Cost Effectiveness of Comprehensive Government Health Insurance Scheme (MEDISEP) in Kerala

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Abstract: In Kerala, a state renowned for its advanced healthcare system and high human development indices, the implementation of the Medical Insurance Scheme for State Employees and Pensioners (MEDISEP) marks a significant milestone. MEDISEP is designed to provide robust health coverage to state employees, pensioners, and their dependents, ensuring access to quality healthcare services without the burden of financial constraints. This scheme aims to cover a wide array of medical treatments, from routine check-ups to major surgeries, reflecting the state's commitment to enhancing the health and well-being of its public servants. This paper explores the extent to which MEDISEP has been utilized in Kerala, analyzing its reach, effectiveness, and the challenges faced in its implementation. The study employs a mixed-methods approach, combining quantitative data analysis with qualitative insights from beneficiaries and healthcare providers. By examining the scheme's impact on various demographics, including age groups, gender, and socio-economic status, this research aims to provide a comprehensive assessment of MEDISEP's performance. The findings of this study are expected to contribute to the broader discourse on public health policy and the optimization of health insurance schemes in India. By highlighting best practices and pinpointing areas for enhancement, the research aims to offer recommendations that can help in refining MEDISEP and similar schemes.

Key Words: Health Insurance, MEDISEP, Utilisation, Kerala, Cost Effectiven

Introduction

Government health insurance is a public system that provides affordable healthcare to citizens, covering services like hospital stays, doctor visits, preventive care, and prescription medications. Funded by taxpayer dollars, it aims to support vulnerable groups, such as the elderly, low-income families, and people with disabilities. By pooling

resources, government health insurance reduces healthcare disparities, ensuring access to essential services for everyone, regardless of their financial situation. Programs like Medicare in the U.S. and the NHS in the U.K. exemplify universal coverage, treating healthcare as a right, not a privilege.

These programs also help control healthcare costs by negotiating prices and regulating the market, making medical care more affordable. They emphasize preventive care, which reduces serious health conditions, saves money, and improves quality of life. By easing the financial burden of medical expenses, government health insurance promotes economic stability and provides peace of mind. Additionally, these programs can stimulate economic growth by creating jobs in the healthcare sector and supporting related industries. They also help manage public health crises, such as pandemics, by offering a coordinated response.

Government health insurance fosters equity by addressing social determinants of health like housing, education, and nutrition, recognizing that overall health is influenced by factors beyond direct medical care. These systems often include mental health services, which are crucial for comprehensive care and better health outcomes. Moreover, they reduce the administrative complexity seen in private insurance, making it easier for healthcare providers to focus on patient care.

Finally, government health insurance can improve global health by sharing resources and best practices with other nations. By participating in international health initiatives, these programs help enhance health outcomes worldwide. Overall, government health insurance ensures access to essential medical services while strengthening healthcare systems and promoting societal well-being.

Importance of the study
The utilization of government employees' health insurance through MEDISEP in Kerala highlights its potential to shed light on critical aspects of public sector healthcare provision. By examining adoption rates, impact, and challenges associated with this specialized insurance scheme, this research offers valuable insights into the well-being and job satisfaction of government employees, enhancing the understanding of the link between healthcare access and public workforce productivity. Furthermore, as MEDISEP serves as a notable example of state-sponsored healthcare initiatives, the study's findings are relevant for policymakers and administrators aiming to optimize healthcare delivery within the public sector. The results offer potential for improved healthcare access, reduced absenteeism, and, ultimately, a more efficient and motivated government workforce

Medisep: A state-initiated Health insurance Scheme

State of Kerala renowned for its efforts to improve the public health care system and well-being of the people. Medical Insurance Scheme for State Employees and Pensioners (MEDISEP) is an insurance scheme initiated by the government of Kerala to the state employees, pensioners, and their dependents to cover all the expenses related to their healthcare. It is designed to provide robust health coverage, ensuring access to quality healthcare services without the burden of financial constraints. It includes wide array of medical treatments, from routine check-ups to major surgeries. The introduction of MEDISEP is particularly noteworthy in the context of Kerala's demographic and health profile. The state has a high prevalence of non-communicable diseases, an aging population, and a significant portion of its workforce employed in the public sector. These factors underscore the importance of a comprehensive health insurance scheme that can address the varied and growing healthcare needs of its beneficiaries. By mitigating the financial risk associated with medical expenses, MEDISEP seeks to alleviate the economic burden on families, promote preventive healthcare, and improve overall health outcomes.

The present study explores the issues related to utilization of MEDISEP scheme. It also examines the challenges faced by the insured in private hospitals during the claim settlement process, which is vital for further improvement of the scheme satisfaction level of MEDISEP among employees and pensioners. It investigates how well the scheme is known and perceived by the respondents which is essential to identifying effectiveness of the scheme. Further, the study also examines the scheme's impact on various demographics such as age groups, gender, and socio-economic status Moreover, the study investigates the geographical distribution of MEDISEP's benefits, considering both urban and rural areas. Kerala, with its diverse landscape, presents unique challenges and opportunities in healthcare delivery. The analysis also extends to the accessibility and utilization of services provided under the scheme, exploring factors such as hospital network adequacy, patient satisfaction, and the efficiency of service delivery this paper investigates the awareness and perception of MEDISEP among its beneficiaries. Understanding how well the scheme is known and perceived by the target population is essential for identifying gaps in communication and education.

The findings of this study are expected to contribute to the broader discourse on public health policy and the optimization of health insurance schemes in India. By highlighting best practices and pinpointing areas for enhancement, the research aims to offer recommendations that can help in refining MEDISEP and similar schemes. Ultimately, this paper aspires to support the development of more effective, inclusive, and sustainable health insurance programs that can significantly improve public health

outcomes in Kerala and beyond the utilization of MEDISEP in Kerala serves as a vital case study for understanding the dynamics of public health insurance schemes. Through a detailed analysis of its implementation, challenges, and successes, this paper seeks to provide valuable insights that can inform policy decisions and enhance the health and welfare of government employees and pensioners. As Kerala continues to pioneer in healthcare innovations, the lessons learned from MEDISEP will be instrumental in shaping the future of health insurance in India.

Review of literature

Health insurance facilitates affordable health care to all the citizens. Especially, the government health insurance scheme provides low-cost health insurance coverage to the needy people. Nee raj Sod and Earn Bend avid (2014) examine the role of government insurance (Vajpayee Arogya Shree scheme) in providing tertiary care to the population belongs to below poverty line. They found that government insurance improves the public health by helping the poor people to access the quality healthcare system. Despite the success of government insurance scheme, several studies highlight implementation challenges of government insurance scheme. Devi Nair (2014) notes that the government insurance provide access to quality health care but shows a delay in claim settlements. This creates problem to patients while dis-charging from hospitals Pushpendra Singh (2017) criticizes the overemphasis on insurance without strengthening pub-lic infrastructure, leading to continued high out-of-pocket (OOP) expenses. Similarly, Joel Oommen Muzhangody (2021) points out low enrollment among the poorest, stressing the need for greater awareness and accessibility. Sandhya Mahapatra (2018) shows that despite broader insurance coverage, health spending remains regressive, with the poorest spending a larger portion of their income. In Kerala, Harish and Ravindran (2020) found that one-fourth of patients remain uninsured, emphasizing the role of local governance in boosting awareness and enrolment.

Garge et al(2024) examine the effect of AB-PMJAY on inpatient care after four years of its implementation. The study primarily inspects the utilization, quality, and financial protection provided by the scheme. It found that even though it has increased the coverage but it has made a significant improvement in above said objectives. Sharma and Sen (2025) examine the effectiveness of Pradhan Man-tri–Jan Arogya Yojana (PMJAY) in providing quality healthcare in rural house hold. The study found that the scheme has improved the healthcare access but still suffers from enrolment and informational issues regarding its implementation Johnson and Krishnaswamy (2012) examine the impact of Rastriya swastika Bheema Yojana (RSBY) in providing quality healthcare services to poor people in the country. The study found that the scheme has

reduced the out-of-pocket expenditure and medical expenses.

Aggarwal A. (2010) examines the impact of Yashvasini Community based health insurance programme launched by government of Karnataka. It is the first cooperative medical insurance scheme to provide medical protection for cooperative members. The study focused on health care utilisation, financial protection treatment outcome and economic well-being. The study found that the scheme has increased the health care utilisation and reduced the out-of-pocket expenses.

Fan et al (2012) examines the impact of the Arogya Sri health insurance scheme introduced by government of Andra Pradesh in 2007 to meet the medical expenses of the 'below poverty line' households. The study found that the burden of hospital expenditure (out of pocket expenditures) of the people belongs to 'below poverty line' is reduced but not all sections of the population especially schedule cast and schedule tribe.

While Jane Smith (2022) praises smooth reimbursement for government employees during the period of their treatment, However, John Doe (2023) highlights delays and bureaucracy. Harsh Dave (2021) recommends ration-al remuneration, expanded service coverage, and use of technology to enhance efficiency and provider participa-tion. In summary, while health insurance schemes in India have increased access, significant gaps remain in equity, financial protection, and implementation. Addressing these issues requires better infrastructure, targeted out-reach, and systemic reforms.

Statement of the problem

Despite the implementation of the government health insurance scheme in Kerala, significant challenges remain in its utilization issues such as administrative hurdles in the claims process, disparities in access to healthcare services across different regions, and the adequacy of coverage for specialized treatments have hindered the scheme's effectiveness. Devi Nair (2014) Hence, concerns persist regarding the quality of care provided by the government insurance schemes the efficiency in claim settlement, coverage and sustainability of the program. In this context, it is inevitable to check the in-claim settlement and coverage of the newly introduced the government insurance scheme (MEDISEP), ensuring equitable and efficient healthcare delivery to all eligible residents in Kerala.

Objectives of the study

- To examine the satisfaction level of respondents on MEDISEP Scheme in different departments
- To compare the easiness of availing MEDISEP government vs Private hospitals
- To analyses the problems associated with the utilization of MEDISEP scheme

Hypothesis

Ho: There is no significant difference in the level of satisfaction among the MEDISEP scheme users in different departments.

Ho: There is no significant difference between the easiness of availing MEDISEP government vs Private hospitals.

Methodology

The study has used descriptive methodology and data is collected through a structured questionnaire. The data collected from 103 respondents from different government departments such as collegiate education, General Education, Health department, Forest departments and police department. The study also included the pensioners also from above mentioned departments in Palakkad region. The questions are in the line with the objectives of the study. The study has used Pearson chi square test to test the hypothesis of the study. The study also makes use of secondary data. These data have been collected from various sources like Journals, Medias, and Websites etc.

The respondent's demographic profile was explained in the following table.

Table1: Demographic profile of the respondents

Gender	Frequency	Percentage
Male	49	48
Female	54	52
Total	103	100
Age		
Age	**Frequency**	**Percentage**
25-35	9	9
35-45	64	62
45-55	24	23
Above55	6	6
Total	103	100
Department Wise Classification		
Departments	**Frequency**	**Percentage**
Education	55	53
Collegiate	28	27
Forest	4	4
Police	5	5

Health service	9	9
Others	2	2
Total	103	100
Income Wise Classification		
Income	**Frequency**	**Percentage**
Below5lakh	32	31
5-10lakh	55	53
Above10lakh	16	16
Total	103	100

Source: Field Survey

Table 1shows the demographic profile of the respondents; it includes gender, age, income and department wise classification of the respondents. age wise classification of the collected sample according to the table out of 103 samples the majority (52%) of the sample are belonging to female category The age distribution shows that the majority of individuals (62%) are between 35-45 years old. The next largest group is aged 45-55 (23%), followed by those aged 25 -35 (9%), and the smallest group is above 55 (6%). Overall, most individuals fall into the 35-45 age range. Moving To The department wise classification of the sample the majority of individuals are in the Education department (53%). The Collegiate department follows with 27%. Smaller groups are in Health Services (9%), Police (5%), Forest (4%), and Others (2%). income wise classification shows that the most of the respondents have an income in between 5-10lakh (53%). The next largest group earns below 5 lakh (31%), while high income above 10 lakh only earn by (16%) of the respondents.

Analysis and discussions
The study basically examines the level of the satisfaction of respondents on MEDISEP Scheme. Sood and Eran Bend avid (2014) informs that government insurance provides a facility enhances the public health by helping the poor people to access the quality healthcare system. However, there are different implementation challenges raised in the study. Moreover, present study also compares the easiness of availing MEDISEP scheme in government as well as Private hospitals.

Ho: There is no significant difference in the level of satisfaction among the MEDISEP scheme users in different departments.

Table 2: Departments wise satisfaction Level under the Scheme

Response	Dissatisfied		Neutral		Satisfied		Total	
	N	%	N	%	N	%	N	%
Collegiate	3	10.71	11	39.29	14	50.00	28	27.18
Education	38	69.09	7	12.73	10	18.18	55	53.40
Forest	2	50.00	2	50.00	0	0.00	4	3.88
Health service	2	18.18	4	36.36	5	45.45	11	10.68
Police	2	40.00	1	20.00	2	40.00	5	4.85
Total	47(45.6%)	100.00	25(24.3%)	100.00	31(30.1)	100.00	103	100.00
Pearson Chi-Square: 31.903, df: 8,, Asymptotic Significance (2sided): 0.001								

Table 2 shows the department wise satisfaction level of the respondents. 47 respondents are dissatisfied with the MEDISEP scheme. 24.3% of the respondents are neutral to the level of satisfaction.30.1 percent of the respondents are satisfied with the scheme. When study considers overall satisfaction level, one third of the respondents are satisfied with the scheme and nearly half of the respondents are not satisfied with the scheme. Department of collegiate education (50.00) and health service departments (45.45) show the highest level of satisfaction regarding the MEDISEP scheme. However, the education departments (69.09) and Forest department (50.00) responses indicate that they are not satisfied with MEDISEP Scheme. However, police department (40.00) shows mixed result regarding the satisfaction.

The level of satisfaction differs across the departments. Collegiate and Health departments show highest level of satisfaction whereas the education and forest department's respondents are dissatisfied with the MEDISEP scheme. The study has used Pearson chi square test to test the level of satisfaction of MEDISEP users in different departments. The test shows a chi-square value of 31.903 with a significant level of 0.001. Since the p value is less than 0.05, the study can reject the null hypothesis. This indicate that satisfaction is associated with the department in which the employee they work.

Ho: There is no difficulty in availing MEDISEP in government vs Private hospitals

Table 3: The difficulty in availing MEDISEP scheme in government vs Private hospitals

Response	Yes		No		Total	
	N	%	N	%	N	%
Government Hospital	11	16.67	15	40.54	26	25.24272
Private Hospital	55	83.33	22	59.46	77	74.75728
Total	66(64.07)	100	37(35.97)	100	103	100
Pearson Chi-Square: 7.161, Df:1, Asymptotic Significance (2-sided): .007						

64.07 of the respondents inform that they faced some form difficulty in availing MEDISEP. However, 37.97 of the respondents informs that they never faced any difficulty in availing the MEDISEP. It should be noted that 40.54 percent of the respondents have never faced any difficulty in utilizing the MEDISEP scheme in government hospital while 59.46 percent of the respondents informs that they never faced any difficulty in availing MEDISEP. However,83.33 percent of the respondents who availed MEDISEP service through private hospitals informed that they faced some form difficulty in availing MEDISEP. But, 16.67 percent of the respondents informed that they faced some difficulty in availing MEDISEP.

The Chi-Square tests show a the easiness of availing MEDISEP government vs Private hospitals. The Chi-Square value of 7.161with a P-value of .007, The P-value are much lower than the typical significance level of 0.10, indicating that there is a statistically significant association between easiness of availing MEDISEP government vs Private hospitals. This suggest that the MEDISEP users are facing difficulty in private hospitals compared to government hospitals

The problems associated with the utilization of MEDISEP scheme

The study found that three major problems associated with the utilization of MEDISEP scheme. (a) coverage, (b)24 hours compulsory treatment(c) government responsiveness

Table: 4 Sufficiency of Annual Coverage

Response	Frequency	Percent	Valid Percent
Yes	20	19.4	19.4
No	83	80.6	80.6
Total	103	100.0	100.0

Source: field survey

Table 4 shows that 80.6percent of the respondents informed that the annual coverage associated with the current MEDISEP scheme is not sufficient for meeting the medical expenses. However, 19.4 percent of the respondents inform that the present annual coverage is adequate for meeting the medical coverage. However, the increasing cost of medical expenses in the country demand higher annual coverage of the scheme so that a four-member family can easily accommodates their medical claims.

Table 5: Reaction towards the 24 hours compulsory treatment in hospital for claiming the coverage

Response	Frequency	Percent	Valid Percent
Agree	22	21.4	21.4
Disagree	81	78.6	78.6
Total	103	100.0	100.0

Source: field survey

Table 5 shows the response towards the 24 hours compulsory treatment in hospital clause for claiming the coverage. 78.6 percent of the respondents disagree with the clause '24 hours compulsory hospitalisation for getting insurance protection'. However, 21.4 percent of the respondents are agreed with clause. It should be noted that minor hospitalisation charges cannot be covered hence that is still a financial burden to the employees

Table 6: Government responsiveness to issues related to MEDISEP

Response	Frequency	Percent	Valid Percent
Excellent	6	5.8	5.8
Above Average	8	7.8	7.8
Average	41	39.8	39.8
Poor	20	19.4	19.4
Below average	28	27.2	27.2
Total	103	100.0	100.0

Source: field survey

Table 6 shows the government responsiveness to the issue related to MEDSEP. 5.8 percent of the respondents informs that the government responsiveness to the issue related to MEDISEP was excellent. 7.8 percent of the respondents informs that responsiveness of government was above average. 39.8 percent of the respondents informs that the government responsiveness was average.19.4 percent of the respondents informs that the government responsiveness was poor. However, 27.2 percent of the respondents informs that the government responsiveness was abysmally low.

Conclusion

The study has examined the satisfaction level of respondents on MEDISEP Scheme in different departments. The study found that satisfaction level of employees is not homogeneous Satisfaction is associated with the department in which the employee work. The second objectives compared the difficulty in availing the MEDISEP Scheme in government as well as private hospitals. The study found that employees face more difficulty in private hospitals while availing MEDISEP. The third objectives examine the problems associated with MEDISEP scheme. Primarily, the survey identified the three important problems related to MEDISEP; a) sufficiency annual coverage, b) 24 hours compulsory hospitalisation for obtaining medical coverage and c) Government responsiveness to issues related to MEDISEP employees. It should be noted that the government employees enrolled in this scheme due to the mandatory requirements by the government. Most of the employees are aware of the scheme but the they are not completely aware on the scheme details. It is the duty of the government to ensure a fair and competitive approach in proving health insurance so that the employees can go cashless irrespective of the hospitals.

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