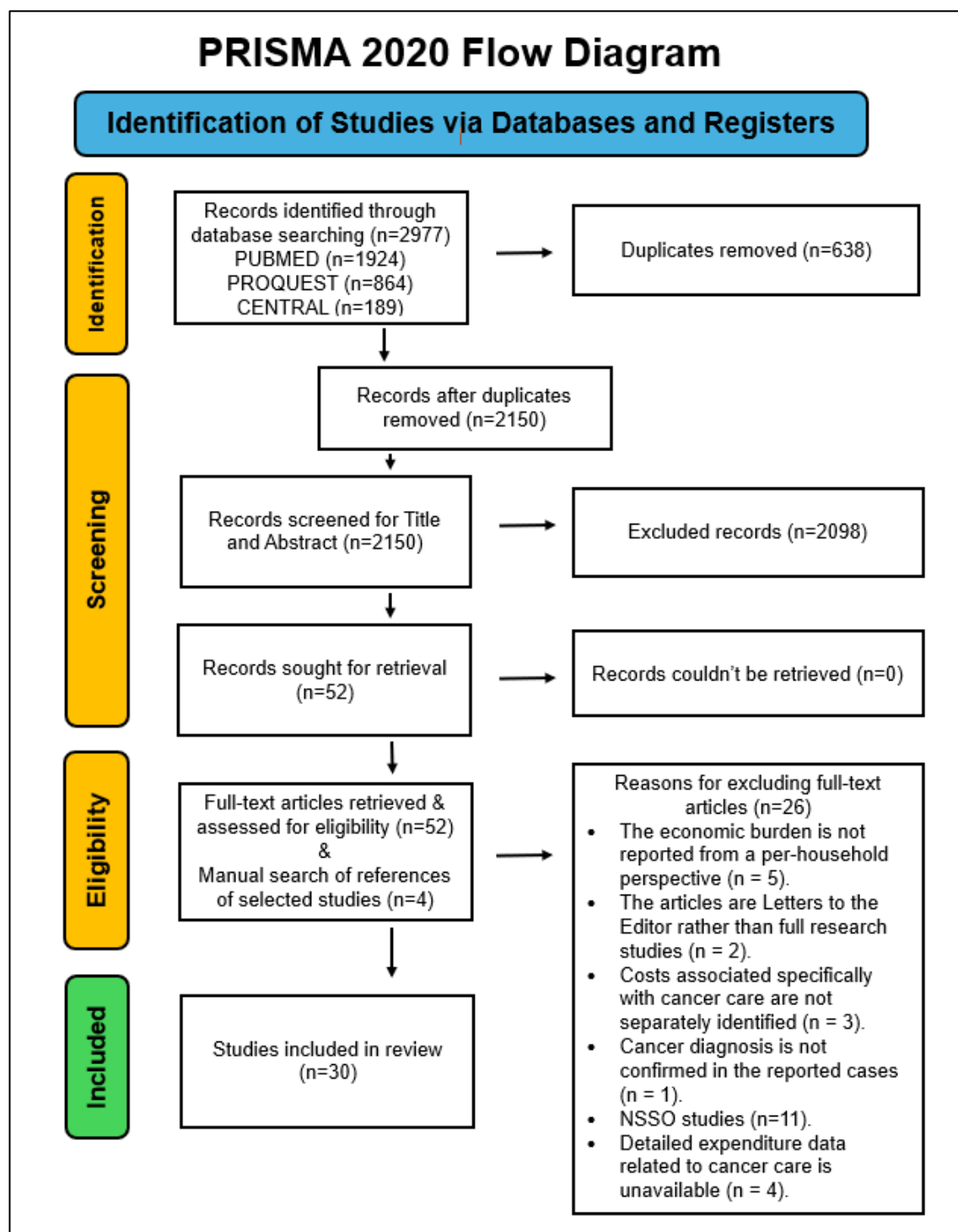


Fig: 1

Study Characteristics (Table 2)

State and Geographic Distribution

Geographically, Maharashtra was the most represented state (6 studies), followed by Chandigarh (4 studies), Delhi (4 studies), and Tamil Nadu (3 studies). Other regions included Punjab, Kerala, Uttar Pradesh, and Karnataka. Two studies (e.g., CROCODILE study, 2022) were multicentric, covering multiple states. Studies were conducted in tertiary care centers (e.g., Tata Memorial Centre, PGIMER), community-based settings (e.g., Vypin Block Panchayat, Kerala), and household surveys (e.g., Karnataka villages). Urban and rural disparities were frequently examined, with rural populations constituting >50% of participants in 15 studies.

Study Design and Sample Size

Cross-sectional designs dominated (15 studies), followed by prospective studies and mixed-method approaches. Sample sizes ranged widely: from small cohorts (e.g., 11 families in Ahuja et al., 2019) to large-scale analyses (e.g., 12,148 patients in Prinja et al., 2023) (18,25).

Demographics and Cancer Type

Breast cancer patients were predominantly middle-aged (median 45–48 years), while leukemia studies focused on pediatric populations (mean age 5–7 years). Female participants dominated breast cancer studies (100%), whereas males comprised 66–92% of oral and head-and-neck cancer cohorts. Breast cancer (6 studies), head-and-neck cancer (5 studies), and mixed-category cancers (6 studies) were most common. Rare cancers (e.g., pancreatic, myeloma) had limited representation.

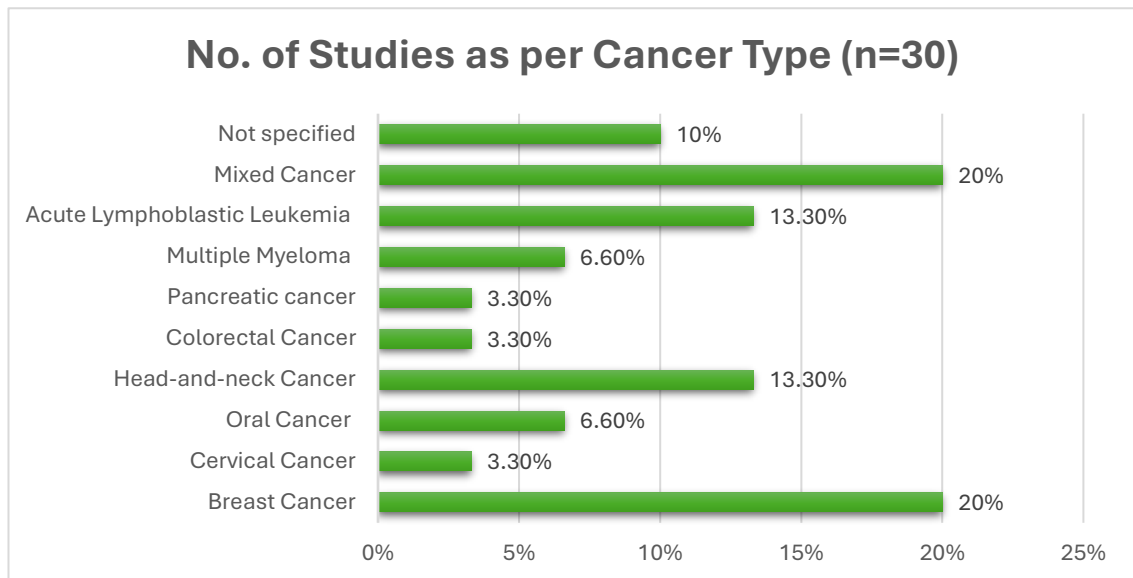


Fig: 2

Stage of Cancer and Type of Care

Advanced-stage cancers (III/IV) were prevalent in head-and-neck (45–65%), and colorectal (85%) studies. Early-stage detection was higher in cervical (65% Stage I/II) and some breast cancer cohorts (36% Stage I/II). Curative intent (surgery, chemotherapy, radiotherapy) was primary in 18 studies, while palliative care was noted in advanced-stage studies (Harshvardhan et al., 2022).[23] Public facilities were the primary treatment source (17 studies), though private healthcare use was significant in Punjab (58%, Jain et al., 2016) and Delhi (Goyal et al., 2014) (19,22).

Insurance Coverage

Proportion of insured patients varied widely: from 0% (e.g., Goyal et al., 2014) to 86% (Goswami et al., 2022) (22,21). Breast cancer studies reported moderate insurance coverage (e.g., 1.70%–74.4%), while hematological cancers had negligible coverage (0–7.8%). Rural populations showed lower insurance rates (e.g., 6.2% in mixed-cancer studies; Nair et al., 2013) (35).

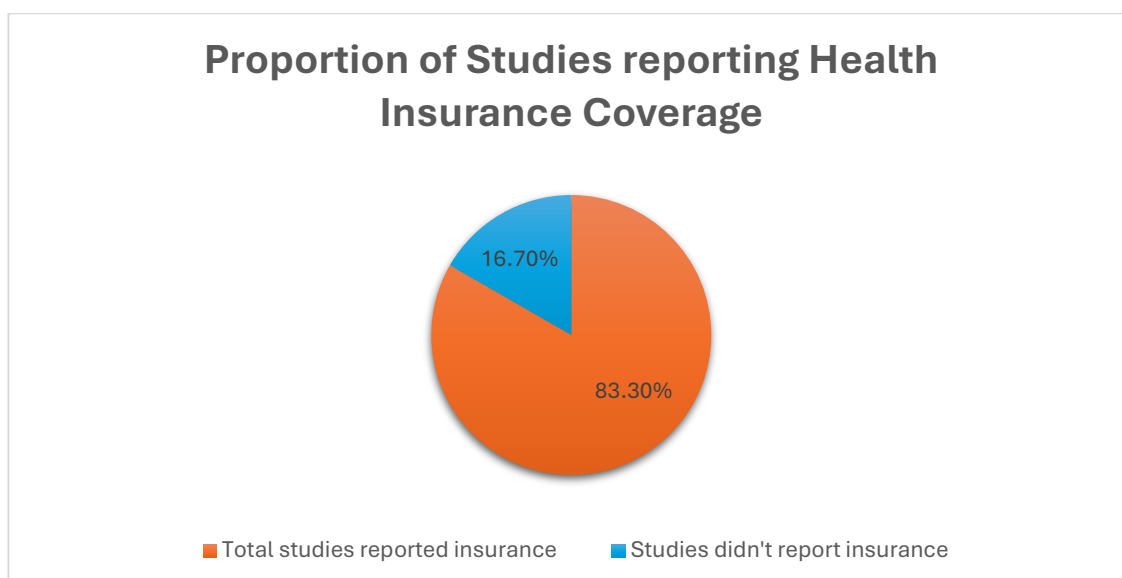


Fig: 3

Annual Household Expenditure Incurred on Cancer Care (Table 3)

Direct Medical Expenditure

22 out of 30 studies (73.3%) reported direct medical costs. Direct medical costs, covering diagnostics, treatment, and hospitalization, varied widely by cancer type and facility. For breast cancer, annual mean expenditures ranged from ₹1,05,030 (Wadasadawala et al., 2024) to ₹3,57,831 (Jain & Mukherjee, 2016) (18,19). Cervical cancer costs were lower (annual mean: ₹13,362; Singh et al., 2020), while oral cancer ranged from ₹65,824 (Goswami et al., 2022) to ₹1,46,093 (Goyal et al., 2014) (20-22). Pancreatic cancer recorded the highest mean (₹2,95,679; Basavaiah et al., 2018) (28).

Direct Non-Medical Expenditure

15 out of 30 studies (50%) reported non-medical costs. Non-medical costs (transport, lodging, food) were inconsistently reported but contributed significantly, ranged from annual mean of ₹1,010(Kerala) to ₹81,431 (Maharashtra) for breast cancer (24,18). Ranges were sparsely reported but notable for head-and-neck cancer (annual mean

₹18,912–₹28,924; Chauhan et al., 2019) (24). For leukemia, non-medical costs were substantial (annual mean: ₹21,424; Ahuja et al., 2019) (31).

Indirect Costs

Only 5 out of 30 studies (17%) reported indirect costs. Breast cancer households incurred ₹97,712 (Jain & Mukherjee, 2016), while oral cancer patients reported ₹10,922 (Goswami et al., 2022) (19,21). Indirect costs were often omitted, suggesting underestimation of total financial burden.

Total Direct Costs in Cancer Care

The reviewed studies revealed significant variability in total direct costs across different cancer types, driven by factors such as treatment modality, disease stage, and type of healthcare facility. **26 out of 30 studies (87%) reported total direct costs.** For breast cancer, the direct cost estimates ranged from a median of ₹20,000 (Pakseresht et al., 2011) to a mean of ₹3,73,935 (Jain & Mukherjee, 2016), with higher costs observed in studies involving advanced treatments or private facilities (17,19). In cervical cancer, annual mean direct cost was comparatively lower at ₹31,031 (Singh et al., 2020), reflecting the availability of subsidized care in public facilities (20). However, oral cancer and head-and-neck cancer exhibited substantial financial burdens, with annual mean ranging from ₹31,487 (Chauhan et al., 2018) to ₹1,46,093 (Goyal et al., 2014), driven by surgical and radiotherapy expenses (24,22). Pancreatic cancer recorded one of the highest direct cost estimates (mean ₹2,95,679; Basavaiah et al., 2018) (28). When adjusted to 2025 values, these costs escalated dramatically—breast cancer direct costs, ranged from ₹32,600–₹998,406 (highest in Maharashtra) while pancreatic cancer surged to ₹5,97,272; underscoring the inflationary pressures on healthcare.

Catastrophic Health Expenditure (CHE) and Financial Hardship

The review also found alarming rates of CHE across cancer types. Only **12 out of 30 studies (40%) reported CHE**. 96% of oral cancer patients (Goswami et al., 2022) and 100% of leukemia-afflicted households (Ghatak et al., 2015) experienced CHE (21,34). Among mixed cancer cases, CHE prevalence ranged from 55% to 62%. The financial strain was further compounded by distress financing (loans, asset sales), observed in 25–72% of cases, with the highest rates in breast cancer (72.4%) (15).

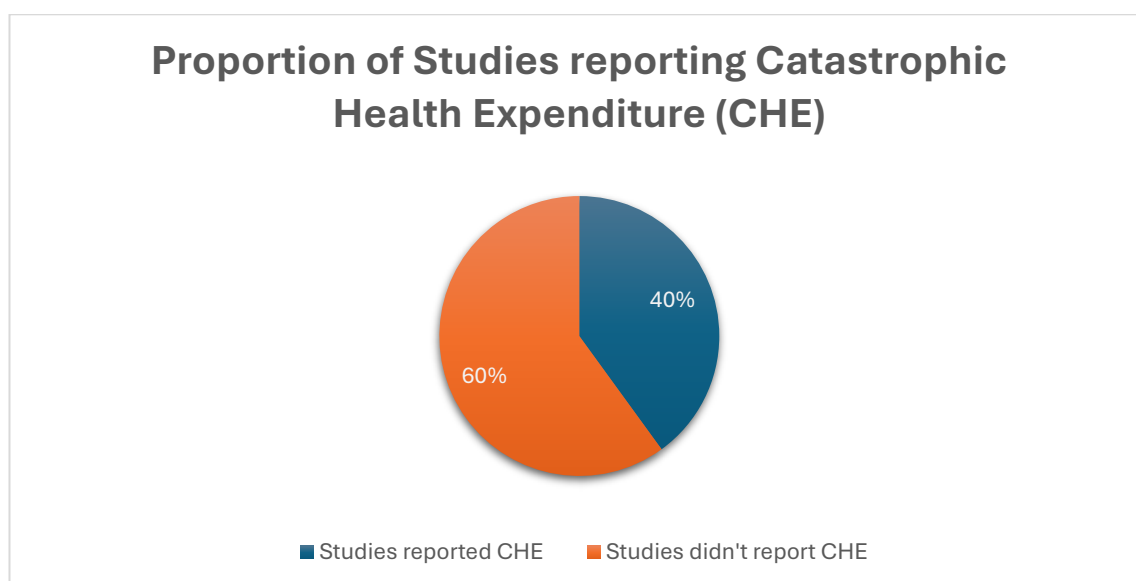


Fig: 4

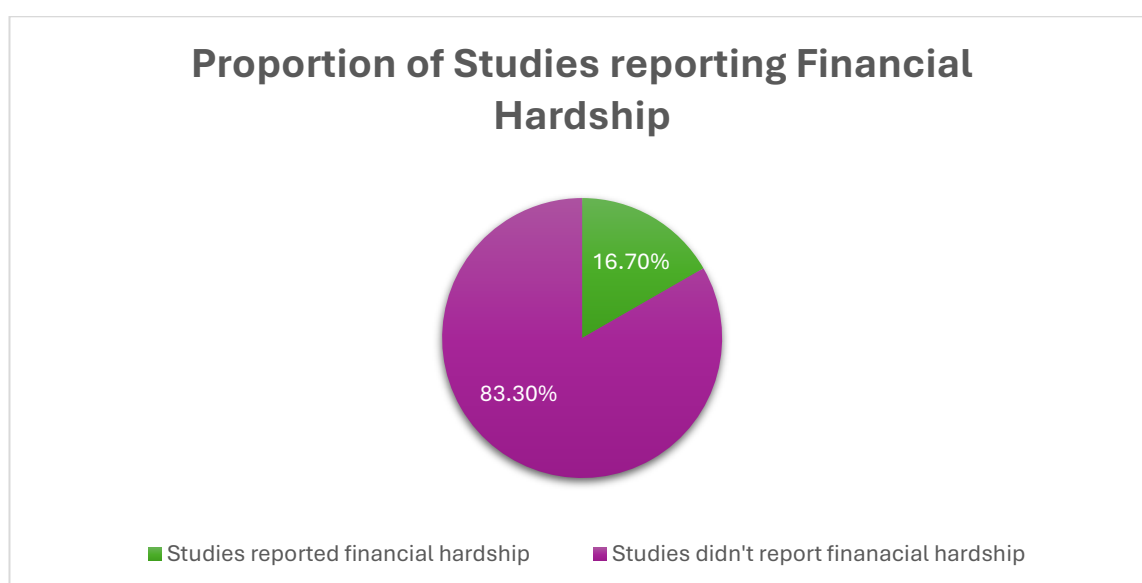


Fig: 5

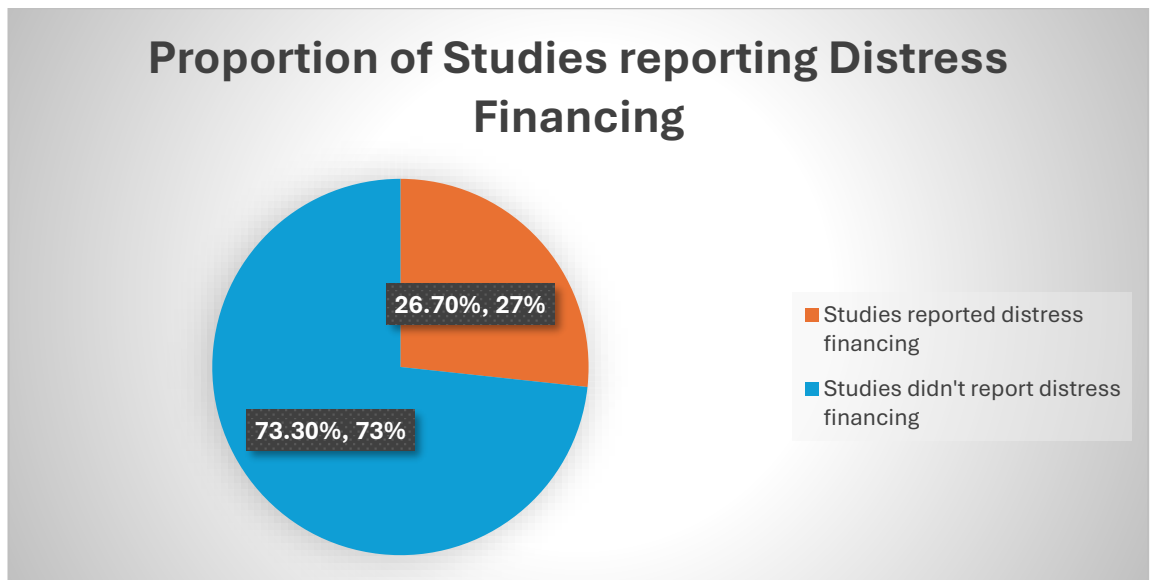


Fig:6

Table 2: Study Characteristics

S. No.	Study	Study Design	Study Setting	Type of Facility	Type of Residence	Sample Size	Stage of Cancer	Age Group	Gender	Type of Cancer Care	Insured	Uninsured
Breast Cancer												
1	Patra et al., 2024, Maharashtra	Cross-sectional	Not Applicable	Public + Private	54.3% rural, 45.7% urban	80	Non-metastatic (76.25%), Metastatic (23.75%)	Median 48 years (IQR: 40.5–56.5)	100% female	Survivorship care	33.75%	66.25%
2	Mohanty et al., 2024, Maharashtra	Longitudinal cohort study	Facility	Public	54.3% rural, 45.7% urban	429	Early Stage (I/II): 36.1%, Advanced Stage (III/IV): 63.9%	Mean age = 46.5 years (95% CI: 45.5, 47.5)	100% female	Surgery, systemic therapy, radiotherapy	40%	60%
3	Wadasadawala et al., 2021, Maharashtra	Cohort study	Facility	Public	Urban	138	Not specified	Median age: 45 years,	100% female	Surgery, chemotherapy, radiotherapy	19.70%	80.30%
4	Pakseresht et al., 2011, Delhi	Prospective case series	Facility	Public	52.9% Urban, 47.1% Rural	103	Stage I to IV	<40yrs:38.4%, 40-49 yrs:22.3%, 50-59yrs: 20.4%, ≥60yrs:18.9%	100% female	Surgery, chemotherapy, radiotherapy	1.70%	98.30%

Table 2 continued...

5	Wadasadawala et al., 2024, Maharashtra	Prospective longitudinal study	Facility	Public	Urban: 196 (39.2%), Rural: 233 (46.6%)	429	Early stage (I/II) = 155 patients, Advanced stage (III/IV) = 274 patients	Mean age = 47 years	100% Female	Surgery, systemic therapy, radiotherapy	74.40%	25.60%
6	Jain et al., 2016, Punjab	Cross-sectional descriptive study	Community	Public + Private	Rural: 56%, Urban: 44%	221	Stage 1: 13.6%, Stage 2: 57%, Stage 3: 23.1%, Stage 4: 6.3%	Mean age = 50.15 years	Predominantly female (99% female)	58% used private healthcare, 42% public	9%	91%
Cervical Cancer												
7	Chauhan et al., 2020, Chandigarh	Cross-sectional study	Facility	Public	62% Rural, 38% Urban	248	Stage I/II (65%), Stage III/IV (25%), Unknown (10%)	52% aged 45–60 years	100% Female	Curative (surgery, radiotherapy, brachytherapy, chemotherapy)	30%	70%

Table 2 continued...

Oral Cancer												
8	Goswami et al., 2022, Maharashtra	Hospital-based cross-sectional study	Facility	Public	Rural	100	Not specified	Mean age: 48.7 years (range: 30–72 years)	Male: 81%, Female: 19%	Radiotherapy, surgery, chemotherapy	86%	14%
9	Goyal et al., 2014, Delhi	Cross-sectional study	Facility	Private	Urban: 72%, Rural: 28%	100	Stage I (14%), Stage II (78%), Stage III (8%)	Mean age: 50.17 years (range: 29–65 years)	92% male, 8% female	Curative (surgery for all patients)	0%	100%

Table 2 continued...

Head and Neck Cancer												
10	Harsvardhan et al., 2022, Uttar Pradesh	Descriptive study	Facility	Public	62% rural, 38% urban	50	Advanced stage	Median age = 47 years (range: 33–80 years)	88% male, 12% female	Palliative care	22%	78%
11	Prinja et al., 2018, Chandigarh	Cross-sectional study	Facility	Public	Not specified	474	Not specified	Not specified	Not specified	Curative (surgery, radiotherapy, chemotherapy)	Not specified	Not specified
12	Prinja et al., 2019, Punjab, Haryana & Chandigarh	Mixed method (prospective + retrospective)	Facility	Public	Urban: 27.7%, Rural: 72.3%	447	Stage I: 4%, Stage II: 8%, Stage III: 18%, Stage IV: 45%, Missing: 25%	50–60 years: 33.8%, ≥60 years: 34%	Male: 90.2%, Female: 9.8%	Radiotherapy, Chemo-radiotherapy, Surgery + adjuvant therapy	35.80%	64.20%

Table 2 continued...

13	Kumar et al., 2021, Puducherry and Tamil Nadu	Cross-sectional analytical study	Facility	Public	Rural: 69.3%, Urban: 30.7%	192	Stage I/II: 16.1%, Stage III: 19.3%, Stage IV: 64.6%	<44 years: 15.6%, 45–59 years: 46.9%, 60 years: 37.5%	Male: 66.7%, Female: 33.3%	Radiotherapy, chemotherapy, surgery	81.80%	18.20%
Colorectal Cancer												
14	CROCODILE study group, 2022, 4 Indian States	Prospective multicentre cohort study	Facility	Public + Private	Not specified	202	Advanced 85.1%, Local 14.9%	Mean age 52 years (SD: 14.8)	64.4% male, 35.6% female	Curative (86.1%), Palliative (13.9%)	13.90%	86.10%
Pancreatic Cancer												
15	Basavaiah et al., 2018, Maharashtra	Prospective cost analysis	Facility	Public	Not specified	98	Not specified	Mean age: 54.5 years (range: 10–87)	Male: 66.3%, Female: 33.7%	Pancreaticoduodenectomy (surgery)	29.60%	70.40%

Table 2 continued...

Multiple Myeloma												
16	Kaur et al., 2018, Chandigarh	Cross-sectional study	Facility	Public	Not specified	31	Not specified	Median age: 62 years	60% male, 40% female (ASCT), 73.1% male, 26.9% female (chemotherapy)	Curative (ASCT, conventional chemotherapy)	Not specified	Not specified
17	Mathew et al., 2021, North India	Observational, cross-sectional study	Facility	Public	Urban: 43.1%, Rural: 56.9%	116	Stage I (15.5%), Stage II (19.8%), Stage III (64.7%)	Median age 59 years (range: 21–78)	Male (75.9%), Female (24.1%)	Induction chemotherapy (35.4%), maintenance therapy (57.8%), radiotherapy (0.8%), observation (6.03%)	7.80%	92.20%
Leukemia												
18	Ahuja et al., 2019, Delhi	Prospective study	Facility	Public	72.7% Rural or semi-urban, 27.3% Urban	11	Not specified	3–18 years	Not specified	Treatment post diagnosis	0%	100%

Table 2 continued...

19	Ghatak et al., 2015, North India	Prospective study	Facility	Public	Not specified	50	Not specified	Mean age: 5.6 $\pm$ 2.9 years	Male: 76%, Female: 24%	Chemotherapy (induction phase)	0%	100%
20	Sneha et al., 2017, Tamil Nadu	Prospective study	Facility	Private	Urban: 36%, Rural: 64%	70	Not specified	0–18 years (mean age: 7.8 $\pm$ 2.2 years)	Male: 69% (48), Female: 31% (22)	Hospital-based treatment (ward setting)	0%	100%
21	Ghatak et al., 2015, North India	Prospective observational study	Facility	Public	Not specified	50	Induction phase (first month of therapy)	Mean age 5.6 $\pm$ 2.9 years (range: 1–12 years)	Male: Female = 38:12	Inpatient and outpatient care during induction chemotherapy	0%	100%
Mixed Category												
22	Nair et al., 2013, Kerala, Maharashtra, Rajasthan, West Bengal, Mizoram	Cross-sectional study	Facility	Public	60% Rural, 40% Urban	508	46% at Stage I/II, 18% at Stage III+, 37.3% unknown stage	Majority (66%) aged 35–64 years	Near-equal (male $\approx$ female)	Curative (surgery, chemotherapy, radiotherapy) + palliative	6.20 %	93.80 %

Table 2 continued...

23	Maurya et al., 2021, Tamil Nadu and Puducherry	Hospital-based cross-sectional analytical study	Facility	Public	Urban: 53.6%, Rural: 46.4%	474	Stage I (3.5%), Stage II (51.7%), Stage III (21.9%), Missing (22.8%)	Median age: 55 years (IQR: 22–85); 62% >50 years	74.7% female, 25.3% male	Outpatient care (OPD)	24.60%	75.40%
24	Nair et al., 2020, Kerala	Cross-sectional	Community	-	52.9% Urban, 47.1% Rural	235	Not specified	51–70 years (65.4%)	Male: 29.8%, Female: 70.2%	Outpatient and inpatient	Not specified	Not specified
25	Pringa et al., 2023, Chandigarh, Tamil Nadu, Delhi, Maharashtra, Assam	Cross-sectional study	Facility	Public + Private	Outpatients: 65% rural, 34.5% urban; Hospitalized patients: 62.7% rural, 35.5% urban	12,148	Stage I (4.2%), Stage II (12.1%), Stage III (22.1%), Stage IV (16%)	0–30 (11.1%), 31–45 (26.1%), 45–60 (40.5%), above 60 (22.2%)	Male (41.7%), Female (58.3%)	Outpatient (80.4%), Hospitalization (29.8%)	Not specified	Not specified

Table 2 continued...

26	Mathew et al., 2023, Karnataka	Cross-sectional study	Facility	Private	Not specified	271	Stage 1: 20%, Stage 2: 25.8%, Stage 3: 23.2%, Stage 4: 16.2%, Not disclosed: 14.8%	Average age 53.7 ± 11.4 years	Male: 22.1%, Female: 77.9%	Curative only: 79.7%, Palliative only: 10%, Both: 10.3%	90%	10%
27	Mohanty et al., 2011, Delhi	Prospective study	Facility	Public	Not specified	284	Not specified	Median age 52 years (range: 17–81)	73.84% male, 26.16% female	Curative (excluded palliative care)	Not specified	Not specified
Not Specified Category												
28	Sugunan et al., 2024, Coastal District of South India	Cross-sectional study	Facility	Private	Not specified	86	Not specified	-	-	In-patient and out-patient care	100%	0%

Table 2 continued...

29	Sood et al., 2014, Karnataka	Quasi-experimental study	Community	-	Rural	31,476 (eligible), 28,633 (ineligible)	Not specified	All ages	Not specified	Tertiary care (e.g., oncology services covered under the Vajpayee Arogyashree scheme)	BPL households in eligible villages (automatic enrollment)	BPL households in ineligible villages; APL households
30	Unnikrishnan et al., 2024, Karnataka	Hospital-based cross-sectional study	Facility	Private	Not specified	150	Not specified	66% aged 20–60 years	35% male, 65% female	Active cancer treatment	9%	91%

Table 3: Annual Household Expenditure Incurred on Cancer Care

S. No.	Study	Year of Cost Estimation	Summary Estimate of Cost Estimation	Direct Medical Exp. (Total)	Direct Non-Medical Exp. (Total)	Indirect Costs (Total)	Total Direct Exp.	Cost Convertedd to Year 2025	% Facing Catastro phic Health Exp. (CHE)	% Facing Impoverish ment	% Facing Financial Hardship	% Used Distress Financing
Breast Cancer												
1	Patra et al., 2024, Maharashtra	2023	-	Not specified	Not specified	Not specified	Not specified	-	Not specified	Not specified	60% (insured = 20.83% & uninsured = 79.17)	66.25%
2	Mohanty et al., 2024, Maharashtra	2019-22	Mean	1,86,461 (95%CI 1,67,666–2,05,257)	Not specified	Not specified	186461 (95% CI: ₹167,666 –205,257)	2,38,670	84.60%	55%	Not specified	72.40%

Table 3 continued...

3	Wadasadawala et al., 2021, Maharashtra	2020	-	Not specified	Not specified	Not specified	2,91,444 (During COVID-19), 2,20,932 (Pre COVID-19)	3,90,528; 2,96,052	Not specified	Not specified	81%	60.90%
4	Pakseresht et al., 2011, Delhi	2016-17	Median	9,000	10,800	Not specified	20,000	32,600	Not specified	Not specified	Not specified	Not specified
5	Wadasadawala et al., 2024, Maharashtra	2019-22	Mean	1,05,030	81,431	Not specified	1,86,461	2,17,786	Not specified	Not specified	Not specified	Not specified
6	Jain et al., 2016, Punjab	2012-2013	Mean	3,57,831	16,103	97,712.00	3,73,935	9,98,406	84%	Not specified	Not quantified	51%
Cervical Cancer												
7	Chauhan et al., 2020, Chandigarh	2016-17	Mean	13,362	17,669	Not specified	31,031	50,581	62%	Not specified	Not specified	30%

Table 3 continued...

Oral Cancer												
8	Goswami et al., 2022, Maharashtra	2015-17	Mean	65,824	22,580	10,922	88,404	1,53,823	96%	Not specified	52%	Not specified
9	Goyal et al., 2014, Delhi	2011-12	Mean	146092.78, SD 37325.936	Not quantified	Not quantified	146092.78 (SD 37325.936)	4,41,200	Not specified	Not specified	Not specified	Not specified
Head and Neck Cancer												
10	Harsvardhan et al., 2022, Uttar Pradesh	2022	Mean	79,038.36	23,182.50	Not specified	1,02,211.35	1,19,587	Not specified	Not specified	Not specified	Not specified

Table 3 continued...

11	Prinja et al., 2018, Chandigarh	2014- 2015	Mean	12,575 (2-DRT); 51,768 (Surgery + IMRT + chemothera py)	18,912 (2- DRT); 28,924 (Surgery + IMRT + chemother apy)	Not specified	[2-DRT: 31,487], [Surgery + IMRT + chemotherapy: 86,692]	63,604; 1,75,118	Not specified	Not specified	Not specified	Not specified
12	Prinja et al., 2019, Punjab, Haryana & Chandigarh	2016- 2017	Mean	37,845	Not specified	18,588	37,845	61,687	34%	Not specified	Not specified	45%
13	Kumar et al., 2021, Puducherry and Tamil Nadu	2016	-	Not specified	Not specified	Not specified	Not specified	-	Not quantified	Not specified	Not specified	Not specified

Table 3 continued...

Colorectal Cancer												
14	CROCODILE study group, 2022, 4 Indian States	2020-22	Median	2,38,946 (IQR 1,19,935-3,81,291)	54197 (IQR 27,000-90,676)	Not specified	293143 (IQR 1,46,935-4,71,967)	3,84,217	90.10%	Not specified	Not specified	25.60%
Pancreatic Cancer												
15	Basavaiah et al., 2018, Maharashtra	2014–2015	Mean	2,95,679	Not specified	Not specified	2,95,679	5,97,272	76.50%	Not specified	Not specified	Not specified

Table 3 continued...

Multiple Myeloma												
16	Kaur et al., 2018, Chandigarh	2015-16	Mean	235,500 (ASCT); 62,275 (Chemotherapy)	Not specified	Not specified	235,500 (ASCT); 62,275 (Chemotherapy)	4,09,770; 1,08,359	Not specified	Not specified	Not specified	Not specified
17	Mathew et al., 2021, North India	2019-20	Median	94,800 (IQR 59,400–1,62,600)	13,800 (IQR 6,000–37,200)	Not specified	1,08,600	1,39,008	Not quantified	Not specified	Not specified	Not specified
Leukemia												
18	Ahuja et al., 2019, Delhi	2013-14	Mean	7,924 (SD $\pm$ 4,341)	21424 (SD $\pm$ 11,729)	Not specified	29349 (SD $\pm$ 16,068)	67,199	Not specified	Not specified	Not specified	Not specified
19	Ghatak et al., 2015, North India	2013	Median	31,741 (IQR 23,749–46,623)	12463 (IQR 8,541–17,625)	Not specified	41680 (IQR 32,029–54,437)	95,447	Not specified	Not specified	Not specified	Not specified

Table 3 continued...

20	Sneha et al., 2017, Tamil Nadu	2012-13	-	Not specified	Not specified	Not specified	Not specified	-	65%	Not specified	Not specified	Not specified
21	Ghatak et al., 2015, North India	2013	Median	31,471	12,463	Not specified	44,133	1,01.064	100%	Not specified	72%	Not specified
Mixed Category												
22	Nair et al., 2013, Kerala, Maharashtra, Rajasthan, West Bengal, Mizoram	2011	Mean	58,050	27,248	18,165	85,298	2,57,600	Not specified	Not specified	75%	51.40%
23	Maurya et al., 2021, Tamil Nadu and Puducherry	2019	Mean	1,551.20	22,823.40	Not specified	24,374.80	31,200.00	61.60%	Not specified	Not specified	Not specified
24	Nair et al., 2020, Kerala	2018	Mean	25,606	1,010	7,762	26,616	36,730	Not specified	Not specified	Not specified	Not specified

Table 3 continued...

25	Pringa et al., 2023, Chandigarh, Tamil Nadu, Delhi, Maharashtra, Assam	2020-22	Mean	3,31,177	Not specified	Not specified	3,31,177	4,33,842	55.10%	42.10%	Not specified	Not specified
26	Mathew et al., 2023, Karnataka	2022-23	Mean	Not specified	Not specified	Not specified	3,10,000	3,47,200	Not specified	Not specified	Not specified	Not specified
27	Mohanty et al., 2011, Delhi	2006-07	-	Not specified	Not specified	Not specified	Not specified	-	Not specified	Not specified	Not specified	Not specified
Not Specified Category												
28	Sugunan et al., 2024, Coastal District of South India	2022-23	Mean	51,435 (SD $\pm$ 52,959)	Not specified	Not specified	51,435 (SD $\pm$ 52,959)	57,607	Not specified	Not specified	Not specified	Not specified
29	Sood et al., 2014, Karnataka	2012	Mean	Not specified	Not specified	Not specified	26,275 (eligible households); 62,966 (ineligible households)	70,154; 1,68,119	Not specified	Not specified	Not specified	Not specified
30	Unnikrishnan et al., 2024, Karnataka	2018	Mean	Not specified	Not specified	Not specified	58,208	80,327	70%	Not specified	Not specified	Not specified

Discussion

The findings of this scoping review, which summarizes data on the financial burden of cancer treatment in Indian households, support and build upon those of a number of other research carried out globally as well as within India. Significant direct and indirect costs, catastrophic health expenditures (CHE), and hardship finance are highlighted in the evaluation for Indian households, especially for those without insurance and those living in rural areas. These results align with the larger body of research on the cost-effectiveness of cancer treatment, as evidenced by studies like Donkar et al. (2022), Dhankhar et al. (2021), Kitaw et al. (2025), Yeong et al. (2024), and Irigorri et al. (2021) (9–13). The scoping review reported an annual mean out-of-pocket expenditure (OOPE) for cancer care ranging from annual mean of ₹31,200 to ₹9,98,406, with breast cancer patients incurring the highest costs. This is consistent with Dhankhar et al.'s pooled estimates, which revealed a direct OOPE of ₹83,396 for inpatient cancer care and ₹47,139 for total direct costs, underscoring the unaffordability of cancer treatment (10). Both studies identified catastrophic health expenditure (CHE) as a critical issue, with the scoping review reporting CHE rates of 34%–96% and Dhankhar et al. noting a pooled CHE prevalence of 62.7% (10). Donkor et al.'s systematic review expanded the geographic scope to LMICs, revealing similar trends in financial toxicity, with chemotherapy and private facility use exacerbating costs. This aligns with the scoping review's observation that private healthcare utilization led to 50–70% higher expenditure compared to public facilities. Both studies highlighted gaps in insurance coverage, with 30% of Indian households remaining uninsured despite schemes like Ayushman Bharat, as noted in the scoping review. According to Kitaw et al.'s systematic review from 2025, 56.1% of cancer patients incur catastrophic health expenditures (CHE), with low income, no health insurance, and prolonged treatment being major risk factors (11). According to Yeong et al. (2024), hospitalization and medicine expenses are the main causes of the high direct

medical costs that breast cancer patients in LMICs incur, which range from \$195 to \$11,866 per year (12). Comparatively, Iragorri et al. (2021) examined the global out-of-pocket cost burden of cancer care, revealing stark disparities between high-income countries (HICs) and low- and middle-income countries (LMICs). In HICs like the U.S., monthly OOOPE ranged from USD 180 to USD 2,600, while in LMICs, patients spent an average of 42% of their annual income on cancer care, compared to 16% in HICs (13). These findings mirror the Indian scoping review's emphasis on the disproportionate burden faced by LMICs, where limited insurance coverage and high treatment costs lead to financial toxicity. Thus, the scoping review and the comparative studies highlight the universal challenge of cancer-related financial burden, with LMICs like India bearing the heaviest toll. However, the geographic representation of the data is skewed in scoping review, with most studies originating from states like Maharashtra, Delhi, and Chandigarh, while rural and low-resource regions such as Bihar and Northeast India remain underrepresented. This disparity might restrict how broadly the results can be applied across the nation. Furthermore, the robustness of the conclusions may be impacted by the small sample sizes of several of the reviewed research, such as the study by Ahuja et al. (2019), which only comprised 11 families (31). But the consistency in findings across diverse methodologies reinforces the criticality of addressing cancer-related financial toxicity as a public health priority in India and other LMICs. The evidence calls for targeted policy interventions, improved insurance schemes, and innovative care models to alleviate the economic strain on households and ensure that cancer care is accessible and affordable for all.

Limitations

The scoping review, while comprehensive, has several limitations that must be acknowledged such as the uneven reporting of cost components among studies; not all expenses were broken down into direct medical, non-medical, and indirect costs. Furthermore, the inflationary adjustment of costs to 2025 values, while necessary for comparability, may not fully account for regional variations in healthcare pricing and inflation rates. Lastly, the review focused primarily on quantitative data, overlooking qualitative aspects of financial toxicity, such as psychosocial impacts on households, which could have enriched the understanding of the economic burden and provided give better insights into how it disrupts household consumption equilibrium.

Conclusion

The scoping review underscores the severe financial burden imposed by cancer care on Indian households, particularly for the uninsured and rural populations. The findings reveal high direct costs, with mean costs ranging from ₹31,200 to ₹9,98,406 annually, and alarming rates of catastrophic health expenditure (CHE) affecting 34% to 96% of households. Distress financing mechanisms, such as borrowing and asset sales, were prevalent, highlighting the dire economic consequences of cancer treatment. Despite policy initiatives like Ayushman Bharat, gaps in insurance coverage persist, leaving 30% of the population vulnerable to financial hardship. The review also identifies regional disparities and the underrepresentation of certain states, calling for more inclusive research to inform equitable policy interventions. These findings align with global literature, emphasizing the disproportionate impact of cancer-related costs on low- and middle-income countries like India. Moving forward, systemic reforms are urgently needed to strengthen health financing mechanisms, expand insurance coverage, and reduce the economic strain on households. Multi-stakeholder efforts, including

government, insurers, and healthcare providers, must collaborate to ensure affordable and accessible cancer care for all, thereby mitigating the risk of impoverishment for families battling this disease. The findings of this review can serve as a critical evidence base for policymakers to design targeted interventions that address the financial toxicity of cancer care in India.

Annexures

PUBMED <09.05.2025>

S. No.	Concept	Search Statement	Results
#1	Cancer Patients	(cancer[tiab] OR neoplasm*[tiab] OR malignan*[tiab] OR tumor*[tiab] OR tumour*[tiab] OR carcinoma*[tiab] OR oncology[tiab] OR oncologic*[tiab])	4,382,168
#2	In India	India [Tw]	205,406
#3	Household Expenditure	(cost[tiab] OR econom*[tiab] OR financ*[tiab] OR expen*[tiab] OR burden[tiab] OR "out-of-pocket"[tiab] OR OOPE[tiab] OR catastrophic[tiab] OR hardship[tiab] OR impoverish*[tiab] OR poverty[tiab] OR expenditure*[tiab] OR affordability[tiab] OR payment[tiab] OR debt[tiab] OR bankruptcy[tiab])	1,671,912
#4	#1 AND #2 AND #3	((cancer[tiab] OR neoplasm*[tiab] OR malignan*[tiab] OR tumor*[tiab] OR tumour*[tiab] OR carcinoma*[tiab] OR oncology[tiab] OR oncologic*[tiab]) AND (India[tw]) AND (cost[tiab] OR econom*[tiab] OR financ*[tiab] OR expen*[tiab] OR burden[tiab] OR "out-of-pocket"[tiab] OR OOPE[tiab] OR catastrophic[tiab]	2232

		OR hardship[tiab] OR impoverish*[tiab] OR poverty[tiab] OR expenditure*[tiab] OR affordability[tiab] OR payment[tiab] OR debt[tiab] OR bankruptcy[tiab]))	
#5	#1 AND #2 AND #3 Time filter: 2010-2025	((cancer[tiab] OR neoplasm*[tiab] OR malignan*[tiab] OR tumor*[tiab] OR tumour*[tiab] OR carcinoma*[tiab] OR oncology[tiab] OR oncologic*[tiab]) AND (India[tw]) AND (cost[tiab] OR econom*[tiab] OR financ*[tiab] OR expen*[tiab] OR burden[tiab] OR "out-of-pocket"[tiab] OR OOPE[tiab] OR catastrophic[tiab] OR hardship[tiab] OR impoverish*[tiab] OR poverty[tiab] OR expenditure*[tiab] OR affordability[tiab] OR payment[tiab] OR debt[tiab] OR bankruptcy[tiab]))	1924

PROQUEST <09.05.2025>

S. No.	Concept	Search Statement	Results
#1	Cancer Patients	TI,AB(cancer OR neoplasm* OR malignan* OR tumor* OR tumour* OR carcinoma* OR oncology OR oncologic*)	715,253
#2	In India	TI,AB(India)	108,734

#3	Household Expenditure	TI,AB(cost OR econom* OR financ* OR expen* OR burden OR “out-of- pocket” OR OOPE OR catastrophic OR hardship OR impoverish* OR poverty OR expenditure* OR affordability OR payment OR debt OR bankruptcy)	1,816,077
#4	#1 AND #2 AND #3	TI,AB(cancer OR neoplasm* OR malignan* OR tumor* OR tumour* OR carcinoma* OR oncology OR oncologic*) AND TI,AB(India) AND TI,AB(cost OR econom* OR financ* OR expen* OR burden OR “out-of- pocket” OR OOPE OR catastrophic OR hardship OR impoverish* OR poverty OR expenditure* OR affordability OR payment OR debt OR bankruptcy)	908
#5	#1 AND #2 AND #3 Time filter: 01-01-2010 to 09- 05-2025	TI,AB(cancer OR neoplasm* OR malignan* OR tumor* OR tumour* OR carcinoma* OR oncology OR oncologic*) AND TI,AB(India) AND TI,AB(cost OR econom* OR financ* OR expen* OR burden OR “out-of- pocket” OR OOPE OR catastrophic OR hardship OR impoverish* OR poverty OR expenditure* OR affordability OR payment OR debt OR bankruptcy)	864

S. No.	Concept	Search Statement	Results
#1	Cancer Patients	(cancer:ti,ab OR neoplasm*:ti,ab OR malignan*:ti,ab OR tumor*:ti,ab OR tumour*:ti,ab)	244,157
#2	In India	india:ti,ab,kw	13,433
#3	Household Expenditure	(cost:ti,ab OR econom*:ti,ab OR financ*:ti,ab OR expen*:ti,ab OR burden:ti,ab OR out-of-pocket:ti,ab OR OOPE:ti,ab OR catastrophic:ti,ab OR hardship:ti,ab OR impoverish*:ti,ab OR poverty:ti,ab)	136,618
#4	#1 AND #2 AND #3	(cancer:ti,ab OR neoplasm*:ti,ab OR malignan*:ti,ab OR tumor*:ti,ab OR tumour*:ti,ab) AND india:ti,ab,kw AND (cost:ti,ab OR econom*:ti,ab OR financ*:ti,ab OR expen*:ti,ab OR burden:ti,ab OR out-of-pocket:ti,ab OR OOPE:ti,ab OR catastrophic:ti,ab OR hardship:ti,ab OR impoverish*:ti,ab OR poverty:ti,ab)	197
#5	#1 AND #2 AND #3 Time filter: Jan 2010- May 2025	(cancer:ti,ab OR neoplasm*:ti,ab OR malignan*:ti,ab OR tumor*:ti,ab OR tumour*:ti,ab) AND india:ti,ab,kw AND (cost:ti,ab OR econom*:ti,ab OR financ*:ti,ab OR expen*:ti,ab OR burden:ti,ab OR out-of-pocket:ti,ab OR OOPE:ti,ab OR catastrophic:ti,ab OR hardship:ti,ab OR impoverish*:ti,ab OR poverty:ti,ab) AND	189

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