

**Source Of Funding Of Out Of Pocket Expenditure Of Cancer Treatment: A Study From A Tertiary Care Teaching Hospital Of India**

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**Abstract**

Cancer is the second leading cause of death and disability around the world. More number of people now die of cancer than from all cases of AIDS, tuberculosis and malaria put together. Households with a cancer patient experienced significantly higher Out of pocket (OOP) expenditure per capita as compared with households having a non cancer patient. The likelihood of experiencing catastrophic health expenditure (CHE) in case of cancer was 160% more than for any other disease in India. In our study, most of the patients had more than one source of funding the expenditure on treatment of Cancer. 72.0% (n=360) patients had taken borrowings from friends/relatives, 68.20% (n=341) patients had sold their assets, 61.20% (n=306) had used their savings. Only 2.0% (n=10) had some form of health insurance. 25.0% (n=100) patients had received financial assistance from government schemes.

**Keywords:** Cancer, Expenditure, health finances, Cost

**Introduction**

Cancer is the second leading cause of death and disability around the world. More number of people now die of cancer than from all cases of AIDS, tuberculosis and malaria put together. According to World Cancer Report, there is high incidence rate of cancer throughout the world and it may reach about 20 million by 2030. More than half of new cancer patients and two-thirds of cancer related deaths now occur in developing countries. Cancer has become one of the major causes of death in India. Every year, about 0.4 million deaths occur in India due to cancer (1,2).

Households with a cancer patient experienced significantly higher Out of pocket (OOP) expenditure per capita as compared with households having a non cancer patient. The likelihood of experiencing catastrophic health expenditure (CHE) in case of cancer was 160% more than for any other disease in India. In case of rural households affected with the cancer, the incidence of borrowing, financial gifts from relatives/friends, and selling of assets are higher as compared to urban households. Lower

income group face distress financing even seeking treatment in public sector (3, 4).

With this background, the present study was undertaken with the idea to study the sources of out of pocket expenditure in cancer patients.

**Aim and Objective:** To Study source of out of pocket expenditure incurred during the cancer treatment while attending SKIMS regional Cancer centre.

### Material and Methods

#### Study Design and Duration

A retrospective study of 2 years was conducted among the Cancer patients registered with Regional Cancer Center (RCC), SKIMS between 1st October 2015 and 30st September 2017.

#### Sampling

Using simple random sampling, 20% of the patients registered with Regional Cancer Center (RCC) were studied.

#### Study tool

After obtaining the list of patients registered with Regional Cancer Centre (RCC), the patients were contacted, consent taken from them after explaining the scope and purpose of study and were subjected to a questionnaire which was

pretested by conducting a pilot study. The various sources of funding the out of expenditure were identified.

Data was analyzed with the help of SPSS software (version 23.0). All the categorical data was shown in the form of

### Exclusion Criteria

Those patients who refuse to participate in the study were excluded from the study

### Statistical Analysis

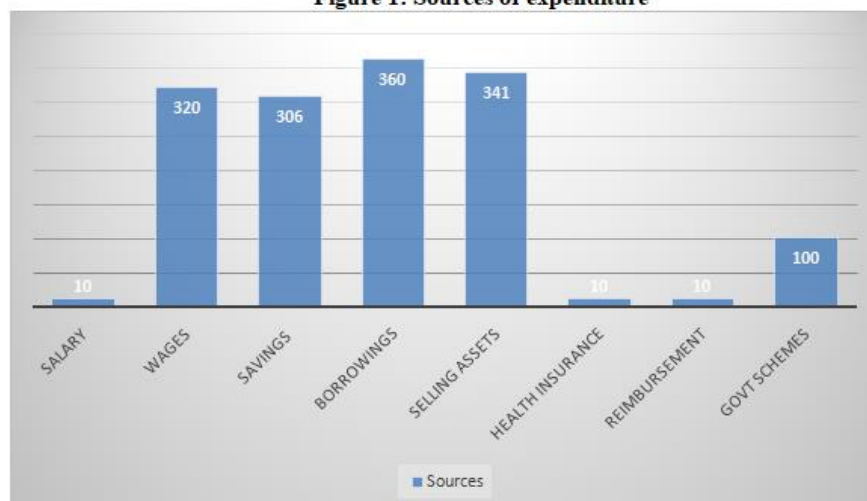
frequency and percentages & continuous data was shown in the form of averages and standard deviations.

### Results and Observations

The pretested questionnaire was given to 625 Cancer patients registered with Regional Cancer Centre (RCC) SKIMS between 1st October 2015 and 30st September 2017. The response rate was 80.00%. A sample size of 500 Cancer patients was obtained for retrospective study.

In our study, most of the patients had more than one source of funding the expenditure on treatment of Cancer. 72.0% (n=360) patients had taken borrowings from friends/relatives, 68.20% (n=341) patients had sold their assets, 61.20% (n=306) had used their savings. Only 2.0% (n=10) had some form of health insurance. 25.0% (n=100) patients had received financial assistance from government schemes (Figure 1).

Figure 1: Sources of expenditure



## Discussion

Health care delivery in India is going through a process of transition, more so the tertiary specialty care of chronic diseases like diabetes, hypertension, cardiac diseases, kidney or liver failure, mental illness and cancer(5). Patients, more commonly those from the lower economic strata, have difficulty in availing the health care services because of the costs involved in diagnostic and curative procedures. Even in public hospitals where the cost of care is low, patient had to bear several direct and indirect costs, commonly referred to as out-of-pocket expenditure (OOPE), which impoverish them further. As a result, patients with life threatening diseases requiring tertiary care often go untreated even if they are aware of the availability of high quality services . It can also lead to delay in diagnostic and curative procedures and even causing deaths of several thousands of poor patients. This issue has been a concern for nation's health policy, which should address the cost, quality and accessibility of health care (5).

In our study of Cancer patients, majority of the patients had borrowings from friends/relatives as source of funding the expenditure (72% ) followed by those who sold their assets (61.20% in retrospective study). The study by Jain M and Mukherjee K observed that 55% Cancer patients had borrowings and 30% had selling of assets as sources of funding the expenditure of disease (8). Kesavan Sreekantan Nair et al in their study observed that borrowings and selling assets were the two major sources of funding the expenditure in Cancer patients (7). Farooq A Jan et al in their study observed 25% Cancer patients had borrowings and selling assets as two major sources of funding the expenditure (6).

## Summary

Cancer is the second leading cause of death and disability around the world.. Households with a cancer patient

experienced significantly higher Out of pocket (OOP) expenditure per capita as compared with households having a non cancer patient. In our study, most of the patients had more than one source of funding the expenditure on treatment of Cancer. 72.0% (n=360) patients had taken borrowings from friends/relatives, 68.20% (n=341) patients had sold their assets, 61.20% (n=306) had used their savings. Only 2.0% (n=10) had some form of health insurance. 25.0% (n=100) patients had received financial assistance from government schemes.

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