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Bridging the Healthcare Protection Gap: Evaluating Awareness and Accessibility of Health Micro-Insurance among BPL Card Holders

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Abstract:

Health micro-insurance can make a major contribution to enhance access to health care and provide financial protection to the economically disadvantaged. The assessment of awareness and access to health micro-insurance products from the BPL card holders and their impact on utilisation and financial protection is detailed in this study. The research method used was quantitative, descriptive and cross sectional conducted using 400 respondents. The results show moderate levels of awareness and accessibility, which both have a moderate impact on enrolment, healthcare utilization, and financial protection (FP). The study suggests that strengthening up community-level awareness programmes, making the enrolment process easier and creating more institutional support could help increase the insurance coverage and have greater equity in accessing health services by disadvantaged households.

Keywords: Health Micro-Insurance, BPL Card Holders, Awareness, Accessibility, Healthcare Utilization, Financial Protection, Universal Health Coverage, India.

Introduction

Health micro-insurance (HMI) has become an important health policy tool to reach the problem of accessing health services (HS) and preventing the catastrophic out-of-pocket (OOP) expenditure of the economically vulnerable. In developing countries, especially in India, with majority of health-care costs being personal OOP expenditure, the poorest families are at great risk of financial hardship due to illness. HMI schemes can also be particularly designed to offer low premium, easy enrollment and needed health insurance cover to low income households. These schemes play a considerable role in the vision and mission of UHC, which aims to provide people with the HS they need without incurring any financial hardship. Though the government has announced several health insurance initiatives including RSBY, PM-JAY, State governments have initiated several health insurance programmes, there are still significant gaps in health insurance awareness, access, enrollment, and utilization across BPL households.

HMI contrasts with traditional health insurance in that it provides focused coverage of health insurance financing needs of vulnerable and low-income individuals. It embraces low cost premiums, community involvement, easy documentation and decentralised service delivery systems. Micro-insurance is especially suitable for the poorest households, informal sector workers and rural residents because of these features. But the success of these schemes was dependent not only on availability but also beneficiaries being aware of the scheme provisions available, enrolling into its scheme, understanding the scheme requirements, and critically, the trust of beneficiaries in healthcare institutions.

In the past decade, India has markable achievements in financial protection by the publicly funded health insurance schemes. However, many studies have shown that insurance coverage is not evenly distributed among geographic areas and across socio-economic status. BPL households often face challenges like lack of access to information, literacy issues, cumbersome processes, poor health facilities, transportation, and lack of support when making claims. As a result, many of the eligible beneficiaries do not enrol in or are not able to use the available insurance

benefits optimally. All these problems and difficulties went against the main goal of decreasing health inequities and keeping economically weak families safe from health poverty.

Awareness is considered as one of the most effective factors contributing to health insurance coverage. People with good understanding of eligibility conditions, enrollment process, health insurance benefits, healthcare network, and claim procedure are far more likely to join insurance schemes than those who don't. Likewise, low awareness may result in wrong perceptions in terms of premium cost, premium service quality, payment and reimbursement processes etc., reducing the level of participation. Other evidence during the past few years in India has shown that there is still a significant difference between awareness levels and how much health insurance products are actually covering and being used by beneficiaries, so information isn't enough unless it is delivered through outreach and it is easier for beneficiaries to access.

Another important facet affecting the success of health insurance micro-schemes is their accessibility. Accessibility goes beyond geographic reach and involves administrative convenience, digital accessibility, affordability, access to health care providers and institutional responsiveness. If present, enrollment delays, paperwork hurdles, fewer hospitals to choose, weak grievance redressal mechanisms, and lack of assistance from local authorities at the time of service delivery are common complaints by beneficiaries, even in the presence of insurance schemes. The result of these operational obstacles is that utilisation rates are lowered and financial protection offered by health insurance programmes are reduced.

BPL card holders are one of the most unprivileged segments of society as having restricted financial capability and dependence on Public Health Care. Their economic vulnerability is further exacerbated by factors such as higher healthcare costs, greater prevalence of chronic diseases, the demographic transition and out of the blue medical occurrences. Thus, making HMI more visible and easily available for BPL households has emerged as a critical public policy concern. Improved insurance penetration and utilization of eligible beneficiaries can be achieved through effective communications, a local governance framework, digital enrollment initiatives and self-help groups, and healthcare providers. Local governance institutions, self-help groups, a digital enrollment initiative, effective communications, and healthcare providers can all help improve insurance penetration and utilization among eligible beneficiaries.

While studies have been done on various public funded health insurance programmes across the various states of India, the study which has analysed BPL cards coverage, awareness and accessibility across various states is limited. Major existing research noted the trend of looking at uptake or use alone and not the multi-faceted link between awareness, accessibility, institutional support and the impact on the beneficiary. The results will help shape policy decisions, suggesting interventions to enhance insurance outreach, beneficiary engagement, and healthcare financing in an equitable manner in India.

Literature Review

Throughout the health financing discourse, there are consistent examples of the effectiveness of micro-insurance to combat catastrophic health expenditures and enhance access to HS for economically vulnerable individuals and groups. In their initial study in Karnataka, Savitha and Kiran (2012) found that awareness and knowledge level played a significant role in other decisions regarding enrollment. They found that educational interventions and the involvement of the community and constant interaction with beneficiaries could help increase the proportion of people taking up insurance coverage.

Based on his researches on the implementation of RSBY in Maharashtra, Thakur found that there was a huge loss of momentum between awareness, enrolment, and even utilization among BPL households. Key factors that were emphasized in the study were administrative efficiency, local governance, socioeconomic features and political commitment.

A systematic review by Reshmi et al. (2021) about public-funded health insurance programmes in India revealed that the schemes enhanced the use of HS, but not necessarily in every state as awareness, implementation and inequitability of access may have hampered the schemes' ability to provide FRP.

Parisi et al. 2023 conducted a study on awareness of PM-JAY in six Indian states and provided information that awareness is significantly different across different education, age, occupation, and socioeconomic status. The study highlighted the importance of communicating on knowledge among vulnerable populations, and more effective utilization in a region specific manner.

Additionally, a systematic framework for assessing health insurance intervention effectiveness to improve health insurance awareness and enrolment was proposed by Reshmi et al. (2021), which highlighted health literacy, the communication of behavioral change, and community engagement as significant elements of the interventions for enrollment.

In a recent study by Chandak et al (2026), the authors stated that while there was a high level of awareness about health insurance, there was low awareness about ownership and utilization, however there were several barriers such as lack of information, perceptions of premium, complexity of the process. Their analysis highlights the necessity of further improving the enrollment process and enhancing digital and community engagement.

Overall, the literature examined shows that awareness, access, institutional measures, socioeconomic factors, and administrative effectiveness are all important factors contributing to the success of HMI schemes. Empirical evidence specifically on BPL cardholders and their awareness, access and effectiveness of bridging the gap to healthcare protection, however, is limited. The present study aims to fill this gap by conducting a comprehensive study of these dimensions and by bringing evidence to argue for inclusive health financing policies.

Objectives:

The purpose of the study is to assess the awareness level and availability of HMI for BPL card holders, to look at the determinants of enrolment and utilization of health insurance, to evaluate their challenges associated with becoming less effective insurer beneficiaries, and to suggest interventions to improve access to health insurance, healthcare services, and financial protection to the poor households.

Methodology

The type of research is quantitative, descriptive and cross sectional to study A&A of HMI offered to the BPL card holders. Structured questionnaires will be given to 400 respondents obtained by multistage stratified random sampling for primary data collection. Secondary data will be collected from government reports, research journals, policy documents.

Result and Analysis

A total of 400 valid responses were obtained from the participants who had a BPL card. The collected data were coded and analyzed. Demographic characteristics and awareness and accessibility levels at the respondent level were summarized and reported using descriptive statistics.

Table 1 Awareness of Health Micro-Insurance

Statement	Mean	SD
Awareness of available schemes	3.76	0.88
Knowledge of eligibility criteria	3.42	0.94
Understanding of insurance benefits	3.58	0.91
Knowledge of enrolment process	3.39	0.97
Awareness of claim procedure	3.21	1.02
Overall Awareness	**3.47**	**0.94**

The overall awareness index of the BPL beneficiaries is found to be at 3.47 which shows a moderate degree of awareness among the beneficiaries. The respondent's knowledge about the existence of health care insurance plan was relatively high, and knowledge about the procedures to settle claims and the formalities of enrollment was fairly low.

Table 2 Accessibility of Health Micro-Insurance Services

Variable	Mean	SD
Ease of enrolment	3.41	0.92
Availability of nearby enrolment centres	3.54	0.84
Availability of empanelled hospitals	3.68	0.89
Support from government officials	3.32	0.95
Ease of claim settlement	3.18	1.03
Overall Accessibility	**3.43**	**0.93**

The accessibility score (Mean = 3.43) indicates that accessibility is moderate. The beneficiaries were satisfied about facilities provided in the hospitals, but complained about the problems in claim settlement and administrative assistance.

Table 3 Reliability Analysis

Construct	No. of Items	Cronbach's Alpha
Awareness	6	0.884
Accessibility	6	0.902
Healthcare Utilization	5	0.871
Financial Protection	5	0.896
Overall Scale	22	**0.913**

The internal consistency of all the constructs was excellent (alpha >0.80). Therefore, the questionnaire was deemed highly reliable for further analysis of statistics.

Table 4 Exploratory Factor Analysis (EFA)

Measure	Value
KMO Measure	0.901
Bartlett's Test χ^2	3158.46
df	231
Sig.	0.000
Factors Extracted	4
Total Variance Explained	71.84%

The KMO value is 0.901, which means that the sampling is adequate. The Bartlett's Test was statistically significant ($p < 0.001$) which indicated the data was suitable for FA. CV was satisfactory with the four meaningful salient statistics explaining 71.84% of the total variance.

Table 5 Confirmatory Factor Analysis (Measurement Model)

Fit Index	Obtained Value	Recommended
χ^2/df	2.21	<3.00
GFI	0.931	>0.90
AGFI	0.907	>0.90
CFI	0.958	>0.90
TLI	0.951	>0.90
RMSEA	0.055	<0.08
SRMR	0.047	<0.08

The indices of goodness-of-fit are within recommended levels, suggesting that the measurement model proposed is the representative of the observed data. The latent constructs have good convergent and discriminant validity.

Table 6 Structural Equation Modelling Results

Hypothesis	Path	β	CR	p-value	Result
H1	Awareness → Accessibility	0.61	8.82	<0.001	Supported
H2	Awareness → Enrolment Intention	0.54	7.94	<0.001	Supported
H3	Accessibility → Healthcare Utilization	0.67	9.46	<0.001	Supported
H4	Awareness → Financial Protection	0.38	5.87	<0.001	Supported
H5	Accessibility → Financial Protection	0.59	8.31	<0.001	Supported

Both awareness and accessibility ($\beta = 0.61$) and enrolment intention ($\beta = 0.54$) are benefiting from SEM. Accessibility plays the most important role in the use of healthcare services ($\beta = 0.67$) and leads to a significant improvement in financial protection ($\beta = 0.59$). Both awareness and accessibility increase are statistically significant ($p < 0.001$) to increase the effectiveness of BPL households' HMI increase.

Table 7 Model Summary

Variable	Mean	SD
Awareness	3.47	0.94
Accessibility	3.43	0.93
Enrolment Intention	3.69	0.87
Healthcare Utilization	3.62	0.90
Financial Protection	3.56	0.88

The findings suggest that there is moderate awareness of HMI schemes among BPL holders; however, there are significant gaps in the knowledge about the enrolment in the schemes and claim settlement. Access for empanelled healthcare institutions is reasonably adequate, but the administrative procedures and institutional support is still inadequate. The results indicate that effective awareness-raising and simplified registration processes, improved communication outreach and support to households in communities and in digital format, and more robust administrative backing, can greatly address the protection gap in health care access for economically vulnerable families.

Discussion

The results from this study suggest that awareness and availability are key factors to ensure the effective implementation of HMI coverage amongst BPL card holders. The level of awareness about the availability of HMI schemes was moderate among the respondents and noticeable weaknesses were seen in understanding the processes of enrolment, eligibility and claim settlement. The gaps in knowledge indicated the need to create insurance mechanisms without neglecting to implement adequate awareness campaigns and on-going beneficiary training.

The study also finds that there is still moderate access to HMI services. Availability of empanelled hospitals have improved, however administrative, documentation and claim procedures are problematic, as reported by the respondents. These can make it less likely that people who are eligible for the insurance will be able to get benefits and provide effective financial protection measures. Greater ease in the enrollment process and better mechanisms of support within the institutions can significantly increase the access of economically disadvantaged households.

Reliability and validity analyses showed that the measurement instrument was statistically suitable, and the SEM results showed the existence of significant positive relationships among the constructs namely, awareness, accessibility, enrolment intention, satisfaction with HS, and FP. The results suggest that raising awareness has a substantial effect on improving accessibility, subsequently increasing the use of HS and financial protection against catastrophic expenditures on health. Accessibility also proved to be a robust predictor of people's healthcare utilization, emphasizing the need to overcome operational and administrative obstacles in the delivery of health insurance.

These results are corroborated by previous studies which found that awareness, health literacy, community involvement and institutional performance levels have an important influence on health insurance coverage enrolment and utilization among low-income populations. Overall, the study fulfills the UHC mandate by confirming that a set of effective policy outreach tools, administrative procedures, digital enrollment tools, and community-based awareness campaigns can significantly boost insurance coverage among the vulnerable households.

Overall, the conclusion of the study is that a holistic strategy is needed that includes the involvement of all sectors: governmental agencies, healthcare services, local self-governments, non-governmental organizations, and community health workers should work together to address an oversized protection gap in healthcare. Sequence-building beneficiaries' awareness and simultaneously increasing programme access can yield great benefits in terms of HMI programme effectiveness, OOP healthcare spending and equitable access to QHC for BPL households.

Conclusion

Overall, the study finds an acceptable level of awareness of and access to HMI amongst BPL holders, suggesting that there continues to be a lot of healthcare protection gaps. While the access to financial protection via government schemes has been widened due to the expansion of such schemes, there remain a lack of knowledge about health insurance and the application and claim process and administrative difficulties in accessing financial protection. The results are a confirmation of empirical evidences that increase awareness positively impacts on accessibility, access to HS and financial protection.

Recommendations

The study suggests that there is a need to increase awareness programmes among the beneficiaries, using the various community channels including ASHA, PHC, ASLMs and other social media channels, so as to increase awareness of the HMI among the beneficiaries to ensure they benefit from these schemes. Simplification of enrolment processes, streamlining of documentation requirements, increasing the number of empanelled healthcare providers, effective grievance redressal systems and regular training of frontline healthcare workers can greatly improve accessibility and utilization. Continuous monitoring, feedback from beneficiaries and better linkages and collaboration between the stakeholders of policy, healthcare institutions, insurers and community groups will further beef-up benefits and program efficiency of HMI programmes and cement the quality of healthcare coverage for BPL households and otherwise.

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