



NATIONAL  
AYUSH  
MISSION  
KERALA



Government of Kerala

NATIONAL AYUSH MISSION KERALA

# **IMPACT ASSESSMENT REPORT**

## **2024-25**

### **PUBLIC HEALTH PROGRAMMES**



# **Impact Assessment Report 2024-2025**

## **Public Health Programmes**



**National AYUSH Mission Kerala**



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## SUPRAJA AYUSH Maternal & Neo-natal Intervention

### Introduction

The SUPRAJA initiative is a pioneering program under the AYUSH system aimed at enhancing maternal and neonatal health through time-tested traditional practices. Rooted in the holistic philosophy of Ayurveda, SUPRAJA seeks to ensure the well-being of both mother and child, beginning from conception and extending through pregnancy, childbirth, and the postnatal period. In an era where modern medicine often overlooks the personalized and preventive aspects of care, SUPRAJA reintroduces the value of traditional knowledge systems. It integrates Ayurvedic antenatal and postnatal care, including dietary guidance, lifestyle modifications, herbal remedies, yoga, and mental wellness support. These interventions are designed to not only prevent complications and reduce the need for operative deliveries but also to promote natural birth practices and faster postpartum recovery.

Targeted at pregnant women, lactating mothers, and infants across Kerala, the initiative utilizes the infrastructure of AYUSH teaching institutions and government hospitals. It emphasizes community outreach, awareness, and capacity building among healthcare professionals to make Ayurveda-based maternal care more accessible and accepted.

SUPRAJA represents a comprehensive, culturally sensitive, and sustainable model of maternal and child healthcare bringing ancient wisdom into alignment with contemporary public health priorities.

Currently, SUPRAJA is being implemented at three centers across Kerala: The Women and Child Hospital in Poojappura, Thiruvananthapuram, Government Ayurveda College in Thrissur, and Government Ayurveda College in Kannur.

### An Ayurvedic Approach to Antenatal and Postnatal Well-being

Pregnancy and childbirth mark significant transitions in a woman's life, bringing about profound physical, physiological, emotional, and psychological changes. To ensure a safe and healthy journey through motherhood, expecting mothers require continuous, holistic support from both families and healthcare providers. In Kerala, despite the implementation of WHO-recommended antenatal care protocols, challenges persist as caesarean section rates are as high as 40%, and nearly 49% of

pregnancies are categorized as high-risk. These statistics highlight the growing need for integrative and complementary approaches to maternal health.

Ayurveda, the ancient science of holistic medicine, offers a comprehensive and time-tested perspective on maternal care, encompassing both antenatal and postnatal phases. During pregnancy, Ayurvedic care focuses on the well-being of both mother and foetus through monthly dietary regimens, herbal formulations, and personalized lifestyle modifications, designed to support optimal foetal development, prevent complications, and promote natural delivery.

Equally vital is the postnatal period a critical, yet often underemphasized phase in conventional healthcare. Alarming, most maternal and neonatal deaths occur within the first month after childbirth, with nearly half taking place within the first 24 hours and 66% during the first week. In 2013, 2.8 million newborns died within their first month of life, one million of whom died on the very first day. Ayurveda offers structured postnatal care aimed at restoring maternal vitality, stabilizing emotional health, enhancing lactation, and ensuring healthy growth and immunity in the newborn.

The SUPRAJA initiative embraces these Ayurvedic principles to create a robust maternal and neonatal intervention model. By integrating traditional wisdom with modern healthcare frameworks, SUPRAJA aims to enhance maternal and child health outcomes through preventive, restorative, and personalized care. Raising awareness about the benefits of Ayurvedic antenatal and postnatal care is essential for encouraging broader adoption and improving the quality of maternal healthcare across the state.

### **Impact Assessment 2024-2025**

This impact assessment report is to evaluate the effectiveness of the SUPRAJA program, which integrates Ayurvedic principles into maternal and neonatal healthcare with the aim of delivering holistic, accessible, and effective services to improve health outcomes. The assessment seeks to understand the program's performance and gather insights that can inform future enhancements in service delivery and outreach.

### **Objectives**

- To assess the service quality of the SUPRAJA program, evaluating the effectiveness, accessibility, and satisfaction levels of beneficiaries.

### **Methodology**

To evaluate the effectiveness, service quality, and outreach of the SUPRAJA program, a cross-sectional survey was conducted in the month of February. The study involved 108 beneficiaries who had received maternal and neonatal healthcare services under the program.



Data collection was carried out using a structured questionnaire developed based on the SERVQUAL model, a widely recognized framework for assessing service quality. The questionnaire encompassed 20 statements grouped under five core dimensions of service quality: Tangibility, Reliability, Responsiveness, Assurance, and Empathy. These dimensions were tailored to measure the quality of care provided through SUPRAJA program

The tool was designed not only to evaluate experience of service quality but also to gather insights on beneficiary satisfaction, accessibility of services, and effectiveness of care. Data was collected through a Google Form, which was shared with the beneficiaries by the attending doctors. The responses were then compiled and analysed to identify the program's strengths and highlight areas requiring improvement in service delivery and communication.

### **Analysis**

To assess the overall service quality under the SUPRAJA program, the SERVQUAL model was employed to evaluate five key dimensions: Tangibility, Reliability, Responsiveness, Assurance, and Empathy. Each dimension comprised specific items designed to capture various aspects of healthcare delivery from the beneficiaries' experience. The average score for each dimension was calculated by taking the mean of individual item scores: Tangibility was derived from four items assessing physical facilities, staff appearance, quality of materials, and the presentation of Ayurvedic medicines and educational tools. Reliability encompassed five items evaluating the consistency and dependability of services, such as timely appointments and the effectiveness of interventions. Responsiveness, based on four items, measured the promptness and attentiveness of staff in addressing queries and emergencies. Assurance included four items assessing the professionalism, courtesy, and confidence instilled by the staff. Empathy, calculated from five items, evaluated the level of personalized care, emotional support, and respect shown to beneficiaries. An overall service quality (OSQ) score was then computed as the average of the five-dimension scores ( $OSQ = (TA + RL + RN + AS + EM) / 5$ ). These results provided a comprehensive overview of service strengths and gaps, aiding in the identification of priority areas for program enhancement and strategic planning. A higher score in each category reflected greater alignment between beneficiary expectations and the actual service experience delivered under the SUPRAJA initiative.

### **Result**

To assess the service quality of the SUPRAJA program, feedback was gathered from 108 beneficiaries through a structured SERVQUAL-based questionnaire. The tool covered five key dimensions: Tangibility, Reliability, Responsiveness, Assurance, and Empathy designed to evaluate various aspects of service delivery of SUPRAJA programme.

The responses were analysed to determine average scores for each dimension, offering a snapshot of beneficiaries' experiences. The results highlight strengths as well as areas needing improvement, providing a basis for future service enhancements.

### **Tangibility (Physical Facilities, Equipment, and Material)**

The assessment of tangible elements under the Supraja Project reflects a generally positive experiences among beneficiaries. These include aspects such as infrastructure, medical materials, visual aids, and staff presentation all of which play a crucial role in shaping patient experiences and satisfaction.

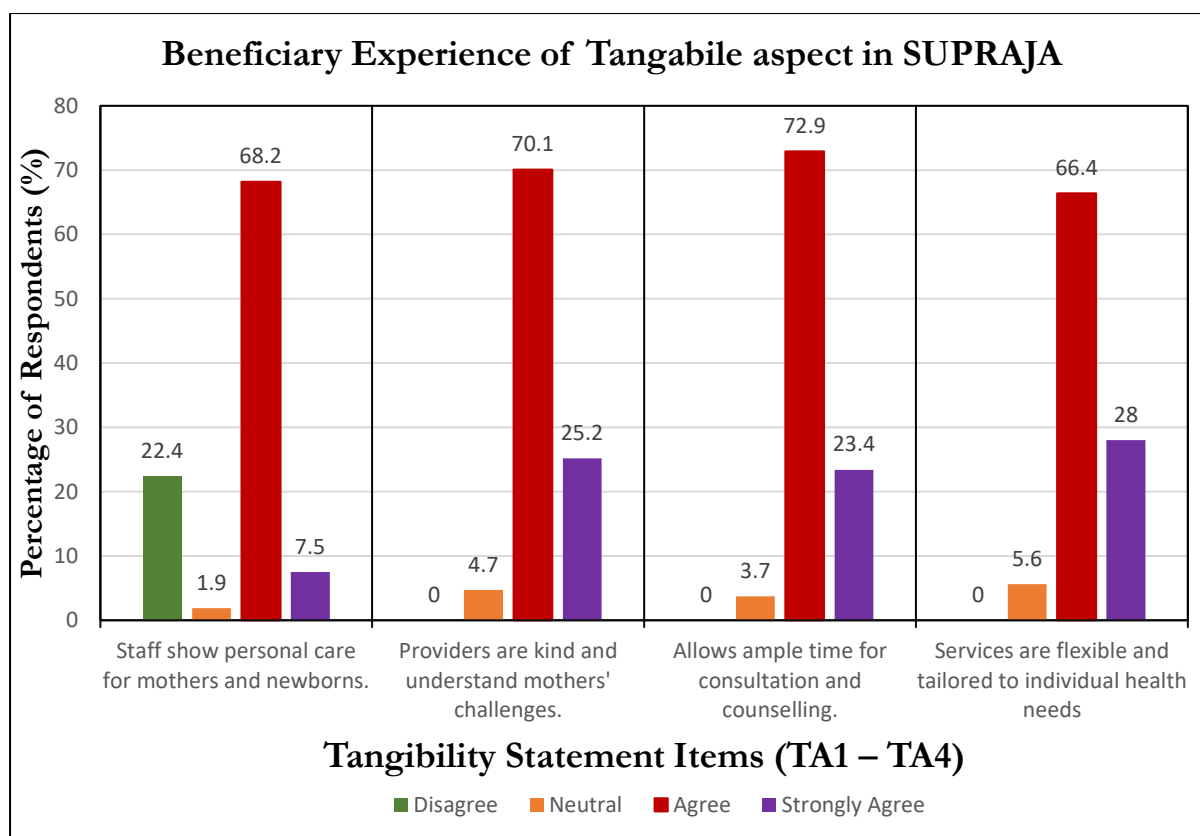
A significant majority of respondents expressed satisfaction with the cleanliness and upkeep of the healthcare facilities, with 73.8% agreeing and 22.4% strongly agreeing that the premises are well-maintained. This highlights a strong adherence to hygiene and facility management standards, which is especially critical in maternal and neonatal care.

Similarly, staff appearance and hygiene received very high ratings, with 69.2% agreeing and 26.2% strongly agreeing that staff maintain professional standards. This not only enhances the overall clinical atmosphere but also builds confidence among patients regarding the quality of care provided.

The visual materials such as posters and brochures used to convey healthcare guidelines were positively rated as well. 72% of participants agreed that these resources were helpful and visually appealing, suggesting effective communication of care-related information. However, a small portion (21.5%) disagreed, indicating an opportunity to enhance the clarity, accessibility, or design of these materials to cater to diverse literacy and comprehension levels.

On the other hand, responses regarding the quality and packaging of Ayurvedic medicines and supplements were mixed. While the majority (71%) chose to remain neutral, 25.2% expressed disagreement, and only a small minority (3.7%) showed positive agreement. This ambivalence signals potential concerns about the perceived efficacy, presentation, or trust in Ayurvedic treatments. The neutral stance of the majority also implies a lack of strong opinions either due to insufficient awareness, understanding of the treatments, or limited observable results.

In summary, while physical infrastructure and staff presentation are clear strengths of the Supraja Project, areas like the quality of Ayurvedic medicine packaging and the impact of visual educational materials present opportunities for enhancement. Strategic improvements in these areas can help elevate beneficiary trust, ensure better treatment adherence, and further solidify the program's credibility.



**Fig 1:** Beneficiary Experience of Tangible aspect in SUPRAJA

### Reliability (Consistency and Accuracy in Service Delivery)

The reliability of services under the SUPRAJA program was evaluated through four key indicators aimed at assessing consistency, effectiveness, timeliness, and adherence to scheduled commitments. The overall feedback indicates a generally strong experience of service reliability among the beneficiaries.

A significant proportion of respondents reported that care is delivered reliably across visits, with 73.8% agreeing and 24.3% strongly agreeing with the statement. This high level of agreement suggests that beneficiaries experience a consistent standard of care during their engagement with the program.

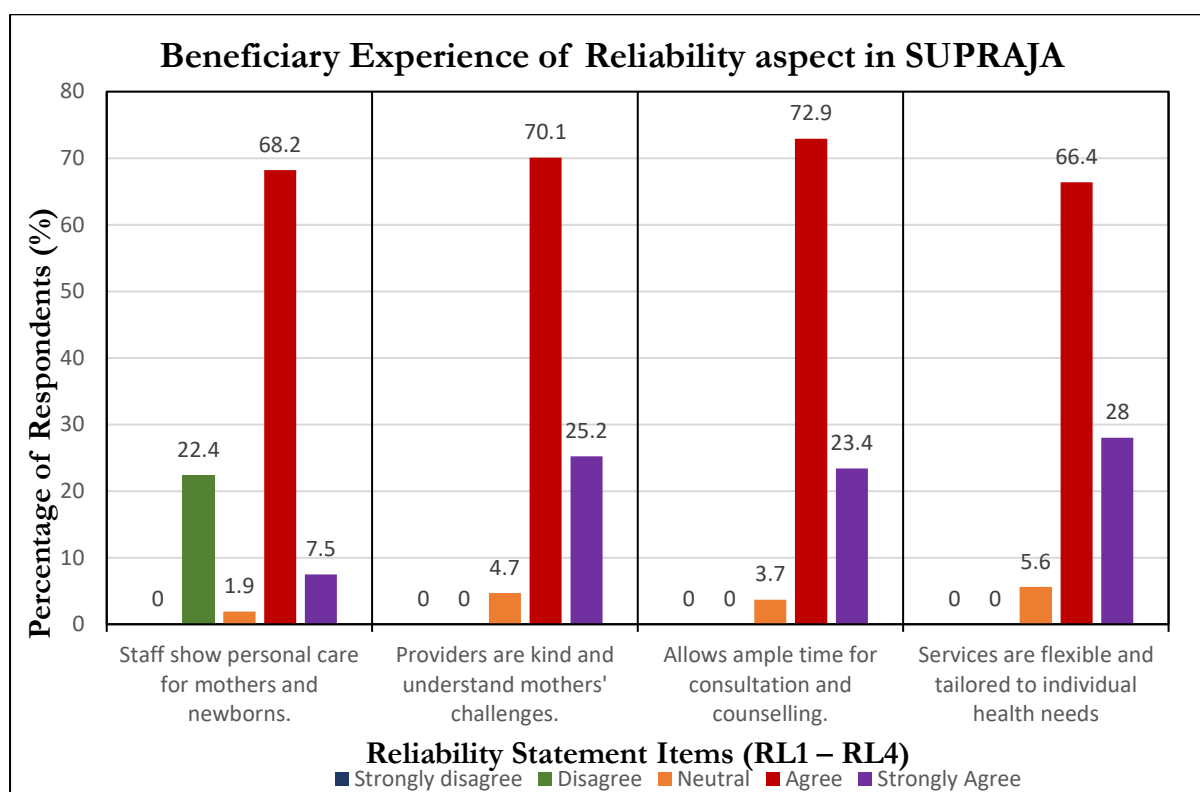
Regarding the delivery of promised services such as regular checkups and counselling sessions, 69.2% agreed and 6.5% strongly agreed that these services were provided as scheduled. This highlights effective planning and execution in routine service offerings. However, 23.4% of participants disagreed, indicating that a notable minority experienced lapses in scheduled service delivery, which warrants further investigation.

Perceptions about the effectiveness of Ayurvedic interventions were more divided. While a majority (64.5%) agreed that these interventions positively impacted maternal and neonatal health,

a considerable 29.9% disagreed, and 0.9% remained neutral. This gap suggests the need for better education or follow-up regarding the intended outcomes and evidence of effectiveness of these treatments.

On the issue of timeliness, 62.6% agreed and 8.4% strongly agreed that there were no unnecessary delays in receiving services or medicines. However, 26.2% disagreed, and 0.9% strongly disagreed, indicating that more than a quarter of the participants faced delays, which could affect satisfaction and trust in the program.

In conclusion, while the SUPRAJA program demonstrates commendable strengths in providing consistent and scheduled care, attention is needed to improve the effectiveness of Ayurvedic treatments and to reduce service delivery delays. Addressing these areas can enhance overall reliability and reinforce the program's credibility among beneficiaries.



**Fig 2:** Beneficiary Experience of Reliability aspect in SUPRAJA

### **Responsiveness (Willingness to Help and Provide Prompt Service)**

The responsiveness of services under the SUPRAJA program was evaluated using four key indicators aimed at measuring the promptness, approachability, and supportiveness of healthcare staff in both routine and urgent scenarios. Overall, the feedback reflects a positive experiences of the staff's willingness to assist and deliver timely services, although some areas show room for improvement, particularly in emergency care responsiveness.

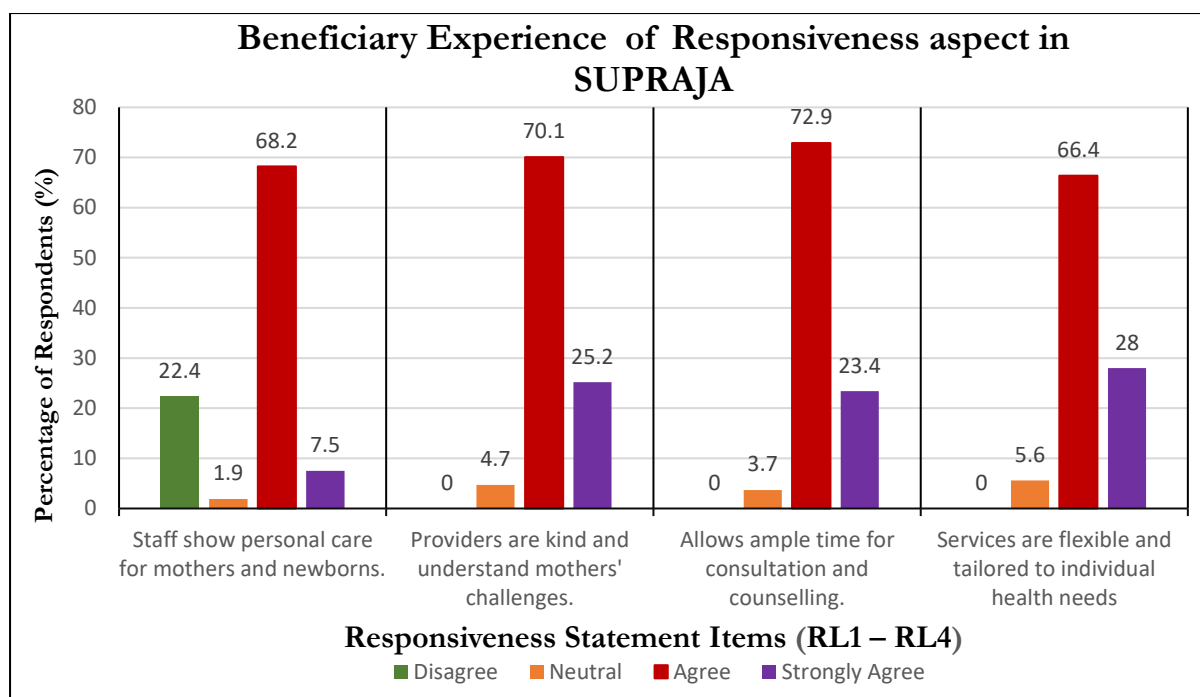
A substantial majority of respondents expressed confidence in the ability of staff to address maternal and neonatal care concerns efficiently. Specifically, 65.4% agreed and 29.9% strongly agreed that their queries and concerns are promptly attended to, indicating a high level of attentiveness and engagement from the service providers. This suggests that the healthcare personnel are responsive and accessible, creating a supportive environment for beneficiaries.

When assessing staff approachability and their efforts to clarify doubts about treatments, 71% of respondents agreed and 27.1% strongly agreed. This reflects a strong communication dynamic between healthcare providers and beneficiaries, which is essential for fostering trust and understanding, especially in a program involving traditional medical approaches like Ayurveda.

Efficient management of appointments and follow-up services also received favorable feedback. A combined 97.2% (72.9% agree, 24.3% strongly agree) indicated satisfaction with how these aspects are handled, suggesting streamlined service coordination and a commitment to maintaining continuity of care.

However, feedback on emergency responsiveness revealed some concern. While 70.1% of respondents agreed that timely assistance is provided in urgent situations, 23.2% disagreed, and 0.9% remained neutral. This indicates that nearly a quarter of participants may have experienced delays or challenges in accessing care during emergencies, pointing to a potential gap in the program's ability to respond swiftly in critical situations.

In conclusion, the SUPRAJA program demonstrates strong performance in routine responsiveness, marked by effective communication, accessible healthcare providers, and efficient scheduling. However, improving emergency response mechanisms remains a priority to ensure comprehensive and timely care across all scenarios. Strengthening this aspect will further enhance beneficiary trust and the overall responsiveness of the program.



**Fig 3: Beneficiary Experience of Responsiveness aspect in SUPRAJA**

### **Assurance (Knowledge, Courtesy, and Trust-building of Staff)**

The assurance component of the SUPRAJA Project was assessed through four indicators focusing on staff expertise, communication, patient confidence, and respect for privacy. Overall, the responses reflect a strong experience of staff professionalism and their ability to inspire trust among beneficiaries, although certain aspects, particularly around patient safety during consultations, require further attention.

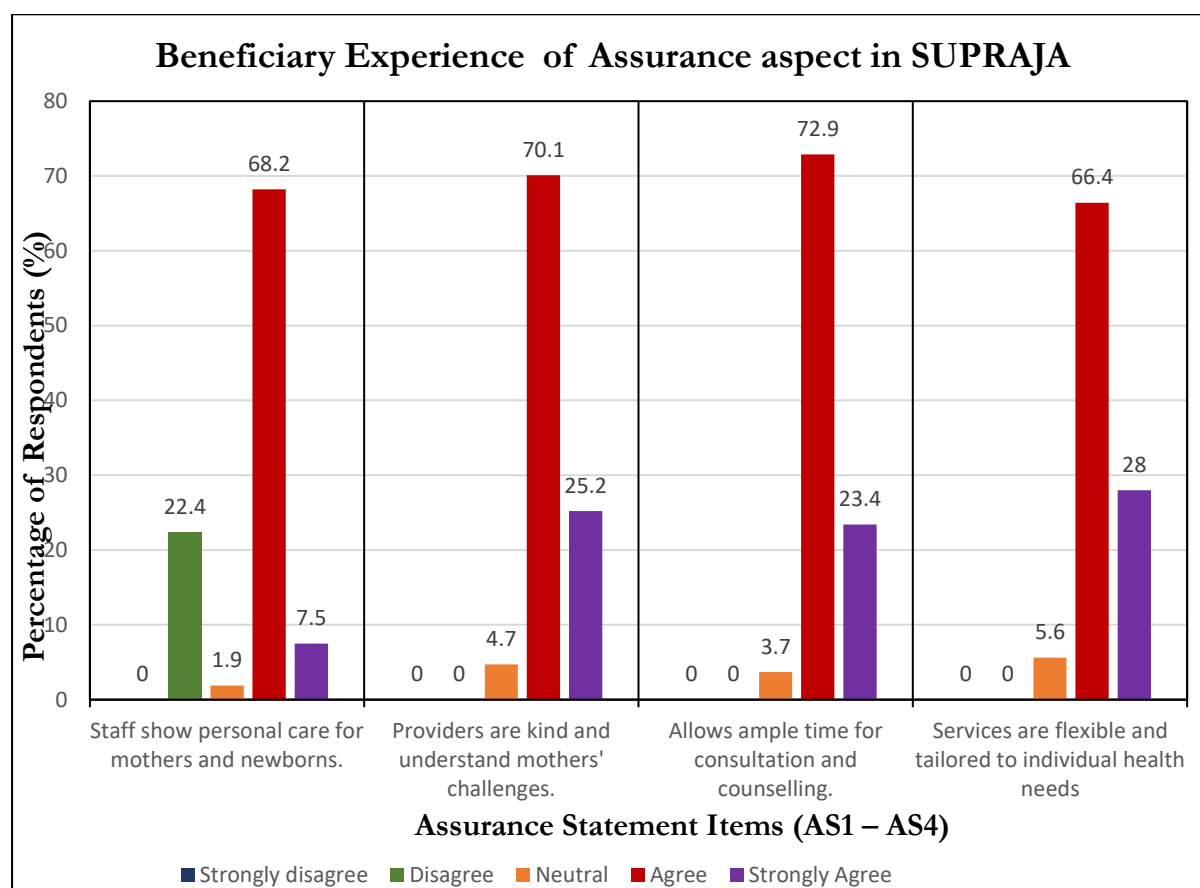
A large majority of respondents expressed confidence in the knowledge of healthcare providers, with 68.2% agreeing and 24.2% strongly agreeing that the staff are well-versed in Ayurveda and maternal health. This high level of agreement suggests that beneficiaries perceive the care team as competent and qualified, which is essential for building trust in the services provided.

Similarly, 67.3% of participants agreed and 27.1% strongly agreed that the staff communicates clearly and helps build confidence in the care process. Effective communication not only enhances understanding but also reassures beneficiaries, particularly in a healthcare setting that involves traditional practices like Ayurveda.

Respect for privacy and confidentiality during counselling and treatment sessions also received favorable feedback, with 70.1% of respondents agreeing and 3.7% strongly agreeing that these aspects are upheld. This reflects a patient-centered approach and attention to ethical standards in service delivery.

However, the data reveals a significant concern regarding the sense of safety and assurance during consultations and treatments. While 68.2% agreed and 1.9% strongly agreed that they felt safe, a notable 29% of respondents disagreed. This indicates that nearly one-third of the participants may not feel entirely secure or comfortable during their interactions, which could undermine trust and satisfaction.

In conclusion, the SUPRAJA Project demonstrates a strong foundation in staff knowledge, effective communication, and respect for privacy. To further strengthen assurance and build lasting trust with beneficiaries, it is crucial to address the concerns around patient comfort and safety during consultations. Enhancing this aspect will contribute to a more holistic and reassuring care experience.



**Fig 4:** Beneficiary Experience of Assurance aspect in SUPRAJA

### Empathy (Caring and Individualized Attention)

The empathy aspect of the SUPRAJA Project was evaluated through indicators focusing on personalized care, compassion, consultation time, and service flexibility. The overall feedback indicates a strong level of patient-centered care, with most beneficiaries recognizing the

compassion and attentiveness shown by the healthcare providers. However, the results also point to specific areas where improvements could enhance individualized attention.

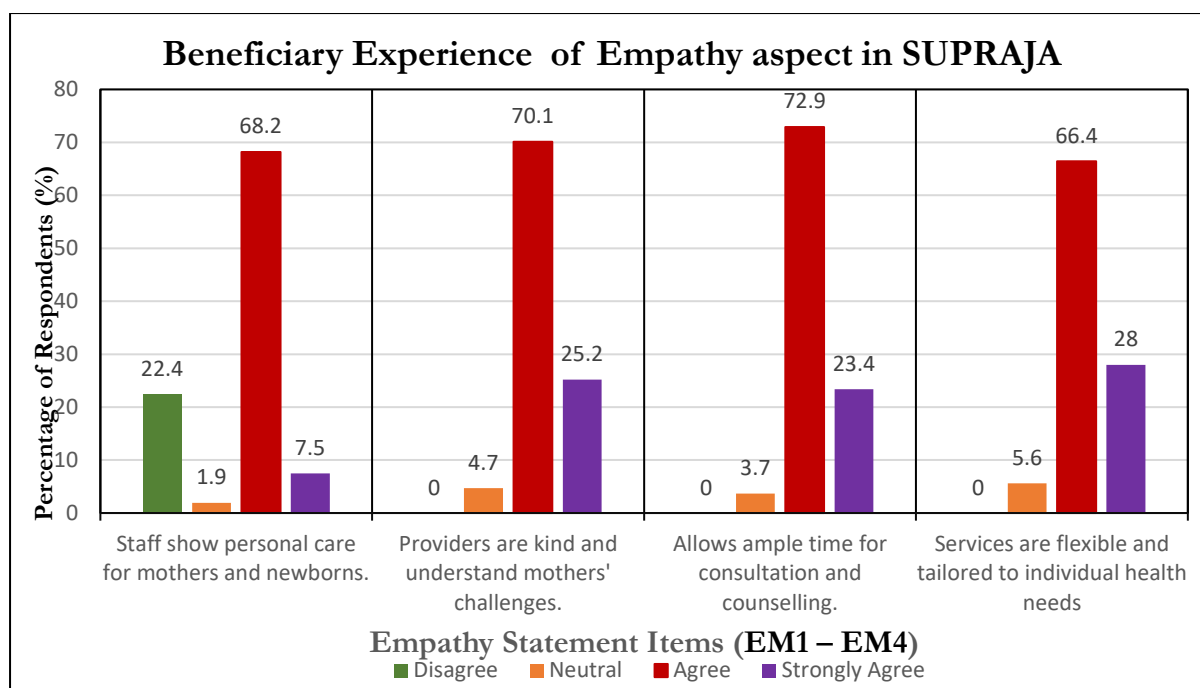
A substantial majority of respondents acknowledged the compassion of healthcare providers, with 70.1% agreeing and 25.2% strongly agreeing that staff are understanding of the challenges faced by mothers. This reflects a high degree of emotional support and sensitivity in care delivery. Similarly, the time dedicated to consultations and counselling was well received, with 72.9% agreeing and 23.4% strongly agreeing that sufficient time is spent with each beneficiary. This indicates that the project prioritizes thorough interactions over rushed appointments, contributing to a more supportive care experience.

In addition, the flexibility of services to accommodate individual health needs was positively noted by 66.4% of respondents who agreed and 28% who strongly agreed. These results highlight the program's responsiveness to varying health requirements, reinforcing its commitment to tailored healthcare solutions.

However, a notable concern emerges regarding the perception of personalized attention. While the overall trend is positive, 22.4% of respondents disagreed with the statement that staff take a personal interest in addressing their individual needs, and 1.9% remained neutral. This indicates that nearly a quarter of beneficiaries may feel overlooked or not fully engaged on a personal level, which could affect their sense of being valued and understood.

In conclusion, the SUPRAJA Project demonstrates commendable strengths in compassionate care, dedicated consultation time, and service flexibility. To enhance the empathy component further, increased focus on personalized staff engagement and proactive attention to individual concerns is recommended. This would foster deeper trust and greater satisfaction among beneficiaries, strengthening the project's overall impact.





**Fig 5:** Beneficiary Experience of Empathy aspect in SUPRAJA

### Comprehensive Service Quality Assessment Using SERVQUAL Model

This analysis evaluates the overall service quality of the SUPRAJA Project using the SERVQUAL framework, which includes five key dimensions: Tangibles, Reliability, Responsiveness, Assurance, and Empathy. Each dimension is measured through four survey items, with mean scores calculated to assess perceived performance.

Tangibility received a moderate average score of 3.71, indicating general satisfaction with physical aspects such as cleanliness, equipment, and staff appearance. While items like TA1 (4.19) and TA4 (4.22) received high ratings, the relatively lower score of TA2 (2.81) suggests a need to improve infrastructure or visible facilities to match expectations.

Reliability scored 3.69, reflecting moderate confidence in consistent service delivery. High performance in RL1 (4.22) highlights trust in repeated care delivery, but lower scores in RL2 (3.44) and RL4 (3.51) suggest concerns about the effectiveness of interventions and timely access to services. This implies variability in service consistency that warrants targeted attention.

Responsiveness showed the strongest performance with an average of 4.07, indicating that staff are perceived as prompt and willing to assist. High scores across all items, particularly RN1 (4.25) and RN3 (4.25), suggest that the healthcare team is accessible and responsive to patient needs especially in regular interactions and follow-ups.

Assurance achieved a respectable average score of 3.84, pointing to a general sense of trust in healthcare providers' knowledge and communication skills. Items AS1 (4.21) and AS2 (4.22) reflect

strong perceptions of staff competence and confidence-building. However, AS3 (3.43) indicates that not all beneficiaries feel fully safe or assured during care, signaling a need for enhanced emotional support and clearer communication during consultations.

Empathy also scored highly at 4.06, underlining the project's commitment to personalized care. Strong agreement with EM2 (4.21), EM3 (4.20), and EM4 (4.22) suggests that beneficiaries appreciate the compassion, flexibility, and attentiveness offered by the healthcare staff. Slightly lower performance in EM1 (3.61) indicates some room for improving individualized attention.

Variables	N	Mean $\pm$ SD	Average Score of each item
<b>Tangibility items</b>			
TA1	107	4.1869 $\pm$ 0.47842	3.71
TA2	107	2.8131 $\pm$ 0.58489	
TA3	107	3.6168 $\pm$ 0.88643	
TA4	107	4.215 $\pm$ 0.51447	
<b>Reliability Items</b>			
RL1	107	4.2243 $\pm$ 0.46192	3.69
RL2	107	3.4393 $\pm$ 0.97301	
RL3	107	3.5888 $\pm$ 0.92096	
RL4	107	3.514 $\pm$ 1.00343	
<b>Responsiveness Items</b>			
RN1	107	4.2523 $\pm$ 0.53365	4.07
RN2	107	3.5794 $\pm$ 0.91153	
RN3	107	4.2523 $\pm$ 0.47768	
RN4	107	4.215 $\pm$ 0.47639	
<b>Assurance items</b>			
AS1	107	4.2056 $\pm$ 0.52733	3.84
AS2	107	4.215 $\pm$ 0.53249	
AS3	107	3.4299 $\pm$ 0.93276	
AS4	107	3.5234 $\pm$ 0.91472	
<b>Empathy items</b>			
EM1	107	3.6075 $\pm$ 0.91895	4.06
EM2	107	4.2056 $\pm$ 0.50913	
EM3	107	4.1963 $\pm$ 0.48446	

EM4	107	$4.2243 \pm 0.53744$	
<b>Overall Service Quality (OSQ) score</b>	$(3.71 + 3.69 + 4.07 + 3.84 + 4.06)/5 = \mathbf{3.88}$		

**Table 1:** Service Quality Evaluation of the SUPRAJA Project Using SERVQUAL: Dimensional Analysis with Mean Scores for Individual Indicators

The Overall Service Quality (OSQ) score, derived from the average of all five dimensions, is 3.88. **This suggests that services under the SUPRAJA Project are generally well-perceived by beneficiaries, with notable strengths in responsiveness and empathy key indicators of a patient-centered approach.**

However, the slightly lower scores in tangibility and reliability highlight opportunities for enhancement. Focusing on infrastructure improvements, ensuring timely service delivery, and standardizing care practices can further elevate the service experience. Strengthening these areas will not only boost satisfaction but also reinforce long-term trust and engagement with the SUPRAJA Project.

### Conclusion

The SUPRAJA initiative shows strong performance in communication, staff responsiveness, and compassionate care. Key improvement areas include increasing trust in Ayurvedic treatments, enhancing emergency response, and personalizing services further. These insights provide a roadmap for refining the program's delivery and outreach.



# National Program for Prevention and Management of Osteoarthritis and Musculoskeletal Disorders

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## Introduction

Musculoskeletal disorders (MSDs), including osteoarthritis (OA), pose a significant health challenge, affecting mobility and quality of life. To address this growing concern, the Ministry of AYUSH, Government of India, launched the National Programme for Prevention and Management of Osteoarthritis and Musculoskeletal Disorders (NPPMOMD). This AYUSH Public Health Programme adopts an integrative approach, leveraging traditional systems of medicine to provide comprehensive care. In addition to treatment, the programme emphasizes education and self-care, empowering individuals to actively manage and prevent Musculoskeletal Disorders.

Recognizing the importance of universal health coverage, the Ministry of Health and Family Welfare, Government of Kerala, implemented the programme in the State through the National AYUSH Mission Kerala. This initiative, carried out in collaboration with the Department of Indian Systems of Medicine (ISM) and the Department of Homeopathy, ensures a holistic and accessible approach to musculoskeletal healthcare in Kerala.

This impact assessment evaluates the effectiveness, reach, and sustainability of the NPPMOMD, identifying areas for improvement and offering policy recommendations for enhanced nationwide implementation.

## Rationale

Musculoskeletal disorders, including osteoarthritis, are a growing public health concern, contributing significantly to disability, morbidity, and healthcare costs. In India, the burden of MSDs is escalating due to increasing life expectancy, lifestyle changes, and a rising elderly population. Osteoarthritis alone affects approximately 22–39% of the Indian population, with a higher prevalence among women and older adults.

Given this rising burden, there is an urgent need for structured interventions that focus on early diagnosis, prevention, and holistic management. AYUSH systems of medicine offer a unique, integrative approach that combines traditional healing practices with modern healthcare principles, making them well-suited for managing MSDs effectively. The NPPMOMD plays a crucial role in

addressing these challenges by providing accessible and sustainable solutions to improve musculoskeletal health and overall well-being nationwide.

## Objectives

1. To understand the impact of NPPMOMD OPDs in Kerala.
2. To analyse the impact of NPPMOMD OPD services on the healthcare facilities available to beneficiaries.

## Methodology

This impact assessment was conducted to evaluate the effectiveness of the NPPMOMD programme, with a focus on its selected unit under the Homeopathy system of medicine. The study aimed to assess how these services have influenced healthcare access, treatment outcomes, and patient experiences.

The assessment was based on data collected through Google Forms during the year 2024-25. Patients who had completed a minimum follow-up period of nine weeks were invited to participate, ensuring that responses reflected meaningful treatment progress. A total of 566 randomly selected participants were included in the evaluation.

To capture diverse experiences and programme effectiveness across different settings, seven NPPMOMD OPDs in Government Homoeopathic Institutions across Kerala were selected randomly. The selected hospitals included:

- Government Homeopathic Hospital (GHH), Karakulam
- Government Homoeopathic Dispensary (GHD), Ezhamkulam
- District Homeopathic Hospital (DHH), Muttom
- Government Homeopathic Hospital (GHH), Kozhikode
- Government Taluk Homeopathic Hospital (GTHH), Koyilandi
- District Homeopathic Hospital (DHH), Kanhangad
- NK Balakrishnan Memorial Government Homeopathic Hospital (NKBM GHH), Nileshtar

The study focused on multiple dimensions to comprehensively evaluate the programme's impact.

The key areas analyzed included:

1. Demographic Information – Understanding the patient population in terms of age, gender, occupation, and socio-economic background.

2. Health Background – Assessing pre-existing musculoskeletal conditions and the severity of symptoms before joining the programme.
3. AYUSH Interventions – Evaluating the role of homeopathic treatments in managing MSDs and their effectiveness over time.
4. Program Awareness and Impact – Measuring patients’ knowledge of NPPMOMD, its accessibility, and the benefits they experienced.
5. Self-Care Practices – Analyzing the adoption of recommended self-care measures and lifestyle modifications.
6. IEC (Information, Education, and Communication) Materials – Comparing the effectiveness of educational materials provided to beneficiaries.
7. Overall Impact – Assessing improvements in mobility, pain relief, and quality of life following programme participation.

## Results

### Socio-demographic Information

Among the 566 participants, the majority were female (76.3%), while 134 participants (23.7%) were male, indicating a higher engagement of women in seeking musculoskeletal healthcare through the programme (Table 1, Figure 1).

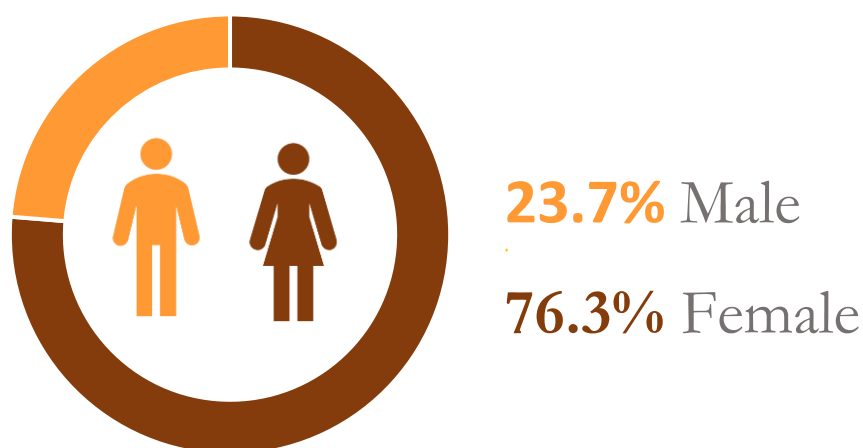
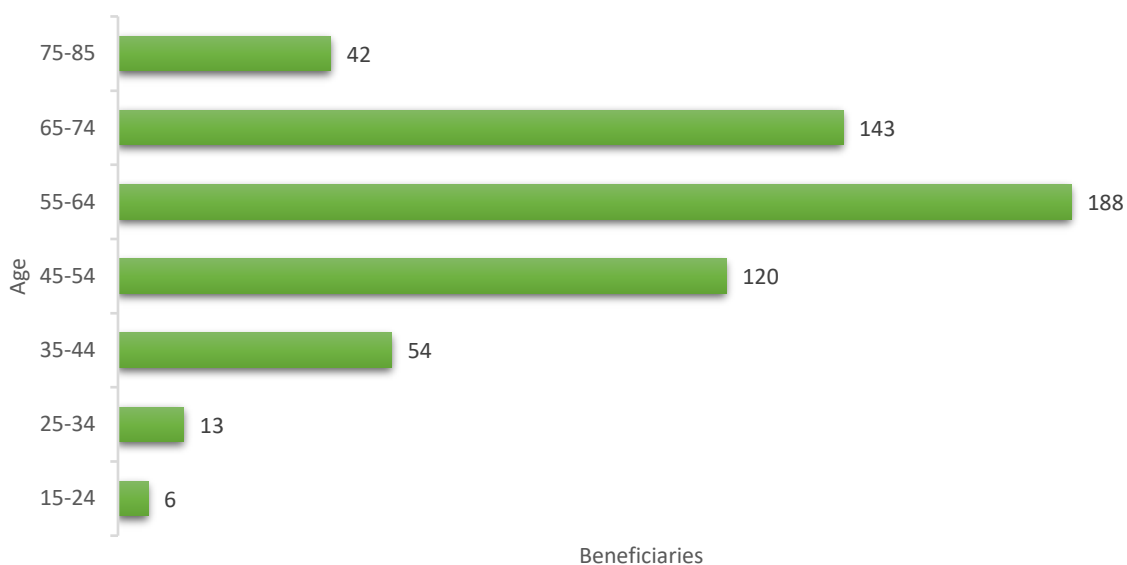


Figure 1: Gender distribution of patients attending NPPMOMD OPD

The age distribution shows that the majority of participants were middle-aged and elderly, with the highest representation in the 55-64 age group (33.22%), followed by the 65-74 age group (25.26%) and the 45-54 age group (21.2%). A smaller number of younger participants were included, with 6 individuals in the 15-24 age group and 13 in the 25-34 age group (Table 1, Figure 2).

Figure 2: Age distribution of patients attended NPPMOMD



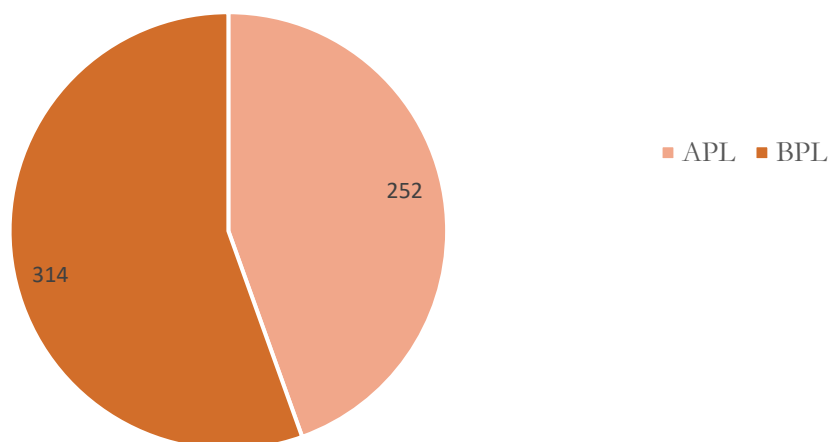
Participants were from diverse residential backgrounds, with 219 individuals (38.7%) from rural areas, 167 individuals (29.50) from semi-urban areas, and 180 individuals (31.8%) from urban areas (Table 1, Figure 3). The socioeconomic status of the participants was categorized into Above Poverty Line (APL) and Below Poverty Line (BPL), with 314 participants (55.48%) from BPL category and 252(44.52%) from APL category (Table 1, Figure 4).

Figure 3: Residential Distribution of Beneficiaries availing NPPMOMD during 2024-25





Figure 4: Socio economic status of beneficiaries availed NPPMOMD services during 2024-25



The Ration card system in India categorizes households based on their economic status, which helps in identifying beneficiaries for various welfare schemes. The Yellow card is issued to the most economically backward section of society and includes beneficiaries of the Antyodaya Anna Yojana. The Pink card is given to Priority or Below Poverty Line (BPL) households, indicating those in need of significant financial assistance. The Blue card represents the Non-Priority Subsidy category or Above Poverty Line (APL) households, who are eligible for limited government support. The White card is assigned to the non-priority category, indicating families that do not fall under any subsidy schemes.

Among the study participants, 61 individuals (10.78%) held yellow cards, representing the most economically disadvantaged group. The majority of the participants, 257 individuals (45.41%), possessed pink cards, indicating that a significant portion belonged to the BPL category. Additionally, 67 participants (11.84%) held blue cards, indicating they were in the APL category but still eligible for certain subsidies, while 181 participants (31.97%) had White cards, signifying they belonged to the non-priority group with relatively better economic stability (Table 1, Figure 5)

## Distribution of Participants by Ration Card Type

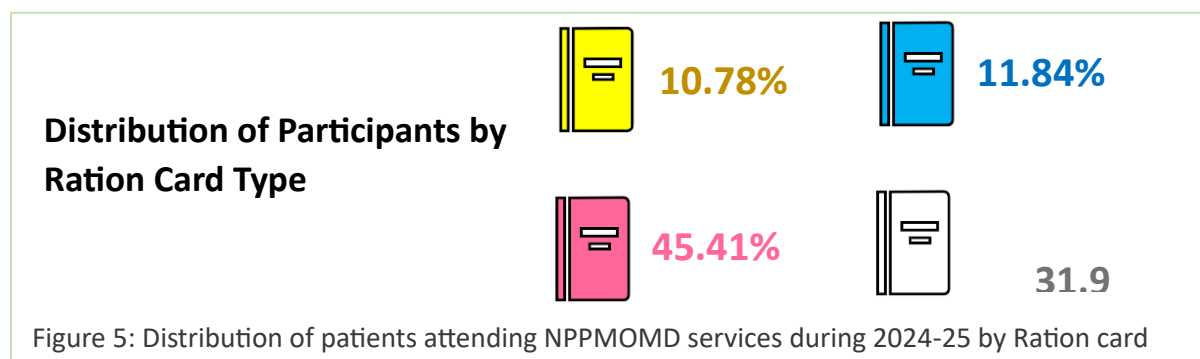


Figure 5: Distribution of patients attending NPPMOMD services during 2024-25 by Ration card type

Table 1: Sociodemographic details of beneficiaries availed NPPMOMD services. (N=566)

Item	Category	Frequency	Percentage (%)
<b>Gender</b>			
	Female	432	76.3
	Male	134	23.7
<b>Age</b>			
	15-24	6	1.06
	25-34	13	2.30
	35-44	54	9.54
	45-54	120	21.20
	55-64	188	33.22
	65-74	143	25.26
	75-85	42	7.42
<b>Location of Residence</b>			
	Rural	219	38.7
	Semi-Urban	167	29.50

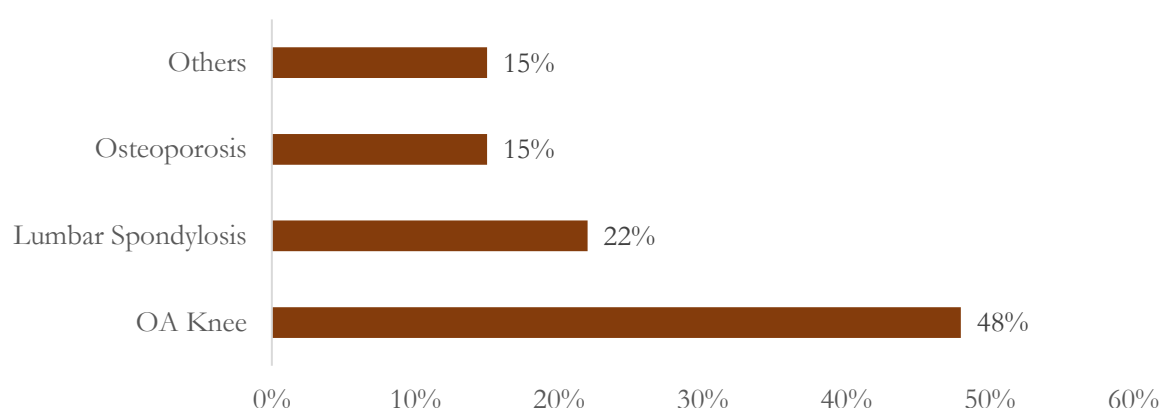
	Urban	180	31.80
<b>Socioeconomic Status</b>			
	APL	252	44.52
	BPL	314	55.48
<b>Colour of ration card</b>			
	Yellow	61	10.78
	Pink	257	45.41
	Blue	67	11.84
	White	181	31.97

## Impact of NPPMOMD

### Common conditions reported

The NPPMOMD programme primarily catered to individuals with various musculoskeletal conditions. Osteoarthritis of the knee was the most commonly reported diagnosis, affecting **48% of the participants, indicating a significant burden of degenerative joint disease**. Lumbar spondylosis was the second most prevalent condition, reported by 22% of participants, followed by osteoporosis, which accounted for 15% of cases. Additionally, 15% of participants were diagnosed with other musculoskeletal disorders, including cervical spondylosis, rheumatoid arthritis, soft tissue rheumatism, and other orthopaedic issues.

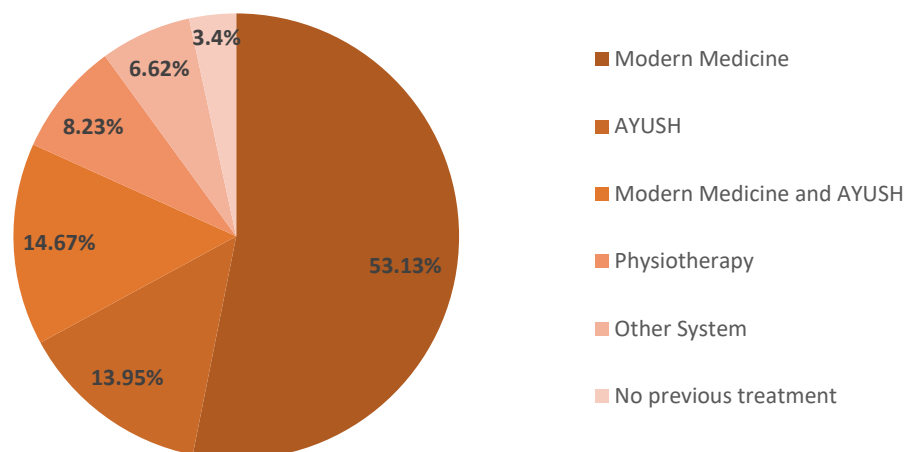
Figure 6: Prevalence of Musculoskeletal complaints among NPPMOMD beneficiaries during 2024-25



## Previous treatment History

Participants reported diverse treatment histories in managing musculoskeletal disorders. Allopathic medicine was the most commonly used approach, with 53.13% of participants relying on conventional treatments such as pain relievers, anti-inflammatory drugs, and surgical interventions. AYUSH systems were chosen by 13.95% of participants, reflecting an interest in holistic treatment methods like Ayurveda, Yoga, Unani, Siddha, and Homeopathy. A combination of Allopathic and AYUSH treatments was utilized by 14.67% of participants. Physiotherapy was reported by 8.23% of participants, involving exercises and manual therapy for pain relief and functional improvement. A small proportion, 3.40%, had not sought any prior treatment. Other treatments, including traditional herbal remedies, dietary modifications, and indigenous healing practices, were reported by 6.62% of participants (Figure 7).

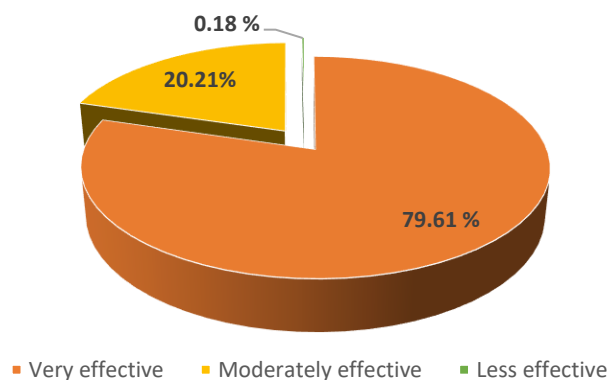
Figure 7: Previous treatment history of NPPMOMD beneficiaries during 2024-25



## Patient Perceived Benefits of AYUSH Interventions

The assessment of AYUSH interventions, based on patient feedback, indicated a high level of perceived benefits. 79.61% of participants reported that the treatments were "very effective" in managing their musculoskeletal conditions, experiencing significant relief from symptoms such as pain, stiffness, and mobility restrictions. 20.21% of participants found the interventions to be "moderately effective," noting partial improvement and the need for continued therapy for optimal results. A negligible 0.18% considered the treatment "less effective," suggesting individual variations in response to therapy. These findings highlight the positive perception of AYUSH treatments among patients in musculoskeletal healthcare.

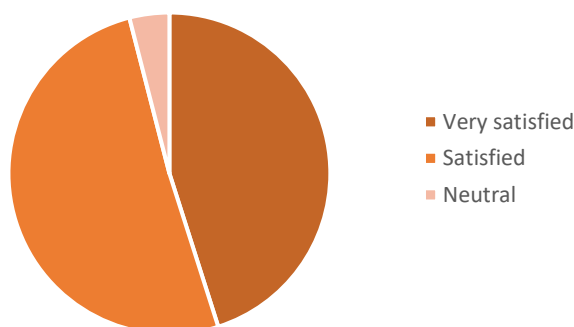
Figure 8: Patient perceived benefits of AYUSH interventions of NPPMOMD during 2024-25



### Patient Satisfaction with NPPMOMD OPD

Patient satisfaction levels were overwhelmingly positive, reflecting the perceived benefits of AYUSH treatments. **45% of participants reported being "very satisfied" with their treatment outcomes, experiencing substantial symptom relief and an improved quality of life.** Additionally, **50.8% of participants expressed that they were "satisfied," indicating favorable results with some scope for further enhancement.** A small 4% remained "neutral," possibly due to limited improvement or a short treatment duration.

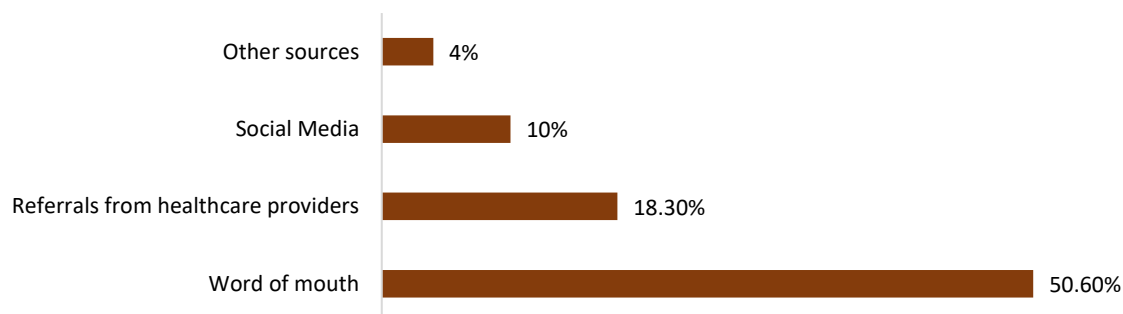
Figure 9: Patient satisfaction of NPPMOMD during 2024-25



### Program Awareness Sources

The majority of participants became aware of the AYUSH program through word of mouth (50.6%), emphasizing the strong influence of personal recommendations in healthcare decisions. Referrals from healthcare providers played a crucial role in outreach, contributing to 18.3% of program awareness. Social media (10%) emerged as a growing platform for information dissemination, reflecting the increasing digital engagement in health promotion. Other sources, including newspapers, community events, and healthcare referrals, accounted for 4%, highlighting the diverse channels through which individuals learned about the program.

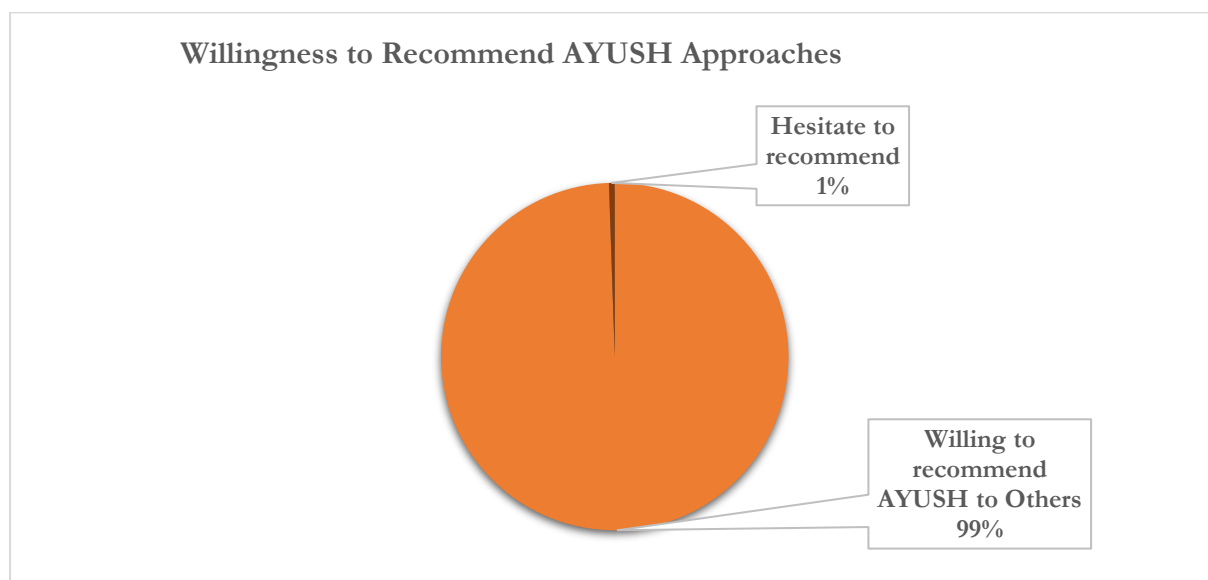
Figure 10: Source of NPPMOMD awareness reported by beneficiaries during 2024-25



### Willingness to Recommend AYUSH Approaches

The program received an overwhelmingly positive response, with **99.46% of participants expressing their willingness to recommend AYUSH treatments to others**. This high endorsement rate signifies strong trust in the effectiveness and benefits of these interventions. Only 0.54% of individuals were hesitant to recommend, possibly due to personal treatment experiences or a preference for alternative healthcare approaches. The near-universal recommendation underscores the success and credibility of the program among its beneficiaries.

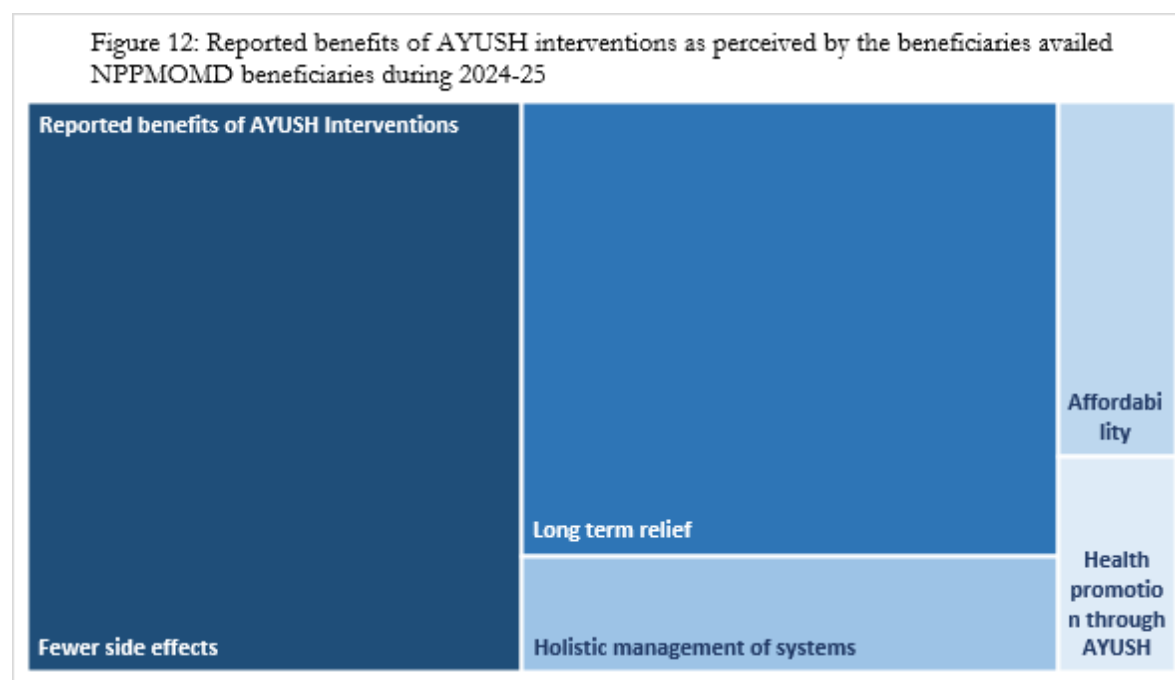
Fig 11: Willingness to recommend AYUSH approaches.



### Reported Benefits of AYUSH Interventions

Among the 566 respondents, the most frequently reported benefit was fewer side effects (43%), indicating a preference for treatments with minimal adverse reactions. Long-term relief was experienced by 37% of participants, highlighting the sustained effectiveness of AYUSH therapies.

Additionally, 9.5% of respondents noted holistic management of symptoms, while 6.4% appreciated the affordability of treatment options. A smaller proportion, 3.9%, emphasized the importance of self-care and lifestyle changes promoted by the interventions.



## Discussion

The findings from the study provide valuable insights into the socio-demographic characteristics, health conditions, treatment histories, and perceived benefits of AYUSH interventions among individuals with musculoskeletal disorders.

### Socio-Demographic Trends and Healthcare Engagement

A significant trend observed in the study is the higher participation of women (76.3%) in the NPPMOMD AYUSH Public Health Program. The age distribution suggests that middle-aged and elderly individuals form the majority of participants, reflecting the increased prevalence of musculoskeletal conditions in these age groups. The diverse residential backgrounds of the participants highlight the program's reach across rural, semi-urban, and urban settings, suggesting equitable access to healthcare services.

The economic categorization of participants, based on the ration card system, demonstrates that a considerable portion (45.41%) belonged to the Below Poverty Line (BPL) category, reinforcing the importance of affordable and accessible healthcare interventions for economically disadvantaged groups. The data suggests that financial assistance and targeted interventions are crucial for ensuring that healthcare services effectively reach vulnerable populations.

## **Prevalence of Musculoskeletal Disorders and Previous Treatment Approaches**

The study confirms the high burden of musculoskeletal disorders, with osteoarthritis of the knee being the most commonly reported condition (48%). Lumbar spondylosis (22%) and osteoporosis (15%) also represent major health concerns, indicating a substantial need for specialized interventions to address these chronic conditions. The diverse nature of musculoskeletal disorders reported in the study highlights the necessity of multifaceted treatment approaches that cater to varying patient needs.

In terms of previous treatment history, allopathic medicine remained the most commonly used approach (53.13%), signifying the continued reliance on conventional treatments such as pain relievers and anti-inflammatory medications. However, the significant proportion of participants utilizing AYUSH therapies (13.95%) or a combination of allopathic and AYUSH interventions (14.67%) suggests an increasing interest in integrative healthcare. Additionally, the small percentage of participants who had not sought prior treatment (3.40%) highlights the necessity of greater healthcare awareness and outreach efforts.

## **Effectiveness of AYUSH Interventions and Patient Satisfaction**

The patient-reported effectiveness of AYUSH treatments was overwhelmingly positive, with 79.61% of participants rating the interventions as "very effective" and an additional 20.21% finding them "moderately effective." This high level of perceived benefit suggests that AYUSH therapies play a crucial role in symptom relief, mobility improvement, and overall well-being. However, the minor proportion (0.18%) who found the treatments "less effective" underscores the need for individualized treatment plans to optimize therapeutic outcomes.

Similarly, the high patient satisfaction levels further reinforce the program's success. With 45% of participants being "very satisfied" and 50.8% "satisfied," the findings indicate a strong correlation between treatment efficacy and patient contentment. The small neutral response (4%) suggests that while the majority benefited, some individuals may require extended treatment durations or supplementary interventions to experience significant improvement.

## **Program Awareness and Impact**

The study highlights word-of-mouth as the dominant source of program awareness (50.6%), emphasizing the importance of community influence in healthcare decision-making. Referrals from healthcare providers (18.3%) also played a crucial role, reinforcing the significance of professional recommendations in program participation. The growing role of digital platforms in



health promotion is evident from the 10% awareness generated through social media, reflecting a shift towards technology-driven healthcare engagement.

The willingness of 99.46% of participants to recommend AYUSH treatments further demonstrates the program's credibility and effectiveness. Such a high endorsement rate indicates strong patient trust in these interventions, suggesting a positive outlook for the expansion and promotion of AYUSH therapies in musculoskeletal healthcare.

### **Perceived Benefits of AYUSH Interventions**

Among the reported benefits, fewer side effects (43%) emerged as the most valued advantage, reinforcing the preference for natural and minimally invasive treatments. Long-term relief (37%) further highlights the sustainability of AYUSH therapies in managing chronic musculoskeletal conditions. The emphasis on holistic management (9.5%) and affordability (6.4%) suggests that patients appreciate the comprehensive and cost-effective nature of these interventions. The relatively smaller percentage (3.9%) emphasizing self-care and lifestyle changes indicates an area where additional patient education and motivation may enhance adherence to long-term wellness strategies.

### **Limitations**

A key limitation of this study was the difficulty in data entry, primarily due to the high patient load in outpatient departments (OPD). Medical officers, who were responsible for both clinical care and data collection, faced challenges in entering information into the Google Form while managing their patient responsibilities. This constraint resulted in a dataset limited to 566 individuals, which may not fully represent the overall impact of the program. The reliance on self-reported data also introduces the possibility of recall bias, as participants' perceptions may not always align with objective clinical outcomes.

Additionally, the study included participants from diverse residential backgrounds, including rural, semi-urban, and urban areas. However, disparities in healthcare access, availability of AYUSH services, and differences in health-seeking behaviour between these regions may have influenced treatment outcomes and satisfaction levels. Future studies should consider employing dedicated data entry personnel or exploring alternative data collection strategies, such as automated digital record-keeping, to improve data accuracy and representation. Moreover, addressing urban-rural healthcare disparities through targeted outreach and accessibility initiatives would enhance the program's overall effectiveness.

## Recommendations

1. **Enhancing Data Collection Processes:** To improve data accuracy and representation, the program should implement dedicated data entry personnel or explore automated digital record-keeping systems. This would ensure efficient data collection without burdening medical officers already managing a high patient load.
2. **Strengthening Healthcare Accessibility:** Given the urban-rural disparities observed, efforts should be made to enhance healthcare access in rural and semi-urban areas. This can be achieved by expanding AYUSH services, conducting mobile medical camps, and integrating telemedicine for remote consultations.
3. **Increasing Awareness and Outreach:** While word of mouth was the primary source of program awareness, greater emphasis should be placed on structured health education initiatives. Leveraging social media, community workshops, and healthcare provider referrals can enhance program visibility and encourage broader participation.
4. **Expanding AYUSH Services with Physiotherapy Integration:** The study highlighted the demand for physiotherapy as a complementary approach to musculoskeletal care. Strengthening physiotherapy services alongside AYUSH interventions can enhance treatment effectiveness and improve patient outcomes.

## Conclusion

The study findings underscore the significant impact of AYUSH interventions in musculoskeletal healthcare, particularly in terms of effectiveness, patient satisfaction, and accessibility. The positive patient perceptions and high willingness to recommend these treatments suggest strong acceptance and trust in AYUSH therapies. Moving forward, efforts should be directed towards expanding awareness, improving accessibility for economically disadvantaged groups, and integrating holistic healthcare approaches with conventional treatments for enhanced patient outcomes. Furthermore, strengthening patient education on self-care and lifestyle modifications can further improve long-term health benefits.

## AYUSH Mobile Medical Unit

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### Introduction

The AYUSH Mobile Medical Unit (AMMU) is a significant public health initiative introduced by the Ministry of AYUSH, Government of India, to provide preventive, promotive, and curative AYUSH healthcare services to underserved communities. In Kerala, the Ministry of Health and Family Welfare, Government of Kerala, has implemented this program under the National AYUSH Mission (NAM) in collaboration with the Department of Indian Systems of Medicine (ISM) and the Department of Homoeopathy. The AMMU program is designed to address healthcare gaps by reaching tribal populations in remote and underserved areas through mobile medical units, ensuring better access to healthcare services.

The program focuses on screening and managing communicable and non-communicable diseases through medical camps and health awareness initiatives. Kerala has a tribal population of 4,84,839 individuals, constituting 0.5% of India's total tribal population and over 1% of Kerala's population (Census 2011). The highest concentration of Scheduled Tribes (ST) is in Wayanad district (31%), with the majority (89%) residing in rural areas. This population faces a high burden of malnutrition, anaemia, infectious diseases, dermatological conditions, arthritis, and neurological disorders, which are further aggravated by illiteracy, poor hygiene, socio-economic constraints, substance abuse, and limited access to healthcare services.

Tribal communities often experience barriers in accessing conventional healthcare services due to geographical remoteness, financial instability, and cultural preferences for traditional healing practices. The low health-seeking behaviour in these communities stems from limited healthcare infrastructure, socio-cultural beliefs, and lack of awareness, leading to delayed diagnosis and treatment of various health conditions. While modern healthcare services struggle to gain acceptance in these communities, the AYUSH system aligns more closely with indigenous healing traditions, making it a more culturally acceptable and effective healthcare solution.

To bridge this gap, AMMU services were introduced in different districts of Kerala, where tribal populations are significantly underserved. The program delivers preventive, promotive, and curative AYUSH services directly to the most remote tribal settlements, thereby improving healthcare accessibility and reducing disease burden. Through regular medical camps, disease screenings, and health awareness programs, AMMU enhances early detection, treatment, and health education among tribal populations.

Given the unique health challenges faced by tribal communities, it is essential to evaluate the impact of AMMU in improving healthcare access and health outcomes. This impact assessment aims to analyze the program's reach, effectiveness, and community response, providing valuable insights for future improvements, policy decisions, and expansion strategies to strengthen tribal healthcare in Kerala.

## Objectives

1. To understand the impact of AYUSH Mobile Medical Units in four selected districts of Kerala: Wayanad, Idukki, Kannur, and Palakkad.
2. To assess the accessibility of healthcare facilities for beneficiaries in the project locations.
3. To evaluate the satisfaction levels of beneficiaries regarding AMMU services in communicable and non-communicable disease conditions.

## Methodology

To capture the true impact of the AYUSH Mobile Medical Unit (AMMU) program, a well-structured and systematic approach to data collection was adopted. The study focused on four selected districts of Kerala—Wayanad, Idukki, Kannur, and Palakkad—which include a higher concentration of tribal population and where AMMU services are operational, providing Homoeopathy and ISM healthcare to tribal communities.

Recognizing the unique challenges faced by these populations, a quantitative survey was designed. A structured questionnaire was carefully developed, covering key aspects such as demographic details, healthcare access, service utilization, and overall satisfaction with the program. Given the linguistic and cultural diversity of the respondents, face-to-face interviews were conducted. Medical officers stationed at AMMU service points played a pivotal role in data collection, directly engaging with beneficiaries to gather firsthand accounts of their healthcare experiences. Responses were initially recorded manually and later digitized for systematic analysis. Data were processed using percentage distributions, highlighting trends in service accessibility, patient satisfaction, and areas needing further improvement. Data analysis was done by the Project Coordinators of ISM and Homoeopathy.

## Results

Table 1: Findings of Impact Assessment of AYUSH Mobile Medical Unit.

Category	Sub-category	Percentage
Age Distribution	< 18 yrs	3%
	18-30 yrs	17%
	31-50 yrs	31%
	> 50 yrs	49%
Gender Distribution	Female	73.23%
	Male	26.77%
Education Levels	No Formal Education	39%
	Primary School	36%
	High School	20%
	Higher Secondary	0.79%
	Graduate and above	4%
Occupation Categories	Daily Wage Labourers	55.07%
	Homemakers	32%
	Agriculture	8.21%
	Students	4%
	Others	0.74%
Distance to Healthcare Centres	Within 5 km	41.82%
	5-10 km	44.55%
	Above 10 km	13.64%
Mobile Health Unit Visits	Monthly	63.64%
	Fortnightly	36.36%
Health Improvements	Significant Improvement	74%
	Minor Improvement	26%
Reduction in Health Issues	Nutritional Deficiencies	62%
	Other Ailments	22.38%
	Chronic Conditions (Hypertension & Diabetes)	15.78%

### Demographic Profile of Respondents

The survey results reveal a diverse demographic spread among AMMU service beneficiaries. Nearly half of the respondents (49%) are aged 50 and above, making them the largest age group represented in the data. Individuals between 31 and 50 years comprise 31% of the surveyed population, while 17% fall in the 18 to 30 age brackets. Only a small proportion, 3%, are under the age of 18. In terms of gender, the majority of respondents are female, accounting for 73.23%, with males making up 26.77%. Educationally, the data indicate that 39% of respondents have had no formal education. A further 36% completed primary schooling, while 20% attained a high school education. Only 4% have achieved graduate-level or higher education. Interestingly, just 0.79% reported having studied up to the higher secondary level.

## **Occupational Status**

The occupational breakdown of respondents reveals that the largest segment, 55.07%, are daily wage labourers. Homemakers represent the second-largest group at 32%. Those engaged in agricultural activities account for 8.21%, while students make up 4% of the surveyed population. A small minority, just 0.74%, fall into other occupational categories.

## **Proximity to Healthcare Facilities**

Access to medical services is a key determinant of healthcare utilization. The survey revealed that 41.82% of the respondents live within 5 kilometres of the nearest health center. Meanwhile, 44.55% are located between 5 to 10 kilometers away, and 13.64% must travel more than 10 kilometers to access healthcare services. While a majority have relatively close access, a notable segment still faces challenges due to distance.

## **Frequency of Mobile Health Unit Visits**

The AMMU mobile health units play a vital role in bridging the healthcare accessibility gap. Among the surveyed respondents, 63.64% receive these services on a monthly basis, while 36.36% benefit from fortnightly visits. This indicates consistent outreach and presence of AMMU in the communities served.

## **Health Outcomes and Impact**

AMMU services have had a significant positive impact on health outcomes. A substantial 74% of respondents reported noticeable health improvements after accessing services, while 26% observed only minor improvements. Notably, 62% of respondents cited improvements in nutritional deficiencies. Additionally, 22.38% experienced relief from ailments such as fever, headache, respiratory infections, and gastric issues. A further 15.78% reported improved management of chronic illnesses like hypertension and diabetes. AMMU's focus on maternal and child health has been especially effective, with all respondents confirming that pregnant and lactating women, as well as children, have benefited significantly from these interventions.

## **Beneficiary Satisfaction**

The level of satisfaction among AMMU beneficiaries is overwhelmingly positive. About 83% of respondents reported being very satisfied with the services provided, while 16% expressed general satisfaction. Only 1% of the respondents were dissatisfied, reflecting a strong endorsement of the initiative.

## **Evaluation of Service Components**

Respondents were asked to assess specific service aspects. The services provided by doctors received exceptional feedback, with 90% rating them as excellent, 3% as good, and 0.5% as average. Importantly, no respondents rated this component as poor or very poor. In terms of medicine availability, 39% rated it as excellent, 24% as good, and 26.5% as average. Only 1% expressed dissatisfaction. The behaviour of AMMU staff was also highly praised, with 88% rating it as excellent, 7.5% as good, and 4.5% as average. Not a single respondent rated staff behaviour as poor or very poor, highlighting the professionalism and compassion demonstrated by the healthcare team.

### **Service Delivery Efficiency**

Access to AMMU services has been largely seamless, with 96% of respondents reporting no difficulties in availing the services. This reflects the strong outreach and operational efficiency of the mobile health units. A small proportion (4%) of respondents noted minor areas for enhancement, primarily concerning laboratory facility availability. These insights suggest that while the service is highly accessible, further strengthening of diagnostic support can help optimize the healthcare experience.

### **Health Awareness and Preventive Practices**

AMMU has significantly contributed to raising health awareness among the population it serves. The most commonly cited area of improvement was hygiene awareness. Furthermore, 22% of respondents gained increased knowledge about AYUSH treatment systems, and 7% reported becoming more informed about preventive care practices. As a result of AMMU's awareness sessions, 85% of the surveyed individuals adopted preventive health measures, while a small fraction (5%) did not make any lifestyle changes despite receiving the information.

### **Appreciated Aspects of AMMU Services**

Beneficiaries highlighted several positive aspects of AMMU services. The most valued attribute was the quality of treatment and the effectiveness of medicines, appreciated by 40% of respondents. The convenience and accessibility of doorstep healthcare services were acknowledged by 30%, and compassionate staff behavior and care received praise from 20% of those surveyed. Additionally, 5% of respondents commended the awareness and health education efforts, while another 5% appreciated the availability of supplementary services that enhanced the overall healthcare experience.

## Recommendations and Service Utilization Patterns

Respondents offered thoughtful suggestions aimed at enhancing the effectiveness and reach of AMMU services. A key recommendation, made by 20% of participants, was the improvement of laboratory and diagnostic facilities to support more comprehensive healthcare delivery. Additionally, 15% of respondents emphasized the need for better medicine availability, proposing the establishment of a dedicated pharmacy setup. Increasing the frequency of mobile health unit visits was highlighted by 10% of the participants, while 5% suggested the introduction of palliative and specialized care services to address complex health needs. Another 5% recommended expanding health awareness and preventive care programs to strengthen community-level health literacy.

Moreover, 45% of respondents shared broader feedback centered around enhancing overall service quality, indicating a strong interest in continuous improvement. General comments revealed high satisfaction, with 80% of respondents expressing contentment with the current services. Some participants proposed improvements in treatment effectiveness and advocated for increased staffing, including the recruitment of additional pharmacists and nurses. A few also recommended more frequent consultations to better meet the healthcare needs of their communities.

In terms of service utilization, homoeopathy services were accessed by 113 respondents, while 69 individuals availed themselves of Indian Systems of Medicine (ISM) services. This utilization pattern reflects the diverse healthcare preferences within the beneficiary population and underlines the importance of maintaining a pluralistic approach to healthcare delivery.

## Conclusion

The AYUSH Mobile Medical Unit (AMMU) has demonstrated a transformative impact on healthcare accessibility and service delivery in tribal communities across Wayanad, Idukki, Kannur, and Palakkad. The initiative has successfully bridged the gap between traditional healthcare facilities and underserved populations, bringing quality preventive, promotive, and curative AYUSH services directly to those in need.

**The findings highlight that a vast majority (99%) of beneficiaries actively use AMMU services, with significant improvements in nutritional deficiencies (62%), fever management (22%), and chronic disease control (16%).** Women, including pregnant and



lactating mothers, as well as children, have reported 100% benefit, reinforcing the unit's crucial role in maternal and child health.

**Patient satisfaction level was exceptionally high, with 83% rating the services as very satisfactory and another 16% as satisfactory. The availability of doctors and staff behaviour were particularly praised, reflecting the dedication and efficiency of healthcare providers.**

**Importantly, 85% of beneficiaries have adopted preventive health measures due to awareness programs, showcasing a positive shift in health-seeking behaviour.**

Recommendations include enhancing diagnostic services, improving medicine availability, expanding visit frequency, and strengthening health education initiatives. Overall, the AMMU initiative has successfully enhanced healthcare access and quality in the targeted regions.









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## PUBLIC HEALTH PROGRAMMES



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NATIONAL AYUSH MISSION KERALA

National AYUSH Mission, Kerala  
1<sup>st</sup> Floor, Bliss Haven, Convent Road  
Thiruvananthapuram, Kerala – 695035

Phone: 0471-2 474 550, Email: [namkerala@gmail.com](mailto:namkerala@gmail.com)  
[www.nam.kerala.gov.in](http://www.nam.kerala.gov.in)