

A Study on Beneficiaries' Impact on National Health Insurance Scheme (Nhis) In Madurai District

¹V. Nithya, ²Dr. A. Karuppusamy

¹Part-time Research Scholar, (Assistant Professor) PG & Research Department of Commerce, The Madura College, Madurai-11.

²Assistant Professor (Aided) PG & Research Department of Commerce, The Madura College, Madurai-11

Abstract: The present study entitled “A Study on Beneficiaries' Impact on National Health Insurance Scheme in Madurai District” was undertaken to assess the impact of the National Health Insurance Scheme (NHIS) on beneficiaries in terms of financial protection, health and quality of life, healthcare access and beneficiary satisfaction. The study also examined the awareness, enrolment, utilisation, quality of healthcare services, availability of medicines, claim settlement procedures and problems experienced by beneficiaries. The study adopted a descriptive and analytical research design. Primary data were collected from 100 beneficiaries in Madurai District using a structured questionnaire. The questionnaire covered socio-economic characteristics, awareness and enrolment, utilisation of health insurance benefits, hospital services, claim settlement, problems faced by beneficiaries, financial impact, health and quality-of-life impact and beneficiary satisfaction. The responses to attitudinal statements were measured using a five-point Likert scale. The study concludes that the National Health Insurance Scheme has made a positive contribution to the welfare of beneficiaries in Madurai District, particularly by improving financial protection, facilitating access to healthcare and contributing to better health and quality of life. However, continued attention is required to improve awareness, accessibility of empanelled hospitals, availability of medicines, waiting time, claim settlement, grievance redressal and the prevention of additional or unofficial payments. And concluded that A continuous beneficiary-centred approach, supported by effective monitoring and periodic impact assessment, can further strengthen the effectiveness of the National Health Insurance Scheme and contribute to improved health, financial security and quality of life among the people of Madurai District.

Keywords: National Health Insurance Scheme, Beneficiary Impact, Financial Impact, Health Impact, Quality of Life, Beneficiary Satisfaction, Healthcare Utilisation, Claim Settlement, Madurai District.

Introduction

Health is one of the most important determinants of human well-being and socio-economic development. Access to timely, affordable and quality healthcare is essential for improving the standard of living of individuals and families. However, the increasing cost of medical treatment, hospitalisation, medicines, diagnostic services and specialised healthcare creates a significant financial burden, particularly for economically vulnerable households. Health insurance and publicly funded health protection programmes have therefore become important instruments for improving access to healthcare and protecting households from excessive medical expenditure.

In India, the government has introduced several health protection programmes with the objective of extending healthcare coverage to economically and socially vulnerable sections of the population. These programmes seek to improve access to hospitalisation, reduce out-of-pocket expenditure and provide financial protection to beneficiary households.

The National Health Insurance Scheme (NHIS), as referred to in the present study, is examined from the perspective of beneficiaries' access to healthcare, utilisation of services, financial protection, health outcomes,

quality of services and satisfaction. The study also considers the difficulties faced by beneficiaries in enrolment, authentication, hospital access, treatment, claim processing and utilisation of benefits.

For the purpose of the present research, particular attention is given to beneficiaries using the PMJAY-CMCHIS framework in Madurai District. The study attempts to assess whether health insurance protection has translated into meaningful improvements in healthcare access and economic well-being.

Madurai District provides an appropriate setting for the study because it contains urban, semi-urban and rural populations and has a diverse socio-economic structure. The availability and utilisation of government and empanelled private healthcare institutions make the district relevant for examining beneficiaries' experiences with health insurance services.

The present study therefore focuses on the beneficiary impact of NHIS, with particular emphasis on financial impact, health and quality-of-life impact, beneficiary satisfaction and overall impact.

Background of the Study

Healthcare expenditure can place considerable pressure on household finances. For low-income households, a serious illness may result not only in direct medical expenses but also in loss of income, borrowing, indebtedness and, in some cases, the sale of household assets.

Health insurance seeks to reduce such risks by pooling financial resources and providing beneficiaries with access to specified healthcare services. Government-supported health insurance programmes are particularly important because economically disadvantaged households may not be able to purchase adequate private health insurance.

The effectiveness of a health insurance programme cannot be assessed merely by the number of beneficiaries enrolled. It is also necessary to examine whether beneficiaries actually use the services, whether treatment is accessible, whether services are provided without undue financial burden, whether hospitals offer adequate quality of care, and whether beneficiaries experience improvements in health and quality of life.

Accordingly, the present study examines NHIS from the beneficiary perspective.

Statement of the Problem

Despite the expansion of government-supported health insurance coverage, beneficiaries may continue to face difficulties relating to awareness, enrolment, documentation, hospital accessibility, treatment availability, waiting time, claim settlement, medicine availability and additional expenditure.

Enrolment in a health insurance programme does not automatically guarantee effective utilisation. Beneficiaries may remain unaware of the services available to them or may experience difficulties in obtaining treatment. Similarly, the existence of cashless treatment does not necessarily mean that beneficiaries incur no expenditure.

There is therefore a need to examine the actual impact of health insurance from the beneficiaries' perspective. Hence, The present study seeks to answer the following broad question:

Need for the Study

The study is important for the following reasons:

- To assess the actual benefits experienced by NHIS beneficiaries.
- To examine whether NHIS reduces out-of-pocket healthcare expenditure.
- To assess the effect of NHIS on household financial protection.

- To examine the health and quality-of-life impact of the scheme.
- To measure beneficiary satisfaction with NHIS services.
- To identify problems faced by beneficiaries.
- To examine the relationship between socio-economic characteristics and scheme utilisation.
- To identify factors associated with overall beneficiary impact.
- To provide suggestions for improving the effectiveness of health insurance services.

Significance of the Study

❖ Beneficiaries

The study may help identify difficulties experienced by beneficiaries and highlight areas requiring improvement.

❖ Government

The findings may assist policymakers and implementing agencies in improving service delivery, hospital accessibility and beneficiary support.

❖ Hospitals

The study may identify areas relating to service quality, claim processing, medicine availability and administrative assistance that require improvement.

❖ Researchers

The study provides a framework for future research on public health insurance, financial protection and healthcare utilisation.

❖ Society

Improved health insurance implementation can contribute to better access to healthcare and reduce the financial consequences of illness among vulnerable households.

Scope of the Study

The study is confined to selected beneficiaries of the health insurance scheme in Madurai District.

The study covers:

Socio-economic characteristics, Awareness, Enrolment, Utilisation, Hospital access, Treatment experience, Claim settlement, Medicine availability, Quality of healthcare services, Financial impact, Health and quality-of-life impact, Beneficiary satisfaction, Problems faced by beneficiaries, Overall impact of the scheme

Objectives of the Study

- To study the socio-economic profile of NHIS beneficiaries in Madurai District.
- To assess the level of awareness regarding NHIS among beneficiaries.
- To examine the enrolment and utilisation pattern of NHIS beneficiaries.
- To analyse the factors influencing beneficiaries' choice and utilisation of NHIS.
- To assess the quality and accessibility of healthcare services provided under NHIS.
- To examine the availability of medicines and treatment facilities under NHIS.
- To assess the effectiveness of the claim settlement process.
- To identify the problems faced by NHIS beneficiaries.

- To analyse the financial impact of NHIS on beneficiaries.
- To assess the health and quality-of-life impact of NHIS.
- To measure the satisfaction level of NHIS beneficiaries.
- To examine the relationship between financial impact, health impact, satisfaction and overall impact.
- To identify the factors significantly influencing the overall impact of NHIS.
- To offer suitable suggestions for improving the effectiveness of NHIS.

Hypotheses

H01 : There is no significant association between Income and utilisation of NHIS.

H02 : There is no significant relationship between financial impact and overall impact of NHIS.

H03 : There is no significant relationship between health impact and overall impact of NHIS.

H04 : There is no significant relationship between beneficiary satisfaction and overall impact of NHIS.

H05 : Financial impact, health impact and beneficiary satisfaction do not significantly influence the overall impact of NHIS.

Operational Definitions

✓ Beneficiary

An individual or household member who is eligible for and/or has utilised benefits under the health insurance scheme covered by the study.

✓ Financial Impact

The perceived effect of NHIS on out-of-pocket expenditure, borrowing, medical financial burden, asset sales, financial stress and household financial protection.

✓ Health Impact

The perceived effect of NHIS on health improvement, timely treatment, quality of life, ability to work and family well-being.

✓ Beneficiary Satisfaction

The degree to which beneficiaries are satisfied with enrolment, accessibility, information, waiting time, treatment quality, staff behaviour and discharge services.

✓ Overall Impact

The combined perceived effect of NHIS on healthcare access, financial protection, health, quality of life and family well-being.

Limitations of the Study

The study may have the following limitations:

- The study is geographically restricted to Madurai District.
- The study relies substantially on information provided by respondents.
- Some respondents may have difficulty recalling previous treatment experiences.
- Perceptions of quality and satisfaction are subjective.
- The findings may not necessarily be generalisable to all districts of Tamil Nadu or India.

Review of Literature

- Thyagaraja and Lakshmi (2021) in their paper "Health Insurance in India: Problems and Prospects" begins by emphasizing the uncertainty of health and the role of insurance in mitigating financial risks. Thyagaraja and Lakshmi define insurance, trace its evolution, and outline objectives related to understanding health insurance and its challenges. The literature review covers past studies highlighting regulatory needs and accessibility issues. The authors then detail India's major public and private schemes, and types of insurance products. Key forces and challenges—low penetration, high out-of-pocket costs, poor awareness—are identified. Innovations like digital diagnostics and tailored products are noted. The paper concludes with practical suggestions for improving awareness, affordability, and policy design.
- The paper titled "Critical Performance Analysis of the Health Insurance Sector in India During COVID-19 Outbreak" by Yadav, Kaur, Devi & Manocha (2022) examines the pandemic's impact on India's health insurance sector using data from 2020 to 2022. It analyzes four key metrics—gross premium income, incurred claim ratio, number of policies, and claims paid. The study finds a surge in premium income and policy uptake, driven by heightened public awareness and digital adoption. However, increased claim ratios indicate profitability pressures. Opportunities include product innovation and digital growth, while challenges persist in pricing and coverage gaps. The paper emphasizes IRDAI's role and advocates for future research on efficiency and universal coverage.
- Dharmadhikari (2022) in her research paper titled "Emerging Trends in Health Insurance Sector" offers an insightful analysis of India's post-COVID-19 health insurance transformation. Using a descriptive research design and secondary data, it explores the growing influence of Insurtech, AI, IoT, and Big Data in improving underwriting, customer service, and product innovation. The pandemic, the paper notes, shifted public perception of insurance from investment to essential risk protection. Opportunities like digital expansion, micro insurance, drone insurance, and rural outreach are highlighted, along with challenges such as low penetration, cyber security risks, and weak data security. The study recommends product redesign, better cyber security, and leveraging policy reforms for inclusion. It presents a well-rounded view of the sector's evolving landscape. P. Shobanapriya, & P. Easwaran. (2026)
- Phalswal, Neeraja, Dixit, and Bishnoi (2023) in their paper Government Health Insurance Schemes and Their Benefits to Indian Population: An Overview have given a detailed review of numerous central and state level government health insurance schemes in India. It covers schemes like Ayushman Bharat, RSBY, CGHS, ESIC and state specific schemes like Mukhyamantri Amrutum Yojana and Chiranjeevi Yojana. The findings underscore the role of the schemes in lowering out-of-pocket expenses and increasing access to care to the poor. But at the same time also underscores continued problems of awareness, spotty execution and patchy national coverage. It calls for more meaningful engagement by frontline health workers, and better policy communication. The review acts as an informative source by gathering disparate pieces of information and providing it in one, accessible document.
- The paper entitled "Performance Analysis in Health Insurance in India" by Kamarlaila and Mahalakshmi (2024) provides a comprehensive analysis of the growth trends in India's health insurance sector over a decade (2013–2023). Utilizing secondary data from IRDA reports, the study examines trends in policy count, premium collection, and claims paid. It applies SPSS tools for regression and correlation analysis and finds significant positive growth in net premiums and claims, with high correlation ($r = 0.988$). Despite double-digit growth in premiums and coverage, only 30% of the population is insured, indicating untapped potential. The study highlights health insurance's vital role in financial protection and expanding healthcare access in India.

Concept of Health Insurance

Health insurance is a mechanism through which individuals or groups obtain financial protection against healthcare expenses. It generally involves the pooling of financial risks so that healthcare costs are distributed across a larger group.

The major objectives of health insurance include:

- Providing financial protection
- Improving access to healthcare
- Reducing out-of-pocket expenditure
- Encouraging timely treatment
- Improving healthcare utilisation
- Protecting households from catastrophic medical expenditure

Health Insurance in India

India has developed several government-supported health protection programmes targeting different population groups. These programmes have evolved from schemes primarily focused on hospitalisation to broader approaches emphasising financial protection and access to healthcare.

The development of publicly supported health insurance reflects the recognition that medical expenditure can have significant consequences for vulnerable households.

PMJAY and State Health Insurance Programmes:

The Madurai District Administration describes CMCHIS as a health scheme intended to provide quality healthcare through empanelled government and private hospitals and to reduce financial hardship for enrolled families

CMCHIS Eligibility and Coverage Amount

According to the current official Tamil Nadu CMCHIS portal, the main eligibility criterion for the general category is:

- Annual family income: Less than ₹1,20,000 per year.
- The applicant should be a resident of Tamil Nadu.
- The family should have the required ration-card/family records and Aadhaar details.
- The current official eligibility page states that the income certificate is obtained from the Village Administrative Officer (VAO), along with the family ration card and Aadhaar card.

Financial Protection through Health Insurance

One of the central purposes of health insurance is financial protection.

The financial consequences of illness may include:

Direct medical expenditure, Medicine expenditure, Diagnostic expenses, Transportation expenses, Loss of wages, Borrowing, Sale of assets, Debt accumulation

The present study therefore treats financial impact as an important dimension of beneficiary impact.

Quality of Healthcare Services

Quality of service is another important determinant of beneficiary experience.

The present study considers:

- Staff behaviour
- Doctor and nurse attention
- Administrative assistance
- Hospital facilities
- Medical equipment
- Waiting time
- Follow-up care
- Claim assistance
- Treatment quality

Beneficiary Satisfaction

Beneficiary satisfaction refers to the degree to which beneficiaries perceive that their expectations regarding healthcare services have been fulfilled.

Satisfaction may be influenced by:

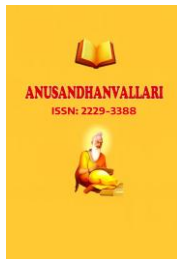
- Ease of enrolment
- Accessibility
- Information
- Waiting time
- Hospital availability
- Treatment quality
- Staff behaviour
- Claim settlement
- Discharge procedures

Health and Quality-of-Life Impact

Health insurance can potentially improve health outcomes by reducing financial barriers to treatment.

The present study examines:

- Improvement in health
- Timeliness of treatment
- Quality of life, Ability to work and Reduction in family stress



Research Methodology

Research methodology describes the systematic procedures are followed to collect, analyse and interpret data. This chapter explains the research design, study area, population, sampling procedure, sample size, data sources, research instrument, reliability, validity and statistical techniques.

Research Design

The study adopts a descriptive and analytical research design.

The descriptive component is used to describe:

- Socio-economic characteristics
- Awareness
- Enrolment
- Utilisation
- Healthcare access
- Problems
- Satisfaction

The analytical component is used to examine relationships and associations among the variables.

Study Area

The study is confined to Madurai District, Tamil Nadu.

Population of the Study

The population comprises eligible beneficiaries of the health insurance scheme residing in the selected areas of Madurai District.

Sample Size

The sample consists of 100 beneficiaries

The respondents are selected from the defined study population according to the sampling procedure adopted.

Sampling Technique

Purposive sampling

Sources of Data

Primary Data:

Primary data are collected directly from NHIS beneficiaries using a structured questionnaire.

Secondary Data:

Secondary information are obtained from:

Government publications, Health department reports, Official scheme documents, Research journals, Books, Theses and dissertations, Reports of national and international organisations Relevant statistical publications

Data Analysis And Interpretation

This chapter analyses the primary data collected from 100 beneficiaries of the National Health Insurance Scheme in Madurai District. The analysis focuses on the socio-economic profile of beneficiaries; awareness and enrolment; utilisation of health insurance services; financial impact; health and quality-of-life impact; beneficiary satisfaction; problems and barriers; and the overall impact of the scheme.

The data are presented using frequencies, percentages, means, standard deviations, reliability analyses, correlations, chi-square tests, t-tests/ANOVAs, and regression analyses, wherever appropriate.

Socio-Economic Profile of the Respondents

Table 4.1 Age-wise Distribution of Beneficiaries

AGE	No. of. Respondents	Percentage
Below 30 years	14	14.0
31–40 years	24	24.0
41–50 years	29	29.0
51–60 years	21	21.0
Above 60 years	12	12.0
Total	100	100.0

Interpretation: The table indicates that 29 per cent of the respondents belong to the 41–50 years age group, followed by 24 per cent in the 31–40 years group. Respondents above 60 years constitute 12 per cent of the sample. Thus, the majority of beneficiaries are in the economically active middle-age groups.

Table 4.2 Gender-wise Distribution

Gender	No.of. Respondents	Percentage
Male	57	57.0
Female	43	43.0
Total	100	100.0

Interpretation: The table shows that 57 per cent of the respondents are male and 43 per cent are female. Only 1 per cent belong to the other category.

Table 4.3 Marital status

Marital status	No.of. Respondents	Percentage
Married	76	76.0
Unmarried	13	13.0
Widowed	8	8.0

Divorced/Separated	3	3.0
Total	100	100.0

Interpretation: The marital status distribution reveals that 76.0 per cent of the respondents were married, followed by 13.0 per cent who were unmarried, 8.0 per cent who were widowed and 3.0 per cent who were divorced / separated. The findings indicate that married beneficiaries constituted the predominant group among the respondents. This may reflect the greater healthcare and financial responsibilities associated with family life and the relevance of health insurance in providing financial protection against medical expenditure.

Table 4.4 Educational Qualification

Education	No.of. Respondents	Percentage
No formal education	12	12.0
Primary	18	18.0
Secondary	26	26.0
Higher secondary	21	21.0
Graduate	17	17.0
Postgraduate	6	6.0
Total	100	100.0

Interpretation: The educational qualification of the respondents reveals that 26.0 per cent had completed secondary education, followed by 21.0 per cent who had completed higher secondary education and 18.0 per cent who had primary-level education. About 17.0 per cent of the respondents were graduates, while 12.0 per cent had no formal education. Only 6.0 per cent of the respondents possessed postgraduate qualifications. The findings indicate that the majority of beneficiaries had education up to the secondary or higher secondary level. This educational profile may have implications for their awareness, understanding and utilisation of the National Health Insurance Scheme and its various benefits.

Table 4.5 Source of Awareness

Sources	No.of. Respondents	Percentage
Government official	15	15.0
Health worker	28	28.0
Hospital	17	17.0
Friends/relatives	16	16.0
Television/radio	10	10.0
Social media/internet	11	11.0

Other	3	3.0
Total	100	100.0

Interpretation: Health workers constitute the major source of information, accounting for 28 per cent of respondents. Hospitals and personal networks are also important sources of awareness.

Table 4.6 No.of years having Health Insurance

No.of.Years	No.of. Respondents	Percentage
Less than 1 year	12	12.0
1–3 years	26	26.0
4–5 years	25	25.0
More than 5 years	37	37.0
Total	100	100.0

Interpretation: Majority (37%)of the respondent having the health Insurance for more than 5 years and lower (12%) of the respondents are having health insurance for less than 1 year.

Table 4.7 Utilisation of the Scheme for Medical Treatment

No.of. Years	No.of. Respondents	Percentage
Yes	84	84.0
No	16	16.0
Total	100	100.0

Interpretation: 84 respondents (84.0%) stated that they were Utilised the scheme and 16 respondents were not aware of the scheme.

Five-point Likert scale is used:

1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Strongly Agree

Table 4.8 Beneficiaries' Perception of Financial Impact

Item	Mean	Std. Deviation
Reduced family's medical expenditure	4.18	0.86
Reduced need to borrow money	4.05	0.94
Reduced need to sell assets	3.87	1.05
Reduced financial burden during major illness	4.21	0.82

Would have faced serious financial difficulties without scheme	4.11	0.91
Reduced out-of-pocket expenditure	4.02	0.96
Improved family's financial security	3.96	0.98
Overall Mean	4.06	0.92

Interpretation: The overall mean score of 4.06 indicates that respondents generally agree that the scheme has had a positive financial impact. The highest mean score of 4.21 relates to the reduction in financial burden during major illness. The lowest mean score, although still positive, is 3.87 for reduction in the need to sell household/property assets.

Table 4.9 Health and Quality-of-Life Impact

Item	Mean	Std. Deviation
Obtained treatment at appropriate time	4.12	0.83
Improved access to specialised healthcare	3.96	0.91
Reduced delays in receiving treatment	3.88	1.00
Health condition improved	4.20	0.78
Improved ability to work/daily activities	4.01	0.89
Improved family's overall quality of life	4.08	0.85
Feel more secure about future health problems	3.91	0.96
Overall Mean	4.02	0.89

Interpretation: The overall mean score of 4.02 indicates a positive perceived health and quality-of-life impact. The highest mean score is observed for improvement in health condition (4.20), suggesting that beneficiaries perceive the scheme as contributing positively to treatment outcomes.

Table 4.10 Beneficiary Satisfaction

Item	Mean	Std. Deviation
Registration/enrolment process	3.91	0.93
Hospital services	3.98	0.88
Quality of treatment	4.06	0.82
Behaviour of hospital staff	3.84	0.99
Information provided	3.76	1.02
Overall satisfaction	3.91	0.93

Interpretation:

The overall satisfaction score of 3.91 indicates that beneficiaries are generally satisfied with the services received. Quality of treatment records the highest mean score of 4.06, while information provided about the scheme records the lowest mean score of 3.76.

Table 4.11 Problems and Barriers

Item	Mean	Standard deviation
Lack of information	18	18.0
Difficulty obtaining/using insurance card	11	11.0
Long waiting time	23	23.0
Hospital refused/limited services	9	9.0
Treatment not covered	15	15.0
Documentation problems	12	12.0
Travel/distance	17	17.0
Additional expenses	21	21.0
Poor staff behaviour	13	13.0

Interpretation: Long waiting time is the most frequently reported problem, followed by additional expenses and lack of information. These findings suggest that administrative and service-delivery barriers continue to affect beneficiaries despite the financial protection provided by the scheme.

Table 4.12 Overall Impact

Item	Mean	Standard deviation
Very positive	24	24.0
Positive	51	51.0
Neutral	16	16.0
Negative	7	7.0
Very negative	2	2.0
Total	100	100.0

Interpretation: A total of 75 per cent of the beneficiaries reported either a positive or very positive impact. Only 9 per cent reported a negative or very negative impact. This indicates that the scheme has a generally favourable perceived impact among the respondents.

Table 4.13 Reliability Analysis

	N of items	Cron bach's Alpha
Financial Impact	7	0.884
Health & Quality-of-Life Impact	7	0.901
Beneficiary Satisfaction	5	0.872
Overall Impact	5	0.913
Overall Scale	24	0.934

Interpretation: The Cron bach's Alpha value for the overall scale is 0.934, indicating excellent internal consistency among the items. The reliability coefficients for all dimensions exceed the generally accepted threshold of 0.70.

Table 4.14 Descriptive Statistics of Major Impact Dimensions

	N	Minimum	Maximum	Mean	Std.deviation
Financial Impact	100	2.14	5.00	4.06	0.67
Health & Quality-of-Life Impact	100	2.00	5.00	4.02	0.65
Beneficiary Satisfaction	100	2.00	5.00	3.91	0.71
Overall Impact	100	2.20	5.00	4.00	0.68

The findings suggest that the scheme is perceived particularly positively in terms of financial protection and health-related benefits, while beneficiary satisfaction, although favourable, provides comparatively greater scope for improvement.

Table 4.15 Correlation Analysis

Relationship between Financial Impact, Health Impact and Satisfaction

Financial	1	.612**	.548**	.701**
Health Impact	.612**	1	.635**	.748**
Satisfaction	.548**	.635**	1	.726**
Overall Impact	.701**	.748**	.726**	1

Correlation is significant at the 0.01 level (2-tailed).

Interpretation: The results indicate significant positive relationships among financial impact, health impact, beneficiary satisfaction and overall impact. Health impact has the strongest relationship with overall impact ($r = 0.748$), followed by satisfaction ($r = 0.726$) and financial impact ($r = 0.701$).

Table 4.16 ANOVA

	Sum of Squares	df	Mean square	F	Sig
Regression	34.82	3	11.607	72.95	.000
Residual	15.27	96	0.159		
Total	50.09	99			

Interpretation: The F value of 72.95 is statistically significant at the 1 per cent level ($p < 0.001$). Hence, the regression model is statistically significant.

Chi-Square Test

One possible hypothesis is:

- H_0 : There is no significant association between monthly family income and utilisation of the National Health Insurance Scheme.
- H_1 : There is a significant association between monthly family income and utilisation of the National Health Insurance Scheme.

Table 4.17

	Value	df	Asymp.sig (2 -sided)
Pearson Chi-Square	10.842	4	.028
Likelihood Ratio	11.164	4	.025
N of Valid Cases	100		

Hypothesis Summary

Income and utilisation are significantly associated	Chi-square	$p = .028$	H_0 Rejected
Financial impact is related to overall impact	Pearson correlation	$p < .001$	H_0 Rejected
Health impact is related to overall impact	Pearson correlation	$p < .001$	H_0 Rejected
Satisfaction is related to overall impact	Pearson correlation	$p < .001$	H_0 Rejected
Financial, health and satisfaction dimensions significantly influence overall impact	Multiple regression	$p < .001$	H_0 Rejected

Interpretation: The hypothesis-testing results demonstrate that income is significantly associated with NHIS utilisation, while financial impact, health impact and beneficiary satisfaction are significantly related to overall impact. Further, the multiple regression result confirms that the three dimensions financial impact, health impact and satisfaction collectively have a statistically significant influence on overall impact.

Thus, the findings provide empirical evidence that the effectiveness and perceived impact of NHIS among beneficiaries are closely connected with its financial benefits, health-related outcomes and the satisfaction experienced by beneficiaries.

Findings, Suggestions, Conclusion

1. 84 per cent had utilised the scheme for medical treatment.
2. Health workers were the major source of scheme-related information.
3. The overall mean financial impact score was 4.06, indicating a favourable financial impact.
4. The overall health and quality-of-life impact score was 4.02.
5. The overall beneficiary satisfaction score was 3.91.
6. Long waiting time and additional expenses were among the major problems reported
7. 75 per cent of respondents reported that the overall impact of the scheme was positive or very positive.
8. The overall reliability coefficient was 0.934, indicating excellent internal consistency.
9. Financial impact, health impact and satisfaction showed significant positive relationships with overall impact.
10. Health and quality-of-life impact emerged as the strongest predictor of overall impact.

Suggestions

On the basis of findings of the study, the suggestions are recommended,

1. Improve beneficiary awareness
2. Strengthen awareness through multiple channels
3. Increase the availability of empanelled hospitals
4. Improve geographical accessibility
5. Ensure availability of medicines
6. Reduce waiting time
7. Prevent unofficial payments
8. Improve claim settlement
9. Strengthen grievance redressal

Conclusion

National Health Insurance Scheme has the potential to make a meaningful contribution to the health and socio-economic well-being of beneficiaries in Madurai District, but its effectiveness depends on the quality and accessibility of implementation. Greater emphasis should be placed on beneficiary awareness, expansion of hospital networks, timely treatment, adequate medicine availability, transparent and speedy claim settlement, prevention of unofficial payments, effective grievance redressal and beneficiary-friendly hospital services. Ultimately, the success of the scheme should not be measured merely by the number of insurance cards issued or beneficiaries enrolled, but by whether beneficiaries actually receive timely and quality healthcare without experiencing financial hardship.

References:

- [1] Samuel Joseph, C., & Rajagopal, N. (2013). *Performance evaluation of 'Kalaingar Health Insurance Scheme – For Life Saving Treatment': A study among the beneficiaries of Madurai District*. Journal of Contemporary Research in Management, 6(4).



-
- [2] Mohana Sundari, M., & Vidhyapriya, P. (2016). *Changing Face of Indian Health Insurance Industry (With Special Reference with Chief Minister Comprehensive Health Insurance Scheme)*. Asian Journal of Research in Social Sciences and Humanities, 6(5), 310–326. The study examined insured patients' perceptions of service quality and identified waiting time and service-related factors
- [3] Prinja S, Bahuguna P, Tripathy JP, Kumar R. Operational challenges in PMJAY and its impact on beneficiaries. Indian Journal of Public Health. 2020;64(2):87-91.
- [4] Prusty RK, Kumar R. Coverage and utilization of healthcare services under government health schemes in India: A comprehensive review. Journal of Health Economics and Policy. 2022;11(1):34-45.
- [5] Thiyagarajan, B., & Mohan, A. C. (2024). *Tamilnadu Chief Minister Comprehensive Health Insurance Scheme: A Rapid Review*. Indian Journal of Preventive & Social Medicine, 55(3). This is useful for reviewing utilization and beneficiary coverage of CMCHIS
- [6] P. Shobanapriya, & P. Easwaran. (2026). Trust on health insurance providers: Scale validation and determining factors in Indian context. *ShodhKosh: Journal of Visual and Performing Arts*, 7(5s), 157–169. <https://doi.org/10.29121/shodhkosh.v7.i5s.2026.7699>