

# Economic Burden of Cancer Patients at Hasanuddin University Teaching Hospital, Makassar : A Qualitative Study

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# Economic Burden of Cancer Patients at Hasanuddin University Teaching Hospital, Makassar : A Qualitative Study.

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## ABSTRACT

**Introduction:** Cancer can cause disasters, economic-social consequences for individuals and household sufferers. This study reveals the phenomena experienced by cancer patients to inform the development of patient-centered policies. This paper provides a qualitative understanding of the economic and social consequences of cancer.

**Method :** Interviews were conducted on patients who conducted examinations and referrals at Hasanuddin University Teaching Hospital, Makassar (n=30). Data interpretation uses content analysis.

**Results:** The affordability of medical treatment and care needed to manage disease is identified as a key aspect of economic difficulties, which endangers the capacity of patients to proactively manage their illnesses and reduce risk. Factors that exacerbate difficulties are mainly not covered by the National Health Insurance scheme (JKN), and other government benefits. Economic burden are not only felt for those who do not have JKN and other government benefits, but also those who receive insufficient subsidies to meet the costs of managing their long-term illness over and above necessary daily living expenses.

**Conclusion:** This study provides insight into the economic burden of handling cancer, which shows that economic difficulties require households to make difficult decisions between medical expenses and basic living expenses.

**Keywords:** Economic burden, cancer patient, social consequences

## INTRODUCTION

Cancer is a catastrophic disease with characteristics that require high costs and a large number of sufferers and diseases that are at risk of death. Cancer is the leading cause of death worldwide in both developed and developing countries. However, the burden of cancer is more prominent in developing countries<sup>1</sup>. Lung, liver, stomach, colorectal, and breast cancer are the biggest causes of cancer deaths every year<sup>2</sup>. When a person is diagnosed with cancer and must be hospitalized in the hospital, the financial consequences are a burden

that must be borne by the patient<sup>3</sup>. In Indonesia, the prevalence of cancer patients in 2013 was known to be 1.4 cases per 1000 inhabitants. Nearly 50% of them occur in populations aged > 75 years<sup>4</sup>.

Research findings from The Action Study Group show that out of 9,513 patients who were followed up in the 12th month, nearly 50% of cancer patients experienced bankruptcy, while 29% experienced death. In addition, almost half or 44% of survivors will experience economic difficulties caused by cancer, so use future savings<sup>5</sup>.

The average cost for treatment of breast cancer can reach \$ 15,000 or around Rp 207,569,923 per year. Patients with an income of \$ 1,100 (or around Rp.

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15.221 795) or lower per month will have difficulty paying for their treatment. With a 2014 per capita average GDP (Gross Domestic Product) of \$ 3,553.75 or around Rp.49,176,775 for the eight countries involved, almost all cancer sufferers must use their savings and experience bankruptcy while maintaining their quality of life. Bankruptcy or Financial Catastrophe is defined by spending as much as 30% or more of the household's main income and pocket money on cancer treatment costs 5,6.

There are many things that are not yet known about unpredictable costs for health services needed by cancer patients for example young age, low income, living opportunities, and other supporting services that are supportive<sup>7</sup>. So that it greatly affects the family economic burden of cancer patients. Based on data from the Basic Health Research (Riskesda) in 2013 in Eastern Indonesia, South Sulawesi Province was the province with the highest number of cancers, namely 1.7 1,7 or around 14,119 people<sup>8</sup>. Based on observations and preliminary surveys researchers in cancer patients originating from Eastern Indonesia in general will be referred to the Hasanuddin University Makassar Hospital.

## MATERIALS AND METHOD

The informants in this study were around 30 people who were related to the economic burden of cancer patients at RSUP Unhas, Makassar. Ethical approval was given by the Health Research Ethics Committee of Hasanuddin University. All informants gave informed consent before the interview was conducted. The interview began by asking: "what does it feel like to live with cancer now," followed by questions about the challenging and useful aspects of their experience. All interviews are recorded electronically and transcribed word for word. Qualitative analysis data uses content analysis<sup>10</sup>.

## RESEARCH RESULTS

### General Characteristics of Informants

The general characteristics of the informants included dominance (residence), gender, age and marital status and their level of education.

Table 1. shows that informants from South Sulawesi province were 23 people (76.7%) and informants from

outside the province of South Sulawesi as many as 7 people (23.3%), the number of male informants was 10 people (33.3%) and 20 female informants (66.7%). The most age is 46-60 years which is 19 people (63.4%). Generally, there were 26 married informants (86.7%). The disease burden category perceived by patients as many as 23 people (76.7%) stated weight.

**Table 1. General Characteristics of Informants**

Informant characteristic	Number	(%)
Living Home		
Sulawesi Selatan	23	76,7
Outside Sulawesi Selatan	7	23,3
Sex		
Male	10	33,3
Female	20	66,7
Age		
> 45 year	7	23,3
46-60 year	19	63,4
> 60 year	4	13,3
Marital status		
Marriage	26	86,7
Not yet	4	13,3
Illness Category		
Slight	2	6,6
Middle	5	16,7
Heavy	23	76,7
Masker use		
Hospital	30	100,0
Visit frequency 1 time	18	60,0
Visit frequency 2 time	12	40,0
Private doctor practice	23	76,7
Visit frequency 1 time	16	55,3
Visit frequency 2 time	11	36,7
Alternative Medicine	19	63,3
Alternative Medicine	19	63,3
Visit frequency 1 time	17	56,7
Visit frequency 3-4 time	2	6,6
Family Treatment		
By family	12	100,0

The utilization of hospitals is 30 people (100.0%) with frequency of visits 1-2 times, private practice doctors as many as 23 people (76.7%) with a frequency of 1-2 times, and alternative treatments 19 people (63.3%) among them 17 people (56.7%) frequency of visits 1-2 times, while 3-4 times there are 2 people (6.6%). All cancer patients (100.0%) were cared for by their families, not only the nuclear family but also their close relatives.

**Characteristics of Informants Based on Economic Status**

Table 2. shows the employment status of informants where as many as 11 people (36.7%) as civil servants / TNI / Polri, entrepreneurs as many as 10 people (33.3%) and not working or as Housewives (IRT) there are 9 people (30, 0%). Their income above UMP is above Rp. 2,400,000 - up to Rp. 5,000,000 as many as 22 people (73.3%) and income of more than Rp. 5,000,000, - as many as 8 people (26.7%). Most of the informants have health insurance such as the Health Insurance Agency (BPJS) in the Health and Card Health Center (KIS) sectors with 24 people (80.0%).

**Table 2. Characteristics of Informants Based on Economic Status**

Informant Characteristic:	Number	(%)
Occupational status		
PNS/TNI/Polri/	11	36,7
Private	10	33,3
Not working	9	30,0
Income (Rp/ month )		
2,400,00 - 5,000,000	22	73,3
> 5,000,000	8	26,7
Health insurance		
Available	24	80,0
Not	6	20,0
Elder insurance		
Available	11	36,7
Not	19	63,3
Money difficulty		
Yes	30	100,0
Not		

**Economic and Social Consequences**

The main dimensions of the results of in-depth interviews are economic consequences (affordability of treatment, affordability of consumption of other goods, and factors that influence economic difficulties) and the social consequences of patients [11,12], as explained in the following detail.

Economic consequences

1. Treatment work

1 Affordability of treatment refers to the patient's ability to pay for the treatment and care needed to manage the disease condition and its consequences. The patient expressed concern about the financial pressures he felt as a result of the high costs of treating and managing his illness (for example, pocket expenses for medicines, routine checks, specialists and other medical care), often accompanied by existing economic constraints and lack of supporting resources.

As an example :

“I use free medication using the Indonesia Healthy Card (KIS), but experience cost difficulties when there are additional costs that are not covered by KIS” (Housewife, 37 years old)

The results of the in-depth interviews also showed that all informants experienced financial difficulties when they had to meet other maintenance costs, outside the National Health Insurance (JKN) scheme such as BPJS Health / Employment and KIS.

As an example :

“Before doing chemotherapy there is usually a laboratory examination, patients have to spend millions of dollars. Often the medicine for chemotherapy is not available so the patient is told to go home, if he has to buy it himself. The cost is very expensive so it cannot afford to buy and choose the medicine available ”(Housewife, 52 years old)

As an example :

“Every time I take medication to the hospital, I have to pay a transportation fee of Rp. 1 million per trip, the cost of boarding is Rp. 500 thousand and for credit at least Rp. 200 thousand.” (Civil Servants, 50 years)

Cost constraints to access health services, especially felt for patients from outside the province of South Sulawesi because they have to pay for transportation, boarding and communication costs.

As an example :

“Every time I take medication to a private practice doctor, I spend at least Rp 2 million for multivitamin purchases and so on.” (Private employee, 41 years)

Alternative medicine is a conventional and herbal treatment / therapy effort as an alternative or complementary to modern medicine. Some informants said “The cost of alternative medicine is only Rp. 50,000 - Rp. 100,000, - once a visit. Usually in the form of clear water, rubbed on a place that is sick or drunk. Herbal medicines can reach IDR 2,000,000 / package. We use it at most twice just because it’s expensive.”

#### 1. Affordability of Other Goods Consumption

Affordability is also related to the patient’s ability to pay for the additional needs needed to manage their disease, such as: healthy food, exercise and healthy walking membership for cancer patients through the Indonesian Cancer Foundation (YKI) and other social activities.

Discretionary expenses include reducing more expensive and healthier foods, reducing participation in regular sports programs at the gym or other places.

As an example :

“I cannot do vacation activities or renovation of houses that incur quite high costs.” (PNS, 47 years). Incidental costs (make a choice between expenses for health care or other daily expenses). Generally informants do not have incidental costs, they tend to choose to meet their daily needs if they have to be faced with the cost of medical treatment. “If I am given a choice between medical expenses and the daily cost of living, it will prioritize daily expenses.”

#### 2. Factors that influence economic difficulties

Factors that influence whether patients experience economic difficulties include pension salary recipients, pension savings (taspen), health insurance such as BPJS and KIS.

As an example : “I have retired, but still guaranteed

by the health BPJS, thus reducing medical expenses. After all, I received a retirement salary and had a retirement savings account (Taspen). “(Retired, 62 years old). But for some informants, this support is still inadequate to overcome economic difficulties and the additional costs not covered by the National Health Insurance (JKN) scheme or other supporting actions are an economic burden on their lives. For those who do not receive pension benefits or other government subsidies, economic difficulties are tightly felt and recognized to have a significant impact on the management of their disease.

As an example: “I don’t work, and my husband is only a private employee with a mediocre salary. I feel the burden of medical expenses and care imposed on the family.” (Housewife, 52 years)

#### 2. Patients’ Social Consequences

As an example : “My husband is looking for other jobs that can be better expected to cope with a significant decline in income so that he can still take care of me” (Housewife, 39 years old). One of the things that made us burdened by debt was burdensome because of the arrears of credit at the Bank.

### DISCUSSION

This research is in line with some of the previous studies conducted by the Group<sup>5</sup>, Davidoff<sup>13</sup>, and Guy<sup>14</sup>, where the symptoms of financial catastrophe in patients were experienced by almost all patients who spent as much as 30% or more of their primary income. Stairs and pocket money for cancer treatment costs. Other problems faced by patients, especially those domiciled outside the province of South Sulawesi, such as the provinces of Southeast Sulawesi, East Nusa Tenggara and North Kalimantan, experience difficulties in accessing health services in the form of transportation, accommodation and communication costs. They have to spend an additional million rupiah to buy airplane tickets, rent boarding houses, and buy credit<sup>15-17</sup>. Additional incidental costs are faced with the difficulty of making a choice between spending on medication and health care or other daily expenses. They can only compromise if they want to meet their child’s needs. This means that even paying the lowest cost of living poses a challenge.<sup>18-21</sup>

With the implementation of Universal Health Coverage in Indonesia starting January 1, 2019, it is expected that no more sufferers of cancer will escape government support through their participation in the JKN scheme. However, the desire of BPJS Kesehatan to cut service facilities for patients with catastrophic diseases such as cancer, will become a new problem for health services, especially for people with cancer. The decrease in income revealed in this study was mainly due to the decline in patient productivity due to cancer. The decrease in income also results in the ability to pay for medical and non-medical expenses. This has social consequences, especially in redeeming the additional costs of treatment and care that is quite large. Significant financial consequences for cancer sufferers (having to reduce expenses, drain savings, borrow money or add bank credit), a combination of additional costs and drastic expenses, can cause anxiety and stress. It can even increase financial stress (financial stress), then it will also increase depression, anxiety and stress in cancer patients<sup>22-23</sup>.

### CONCLUSION

This research is a qualitative study that examines the economic burden of cancer based on the perceptions of patients and their families. This study provides insight into the economic stress factors associated with treating cancer and evidence that these economic difficulties require households to make difficult decisions between the cost of care and basic living costs, triggering the symptoms of financial catastrophe.

**Conflict of Interest :** None

**Ethical Clearance:** from Faculty of Public Health, Hasanuddin University

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