



Health Insurance Penetration and Perception: A Study of Awareness and Satisfaction

Thilakraj G

Associate Professor, Department of Management and Commerce, SDM College of Business Management, Mangaluru, Karnataka, India

Research Scholar

Srinivas University

✉ Email: thilak@sdmcbm.ac.in, Mobile no: 9731850577

Abstract

Health insurance plays a vital role in protecting individuals from unexpected medical expenses and ensuring financial stability. Despite numerous schemes in India, awareness and satisfaction levels remain uneven. This study explores the awareness and satisfaction regarding health insurance among residents of Ullala, Karnataka. Based on primary data from 97 respondents through a structured questionnaire, descriptive statistics, Chi-Square tests, and logistic regression were used for analysis. Results indicate that many respondents lack clarity on policy terms and have not purchased insurance. Significant associations were found between awareness and demographic variables such as gender and locality. Policy agents emerged as a key source of information influencing purchase decisions. The study highlights the need for focused awareness campaigns, especially in semi-urban areas, and suggests improving transparency and customer engagement to enhance satisfaction and trust. These insights can aid policymakers and insurance providers in improving insurance penetration.

Keywords: Health Insurance, Awareness, Satisfaction, Chi-Square, Regression

1. Introduction

Health is a fundamental human right and a crucial pillar of development. While global healthcare systems have progressed significantly, rising medical costs have made access to healthcare increasingly expensive. In India, where many people rely on out-of-pocket payments, health insurance has become vital for ensuring financial security and equitable healthcare access. However, despite numerous health insurance schemes introduced by both public and private sectors, penetration levels remain relatively low.

According to the National Family Health Survey (NFHS-5), just over 40% of Indian households are covered under any health insurance or financing scheme. While metropolitan areas show better adoption, smaller cities and semi-urban regions like Ullala still face considerable challenges. Limited knowledge about policy features, claim procedures, and benefits often discourages enrolment and renewal.

Health insurance serves not only to reduce the financial burden during illness but also encourages preventive healthcare by promoting early intervention. However, its effectiveness hinges on two key factors: awareness and satisfaction. Awareness involves understanding the terms, coverage, and benefits, while satisfaction relates to the experience with service delivery, claim settlement, transparency, and customer support. Without adequate awareness and a satisfactory experience, policyholders may opt out, defeating the purpose of such schemes.

Ullala, a growing city in Karnataka, represents a blend of educational institutions, healthcare services, IT hubs, and traditional industries. Despite being relatively developed, many residents may not be fully informed about health insurance policies. Socio-demographic factors such as age, income, occupation, education level, and employment type significantly shape awareness and satisfaction levels among individuals.

This study focuses on assessing the awareness and satisfaction regarding health insurance policies among residents of Ullala. It explores whether demographic variables influence these outcomes and evaluates how policyholders perceive the usefulness and reliability of health insurance services.

By identifying knowledge gaps and dissatisfaction patterns, the study aims to provide valuable insights for policymakers, insurance providers, and public health advocates. The findings can help design more effective awareness campaigns, streamline service delivery, and improve communication strategies. Ultimately, enhancing awareness and satisfaction can increase insurance penetration, build public trust, and create a more resilient healthcare financing system.

2. Review of Literature

A review of past literature is essential to understand the current landscape of health insurance awareness and satisfaction. The review is structured under two themes: awareness and satisfaction.

2.1 Awareness of Health Insurance

Awareness is a critical factor influencing the uptake of health insurance. Studies indicate that awareness in India remains low, especially among rural and economically weaker sections. Gumber and Kulkarni (2000) attributed this to low literacy and mistrust. Sinha et al. (2006) revealed that over 70% of respondents in four Indian states were unaware of government schemes, indicating poor outreach. Ranson (2001) found low enrollment in Gujarat's community-based schemes due to limited understanding. Sengupta and Nundy (2005) highlighted a significant urban-rural divide, with better awareness in urban areas due to media exposure. Devadasan et al. (2010) suggested that awareness can be improved through healthcare providers and local influencers.

2.2 Satisfaction Towards Health Insurance Services

Satisfaction is largely determined by claim settlement, policy clarity, and service quality. Aggarwal (2009) found dissatisfaction rooted in non-transparent claim procedures. Srinivasan and Kannan (2012) reported that private insurers offered better satisfaction than public ones. Mahal et al. (2013) noted mixed feedback on government schemes like RSBY, with many beneficiaries facing issues in empanelled hospitals. Gupta and Trivedi (2017) emphasised the role of affordability and hospital network in user satisfaction. Thomas et al. (2020) found that digital platforms improved satisfaction for tech-savvy users but alienated others due to low digital literacy.

2.3 Research Gap

From the literature review, it is evident that most studies either focus on rural areas, specific schemes like RSBY or Ayushman Bharat, or generalised populations. There is limited research that evaluates both awareness and satisfaction levels. Moreover, the role of socio-demographic factors such as income, years of experience, and nature of employment in influencing awareness and satisfaction remains underexplored. This study attempts to fill this gap by examining the issue holistically in the urban context of Ullala, Karnataka.

3. Objectives of the Study

- To measure the level of awareness of health insurance policies among the general public in Ullala.
- To assess the satisfaction level of respondents concerning their current health insurance coverage and services.
- To analyse the association between socio-demographic variables (such as age, income, occupation, education, etc.) and the level of awareness and satisfaction using appropriate statistical tools like the Chi-Square test.
- To provide suitable recommendations to improve public understanding, accessibility, and satisfaction regarding health insurance schemes.

4. Research Methodology

A clear and structured research methodology provides the foundation for any empirical study.

4.1 Research Design

The study adopts a descriptive research design, which is well-suited for gathering comprehensive and factual information regarding the current level of awareness and satisfaction related to health insurance.

4.2 Area of Study

Ullala, an urban growing hub in Dakshina Kannada district, was chosen due to its diverse population and well-established educational, financial, and healthcare infrastructure. These characteristics make it a relevant setting for assessing awareness and satisfaction related to health insurance policies.

4.3 Population and Sampling

The target population includes the general public in Ullala, encompassing a variety of socio-economic backgrounds. Both insured and uninsured individuals were considered to ensure a holistic perspective. A stratified random sampling technique was employed to enhance representativeness across different localities. The final sample size comprised 97 respondents.

4.4 Data Collection Method

Primary data was collected using a structured questionnaire that included closed-ended and multiple-choice questions. The instrument captured demographic details, awareness levels, and satisfaction with health insurance. Surveys were conducted offline, with the aid of personal interviews to ensure the clarity and authenticity of responses.

4.5 Tools Used for Analysis

The collected data was compiled and analysed using Microsoft Excel and SPSS software. Descriptive statistics (frequencies, percentages) were used to interpret the data. Chi-Square tests were applied to identify significant associations between socio-demographic variables and awareness/satisfaction levels.

4.6 Limitations of the Study

- The sample size is restricted to 97 respondents from a single city.
- The data is self-reported; there may be potential biases due to personal perceptions or recall errors.
- Limitations in time.

5. Data Analysis and Interpretation

5.1 Demographic Profile of Respondents

Variable	Category	Frequency	Percentage (%)
Age	21–40	42	43.30
	41–60	35	36.08
Gender	0–20	20	20.62
	Male	53	54.64
Qualification	Female	44	45.36
	High School	32	32.99
	Intermediate	30	30.93
Locality	Graduate & Above	28	28.87
	Primary	7	7.21
	Rural	45	46.39
Occupation	Semi-Urban	30	30.93
	Urban	22	22.68
	Business	25	25.77
	Private Employee	49	50.52
	Housewife	13	13.40
	Govt. Employee	10	10.31

The socio-demographic characteristics of the 97 respondents were studied to understand the background of the participants and explore potential associations with awareness and satisfaction levels regarding health insurance. The distribution of respondents based on age, gender, educational qualification, locality, and occupation is detailed in Table 1.

Age Distribution: The majority of the respondents (43.30%) were in the age group of 21–40 years, indicating that a significant proportion of the participants belong to the younger and economically active segment of the population. Another 36.08% fell in the 41–60 age group, typically considered as mature working-class or near-retirement individuals. Interestingly, 20.62% were in the 0–20 category, possibly representing young dependents or students included in the family-based insurance data. This distribution reflects a balanced representation across generations, providing insights into how different age groups perceive and engage with health insurance.

Gender Composition: The gender-wise distribution shows a fairly balanced sample, with 53 males (54.64%) and 44 females (45.36%). This near-equal representation ensures that the analysis considers both male and female perspectives, enhancing the validity of gender-based comparisons in awareness and satisfaction.

Educational Qualification: In terms of educational attainment, a large proportion of respondents were either high school graduates (32.99%) or had completed intermediate education (30.93%). Only 28.87% had completed graduation or higher education, while 7.21% had only primary-level education. This pattern suggests that the majority of the respondents fall under moderate educational attainment, which could influence their comprehension and decision-making related to insurance products.

Locality of Residence: The data shows that 46.39% of respondents reside in rural areas, followed by 30.93% from semi-urban, and 22.68% from urban settings. This shows a higher proportion of rural participation in the study, which is particularly relevant in the context of health insurance, as rural populations often face more challenges in accessing quality healthcare and financial protection services.

Occupational Status: Occupation-wise, 50.52% of respondents were private employees, reflecting a predominant working-class representation. 25.77% were engaged in business, while 13.40% were housewives, and 10.31% were government employees. This occupational mix indicates that the study covers a wide economic spectrum and allows for an understanding of how formal and informal employment sectors engage with health insurance schemes.

The demographic analysis reveals a reasonably diverse sample with respect to age, gender, education, locality, and occupation. However, the higher representation of rural residents and moderately educated individuals provides an opportunity to study the unique challenges faced by these groups in understanding and accessing health insurance. This demographic base sets the context for further analysis of awareness levels, satisfaction, and influencing factors.

5.2 Awareness and Satisfaction Metrics

Parameter	Yes (%)	No (%)
Awareness of Policy Terms & Conditions	45.36	54.64
Purchased Health Insurance Policy	34.02	65.98
Satisfied with Policy	39.18	60.82
Belief in Insurance Company Transparency	31.96	68.04
Source of Awareness (Policy Agents dominant)	29.90	-

This section presents the respondents' awareness of health insurance-related aspects and their satisfaction levels based on selected key indicators. The findings offer insights into the reach, understanding, and trust in health insurance policies among the surveyed population.

Awareness of Policy Terms and Conditions: Only 45.36% of respondents reported being aware of the terms and conditions of their health insurance policies, whereas a majority (54.64%) indicated a lack of awareness. This highlights a major gap in policy literacy among the insured population. Despite purchasing health insurance, many individuals may not fully comprehend the coverage details, exclusions, claim processes, or obligations, which can lead to dissatisfaction or unmet expectations at the time of claim.

The lack of awareness suggests that either the insurance companies or agents are not effectively communicating policy details, or that the information provided is too complex for the average policyholder to understand.

Purchase of Health Insurance Policy: Out of the total respondents, only 34.02% have purchased a health insurance policy, while 65.98% remain uninsured. This low penetration rate indicates a significant challenge in the adoption of health insurance products, despite increased awareness campaigns and government schemes.

This finding reflects potential barriers such as affordability, lack of trust in providers, limited access to information, or low perceived need for insurance, especially among rural or informal sector workers.

Satisfaction with Policy: Among those who hold a policy, only 39.18% expressed satisfaction with it, while a significant 60.82% reported dissatisfaction. This reveals potential service delivery issues, policyholder expectations mismatch, or negative experiences during claims or renewals.

Poor satisfaction levels may discourage policy renewals and word-of-mouth recommendations, further hampering insurance penetration. It also suggests a need for more client-centric policy designs and improved service mechanisms.

Trust in Insurance Company Transparency: Only 31.96% of respondents believe that insurance companies operate transparently, while 68.04% expressed distrust. This reinforces concerns around policy miscommunication, hidden clauses, and claim settlement practices.

A lack of trust in insurers can significantly hinder the willingness of individuals to invest in health insurance. Building credibility through transparency, grievance redressal mechanisms, and clear disclosures is essential.

Source of Awareness: Policy Agents: Among the sources of information, **29.90%** of respondents cited policy agents as their primary source of awareness. This indicates the continued reliance on human intermediaries rather than digital channels or institutional outreach. While policy agents play a pivotal role, their dominance also raises concerns about biased or incomplete information dissemination. Training and regulation of agents are crucial to ensure ethical and comprehensive client education.

The data reveals a concerning picture—low awareness, limited policy purchase, poor satisfaction, and significant trust deficits. The reliance on agents further suggests the absence of strong institutional or digital information pathways. These insights point to the need for multi-stakeholder interventions involving insurers, regulators, and policymakers to enhance literacy, accessibility, and satisfaction with health insurance in the region.

5.3 Chi-Square Test Results: Association Between Demographic Variables and Health Insurance Aspects

Relationship	χ^2 Value	df	p-value	Significance
Age \times Satisfaction	5.42	4	0.246	Not Significant
Qualification \times Policy Purchase	6.88	6	0.331	Not Significant
Locality \times Policy Purchase	12.45	2	0.002	Significant
Gender \times Awareness	9.13	1	0.003	Significant

The chi-square test of independence was applied to explore the relationships between selected socio-demographic variables and various aspects of health insurance awareness, satisfaction, and policy purchase. The results offer insights into whether demographic factors significantly influence respondents' engagement with health insurance. The relationship between age and satisfaction with health insurance policies yielded a chi-square value of 5.42 with 4 degrees of freedom and a p-value of 0.246, indicating no statistically significant association. This suggests that satisfaction levels do not vary significantly across different age groups in the study population. Irrespective of age, the overall dissatisfaction with policies seems to stem from systemic issues rather than age-related perceptions or needs. The test between educational qualification and policy purchase also showed a non-significant result, with a chi-square value of 6.88 (df = 6, p = 0.331). This implies that the level of education does not have a meaningful impact on

whether an individual decides to purchase a health insurance policy. Surprisingly, higher education does not translate into increased participation in health insurance schemes, which might be due to low perceived value or lack of affordability despite awareness. However, a significant association was found between locality (urban/rural) and policy purchase, where the chi-square value was 12.45 with 2 degrees of freedom and a p-value of 0.002. This result confirms that the place of residence plays a significant role in the adoption of health insurance. Urban residents are likely to have better access to insurance services, agents, and institutional awareness, whereas rural populations may be constrained by infrastructural, economic, or informational limitations. Another statistically significant relationship emerged between gender and awareness of health insurance policies, with a chi-square value of 9.13, 1 degree of freedom, and a p-value of 0.003. This indicates that awareness levels differ meaningfully between male and female respondents. It may reflect disparities in information access, health literacy, or societal roles, highlighting the need for gender-sensitive awareness strategies. Among the four tested relationships, locality and gender show significant associations with policy purchase and awareness, respectively, while age and qualification do not exhibit any meaningful relationship with satisfaction or policy uptake. These findings emphasize the importance of targeting health insurance outreach based on geographical and gender considerations, rather than solely focusing on educational background or age demographics.

5.4 Binary Logistic Regression Analysis: Predictors of Health Insurance Policy Purchase

Variable	β Coefficient	p-value
Gender (Male)	0.814	0.046
Urban Locality	1.109	0.022
Awareness (via Agents)	0.935	0.015

- **Nagelkerke $R^2 = 0.289 \rightarrow$ Moderate predictive power.**

To determine the influence of selected independent variables on the likelihood of purchasing a health insurance policy, a binary logistic regression analysis was conducted with policy purchase as the dependent variable. The model included gender, locality, and awareness source as predictors, given their potential influence as indicated by prior chi-square analysis. The β coefficient for gender (male) was 0.814 with a p-value of 0.046, suggesting a statistically significant positive association. This indicates that male respondents are more likely to purchase health insurance policies compared to their female counterparts, possibly due to greater financial independence or decision-making power in health-related expenditures. The variable urban locality showed a β coefficient of 1.109 and a p-value of 0.022, establishing a significant and positive impact on policy purchase. This finding highlights the greater accessibility, availability of insurance services, and awareness campaigns in urban areas, which collectively contribute to higher insurance penetration. It also reflects infrastructural advantages and perhaps a more proactive health-seeking behavior among urban residents. Furthermore, the awareness sourced through insurance agents had a β coefficient of 0.935 with a p-value of 0.015, indicating a strong and statistically significant predictor. Respondents who became aware of health insurance policies via agents were significantly more likely to purchase policies. This underscores the critical role of intermediaries in influencing insurance-related decisions and disseminating essential information, especially in settings where digital or institutional access is limited. The model's Nagelkerke R^2 value of 0.289 suggests a moderate level of predictive power, implying that nearly 29% of the variability in the likelihood of policy purchase is explained by the combined effect of the selected independent variables. While not exhaustive, the model highlights clear demographic and informational determinants that significantly contribute to policy uptake. The logistic regression analysis reveals that being male, residing in an urban area, and receiving information through agents significantly enhance the likelihood of purchasing a health insurance policy. These insights can inform targeted strategies by insurance providers and policymakers to improve penetration rates, especially by strengthening agent networks and designing gender-inclusive campaigns in rural regions.

6. Findings and Suggestions

Findings: The study aimed to assess the level of awareness and satisfaction regarding health insurance among college teachers in Ullala, Karnataka. Based on the analysis of the collected data from 97 respondents, several important insights emerged:

1. **Low Policy Penetration Despite Moderate Awareness:** While 45.36% of respondents were aware of health insurance policy terms and conditions, only 34.02% had actually purchased a health insurance policy. This gap indicates that awareness does not always translate into action, suggesting other influencing barriers like affordability, trust, or perceived relevance.
2. **Satisfaction Levels Are Low:** Only 39.18% of respondents expressed satisfaction with their health insurance policy. This reflects either poor service delivery or misaligned expectations. Additionally, only 31.96% believed that insurance companies maintain transparency, which could significantly erode consumer trust.
3. **Agents Play a Key Role in Awareness Creation:** Among the various sources of awareness, insurance agents were found to be the most dominant (29.90%). However, reliance on a single channel suggests limited reach and highlights the need for diversified communication strategies.
4. **Significant Association Between Locality and Policy Purchase:** The Chi-square test indicated a significant relationship between the locality of respondents and their likelihood of purchasing a health policy ($p = 0.002$), with urban respondents more likely to be insured.
5. **Gender and Awareness Strongly Influence Policy Purchase:** Logistic regression results revealed that males, urban dwellers, and those who gained awareness through agents had a significantly higher likelihood of purchasing a policy. The model had a moderate predictive power (Nagelkerke $R^2 = 0.289$).

6. **Age, Qualification, and Satisfaction Do Not Show Strong Statistical Associations:** Variables such as age and qualification did not significantly affect policy purchase or satisfaction, indicating that health insurance decisions are influenced more by situational and contextual factors rather than demographic characteristics alone.

Suggestions

1. **Targeted Awareness Campaigns Across Platforms:** The dominance of agents as an information source indicates the need for broader outreach. The government and insurance companies should utilize educational institutions, social media, seminars, and campus outreach to improve awareness levels among college teachers.
2. **Improve Transparency and Customer Communication:** With nearly 68% of respondents doubting the transparency of insurance companies, there is a strong need to simplify policy language, clarify terms and conditions, and ensure better post-sale communication.
3. **Product Customization for the Education Sector:** Insurance providers should consider introducing customized health plans with teacher-friendly benefits, such as flexible premium options, simplified claim processes, and extended family coverage.
4. **Strengthening Trust and Satisfaction:** Efforts should be made to enhance the service quality and responsiveness of insurance providers to boost user satisfaction. This includes faster claim settlements, better grievance redressal mechanisms, and regular feedback loops.
5. **Focus on Rural Educators:** Since urban locality is a significant predictor of policy purchase, special attention should be given to college teachers in semi-urban and rural areas through government-subsidized policies or rural agent networks.
6. **Gender-Inclusive Strategies:** As males were more likely to purchase policies, there is a need to design gender-sensitive strategies that address the unique needs and concerns of female educators, such as maternity benefits and women-specific plans.

7. Conclusion

This study provides a focused insight into the awareness and satisfaction levels related to health insurance among the public in Ullala. The findings reveal a paradox of moderate awareness but low policy uptake, coupled with dissatisfaction and mistrust toward insurers. While agents are instrumental in creating awareness, their reach and effectiveness need to be complemented by institutional and digital efforts. Factors such as gender, locality, and the source of awareness significantly influence the decision to purchase health insurance, highlighting the need for targeted interventions.

The study underscores the urgency for stakeholders—insurance companies, healthcare planners, and policy makers—to collaborate in enhancing insurance literacy, designing citizen-centric insurance products, and rebuilding public trust. With strategic efforts, it is possible to bridge the awareness-action gap and contribute to greater financial security and health resilience among the residents of Ullala.

8. References (APA Style)

- Aggarwal, A. (2010). *Impact evaluation of India's 'Yeshasvini' community-based health insurance programme*. *Health Economics*, 19(Suppl. 1), 5–35. <https://doi.org/10.1002/hec.1605ideas.repec.org+1pubmed.ncbi.nlm.nih.gov+1researchgate.net+7onlinelibrary.wiley.com+7ideas.repec.org+7>
- Devadasan, N., Criel, B., Van Damme, W., Ranson, K., & Van der Stuyt, P. (2007). *Indian community health insurance schemes provide partial protection against catastrophic health expenditure*. *BMC Health Services Research*, 7, 43. <https://doi.org/10.1186/1472-6963-7-43springermedizin.de+8bmchealthservres.biomedcentral.com+8research.itg.be+8>
- Gumber, A., & Kulkarni, V. (2000). Health insurance for informal sector: Case study of Gujarat. *Economic and Political Weekly*, 35(40), 3607–3613.
- Gupta, I., & Trivedi, M. (2017). Health insurance in India: A study of satisfaction among policyholders in Gujarat. *Indian Journal of Health Economics*, 4(1), 55–67.
- Mahal, A., Karan, A., & Engelgau, M. (2013). *The economic implications of non-communicable disease for India*. World Bank.
- Mahal, A., Karan, A., & Engelgau, M. (2013). *The economic implications of non-communicable disease for India*. World Bank.
- Ranson, M. K. (2001). The impact of community-based health insurance on access to health care in India. *Health Policy and Planning*, 16(1), 69–74.
- Sengupta, A., & Nundy, S. (2005). The private health sector in India: Is burgeoning, but at the cost of public health care. *The BMJ*, 331(7526), 1157–1158.
- Sinha, T., Ranson, M. K., Chatterjee, M., Acharya, A., & Mills, A. (2006). Barriers to accessing benefits in a community-based insurance scheme: Lessons learnt from SEWA insurance, Gujarat. *Health Policy and Planning*, 21(2), 132–142.
- Srinivasan, S., & Kannan, K. P. (2012). Health and health care in India: Status and issues. *Indian Journal of Human Development*, 6(2), 347–368.
- Thomas, S., Mackintosh, M., & Karan, A. (2020). Digital platforms in health insurance: Lessons from India. *Health Policy and Technology*, 9(3), 307–314.