**KLI-Smile Foundation Initiative**
**Smile on Wheels**

# Impact assessment report FY 2023-24

## Kotak Mahindra Life insurance Company Limited CSR

### A report by Crisil Limited

# Contents

# List of figures

# Abbreviations

| | |
|---|---|
| **KLI** | Kotak Mahindra Life Insurance Company Limited |
| **MMU** | Mobile medical units |
| **CSR** | Corporate social responsibility |
| **SDGs** | Sustainable development goals |
| **ANM** | Auxiliary Nurse Midwife |
| **ASHA** | Accredited Social Health Activist |
| **CHO** | Community health officer |
| **PwDs** | Persons with Disabilities |
| **NCDs** | Non-communicable diseases |
| **IEC** | Information, education and communication |

# Dashboard

Impact assessment of Smile on Wheels, KLI's healthcare CSR initiative, in Chennai and Virudhunagar by Crisil Limited for FY 2023-24

**1** thematic area

*Increasing access to primary healthcare services and enhancing health-seeking behaviour among community members*

**5** MMUs

**75** locations

**600+** OPDs conducted

Contributing to **9** SDGs

Total CSR grant from KLI
**₹1.5 Crore**

**42,771** Lives touched

\* Total number of beneficiaries supported in Chennai and Virudhunagar during FY 2023-24

# Overview: Indian healthcare and mobile medical units

Health is a foundational component of human well-being and societal development. Access to quality healthcare influences life expectancy, productivity, educational attainment and poverty reduction. Yet, healthcare remains highly unequal globally, with vulnerable groups such as women, children, the elderly, migrants and low-income communities often suffering the worst consequences of weak health infrastructure.

Total healthcare outlays have exceeded $12 trillion[1]. Despite increased spending, large funding gaps remain, especially in low and middle-income countries (LMICs). In 2019, out-of-pocket health spending pushed 344 million people into extreme poverty and 1.3 billion into relative poverty, saddling 2 billion people with financial hardship[2]. Scalable and cost-effective solutions are required to bridge these health inequities. One such innovation is the medical mobile unit (MMU), which delivers essential healthcare services through mobile clinics, particularly in those regions where the fixed infrastructure is inadequate.

## Condition of healthcare infrastructure in India

India's healthcare system is plagued by a stark urban-rural divide, with rural areas facing significant challenges in accessing quality healthcare. Lack of adequate infrastructure, poorly equipped health centres and a shortage of qualified medical professionals, forces villagers to travel long distances for basic medical services, incurring high out-of-pocket expenses and losing wages.

The situation is further complicated by the growing burden of non-communicable diseases (NCDs), which account for over 63% of all deaths in India3. For instance, in Karnataka, 25% of women and 26.9% of men suffer from hypertension4. These conditions often go untreated until advanced stages, worsening morbidity and increasing healthcare costs, with patients sometimes have to bear up to 70-80% of the treatment cost out-of-pocket.

In states such as Tamil Nadu, significant disparities mark the healthcare landscape. Despite some improvements in recent years, such as increased institutional deliveries and use of public health facilities, major challenges persist. For example, in Virudhunagar, Tamil Nadu, the prevalence of diarrhoeal disease among children below the age of five was up 12% from National Family Health Survey (NFHS) 4 to 5[5]. To bridge these gaps, MMUs have emerged as a crucial solution, providing essential services such as blood pressure checks, blood sugar monitoring and cancer screening in rural and tribal areas. With 1,669 operational MMUs across the country[6], these units have the potential to improve continuity and equity in care, particularly in areas with limited access. By leveraging MMUs, states like Tamil Nadu can reduce the urban-rural health divide and improve health outcomes, especially for vulnerable populations.

## Challenges and role of MMUs in Indian healthcare

The Indian healthcare system faces multiple systemic challenges, including low public spending, unequal distribution of resources, human resource gaps, a dual disease burden, infrastructure deficiencies and social barriers for the urban poor. The share of government health expenditure is low, leading to heavy out-of-pocket expenses for patients. On top

[1] World Health Day: 8 trends shaping global healthcare, April 5, 2023, World Health Forum, https://www.weforum.org/stories/2023/04/world-health-day-healthcare-trends/
[2] Universal health coverage (UHC), March 26, 2025, World Health Organization, https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-(uhc)
[3] Union Health Minister Dr. Mansukh Mandaviya addresses annual meeting of the Friends of the UN Inter-Agency Task Force on the Prevention and Control of Non-Communicable Diseases (NCDs) and Mental Health, September 19, 2023, Press Information Bureau, Ministry of Health and Family Welfare, Government of India, https://www.pib.gov.in/PressReleasePage.aspx?PRID=1958944#:~:text=Accentuating%20the%20impact%20of%20NCDs,measures%20in%20the%2021st%20century.%E2%80%9D
[4] National Family Health Survey (NFHS) 5, Fact Sheets, Key Indiacators of 22 states/UTs from Phase 1, 2019-20, Ministry of Health and Family Welfare, Government of India, https://nhm.gov.in/uhc-day/Session%202/NFHS-5%20State%20Factsheet%20Compendium_Phase-I%20%281%29.pdf
[5] Comparison of NFHS 4 and 5 data in Tamil Nadu for diarrhoeal disease and risk factors among children under 5 years, October, 2024,  Ummu Haani Abdul Qayoom *, S. Kalpana, Jasmine S Sundar, S. Valarmathi and G. Srinivas, World Journal of Advanced Research and Reviews, 2024, 24(01), 1461–1468, https://wjarr.com/content/comparison-nfhs-4-and-5-data-tamil-nadu-diarrhoeal-disease-and-risk-factors-among-children
[6] Objectives of National Rural Health Mission, September 23, 2020, Ministry of Health and Family Welfare, Government of India, https://www.pib.gov.in/PressReleaseIframePage.aspx?PRID=1658266

of that, rural areas do not have enough doctors and facilities. The distribution of healthcare resources is skewed, with public clinics concentrated in affluent urban wards, leaving slum populations underserved. Additionally, India faces a rising burden of non-communicable diseases, requiring sustained primary care, and many public systems struggle to provide chronic care management at scale.

In this context, MMUs can play a vital role in addressing these challenges by providing accessible and equitable healthcare services to marginalised communities. MMUs can serve as outreach and awareness platforms, primary care delivery points and referral centres, helping to bridge the gaps in healthcare access and providing essential services such as health education, basic screening and immunisation.

## Government initiatives and schemes

To address these issues, the Government of India has implemented several large-scale initiatives:

1. **National Health Mission (NHM):** Encompassing the National Rural Health Mission (NRHM) and the National Urban Health Mission (NUHM), it subsidises infrastructure, staffing and outreach across rural and urban areas. It also finances MMUs for states.
2. **Ayushman Bharat:** The flagship programme launched in 2018 aims to transform healthcare delivery through two main components: Health and wellness centres (HWCs) and the PM Jan Arogya Yojana (PM-JAY). The scheme provides cashless health insurance (INR 5 lakh per family per year) to 40% of the poorest households within country.
3. **Mobile health schemes:** Under the NHM, MMUs are deployed to provide healthcare access in remote, tribal and underserved regions, especially where no fixed healthcare infrastructure exists. These MMU comprises of vans, boats, dental units, telemedicine-enabled buses.
4. **Ayushman Bharat Digital Mission**: Supports health data portability (ABHA ID), digital records and telemedicine (eSanjeevani), which facilitates tracking of patients and remote follow-up. It makes the MMU remote care more sustainable.

## Persisting gaps in MMU management

Despite growing government investments, MMUs face several key challenges, including inefficient operations, limited services and logistical issues. These ultimately undermine their ability to effectively deliver healthcare to underserved communities, particularly in rural and urban areas where trust and access are already limited. With the right support, MMUs can serve as a transformative solution in India's pursuit of universal healthcare access.

# Overview: KLI's CSR healthcare initiatives

## About Kotak Mahindra Life Insurance Company Limited

Kotak Mahindra Life Insurance Company Limited (KLI), a subsidiary of Kotak Mahindra Bank, is one of India's fastest-growing life insurance providers, having covered over 50 million lives as of June 30, 2024. Guided by its vision to become the country's best life insurance company, Kotak Life's mission is to bring assurance and long-term value to people through protection and savings. The company operates on a foundation of core values such as integrity, financial prudence, innovation, and a professional approach to delivering real value to customers.

Beyond business, Kotak Life is committed to corporate social responsibility (CSR), aiming to create a meaningful and sustainable impact in underserved communities. Its CSR initiatives focus on education, healthcare, livelihood support, relief and rehabilitation initiatives after Covid-19. It supports programmes that enhance access to quality education for marginalised children, promote preventive healthcare through mobile medical units and private hospitals, and build resilience among vulnerable populations. Through partnerships with credible non-profit organisations, employee volunteering and long-term community investments, KLI ensures its CSR aligns with its mission.

## KLI's CSR intervention in healthcare: Key focus areas

1. **Access to quality healthcare:** Through partnerships with the Smile Foundation and Wockhardt Foundation, KLI supports mobile medical units that deliver primary healthcare services to underprivileged communities. These units offer general outpatient consultations, maternal and child health services, preventive screenings, diagnostics, and essential medicines, bridging critical gaps in last-mile healthcare delivery.

2. **Infrastructure and diagnostic advancement:** In collaboration with EIHCRF, KLI has enabled the construction of medical infrastructure and procurement of high-end diagnostic equipment. This has improved access to specialised and affordable diagnostics for underserved populations.

3. **Cancer care and paediatric support:** Through its partnership with CanKids KidsCan, KLI supports children battling cancer by facilitating access to treatment, nutritional aid, psycho-social counselling and educational continuity. The programme also offers family support services, ensuring holistic care during the child's cancer journey.

4. **Community health awareness and behaviour change:** KLI's healthcare CSR initiatives integrate strong IEC components. These include health awareness camps, school and community outreach, menstrual hygiene education, and preventive care counselling to foster improved health-seeking behaviour and long-term wellness among women, children, and vulnerable groups.

5. **Preventive and promotive healthcare delivery:** The CSR programmes focus not only on curative care but also on preventive health, through services such as anaemia and blood pressure checks, diabetes screening, immunisation referrals and maternal check-ups. Early detection and timely referral systems are central to improving community health outcomes.

Through these CSR efforts, KLI is contributing to building a healthy and empowered India by creating opportunities for lifelong learning, economic participation and personal development among the most marginalised sections of society.

# Approach and methodology

## Objective of the assessment

The key purpose of this assessment is to identify ways in which the intervention and resultant inputs and activities have been leveraged by the beneficiaries, as well as evaluate the key barriers/enablers, in the form of suggestions, to ensure maximum impact of the programmes in the long run.

To conduct the impact assessment study, the objectives of the assignment are given below:

- **Objective 1: Impact created in the lives of the direct beneficiaries and the community**

  The impact assessment study will assess the extent of impact on the lives of the beneficiaries and their families by assessing the positive intended and unintended changes.

- **Objective 2: Appropriateness of the programme strategies**

  To ensure successful implementation of a project, strategic plans, goals and impact indicators are essential. However, situational challenges can lead to deviations from the original plan during implementation. As a result, assessing the programme's impact and success requires evaluating its strategies against the outcomes achieved and considering the programme's sustainability.

  The impact assessment study will take into account any deviations that occurred and provide a comprehensive analysis of the programme's success. By doing so, the programme can be improved, and future programmes can learn from the challenges faced.

- **Objective 3: Impact towards programmatic sustainability**

  An essential component of the intervention is the accountability shouldered by the entire community, the ultimate beneficiaries of the intervention. Hence, one objective of the impact assessment study would include the sustainability quotient of the project.

- **Objective 4: Recommendation towards the targeted outcomes**

  The impact assessment study will involve a thorough assessment of the intervention being implemented so far and based on that, provide recommendations towards further improvement and strengthening of the programme.

# Approach and methodology

The study has adopted a concurrent mixed method design, in which quantitative and qualitative data are collected through the key program stakeholders. This approach will allow for a comprehensive assessment of the intervention by capturing quantitative evidence, backed by qualitative experiences.

Quantitative data was collected through a semi-structured survey questionnaire, administered to the direct beneficiaries. The survey focused on the impact and effectiveness of the program. Qualitative data was collected through key informant interviews with doctors, and other key stakeholders. The data focused on understanding the implementation process, impact and sustainability of the initiative along with understanding the gaps.

Findings from the quantitative and qualitative data are integrated to provide a comprehensive assessment of the impact of intervention. The integration involved comparing and contrasting the findings from the two data sources to identify any converging or diverging evidence.

The evaluation maps the impact of the program with the Organisation for Economic Co-operation and Development (OECD) Development Assistance Committee (DAC) framework to determine the merit of an intervention on the basis of six defined evaluation criteria – **relevance, coherence, effectiveness, efficiency, impact** and **sustainability**. We have also aligned the impact of the program with the United Nations Sustainable Development Goals (SDGs) and the contribution of the intervention to global efforts.

In addition to the above, the study will also use the following assessment tools:

- **SWOT (Strengths, Weaknesses, Opportunities, Threats) Analysis:** SWOT will be used as a core evaluation tool to analyse the internal and external factors influencing the success of the CSR projects:



o Strengths: Evaluate the internal strengths of KLI's CSR programs, such as strong partnerships, efficient resource utilization, and innovative program design. The analysis will measure how these factors have contributed to the program's success.

o Weaknesses: Identify any internal challenges, such as inadequate resources, limited stakeholder engagement, or inefficient program execution. Understanding these weaknesses will help improve future interventions.

o Opportunities: Assess external factors that offer potential for scaling up or replicating successful CSR projects. Opportunities such as technological advancements, community willingness, or government policies that align with the CSR initiatives will be explored.

o Threats: Examine external risks that could hinder the long-term impact of the projects. These could include changes in government regulations, economic downturns, or environmental challenges.

- **Case Studies:** Detailed case studies will be developed to showcase individual or community-level success stories, highlighting transformative changes driven by the CSR programs.

## Sampling framework

The sampling strategy for primary beneficiaries uses Cochran's formula, suitable for small populations, with a 95% confidence level and 5% error margin of error, assuming average daily footfall of 150-200 patients. The statistically appropriate sample size given the population size is 132. For qualitative assessment, a purposive sampling approach will be used to select participants who can provide in-depth insights, allowing for a comprehensive understanding of overall healthcare and diagnostic services.

The following sample framework has been adopted for the study:

| Smile Foundation MMUs | | |
|---|---|---|
| **Key stakeholders** | **Data collection tool** | **Sample** |
| Beneficiaries/community members | Structured survey questionnaires | 152 |
| Doctors | Key informant interviews | 5 |
| Community health officers | Key informant interviews | 5 |
| Community mobilisers | Key informant interviews | 5 |
| Health workers (ASHA, ANM) | Key informant interviews | 5 |
| Smile Foundation officials | Key informant interviews | 2 |
| KLI's CSR officials | Key informant interviews | 2 |

# Primary findings

# Highlights

## Increase frequency of healthcare checkup

The **frequency of visit** for healthcare checkup **increased from 1-3 time to 3-5 times in a year** post MMU intervention.

## Decline in travel time

The beneficiaries **saved more than 2-3 hours in travelling** to the nearest government medical facility.

## Quick and accessible

After MMU deployment, the **waiting time** for consultation and diagnostic tests **decreased by 3-4 hours**

## Affordable healthcare

The beneficiaries **saved around INR 500-1500 on accessing medical care per month** including the cost of travel, consultation, and diagnosis as well as missed wages.

## Management of chronic conditions

The **timely diagnosis** and **regular monitoring** of chronic conditions like BP and diabetes helped in accessing preventive care and **prevent cases of stroke and heart attack**

## Maternal and child health services

Increase in uptake of **ANC/PNC services (75%)** and **newborn/infant check-ups (97%)** in Chennai, **preventing cases of maternal and infant morbidity and mortality**.

## Impact of awareness sessions

Improved lifestyle with **86% adopting changes in diet, hygiene, regular medical checkup, etc.** post the awareness session leading to **decline in disease burden**

## Staff and service quality

The access to **free medicine provision** and **the staff behaviour** has resulted in **strong satisfaction with the services**.

# Key findings: Smile on Wheels, an initiative of Smile Foundation

## About Smile Foundation

Smile Foundation, established in 2002, is a leading Indian development organisation that impacts the lives of over 2 million children and their families every year. With a strong presence across 27 states, they have implemented more than 400 projects in education, healthcare, livelihood and women's empowerment, reaching out to over 2,000 remote villages and urban slums.

As a catalyst for change, Smile Foundation complements and supplements government efforts to achieve the Sustainable Development Goals. By collaborating with like-minded institutions and individuals, it tries to design and implement high-impact programmes that improve access, enhance quality and drive long-term behavioural change at the grassroots level. The foundation aims to create a lasting impact and bring about positive transformation in the lives of the marginalised.

**Mission:** The mission is to empower underprivileged children, youth and women through relevant education, innovative healthcare and market-focused livelihood programmes. By harnessing the power of technology and innovative approaches, the organisation aims to achieve the greatest possible social impact while maintaining the highest standards of governance and transparency. It aims to link business competitiveness of a corporation with social development initiatives such as sensitising privileged children, youth and citizens to promote civic-driven changes.

## About Smile on Wheels

**Smile on Wheels**, initiated in **August 2023**, is now in its third year of successful implementation. It was developed to bridge the gap in access to primary healthcare services in underserved and remote areas, particularly where healthcare infrastructure is either inadequate or completely absent. By using **MMUs**, the programme takes essential health services directly to the doorstep of the community, ensuring care reaches those who need it the most.

The selection of intervention sites is grounded in three guiding principles: **Availability, affordability and accessibility**. This means the target is areas that lack nearby health facilities, where public or private hospitals are too far or not affordable, and where the majority of residents are daily wage labourers, factory workers or members of marginalised communities. These individuals often have little time or resources to access traditional healthcare systems, making localised service delivery essential.

The programme's **pre-operational phase is well-defined.** It begins with vendor identification and vehicle rental, followed by staff recruitment, procurement of necessary medical equipment and setting up a project office. The team then finalises the essential medicines required for day-to-day operations (in accordance with a standardised government-approved medicine list and other operational requirements). Once these preparatory steps are completed, the programme enters the **operational phase**. Mobile units are then dispatched into the field.



Each MMU is staffed with a multi-disciplinary team, including **a doctor, an ANM, a lab technician, a community health officer (CHO) a community mobiliser and a driver**. The doctor leads patient consultations and prescribes treatment. The ANM handles symptom-based consultations and dispenses medicines after approval. The lab technician conducts rapid diagnostic tests (e.g., haemoglobin, dengue, typhoid, blood sugar, etc.). The community mobiliser plays a crucial role in public engagement, awareness creation and patient follow-ups, while the driver ensures smooth logistics, including the daily set-up and tackling breakdown.

The following table presents the beneficiary details for Smile on Wheels initiative in Chennai and Virudhunagar during FY 2023-24:

| Locations | MMUs | Female | Male | Children | Total |
|-----------|------|--------|------|----------|-------|
| **Chennai** | 3 | 13,645 | 7,853 | 2,074 | 23,572 |
| **Virudhunagar** | 2 | 10,529 | 4,779 | 3,891 | 19,199 |
| **Total** | **5** | **24,174** | **12,632** | **5,965** | **42,771** |

When the MMU reaches a community, the residents are informed through a public announcement system and door-to-door outreach by the mobilisers. About 60 to 70 patients visit the unit a day. In case the footfall exceeds 100 patients, a token system is used to maintain order and ensure adequate time for each consultation. In larger locations, two service points are set up to accommodate high demand without compromising on the quality of care.

## Services offered:

The healthcare services offered are free and include:

- Doctor consultations
- Rapid diagnostic tests
- Symptom-based and preventive treatments
- Free distribution of medicines
- Emergency and urgent referrals
- Community sensitisation and awareness sessions
- Training and capacity building for local engagement

To ensure continuity and quality of care, the programme uses a digital patient database management system called KARMA that has patient details, test results and treatment records. After an ANM reviews the case and approves the treatment, the prescribed medicines are issued to the patient. After the medicines are prescribed, the patients get the receipt printed then and there. In case the drugs are not in stock, an order is placed with an authorised vendor after the doctor's approval. The medicines are delivered to patients within 10 days, and the system maintains a 7-day buffer stock to prevent disruption in services. The medicine stock is replenished weekly, and only medicines on the government's essential drug list are used, ensuring standardisation and compliance.

The programme also has a referral mechanism: Patients needing further intervention are referred to partner government hospitals. Before operating in any region, the NGO gets an approval from the local district administration and identifies government hospitals for tie-ups. Referrals are tracked closely, and community mobilisers follow up via calls or home visits to ensure patients reach and complete their treatment at the referral centres. Local district officials also make timely monitoring visits to the MMU sites to ensure compliance with protocols and assess implementation quality.

To manage the well-being and performance of its team, the NGO has established a staff support system. Part-time staff are brought in when core staff are on leave or are facing some challenges, helping prevent burnout and ensuring uninterrupted delivery of services. All frontline workers receive adequate training, which enables them to perform their responsibilities effectively and secure the trust of the community.

The programme operates across Chennai and Virudhunagar districts. In Chennai, the MMUs serve the urban-fringe and low-income areas where, despite the presence of healthcare infrastructure, barriers such as cost, overcrowding and lack of awareness deter people from accessing healthcare on time. In contrast, Virudhunagar presents distinctly rural challenges. Many villages lack basic health facilities, medical personnel and even transport to reach nearby hospitals. In such areas, this programme fills a critical gap by bringing healthcare directly to remote locations, reducing delays in diagnosis and treatment, and raising community-level awareness about health.

The NGO also runs a strong follow-up system. After patients receive treatment, community mobilisers follow up with phone calls. If patients do not respond, home visits are conducted to check their condition, reinforce medication adherence and provide support if additional help is needed.

As part of its exit and sustainability strategy, the programme conducts school-based awareness activities, community meetings and training sessions. These sessions focus on health literacy, disease prevention, nutrition, and the importance of hygiene, while also marking key national health days to promote long-term awareness. A major component of these sessions helps community members access relevant government schemes. The team provides hands-on support with documentation and helps individuals navigate application processes to ensure they can continue receiving benefits even after the programme ends.

The overall programme highlights a holistic and scalable model of primary healthcare deliveries tailored for under-resourced areas. Its strength lies in its community-centred approach, digital recordkeeping, referral integration with government systems, and robust monitoring and follow-up mechanisms. By focussing equally on service delivery, awareness and system linkages, it addresses both immediate medical needs and long-term health empowerment in rural and marginalised urban communities.

## Primary key findings – Community members

### I.     Demographic profile

As part of the study, 152 community members were engaged in the survey, 69% (105) from Chennai and 31% (47) from Virudhunagar. The responses reflect strong awareness and outreach of the initiative across both locations. All respondents reported awareness about the MMU services operating in their localities. Furthermore, **99% correctly identified Smile on Wheels as a joint initiative of KLI and Smile Foundation, highlighting the programme's strong visibility and effective community engagement**.
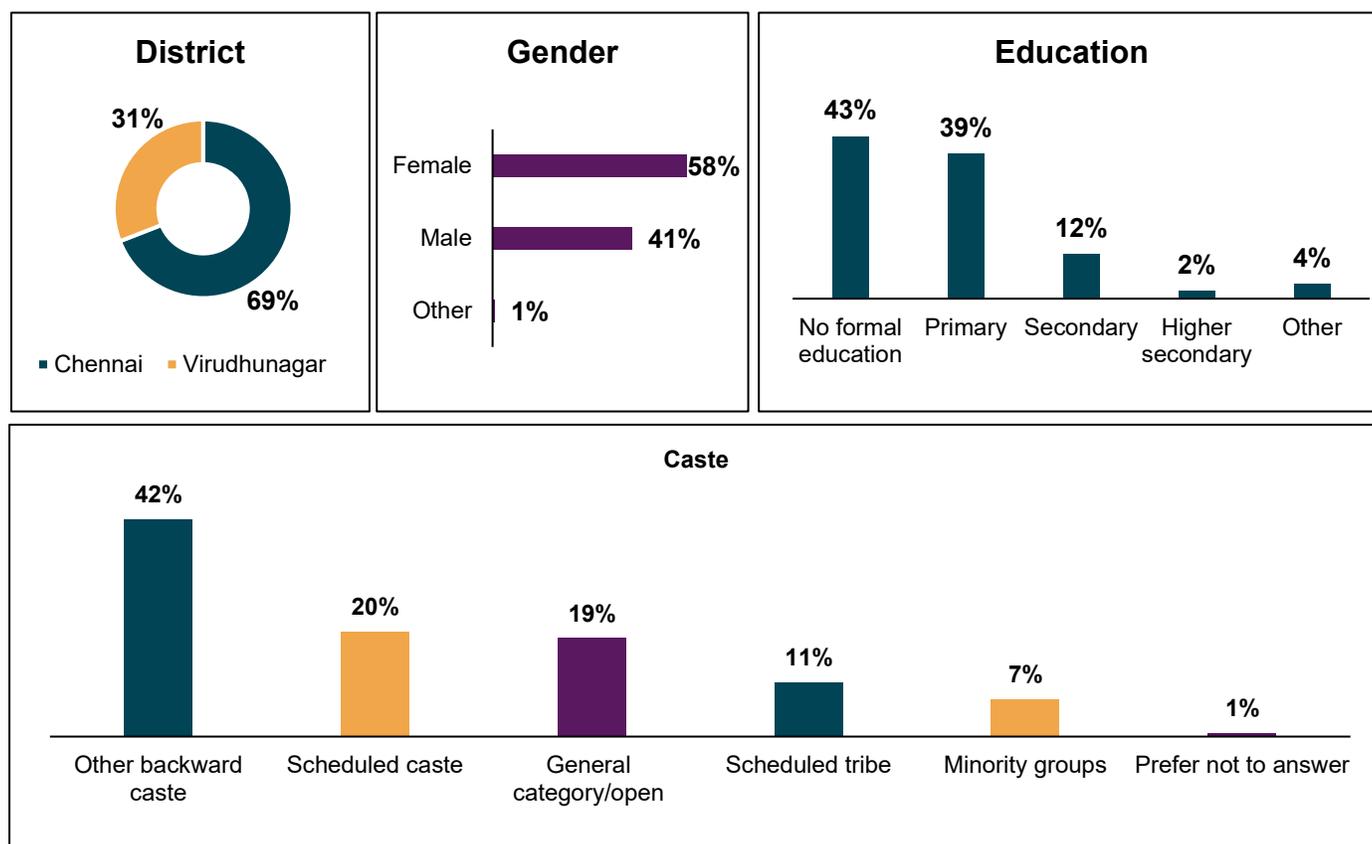


*Figure 1: Demographic details of community members in Chennai and Virudhunagar*

The Smile on Wheels initiative has effectively reached beneficiaries from diverse social and community backgrounds. Among the respondents, 42% belonged to the other backward castes (OBC), 20% to scheduled castes (SC), 19% to the general category and 11% to scheduled tribes (ST). Additionally, 7% identified as members of other minority groups, while 1% chose not to disclose their social category.
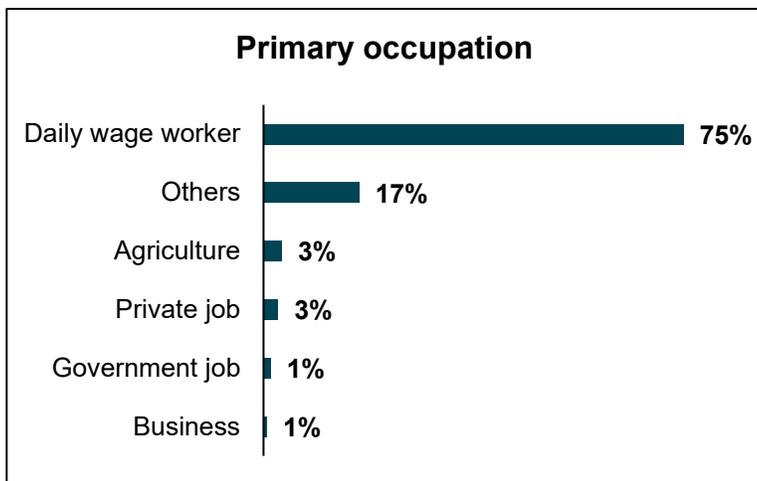


*Figure 2: Primary occupation of community members*

In terms of educational background, 43% of the respondents reported having no formal education, while 39% had completed only primary schooling. Only 12% had attained secondary education, and a mere 2% had studied up to the higher secondary level, indicating the programme's strong outreach among the underserved and low-literacy population pockets.

The initiative has also made a meaningful impact among individuals engaged in informal and economically vulnerable occupations. A large majority of respondents (75%) respondents reported working as daily wage earners, while smaller segments were employed in private jobs (3%), agriculture (3%), business (1%) and government services (1%). *This distribution highlights the programme's focus on reaching communities with limited job security and minimal access to employer-supported healthcare.*

In terms of economic background, **this MMU initiative has successfully provided healthcare access to financially constrained households**. With 52% of respondents reporting a monthly household income between INR 10,001– 20,000, and 37% earning less than INR 10,000, it is clear that *most of the programme beneficiaries belong to low-income groups for whom medical costs are often a challenge, reinforcing the programme's relevance to the economically vulnerable.*
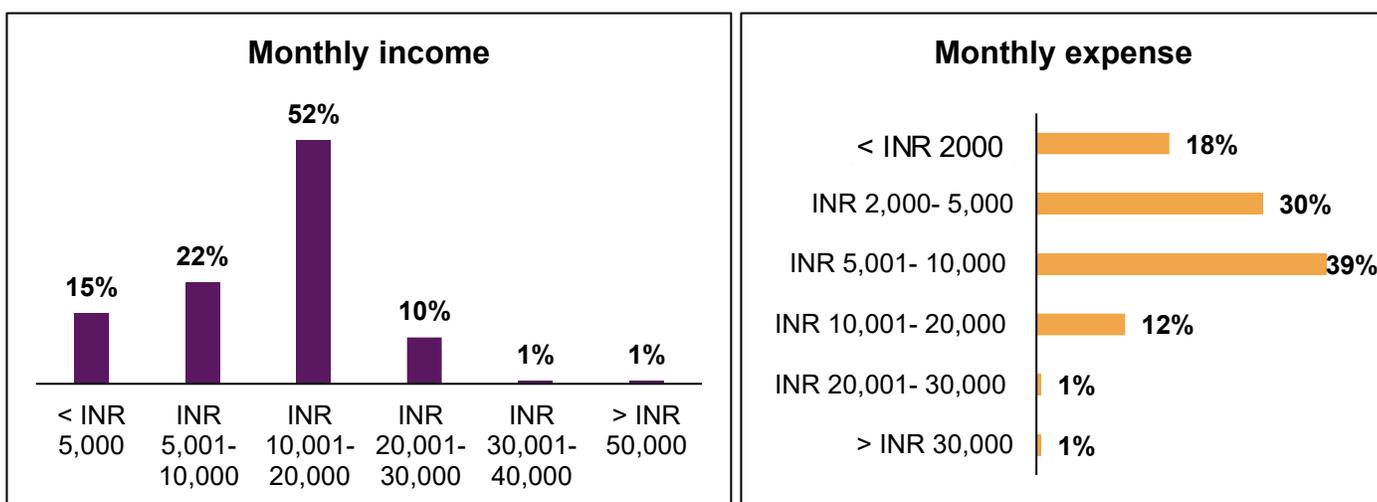


*Figure 3: Monthly income and expenses of community members*

Similarly, 48% respondents reported monthly household expenses below INR 5,000, while 39% spent between INR 5,001 and 10,000. These figures further underscore the limited financial capacity of the beneficiary households.

In terms of community stability, 52% of the beneficiaries have been residing in their current locality for over a decade, while 32% have lived there for 1-5 years, indicating *the programme's effective engagement with long settled and well-rooted communities, strengthening its continuity and local trust.*
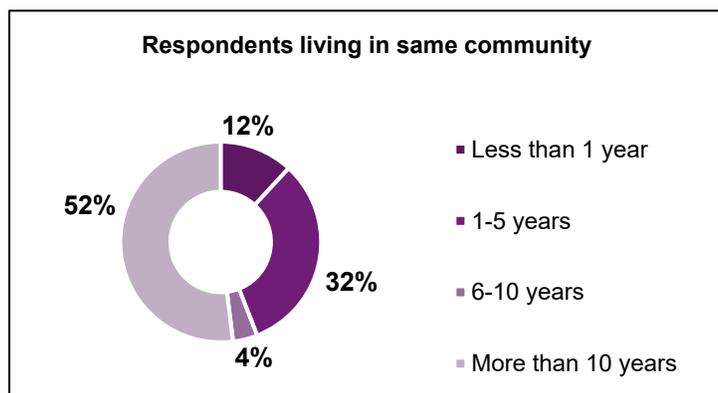


**Respondents living in same community**

- 12%
- 52%
- 32%
- 4%

- ■ Less than 1 year
- ■ 1-5 years
- ■ 6-10 years
- ■ More than 10 years

*Figure 4: Respondents living in same community*

**Within the sample, 43% of beneficiary households reported having at least one member with disability.**

By providing doorstep healthcare services, the Smile on Wheels programme has *reduced mobility barriers, ensuring that vulnerable individuals, including Persons with Disabilities (PwDs), have access to timely medical support without additional burden.*

## II.    Disease profile and pre-MMU health challenges

Smile on Wheels has been instrumental to address a wide range of health challenges prevalent in the intervention areas of Chennai and Virudhunagar. The pre-intervention scenario, as reflected in the survey data, highlights a significant disease burden, coupled with systemic barriers to healthcare access both of which have been mitigated through MMU services. *For many residents, reaching the hospital meant spending hours travelling long distances and then waiting for consultations often resulting in the loss of an entire day's wage. This forced many to delay treatment, endure pain or rely on self-medication.*



**Common issues faced in the area**

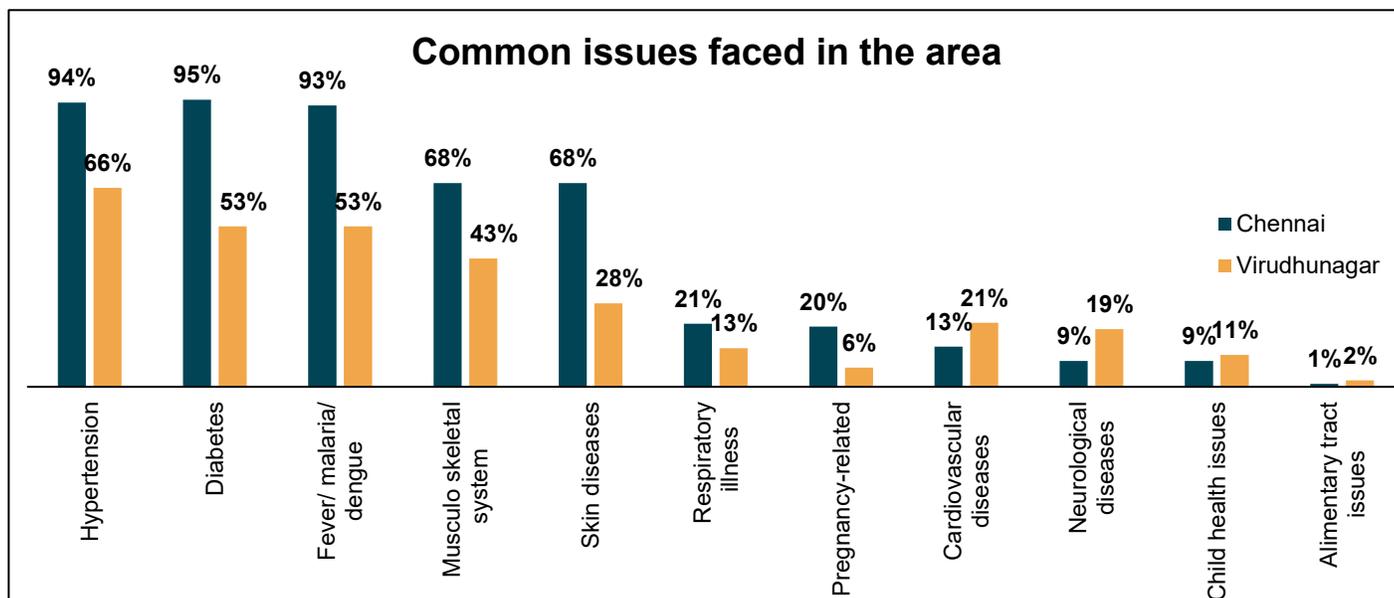| Issue | Chennai | Virudhunagar |
|---|---|---|
| Hypertension | 94% | 66% |
| Diabetes | 95% | 53% |
| Fever/ malaria/ dengue | 93% | 53% |
| Musculo skeletal system | 68% | 43% |
| Skin diseases | 68% | 28% |
| Respiratory illness | 21% | 13% |
| Pregnancy-related | 20% | 6% |
| Cardiovascular diseases | 13% | 21% |
| Neurological diseases | 9% | 19% |
| Child health issues | 9% | 11% |
| Alimentary tract issues | 1% | 2% |

*Figure 5: Common healthcare issues in community*

The data indicates that **chronic lifestyle diseases dominate both regions, with diabetes and hypertension emerging as the most common ailments**. In Chennai, 95% of the respondents reported having diabetes, while 94% had hypertension. In Virudhunagar, the figures stood at 53% and 66%, respectively. Alongside these, the other common ailments included vector-borne illnesses such as malaria and dengue, musculoskeletal issues, joint and muscle pain, and recurring skin and respiratory infections.
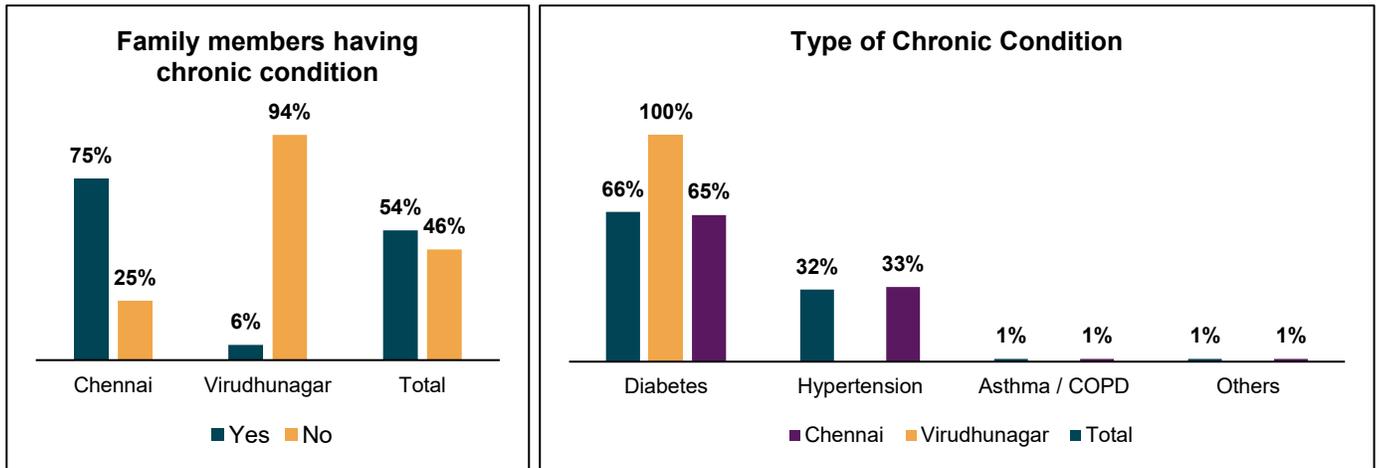


*Figure 6: Current scenario of chronic conditions in community*

Chronic conditions—particularly diabetes, hypertension, and asthma or Chronic Obstructive Pulmonary Disease (COPD)—were far more prevalent in Chennai (75%) compared with Virudhunagar (6%), underscoring the need for sustained and affordable long-term care. **The intervention helped bridge this crucial gap by bringing consistent medical support directly to the community and easing the financial strain of managing chronic diseases.**
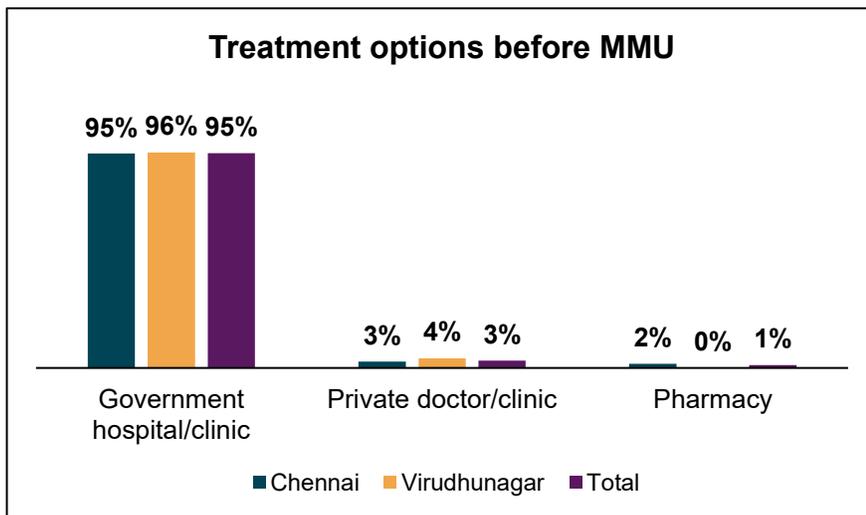


*Figure 7: Healthcare options prior to MMU*

Prior to the MMU intervention, the reliance for medical treatment was primarily on government hospitals (95%), with only 3% depending on private clinics and 1% relying on pharmacists for medication guidance. About 57% of the community members visited a healthcare facility just 1-3 times a year, while 43% reported visiting it more frequently—only 32% managed 4-6 visits annually. For those with chronic conditions, the need for frequent checkups—sometimes up to 10 visits a year or more—was common, but difficult to manage.

**Number of visits to the healthcare centre before MMVs**

| | 1-3 times | 4-6 times | 7-10 times | >10 times |
|---|---|---|---|---|
| Chennai | 52% | 35% | 11% | 2% |
| Virudhunagar | 70% | 24% | 4% | 2% |
| Total | 57% | 32% | 9% | 2% |



**Main reasons for not visiting health facilities**

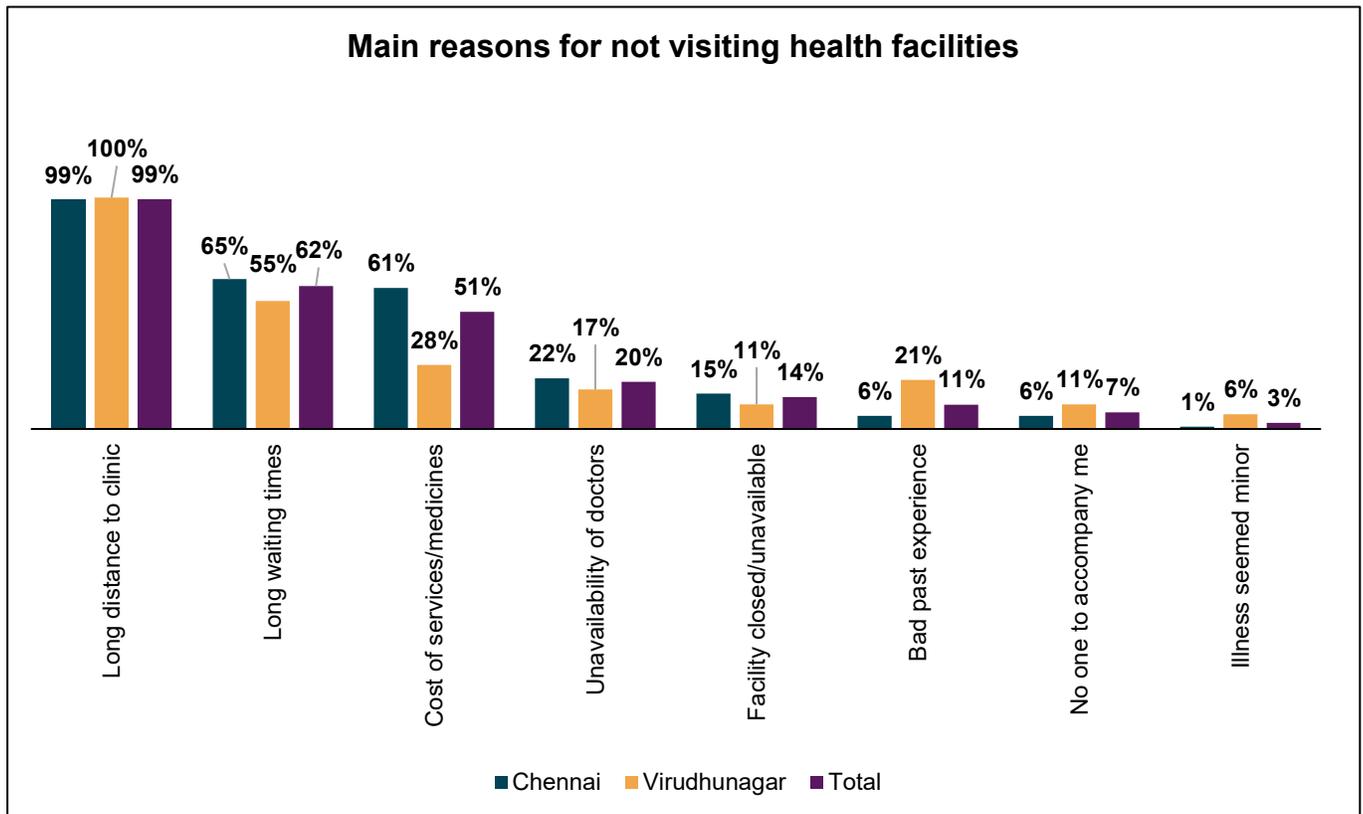| | Long distance to clinic | Long waiting times | Cost of services/medicines | Unavailability of doctors | Facility closed/unavailable | Bad past experience | No one to accompany me | Illness seemed minor |
|---|---|---|---|---|---|---|---|---|
| Chennai | 99% | 65% | 61% | 22% | 15% | 6% | 6% | 1% |
| Virudhunagar | 100% | 55% | 28% | 17% | 11% | 21% | 11% | 6% |
| Total | 99% | 62% | 51% | 20% | 14% | 11% | 7% | 3% |

*Figure 8: Details of healthcare visits prior to MMUs*

*The key barriers in accessing healthcare facilities were distance—which not only required time but was financially draining (99%)—compounded by long waiting hours at hospitals (62%)*. This often led many to miss work to receive treatment -- an unaffordable trade-off for daily wage earners. The cost of treatment and diagnosis was another major hindrance, (51%) followed by the unavailability of doctors (20%).

Thus, the intervention came as a lifeline, bringing healthcare to people's doorsteps. The programme reduced travel time and cost, provided regular check-ups and ensured that even the most vulnerable could access essential medical services.

**MMU have addressed the challenges faced**
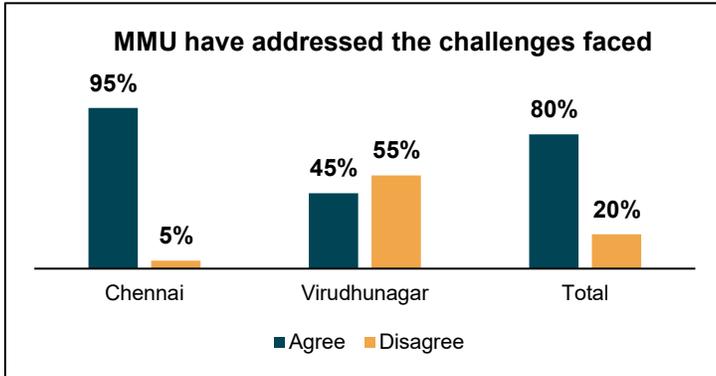
Nearly **80%** of the beneficiaries reported that the MMUs had directly **resolved their long-standing challenges of high medical cost, long travelling and waiting hours, and missing work day and wage, making healthcare truly accessible**.

*Figure 9: Impact of MMU on healthcare challenges*

## III.  Awareness, access and utilisation of MMU services

All participants were aware of the MMU services; however, the channels of awareness varied across locations. In Chennai, the primary source was public announcements (55%), which effectively reached a large population. In contrast in Virudhunagar, it was home visits conducted by MMU staff or community mobilisers (62%), reflecting the programme's ability to adapt its outreach strategy to local needs. Additional sources of awareness across both regions included the efforts of community mobilisers, local health workers and frontline functionaries such as Accredited Social Health Activist (ASHA) and ANM workers.



**Awareness and knowledge of the MMUs**
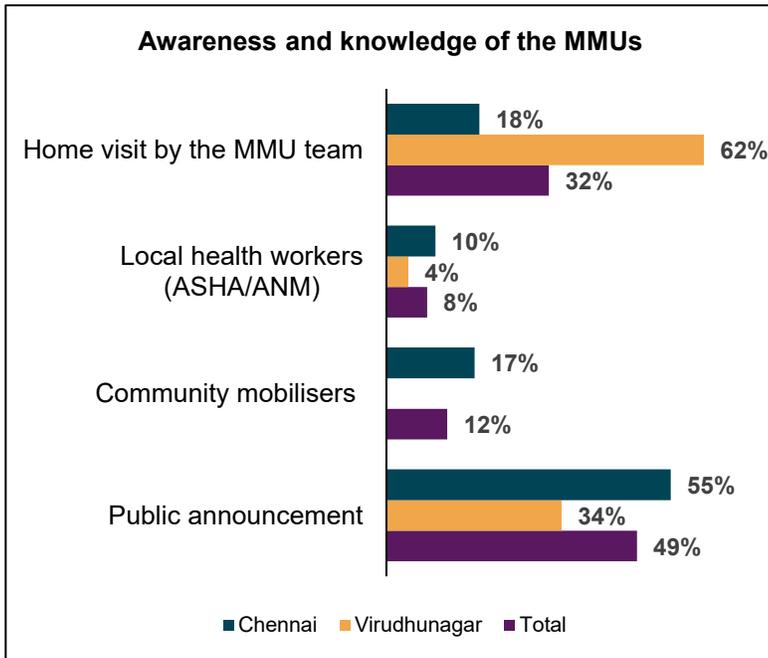
**96%** participants were satisfied with the frequency of MMU visits in their locality.

*Figure 10: Source of awareness of MMU*

Most of the respondents shared that the MMUs visited once every two weeks whereas 23% reported monthly visits. Only 15% said that the visits were weekly, while. 96% expressed satisfaction with the frequency of MMU visits in their locality.
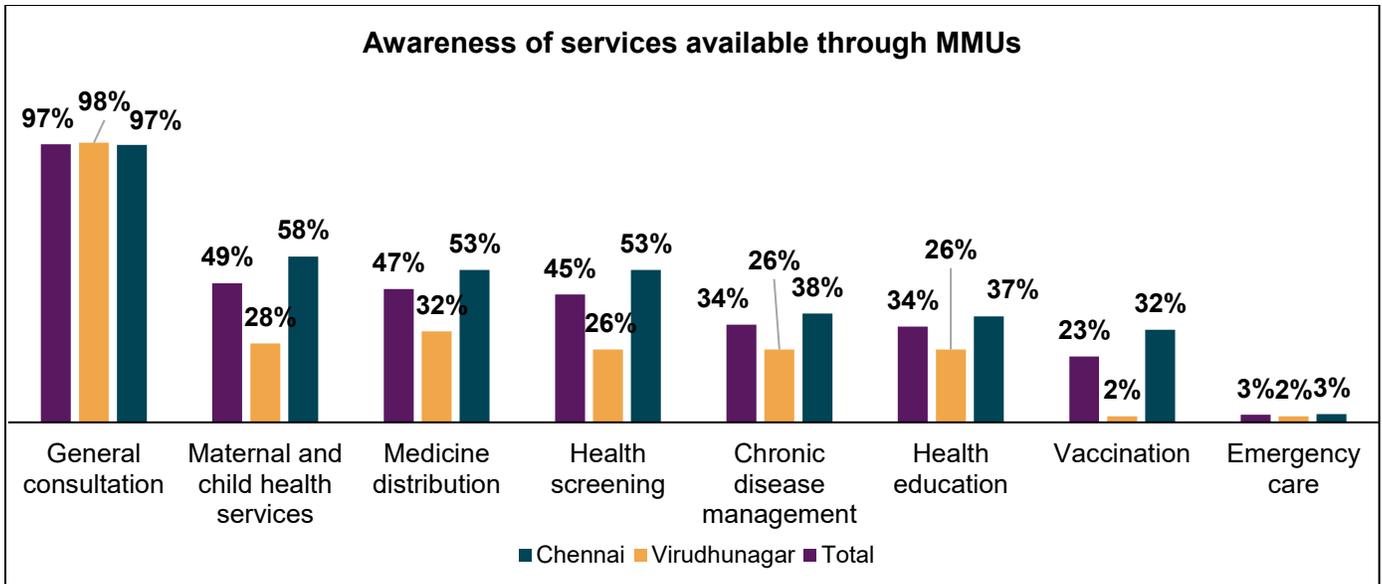
**Awareness of services available through MMUs**

| Service | Chennai | Virudhunagar | Total |
|---|---|---|---|
| General consultation | 97% | 98% | 97% |
| Maternal and child health services | 58% | 28% | 49% |
| Medicine distribution | 53% | 32% | 47% |
| Health screening | 53% | 26% | 45% |
| Chronic disease management | 38% | 26% | 34% |
| Health education | 37% | 26% | 34% |
| Vaccination | 32% | 2% | 23% |
| Emergency care | 3% | 2% | 3% |

*Figure 11: Awareness of services by Smile on Wheels*

Awareness of specific MMU services also differed across the two locations. Awareness of general consultations was the highest in both Chennai (97%) and Virudhunagar (98%), indicating widespread recognition of core medical services. However, awareness of other services such as—maternal and child health services (58% in Chennai vs 28% in Virudhunagar); medicine distribution (53% vs 32%); health screening (53% vs 26%); chronic disease management (38% vs 26%); health education (37% vs 26%); and vaccination services (32% vs 2%)—was significantly higher in Chennai compared with Virudhunagar. These variations suggest that **while the MMU model has achieved strong visibility, sustained communication and engagement are required to enhance awareness of all services, particularly in Virudhunagar.**

Utilisation patterns mirrored these trends with 98% of respondents in Chennai reporting that they personally availed of Smile on Wheels services compared with 85% in Virudhunagar. Service frequency also varied, with 53% of respondents in Chennai availing services 3-5 times annually, while only 28% respondents in Virudhunagar reported a similar service frequency. On the other hand, 58% of beneficiaries in Virudhunagar said they accessed the services only 1-2 times a year, compared with 8% in Chennai. *This suggests that the proximity and frequency of van visits contributed to consistent healthcare access and timely follow-ups, reducing the risk of complications arising from delayed medical attention.*
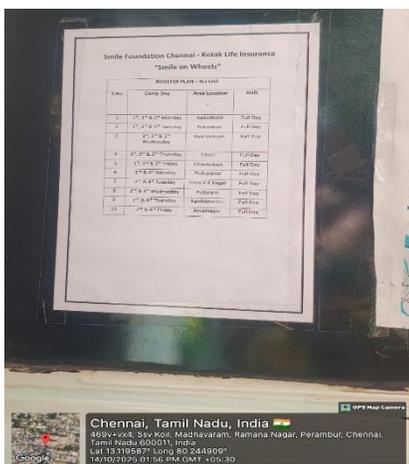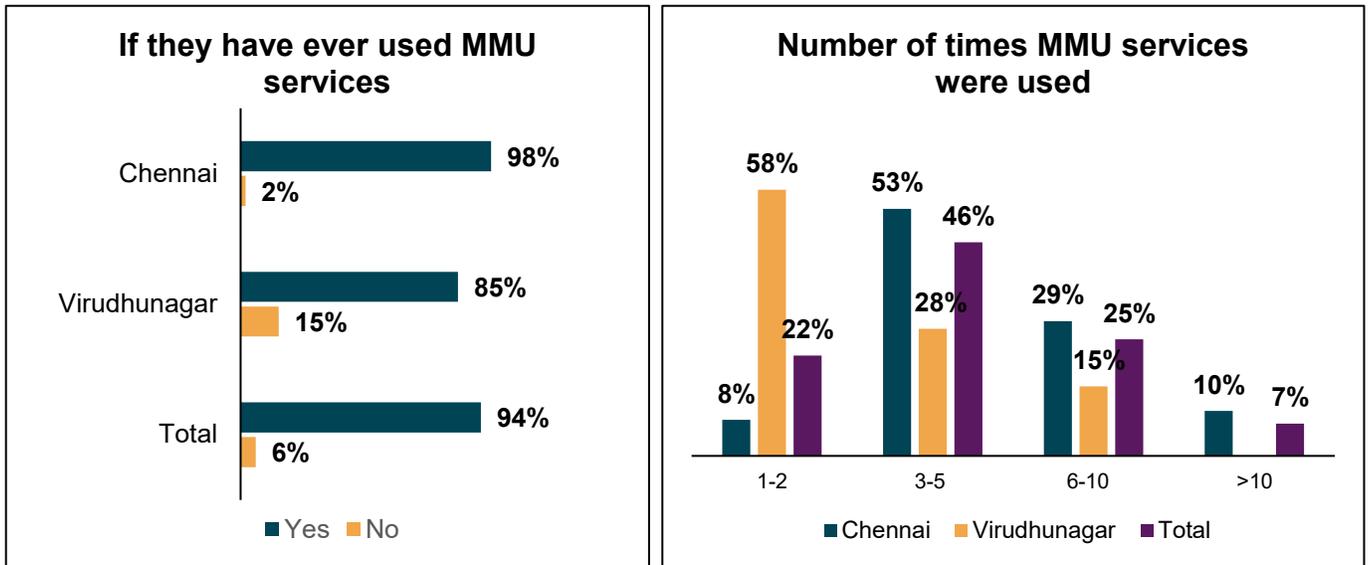
**Figure 13: Utilization pattern of MMU services**

Utilisation of Smile on Wheels services closely mirrored the community's level of awareness about them. General consultations and treatment for common ailments emerged as the most frequently accessed services, with 96% of the respondents in Chennai and 85% in Virudhunagar reporting regular use. Preventive health services, particularly screening for NCDs, varied notably with location as 88% of the participants in Chennai underwent such screenings compared with 49% in Virudhunagar. Similarly, services related to skin and water-borne diseases, as well as maternal and child healthcare, were also well utilized. In Chennai, 73% used the former and 59% the latter and in Virudhunagar 53% and 47%, respectively.



**Figure 12: Services availed at Smile on Wheels**

**The high level of adoption and continued reliance on MMU services can be attributed to the convenience and time efficiency they offer unlike traditional healthcare facilities that require long travel and waiting time. These units have made medical ca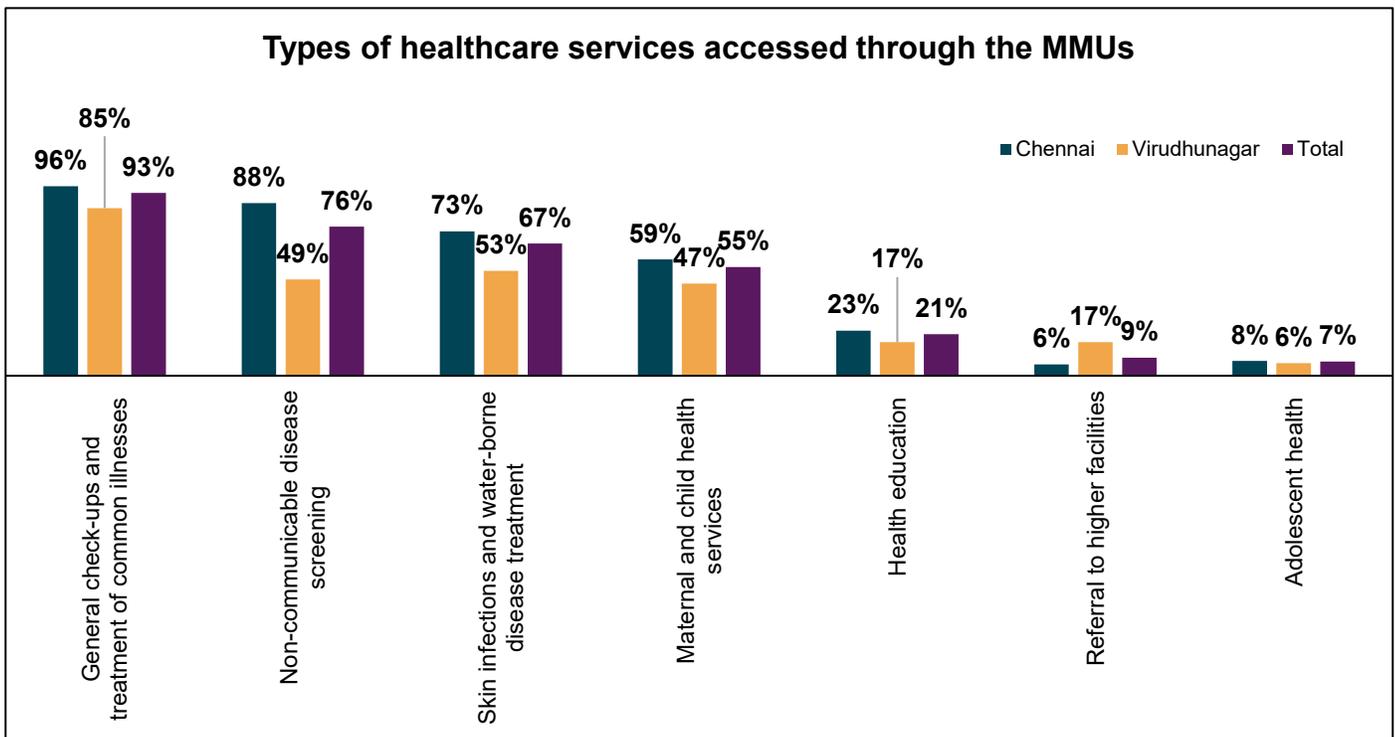re accessible within the community itself.** Almost all respondents in Chennai (99%) and all in Virudhunagar (100%) said they could reach the MMU in 30 minutes and all of them (100%) found the sites where Smile on Wheels are stationed convenient to access in both the places. Waiting times were minimal as 78% in Chennai and 85% in Virudhunagar reported waiting less than 30 minutes. As many as 19% in Chennai and 15% in Virudhunagar experienced no waiting time at all. These findings reflect how the MMU model has effectively addressed one of the most persistent barriers to healthcare—time—by ensuring that essential medical services are not only affordable but also easily and frequently available.

**Almost all the respondents in Chennai (99%) and all in Virudhunagar (100%) said they could reach the MMU location in 30 minutes saving 1.5 to 2.5 hours**

**All the respondents (100%) found the MMU location convenient to access and reach in both Chennai and Virudhunagar**
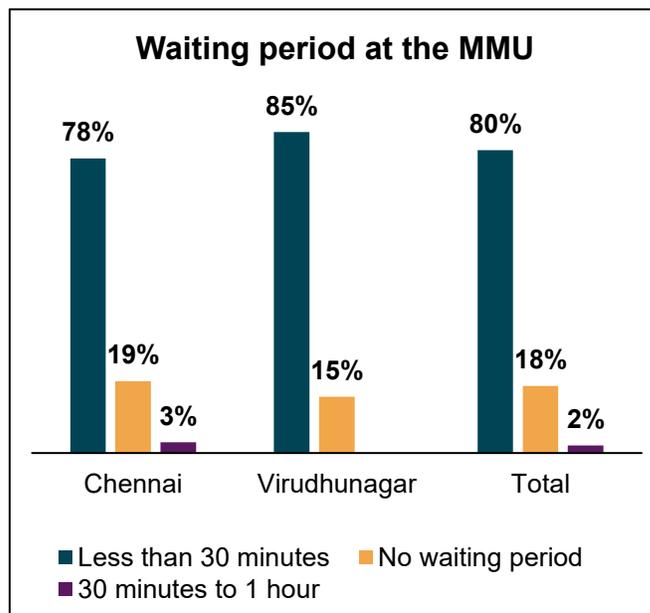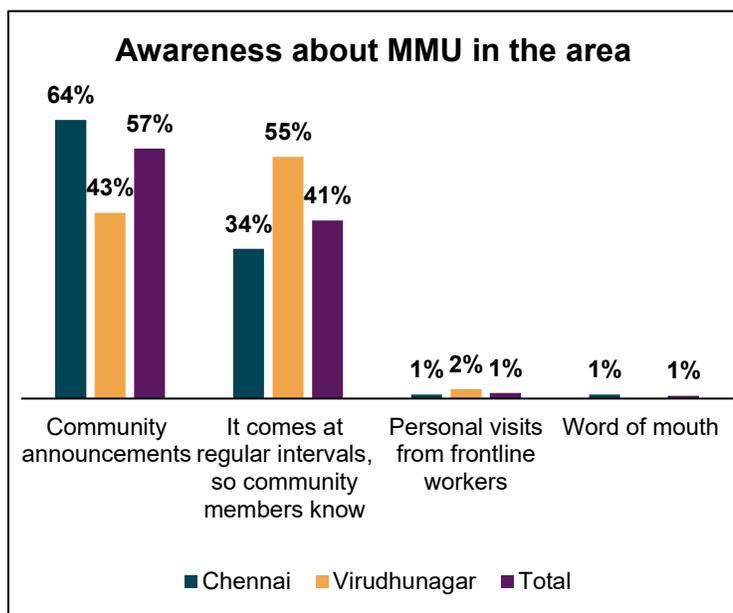


*Figure 14: Accessibility, awareness and waiting period for MMUs*

*The quality of care and personal attention provided by the MMU staff has been a central factor in building community trust and encouraging the beneficiaries to use the services consistently.* Respondents in both the locations expressed high satisfaction with the attentiveness of staff, accuracy of diagnoses and effectiveness of treatments. They noted the medical team takes time to explain health conditions, clarify doubts and communicate medication instructions clearly. Their respectful and empathetic approach has strengthened community confidence in the initiative. Moreover, the MMU staff have been proactive in identifying and referring critical cases to nearby hospitals, ensuring that patients receive timely and appropriate care. Overall, beneficiaries and their families reported a positive and reassuring experience with MMU services.

Importantly, the MMUs have addressed one of the community's most persistent challenges—the unavailability of doctors and medical staff at government and private facilities.

**Vitals checked on every visit**

| Vital | Chennai | Virudhunagar | Total |
|---|---|---|---|
| Weight | 89% | 62% | 80% |
| Height | 61% | 51% | 58% |
| BMI | 14% | 6% | 12% |
| Blood Pressure | 91% | 49% | 78% |
| Pulse | 46% | 34% | 42% |
| Temprature | 49% | 34% | 44% |
| Respiratory rate | 10% | | 7% |
| SpO2 (in %) | 1% | | 1% |

*Figure 15: Regular vital check during visit*

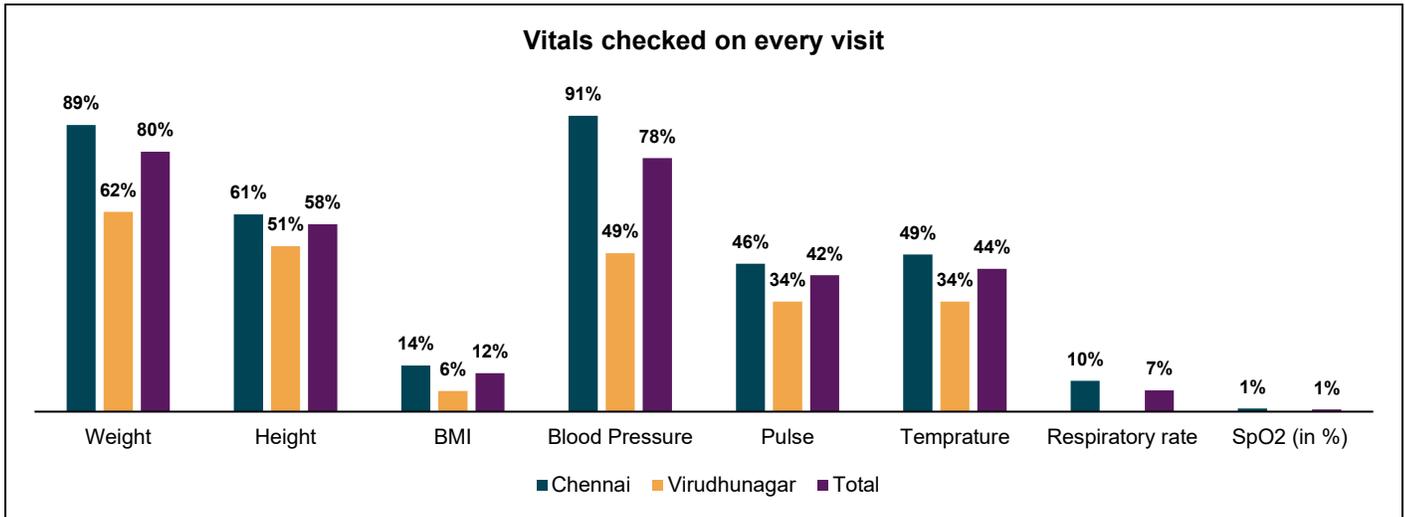The presence of trained medical personnel has strengthened community trust and ensured that healthcare delivery through the MMUs remains dependable, accessible and responsive to local health needs. Nearly all respondents (99%) said the medical team gave clear instructions regarding dosage and medication frequency. Routine vital checks were carried out during every consultation. In Chennai, 89% respondents said their weight was checked and 61% said their height was measured. In Virudhunagar, the percentages stood at 62% and 51%, respectively. Blood pressure monitoring was significantly higher in Chennai (91%) compared with Virudhunagar (49%), while pulse and temperature readings were recorded for 46% and 49% of patients in Chennai and 34% in Virudhunagar.

**Tests availed at "Smile on Wheels"**

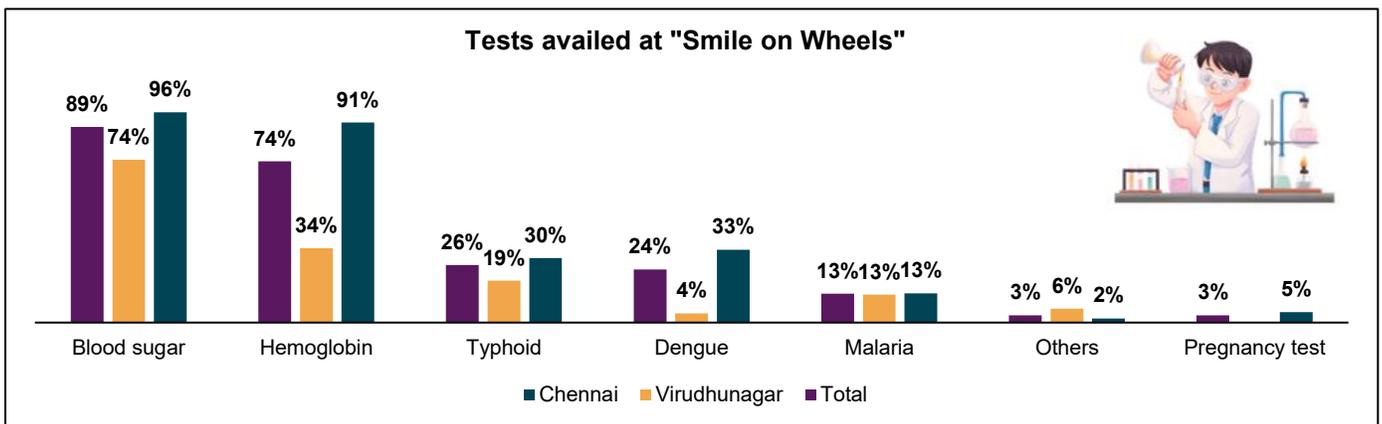| Test | Chennai | Virudhunagar | Total |
|---|---|---|---|
| Blood sugar | 96% | 74% | 89% |
| Hemoglobin | 91% | 34% | 74% |
| Typhoid | 30% | 19% | 26% |
| Dengue | 33% | 4% | 24% |
| Malaria | 13% | 13% | 13% |
| Others | 2% | 6% | 3% |
| Pregnancy test | 5% | | 3% |

*Figure 16: Diagnostic tests available at MMU*

Despite being mobile units, the MMUs have been equipped to conduct a wide range of diagnostic blood tests. Screenings for diabetes and haemoglobin levels were more frequently utilised in Chennai (96% and 91%) compared with Virudhunagar (74% and 34%). Similarly, tests for vector-borne diseases, like malaria and dengue, and water-

borne illnesses, like typhoid, were accessed by 76% of respondents in Chennai and 36% in Virudhunagar. *These diagnostic facilities have played an important role in enabling early detection and timely intervention, thereby preventing complications.*

**100%** of the beneficiaries said all the diagnostic services, consultations and medication were free of cost.
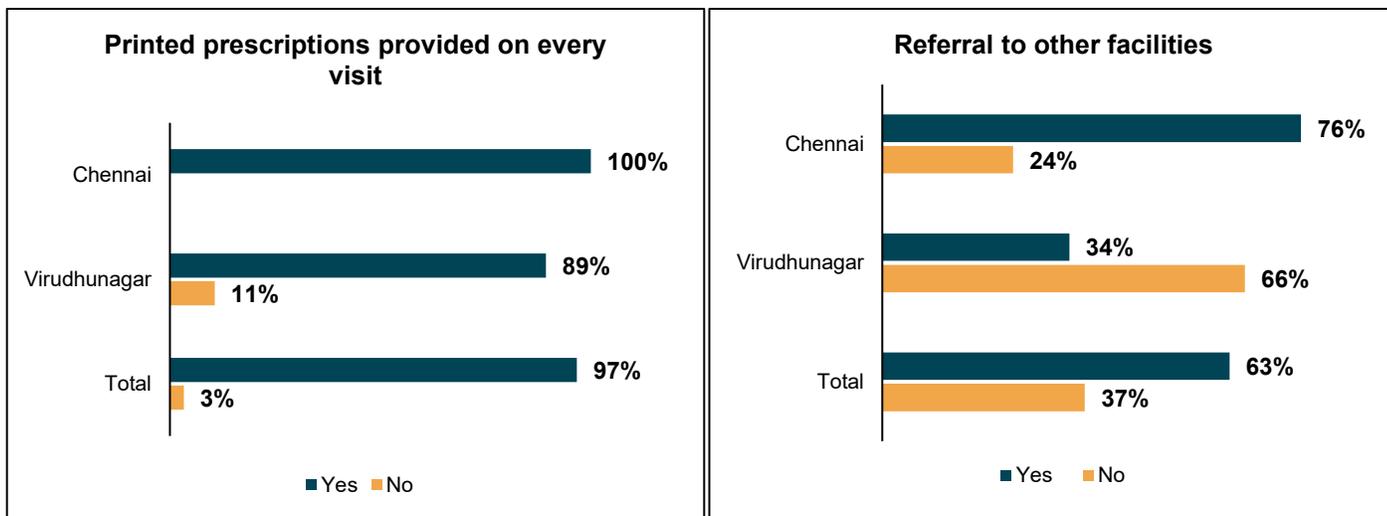


Figure 17: Experience of the MMU Visit
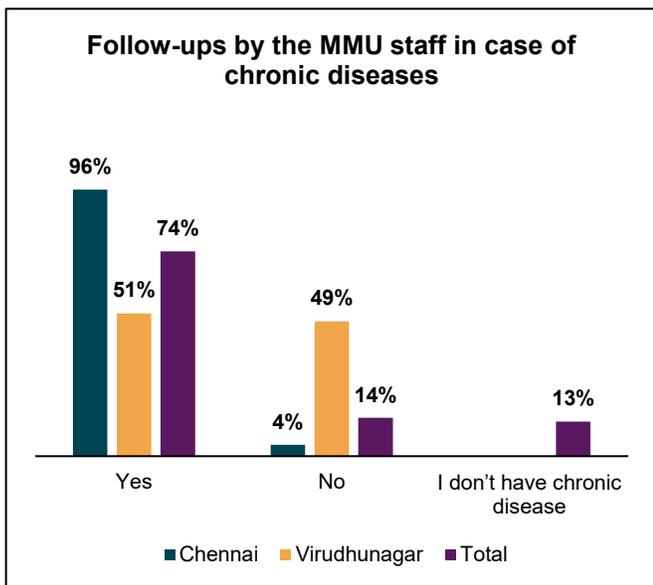


Figure 18: Follow-up for chronic diseases

To ensure proper documentation and continuity of care, printed prescriptions were issued to patients during each visit. All participants in Chennai (100%) and 89% in Virudhunagar reported receiving prescription while 11% mentioned occasional lapses due to technical challenges. The MMUs also followed a structured referral system for advanced medical care. In Chennai, 76% respondents were referred to higher healthcare facilities such as PHCs, CHCs or government hospitals. In Virudhunagar, the figure was 34%. Follow-up support for chronic conditions was significantly stronger in Chennai, where 96% received regular follow-up, compared with 51% in Virudhunagar. **Strengthening referral coordination and follow-up mechanisms in Virudhunagar would further enhance continuity of care and long-term health outcomes for the community.**

# IV. Information, education and communication (IEC) activities

In addition to providing medical care, the MMUs placed strong emphasis on health awareness and behavioural change communication through regular community meetings. **These sessions served not only as platforms for knowledge-sharing but also as opportunities to build trust, rapport and sustained engagement with the community.** Participation levels, however, varied with 83% of the respondents in Chennai attending these meetings compared with 30% in Virudhunagar. Among those who participated, attendance was consistent as 68% in Chennai and 57% in Virudhunagar attended three to five meetings on average, indicating steady involvement among engaged participants.
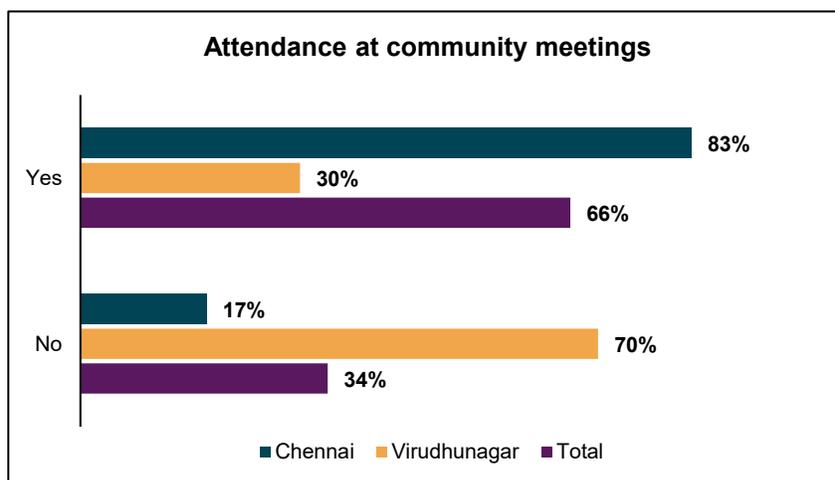


*Figure 19: Attendance in community meetings*

**Respondents demonstrated a clear recall of key topics discussed during these sessions.** The most frequently mentioned themes included disease prevention (59%), vaccination (41%), maternal health (39%), nutrition and hygiene (36%), and chronic disease management (14%). *To ensure inclusivity and comprehension, as many as 90% of the respondents said the meetings were conducted in their local language, making the information accessible to all.*
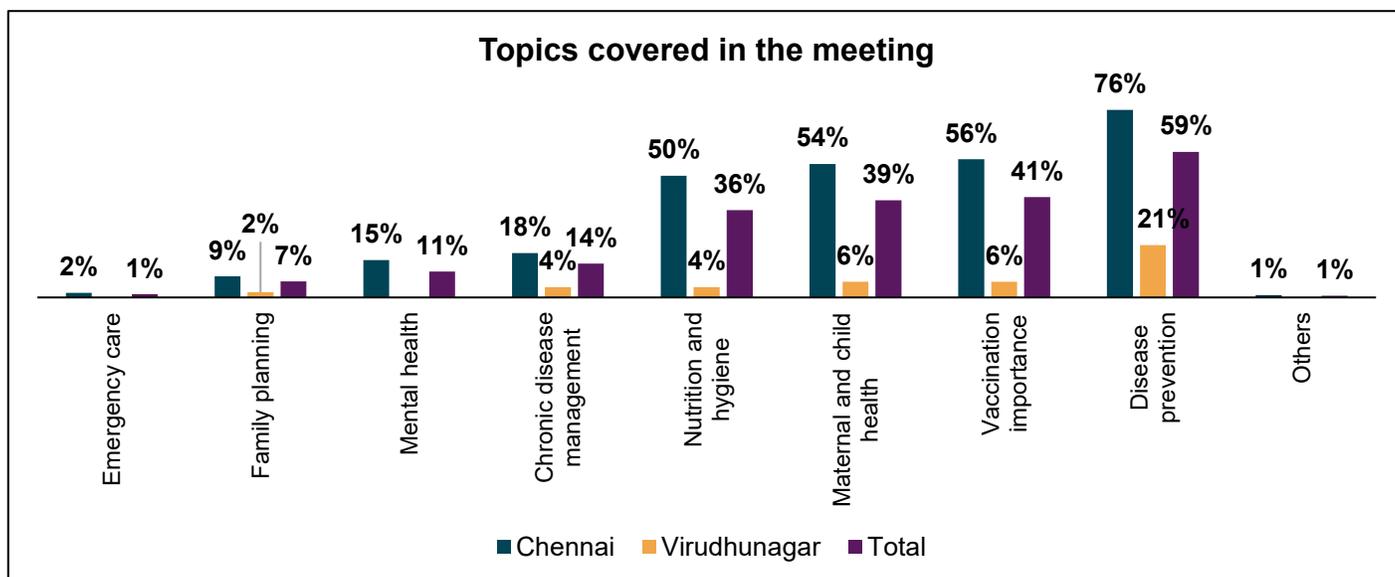


*Figure 20: Recall of topics covered in the meetings*

**100%** of the respondents found the sessions useful and relevant, with 86% acknowledging the discussions had encouraged them to adopt healthier habits, practice preventive care and improve their day-to-day health behaviours.

*These findings highlight the MMUs' role not only in providing clinical services but also in fostering lasting behavioural change and health awareness within the community.*

## V.    Change in health behaviour and preventive practices

Services delivered through the MMUs were accorded high value in both locations, as reflected in strong appreciation from community members and key stakeholders. High levels of satisfaction were recorded for free medical consultations and provision of free medicines (in Chennai, 96% were satisfied with consultations and 79% with free medicines; the corresponding figures for Virudhunagar were 94% and 45%, respectively). Respondents also highlighted the staff's clinical competence, empathetic behaviour and convenience of locally accessible services, which collectively reduced travel time and improved service uptake. Health awareness and knowledge-building sessions were similarly commended for their positive influence on community health practices and overall wellbeing.

**What do you like the most about MMU services?**

| Category | Chennai | Virudhnagar | Total |
|---|---|---|---|
| Free consultation | 96% | 94% | 95% |
| Free medicines | 79% | 45% | 68% |
| Staff friendliness and knowledge | 57% | 32% | 49% |
| Easy access | 44% | 34% | 41% |
| Saves time | 38% | 32% | 36% |
| Awareness sessions and IEC activities | 30% | 26% | 28% |

*Figure 21: Services appreciated by the community*

**100%** of the respondents said the meetings strengthened their understanding of preventive health behaviours.

*Moreover, 80% indicated that they had adopted lifestyle modifications based on the information shared during these sessions.*
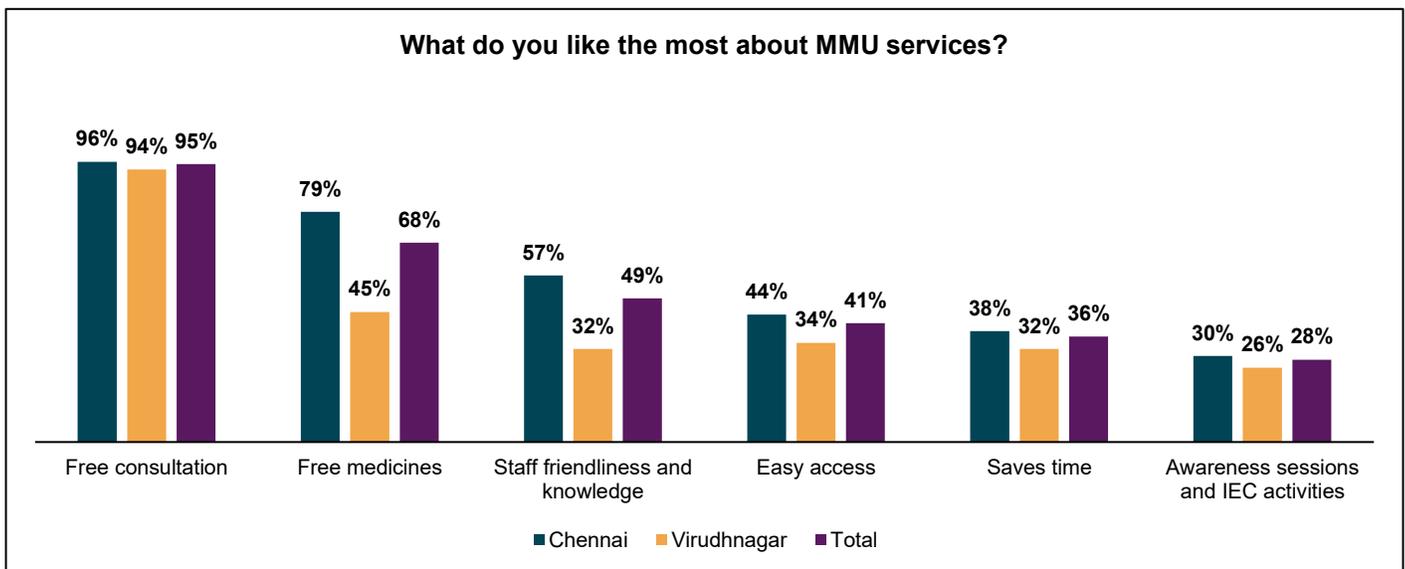
These behavioural changes translated into measurable shifts in daily practices, including improvements in diet and nutrition (48%), increased frequency of routine health check-ups (24%), better hygiene behaviours (19%), regular physical activity (7%) and reduced tobacco and alcohol use (2%). Households also reported adopting key preventive measures, such as regular handwashing with soap (84%), consumption of safe drinking water (69%), use of toilets instead of open defecation (56%), and timely vaccination (29%), among others.



**What preventive practices do you follow now, after interacting with MMU?**

| | Chennai | Virudhunagar | Total |
|---|---|---|---|
| Hand washing with soap | 90% | 70% | 84% |
| Safe drinking water | 72% | 62% | 69% |
| Use of toilets | 63% | 40% | 56% |
| Balanced diet | 34% | 19% | 30% |
| Vaccination | 40% | 4% | 29% |
| Regular check-ups | 22% | 9% | 18% |
| Wearing footwear | 10% | 19% | 13% |
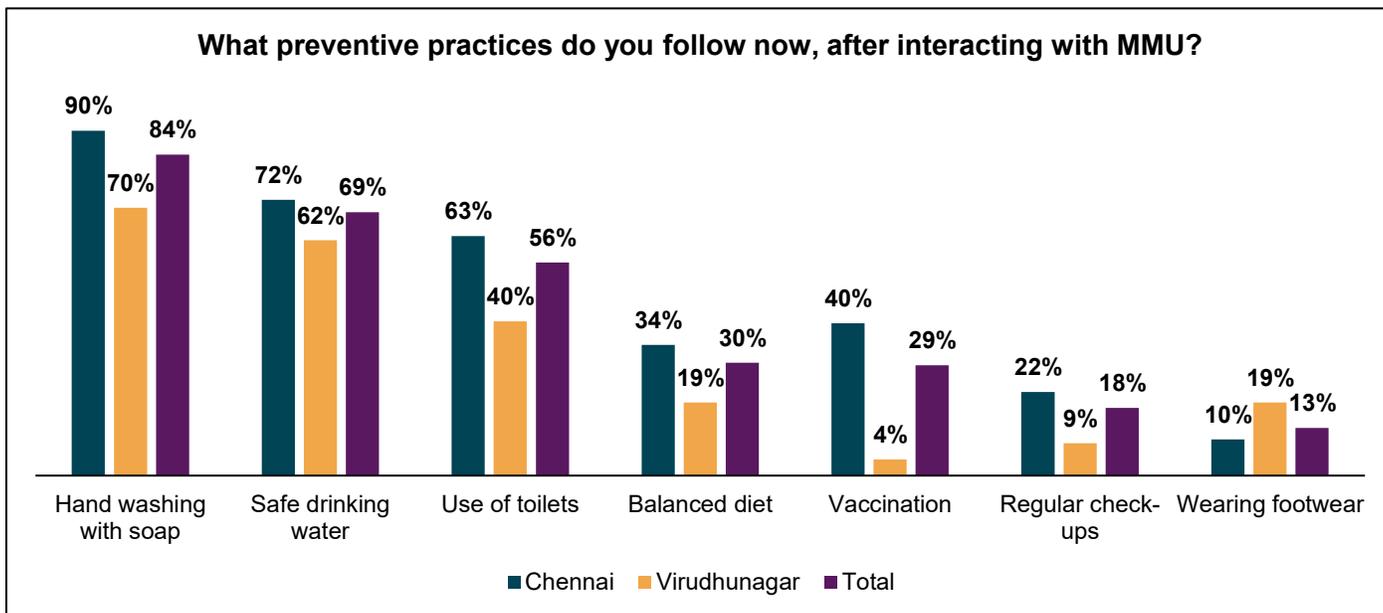
*Figure 22: Change in behaviour post-awareness sessions*

Beyond preventive care, the MMUs provided critical support for individuals managing chronic health conditions such as diabetes, hypertension, thyroid disorders, COPD and other NCDs. A significantly higher proportion of households in Chennai (88%) reported the presence of chronic illnesses compared with Virudhunagar (34%). All respondents (100%) confirmed that their families accessed regular monitoring and follow-up services to mitigate complications associated with chronic conditions.



**Does anyone in your family have diabetes/ blood pressure/ thyroid/ COPD or other NCD?**

| | Yes | No |
|---|---|---|
| Chennai | 88% | 12% |
| Virudhunagar | 34% | 66% |
| Total | 71% | 29% |

*Figure 23: Management of chronic conditions*

**The majority of the participants (96%) were satisfied with the frequency of MMU visits in their locality.**

**The initiative also played an important role in supporting pregnant and lactating women by ensuring timely access to ANC and PNC services at their doorstep, a crucial intervention, given transportation constraints and limited caregiver availability acted as barriers.** In Chennai, 75% of respondents reported that a family member availed antenatal services through the MMUs, compared with 9% in Virudhunagar. Key maternal health services included the provision of iron supplements to address anae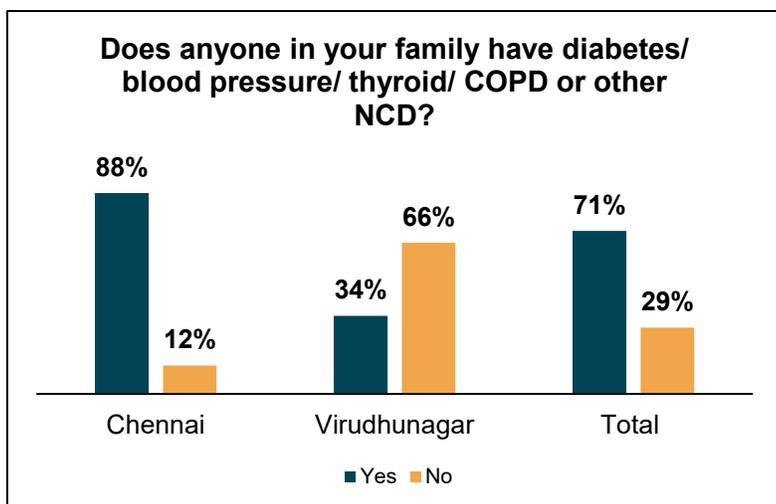mia (62%), ANC/PNC check-ups (54%), health counselling (41%), and blood/haemoglobin testing (35%). Additionally, 20% noted that high-risk pregnancies were referred to higher-level health facilities for appropriate management. Newborn and infant health services were also actively utilised, with 97% of Chennai respondents reporting uptake compared with 28% in Virudhunagar.
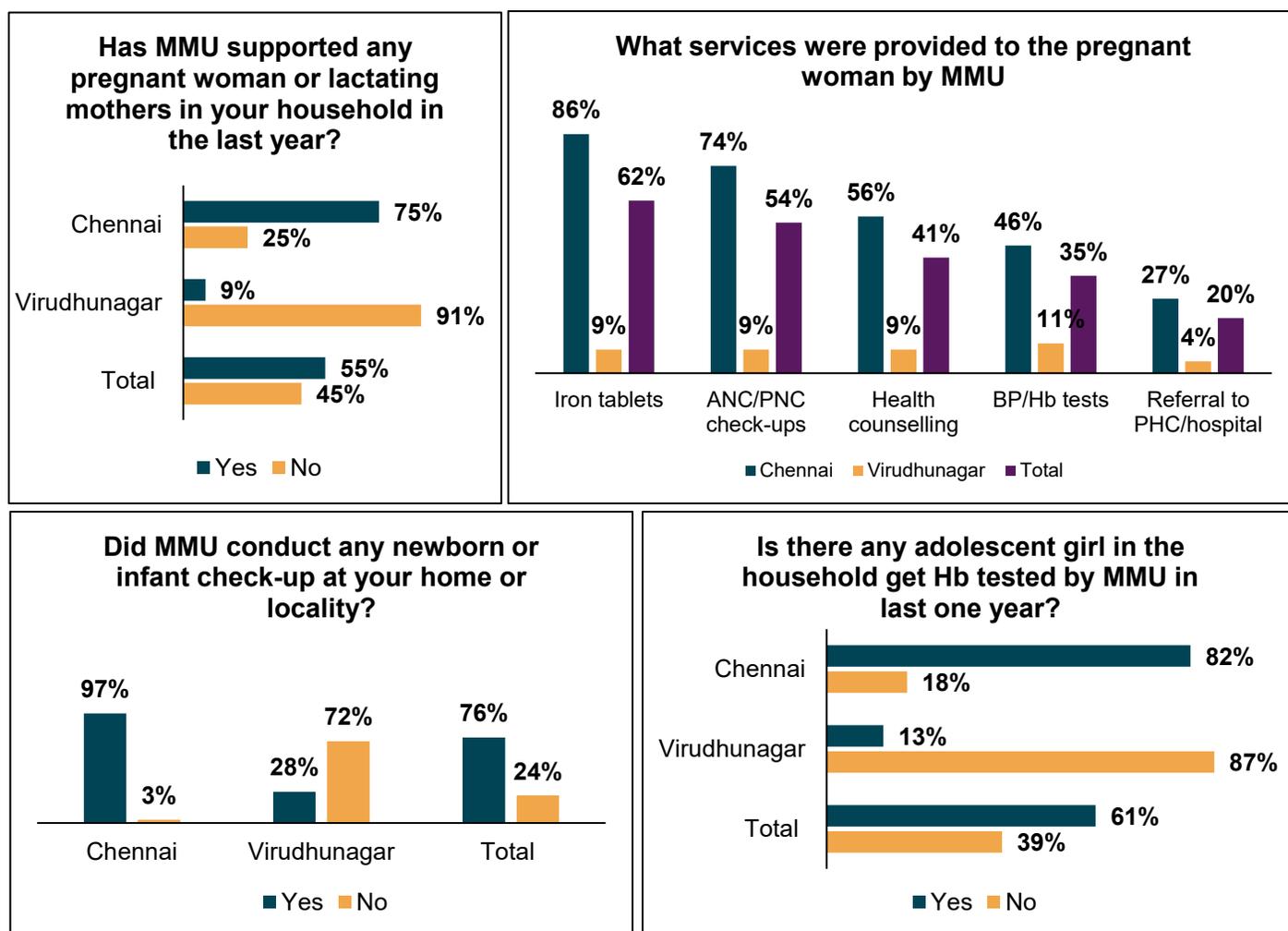


*Figure 24: Utilisation of services by women, children and adolescent girls*

Adolescent girls also benefited from haemoglobin testing services, although utilisation varied markedly between the two locations; 82% in Chennai reported uptake within their households, compared with 13% in Virudhunagar. Only a small proportion (2%) recorded abnormal haemoglobin levels, for which they received medical consultation and IFA supplementation.

## VI.    Perceptions of equity for the MMUs

A core objective of the MMU initiative is to extend not only affordable healthcare, but also equitable and inclusive access to quality services for underserved populations.

**Almost all respondents (99%) reported that the MMUs ensured equal access to care for all community members, including persons with disabilities (PwDs).**

### Are home visits provided to disabled persons or in case of emergency by Smile on Wheels team?
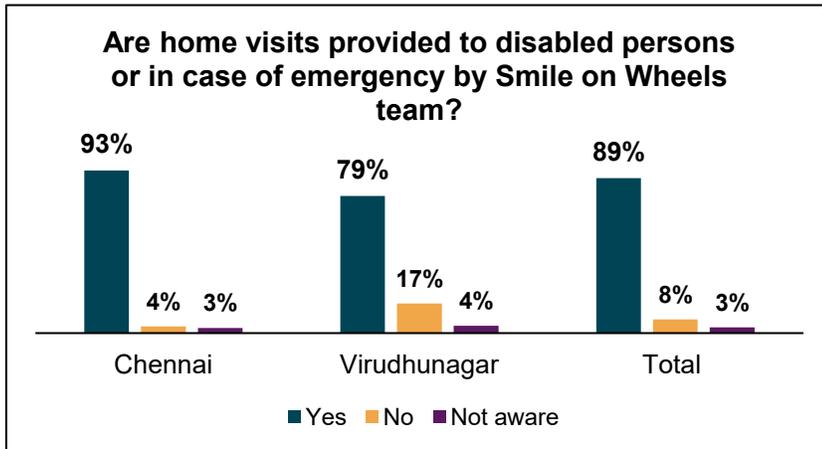


*Figure 25: Home visits for PwDs and emergency cases*

To further strengthen accessibility, the Smile on Wheels team also conducted home visits for PwDs and during emergencies, as shared by 93% of respondents in Chennai and 79% in Virudhunagar. The primary services delivered during these visits included medical check-ups and free medication (93%), follow-up care by ANMs (6%), and basic laboratory testing (1%).

While the MMUs were widely regarded as accessible, respondents identified several areas for improvement, particularly to better support PwDs.

Key recommendations included the installation of wheelchair ramps (87% in Chennai and 100% in Virudhunagar) and provision of adjustable examination tables (40% in Chennai and 100% in Virudhunagar). Additional suggestions focused on enhancing inclusivity through visual and audio aids, as w ell as staff training on disability awareness and responsive care.

### What could improve accessibility?
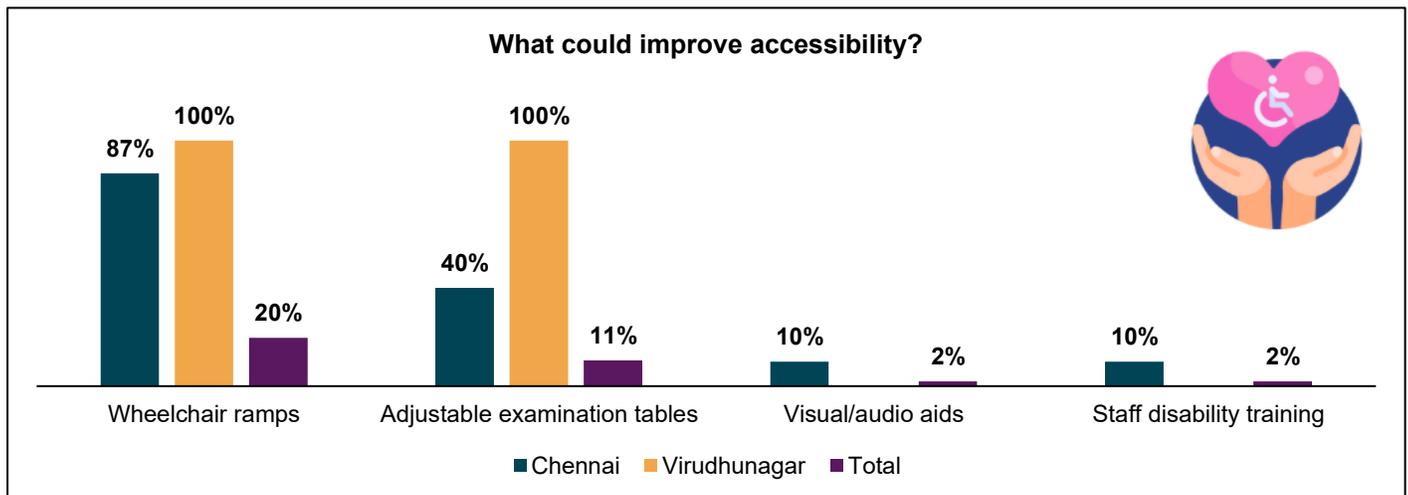


*Figure 26: Suggestions to improve accessibility*

Participants also proposed broader measures to strengthen overall service accessibility for the community. These included improved communication about MMU schedules and available services (60%), expanding the range of services for holistic care (55%), increased outreach to underserved groups (53%), disability-friendly infrastructural upgrades (33%) and ensuring transportation support for elderly individuals, pregnant and lactating women, and PwDs (28%).

**What could be done to ensure that everyone in the community has equitable access to the MMUs?**

| | Improved transportation to MMU location | Disability friendly infrastructure | More targeted outreach | Additional services for underserved groups | Better communication about services |
|---|---|---|---|---|---|
| Chennai | 25% | 34% | 66% | 56% | 51% |
| Virudhunagar | 36% | 30% | 23% | 53% | 79% |
| Total | 28% | 33% | 53% | 55% | 60% |

*Figure 27: Recommendations for equitable access*

Collectively, these findings underscore that although the MMUs already play a critical role in bridging healthcare access gaps, targeted enhancements can further strengthen their reach, inclusivity and long-term impact on community health outcomes.

## VII. Sustainability and future needs

The comparative assessment reveals a consistently strong preference for MMUs over other available healthcare facilities, highlighting their effectiveness in addressing longstanding gaps in access, affordability and quality, particularly in underserved and remote areas.

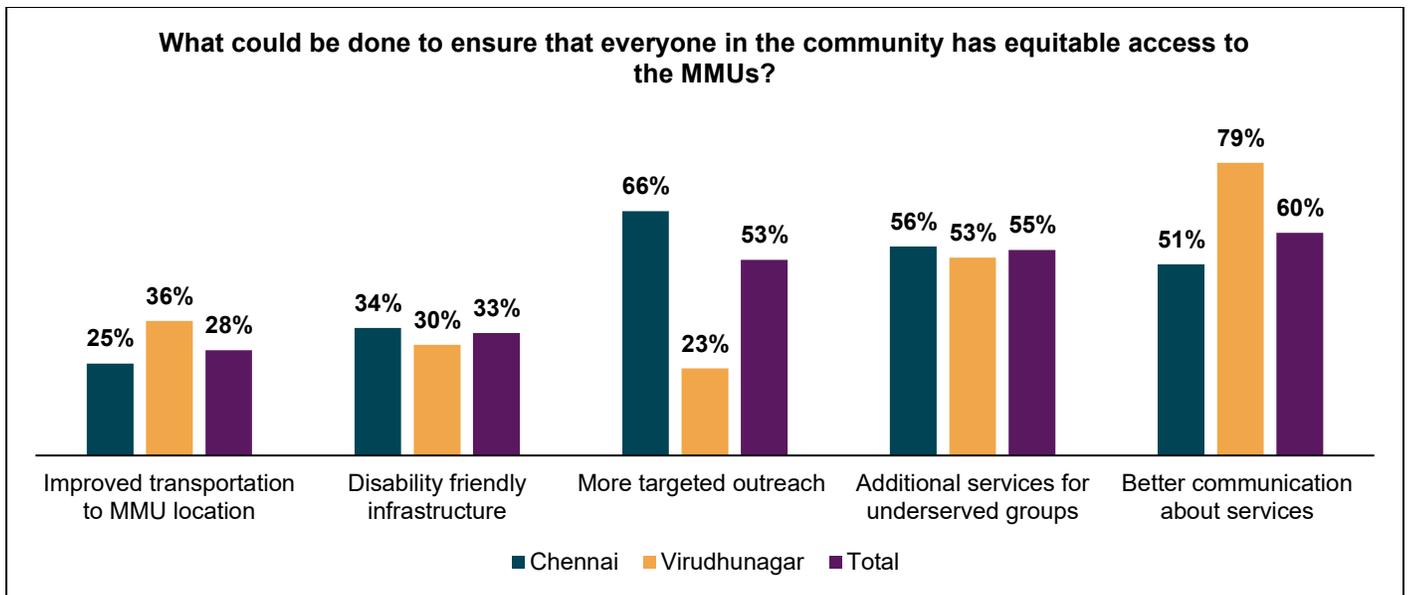**Accessibility** emerged as the most significant advantage, with 99% of respondents reporting that MMUs are more accessible than alternative healthcare options. This indicates that the mobile model is successfully overcoming geographic barriers, mobility constraints and time limitations that commonly hinder access to care. The ability to bring services directly into communities has significantly reduced the dependence on distant and overburdened facilities.

In terms of **quality of care**, 93% of respondents rated MMUs higher than other facilities. This suggests that the clinical services delivered through MMUs, ranging from accurate diagnosis to appropriate treatment, are perceived as reliable, responsive and of consistently high standard. The mobile teams appear to have established a strong reputation for competence and attentiveness, further contributing to trust and uptake.

**Affordability** remains another critical differentiator. With 94% of respondents stating that MMUs are more cost-effective, the model plays a vital role in reducing out-of-pocket expenditure. Free consultations, free essential medicines, and the elimination of travel-related expenses directly support low-income households and reduce the financial stress associated with seeking healthcare.

The findings also indicate strong community **appreciation of staff behaviour** (90%) and **medicine availability** (96%). These high satisfaction levels point to effective patient engagement, respectful and empathetic interactions, and robust supply-chain management that ensures uninterrupted access to essential medicines.
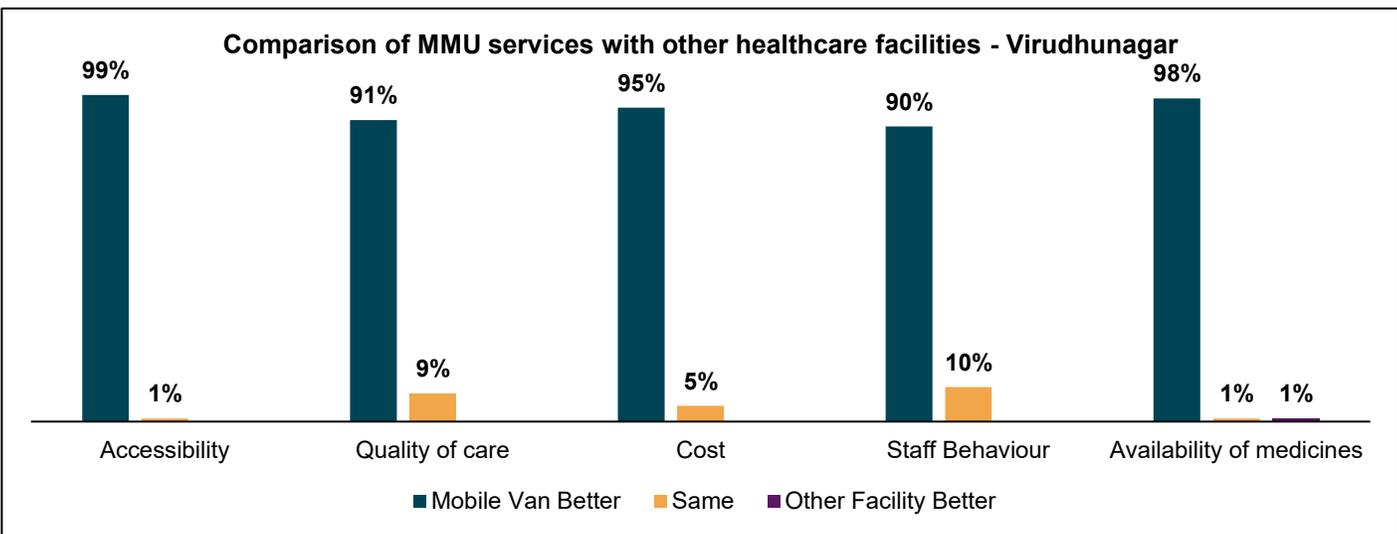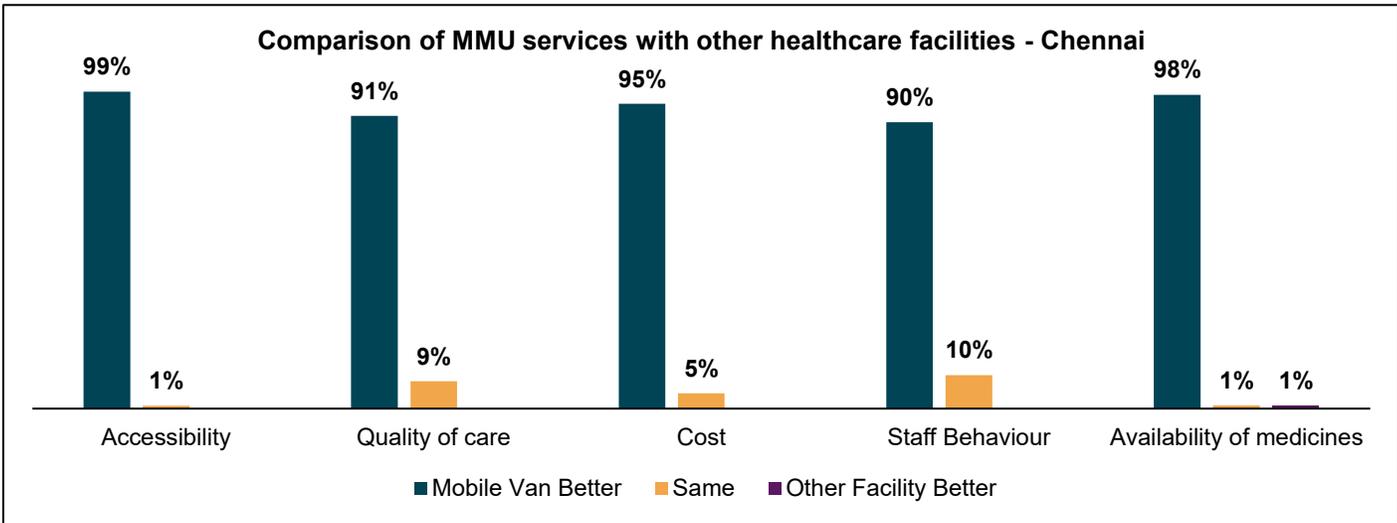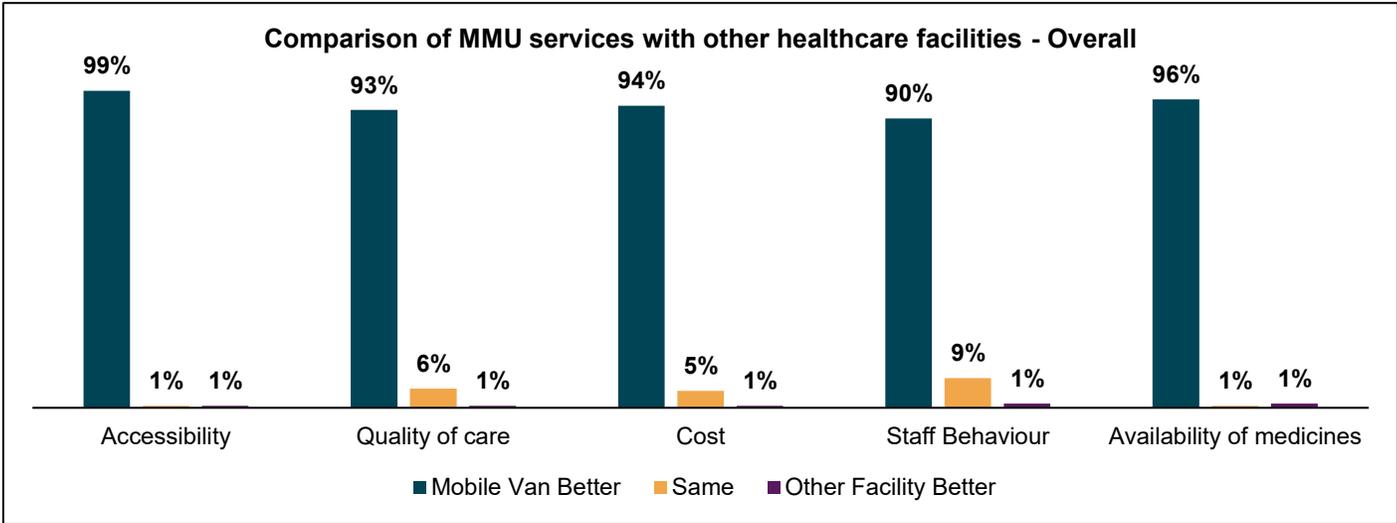
*Figure 28: Comparison of MMU with other health facilities*

These findings suggest that MMUs are not simply an alternative to traditional healthcare facilities, but for many respondents, *the preferred model of care that combines accessibility, affordability and reliable service delivery in a manner that directly addresses the structural gaps in the existing healthcare system.*

The discussions with beneficiaries and stakeholders reinforce this perspective, revealing a strong dependency on MMUs for essential healthcare access, particularly among vulnerable and low-income households. Overall, **the data indicates that MMUs have become a critical component of the local healthcare ecosystem, filling long-standing service gaps that neither the government nor private facilities have fully addressed.**

To understand the long-term plan and sustainability of MMU services, the community, especially the elderly, chronically ill, pregnant women, daily wage earners and low-income households would face a significant decline in healthcare access in case the MMUs were discontinued. The participants predict a sharp increase in travel distance, transportation expenses, long waiting hours at hospitals and a higher likelihood of delaying or skipping treatment. These challenges would increase the financial burden and contribute to worsening health outcomes, particularly for those dependent on frequent monitoring or chronic disease management. Without the MMUs, households would rely on government hospitals or private clinics. While these facilities exist, they come with practical, financial and infrastructural limitations such as:

- Higher out-of-pocket expenditure for consultation, medicines and travel
- Delays in receiving care, especially for non-emergency conditions
- Overcrowding and long queues, particularly in government facilities
- Inconsistent availability of medicines and diagnostics in local facilities

These challenges would disproportionately affect vulnerable groups and could lead to increased financial strain and adverse health outcomes due to delayed detection, irregular treatment and lack of accessible preventive care.

The MMUs effectively meet several immediate and chronic health needs such as fever, infections, respiratory illnesses, hypertension, diabetes, maternal and child healthcare and preventive screenings. Existing healthcare infrastructure struggles to deliver these services consistently due to shortage of trained staff, limited diagnostic capacity, inadequate supply of medicines and irregular outreach in remote and/or underserved pockets. *Thus, the MMUs are perceived as a reliable, stable and trusted source of primary care, disease screening, immunisation support and preventive health education.* However, community feedback also points to emerging unmet needs that fall beyond the current scope of MMUs. Respondents highlighted the need for:

- Regular specialist visits for more specialised care (cardiology, gynaecology, dentistry and ophthalmology)
- Expanded diagnostics, including advanced lab tests and imaging
- Mental health counselling, which is currently absent
- More structured health education programmes focusing on nutrition, sanitation and NCD prevention

These gaps suggest the community's aspiration for a more integrated and continuous healthcare ecosystem. Participants also offered several suggestions to strengthen MMU services. These include **improving the frequency of visits in high-need locations, adding diagnostic tools such as ECG and eye-testing equipment, introducing telemedicine for specialist consultations and ensuring more predictable scheduling**. Expanding geographic coverage and improving regular follow-up, especially for chronic disease management, were also identified as priorities. Such enhancements would allow MMUs to scale their impact, while responding to evolving community health needs.

Overall, both community members and stakeholders expressed strong appreciation for the MMU initiative. The model's convenience, accessibility and patient-centric approach have built high levels of acceptance and trust. Respectful and approachable staff further enhance the experience, reinforcing the MMUs' role as a dependable and valued healthcare resource. To conclude, the findings indicate that MMUs have become an essential component of the community health landscape, and strengthening their long-term sustainability will be critical in safeguarding the health and wellbeing of underserved populations.

# Case studies

**Service availed – Haemoglobin, blood sugar, typhoid and dengue tests**

Javed, a 59-year-old resident of Ward 70 in Perambur, Chennai, is a beneficiary of the mobile medical van services provided by the "Smile on Wheels" initiative. He has been visiting the mobile van for various health issues, including fever, malaria, dengue, diabetes, hypertension and musculoskeletal problems.

Javed remembers being impressed during his first visit to the mobile van. The staff were friendly and courteous, and the services were provided in a timely and efficient manner. **"It is easy to access and staff behaviour is good"**, he says, highlighting the convenience and quality of care he received.

Over time, Javed availed various services from the mobile van, including general consultation, health screening and medicine distribution. He appreciated the fact that the van's staff took the time to explain his condition and treatment options clearly, and that the medicines were provided free of cost. The MMU services have also eased his financial burden, as he no longer has to travel to distant healthcare facilities or pay for expensive medicines.

**"It is difficult because we need to travel by auto or cab, there is a long waiting time and quality medicines are not readily available"**, Javed says, highlighting the challenges he faced before accessing the mobile van services. However, with the mobile van services, he feels that he is getting quality care at a convenient location, and that the staff are friendly and responsive to his needs.

Today, Javed feels more confident and informed about his health, thanks to the mobile van services. He credits the "Smile on Wheels" initiative for making healthcare more accessible and affordable for him and his community. "Staff are friendly and good. Best service," he says with a smile, expressing his satisfaction with the services he has received.

**Jayalakshmi, service availed – haemoglobin, blood sugar, dengue tests**

Jayalakshmi, a 62-year-old resident of Kannadasan Nagar Phase 2, Chennai, has been a regular beneficiary of the mobile medical van services provided by the Smile on Wheels initiative. Her experiences with the van have been overwhelmingly positive, with the staff providing her with compassionate and personalised care.

One of the aspects that Jayalakshmi appreciates most about the mobile van is its convenience. The van's regular visits to her area have saved her the trouble of travelling to distant healthcare facilities, which can be a significant challenge for someone of her age. **"It's a blessing to have such a service available in our community"**, she says.

Jayalakshmi has availed of a range of services from the mobile van, including general consultations, vaccinations and screenings for non-communicable diseases such as diabetes and hypertension. She is impressed by the staff's professionalism and their ability to explain complex medical concepts in a clear and simple manner.

The mobile van has also had a significant impact on Jayalakshmi's financial situation. By providing her with free medicines and consultations, the van has helped reduce her healthcare expenses, which can be a significant burden for low-income households. **"I'm grateful for the financial relief that the mobile van has provided"**, she says.

Jayalakshmi's story highlights the importance of initiatives such as 'Smile on Wheels' in addressing the healthcare needs of marginalised communities. By providing accessible, affordable and high-quality healthcare services, the mobile van has made a tangible difference in her life and the lives of many others in her community. As she puts it, **"The mobile van is a lifeline for people who struggle to access healthcare services."**

## Saraswati, service availed – blood sugar test

Sarswati, a 68-year-old resident of Chokkalingapuram, has been a regular beneficiary of the MMU services provided by the Smile on Wheels initiative. She has been visiting the MMU for various health issues, including fever, malaria, dengue, diabetes, hypertension, and muscular-skeletal system problems.

Sarswati remembers being impressed by the MMU's services, which are provided free of cost and with great friendliness and knowledge by the staff. She considers the MMU as a valuable asset to the community, praising its convenience and ease of access.

The MMU has been addressing common issues such as fever, cough, hypertension, diabetes, maternal and child health, and minor infections. Sarswati appreciates that the MMU arrives at regular intervals, so community members know when to expect it. **"It's very satisfying to see the MMU team come to our village and provide care"**, she says, highlighting the importance of the MMU's services in her community.

Sarswati has availed of various services from the MMU, including general consultation, maternal and child health services, chronic disease management, health screening, medicine distribution, and health education. She appreciates that the MMU provides comprehensive care, including non-communicable disease screening and referral to higher facilities. The MMU has been a game-changer for Sarswati, who had been struggling to access healthcare services due to the long distance to the nearest hospital. She also highlighted the impact of the MMU on her life, and the lives of those around her.

Sarswati is grateful for the MMU's services, which have improved her health and well-being. **"People might resort to informal or uncertified practitioners who charge less but provide sub-standard care, risking patient safety."** she says, highlighting the importance of the MMU in her community and how the presence of an MMU has impacted the quality of healthcare availability in the area.

Overall, Sarswati's experience with the MMU has been overwhelmingly positive, and she is grateful for the opportunity to receive quality healthcare services in her community.

# Stakeholder speak

**Dr. V. Kishore Kumar, Medical Officer, Smile on Wheels programme**

Experience: 4.5 years overall and 2 years with Smile on Wheels

Dr. V. Kishore Kumar has been instrumental in strengthening primary healthcare delivery through the Smile on Wheels initiative in Chennai. His work focuses on expanding access to OPD services, improving early detection of chronic illnesses, and enhancing community-level health awareness. This case study highlights his service experience, operational insights, challenges, and recommendations for strengthening mobile healthcare delivery.

**Background and operational strengthening:** The MMU operates daily across underserved clusters, beginning field services at 10:00 am. Dr. Kumar oversees OPD care, diagnosing and treating a wide range of medical conditions while counselling patients on lifestyle modification and preventive practices. With a daily patient load of 60-85 cases, the MMU serves as an essential point of access for communities that otherwise depend on distant government facilities. Digital prescriptions and manual registers are used together for record management, particularly for ANC/PNC and referral cases. Coordination with CHOs, community mobilisers and the Smile Foundation central team ensures streamlined reporting and follow-up.

**Service delivery and patient care:** The MMU provides routine care for diabetes, hypertension and other NCDs, alongside common conditions such as skin infections, fever, cough and musculoskeletal pain. Regular NCD screening has improved early diagnosis and adherence to treatment protocols. Maternal and child health indicators in the area remain stable, supported by screening, counselling, and linkage to government schemes. Dr. Kumar emphasises the role of structured health education in improving dietary habits, hygiene practices, and awareness of risk factors. The MMU's doorstep approach has expanded access to elderly patients and daily-wage earners who otherwise struggle to visit fixed health facilities.

**Challenges and recommendations:** While basic resources are adequate, Dr. Kumar notes that expanding the medication range, especially for chronic cardiac and lipid-related conditions, would improve long-term outcomes. Patient-related challenges remain, particularly limited awareness regarding disease severity and the need for sustained lifestyle changes. Seasonal disruptions such as monsoon-related road access issues affect service continuity. Emergency case management requires careful balancing of OPD crowd control and timely referral; cases are stabilised with first aid and then shifted to the nearest government hospital, with manual registers maintained for follow-up.

To improve effectiveness, Dr. Kumar recommends strengthening diagnostic capacity through an additional lab technician, enabling faster screening and reduced waiting time. He also highlights the need for expanded services such as physiotherapy for pain management, which is a recurring community need. Continued upgrades in equipment, improved referral linkages and stronger outreach would further enhance clinical impact.

**Sustainability:** Dr. Kumar underscores the importance of consistent funding support, extended partnerships and steady resource augmentation to maintain service quality. Strengthened community education, coupled with improved diagnostic and treatment capacity, will ensure long-term sustainability of the Smile on Wheels model and reinforce its role in bridging last-mile healthcare gaps.

**Geetha, ANM, Smile on Wheels programme**

**Experience:** 5 months with Smile on Wheels

Geetha is working as an Auxiliary Nurse Midwife (ANM) with the Smile on Wheels MMU. She has been a key contributor to strengthening last-mile primary healthcare delivery in the community. Her responsibilities span clinical care, patient monitoring, health education and coordination with community-level institutions, enabling consistent service delivery in underserved areas.

**Background and service provision:** Geetha oversees core clinical functions, including distribution of medicines, maintaining patient registers, and conducting blood tests, haemoglobin tests and cholesterol tests using diagnostic tools available in the MMU. She plays an essential role in ANC and PNC follow-up, reinforcing maternal and child health protocols and ensuring timely support for pregnant and lactating mothers. Regular medicine stock reviews are conducted every 15 days to maintain uninterrupted supply. Her coordination with Anganwadi workers has strengthened communication channels for maternal health support and early identification of at-risk cases.

Her workday aligns with MMU operations, with services typically delivered from 10 am to 4 pm. She collaborates with community mobilisers to manage patient flow, maintain queues and ensure orderly access to services. According to her observations, the most common conditions in the community include back pain, skin diseases, fever, cough, diabetes and hypertension, with noticeable seasonal spikes in cough and skin issues during winter months.

**Training and community engagement:** Training provided by the Community Health Officer has equipped her with knowledge on referral protocols, clinical guidelines and community communication strategies. She also supports school-based health programmes and reports that the team has conducted activities in eight schools, covering nutrition, anaemia and general health awareness. Updated IEC materials in the local language are used regularly to improve community engagement and health literacy.

Geetha reports a clear improvement in health-seeking behaviour, noting increased participation in screenings and community programmes. She conducts home visits, when necessary, especially for individuals with disabilities or those unable to reach the MMU, ensuring equitable access to care.

**Challenges and recommendations:** While Geetha reports overall satisfaction with current services, she identifies the need for expanding the range of available medicines. She notes that adding medication for cholesterol and heart-related issues would significantly benefit chronic disease patients. Apart from this, she does not perceive major limitations in diagnostics or service duration. She does not identify the need for additional services but highlights that diagnostic expansion may help meet rising community demand.

**Sustainability:** Her work reinforces the importance of regular follow-up, coordination with Anganwadi centres, and consistent community education to sustain long-term health improvements. Strengthening diagnostic capacity and ensuring the availability of chronic disease medications will further enhance the impact and preparedness of the MMU in addressing evolving community health needs.

**Navamani, community mobiliser, Smile on Wheels programme**

**Experience:** 4 years with Smile on Wheels

Navamani, an experienced community mobiliser, has played a pivotal role in strengthening the outreach and patient engagement efforts of the Smile on Wheels in underserved settlements of East Chennai. This case study outlines her responsibilities, contributions, field-level challenges, and recommendations for enhancing service delivery and community access.

**Background and role:** With four years of field experience, Navamani has become a central figure in facilitating healthcare access for marginalised communities. Her core responsibilities include maintaining IEC records (both digital and manual), coordinating daily operations with the MMU team, planning outreach schedules, and mobilising patients across slum clusters. Her strong interpersonal skills enable her to manage diverse community dynamics, including diffusing conflicts, engaging hesitant families and handling disruptive individuals. As she notes, *"If the records stop, the wheels stop"*, underscoring her role in operational continuity.

**Service delivery and community engagement:** Navamani supports a wide range of mobilisation and awareness activities, including door-to-door visits, school outreach, and health education sessions covering hygiene, ANC/PNC care, breastfeeding, disability and NCD prevention. Her efforts have contributed to increased patient turnout, improved health-seeking behaviour, and better utilisation of MMU services. She emphasises the importance of trust-building in behaviour change, recalling a key training message: *"They told us we are not just messengers, but we are changemakers."* Through consistent engagement, she ensures participation from women, elderly residents, youth, and persons with disabilities by adapting outreach approaches to individual needs.

**Challenges and areas of improvement:** While coordination between MMU staff remains effective, Navamani identifies crowd management in dense slum pockets as a recurring challenge. Large patient volumes, long queues and unpredictable footfall often strain service delivery. She notes difficulties in ensuring patient compliance, especially among individuals reluctant to follow preventive practices or medical advice. She also highlights occasional operational gaps such as staff absence, which are currently addressed by deploying part-time personnel. Despite her workload, she rarely requests additional support, reflecting a high level of commitment to field duties.

**Recommendations:** To enhance community reach and operational efficiency, Navamani suggests strengthening health communication tools, increasing field volunteers and expanding the frequency of awareness sessions. Additional training on advanced reporting, digital tools and community mapping could further streamline mobilisation efforts. Improved coordination with government frontline workers, such as ASHAs and Anganwadi staff, would also help identify high-risk individuals early and improve follow-up.

**Sustainability:** Navamani underscores the importance of aligning MMU activities with local government health programmes to ensure long-term impact. Regular reporting to government departments and collaboration with community groups have helped establish a strong foundation for sustained health improvements. She believes that continued community education and strengthened local partnerships will be essential for maintaining health gains and preparing the community for eventual programme transition.

# SWOT analysis

SWOT analysis is a strategic planning technique used to identify and evaluate the strengths, weaknesses, opportunities and threats of an initiative. It is a framework that helps assess the internal and external factors that can affect the impact and sustainability of a programme. It also helps identify potential risks and develop effective strategies for informed decision-making to enhance the impact and sustainability of the programme. It also supports in streamlining the monitoring and evaluation process and improving accountability.

## Strengths

- Enhances accessibility of healthcare, and reduces travel time, cost and waiting periods
- Strong community trust due to consistent availability of doctors and respectful staff
- Effective management of chronic and common illnesses with free medicines and diagnostics
- Positive behaviour change through impactful IEC and community engagement

## Weaknesses

- Lower awareness and utilisation of services in Virudhunagar compared with Chennai
- Limited specialist care and advanced diagnostic capabilities
- Referral and follow-up systems weaker in Virudhunagar
- Low participation in community meetings in certain areas

## Opportunities

- Scope to add specialist services and telemedicine for broader care
- Potential to expand diagnostic tools and technology integration
- Opportunity to scale services to more underserved locations
- Ability to strengthen inclusivity through disability-friendly infrastructure

## Threats

- High dependence on MMUs may cause major gaps if services stop
- Weak local health infrastructure may be unable to manage patient load without MMUs
- Sustainability risks related to staffing and operational continuity
- Rising chronic disease burden may strain existing capacity

Strengths

Weaknesses

Opportunities

Threats

# Programme through the OECD DAC framework

The OECD DAC framework provides a normative lens for assessing development interventions to determine the worth of an intervention to make evaluations to judge if the project does the right things and delivers lasting benefits. Under its scope, the study analyses the key components of the overall programme.

| Evaluation dimension | Focus areas |
| --- | --- |
| Relevance | The MMU model directly addresses critical gaps in rural and peri-urban healthcare, where distance, cost and poor facility availability limit access. The programme is highly relevant as beneficiaries—especially elderly, daily wage earners, pregnant women and chronic patients—depend on the MMU for regular, affordable care. Free consultations, medicines and diagnostics significantly reduce out-of-pocket expenditure, aligning with India's Universal Health Coverage goals. |
| Coherence | The initiative aligns well with national health priorities, digital health systems, and SDGs focused on equity and last-mile access. It complements rather than duplicates public facilities, with effective referrals to PHCs and government hospitals. The use of digital medical records and structured follow-ups reflects strong coherence with India's evolving health-tech ecosystem. |
| Effectiveness | The MMU is effective in delivering accessible, affordable and trusted primary care. The assessment shows high utilisation (up to 98% in Chennai), strong awareness, reliable doctor presence, and high satisfaction with staff behaviour and free medicines. Significant improvements in chronic disease monitoring, maternal health access and preventive behaviours demonstrate strong on-ground outcomes. |
| Efficiency | One of the biggest advantages of the MMU is its operational and cost efficiency in delivering healthcare to remote and underserved populations. The model reduces travel time, cost and waiting periods, resulting in fewer missed workdays and lower financial burden. Route planning, digital records, free essential diagnostics and consolidated service delivery enhance operational efficiency. One MMU serves multiple communities at low infrastructure cost. |
| Impact | The programme has contributed to early detection of NCDs, improved maternal and child health practices, and higher adoption of preventive behaviours, such as hygiene, nutrition, vaccination and regular check-ups. The MMU has become a dependable primary care source, reducing reliance on informal providers and improving long-term health outcomes. |
| Sustainability | Sustainability is thoughtfully embedded in the programme, which promotes long-term sustainability, both programmatically and financially. CSR partnerships provide stable funding, while community trust, engagement of local health workers, and strong utilisation support social sustainability. Preventive care integration reduces long-term health burdens. Strengthening specialist services, diagnostics and referral systems, especially in Virudhunagar, will further enhance long-term sustainability. |

# Alignment with SDGs

The United Nations introduced the Sustainable Development Goals (SDGs) in 2015, with the purpose of promoting global peace, advancing human well-being, and protecting the environment. This universal framework for "social, economic, and environmental sustainability" was the result of a comprehensive consultation process involving national governments and millions of people worldwide. India, along with 193 other nations, ratified and signed the convention as a developing country, pledging to meet the SDG targets by 2030. The Smile on Wheels initiative is aligned with multiple SDGs, contributing to not only national but also global goals.

| Goal | Target | Alignment of the programme |
|---|---|---|
| 1 NO POVERTY | **Target 1.3:**<br><br>*"Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable."* | By eliminating financial barriers to healthcare—offering free diagnosis, treatment, medicines, referrals and follow-ups—the programme reduces the out-of-pocket expenditure, which not only disproportionately burdens the poor but also initiates the cycle of debt. |
| 2 ZERO HUNGER | **Target 2.2:**<br><br>*"By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons."* | As part of its community outreach and health literacy sessions, the MMU team also addresses nutrition-related issues, such as advising pregnant women, lactating mothers and families on balanced diet, hygiene and supplementation. These sessions help combat undernutrition and anaemia in vulnerable households. |
| 3 GOOD HEALTH AND WELL-BEING | **Target 3.1:**<br><br>*"By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births."* | The programme plays a vital role in promoting maternal health by providing antenatal and postnatal care services—regular check-ups and nutritional advice for pregnant and lactating women. For women in underserved communities, the MMU helps by identifying high-risk pregnancies and providing referrals to partner government hospitals. The programme tracks referrals via digital patient records to ensure continuity and follow-up, thereby supporting reductions in preventable maternal complications in underserved areas. |
| | **Target 3.4:**<br><br>*"By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being."* | By providing regular routine screenings for dengue, blood sugar and typhoid, coupled with outpatient consultations, MMUs are enabling early detection, management of chronic conditions and reducing long-term health complications and premature deaths especially due to NCDs. Further, the programme's component of tracking the patient record and following up contributes to the control and management of NCDs. |

| | | |
|---|---|---|
| | **Target 3.8:**<br><br>*"Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality, and affordable essential medicines and vaccines for all."* | The programme provides services completely free of cost, making primary healthcare accessible to populations who are otherwise excluded from the formal health system. By providing services to remote locations and urban slums, it removes geographical barriers to healthcare access, offers quality care without financial hardship, and supports the spirit of the Universal Health Coverage by expanding health access to the last mile. |
| | **Target 3.d:**<br><br>*"Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks."* | Smile on Wheels play a critical role in building community awareness and resilience through awareness sessions conducted to educate the target population on important health issues, such as communicable and non-communicable disease prevention, vaccination importance, and maternal and child healthcare. These sessions help improve health literacy and encourage proactive health management, thus helping in risk reduction and last-mile outreach, making health systems more responsive and inclusive. |
|  | **Target 4.7:**<br><br>*"By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development."* | By embedding awareness sessions and capacity building of the local community as a core component of its service delivery, the programme equips individuals and communities in underserved areas with knowledge essential to lead healthier and more empowered lifestyles. It also promotes sustainable health practices, such as hygiene, nutrition and preventive care, which are crucial for fostering responsible and culture of informed decision-making, and gender equity. |
|  | **Target 5.6:**<br><br>*"Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences."* | The programme tries to reach out to women and adolescent girls in underserved and rural communities, to provide access to essential reproductive health services. The programme offers maternal and child health counselling, antenatal and post-natal care, and health awareness, all of which directly support reproductive rights and informed health decision-making. |

| | | |
|---|---|---|
| | **Target 5.c:**<br><br>*"Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women."* | Through a digital patient database management system having detailed electronic health records, MMUs can track individual health records, follow up with patients, and flag high-risk cases, especially in case of pregnant women and children under the age of 1. This use of information and communications technology facilitates timely intervention, improves access to information, and strengthens health outcomes for both the mother and the child. |
| **10 REDUCED INEQUALITIES** | **Target 10.2:**<br><br>*"By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status."* | By focusing on low-income, remote and socially excluded groups, the MMU reduces disparities in healthcare access. Door-to-door outreach, public announcements and community mobilisers ensure inclusive participation and equitable service delivery. |
| **11 SUSTAINABLE CITIES AND COMMUNITIES** | **Target 11.6:**<br><br>*"By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management."* | Using a mobile unit instead of multiple fixed clinics minimises infrastructure needs and physical footprint. The MMU achieves wide geographic reach with fewer resources, enabling efficient and lower-impact service delivery. |
| **16 PEACE, JUSTICE AND STRONG INSTITUTIONS** | **Target 16.16:**<br><br>*"Develop effective, accountable and transparent institutions at all levels."* | The programme reflects the principles of effectiveness and efficiency in grassroots healthcare delivery. Digital medical records, standard protocols and coordinated referrals reflect transparency and accountability. Collaboration with ANMs, ASHAs and local government strengthens effective grassroots health governance. |
| **17 PARTNERSHIPS FOR THE GOALS** | **Target 17.16:**<br><br>*"Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries."* | This programme fosters multi-stakeholder partnerships, involving non-profits, corporate and government bodies, to collectively address healthcare access in underserved regions. Through shared responsibility, the initiative strengthens collaborative mechanisms for sustainable development at the grassroots level. |

| | | |
|---|---|---|
| | *Target 17.17:*<br><br>*"Encourage and promote effective public, public-private, and civil society partnerships, building on the experience and resourcing strategies of partnerships."* | The programme's structure brings together NGO expertise, medical professionals, digital technology and local governance to provide sustainable healthcare solutions. This demonstrates how civil society partnerships can enhance programme reach and accountability across communities. |

# Conclusion and recommendations

The impact assessment findings highlight the impact of the Smile on Wheels Mobile Medical Unit initiative on the lives of people in Chennai and Virudhunagar. For many families, including daily wage earners, elderly citizens, pregnant women, individuals living with chronic illnesses, and those with disabilities, the Smile on Wheels has not just been a healthcare service, but a dependable and reassuring presence in their community.

By delivering healthcare services directly to people's doorsteps, the MMU has eased long-standing burdens of travel, income loss and long waiting hours at overcrowded hospitals. Communities that once struggled to access timely medical care are now able to consult doctors, receive medicines, undergo diagnostic tests and learn about preventive care within minutes. This shift is especially meaningful for households with limited financial resources and those living with chronic conditions that require consistent monitoring.

The initiative has also helped people better understand their health and make conscious lifestyle changes. Community meetings, health education sessions, and regular interactions with approachable and empathetic medical staff have raised awareness and encouraged healthier behaviours, such has better hygiene and nutrition practices, regular check-ups and routine vaccinations. The trust built through these interactions is evident across all findings.

The findings also make clear that the MMU has become an essential part of the local health system. Many respondents shared that without it, they would struggle to access care, facing higher travel costs, delays in treatment and increased financial strain. This dependence underscores the importance of sustaining and strengthening the model for the long term.

While the MMU is addressing the needs and gaps in existing healthcare, community feedback also highlights important areas for expansion and strengthening:

- **Ensure regular access to specialized medical care:** Introduce scheduled specialist visits for cardiology, gynaecology, dentistry, and eye care through the Smile on Wheels network

- **Expand diagnostic infrastructure and service readiness:** Equip MMUs or associated hubs with advanced laboratory testing and imaging facilities to enable early and accurate detection of diseases, reducing the need for hospital referrals and improving on-site diagnostic capabilities

- **Integrate mental health services within community care:** Link MMU operations with government mental health programmes such as the National Mental Health Programme and Tele-MANAS to provide counselling, screening, and telepsychiatry support as part of holistic primary care delivery

- **Promote structured health education and preventive awareness:** Conduct more regular health education sessions focusing on nutrition, sanitation, hygiene, and prevention of non-communicable diseases, using interactive tools and community-based engagement methods

- **Expand outreach and optimize service frequency:** Increase MMU visit frequency in high-demand or remote locations using data-driven scheduling to ensure timely coverage, continuity of care, and better accessibility for priority populations.

- **Strengthen referral and follow-up linkages:** Establish digital referral tracking systems and structured coordination mechanisms with nearby PHCs and CHCs, **particularly in Virudhunagar**, to ensure patients receive follow-up consultations and treatment continuity.

- **Enable specialist consultation through telemedicine:** Adopt telemedicine platforms to connect patients in remote areas with urban specialists, improving access to expert advice and reducing delays in specialized care.

Overall, the Smile on Wheels initiative has earned deep trust and gratitude from the communities it serves. Its convenience, accessibility and humane approach have made healthcare feel within reach for those who previously struggled to access it. Sustaining and strengthening this model will be essential to ensure these communities continue to move towards better health, dignity and well-being.

**About Crisil Intelligence (formerly Market Intelligence & Analytics)**

Crisil Intelligence is a leading provider of research, consulting, risk solutions and advanced data analytics, serving clients across government, private and public enterprises. We leverage our expertise in data-driven insights and strong benchmarking capabilities to help clients navigate complex external ecosystems, identify opportunities and mitigate risks. By combining cutting-edge analytics, machine learning and AI capabilities with deep industry knowledge, we empower our clients to make informed decisions, drive business growth and build resilient capacities.

For more information, visit Intelligence.Crisil.com


**About Crisil**

Crisil is a global, insights-driven analytics company. Our extraordinary domain expertise and analytical rigour help clients make mission-critical decisions with confidence.

Large and highly respected firms partner with us for the most reliable opinions on risk in India, and for uncovering powerful insights and turning risks into opportunities globally. We are integral to multiplying their opportunities and success.

Headquartered in India, Crisil is majority owned by S&P Global.

Founded in 1987 as India's first credit rating agency, our expertise today extends across businesses: Crisil Ratings, Crisil Intelligence, Crisil Coalition Greenwich and Crisil Integral IQ.

Crisil's global workforce operates in the Americas, Asia-Pacific, Europe, Australia and the Middle East, setting the standards by which industries are measured.

For more information, visit www.Crisil.com

Connect with us: LinkedIn | Twitter


**Crisil Privacy**

Crisil respects your privacy. We may use your personal information, such as your name, location, contact number and email id to fulfil your request, service your account and to provide you with additional information from Crisil. For further information on Crisil's privacy policy please visit https://www.crisil.com/content/crisilcom/en/home/crisil-privacy-notice.html.

Argentina | Australia | China | Colombia | Hong Kong | India | Japan | Poland | Singapore | Switzerland | UAE | UK | USA

Crisil Limited: Lightbridge IT Park, Saki Vihar Road, Andheri East, Mumbai 400 072, India

Phone: +91 22 6137 3000 | https://Intelligence.Crisil.com

/company/crisil    @CrisilLimited    /CrisilLimited    /user/CrisilLimited    /lifeatcrisil

Crisil
a company of S&P Global