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From Borrowing to Contributions: The Financial Landscape of Elderly Healthcare in Haryana

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Abstract

This study investigates the financing of out-of-pocket health expenditures (OOPHE) for the elderly in Haryana, India, highlighting the significant economic challenges faced by households. Utilizing data from a household survey conducted in 2020-21, the research reveals that a staggering 76.2% of total OOPHE for the elderly is financed through contributions from family members, borrowings, and the sale of physical assets. Specifically, contributions account for 52.5% of OOPHE, with the highest reliance observed among the wealthiest households (83.1%) and those with uneducated elderly members (77.5%). Borrowings emerge as a critical source of financing, particularly among Scheduled Caste (SC) households, where 60.6% resort to loans for healthcare expenses. The study also indicates that 23.8% of OOPHE is financed through the sale of assets, with this figure rising to 52.4% among elderly individuals with higher secondary education or above. Alarmingly, more than three-fifths of the total OOPHE (41.1%) is borne through borrowings and asset sales, underscoring the desperation and deprivation faced by these households. The findings highlight the limited role of insurance and reimbursements, which are often negligible due to inadequate coverage and reporting challenges. This reliance on distressed financing mechanisms raises concerns about the sustainability of healthcare access for the elderly and calls for urgent policy interventions to universalize healthcare facilities. The study emphasizes the need for comprehensive health policies that protect vulnerable populations from the economic burdens of healthcare, ensuring equitable access to necessary medical services for the elderly in Haryana and beyond.

Keywords: Out-of-pocket health expenditure, Elderly healthcare, Haryana, Distressed financing, Borrowing, Healthcare financing.

Background

The financial landscape of healthcare for the elderly is a critical area of study, particularly in developing regions where economic vulnerabilities are pronounced. In India, the elderly population is rapidly increasing, with projections indicating that by 2050, the number of individuals aged 60 and above will reach approximately 340 million (United Nations, 2019). This demographic shift poses significant challenges for healthcare financing, as older adults often face higher medical expenses due to chronic illnesses and age-related health issues (World Health Organization, 2015). In Haryana, a state in northern India, the financial burden of healthcare on the elderly is exacerbated by socio-economic disparities, necessitating a comprehensive examination of the sources of financing for their healthcare needs.

Research indicates that out-of-pocket (OOP) expenditures are a predominant method of financing healthcare in India, particularly for the elderly (Bhat et al., 2018). The reliance on OOP payments can lead to catastrophic health expenditures, pushing vulnerable households into poverty (Ravindran & Kelkar, 2016). In Haryana, the situation is particularly dire, as many elderly individuals lack adequate financial support systems, such as pensions or insurance, which further complicates their access to necessary healthcare services (Kumar & Singh, 2020). The financial strain is often mitigated through borrowing, contributions from family members, and the sale of assets, highlighting the need for a nuanced understanding of these financing mechanisms.

The role of family contributions in financing elderly healthcare cannot be overstated. Studies have shown that in many Indian households, particularly in rural areas, the elderly rely heavily on their families for financial support (Desai et al., 2010). This reliance is often rooted in cultural norms that emphasize familial responsibility for elder care. However, as urbanization increases and family structures evolve, the traditional support systems may weaken, leading to increased financial vulnerability among the elderly (Choudhry et al., 2019).

Moreover, the socio-economic status of households significantly influences the sources of healthcare financing. Research indicates that wealthier households are more likely to utilize savings and insurance for healthcare expenses, while poorer households often resort to borrowing and asset liquidation (Mishra et al., 2017). In Haryana, the wealth quintile of a household has been shown to correlate with the methods used to finance healthcare, with richer households relying more on contributions and savings, while poorer households face higher rates of borrowing (Kumar & Singh, 2020). This disparity underscores the need for targeted policy interventions to address the financial challenges faced by the elderly, particularly those from lower socio-economic backgrounds.

The educational level of elderly individuals also plays a crucial role in determining their healthcare financing strategies. Higher educational attainment is associated with better health literacy, which can lead to more informed decisions regarding healthcare financing (Bansal et al., 2018). Educated individuals are more likely to engage in preventive healthcare measures and utilize available insurance options, thereby reducing their reliance on OOP expenditures (Rani et al., 2019). Conversely, uneducated elderly individuals may lack awareness of financial products and services that could alleviate their healthcare costs, further entrenching their financial difficulties (Kumar & Singh, 2020).

In light of these complexities, this research paper aims to explore the financial landscape of elderly healthcare in Haryana, focusing on the various sources of financing and their implications for health outcomes. By analysing data collected from a field survey conducted in 2020-21, this study seeks to provide insights into the financial strategies employed by elderly individuals and the socio-economic factors that influence these strategies. The findings will contribute to the existing literature on healthcare financing in India and inform policymakers about the urgent need for comprehensive support systems for the elderly population.

It is crucial to understand the financial landscape of elderly healthcare in Haryana to develop effective policies that safeguard the health and well-being of this vulnerable population. As the elderly demographic continues to grow, addressing the financial barriers to healthcare access will be crucial in ensuring that all individuals can receive the care they need without facing financial ruin.

Conceptual Framework and Objectives

The conceptual framework for understanding elderly healthcare financing in Haryana integrates the socio-economic determinants of health with the dynamics of out-of-pocket health expenditures (OOPHE). It posits that factors such as income level, education, and social capital significantly influence the financial strategies employed by households to manage healthcare costs. Research indicates that families with limited financial resources often resort to borrowing and selling assets, leading to increased vulnerability and potential impoverishment (Desai et al., 2010). Family contributions are also critical, as social networks can mitigate financial strain during health crises (Rani et al., 2019). The framework also highlights the inadequate coverage provided by health insurance, which often leaves elderly individuals reliant on personal savings and informal support systems (Kumar & Singh, 2019). This reliance on distressed financing

mechanisms raises concerns about the sustainability of healthcare access for the elderly, necessitating comprehensive policy interventions to enhance financial protection and improve health outcomes (World Health Organization, 2015).

As per the existing literature, little attention has been given to capturing the detailed source of financing the OOP health expenditure at the national level, particularly in the state of Haryana. Also, very little literature exists when we try to evaluate the source of financing the OOPHE across different socio-economic covariates and vulnerable groups such as the elderly. While previous studies have primarily examined the sources of funding for health expenditures in India and its states, the current study aimed to investigate the percentage of elderly individuals by the source of funding for out-of-pocket health expenses as well as the percentage of total out-of-pocket expenditures by source among households in the northern Indian state of Haryana that have at least one elderly member. The existing study also fills the gap of identifying the per capita total OOPHE by source according to selected background characteristics and proposes policy recommendations aimed at improving healthcare access and financial security for elderly individuals in Haryana.

Data and Methodology

The primary information for the current study was collected from houses with elderly residents in Haryana, a northern state in India, using a multi-stage stratified systematic sampling method with a random start. The sampling process involves several steps, including the selection of administrative divisions from Haryana, the selection of districts from those divisions, the selection of C.D. blocks and towns from those districts, the selection of villages and wards from those blocks and towns, and finally the selection of households to target the elderly.

The minimum total sample of older individuals (n) required for the study in Haryana was determined by formulae (Cochran's sample size formula):

$$n = \frac{z^2 \hat{p}(1-\hat{p})}{ME^2}$$

Where,

ME = Margin of Error or confidence interval = 0.05

Z = z-score = 1.96 (value of z at confidence level @ 95 percent)

$\hat{p}$ = prior judgment of correct value of p (50 percent)

n = sample size of elderly to be surveyed

So,

$$n = \frac{(1.96^2) \times 0.5(1-0.5)}{(0.05^2)} = 384$$

Fifteen per cent of the overall sample size (57) is added to the calculated total sample size (384) to recoup for the anticipated loss/non-response/absence/drop-out among the respondents during the survey. This leads to a final sample size of 441 elderly (=384+57) individuals. The estimated sampling fraction is:

$$k = \frac{441}{2193755} = 0.0002$$

To gather information from the elderly members of the households in the sampled rural and urban PSUs, a systematic, pre-coded, and topically arranged questionnaire was created. The actual field survey began in October 2020 and continued sporadically until October 2021 depending on the field conditions from the point of view of weather, COVID-19 pandemic limits, harvesting seasons, and festival celebrations. All household and elderly data were entered in Excel format and then imported for additional analysis into SPSS and STATA. Data entry was followed by checks for missing numbers, outliers, etc., and desk editing using interpolation and extrapolation. The basic measures used for data analysis in the study are descriptive statistics, statistical tests, and econometric models.

Results and Analysis

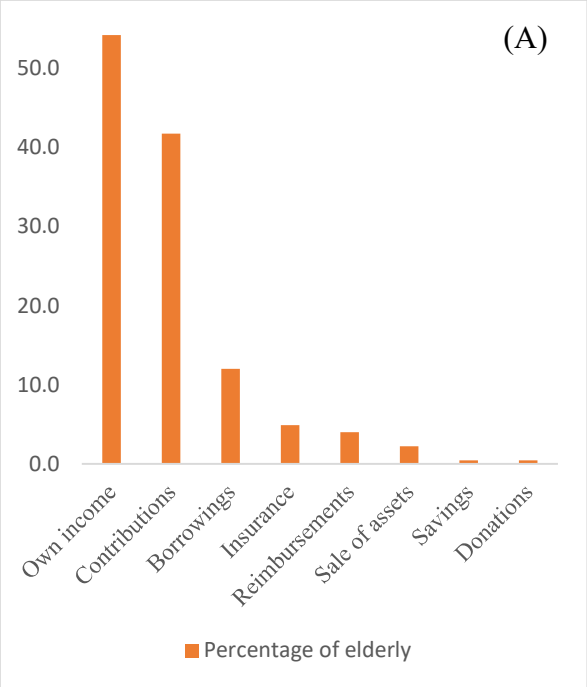
Studies on the financial effects of health shocks offer crucial policymakers insights. Health policies aim to safeguard

households from the economic devastation that disease may cause and enhance community health. In the absence of universal access to healthcare, people are compelled to make financial sacrifices, the majority of which are direct. The elderly and households in Haryana spend a significant amount of money seeking healthcare in both public and private institutions to live free from disease or disability. In this context, the household survey aimed to investigate the dynamics of private healthcare financing for the elderly by posing questions such as how the out-of-pocket medical expenses were covered or coordinated.

The data collected from the households indicates that the households used a variety of funding sources to take care of the sick elderly, including loans, contributions (from friends, family, and relatives), their income, the sale of tangible assets, savings, donations, insurance, and varying degrees of reimbursement. Over half (54.2%) of the sick elderly paid for their healthcare, while slightly over two-fifths (41.2%) paid for their healthcare out of contributions from friends, family, and other relatives. By borrowing money, 12% of the elderly were able to receive medical care. A very small percentage of senior citizens used savings, asset sales, insurance, or reimbursements to pay for their medical expenses. (figure 1a).

An analysis of the overall out-of-pocket health expenditure for senior medical care in Haryana reveals that households primarily cover the cost of senior healthcare through contributions from friends, family, and peers, loans, and the sale of tangible assets. As shown in Figure 1b, these three sources collectively account for 76.2% of the state's total OOP health expenditures for the elderly. The fact that borrowings and asset sales account for more than three-fifths of the elderly population's overall out-of-pocket health expenditures (41.1%) indicates the desperation and deprivation of these households when it comes to making ends meet. This also creates the framework for abuse and other unfavourable effects of an inefficient allocation of resources for one's medical care. A large amount of distressed financing demands that healthcare facilities be made universally available.

Figure 1: **a) Percentage of the elderly population by source of funding of out-of-pocket medical expenses**



Source: Field survey, 2020-21

Figure 1: **b) Percentage of total out-of-pocket medical expenses (in Rupees), by source, Haryana, 2020–21**

When the socioeconomic background characteristics are linked to the financing source, it can be observed that, when an elderly person becomes ill, households from the Muslim religion (38.1%), the poorest quintile (31.8%), OBC

caste (23.5%), elderly member without formal education (19.7%), and landless category (18.9%) are more likely to borrow money to pay for the elderly person's medical care. Similar to this, households with elderly members who have completed secondary education or above, rich quintile households, general households, and households that own agricultural land are more likely to sell tangible assets to pay for the medical expenses of their ill family members (table 1). According to reports, SC households—who primarily benefit from the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) for the treatment of their elderly relatives—have the highest insurance uptake rates (18.9%) for funding elderly healthcare.

Table 1: Percent share of elderly by source of financing of the out-of-pocket health expenditure, Haryana, 2020-21

Background characteristics of elderly	Borrowings	Contributions	Sale of assets	Insurance	Reimbursements	Donations	Total[#]	(N)
Place of residence								
Rural	15.8	93.2	2.7	5.5	2.1	0.0	100.0	146
Urban	5.6	88.9	2.8	4.2	8.3	1.4	100.0	72
Gender								
Male	12.1	91.1	3.2	1.6	6.5	0.8	100.0	124
Female	12.8	92.6	2.1	9.6	1.1	0.0	100.0	94
Religion								
Hindu	9.9	91.1	3.1	5.2	4.7	0.5	100.0	191
Muslim	38.1	95.2	0.0	4.8	0.0	0.0	(100.0)	21
Sikh	(0.0)	(100.0)	(0.0)	(90.0)	(0.0)	(0.0)	(100.0)	(6)
Caste								
General	7.5	91.2	4.1	2.0	5.4	0.7	100.0	147
OBC	23.5	97.1	0.0	2.9	2.9	0.0	100.0	34
SC	21.6	89.2	0.0	18.9	0.0	0.0	100.0	37
Education								
No education	19.7	93.4	1.3	9.2	1.3	0.0	100.0	76
Up to Higher Sec.	11.1	91.1	1.1	4.4	4.4	1.1	100.0	90
Higher Sec. & above	3.8	90.4	7.7	0.0	7.7	0.0	100.0	52
Wealth quintiles								
Poorest	31.8	84.1	2.3	2.3	4.5	2.6	100.0	44
Poor	13.6	100.0	4.5	6.8	0.0	0.0	100.0	44
Medium	7.1	95.2	0.0	14.3	0.0	0.0	100.0	42
Rich	10.3	82.1	5.1	0.0	10.3	0.0	100.0	39
Richest	0.0	95.9	2.0	2.0	6.1	0.0	100.0	49

Land Ownership								
Owner	9.0	92.4	3.5	2.1	4.9	0.0	100.0	144
Landless	18.9	90.5	1.4	10.8	2.7	1.4	100.0	74
All	12.4	91.7	2.8	5.0	4.1	0.5	100.0	218
(N)	27	200	6	11	9	1	218	218

Source: Field survey, 2020-21

Note: 1. '(-)' indicates that percentages are based on 10 or less number of cases

2. '#' indicates that the percentage may add to more than 100 percent because of multiple response

According to sources of funding, wealthy households borrowed the most money per person for elderly patients (Rs. 27,179/-), followed by Muslim households (Rs. 26,214/-). As shown in table 2, the highest reported per capita amount of out-of-pocket health expenditure financed by the sale of physical assets was found in wealthy households (Rs. 56,410/-), which was followed by households with higher secondary and above education of the elderly (Rs. 49,245/-) and households with ownership of agricultural land (Rs. 18,151/-).

Table 2: Per-capita total out-of-pocket health expenditure (in Rs.) by sources, Haryana, 2020-21

Background characteristics of elderly	**Source of financing (amount in Rs.)**							
	Borrowings	**Contributions**	**Sale of assets**	**Insurance***	**Reimbursements***	**donations**	**Total**	**(N)**
Place of residence								
Rural	9,829	29,576	9,667	--	--	1,400	50,471	150
Urban	11,333	19,288	16,267	--	--	1,581	48,469	75
Gender								
Male	13,977	23,805	11,349	--	--	2,608	51,739	126
Female	5,689	29,127	12,525	--	--	0	47,342	99
Religion								
Hindu	8,871	26,743	13,553	--	--	1,668	50,835	197
Muslim	26,214	25,119	0	--	--	0	51,333	22
Sikh	(0)	(10,350)	(0)	--	--	(0)	(10,350)	(6)
Caste								
General	11,319	34,212	17,919	--	--	2,205	65,655	149
OBC	10,464	17,105	0	--	--	0	27,569	36
SC	6,528	4,242	0	--	--	0	10,770	40
Education								

No education	8,893	31,501	247	--	--	0	40,641	91
Up to Higher Sec.	12,462	19,029	440	--	--	330	32,259	81
Higher Sec. and above	8,868	30,185	49,245	--	--	5,634	93,932	53
Wealth quintiles								
Poorest	6,961	5,649	435	--	--	0	13,045	46
Poor	18,289	16,206	1,556	--	--	0	36,050	45
Medium	2,752	10,738	0	--	--	0	13,490	44
Rich	27,179	46,777	56,410	--	--	4,615	1,34,982	39
Richest	0	50,924	7,451	--	--	2,914	61,289	51
Land Ownership								
Owner	8,375	32,172	18,151	--	--	1,360	60,058	146
Landless	13,943	15,012	253	--	--	1,646	30,854	79
All	10,330	26,147	11,867	--	--	1,460	49,804	225
(N)	225	225	225	225	225	225		

Source: Field survey, 2020-21

Note: 1. '(-)' indicates that percentages are based on 10 or less number of cases

2. '*' indicates that Insurance and reimbursements are excluded as respondents were not able to report the amount of OOPHE that was covered by insurance or reimbursements

A comparison of relative shares demonstrates that the majority of funding for elder healthcare comes from contributions made by friends, family, and relatives. For example, in Haryana, contributions cover 52.5 per cent of the total cost of OOP health care in 2020–21. The wealthiest households (83.1%) made the largest contributions, followed by elderly people with no education (77.5%) and households from the OBC caste (62.0%). Elderly patients accounted for 23.8 per cent of out-of-pocket medical care costs through the sale of physical assets. As Table 3 shows, this percentage rises to 52.4 per cent for those who have completed higher secondary education and beyond, 41.8 per cent for wealthy older people, and 30.2 per cent for households holding agricultural land. Similarly, among the SC elderly (60.6%), the poorest elderly (53.4%), and the Muslim elderly (51.1%), borrowing is the most common method of financing senior healthcare. Increased risk of poverty, a decline in living standards, and the loss of productive assets are brought on by a high dependence on borrowing.

Table 3: Percent share of sources of financing of total out-of-pocket health expenditure, Haryana, 2020-21

Background characteristics of elderly	Source of financing							
	Borrowings	Contributions	Sale of assets	Insurance	Reimbursements	donations	Total	(N)
Place of residence								
Rural	19.5	58.6	19.2	--	--	2.8	100.0	150

Urban	23.4	39.8	33.6	--	--	3.3	100.0	75
Gender								
Male	27.0	46.0	21.9	--	--	5.0	100.0	126
Female	12.0	61.5	26.5	--	--	0.0	100.0	99
Religion								
Hindu	17.5	52.6	26.7	--	--	3.3	100.0	197
Muslim	51.1	48.9	0.0	--	--	0.0	100.0	22
Sikh	(0.0)	(100.0)	(0.0)	--	--	(0.0)	(100.0)	(6)
Caste								
General	17.2	52.1	27.3	--	--	3.4	100.0	149
OBC	38.0	62.0	0.0	--	--	0.0	100.0	36
SC	60.6	39.4	0.0	--	--	0.0	100.0	40
Education								
No education	21.9	77.5	0.6	--	--	0.0	100.0	91
Up to Higher Sec.	22.8	34.8	0.8	--	--	0.6	59.0	81
Higher Sec. and above	9.4	32.1	52.4	--	--	6.0	100.0	53
Wealth quintiles								
Poorest	53.4	43.3	3.3	--	--	0.0	100.0	46
Poor	50.7	45.0	4.3	--	--	0.0	100.0	45
Medium	20.4	79.6	0.0	--	--	0.0	100.0	44
Rich	20.1	34.7	41.8	--	--	3.4	100.0	39
Richest	0.0	83.1	12.2	--	--	4.8	100.0	51
Land Ownership								
Owner	13.9	53.6	30.2	--	--	2.3	100.0	146
Landless	45.2	48.7	0.8	--	--	5.3	100.0	79
All	20.7	52.5	23.8	--	--	2.9	100.0	225
(N)	225	225	225	225	225	225	225	225

Source: Field survey, 2020-21

Note: 1. '(-)' indicates that percentages are based on 10 or less number of cases

2. '*' indicates that Insurance and reimbursements are excluded as respondents were not able report the amount of OOPHE that was covered by insurance or reimbursements

Conclusion and Policy Recommendations

The investigation into the financing of out-of-pocket health expenditures (OOPHE) for the elderly in Haryana highlights a critical and pressing issue within the healthcare landscape. The study reveals that a staggering 76.2 percent of OOPHE is financed through family contributions, borrowings, and the sale of assets, indicating a heavy reliance on distressed financial mechanisms. This situation is particularly dire for households from lower socio-economic backgrounds and Scheduled Caste communities, who face significant economic challenges in accessing necessary healthcare facilities.

The limited role of insurance and reimbursements further exacerbates the financial strain on elderly individuals, leaving them vulnerable to catastrophic health expenditures that can lead to poverty. The findings underscore the urgent need for comprehensive policy interventions aimed at improving healthcare access and financial security for the older people in Haryana.

To address the financial challenges faced by the elderly in Haryana, several policy recommendations are essential. First, enhancing health insurance coverage specifically tailored for the elderly is crucial. This should include comprehensive plans that cover chronic illnesses and preventive care, thereby reducing the financial burden of OOPHE. Additionally, strengthening community support systems through the establishment of local health cooperatives or community health funds can provide a safety net for elderly individuals, allowing for collective contributions to healthcare expenses. Furthermore, increasing awareness and education about available healthcare resources and financial planning is vital. Implementing health literacy programs can empower elderly individuals and their families to make informed decisions regarding their healthcare financing.

Moreover, integrating elderly care policies with broader health and social welfare initiatives will ensure a holistic approach to addressing the socio-economic determinants of health that disproportionately affect this demographic. Protecting the assets of elderly individuals from liquidation for healthcare expenses is also critical; developing legal frameworks that safeguard property and savings can help maintain their financial security. Lastly, encouraging further research and data collection on the financial challenges faced by the elderly will provide valuable insights for targeted interventions and policy adjustments. By adopting these recommendations, policymakers can create a more sustainable and equitable healthcare system for the elderly in Haryana, ultimately enhancing their quality of life and financial stability.

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