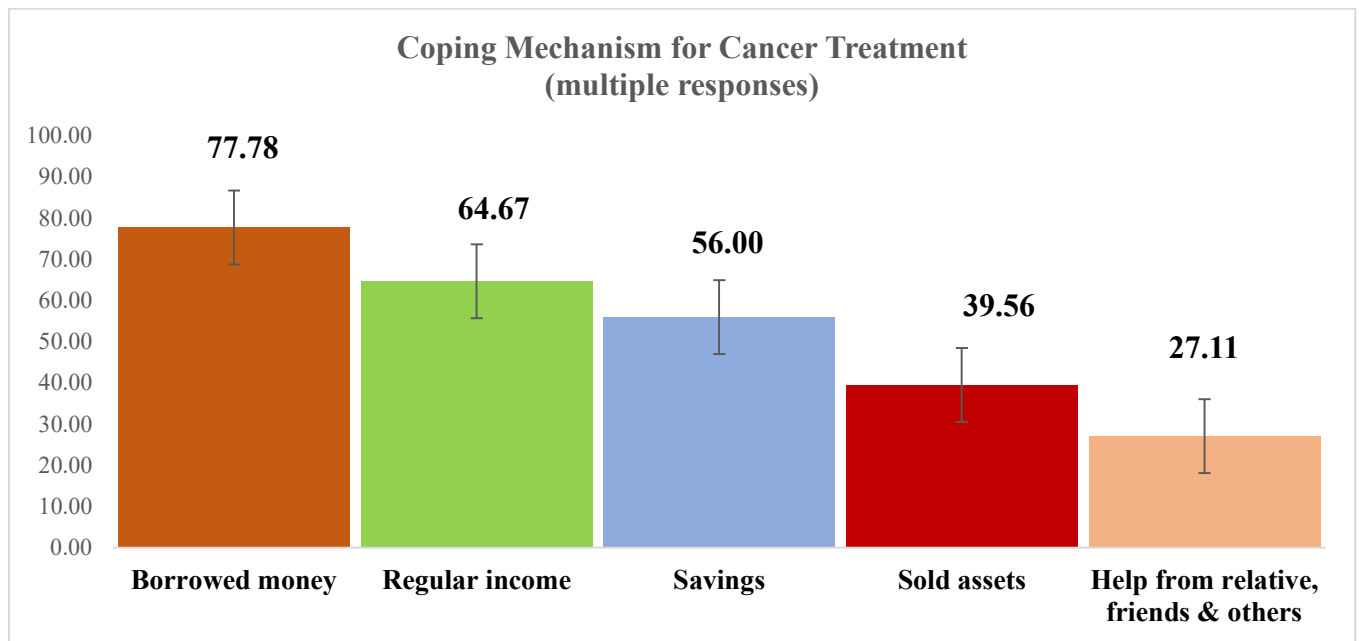


Report on

Economic Burden of Cancer in Bangladesh



Submitted by

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LIST OF ABBREVIATIONS

AMCGH Ahsania Mission Cancer & General Hospital

BDT Bangladeshi Taka

BIDS Bangladesh Institute of Development Studies

BMC Bangladesh Medical College Hospital

CT computed tomography

EU European Union

FLO Foregone Labor Output

GI gastrointestinal

HCA Human Capital Approach

HEU Health Economics Unit

HRD Hospital Records Departments

ICU Intensive Care Unit

NCD Non-Communicable Disease

NCRI National Cancer Research Institute

NGO Non-Governmental Organization

OOP Out of Pocket

OOPE Out-of-pocket Expenditure

PPS Probability Proportional to Size

SD Standard Deviation

SSP Social Security Program

US\$ US Dollar

WHO World Health Organization

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Executive Summary

Background

Cancer is an overwhelming global public health issue due to its considerable impact on mortality and morbidity. Cancer is a large group of diseases that can affect any part of the body, characterized by the rapid creation of abnormal cells that can invade other parts of the body and spread to other organs. Risk factors for cancer include tobacco use, alcohol consumption, unhealthy diet, physical inactivity, and air pollution. Approximately 50% of cancers can be prevented through the avoidance of risk factors and the implementation of evidence-based prevention strategies. The burden of cancer is high in Bangladesh, where 156,775 people were newly diagnosed with cancer in 2020, and 108,990 people died from it. Cancer accounts for 12% of all deaths in Bangladesh and may increase to 13% by 2030. The most common cancers in Bangladesh are esophagus, lip, oral cavity, breast, lung, and cervix uteri. The economic burden of cancer is significant, with rising costs of cancer diagnosis and treatment, imposing significant direct medical and indirect costs on patients, the healthcare system, and the government. Cancer and its treatment also result in the loss of economic resources and opportunities for patients, families, employers, and the society overall.

Methods

This study was a cross-sectional survey conducted both in selected hospitals. A combination of hospital and community-based survey was conducted to address the study objectives: (i) to estimate the annual cost of illness due to cancer from households' perspective (ii) to assess the financial distress and catastrophic expenditure of households due to treatment care (iii) to capture health-related quality of life and out-of-pocket cost of cancer patients across stages of cancer. The sample size calculation strategies were adopted from the guidelines proposed by the World Health Organization for the economic burden of illness study. We selected three hospitals randomly: National Institute of Cancer Research & Hospital, (Public hospital), Bangladesh Medical College Hospital (Private hospital) and Ahsania Mission Cancer & General Hospital (NGO-based hospital) for data collection of this study. All the interviews were conducted face-to-face, and data were collected by a structured questionnaire through Kobo Toolbox software.

Results

The study conducted on 450 cancer patients selected from three hospitals in Bangladesh. The characteristics of the patients surveyed, included their age, gender, education level, marital status, and household income. The majority of the patients were females, aged between 41 to 59 years having secondary education. The study found that the middle quintile had the highest number of participants. The distribution of cancer

patients by cancer types shows breast, cervical and lung cancer were the most common type of cancer in Bangladesh.

The annual average total cost of illness per cancer patient was found BDT 609,500 from household perspective. The average total direct cost per cancer patient was found BDT 547,840 while the cost was ranging from BDT 80,770 to BDT 2500, 000. Among the direct medical cost components, medicine cost shared the highest percentage (27.10%) of total cost of cancer treatment followed by diagnostic cost (23.91%). There is a strong positive linked with the cost and stages at detection of cancer patient. On an average, about BDT 369,416 was expensed if the cancer was detected at first stage while the cost was found more than double (BDT 807,587) if the cancer was detected at fourth stage. To bear the expenditure of cancer treatment, the majority of the households across all participants relied on borrowing money (77.78%), regular income (64.67%) and savings (56%). We observed about 90% of the study households with cancer patients had to experience distress financing in Bangladesh.

Concluding remarks

The findings of this study recognized the substantial economic burden of cancer, which underscores the urgent need for an effective national strategy targeted to mitigate the OOP expenses as well as the catastrophic healthcare expenditure. The policymakers and the concerned authorities should focus on the out-of-pocket costs across stages of cancer and should focus on preventive strategies, particularly should prioritized the universal cancer screening program in Bangladesh. The health officials and ministries should think a pooled fund for cancer affected families and should upgrade the healthcare financing strategy of the Government for monitoring the progression towards universal health coverage in Bangladesh.

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