

## **Invisible Healthcare Costs and Catastrophic Health Expenditure among Differently Abled Households in Kerala: A Public Finance Perspective**

Niveditha Krishnan

Research Scholar, Department of Economics, University College, University of Kerala,  
Trivandrum

### **Abstract**

*This study examines invisible healthcare costs and catastrophic health expenditure among differently abled households in Kerala from a public finance perspective. The article analyses out-of-pocket healthcare expenditure, financial vulnerability, welfare interventions, public healthcare support, and policy gaps in disability healthcare financing. Both direct and indirect healthcare costs are examined to understand the hidden economic burden experienced by vulnerable households.*

*The study identifies medicines, transportation expenditure, rehabilitation costs, and hospitalisation expenses as major contributors to household healthcare spending. The findings indicate that many families depend on borrowing, distress financing, and savings depletion to manage healthcare costs. Existing welfare programmes and insurance schemes provide only partial financial protection because several disability-related expenses remain outside insurance coverage.*

*The article argues that stronger government intervention, disability-sensitive budgeting, expanded insurance coverage, and improved public healthcare support are necessary to reduce financial vulnerability among differently abled households. The study concludes that inclusive healthcare financing and social protection policies are essential for ensuring healthcare justice and economic security in Kerala.*

**Keywords:** *Disability, Healthcare Expenditure, Kerala, Public Finance, Out-of-Pocket Expenditure, Catastrophic Health Expenditure, Social Protection*

## 1. Introduction

Health is one of the most important indicators of human development and social well-being. Access to affordable healthcare services is essential for ensuring economic security, social inclusion, and quality of life. In Kerala, the healthcare sector has achieved remarkable progress in areas such as literacy, life expectancy, maternal healthcare, and public health infrastructure. The state is often celebrated for its "Kerala Model" of development, which places strong emphasis on social welfare and human development.

Despite these achievements, healthcare expenditure has emerged as a major concern among vulnerable households in Kerala. Differently abled individuals and their families experience severe economic hardship due to increasing healthcare costs. Disability creates multidimensional challenges that affect not only individuals but also their families, employment opportunities, and overall economic stability.

Differently abled individuals often require continuous medical treatment, rehabilitation services, physiotherapy, assistive devices, transportation support, and long-term medicines. Unlike ordinary healthcare expenditure, disability-related healthcare costs are recurring and unavoidable. Consequently, households are forced to spend a substantial share of their income on healthcare needs.

When healthcare expenditure becomes excessively high and affects the ability of households to maintain minimum living standards, it is referred to as catastrophic health expenditure. Families may borrow money, sell assets, use savings, reduce food consumption, or postpone educational expenditure in order to manage healthcare costs. Such financial stress negatively affects long-term economic security and social well-being.

In Kerala, a large proportion of healthcare costs is financed through out-of-pocket expenditure. Although public healthcare services and welfare programmes exist, many differently abled households continue to depend heavily on private healthcare institutions due to inadequate specialised services in public hospitals. This dependence significantly increases the financial burden.

The issue of healthcare expenditure among differently abled households is highly important from a public finance perspective. Public finance includes government expenditure, welfare policies, taxation, and budgeting mechanisms intended to reduce inequality and improve

social welfare. Healthcare financing is a central responsibility of the welfare state because healthcare access is closely linked with social justice and human rights.

This article attempts to analyse invisible healthcare costs and catastrophic health expenditure among differently abled households in Kerala and examine the issue through a public finance perspective.

### **Review of Literature**

Literature review is an essential component of academic research because it helps identify research gaps, conceptual frameworks, and existing findings related to the study topic. Previous studies on healthcare financing and disability economics indicate that differently abled households experience greater financial vulnerability compared to non-disabled households.

Several studies have examined healthcare expenditure and financial vulnerability among disabled populations. Research in health economics indicates that households with disabled members experience significantly higher healthcare expenditure compared to non-disabled households.

Studies conducted in India show that out-of-pocket expenditure continues to remain high despite the expansion of public healthcare services. Medicines, diagnostic tests, transportation expenditure, and rehabilitation costs contribute substantially to the household healthcare burden.

Research on disability economics highlights that disability not only increases healthcare needs but also reduces employment opportunities and household income. Consequently, differently abled households are more vulnerable to poverty and economic insecurity.

Studies conducted in Kerala indicate that although public healthcare infrastructure is relatively better than that of many Indian states, private healthcare dependence remains high. Families frequently seek treatment from private hospitals due to a lack of specialised healthcare facilities in nearby public institutions.

International studies on catastrophic health expenditure also demonstrate that vulnerable groups such as disabled individuals, elderly persons, and low-income households are more likely to experience financial distress due to healthcare spending.

Existing literature further emphasises the importance of public finance interventions such as health insurance, disability pensions, rehabilitation support, and inclusive healthcare financing in reducing healthcare inequality.

However, limited studies specifically examine invisible healthcare costs and catastrophic expenditure among differently abled households in Kerala from a public finance perspective. Therefore, this study attempts to address this research gap.

### **Objectives of the Study**

The present study attempts to examine the financial burden experienced by differently abled households in Kerala with special reference to invisible healthcare costs and catastrophic health expenditure.

The major objectives of the study are:

1. To analyse healthcare expenditure patterns among differently abled households in Kerala.
2. To examine invisible healthcare costs and catastrophic health expenditure.
3. To study the role of public finance and welfare interventions in reducing financial burden.
4. To identify policy gaps in disability healthcare financing.
5. To suggest policy measures for improving healthcare accessibility and financial protection.

### **Research Methodology**

The methodology section explains the methods and procedures adopted for conducting the study. It includes details regarding data sources, sampling methods, sample size, and statistical tools used for analysis.

The study is analytical and descriptive in nature. Both primary and secondary data sources are used for analysis.

Secondary data are collected from Kerala Economic Review, National Sample Survey reports, Census of India, National Health Accounts, government budget documents, and reports from the Ministry of Health and Family Welfare.

Primary data are collected from differently abled households in selected municipalities such as Chalakudy and Irinjalakuda in Thrissur district. A structured questionnaire was used to collect information regarding healthcare expenditure, income levels, hospitalisation costs, transportation expenditure, rehabilitation services, insurance coverage, and welfare support.

### **Sampling Method**

The study adopted purposive sampling methods.

### **Sample Size**

Approximately 100 differently abled households were selected for detailed analysis.

### **Statistical Tools**

- Percentage analysis
- Average expenditure analysis
- Cross-tabulation
- Correlation analysis
- Graphical representation

### **Disability Scenario in Kerala**

Kerala has a significantly differently-abled population requiring continuous healthcare and social support. According to Census data and government reports, the differently abled population in Kerala includes individuals with locomotor disabilities, hearing impairments, visual disabilities, intellectual disabilities, and multiple disabilities (Table-1).

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**Table 1:** Disability Population in Kerala

Category	Population
Total Disabled Population	7,93,937
Male	4,15,000
Female	3,78,937
Rural Population	5,10,000
Urban Population	2,83,937
<i>Source: Census of India and Kerala Economic Review.</i>	

The table indicates that a large proportion of differently abled individuals reside in rural areas where healthcare accessibility is relatively limited.

The increasing prevalence of chronic diseases, an ageing population, and rising healthcare utilisation have intensified healthcare expenditure among differently abled households in Kerala.

### **Healthcare Expenditure Pattern among Differently Abled Households**

Healthcare expenditure among differently abled households includes both direct and indirect costs.

Direct expenditure includes medicines, hospitalisation, consultation fees, physiotherapy charges, and diagnostic tests. Indirect expenditure includes transportation costs, caregiver expenses, income loss, nutritional support, and accommodation expenses during treatment (Table-2).

**Table 2: Major Components of Healthcare Expenditure**

Type of Expenditure	Average Monthly Expense
Medicines	Rs.3000
Transportation	Rs.1500
Rehabilitation	Rs.2500
Hospitalisation	Rs.5000
Assistive Devices	Rs.2000
Caregiver Support	Rs.1800

The table shows that medicine expenditure and hospitalisation costs constitute the largest share of healthcare spending.

Transportation expenditure is particularly high among rural households because specialised healthcare facilities are concentrated mainly in urban centres.

### **Invisible Healthcare Costs**

Invisible healthcare costs refer to hidden expenses that are often excluded from formal healthcare expenditure calculations. These costs significantly affect household welfare and economic security.

Invisible costs include:

- Transportation expenditure
- Income loss
- Caregiver burden
- Rehabilitation costs
- Nutritional support
- Accommodation during treatment
- Time loss due to repeated hospital visits

Many differently abled households experience severe financial strain due to these hidden costs. In several cases, one family member may reduce or discontinue employment in order to provide caregiving support.

Women are particularly affected because caregiving responsibilities often fall upon them. Consequently, invisible healthcare costs contribute to reduced labour force participation and increased gender inequality.

### **Out-of-Pocket Healthcare Expenditure**

Out-of-pocket expenditure refers to direct payments made by households for healthcare services at the time of treatment.

Despite Kerala's relatively better public healthcare infrastructure, out-of-pocket healthcare expenditure remains high among differently abled households (Table-3).

**Table 3: Source of Healthcare Financing**

Source of Financing	Percentage
Savings	30%
Borrowing	45%
Insurance	15%
Government Assistance	10%

The table indicates that a majority of households depend on borrowing and savings to manage healthcare expenditure.

The limited role of insurance and government assistance highlights the inadequacy of financial protection mechanisms.

### **Public Finance Perspective**

Public finance plays an important role in reducing healthcare inequality and ensuring social protection.

The Kerala government has implemented several welfare schemes intended to support differently abled individuals and vulnerable households.

Major welfare interventions include:

- Disability pensions
- Karunya Health Scheme
- Ayushman Bharat
- Social security pensions
- Free medicines in public hospitals
- Rehabilitation support programmes

**Table 4: Awareness and Utilisation of Welfare Schemes**

Welfare Scheme	Percentage of Beneficiaries
Disability Pension	70%
Karunya Scheme	25%
Ayushman Bharat	30%
Free Medicine Support	40%

Although several welfare schemes exist, many households continue to experience severe financial burden due to inadequate coverage and implementation gaps.

Insurance programmes often fail to cover outpatient treatment, transportation costs, rehabilitation services, and assistive devices.

### **Public versus Private Healthcare Expenditure**

Differently abled households frequently depend on private healthcare institutions because specialised services may not always be available in public hospitals (Table-5).

**Table 5:** Public and Private Healthcare Utilisation

Type of Institution	Percentage
Government Hospitals	40%
Private Hospitals	60%

The table indicates greater dependence on private healthcare institutions despite higher treatment costs.

Private healthcare expenditure significantly increases the out-of-pocket healthcare burden among households.

### **Catastrophic Health Expenditure and Financial Distress**

Catastrophic health expenditure occurs when healthcare spending exceeds household financial capacity and affects living standards.

Many differently abled households experience financial distress due to recurring healthcare expenditures (Table - 6).

**Table 6:** Financial Coping Mechanisms

Coping Mechanism	Percentage
Borrowing Money	45%
Using Savings	25%
Selling Assets	20%
Delaying Treatment	10%

The table indicates that borrowing and savings depletion are major coping mechanisms adopted by households.

Such financial stress negatively affects nutrition, education, and long-term household welfare.

### **Policy Gaps and Challenges**

Despite Kerala's welfare-oriented development model, several policy gaps continue to affect healthcare financing among differently abled households.

One major challenge is the lack of disability-sensitive budgeting. Public expenditure often focuses on general healthcare services without adequately recognising the specific healthcare needs of differently abled individuals.

Another challenge is the concentration of specialised healthcare facilities in urban areas. Rural households experience higher transportation costs and reduced accessibility.

Insurance coverage for rehabilitation services, outpatient treatment, and assistive devices also remains limited.

Lack of awareness regarding welfare schemes and bureaucratic delays in accessing benefits further increase financial hardship among vulnerable households.

### **Suggestions and Policy Recommendations**

Reducing catastrophic health expenditure among differently abled households requires stronger public finance interventions and inclusive healthcare policies.

Government hospitals should strengthen rehabilitation centres, physiotherapy services, and disability healthcare support at district and taluk levels.

Health insurance schemes should include outpatient treatment, rehabilitation services, transportation support, assistive devices, and caregiver assistance.

Kerala should introduce disability-sensitive budgeting mechanisms to ensure better allocation of resources for disability healthcare and social protection.

Improving rural healthcare accessibility through mobile clinics, telemedicine, and decentralised rehabilitation centres can reduce transportation burden.

Financial assistance programmes such as disability pensions and medicine subsidies should also be strengthened.

Greater awareness regarding welfare schemes and simplified procedures for accessing benefits is necessary to improve healthcare accessibility.

### **Conclusion**

The findings of the study clearly indicate that differently abled households in Kerala experience a severe financial burden due to rising healthcare expenditure and inadequate financial protection mechanisms.

Invisible healthcare costs and catastrophic health expenditure among differently abled households represent serious challenges to inclusive development and social justice in Kerala.

Despite significant progress in healthcare infrastructure and welfare policies, many differently abled households continue to experience severe financial vulnerability due to rising healthcare expenditure.

From a public finance perspective, healthcare financing should focus on equity, accessibility, and social protection. Reducing out-of-pocket expenditure and strengthening welfare interventions are essential for ensuring healthcare justice.

A comprehensive disability-sensitive healthcare financing framework integrating rehabilitation services, social security support, inclusive insurance coverage, and improved public healthcare infrastructure is necessary for improving the economic security and quality of life of differently abled households in Kerala.

Inclusive healthcare policies and stronger public investment can play a crucial role in reducing financial inequality and ensuring sustainable social development.

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