


Review Article

Out-of-Pocket Health Care Expenditure and Economic Vulnerability among Informal Sector Workers in India: A Thematic Review of Evidence

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Abstract

This study explores the growing burden of out-of-pocket (OOP) health expenditures and their implications for informal sector workers. Despite their economic significance, informal workers often lack adequate financial protection against healthcare costs. This study used thematic review methodology and adopted a deductive realist orientation for reviewing existing literature to analyse patterns and impacts of OOP expenditures on their livelihoods and vulnerabilities through the identification of five themes across the literature. The evidence highlights that there is a structural vulnerability loop in which informality breeds exclusion, exclusion breeds OOP dependence, and OOP dependence breeds the kind of financial catastrophe that reproduces poverty across generations. Evidence and discussion of the study indicate that there is an urgent need for inclusive policy interventions aimed at protecting informal workers and improving health equity.

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1. INTRODUCTION

A large population of the world face the trade-off between affording healthcare and the basic needs like nutritious food and education. Every year, approximately 1.4 billion people experience catastrophic health expenditure, and between 70 and 100 million individuals are pushed below the poverty line simply because they have to pay for medical care out of their own pocket (Ahmad & Mohanty, 2024). The pattern is deeply unequal. Wealthier nations have largely insulated their populations from this risk through public funding and effective insurance systems. However, in low- and middle-income countries, those safety nets are thin or absent altogether. OOP payments make up a huge percentage of total health financing in these countries, meaning that when someone falls sick, the bill has to be paid almost entirely by the household. High presence of OOP healthcare payments causes a financial catastrophe to people such as the elderly, the informally employed, the poor and other vulnerable groups. It is also one of the major barriers standing in achieving Universal Health Coverage and the United Nations' Sustainable Development Goal.

India is at the sharp end of this global problem. OOP payments still make up anywhere between 39.4% to 48.8% of the country's total health expenditure, a stubbornly high figure that reflects a deeper structural failure (Panda et al., 2024; Shukla et al., 2025). Historically, India's public health expenditures of its total GDP have remained only around 1 to 1.9 per cent, which is well below even the modest global average. After the 1991 economic reforms, the state has limited its role in providing public services. As a result, people are pushed toward a private healthcare market that is expensive and largely unregulated, often with no real alternatives. The human cost of this is staggering every year; an estimated 32 to 39 million Indians are pushed below the poverty line because of medical bills alone, with countless more households forced to borrow money or sell whatever assets they have just to get through a medical emergency (Nanda & Sharma, 2023).

This burden hits hardest on people who can least afford it, especially India's informal workforce. Approximately 90 % of the country's working population is employed informally. It includes street vendors, construction workers, domestic help, daily wage labourers, and countless others who work without contracts, safety nets, and any employer-backed health coverage (Bordoloi et al., n.d.; Sahu & Behera, 2025). When someone in this group falls sick, He or she faces a double crisis, meaning medical bills arrive at the same moment that income stops, because missing work means missing pay. There is no sick leave, no reimbursement, no backup plan. Formal insurance schemes such as the Employees' State Insurance are tied to organised employment, which means informal workers are excluded by design, not by accident (Lund, 2002; Thomas et al., 2025). The result is a population that is both the most exposed to health shocks and the least equipped to absorb them, often left with no option but to borrow, sell assets, or go without care entirely.

There is a clear link between high out-of-pocket (OOP) healthcare spending and the vulnerability of informal workers, but research that brings these two aspects together is still

limited. Most studies either examine the determinants of catastrophic health expenditure (CHE) at the national or state levels (Mohanty & Dwivedi, 2021; Nanda & Sharma, 2023) or focus separately on the socio-economic conditions of informal labour (Mallick, 2023; Manerkar & Chandran, 2025). As a result, the existing literature remains fragmented, often limited to specific diseases, regions, or areas like maternal health, without offering a unified understanding of how diverse informal workers manage healthcare costs. Moreover, there is a growing need to assess how major public health insurance schemes like Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (PM-JAY) are actually performing in protecting informal workers from financial distress.

This study conducts a thematic review of out-of-pocket (OOP) healthcare spending and economic vulnerabilities among informal workers in India. It aims to bring together existing studies to understand the extent, key causes, and financial impact of OOP expenses on this vulnerable group. The study also examines how informal workers cope with these costs and how effectively public health insurance schemes reach them. This study is organised as follows: Section 2 explains the research methodology, Section 3 presents the conceptual framework, Section 4 presents thematic analysis, Section 5 discuss categorized themes, and Section 6 concludes with recommendations to improve financial protection in India's healthcare system.

2. METHODOLOGY

2.1 Review Design and Analytical Approach

This study used a thematic review methodology to synthesise existing evidence on out-of-pocket (OOP) healthcare costs and their financial impact on informal workers in India. Rather than trying to exhaustively catalogue every single paper ever published as a systematic review, this approach allows for identifying, organising, and interpreting repetitive arguments across the literature (Braun & Clarke, 2006). This method was chosen because existing research on this topic is diverse. Studies on this topic range from massive national household surveys to state-specific econometric analyses and qualitative policy evaluations. A thematic framework is flexible enough to synthesise all of this without imposing rigid inclusion rules. The analysis followed a top-down approach, meaning the themes were built around specific research questions rather than letting them emerge entirely from unrestricted reading. This study adopted a realist approach to knowledge, trusting that the data-based evidence in these studies will accurately reflect the real-world financial burdens and structural vulnerabilities of Indian households working in the informal sector.

2.2 Search Strategy and Terms

For this study, the Scopus database was used as the primary source because it captures the bulk of health economics and public health journals. Google Scholar was also used to track down supplementary papers. Health-related reports and articles were collected from the websites of governments and world institutions like the WHO. Systematic keyword searches were run in February 2026 across Scopus and Google Scholar. All search results were limited to English-language publications.

The search relied on combining specific terms using the Boolean operator "AND" to narrow the focus. The core search keywords include "out-of-pocket expenditure India," "informal workers healthcare India," "distress financing health India," "catastrophic health expenditure India," and "Health insurance". A hard start date was not set for the publication year, but the bulk of the reviewed literature was published from 2005 onwards. There is a particularly heavy concentration of studies between 2014 and 2024, which makes sense as it mirrors the explosion of health financing research that followed recent releases of the National Sample Survey and the National Family Health Survey.

2.3 Inclusion and Exclusion Criteria

Only peer-reviewed articles or official reports were included from credible institutional sources like the World Bank, WHO, NITI Aayog, and the International Labour Organisation. Studies that were too narrowly focused on specific clinical diseases or small geographic areas were excluded unless they offered broader insights into health financing frameworks. Opinion pieces, editorials, and papers focusing on healthcare outside of India were also excluded. Notably, few papers were included that focused purely on informal labour conditions and social protection gaps, even if they did not measure exact OOP costs, because they contribute significantly to understanding why these workers are so structurally vulnerable to sudden health shocks.

2.4 Study Selection and Final Corpus

After filtering through the databases with the inclusion and exclusion criteria, approximately 50 studies were retained for the final thematic analysis. This final corpus provides a multi-layered view of the problem, drawing on household-level econometric analyses, cross-sectional surveys, and policy evaluations. Crucially, the selected evidence includes in-depth analyses of major national datasets, specifically the NSS 71st and 75th Rounds, NFHS-5, and the Periodic Labour Force Survey.

2.5 Thematic Analysis Process

The selected literature was analysed using an adapted version of Braun and Clarke's (2006) six-phase framework for secondary literature. First, 50 selected papers were read and reread in full to gain a deep understanding of the evidence base. In the second phase, the texts were coded, and recurring concepts were tagged like "policy failure," "distress financing," "insurance exclusion," and "catastrophic threshold". In the third phase, these initial codes were grouped into broader candidate themes, and all relevant text was pulled under each heading. Then these groupings were reviewed in phase four to ensure that each theme was distinct and internally coherent, merging or refining any that overlapped too much or lacked support. The fifth phase involved locking in and defining the five final themes, each one capturing a specific dimension of informal workers' struggle with healthcare costs. The final phase is the actual synthesis presented in the following sections. Throughout this entire process, an active role was taken in shaping the themes so they directly answered the main research questions of the review.

3. Conceptual framework

The conceptual framework of this thematic review is straightforward but analytically very important, because informal employment in India is not simply a labour market condition but also a health financing condition. Due to a lack of formal employment, a worker may lose access to institutional buffers like employer-sponsored insurance, provident funds and sick leave, which cushion from the financial shock of illness. What remains is a direct and unmediated relationship between getting sick and paying out of pocket. This framework traces the relationship across four interconnected stages, each of which is supported by the empirical literature reviewed in subsequent sections.

3.1 Informality and Structural Exclusion from Social Protection

The starting point of this framework is the nature of informal employment itself. India's informal or unorganised sector is defined under the Unorganised Workers Social Security Act (2008) as enterprises employing less than ten workers without formal employment contracts, which accounts for over 85% of the country's total workforce (PLFS, 2022-23; ILO, 2023). Workers in this sector are structurally excluded from the two primary formal health protection mechanisms available in India. First, the Employees' State Insurance (ESI) scheme, which covers only registered formal sector workers, and second, employer-provided group health insurance, which is similarly contingent on formal employment status. Ayushman Bharat-Pradhan Mantri Jan Arogya Yojna (AB-PMJAY) was started to cover the economically vulnerable population, but large segments of the informal workforce fall into what NITI Aayog, 2021, has termed as the "missing middle", which neither counted as poor enough to qualify for government health schemes nor financially secure enough to purchase private insurance. This results in a vast uninsured population entering the healthcare market with no financial protection whatsoever.

3.2 Insurance Exclusion and High Dependence

This is the second stage of the framework, which follows directly from the first. Informal workers have to pay the full cost of healthcare through direct, out-of-pocket payments if they don't have insurance coverage or employer support. This is a structural outcome of exclusion from risk-pooling mechanisms. A large population of India is heavily dependent on private healthcare providers, which compounds this further. India's public health facilities suffer from chronic understaffing, infrastructure deficits and geographic inaccessibility, particularly in urban informal areas. Due to this, informal workers frequently turn to private providers who charge substantially higher fees for the same services. Therefore, the OOP burden that results is a product of two simultaneous failures: the failure of social protection to reach informal workers and the failure of public healthcare systems to offer an affordable alternative.

3.3 Catastrophic Health Expenditure

Catastrophic health expenditure is the third stage of this framework, and is a very important concept in the health

economics literature. According to Wagstaff and van Doorslaer's methodology, it is defined as occurring when a household's OOP health payments exceed a specified threshold share of total consumption expenditure, most commonly 10% of total household consumption or 40% of non-subsistence expenditure. For informal sector households with low and irregular earnings, the CHE threshold can be crossed far more than households with stable earnings and savings buffers. A single hospitalisation is the most common cause of catastrophic spending in India, which can consume the equivalent of several months of daily wage worker's earnings. At this point, a healthcare event is not merely a health problem but an economic crisis.

3.4 Catastrophe to Poverty – The Medical Poverty Trap

This is the final stage of the framework, which occurs after catastrophic expenditures are incurred. Households that cannot meet OOP health costs from their current income or savings use distress financing mechanisms such as borrowing from informal moneylenders at high - interest rates, selling productive assets such as livestock or land, or drawing on contributions from relatives and social networks. Each of these options causes its own poverty- deepening consequences, like reducing future disposable income or household capacity to generate future earnings. Also, continual reliance on social networks weakens

safety nets that other vulnerable households depend on. This all leads to what health economists call the “medical poverty trap,” a cycle in which illness generates expenditure, expenditure generates debt, and debt generates the conditions for further illness by forcing households to cut food consumption, withdraw children from education, or delay future healthcare-seeking. For informal workers, this trap is both more easily triggered and difficult to escape.

3.5 The Framework as an Analytical Tool

It is important to note that this four-stage framework is not proposed as a deterministic model, but rather as the organising logic for the thematic review that follows as a structural account of the pathway through which informal workers' employment status increases financial vulnerability to health shocks in the Indian context. The five themes were reviewed in sections four through 7 maps onto successive stages of this framework, moving from evidence on OOP patterns and magnitude, through insurance exclusion and CHE incidence, to poverty consequences and policy responses. Thus, this framework ensures that the thematic analysis is not merely descriptive but analytically combines each theme, building on the last toward a coherent overall argument about the relationship between informality, health financing, and economic vulnerability in India.

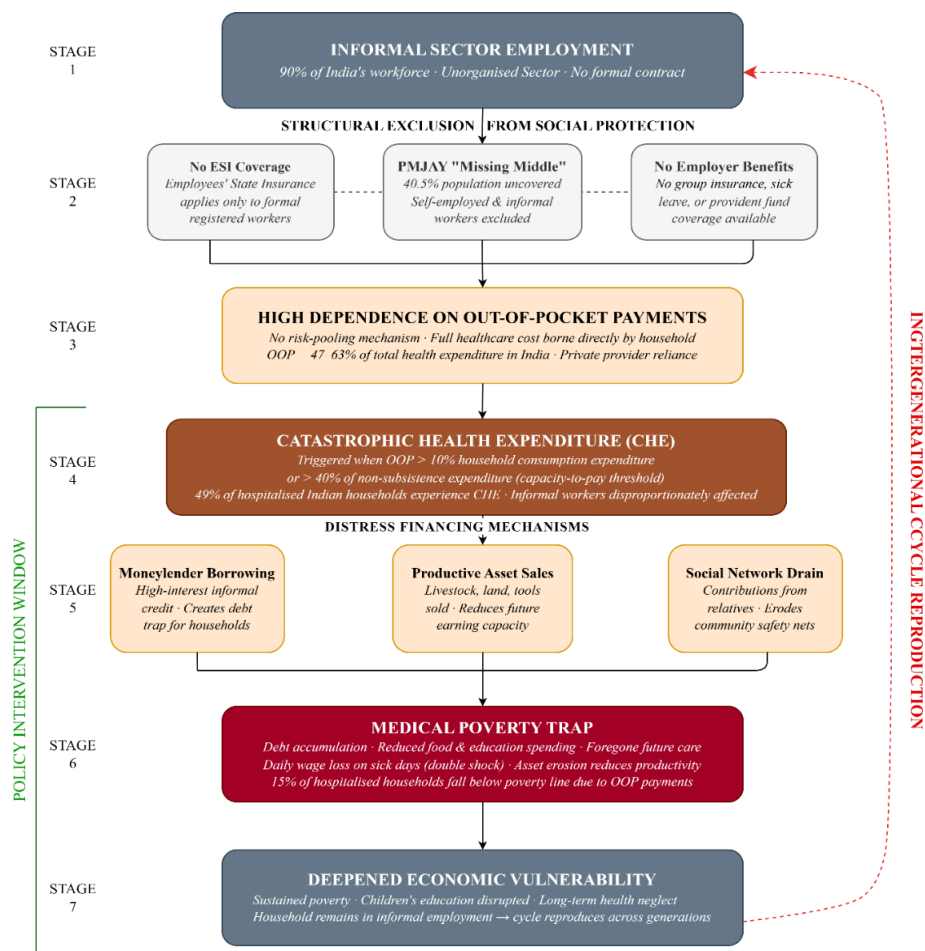


Figure 1: Conceptual Framework of Out-of-Pocket Healthcare Expenditure and Economic Vulnerability among Informal Sector Workers in India

4. Thematic Analysis

Theme 1: Scale and Patterns of OOP Expenditures in India. A large population of India is heavily dependent on out-of-pocket (OOP) payments for healthcare expenses, which is exceptionally high by global standards. India's average OOP Healthcare spending has historically hovered between 47% and 69% of the country's total health expenditure, while the global average sits at around 18%. Because the government spends a very low percentage of its gross domestic product on public health, citizens are left to cover the massive shortfall directly from their own wallets.

This healthcare payment system is deeply regressive. Rather than wealthier individuals absorbing the highest financial impact, poorer households end up spending a much larger share of their total consumption budget on health. For example, Ahmad and Mohanty (2024) conveyed that the poorest segments of the population spend nearly 25% of their limited household budget on medical needs, compared to about 13% for the richest groups. This unequal burden easily triggers a medical poverty trap, pushing millions of vulnerable families below the poverty line every year (Bala et al., 2025).

When an illness requires a person to be admitted to a hospital, the financial shock becomes more severe. Inpatient care is a massive driver of catastrophic health spending (Kastor & Mohanty, 2018). Families are forced into desperate financial measures due to the high cost of hospital bed charges, specialised diagnostic tests, and extended stays. They borrow money at high interest rates, rely heavily on contributions from relatives, or sell off their physical assets and property.

The patterns of this spending also highlight a sharp divide between urban and rural areas. In urban centres, the absolute amount of money spent per person on healthcare is higher. However, rural households bear a much heavier financial strain relative to their overall income (Bala et al., 2025; Kamath et al., 2025). Rural families not only face the direct costs of medical treatment but also incur significant indirect expenses, such as long-distance transportation and lost daily wages, because healthcare facilities are rarely available in their immediate vicinity. As a result, rural populations show a much higher incidence of distress financing and borrowing compared to urban residents.

One might expect low-income families to rely entirely on free or subsidised public hospitals, but private sector utilisation is rising rapidly even among the poor (Meena & Nayak, 2026). The chronic failures of the public health system largely drive this shift. Public hospitals are frequently plagued by severe shortages of medical personnel, inadequate infrastructure, excessively long waiting times, and a lack of essential medicines. Frustrated by these barriers and the perceived low quality of public care, vulnerable families are forced to turn to the largely unregulated private sector. Because private healthcare costs significantly more than public care, this forced migration to private hospitals guarantees that out-of-pocket costs remain devastatingly high for the people who can least afford them.

Theme 2: Informal Sector Workers and Structural Exclusion from Health Protection

In India, the informal sector is massive, making up nearly 90% of the entire workforce. These workers include daily wage labourers, street vendors, home-based workers, and casual staff who work without legal contracts, job security, or safe working conditions. They form the backbone of the economy but live on the absolute margins of society.

Because of how the system is currently designed, formal health protection programs like the Employees' State Insurance (ESI) scheme or the Central Government Health Scheme (CGHS) only cater to people working in the organised, formal sector. This structural exclusion means the vast majority of Indian workers are completely locked out of traditional, employer-backed social security nets.

To help bridge this gap, the government introduced large public insurance schemes like Ayushman Bharat (PM-JAY) aimed at protecting poor and vulnerable families. While the intention is good, the reality on the ground reveals severe implementation failures. Many eligible informal workers are completely unaware of these programs, or do not know how to actually use their health cards (Bala et al., 2025; Meena & Nayak, 2026). Even when workers try to use them, they face huge barriers. Private hospitals are often reluctant to treat patients under these government schemes because of low reimbursement rates and delayed claim settlements. These schemes also restrict their coverage to hospital admissions, completely ignoring the high daily costs of outpatient care, diagnostic tests, and medicines (Meena & Nayak, 2026).

While some smaller community-based health insurance initiatives exist to provide a safety net, they are deeply fragmented and underfunded. They simply lack the size and resources to offer meaningful financial risk protection across the country.

The ultimate result is a highly vulnerable workforce entering an expensive healthcare market with zero financial cushion. When an illness strikes, informal workers are left to pay medical bills entirely out of their own pockets. Without any reliable health coverage, they are pushed into a desperate cycle of borrowing money at high interest rates or selling off their few physical assets just to secure basic medical treatment.

Theme 3: Catastrophic Health Expenditure among Vulnerable Groups

Catastrophic Health Expenditure (CHE) happens when a family's medical bills consume an unacceptable share of their budget. Researchers usually measure this in two ways: when out-of-pocket health spending crosses 10% of a family's total consumption, or when it eats up 40% of their "capacity to pay" after basic food needs are met.

CHE is a constant threat to informal workers and low-income families. The data clearly shows that medical costs hit the poor the hardest. Families in the poorest economic brackets face much higher rates of catastrophic spending compared to the wealthiest groups. Because they lack savings and formal jobs with health benefits, a single illness can easily drain their limited resources.

A sudden need for hospital admission is a massive financial shock and a primary trigger for CHE in India (Shukla et al., 2025). Diseases like cancer, cardiovascular issues, or severe injuries require expensive inpatient care that forces households into deep debt. In fact, nearly half of the households that seek hospitalisation end up facing catastrophic financial costs (Nanda & Sharma, 2023).

This financial pain is not spread evenly across the country. Families living in states with weaker public health systems suffer the most. For instance, states like Odisha, Assam, and Uttar Pradesh show exceptionally high rates of CHE and distress financing (Mohanty & Dwivedi, 2021). In these regions, inadequate government health facilities force poor families into the expensive private sector, emptying their pockets just to secure basic survival needs.

Women carry a uniquely heavy, double burden in this landscape. Female-headed households show significantly higher rates of CHE and medical impoverishment (Dalui et al., 2020). Additionally, reproductive health and obstetric care demand heavy out-of-pocket spending. When women in the informal sector need maternal care or undergo childbirth, they not only lose their daily wages but also face steep medical bills. In fact, households hospitalising a member for childbirth account for the largest share of the total CHE burden (Nanda & Sharma, 2023). This harsh combination of high reproductive health costs and instantaneous lost income keeps many vulnerable women trapped in a cycle of poverty.

Theme 4: OOP Expenditure as a Driver of Poverty and Debt

Out-of-pocket healthcare expenditure operates not only as a temporary financial burden but as a primary, structural driver of long-term economic vulnerability. When health systems fail to provide adequate financial risk protection, the sheer cost of medical care forces households to divert resources away from essential consumption, nutrition, and education. This dynamic creates a vicious cycle known as the medical poverty trap, where the shock of illness destroys household savings and future earning capacity. Consequently, health shocks transform from acute medical crises into chronic economic disasters, structurally trapping vulnerable populations in inescapable cycles of poverty and indebtedness.

Empirical evidence from this literature consistently demonstrates the severe impoverishing effect of these out-of-pocket payments on the Indian population from multiple National Sample Survey (NSS) rounds, revealing significant shifts in the poverty headcount attributable to health spending. Data from the NSS 71st round (2014) and 75th round (2017–2018) show that while the overall incidence of impoverishment due to health spending saw a decline from 5.1% in 2014 to 3.3% in 2018, the absolute burden is still massive. Furthermore, contemporary estimates from the 75th round indicate that out-of-pocket payments for hospitalisation and outpatient care collectively plunge up to 15% of affected households into poverty. The depth of this poverty is also more severe in rural areas, where the financial deficit required to reach the poverty line following healthcare payments is substantially larger.

Studies consistently demonstrate that families overwhelmingly rely on borrowing from informal moneylenders, selling physical assets, and seeking contributions from relatives to cope with sudden medical bills. Borrowing acts as the primary coping strategy for rural households. Each of these mechanisms actively deepens household poverty. Taking on high-interest debt from local moneylenders diverts future income toward loan repayments, limiting household consumption on basic needs and altering living standards. Similarly, the liquidation of productive assets reduces families' capacity to generate future income, thereby permanently diminishing their long-term economic stability and leaving them completely defenceless against future economic or health shocks.

The informal sector workforce faces a unique convergence of vulnerabilities since these workers engage the healthcare market, burdened by persistently low incomes, a systemic lack of social security or health insurance, and precarious employment conditions that offer no paid sick leave. Because public health infrastructure remains inadequate, these workers are frequently forced to seek care in expensive, unregulated private facilities, accelerating their financial ruin. Compounding this direct medical cost is the simultaneous and immediate loss of daily wages on sick days, meaning that illness triggers both an expenditure shock and an income shock. Collectively, this evidence reveals that India's highly privatised health financing system acts as a catalyst for structural poverty.

Theme 5: Policy Gaps and the Way Forward

To address the healthcare crisis, the government launched Ayushman Bharat (PM-JAY) as its flagship response to protect vulnerable families. However, evidence shows this program has not adequately reached informal workers. The scheme focuses heavily on inpatient hospital admissions, completely missing the daily costs of outpatient care, diagnostic tests, and medicines that make up the bulk of everyday medical expenses. This disconnect is driven by failures on both the supply and demand sides. On the supply side, the public health system suffers from severe infrastructure shortages, missing medical staff, and geographic inaccessibility (Shukla et al., 2025). Frustrated by perceived low-quality care and long waiting times, informal workers are frequently pushed toward much costlier private providers. On the demand side, vulnerable populations struggle with low health literacy and a severe lack of awareness. Many eligible workers simply do not know these government insurance schemes exist, do not understand how to use their benefits, or face bureaucratic hurdles that discourage them from seeking formal help (Bala et al., 2025).

Looking for regional solutions, southern states like Tamil Nadu and Kerala are recognised for having relatively better health indicators and stronger public health infrastructure. Initiatives such as Tamil Nadu's Chief Minister's Comprehensive Health Insurance Scheme show that dedicated state-level commitments can supplement national efforts, though expanding coverage to include primary and outpatient care remains a critical need.

To truly fix these policy gaps, India could also look to international models. Health experts frequently highlight Thailand's Universal Coverage Scheme and Rwanda's

community-based health insurance as successful frameworks for protecting informal workers. Building stronger public health infrastructure, expanding insurance to cover everyday outpatient medical costs, and launching targeted community awareness campaigns are essential steps forward to protect India's informal workforce

5. DISCUSSION

Looking across the evidence, a clear and damaging cycle emerges for the vast majority of the Indian workforce. This cycle acts as a structural vulnerability loop. It begins with the very nature of informal work, which systematically excludes individuals from traditional social security, paid leave, and employer-based health benefits. Because they are locked out of these formal protections, informal workers have to pay for medical treatment directly from their own pockets when they get sick. When serious illness strikes, these out-of-pocket costs quickly escalate into catastrophic health spending. To pay these massive bills, families are forced to rely on distress financing, meaning they borrow money at high interest rates or sell off their few assets. This desperate financial shock immediately pushes them into deep poverty. Once trapped in this poverty, workers lose the resources and skills needed to secure better jobs, trapping them even deeper in the precarious informal economy.

While the overall picture is bleak, the literature does contain some debates and contradictions. A major point of disagreement involves the actual impact of large government insurance programs. Some studies argue that publicly funded health insurance schemes have successfully lowered out-of-pocket costs and protected families from financial ruin (Sangar et al., 2018). However, other studies find no such positive impact (Kastor & Mohanty, 2018). For example, recent research shows that even with schemes like Ayushman Bharat (PM-JAY) or specific state-level programs, many insured households still face severe financial distress. This happens because the schemes often cover only hospital admissions while ignoring the high daily costs of medicines and outpatient care. There are also debates about hospital behaviour, as private facilities sometimes find ways to charge patients despite insurance coverage. These conflicting findings suggest that simply handing out a health card does not guarantee actual financial protection on the ground.

Despite the vast amount of research on health economics in India, there is a massive gap in the literature regarding the specific experiences of the informal workforce. Most existing studies measure catastrophic health spending and financial distress by looking at broad income groups or wealth quintiles. Very few studies focus exclusively on a person's employment type to understand their healthcare burden (Viramgami et al., 2020). Because nearly 90% of India's workforce operates in the informal sector, analysing health expenditure strictly through the lens of income misses the unique daily realities of these workers. The literature fails to adequately separate the health spending patterns of specific informal groups, such as street vendors, domestic helpers, or construction labourers. We need to know exactly how these specific informal occupations cope

with medical bills. Future primary research must directly target informal employment categories to fully capture this hidden crisis. To break this cycle of medical poverty, the government must adopt targeted policy interventions based on the evidence. First, India needs to universalise health coverage with specific designs tailored for informal workers. This means expanding insurance to cover outpatient care, diagnostic tests, and everyday medicines, which drain poor households the most (Nanda & Sharma, 2023).

Second, the government must strengthen public health infrastructure, particularly in urban informal settlements where private care is currently the only, and highly expensive, option. Third, the delivery mechanisms of current schemes like PM-JAY require urgent reform. Authorities need to improve scheme portability for migrant workers who move constantly, launch massive awareness campaigns so people actually know how to use their benefits, and set up strong grievance redressal systems to hold hospitals accountable. Finally, policymakers should introduce dedicated, government-backed contributory health savings schemes for informal workers. These specialised funds would allow workers to safely build a financial cushion over time, protecting them when sudden health shocks threaten to destroy their livelihoods.

6. CONCLUSION

In conclusion, this thematic review examines how informal sector employment in India creates financial vulnerabilities due to OOP healthcare payments and what the collected literature reveals about the consequences of those vulnerabilities. The findings drawn from these literatures come together to arrive at one conclusion that due to the high OOP healthcare payments of total health spending and structurally excluded from principal risk-pooling mechanism available in India, informal sector workers face a fundamentally different relationship with the healthcare system, one in which every single health shock and illness carries the potential to destabilise their finances, compared to formal sector workers who are largely protected from their institutional buffers.

The analysis from five thematic sections reveals a clear and troubling story. Informal households use different distress mechanisms to finance catastrophic expenditures, each of which carries its own consequences from poverty-deepening to effect on children's education, food consumption, and future health-seeking behaviour. However, the government has designed policies like Ayushman Bharat to address this gap. Implementation evidence consistently shows that awareness, enrolment, and effective utilisation remain the lowest among the population the scheme was intended to reach.

This thematic review provides a foundation for future research to examine the intersection of out-of-pocket (OOP) health expenditures and their impact on informal sector workers, thereby offering valuable insights for policymakers to design more inclusive policies that safeguard this vulnerable group. Future studies can use primary qualitative methods to explore the lived experience of informal workers navigating healthcare costs, adding a depth of understanding that aggregate survey data cannot capture. This review has a few limitations, such as

it is only restricted to English language studies, and the thematic review does not follow rigorous and standardised steps of a PRISMA-based systematic review.

The literature reviewed here strongly supports the formation of meaningful, functional health coverage for India's missing middle, designed with specific income patterns, mobility, and documentation constraints of informal workers in mind rather than adapted from frameworks built for formal sector populations.

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