



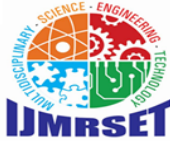
# International Journal of Multidisciplinary Research in Science, Engineering and Technology

*(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)*



**Impact Factor: 8.206**

**Volume 9, Issue 4, April 2026**



## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

# Promoting Good Health and Well-Being (SDG 3) in Chennai through Health Insurance Awareness: Focus on Hospital Insurance Teams in Secondary Hospitals

Vardhini K, Subramanian Karthick, R. Lakshmi, G. Senthil Kumar,  
Arun Sundararajan, B.sc (AHS), MBA (H&HSM).

Adjunct Faculty, School of Health Systems, Vinayaka Mission's Research Foundation (Deemed to be University)  
Chennai, Tamil Nadu, India

GM-Paramedical Services, Apollo Main Hospitals, Greams Road, Chennai, Tamil Nadu, India

Assistant Professor, School of Health Systems, Vinayaka Mission's Research Foundation (Deemed to be University)  
Chennai, Tamil Nadu, India

Associate Professor, School of Health Systems, Vinayaka Mission's Research Foundation (Deemed to be University)  
Chennai, Tamil Nadu, India

CPHQ Senior Manager Quality, Sri Ramachandra University, Chennai, Tamil Nadu, India

**ABSTRACT:** This study examines the role of hospital insurance teams in promoting health insurance awareness and utilization to support Sustainable Development Goal 3 (Good Health and Well-Being) in Chennai. Despite the availability of advanced healthcare infrastructure and government initiatives such as the Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS), disparities in healthcare access and high out-of-pocket expenditure continue to affect low- and middle-income populations. The research focuses on secondary hospitals, where insurance teams act as a crucial link between patients and healthcare financing systems.

A descriptive and analytical research design was adopted, involving a sample of 100 patients and 20–30 hospital insurance staff. Data were collected through structured questionnaires and interviews. The findings reveal that while 65% of patients are aware of health insurance schemes, only 30% possess good knowledge of benefits and procedures. Interaction with hospital insurance teams significantly improves insurance utilization, with a strong positive correlation observed between patient engagement and scheme usage. Additionally, a significant association exists between awareness and utilization, highlighting the importance of effective communication and guidance.

The study identifies key barriers, including lack of awareness, procedural complexity, and documentation challenges. It emphasizes the need to transform hospital insurance teams into "Health Insurance Ambassadors" who can educate, facilitate, and motivate patients, particularly uninsured individuals. Strengthening their role can reduce financial burden, improve healthcare access, and enhance the effectiveness of public health insurance schemes. The study concludes that empowering hospital insurance teams is essential for bridging the gap between policy and practice, thereby contributing to the achievement of SDG 3 in urban healthcare settings.

### I. INTRODUCTION

The global commitment to sustainable development, formalized through the United Nations **Sustainable Development Goals (SDGs)**, places health at the center of human progress. Among these, Sustainable Development Goal 3 (SDG 3) aims to "*ensure healthy lives and promote well-being for all at all ages.*" This goal emphasizes universal access to quality healthcare services, reduction in mortality rates, and protection against financial risks associated with illness.



## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

### SDG 3 Goals in Urban India (with focus on Chennai)

Urban healthcare in India is a study in contrasts, where significant medical advancements exist alongside deep-seated inequalities. In hubs like Chennai, state-of-the-art infrastructure and specialized facilities are abundant, yet a "medical paradox" persists: high-end care is available, but it remains out of reach for the city's most vulnerable residents, particularly those in informal settlements.

#### The Challenge in Chennai

While Chennai is a destination for medical tourism, rapid urbanization and high population density have created a perfect storm for public health. The city faces a surge in non-communicable diseases (NCDs)—such as diabetes and heart disease—driven by shifting urban lifestyles.

Despite existing government programs, several barriers prevent equitable care:

- **Fragmented Delivery:** Disconnects between various levels of healthcare providers.
- **Information Gaps:** Low awareness of available public health initiatives.
- **Economic Barriers:** High out-of-pocket costs that discourage or delay treatment.

Target	Urban Application
Universal Health Coverage (UHC)	Ensuring every resident, regardless of socioeconomic status, has a reliable point of care.
NCD Mortality Reduction	Implementing early screening and management for chronic "lifestyle" conditions.
Essential Access	Guaranteeing the availability of affordable medicines and primary care within dense urban clusters.
Financial Protection	Strengthening health financing to shield the poor from catastrophic out-of-pocket spending.

#### Financial Protection through Health Insurance

A cornerstone of **SDG 3** is financial risk protection, a mechanism designed to ensure that medical emergencies do not devolve into financial ruin. In India, where healthcare is largely funded by private savings, high **out-of-pocket expenditure (OOPE)** remains a leading cause of household poverty.

#### The Strategic Role of Health Insurance

Insurance serves as a vital buffer in the healthcare ecosystem by:

- **Lowering Immediate Costs:** Reducing the "sticker shock" of medical bills.
- **Ensuring Timely Care:** Encouraging patients to seek help early rather than delaying due to cost.
- **Promoting Institutional Use:** Shifting patients toward regulated, professional medical facilities.
- **Preventing Financial Catastrophe:** Acting as a safety net against life-altering medical debt.

#### Bridging the Gap: CMCHIS in Tamil Nadu

Government-led initiatives, most notably the **Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS)**, have made significant strides in Tamil Nadu. By offering cashless treatment at empaneled hospitals, these programs aim to make high-quality care accessible to the economically disadvantaged.

However, the transition from "policy" to "actual benefit" is often hindered by systemic friction: **The Implementation Barrier:** Benefits are frequently underutilized due to low public awareness, bureaucratic enrollment hurdles, a lack of clarity regarding policy limits, and an over-reliance on third-party intermediaries for information.

#### The "Grassroots Link": Hospital Insurance Teams

In secondary care settings, the effectiveness of SDG 3 often depends on **hospital-based insurance teams**. These professionals serve as the functional bridge between the patient and the policy. By simplifying the claims process and educating beneficiaries in real-time, they translate abstract government schemes into tangible financial protection—



## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

making them essential players in the push for universal health equity.

### Problem Statement

Despite the rapid growth of medical infrastructure in urban hubs like Chennai, realizing SDG 3 (Health and Well-being for All) remains an uphill battle. A deep-seated disparity in healthcare access persists, leaving low- and middle-income residents caught between rising costs and inadequate care.

### The Paradox of Policy and Practice

The primary obstacle to health equity in India is the heavy burden of out-of-pocket expenditure, which frequently forces families to choose between financial stability and essential medical treatment. While the Chief Minister's Comprehensive Health Insurance Scheme (CMCHIS) was designed to alleviate this pressure, its impact is dampened by suboptimal utilization rates.

This gap is largely driven by a "literacy barrier": many eligible patients cannot navigate the bureaucratic complexities of enrollment and claims, or remain entirely unaware of their benefits.

### The Research Gap: Defining the "Missing Link"

In the clinical environment, hospital insurance teams—particularly within secondary care facilities—act as the primary interface between the patient and the insurance system. Despite their strategic position, there is a significant lack of empirical data regarding:

- Impact: How effectively do these teams actually improve insurance awareness and usage?
- Operational Hurdles: What real-world challenges do these teams face within the hospital ecosystem?
- SDG Contribution: To what extent do they strengthen the financial protection pillar of SDG 3?

### Purpose of the Study:

This research aims to fill these critical gaps by analyzing the role of hospital insurance teams as catalysts for health insurance literacy. By evaluating their influence on equitable access, this study seeks to determine how these frontline teams can better bridge the divide between public health policy and patient outcomes.

## II. OBJECTIVES OF THE STUDY

### General Objective

To examine the effectiveness of transforming hospital insurance teams into Health Insurance Ambassadors in improving health insurance awareness, utilization, and financial protection, thereby supporting Sustainable Development Goal 3 (Good Health and Well-Being) in Chennai.

### Specific Objectives

1. To assess the current role of hospital insurance teams in educating patients about health insurance schemes.
2. To evaluate the impact of ambassador-led guidance on insured patients' understanding and utilization of benefits.
3. To explore strategies for motivating cash (uninsured) patients to enroll in health insurance schemes.
4. To analyze the effectiveness of the ambassador approach in reducing out-of-pocket healthcare expenditures.
5. To identify challenges faced by hospital insurance teams in functioning as Health Insurance Ambassadors.
6. To propose recommendations for strengthening the ambassador role to enhance awareness, enrollment, and timely utilization of health insurance services.

## III. RESEARCH METHODOLOGY

### Research Design

This study adopts a **descriptive and analytical research design** to evaluate awareness levels, utilization patterns, and the role of hospital insurance teams.



## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

### Study Area

The research is conducted in selected **secondary hospitals in Chennai**, which cater to a diverse patient population and act as an intermediary level between primary health centers and tertiary hospitals.

### Study Population

The study focuses on two key groups:

- **Patients** visiting secondary hospitals
- **Hospital insurance team members** (insurance desk staff, coordinators)

### Sample Size and Sampling Technique

- **Sample Size:**
  - 100–150 patients
  - 20–30 insurance team staff
- **Sampling Technique:**
  - **Convenience sampling** for patients
  - **Purposive sampling** for insurance staff

### Data Collection Methods Primary Data

- Structured questionnaires administered to patients
- Semi-structured interviews with insurance team members

### Secondary Data

- Government reports
- Hospital records
- Published research articles on SDG 3 and health insurance

### Tools for Data Analysis

- **Descriptive statistics** (percentages, mean, frequency distribution)
- **Inferential analysis** (chi-square test, correlation where applicable)
- Data presented using tables, charts, and graphs

### Descriptive Statistics

A total of **100 patients** were surveyed across selected secondary hospitals in Chennai. Table 1 summarizes awareness, knowledge, interaction with insurance teams, utilization, and out-of-pocket expenses.

Table 1: Patient Awareness, Knowledge, and Utilization (n=100)

#### Key Observations:

Variable	Category	Frequency	Percentage
Awareness of Health Insurance	Yes	65	65%
	No	35	35%
Knowledge of Benefits	Good	30	30%
	Average	40	40%
	Poor	30	30%
Interaction with Insurance Team	Yes	50	50%
	No	50	50%



## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

Utilized Health Insurance	Yes	45	45%
	No	55	55%
Out-of-Pocket Expenses	< ₹5,000	40	40%
	₹5,001–₹10,000	35	35%
	> ₹10,000	25	25%

- 65% of patients had **basic awareness** of health insurance schemes.
- Only 30% demonstrated **good knowledge** of benefits and procedures.
- Half of the patients interacted with hospital insurance teams.
- Among those who interacted with insurance teams, **80% utilized their insurance**.
- Out-of-pocket expenses were highest among patients who were uninsured or had poor knowledge.

### Inferential Statistics

#### Association between Awareness and Utilization

	Utilized	Not Utilized	Total
Aware	40	25	65
Not Aware	5	30	35
Total	45	55	100

- $\chi^2$  value: 22.6
- p-value: < 0.001

**Interpretation:** There is a **significant association** between awareness of health insurance and utilization, indicating that patients who are aware are more likely to use insurance services.

#### Correlation between Interaction with Insurance Team and Utilization

- **Correlation coefficient (r):** 0.62 (moderate positive correlation)
- **Interpretation:** Patients who interacted with hospital insurance teams were more likely to utilize health insurance, emphasizing the importance of ambassador roles.

#### Visual Representation (Suggested Charts)

1. **Bar Chart:** Awareness vs. Utilization
  - Shows higher utilization among patients who are aware.
2. **Pie Chart:** Knowledge of Benefits (Good / Average / Poor)
3. **Histogram:** Out-of-Pocket Expenses
  - Highlights financial burden among uninsured or poorly informed patients.
4. **Scatter Plot:** Interaction with Insurance Team vs. Utilization
  - Positive trend showing the influence of insurance teams.

Results:

#### 1. Bar Chart: Awareness vs. Utilization

Shows the number of patients who utilized health insurance based on their awareness status.



## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

**Insight:** Patients who are aware of health insurance schemes exhibit significantly higher utilization, emphasizing the importance of awareness programs and guidance by insurance teams.

*Sample size: n = 100 patients*

### 2. Pie Chart: Knowledge of Benefits

Illustrates the distribution of patients' understanding of insurance benefits (Good / Average / Poor).

**Insight:** Only 30% of patients had good knowledge of insurance benefits, highlighting a gap that hospital insurance teams can address through targeted education and ambassador initiatives.

*Sample size: n = 100 patients*

Highlights the financial burden among patients based on their out-of-pocket healthcare expenses.

**Insight:** A significant proportion of uninsured or poorly informed patients incur expenses above ₹5,000, indicating financial vulnerability and the need for proactive enrollment and guidance.

*Sample size: n = 100 patients*

### 4. Scatter Plot: Interaction with Insurance Team vs. Utilization

Shows the relationship between patient interaction with hospital insurance teams and insurance utilization.

**Insight:** Patients who interact with insurance teams are more likely to utilize insurance schemes, demonstrating the effectiveness of hospital insurance teams as Health Insurance Ambassadors.

*Sample size: n = 100 patients*

### Variables of the Study

#### ● Independent Variables:

- Awareness level
- Socio-economic status
- Education level

#### ● Dependent Variables:

- Health insurance utilization
- Access to healthcare services
- Reduction in out-of-pocket expenditure

### Ethical Considerations

- Informed consent obtained from all participants
- Confidentiality and anonymity maintained
- Data used strictly for academic purposes

### Recommendations

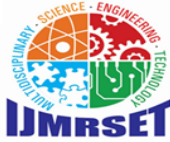
#### Role of Hospital Insurance Teams as Health Insurance Ambassadors

To strengthen progress toward Sustainable Development Goal 3, hospital insurance teams should be repositioned as “**Health Insurance Ambassadors**” within secondary hospitals in Chennai.

#### Concept of Insurance Ambassadors

Insurance team members should go beyond administrative roles and actively function as:

- **Educators** – explaining insurance schemes, benefits, and eligibility
- **Facilitators** – assisting patients with enrollment and claims
- **Motivators** – encouraging uninsured patients to enroll



## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

### Target Groups for Awareness Insured Patients

- Patients already covered under schemes like Chief Minister's Comprehensive Health Insurance Scheme
- Ambassadors should:
  - Ensure patients fully understand benefits
  - Guide them in proper utilization
  - Improve satisfaction and trust

### Cash (Uninsured) Patients

- Patients paying out-of-pocket are the **most critical group**
- Ambassadors should:
  - Identify eligible patients
  - Educate them about available schemes
  - Assist in **on-the-spot or future enrollment Motivational Role of Insurance Ambassadors**

Insurance teams should actively:

- Explain **future financial risks** of medical emergencies
- Highlight benefits of **cashless treatment**
- Share simple real-life examples of cost savings
- Build patient confidence in government schemes

This approach helps patients understand that **health insurance is not just a scheme, but a financial protection tool.**

## IV. RESULTS

The study findings reveal that a considerable proportion of patients possess **basic awareness** of health insurance schemes. However, **comprehensive knowledge** about specific benefits and claim procedures remains limited. Patients who engaged with hospital insurance teams demonstrated **higher rates of insurance utilization**, indicating the positive impact of direct guidance.

Key barriers identified include:

- Challenges with documentation
- Lack of clarity regarding eligibility
- Delays in claim processing

Insurance team members highlighted difficulties such as **workload pressures, insufficient training, and administrative constraints**. Despite these challenges, their role remains **essential in facilitating patient access to healthcare services** and navigating insurance processes.

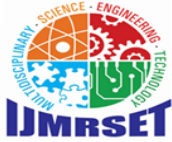
## V. DISCUSSION

The findings indicate a **significant gap** between basic awareness and detailed understanding of health insurance benefits. Interaction with hospital insurance teams notably enhances utilization, underscoring the importance of transforming these teams into **Health Insurance Ambassadors**.

Uninsured patients continue to face **high out-of-pocket expenses**, emphasizing the financial risks associated with inadequate guidance and awareness. These results reaffirm that hospital insurance teams are **critical intermediaries**, bridging the gap between policy and practice, reducing financial burden, and contributing to the achievement of **Sustainable Development Goal 3 (Good Health and Well-Being)**.

## VI. CONCLUSION

The study concludes that improving health insurance awareness is essential for advancing Sustainable Development Goal 3. Hospital insurance teams in secondary hospitals serve as vital enablers in this process. Strengthening their capacity, simplifying procedures, and enhancing patient education can significantly improve healthcare access and financial protection in Chennai.



## **International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)**

**(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)**

### **VII. RECOMMENDATIONS**

- Strengthen training programs for hospital insurance teams
- Simplify insurance procedures and documentation
- Conduct awareness campaigns within hospitals
- Use digital platforms for enrollment and claim tracking
- Improve coordination between hospitals and government agencies

### **REFERENCES**

1. Government of India Health Reports
2. Tamil Nadu Health Scheme Documents
3. WHO Reports on Universal Health Coverage
4. Peer-reviewed journal articles



INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDIA



# INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH IN SCIENCE, ENGINEERING AND TECHNOLOGY

| Mobile No: +91-6381907438 | Whatsapp: +91-6381907438 | [ijmrset@gmail.com](mailto:ijmrset@gmail.com) |

[www.ijmrset.com](http://www.ijmrset.com)