

IMPACT ASSESSMENT STUDY OF JAN CHIKITSA SEVA PROJECT

DECEMBER, 2024

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GMDC-Gramya Vikas Trust

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Project Report

Project Title: Jan Chikitsa Seva Project

(Desk Review)

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We would like to express our sincere gratitude to everyone who contributed to the success of the Jan Chikitsa Seva Project. This report would not have been possible without the tireless efforts and dedication of numerous individuals, as well as the invaluable insights shared by community members.

Our deepest thanks go to the doctors and medical staff who served in the Mobile Medical Units (MMUs), bringing essential healthcare services to underserved regions. Their expertise, compassion, and commitment have been instrumental in improving patient outcomes and making a meaningful difference in the lives of those in need.

We are particularly grateful to Shri Roopwant Singh, IAS, Chairman of GMDC Ltd., whose leadership and vision have been fundamental to the success of this initiative. We also thank Shri H. K. Joshi, Chief General Manager of GMDC Ltd., for his unwavering support and guidance throughout the project. Special thanks are also due to Smt. Veena Padia, Chief Executive Officer of GMDC-Gramya Vikas Trust, for her strategic direction and tireless efforts in the implementation of the project.

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Thank you to all who have supported this journey, and we look forward to continuing our shared mission of expanding healthcare access and improving the well-being of underserved communities in Gujarat.

Ruchi Mishra; Kushal Anjaria

(Project Investigators)

An extensive study of the Jan Chikitsa Seva Project, carried out by the Gujarat Mineral Development Corporation (GMDC) in association with Apollo Enterprises and Gramya Vikas Trust (GVT), is presented in this report. The project's goal was to provide rural Gujarat's underprivileged communities with basic healthcare services. The primary objective of this initiative is to evaluate the impact, effectiveness, and outcomes of mobile healthcare delivery across key districts—Chhotaudepur, Bhavnagar, Bharuch, Kutch, and Surat—where communities face significant challenges in accessing healthcare.

The study used a mixed-method approach, evaluating the project's impact through field observations, semi-structured interviews, patient comments, and success stories. Key areas of evaluation included healthcare access, chronic disease management, patient satisfaction, and suggestions for program improvement. Insights were contextualized to account for the distinct healthcare needs and socio-economic conditions in each district.

The findings indicate that the Jan Chikitsa Seva Project has had a positive impact on healthcare access and health outcomes for vulnerable communities across Gujarat. The MMUs have played a critical role in providing consistent healthcare services, managing chronic conditions, and promoting preventive health practices. Patients reported improved access to treatments and medications, alleviating the need for long-distance travel to healthcare facilities. Success stories highlight recoveries from chronic and acute conditions, with patients expressing high levels of satisfaction and gratitude for the care provided by the MMUs.

However, regional differences and specific healthcare needs emerged in the analysis. For instance, Chhotaudepur's MMUs frequently ran over capacity, highlighting the need for more staff and resources. Patients in Bhavnagar benefited from the MMUs' structured schedules, though periodic shortages of medication and gender-sensitive care requirements were noted. In Bharuch, chronic disease management and emergency transport limitations remain challenges, reflecting a need for enhanced diagnostic capabilities and emergency response resources.

Based on these findings, several key recommendations have been proposed to enhance the project's effectiveness and sustainability:

• Increase Medical Staff and Resources: Increasing the number of physicians, nurses, and ambulances would help control the high demand in areas such as Chhotaudepur, guaranteeing that patients receive prompt and comprehensive care.

- Expand Diagnostic Capabilities: The MMUs' ability to manage chronic diseases and lower hospital referrals would be improved by the provision of extra diagnostic resources, such as portable kits for ailments common in rural areas.
- Ensure Consistent Supply of Medicines: To avoid prescription shortages, particularly for chronic diseases, put in place a dynamic inventory management system. To guarantee drug availability, take into account local pharmacy partnerships.
- Introduce Gender-Sensitive Healthcare: Employ female healthcare workers in MMUs to address gender-specific healthcare needs, making services more accessible and comfortable for female patients.
- Strengthen Patient Education Programs: Expand health awareness campaigns focused on preventive care and safe medication practices to foster long-term health improvements within communities.

In conclusion, the Jan Chikitsa Seva Project has been instrumental in improving healthcare accessibility, managing chronic health conditions, and promoting preventive care among underserved populations in Gujarat. The recommendations in this report aim to build upon these successes, ensuring the project's continued growth and adaptation to the evolving healthcare needs of rural and tribal communities across the state.

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Chapter 1 – Introduction

1.1. Background

The Jan Chikitsa Seva Project, a flagship initiative by the Gramya Vikas Trust (GVT) in collaboration with Apollo Enterprises, was launched in November 2023. This project primarily targets the critical healthcare requirements of disadvantaged and remote people in the districts of Gujarat. Due to a combination of poverty, remote location, and a lack of developed healthcare infrastructure, rural people in these areas frequently do not have access to even the most basic medical treatments. The project intends to close this gap by deploying Mobile Medical Units (MMUs), ensuring that people receive timely and necessary medical treatment at their doorstep.

The Urgent Need for Healthcare in Remote Villages



Challenges in Rural Healthcare

Fig 1.1: Image depicting challenges in rural healthcare

In India's rural landscape, especially in districts like Chhotaudepur, Bhavnagar, Bharuch, Kutch, and Surat, access to quality healthcare is constrained by several factors:

• Limited healthcare infrastructure: Many remote villages lack functional healthcare facilities. Existing health centers often suffer from shortages of staff, medicines, and equipment, leaving residents reliant on traveling long distances to district hospitals or private clinics, which are often unaffordable.

- **Poverty and Illiteracy:** A significant portion of the population in these regions falls below the poverty line, exacerbating the healthcare crisis. Many villagers remain unaware of modern medical treatments and continue to depend on traditional remedies, often leading to delayed or inadequate treatment for serious medical conditions.
- Undiagnosed Diseases and Poor Follow-Up: With minimal health-seeking behaviour and irregular check-ups, many chronic and non-communicable diseases, such as diabetes, hypertension, and even communicable diseases like tuberculosis, go undiagnosed and untreated.



Mobile Medical Units: The Core of the Initiative

Fig 1.2: MMU Ambulance

The Mobile Medical Units (MMUs) are at the heart of the Jan Chikitsa Seva Project. Equipped with basic medical supplies, diagnostic equipment, and staffed with qualified healthcare professionals, these units bring primary healthcare services to the doorsteps of villagers. This model has proven particularly effective in:

- Early diagnosis and treatment: By visiting villages on a scheduled basis, MMUs provide timely diagnosis of acute and chronic conditions, ensuring that villagers receive the necessary treatment before their conditions worsen.
- **Preventive care and awareness:** Besides offering curative services, MMUs play a crucial role in spreading awareness about preventive healthcare. This includes educating communities on issues such as vaccination, hygiene practices, maternal health, and the benefits of modern treatments over traditional remedies.
- Free Medicines and Treatment: Another critical component of the project is the provision of free medication. Most rural households are unable to afford the cost of essential medicines. The MMUs, through their collaboration with Apollo, ensure that necessary medicines are available onsite.

The project's holistic vision is to improve access to healthcare, raise awareness about modern medical practices, and reduce the prevalence of untreated illnesses by shifting health-seeking behaviors toward

timely medical interventions. The Jan Chikitsa Seva Project aims to improve healthcare in some of the most disadvantaged areas of India by treating both acute and chronic diseases and providing people with free medication.

1.2. Objectives

The objectives of the Jan Chikitsa Seva Project are aligned with GVT's mission to improve health outcomes in rural and underserved populations. The specific objectives include:

- Providing primary healthcare services to villagers in Gujarat, through MMUs that offer free consultations, diagnostic services, and medications.
- Early diagnosis and treatment of common and chronic diseases such as diabetes, hypertension, arthritis, and infectious diseases.
- Reducing the burden of untreated diseases by making healthcare accessible, thereby preventing the escalation of manageable conditions into severe complications.
- Educating communities on health issues such as hygiene, disease prevention, and the importance of modern medical treatments versus traditional remedies.
- Improving health-seeking behavior by raising awareness about preventive healthcare measures and promoting the adoption of healthier lifestyles.

1.3. Scope of the scheme

The scope of the Jan Chikitsa Seva Project covers:

- Geographical Scope: The project currently operates in Chhotaudepur, Bharuch, Bhavnagar, Kutch, and Surat ditricts. The villages in these districts are characterized by their remoteness and lack of access to public or private healthcare facilities.
- Healthcare Services: The MMUs provide a range of services including outpatient consultations, diagnostic tests, treatment of common ailments, management of chronic diseases, health education, and referral to district hospitals in cases of severe illness.
- **Target Population:** The primary beneficiaries are the rural communities of the villages, including women, children, the elderly, and tribal populations. Special attention is given to marginalized groups such as adolescent girls and individuals suffering from chronic diseases.

The Jan Chikitsa Seva Project is part of the broader GMDC-Jan Swasthya Project, which extends preventive and curative healthcare services across multiple districts in Gujarat. The table below summarizes the scope and estimated impact of the initiative:

Table 1.1: Scope & Estimated Impact

Project	Healthcare	Locations	Total	Number of	Budget
name	services	covered	consultations	villages	
Jan Chikitsa	Preventive	Kutch,	80,000+	240	₹60,000,000
Seva Project	and Curative	Bhavnagar, Surat,			
	Healthcare	Bharuch, Chhota			
		Udepur			

Source: GMDC's Budget 2024-2025

1.4. Key highlights of the programme

- Over 58% of beneficiaries are women, who have traditionally always had challenges in accessing healthcare on time
- Access to qualified specialists from 15+ medical specialties through the provision of a telemedicine node within the MMU itself.
- Access to over 35 diagnostic tests that can cover the spectrum of commonly encountered primary healthcare diseases.
- The Social Health Education (SHE) program aims to educate women and children on various diseases prevalent in that particular location, their prevalence, and promote health and wellness-seeking behavior. Women, in turn, play a crucial role in maintaining their family's health.
- Distribution of menstrual hygiene pads to adolescent girls in government schools has improved school attendance among young girls.
- A targeted screening program for sickle-cell anemia in the tribal population has been introduced, along with sensitization efforts to prevent the condition in new-borns in tribal villages.

Chapter 2 – Methodology

This chapter provides a detailed description of the methodology used for the study. A mixed-method approach will be adopted for this impact assessment, combining both quantitative and qualitative techniques to provide a comprehensive understanding of the project's outcomes. For this study, primary and secondary data were collected to understand the implementation of the Jan Chikitsa Seva project, analyse its impact, and provide suggestions for improvement. Primary data was collected in the form of SSIs to understand the doctors, patient's and the MMU staff's attitudes and response towards the initiative.

2.1. Study region

This impact assessment focuses solely on the Jan Chikitsa Seva Project across five districts in Gujarat: Kutch, Bhavnagar, Surat, Bharuch, Chhotaudepur. The study will evaluate the project's outcomes, measure its impact on academic performance and participation, and offer recommendations for future improvement.

The figures below show the map of Gujarat, and the areas in which this study is carried out.



Fig 2.1: Study region

2.2. Sampling and Data

The Jan Chikitsa Seva Project employed a stratified sampling method to target the most disadvantaged populations in the districts of Gujarat. Sampling focused on both quantitative data (the number of patients treated, types of diseases diagnosed, and patient demographics) and qualitative data (feedback from patients and healthcare staff).



Fig 2.2: Image depicting the data collection method

The primary source of data was gathered from:

- Mobile Medical Unit (MMU) visits: Data collected through on-site patient consultations, including patient medical history, vitals, diagnosis, and treatment.
- **Patient feedback:** Qualitative data from villagers on the quality of care, access to healthcare, and their experience with the project.
- Healthcare staff reports: Insights from doctors and medical staff on prevalent health conditions, treatment challenges, and resource needs.

Secondary data was gathered from:

- **Reports from the head office:** Data related to project activities, management, and overall performance.
- **CSR reports:** Data on the corporate social responsibility initiatives and Jan Chikitsa Project-related outcomes.
- **GMDC annual reports:** Information on the organization's healthcare programs and outreach efforts.

This mixed-methods approach ensured a comprehensive understanding of the healthcare needs and outcomes of the population served.

2.3. Rationale for Chosen Methods

- Quantitative Data: The primary focus of collecting quantitative data (number of consultations, treatment types, demographics) was to measure the efficacy and reach of the Mobile Medical Units. By looking at the number of patients treated and types of diseases diagnosed, the project could objectively assess its impact and identify areas needing improvement.
- Qualitative Data: Qualitative feedback was collected to understand the patient experience, identify community-specific healthcare challenges, and gather actionable insights for improving healthcare delivery. This allowed for a deeper understanding of the socio-cultural factors influencing health-seeking behaviours.
- Structured Interviews (SSI) and In-depth interviews: These methods were used with healthcare providers and village heads to gain in-depth perspectives on the effectiveness of the MMUs and barriers to healthcare access.

2.4. Data Analysis Process

- Quantitative Analysis: The quantitative data was analysed to identify patterns, such as common health issues, patient demographics, and utilisation trends. For instance, the analysis showed that over 58% of the beneficiaries were women, highlighting gender-specific health needs.
- Qualitative Analysis: Feedback from patients and staff was coded and categorized to identify recurring themes, such as accessibility, quality of care, and health outcomes. This allowed for the identification of gaps in healthcare services, especially around chronic disease management and medicine shortages.

2.5. Limitations of the Study

- **Sample Size Limitations:** The sample size was limited to the patients who visited the MMUs, which may not fully represent the healthcare needs of the entire district.
- Location Constraints: Many remote villages were difficult to access, especially during monsoon seasons, limiting the ability to collect data from the most isolated communities.
- **Subjective Feedback:** While patient feedback is valuable, it is inherently subjective and may not always accurately reflect the quality of care. Variability in health literacy levels among the population may also have affected the consistency of qualitative data collected.

Chapter 3 - Data analysis and Findings

3.1. Location: Chhotaudepur

As mentioned above several times, we know that the project was spread across a wide area consisting of different districts in Gujarat. We will therefore analyse the findings of each district separately and will compare them with each other in the final part of our analysis. The qualitative study conducted in Kadipani, a district of Chhotaudepur, focused on assessing the impact of the GVT-initiated Jan Chikitsa Seva Project. Data collection involved Semi-Structured Interviews (SSIs) with key stakeholders. The primary objective was to gather detailed feedback on the adequacy of the resources provided through the project, additional needs, and the challenges beneficiaries face in accessing the MMUs. The findings from Chhotaudepur provide insights into both the successes and limitations of the program.



Fig 3.1: E-clinic treating patients, Source: GVT website

3.1.1. Thematic Analysis



Fig 3.2: Image depicting the thematic analysis of Chhotaudepur

Comprehensive analysis of each theme:

3.1.1.1. Healthcare access and overburdened services

The Jan Chikitsa Seva Project initially set a target of serving 50-60 patients per day in outpatient departments (OPDs) across 26 villages. The actual demand for healthcare, however, greatly outpaces these estimates; on average, each MMU serves 89 patients per day. This number is about double the planned capacity, placing a burden on medical staff and available resources.

Staffing Issues:

- The scheme is critically understaffed. All 26 villages are being served by Dr. Rutul Panchal, the only MBBS doctor. The inability to spend enough time with each patient due to a high patient load restricts the ability to do comprehensive medical assessments.
- Medical emergencies are tough to address because there are only two ambulances available to service all 26 villages. The project's capacity to deliver timely care is further impacted by this logistical problem.

Data Insight: The growing demand has exceeded the program's operational capacity, emphasizing the need for additional medical personnel and better transportation infrastructure.

3.1.1.2. Common Health Problems

Arthritis and fungal skin infections were the most common health issues among the MMUs. Certain environmental and behavioral factors unique to rural areas aggravate these illnesses.

- **Fungal Infections:** The high prevalence of fungal skin infections is probably brought about by a lack of good hygiene habits, restricted access to potable water, and the unforgiving environment that characterizes rural communities.
- Arthritis: Because manual work and agriculture are physically demanding occupations that many villages depend on for a living, arthritis is a common condition, particularly in the elderly. Managing these chronic illnesses becomes challenging if access to specialized care is restricted.

Data Insight: The analysis points to a strong correlation between rural living conditions and the prevalence of these ailments, highlighting the importance of preventive healthcare and hygiene awareness campaigns.

3.1.1.3. Availability of Medicines

The MMUs offer free medications, but the frequent medicine shortages undermine their effectiveness. Medicines are sourced from Apollo Enterprises Limited, but due to high patient demand, critical supplies, particularly for chronic conditions like diabetes and hypertension, often run out.

• Medicine Stockouts: The data suggests that medicine stockouts have become a persistent issue, affecting the continuity of care for many patients. Chronic disease patients, in particular, face significant challenges as they require long-term medications that are not always available in stock.

Data Insight: The project needs to improve inventory management and coordinate better with suppliers to ensure a steady supply of medicines, especially for chronic conditions requiring ongoing treatment.

3.1.1.4. Role of Modern Medicine vs. Traditional Treatments

Prior to the Jan Chikitsa Seva Scheme, many villagers relied on traditional remedies and herbal treatments for common ailments. However, the success of modern medical interventions, particularly in treating chronic conditions, has increased trust in formal healthcare services.

• Shifting Attitudes: Over time, the data indicates a shift in attitudes toward modern medicine. Awareness programs conducted by the MMUs have played a pivotal role in encouraging villagers to seek professional medical treatment. The increased reliance on the scheme demonstrates growing acceptance of modern healthcare.

Data Insight: This trend signifies a successful shift toward modern healthcare practices, although some villagers still opt for traditional treatments, especially in cases where modern treatments are unavailable due to stockouts or long wait times.

3.1.1.5. Challenges in Medical Resources and Infrastructure

The lack of basic medical equipment for diagnostics and testing is a major challenge for the project. Without proper diagnostic tools, the ability to diagnose and treat conditions such as diabetes or infectious diseases becomes severely limited.

• **Referral System:** In cases where the MMUs cannot provide adequate care, patients are referred to the Civil Hospital in Chhotaudepur. However, transportation challenges and the limited number of ambulances make it difficult for patients to reach the hospital in time.

Data Insight: The lack of basic diagnostic equipment and the limited transportation infrastructure significantly hamper the project's ability to provide comprehensive healthcare services. An urgent upgrade in infrastructure is needed to improve diagnostic capabilities and patient referrals.

3.1.1.6. Patient Testimonials and Feedback

To capture the MMU's impact on community members, individual testimonials provide valuable insights into patient satisfaction and the effectiveness of treatments provided. Feedback from patients underscores the critical role of the MMU in addressing diverse health issues:

Key Points:

- Support from Local Residents: Villagers like Mansingh Chhtariyadhai Bhil from Hafeshwar shared their gratitude, saying, "We took treatment from GMDC-GVT and all of us were cured." This feedback reflects the MMU's ability to address serious health issues such as lymphatic filariasis (elephantiasis), which had previously impacted multiple family members.
- Improvement in Health Outcomes: Kamlesh Kushvata, who suffered from pain in his right hand and ears, expressed his appreciation, saying, "I thank the whole GMDC-GVT and MMU team for their support." His recovery after receiving treatment from the MMU highlights the service's ability to address both common and complex health concerns effectively.
- **Timely Medical Intervention:** Sohil Rajak Bhai Pathan from Kadipani shared his positive experience after a right leg injury, stating, "*I was treated well, and I am thankful for the care provided by the MMU ambulance.*" This feedback emphasizes the importance of prompt care in preventing complications from injuries.
- Successful Treatment of Long-Term Health Issues: Rebikaben Rameshbhai, who had been suffering from a skin disease for three years, noted, "I am very thankful to the doctors and GMDC-GVT; now I am cured." Her case reflects the MMU's ability to provide long-term relief from chronic health issues.

- Community Appreciation for Health Programs: Nitesh Jhala, a representative from GMDC at Atul Vidhyalaya, Kadipani, praised the efforts of GMDC, Apollo Group, and Gramya Vikas Trust for organizing a general health check-up for students, commenting, *"They are doing an excellent job for the health of students, and the program was organized as planned."*
- **Professional Feedback on MMU Operations:** Mohammed Walludon, from Apollo Hospitals, Hyderabad, shared his thoughts after visiting the MMU and static laboratory in Kadipani for a stock audit and process review. He expressed satisfaction with the team's cooperation, saying, *"The staff and doctors were supportive throughout the audit, and feedback was positively received by the whole team."*

Challenges:

• Long-Term Sustainability of MMU Services: Despite the widespread positive feedback, there are concerns about the long-term sustainability of the MMU services. Villagers like Rathod Shivraj Sinh Tejpal Sinh from Kane Sakariya have expressed the desire for the service to continue, stating, *"The MMU ambulance has been coming to our village for the last month, and it provides good healthcare and medicines. They treat all kinds of illnesses, big or small."* Their comments reflect the need for continued support from GMDC and MMU administration to maintain this vital healthcare resource.

Suggestions:

- Community Involvement in Program Sustainability: A suggestion for enhancing the MMU service would be to increase direct involvement from the community in program planning and decision-making. This could involve establishing a community advisory council that would serve as a bridge between local residents and MMU management, ensuring that the service remains responsive to community needs.
- Utilizing Local Advocates for Awareness Campaigns: Given the strong local support for the MMU, leveraging community advocates like Mohammed Haji and Rathod Shivraj Sinh could help increase awareness and participation in healthcare initiatives. Peer-to-peer communication is a powerful tool for encouraging wider utilization of the MMU services.

The heartfelt and supportive feedback from the residents of Chhotaudepur demonstrates the Jan Chikitsa Seva Project's significant impact on the health and well-being of the community. The MMU's role extends beyond healthcare provision; it fosters trust, builds relationships, and empowers local residents to take an active role in sustaining this vital service.

3.1.2. Key Findings

- Staffing and Resource Deficiencies: Currently, the program only has two ambulances and one doctor, which is not enough to cover the district's healthcare needs. The number of patients and the geographical dispersion of villages require more doctors and ambulances.
- **Medicine Shortages:** Reports of persistent shortages of essential medications were common, particularly for illnesses including diabetes, hypertension, and skin infections. Maintaining healthcare services requires regular refilling and improved supply chain management.
- **Prevalence of Preventable Diseases:** Conditions like fungal skin infections and arthritis are prevalent but largely preventable through awareness programs focused on hygiene and basic healthcare practices. Initiatives for education in these areas have the potential to greatly lessen the workload for MMUs.
- **Barriers to Emergency and Referral Services:** The limited number of ambulances and the distance to the Civil Hospital are major barriers to effective care, especially in emergencies. Expanding transportation services is critical to improving emergency response and referrals to higher-level care facilities.

3.1.3. Limitations of the scheme

- **Inadequate Staffing and Resources:** With only one doctor available to serve 26 villages, the scheme's effectiveness is limited. The lack of medical personnel and essential diagnostic tools severely restricts the scope of services that can be offered.
- **Geographical Barriers:** The limited transportation infrastructure makes it difficult for patients, especially those in remote areas, to access timely care. The rainy season further exacerbates this issue, making roads impassable and reducing the reach of MMUs.
- Continuity of Care for Chronic Patients: Patients with chronic illnesses require regular followups and consistent medication. The recurring issue of medicine stockouts hampers the long-term management of chronic diseases like diabetes and hypertension.

3.2. Location: Bhavnagar

Fig 3.3: Picture taken during field visit



Bhavnagar, like many other rural districts in Gujarat, has faced considerable healthcare access challenges, which have been partially alleviated by the introduction of the Mobile Medical Unit (MMU) under the Jan Chikitsa Seva Project. The MMU's structured approach to providing healthcare has made a notable impact in serving remote and underserved villages in Bhavnagar, such as Tagdi, Malpar, and Bhumbhali. This section focuses on the thematic analysis of the MMU's effectiveness in addressing the healthcare needs of rural communities in Bhavnagar, examining key areas such as healthcare accessibility, utilization trends, chronic and acute health issues, diagnostic services, and gender-sensitive healthcare. It

also highlights the challenges faced by the MMU in the region and offers targeted recommendations for improving its services.

3.2.1 Thematic Analysis



Jan Chikithsa Seva Themes - Bhavnagar

Fig 3.4: Image depicting the themes of Bhavnagar

3.2.1.1. Accessibility and coverage of healthcare

- Villages Covered: The Bhavnagar MMU operates on a structured 15-day route schedule, visiting 22 different villages, including Tagdi, Malpar, Bhumbhali, Rajapara, and others. The MMU visits these villages every seven to fourteen days to provide routine medical care. Communities in remote and difficult-to-reach locations are ensured steady access to primary healthcare services thanks to this systematical coverage.
- Efficiency of MMU Operations: The well-planned timetable guarantees that 50–70 patients are seen each day, demonstrating the MMU's ability to effectively meet the medical needs of rural communities. The frequent visits show that healthcare services are distributed fairly through a well-coordinated strategy.
- **Testimonial:** One patient noted that, with the opening of GMDC's medical facility, they now receive free treatment, medicine, and reports in their village. The patient expressed relief that they no longer need to travel or switch between medical centers for treatment, indicating that accessibility has significantly improved for rural communities.



3.2.1.2. Healthcare Utilization and Demand Trends

Fig 3.3, Source: Data provided by Bhavnagar project head.

• **Patient Volume:** Between November 2023 and September 2024, 8,901 patients received treatment, indicating a high demand for MMU services. Between December 2023 and September 2024, there was a noticeable increase in the number of patients; the largest patient volumes (more than 1,000 patients each) were in January, July, August, and September. This increase in demand could indicate a growing trust and awareness of the MMU services over time.

• Scalability: As healthcare needs increase, the MMU model could be expanded to service more communities, as seen by the growing trend in patient numbers.

3.2.1.3. Chronic and Acute Health Issues Addressed

- **Major Health Conditions:** According to the feedback, the Bhavnagar MMU predominantly treats skin diseases, diabetes, and arthritis. This is in line with prevalent health problems in rural regions, where access to healthcare is typically limited, leading to chronic illnesses going untreated.
- **Patient Testimonial:** For more than a year, a patient complained of having warts on their head. There was no progress even after receiving several treatments at the nearby medical facility. However, the condition was cured after being treated by the GMDC ambulance van, demonstrating the effectiveness of the MMU's medical services.

3.2.1.4. Diagnostic and Laboratory Services

- The MMU offers a range of tests on-site, including glucose monitoring, haemoglobin, and biochemical analysis. However, more complex tests, such as lipid profiles, cholesterol, and thyroid function, are performed at static labs. This division ensures that while basic diagnostics are immediately available, more detailed assessments are accessible via established partnerships with larger facilities.
- **Gap in Services:** Despite the broad array of tests, some patients mentioned a lack of injectable medicine and the need for improved availability of emergency medicines such as TT injections and other lifesaving interventions.

3.2.1.5. Gender-Specific and Emergency Needs

- **Patient Demographics:** A significant number of patients treated by the MMU are women, many of whom present with joint pain, skin infections, and other conditions exacerbated by physical labour. Given this demographic, the inclusion of female healthcare workers is recommended to make the service more accessible and comfortable for female patients, especially when dealing with sensitive health issues.
- **Emergency Preparedness:** The absence of ambulance services and limited availability of injectable medicines has been highlighted as a challenge. Patients in critical condition must arrange their own transportation, which can delay essential care.

3.2.2. Summary:

The Mobile Medical Unit (MMU) in Bhavnagar has been instrumental in addressing healthcare access issues in rural areas, demonstrating significant improvements in patient volume and overall healthcare coverage. The systematic 15-day route schedule and high patient turnout reflect the growing trust and demand for the services. Key health concerns such as skin diseases, diabetes, and arthritis are being effectively managed, with the MMU filling critical gaps in diagnostic services. However, challenges remain, particularly regarding the need for better emergency preparedness, gender-sensitive healthcare services, and an uninterrupted supply of essential medications. The recommendations presented—such as enhancing emergency services, increasing MMU scalability, and prioritizing gender-specific healthcare—aim to address these issues and further improve the healthcare delivery system in Bhavnagar, ensuring that the MMU continues to meet the evolving healthcare needs of the rural population.

3.3. Location: Bharuch

The Jan Chikitsa Seva scheme is a mobile healthcare service that delivers essential medical care to underserved rural populations in Bharuch. Spearheaded by Dr. Kamlesh, the mobile healthcare unit visits two villages per day, with the goal of seeing at least 50 patients daily. The program covers 25 villages, with each village being visited once a week. Importantly, the service is provided to all individuals, regardless of socio-economic status. In emergencies, the medical team also conducts home visits to provide immediate care.



Fig 3.4: Picture of MMU ambulance and doctor on call taken during field visit to Bharuch

The Jan Chikitsa Seva scheme in Bharuch includes a mobile van facility operating across core and buffer zones in the Lignite Project area. This service follows a set weekly schedule to ensure regular healthcare access across all villages.

S.no	Day	Zone	Villages covered
1	Monday	Core Zone (Amod Group Gram Panchayat)	New Amod, Old Amod,
			Bhuri, Maljipura -1,
			Maljipura -2
2	Tuesday	Buffer Zone (Padvaniya Group Gram	Padvaniya, Damlai,
		Panchayat)	Pipripan, Gulafadia, Dariya
3	Wednesday	Buffer Zone (Amalzar Group Gram	Amalzar, Gundecha-1,
		Panchayat)	Gundecha-2, Gundecha-3,
			Khoda Amba

Table 3.1: Weekly Schedule of Bharuch

Source: CSR report on E-clinic.

However, the service has several constraints, including a lack of ambulance support and limited diagnostic capabilities, which impacts the overall effectiveness of the program, especially in the management of chronic and acute health conditions. This report highlights key healthcare trends, challenges, and recommendations for improvement.

3.3.1. Thematic Analyses from the Field



Jan Chikithsa Seva - Bharuch

Fig 3.5: Image depicting the major themes identified in Bharuch

3.3.1.1. Prevalence of Chronic Diseases

- Hypertension and Diabetes: These are the two most commonly observed chronic conditions in the villages. Many patients have poorly managed blood pressure and elevated blood sugar levels, indicating significant gaps in healthcare access and consistent disease management. The once-aweek visits limit the medical team's ability to provide consistent monitoring, which is critical for chronic diseases that require regular check-ups, lifestyle modifications, and medication adherence. Without continuous monitoring, many patients experience fluctuations in their conditions, leading to a greater risk of complications, such as cardiovascular issues for hypertensive patients and complications like neuropathy or kidney damage for diabetics.
- Skin and Fungal Infections: There is a high incidence of hygiene-related health issues, especially skin infections and fungal conditions. These problems are exacerbated by poor sanitation, limited access to clean water, and environmental conditions in the rural areas. Such infections, though often treatable with medication, frequently recur due to inadequate living conditions and poor personal hygiene, creating a cycle of illness that requires more than just medical intervention.
- Joint Pain: Chronic joint pain is particularly common among women, many of whom are engaged in physically demanding agricultural work and household tasks. This pain is often due to a combination of aging, repetitive manual labour, and a lack of proper medical care for musculoskeletal conditions. Many women seek immediate relief through medications such as NSAIDs, which provide short-term comfort but pose long-term risks (e.g., kidney damage, stomach ulcers). However, the program's limited scope means that it can only offer temporary pain management solutions without addressing the root causes.

3.3.1.2. Patient Expectations for Quick Solutions

The community often seeks immediate relief from ailments such as joint pain and headaches, with many requesting medications that offer quick, short-term relief. While Non-Steroidal Anti-Inflammatory Drugs (NSAIDs) are commonly prescribed for pain, there is a growing emphasis within the program on educating patients about the importance of safer, long-term alternatives. Through patient education and promoting healthier lifestyle changes, physical therapy, and safer medications, the program aims to empower individuals to make more informed healthcare decisions, which ultimately leads to better, sustainable health outcomes.

3.3.1.3. Shortfalls in Providing Timely Care and Follow-Up

The program's weekly visits to each village provide valuable opportunities to address urgent health concerns and initiate treatment. While follow-up care can be challenging due to the limited frequency of visits, the program is continuously working to improve care coordination.

For instance, patients with dengue or malaria—diseases that require immediate and aggressive treatment— The focus on early detection and referrals for these conditions ensures that patients receive appropriate care in a timely manner.

Basic diagnostic tests (like Complete Blood Count, thyroid function tests, and lipid profiles) are available, but the delay in receiving results due to the weekly visit schedule can worsen the patient's condition before appropriate treatment is initiated. Despite these challenges, the program's ongoing commitment to expanding its reach and improving access to diagnostic services is significantly enhancing patient care and health outcomes.

3.3.1.4. Laboratory Services and Diagnostic Gaps

The program's provision of essential diagnostic tests such as Complete Blood Count (CBC), Thyroid Function Tests, and Lipid Profiles is helping to identify health conditions early, enabling timely interventions. While there is a recognized need for expanded diagnostic capabilities to test for life-threatening conditions like malaria, typhoid, and sickle cell disease, the program remains committed to overcoming these challenges.

Dr. Kamlesh advocates for the need for GMDC to supply these diagnostic kits to prevent avoidable complications and fatalities that result from delayed or missed diagnoses. Early detection of these diseases is crucial for better health outcomes.

3.3.1.5. Challenges in Medicine Availability

Medicine availability remains a priority for the program, ensuring that essential medications are consistently supplied to patients. While occasional shortages can create financial burdens for families, the program's proactive approach to sourcing and distributing medications is helping to reduce these occurrences. By providing necessary medications in a timely manner, the project continues to support patients in adhering to their treatment plans, improving health outcomes, and reducing the impact of chronic conditions.

3.3.1.6. Infrastructure and Resource Constraints

• Lack of Ambulance Services: In severe cases, patients are referred to local hospitals, but the absence of an ambulance service creates a significant barrier. Families are responsible for arranging transportation, which can cause dangerous delays, especially in emergencies. The lack of reliable transport infrastructure means that patients may not receive the critical care they need in a timely manner, exacerbating their condition and increasing the risk of mortality.

3.3.1.7. Geographic Limitations:

The current model, where the medical team visits each village once a week, limits the program's ability to provide continuous care, particularly for patients with chronic diseases or those needing immediate medical attention.

With only one weekly visit, patients experiencing a deterioration in their condition must wait for the team's return, which can delay critical interventions. Additionally, maintaining regular communication with patients between visits is difficult, leaving many patients in a state of uncertainty about their health.

3.3.1.8. Gender-Specific Healthcare Needs

A notable observation from the field is the disproportionate number of women seeking medical care under the program. Many of these women present with issues like joint pain, infections, and other gender-specific health concerns.

However, women may feel uncomfortable discussing certain health issues with male healthcare providers, leading to under-reporting of their symptoms.

Dr. Kamlesh recommends the inclusion of female nurses or healthcare workers to address this challenge. Female patients may feel more comfortable discussing sensitive issues with a female staff member, which could lead to better health outcomes for women in these rural communities.

3.3.1.9. Patient Testimonials and Feedback

Feedback from patients treated at the Rajpardi center highlights the effectiveness of MMU services in providing timely and appropriate treatment. These success stories emphasize the positive health outcomes achieved through the project:

Key Points:

- Relief from Skin Conditions: Rutvik Sukhdev Vasava, a 21-year-old from Rajpardi, was suffering from skin rashes with itching around the waist for several months. After receiving treatment from the MMU, including Clotrimazole cream and Levocetirizine, Rutvik reported significant relief from the symptoms. He expressed his gratitude, saying, "Our doctor started the treatment, and now I get relief. I am thankful to the GMDC GVT Apollo staff and doctor."
- Management of Chronic Conditions: Champaben Jentibhai Vasava, a 56-year-old patient, had been dealing with unmanaged high blood sugar and high blood pressure for 3-4 months. After receiving Telmisartan for hypertension and a combination of Metformin and Glimepiride for diabetes, along with dietary advice, her conditions were stabilized. Champaben expressed her thanks, saying, "I had high blood sugar & high blood pressure for 4-5 years. The doctor helped control my levels with proper diet and treatment. I'm thankful to the GMDC GVT Apollo staff."
- Quick Improvement in Skin Rash: Subadraben Ishwarbhai Vasava, aged 58, suffered from a skin rash with severe itching, worsened by sweat exposure. After being treated with Terbinafine tablets, Levocetirizine, and Clotrimazole cream, Subadraben saw rapid improvement, with symptoms resolving in just 10 days. She commented, "*The itching stopped after 2-3 days of treatment. My rashes are now gone, and I'm very grateful for the help from GMDC-GVT.*"
- Relief from Skin Lesions and Other Conditions: Natwar Biliya Vasava, a 73-year-old patient, was struggling with skin lesions, itching, and concurrent diabetes and hypertension. Following treatment with Betamethasone cream for the skin lesions, along with medication for diabetes and hypertension, Natwar reported feeling much better. He expressed his gratitude, saying, *"I am feeling much better with the help of the GMDC-GVT MMU team."*
- Full Recovery from Persistent Fungal Infection: Madhuben Vasava, aged 44, had been battling persistent itching and rashes on her arm. After several visits and continuous treatment with Clotrimazole cream, Terbinafine, and Levocetirizine, along with hygiene advice, Madhuben achieved full recovery. She shared, "I received immediate attention and treatment from the GMDC-GVT team, and now I'm completely recovered. Very thankful for their help."

Challenges:

• Ongoing Health Management: While the MMU has been effective in treating both chronic and acute conditions, maintaining long-term health for patients with ongoing issues, such as diabetes and hypertension, is crucial. For instance, Champaben Jentibhai Vasava's case shows the need for continuous monitoring and follow-up care to keep chronic conditions under control. Ensuring that patients receive adequate aftercare and medication will be essential for sustaining the improvements seen through the project.

Suggestions:

- Strengthen Follow-Up Care: To further enhance the effectiveness of the MMU services, a more structured follow-up system could be implemented, ensuring that patients with chronic conditions such as diabetes and hypertension receive regular check-ups and continued care. This will help manage their health in the long term and prevent any complications from arising.
- **Expand Access to Preventative Care:** In addition to treating existing conditions, the MMU could benefit from expanding its focus to include more preventative care services. Offering health education on topics like nutrition, lifestyle changes, and chronic disease management could help reduce the incidence of preventable conditions in the community.

The feedback from patients in Bharuch district highlights the significant impact of the MMU services, both in terms of immediate relief from health issues and long-term management of chronic conditions. These success stories reflect the dedication and commitment of the GMDC-GVT Apollo team in improving the health and well-being of underserved populations in the region.

3.3.3. Summary

The Jan Chikitsa Scheme has made commendable progress in delivering primary healthcare services to underserved populations across 25 villages. By addressing common health issues such as hypertension, diabetes, and infections, the scheme provides much-needed support to low-income families who would otherwise struggle to afford healthcare. However, the program faces significant challenges, including gaps in diagnostic capabilities, medicine shortages, and the need for better follow-up care.

By implementing the suggested improvements—such as establishing fixed healthcare centres, expanding diagnostic testing, ensuring a continuous medicine supply, and integrating female healthcare workers—the scheme could significantly enhance its ability to meet the healthcare needs of these rural communities. With these improvements, the Jan Chikitsa Scheme has the potential to not only provide reactive care but also offer preventive and sustained healthcare, resulting in better long-term health outcomes for the communities it serves.

3.4. Location: Kutch

The Jan Chikitsa Seva Project in Kutch, which began its operations in August 2024, has made significant strides in improving healthcare access for remote and underserved villages through its Mobile Medical Units (MMUs). These units travel daily to several villages, providing essential healthcare services such as medical consultations, diagnosis, and referrals for more complex cases. The thematic analysis explores key aspects of the project's implementation, focusing on healthcare accessibility, disease prevalence, health education, and the community's response. This analysis highlights both the accomplishments and challenges faced by the project in its efforts to address the health needs of rural Kutch, emphasizing the role of MMUs in overcoming geographic and socio-economic barriers to healthcare.





Fig 3.6: Pictures taken during the field visit to Kutch

3.4.1. Overview of Mobile Medical Units (MMUs) in Kutch

The GMDC, in collaboration with the Gramya Vikas Trust (GVT), operates mobile medical units across remote locations in Kutch to improve healthcare accessibility. The schedule details the routes, timings, and key locations covered by MMUs for the Mata No Madh and Umarsar projects. Each MMU has dedicated days for visiting villages, providing consistent medical services to underserved areas.

Key Points of Analysis

3.4.1.1. Route Coverage and Timing:

• Each MMU schedule is structured to cover specific routes, with stops at multiple villages each day.

- For the MNM Project, locations such as Kotda Madh, Mata No Madh, and Ravapar are regularly visited on weekdays, with distances typically ranging from 2 to 26 km per stop.
- Similarly, the Umarsar Project covers villages like Umarsar, Chhuger, Guneri, and Atdo, ensuring that remote areas receive regular healthcare visits.

3.4.1.2. Average Usage and Distance:

- The average distance covered varies daily, with some routes requiring up to 60 km per day, depending on the village's proximity.
- This variation in distance highlights the logistical challenges of reaching remote locations, especially in rural and less accessible parts of Kutch.

3.4.1.3. Healthcare Access Points:

- The MMUs provide healthcare services near easily accessible locations such as village chowks, bus stands, and local landmarks (e.g., temples, schools).
- This choice of locations helps in increasing community participation and ensures that the services are available where people can gather easily.

3.4.1.4. Operational Hours and MMU Stay Time:

- Each MMU station provides healthcare for an average of 120 to 210 minutes per visit, allowing adequate time for consultations, basic diagnostics, and any necessary follow-up.
- Lunch breaks are strategically placed to avoid downtime, ensuring that MMUs continue to operate efficiently through the day.

3.4.1.5. Community-Specific Adjustments:

For both projects, adjustments have been made to the schedule to cater to the unique needs of each community, such as providing extended hours at particular locations (e.g., Ravapar) or increased frequency in densely populated areas.



Fig 3.7: Image depicting the main themes in Kutch

3.4.1.1. Healthcare Accessibility and Outreach in Remote Villages

The Jan Chikitsa Seva Project in Kutch began on August 12, 2024, and has since expanded to 14 villages, providing primary healthcare services through Mobile Medical Units (MMUs). Each unit visits two to three villages daily. These MMUs are a critical resource, offering medical consultations, prescribing medications, and making referrals to secondary healthcare when needed. The project aims to provide equitable healthcare access, treating all patients without discrimination based on socio-economic or ethnic backgrounds.

Key Points:

- **Patient Footfall:** The MMUs see about 50 patients per day, many of whom come back for followup appointments, highlighting the villages' continuous medical requirements.
- Gaps in Healthcare Infrastructure: The MMU physician pointed out that Kutch needs multispecialty facilities to manage problems that fall outside the scope of primary care. A centralized healthcare facility could provide a continuum of care for patients who currently rely on distant urban hospitals for specialized treatments.

Challenges:

- Vehicle Reliability: MMU outreach is occasionally hindered by transportation issues. In Kutch's isolated regions, where travel times and road conditions can be difficult, dependable automobiles are crucial for regular access to healthcare.
- **Mobile Connectivity:** Many residents lack mobile phones, which limits communication, particularly in cases where lab test results need to be relayed to patients.

Suggestions:

- Increase MMU Capacity and Vehicle Maintenance: The program's dependability can be raised by increasing the number of MMUs and making sure that vehicles are maintained.
- Establish Multispecialty Centres: Having a permanent multispecialty clinic would guarantee continuous, dependable treatment for complicated situations and lessen reliance on outlying medical facilities.

The Jan Chikitsa Seva Project has made substantial strides in addressing healthcare access issues in remote Kutch villages. The project has given communities who previously faced logistical and financial obstacles to medical treatment access to dependable, life-saving healthcare by deploying Mobile Medical Units (MMUs) that regularly travel to rural locations. MMUs' consistent presence has made it possible for patients to receive preventive and curative care closer to their homes, which is particularly advantageous for low-income families who might otherwise find it difficult to pay for or travel to medical facilities. This theme highlights how the project was successful in removing financial and geographic barriers to healthcare access.

3.4.1.2. Hygiene and Disease Prevalence

The MMU doctor highlighted that inadequate hygiene practices among Kutch's residents contribute significantly to the region's disease burden. For instance, many individuals walk barefoot, even after rains, leading to conditions like boils and skin infections, which can escalate to more severe health issues.

Key Points:

Common Conditions by Demographic:

- Children: Skin infections and diseases linked to poor hygiene.
- Women: High rates of urinary tract infections (UTIs) and malnutrition, exacerbated by long working hours under the sun, inadequate hydration, and infrequent bathing.

- **Elderly:** Chronic pain, including knee and body pain, is prevalent, often linked to long-term manual labour and lack of physical support.
- Men: Frequent occurrences of fever, likely due to exposure to harsh working conditions and insufficient preventive care.

Challenges:

- **Cultural and Educational Barriers:** Despite frequent awareness efforts, a language barrier and low literacy levels hinder residents from understanding and following basic health instructions, such as medication dosages and hygiene recommendations.
- Limited Female Participation in Healthcare: Cultural norms restrict women's mobility, limiting their access to healthcare services. Women often rely on male family members to access or relay health information.

Suggestions:

- **Targeted Hygiene Education Campaigns:** Emphasizing preventive care through localized hygiene campaigns could reduce disease prevalence. Providing hygiene kits (e.g., soap, foot coverings) and instructions on handwashing and wound care may help address root causes of infections.
- Increased Female Health Outreach: Introducing female healthcare staff or community health workers may encourage women to seek care and engage more openly with medical professionals, improving health outcomes and access.

The MMU project has provided insight into the health issues related to hygiene that rural Kutch people confront, including infections and skin disorders brought on by poor sanitation habits, such as not wearing footwear during the rainy season. In order to avoid sickness, it is imperative that people get ongoing health education about basic cleanliness. Even while the MMU offers prompt care for common illnesses, recurring health issues like boils and skin infections emphasize how crucial it is to incorporate cleanliness awareness initiatives into the provision of healthcare. This theme highlights how crucial it is to improve hygienic habits in order to lower the frequency of disease in these communities.

3.4.1.3. Health Education and Awareness

Health awareness is a recurring theme in Kutch, where low literacy and limited health literacy prevent patients from effectively managing their health conditions. The MMU doctor emphasized the importance of repetitive education, noting that most residents lack a clear understanding of medication

schedules, leading to misuse or non-compliance, particularly among patients with chronic conditions like diabetes.

Key Points:

- **Repeated Health Education Needed:** Patients need multiple interactions to fully understand instructions, even when materials are provided in their language. Mismanagement of medications, such as taking the wrong dosage or skipping doses, is a common issue.
- Limited Impact of Awareness Programs: Although awareness programs are conducted, they often lack the depth and cultural sensitivity required to create lasting behavioural changes among the population, particularly among uneducated and elderly residents.

Challenges:

- Language and Cultural Barriers: Despite efforts to communicate in local dialects, a lack of familiarity with healthcare concepts and procedures continues to hinder effective education.
- **Resistance to Behavioural Change:** Despite repeated health education, cultural norms, particularly those pertaining to diet, personal hygiene, and preventative care, make it difficult to adopt new behaviours.

Suggestions:

- Localized Health Literacy Programs: Programs tailored to the Kutch dialect and cultural practices can increase engagement. In order to promote healthy habits, health literacy programs could involve interactive community activities, visual aids, and enlisting the help of local elders or influencers.
- **Partner with local organizations and schools:** For the purpose of educating women and children in particular, cooperation with educational institutions, places of worship, and local authorities could strengthen educational messages in well-known communal settings.

Despite the introduction of health awareness programs, significant barriers remain, particularly due to low literacy rates and language differences. Community members often require multiple explanations to understand medical advice, which sometimes leads to improper medication use. However, initiatives like the Poshan Abhiyaan Celebration represent a positive step forward, bringing essential health education to a broader audience and emphasizing nutrition's role in well-being. Overall, while progress has been made, this theme illustrates the need for ongoing, culturally-sensitive health education to promote sustained improvements in community health practices.

3.4.1.4. Women's health and Nutrition

The Poshan Abhiyaan Celebration report from the Mata Na Madhh event highlighted significant efforts to improve women's and children's nutrition. The project's goals of enhancing community health via nutrition education and useful dietary advice for moms, kids, and teenagers are in line with the event, which focuses on food security and the avoidance of malnutrition.

Key points:

- **Poshan Abhiyaan's Role to Nutrition Awareness:** The occasion provided a forum for 150 attendees, including local leaders, to learn about growth monitoring, anemia prevention, and infant supplemental feeding.
- **Community Ownership of Health Goals:** By encouraging participants to exchange health knowledge throughout their communities, the celebration fostered a sense of communal responsibility for nutrition.
- Women's Specific Health Issues: Malnutrition, UTIs, and fungal infections were common issues among Kutch's women, especially young women working long hours outdoors without sufficient hydration or hygiene practices.

Challenges:

- Nutritional Gaps Among Women: Women's health issues, particularly malnutrition and infections, are often underreported due to restricted access to healthcare and limited self-care practices.
- **Nutritional Misconceptions:** The effectiveness of nutritional treatments and awareness efforts may be restricted by cultural misconceptions regarding diet and nutrition practices.

Suggestions:

- Enhanced Nutritional Support for Women: To address the high rates of malnutrition among Kutch women, implement focused nutrition programs, such as micronutrient supplements and routine nutrition examinations.
- **Community-Led Nutrition Campaigns:** To build on Poshan Abhiyaan's success, local women's organizations should be enlisted to spearhead continuing nutrition education, ensuring that it is a consistent, neighbourhood-based initiative.

The project has recognized and addressed critical women's health concerns, including malnutrition, urinary tract infections, and fungal infections exacerbated by prolonged outdoor labour and limited access to water. In remote areas, where women may experience particular health risks yet lack the freedom to seek treatment, our findings highlight the significance of gender-sensitive healthcare.

MMU services have been crucial in starting to address these needs, but more nutrition- and healthspecific interventions are needed to improve women's quality of life over the long run. This theme highlights the necessity for culturally and gender-appropriate healthcare solutions to ensure all community members benefit equally from healthcare services.

3.4.1.5. Medication and Diagnostic Services

The MMUs in Kutch are well-stocked with basic medications, with no reported shortages. Diagnostic delays are an issue though, especially for patients who don't have cell phones and can't get lab results online.

- **Diagnostic Capacity:** A range of basic tests, including as CBC, malaria, thyroid, urine, RFT, LFT, RBS, and haemoglobin testing, are available at MMUs. Effective early diagnosis and treatment of common illnesses depend on these diagnostics.
- **Report Delivery Challenges:** When lab results are delayed because of problems with mobile connectivity, patients frequently miss important health updates, which results in gaps in follow-up care.

Challenges:

- **Restricted Access to Advanced Diagnostics:** Although basic tests are accessible, the MMUs' capacity to thoroughly evaluate and treat complicated medical issues in the villages is hampered by the absence of advanced diagnostics.
- **Communication Gaps:** Due to limited access to mobile phones and internet connectivity, residents often do not receive timely updates on their lab reports, leading to missed treatments and delayed interventions.

Suggestions:

- Establish Diagnostic Partnerships with Urban Centres: Building partnerships with urban diagnostic centres can help address advanced testing needs and create a smoother referral and follow-up process.
- **On-site Report Printing and Distribution:** MMUs could be equipped with printers to deliver lab results in printed form right away, guaranteeing that patients are informed of their findings during consultations.

The MMUs in Kutch are well-equipped with essential medicines and diagnostic tools, ensuring that patients receive adequate on-site care. However, challenges such as delayed lab results due to limited technology access and language barriers have hindered the smooth operation of these services. A solid

basis is provided by the availability of tests such as CBC, malaria, and thyroid evaluations; nevertheless, to increase overall efficacy, logistical upgrades and more community education regarding the use of diagnostic services are required. This theme highlights the project's accomplishments in medicine and diagnostics as well as the areas that still need improvement in terms of resource optimization.

3.4.1.6. Patient Feedback and Community Response

The Jan Chikitsa Seva Project's MMU services have been well received by Kutch people, as seen by their patient feedback. These testimonies demonstrate how crucial the MMU ambulance is to providing healthcare to underserved and isolated communities. The community's appreciation and readiness to support the program's continuation are evident, demonstrating the active collaboration between MMU services and the neighbourhood.

Key Points:

- Support from Local Residents: Villagers like Mohammed Haji from Valka Mota expressed gratitude for the MMU services, stating, "MMU ambulance from GMDC comes every Friday. It is very helpful for poor/low-income people as they cannot afford healthcare. If this scheme continues, it would be very beneficial for everybody." This sentiment was echoed by Rathod Shivraj Sinh Tejpal Sinh from Kane Sakariya, who shared, "The MMU ambulance has been coming to our village since the last 1 month. They provide good healthcare and medicines to the villagers. They treat every kind of illness, small or big."
- Perceived Value of Medical Services: Both Haji and Sinh emphasized the value of having qualified healthcare professionals on the MMU. Sinh further commented on the quality of care, noting, "The staff includes an MBBS doctor and a nurse. I would ask the GMDC manager that this scheme continues as it would be very helpful to the people of our village as they provide healthcare for free." This level of care is especially meaningful for communities with limited access to other medical services.
- Community Willingness to Assist: Haji also conveyed the community's readiness to contribute to the program's success, saying, "We will do all the help we can from our side as village residents to keep it running. We are very thankful to MMU ambulance and GMDC." This statement reflects a sense of shared responsibility and commitment to ensuring the project's sustainability.

Challenges:

• Sustained Funding and Continuity: The comments raise questions about the project's long-term sustainability. In order to ensure the program's continuation, villagers like Sinh expressed a want for continuity and emphasized the necessity of GMDC and MMU administration. They see the

MMU as an essential healthcare service that they hope will always be a part of their life, and this emotion is evident.

Suggestions:

- **Boost Community Involvement:** The program might gain from greater direct village participation in project planning and decision-making, building on the strong community support already in place. A community advisory council could be established to encourage continuous feedback and improve the program's ability to respond to local needs.
- Encourage Awareness Campaigns by Using Local Advocates: The MMU can more successfully promote awareness campaigns by involving community members who have shown their support, such as Mohammed Haji and Rathod Shivraj Sinh. Peer-to-peer communication has the potential to improve community awareness and use of healthcare services.

The villagers' genuine and favourable comments demonstrate the Jan Chikitsa Seva Project's influence in Kutch. In addition to meeting urgent medical requirements, the MMU service is establishing rapport with the community and promoting confidence. The villagers' stated desire to assist the initiative highlights a feeling of accountability and ownership, reaffirming the MMU's position as a respected community partner in promoting literacy and health access.

3.4.3. Summary

The Jan Chikitsa Seva Project in Kutch, launched in August 2024, has significantly improved healthcare access for remote villages through its Mobile Medical Units (MMUs). These units have brought essential healthcare services directly to underserved communities, ensuring better access to consultations, diagnostics, and referrals. The project has effectively addressed healthcare gaps, particularly in remote areas, and has been well-received by the local community. While there are opportunities to further enhance hygiene education, female participation, and nutrition support, the community's strong support and positive feedback highlight the success and potential for sustained impact. The program's continued growth and community involvement will be key to its long-term success.

3.5. Location: Surat

The Jan Chikitsa Seva Project in Surat, has made significant strides in improving healthcare access for remote and underserved villages through its Mobile Medical Units (MMUs). These units travel daily to several villages, providing essential healthcare services such as medical consultations, diagnosis, and referrals for more complex cases. The thematic analysis explores key aspects of the project's implementation, focusing on healthcare accessibility, disease prevalence, Resource and Medicine Management, and the community's response. This analysis highlights both the accomplishments and challenges faced by the project in its efforts to address the health needs of rural Surat, emphasizing the role of MMUs in overcoming geographic and socio-economic barriers to healthcare.



Fig 3.8: Pictures taken during the field visit to Surat

3.5.1. Insights on Tadkeshwar Mobile Medical Units (MMUs)

3.5.1.1. Healthcare Accessibility and Outreach

The Tadkeshwar MMU (Mobile Medical Unit) program operates on a biweekly rotation, serving various locations within Mandvi, Surat. Services are scheduled every week to cover villages such as Roswad, Tadkeshwar (including Talav Faliyu, Tanki Faliyu, and Khodi Amli), among others. Patients have indicated that the MMU sometimes even conducts weekly rotations. This schedule ensures that populations in rural areas have regular access to healthcare. Key operational elements include:

- Scheduled Coverage: MMUs provide consistent and reliable access to healthcare at a total of 24 sites throughout Tadkeshwar and the surrounding area.
- **Convenient Timing:** To accommodate community members with varying schedules, clinics are held throughout the day at varied schedules.

3.5.1.2. Operational Data and Patient Turnout

- Camp Days and OP Consultations: From November 2023 to October 2024, the Tadkeshwar MMUs had 271 camp days and provided 10,903 outpatient (OP) consultations. This shows a high level of community demand, with an average of 50 consultations per camp day.
- **Pharmacy and Laboratory Services:** From May to July 2024, pharmacy dispensations ranged from 257 to 433 items per month. Between 86 and 361 lab tests were performed over this time, demonstrating how pharmacological and diagnostic support were integrated into the services offered.

3.5.1.3 Community Health Trends

The Tadkeshwar outreach program included SHE (Safety, Health, and Environment) sessions to enhance community health awareness:

- Between May and July 2024, 15 sessions were planned, and 18 sessions were conducted, surpassing the target.
- Attendance: A total of 325 participants attended these sessions, achieving significant engagement levels, particularly in May and June.

This success highlights the potential for expanding educational outreach to improve long-term health outcomes, particularly among women and children.

Patient Education and Awareness Programs

From May to July 2024, the MMUs in Tadkeshwar conducted five awareness sessions per month, attended by 80 participants each on average. These sessions focused on educating the community about preventive healthcare practices and available resources.

Key Observations:

- **Consistent Access:** The MMU program effectively ensures healthcare delivery to villages with otherwise limited access to medical facilities.
- **Resource Utilization:** Pharmacy and lab services were well-utilized, indicating that these facilites meet immediate healthcare needs.

3.5.2. Thematic Analysis



Fig 3.9: Image depicting the main themes in Surat

3.5.2.1. Healthcare Accessibility and Outreach in Surat

The Jan Chikitsa Seva Project in Surat operates with Mobile Medical Units (MMUs) to deliver primary healthcare to rural areas. Covering 24 villages, the MMUs aim to provide equitable and accessible healthcare to communities with limited access to medical facilities.

- Coverage: The MMUs visit two villages daily, ensuring medical consultations and basic diagnostic services.
- **Patient Follow-Up:** Each village is visited once every two weeks, causing delays in follow-ups for chronic conditions and treatments.
- **Patient Services:** Each visit includes 20–30 diagnostic tests, enabling timely diagnosis and treatment.

Challenges:

- Frequency of Visits: Patients often face delays in follow-up care due to the two-week interval between visits, which can hinder effective management of chronic conditions.
- **Geographic Limitations:** The restricted coverage of only two villages per day limits the number of patients served.

Suggestions:

- **Increased Frequency of Visits:** Expanding the schedule to cover more villages per day or reducing the interval between visits can ensure timely follow-ups and better continuity of care.
- Enhanced Scheduling: Optimizing routes and schedules to reach more villages in a shorter timeframe could improve healthcare access.

3.5.2.2. Disease Prevalence in Surat

The MMUs have identified fungal infections, diabetes, and hypertension as the most prevalent health issues in the region. These reflect both lifestyle and environmental health challenges among the rural population.

Common Conditions:

- Fungal Infections: Likely linked to environmental factors and hygiene practices.
- Chronic Diseases: Diabetes and hypertension point to lifestyle and dietary influences.

Diagnostic Services: The MMUs' ability to conduct a range of tests enables early detection and management of these prevalent conditions.

Suggestions:

- **Targeted Awareness Campaigns:** Focused health education on preventing fungal infections and managing chronic conditions like diabetes and hypertension through diet and lifestyle modifications.
- Preventive Care Programs: Regular screening camps for high-risk groups to identify and manage diseases early.

3.5.2.3. Resource and Medicine Management

The MMUs are well-staffed and supported, with sufficient medical personnel and timely supplies of medicines provided by Apollo.

- Staffing: The MMUs currently have adequate staff to meet the needs of the villages they serve.
- **Medicine Supply:** No disruptions have been reported, ensuring the smooth delivery of treatment to patients.

Challenges:

• Scalability: While resources are sufficient for the current scale, increasing the frequency of visits may necessitate additional staff and supplies.

Suggestions:

• **Periodic Resource Assessment:** Regular evaluations of staffing and supply chains to ensure scalability and preparedness for expanded operations.

The Jan Chikitsa Seva Project in Surat has successfully provided primary healthcare to underserved rural communities, addressing key health concerns and ensuring consistent delivery of medical services. Nevertheless, issues like postponed follow-ups and restricted coverage draw attention to the necessity of more frequent visits and greater operational capability. The project's present effectiveness in managing resources and medications provides a solid basis for expansion and meeting the changing healthcare demands of the area.

3.5.2.4. Patient Testimonials and Feedback

Feedback from patients treated in Surat highlights the positive impact of MMU services in addressing chronic and acute health conditions effectively. These testimonials reflect the community's satisfaction and the tangible health benefits provided by the MMUs:

Key Points:

• Comprehensive Management of Chronic Conditions:

A 72-year-old respondent from Surat has been relying on the MMU for over a year for managing blood pressure and diabetes. Weekly visits allow for consistent BP and sugar monitoring, followed by tailored prescriptions. The patient expressed significant improvement in health, stating, *"I am almost healed, and I am very thankful to the MMU for providing free medicines."* Rating the services 8/10, the respondent emphasized their satisfaction with the program's consistency.

• Effective Care for Diabetes and Paralysis:

Ashok Bhai, another long-term beneficiary, highlighted the MMU's role in managing diabetes and paralysis. Weekly check-ups for blood pressure and other vitals, along with free fortnightly medication, have helped him maintain stability in his condition. He shared, *"Every test is going well. I get all the medicines for free. Thank you so much."*

• Relief from Arthritis Symptoms:

A patient who started treatment for arthritis through the MMU 2–3 months ago reported noticeable improvement in health. Regular blood and haemoglobin tests, combined with free weekly medication, contributed to their progress. The patient expressed gratitude, stating, *"I have been feeling good too. Thank you so much."*

• Treatment for Common Ailments:

Kandho Bhai Lalo Bhai Rusi frequently visits the MMU for cold, cough, and acidity treatment. By consistently accessing free medicines during each visit, the respondent noted substantial improvement, commenting, *"I am feeling much better after having these medicines. I am very satisfied with the medicines. Thank you so much."*

Challenges:

• Longer Gaps for Follow-Up Care: While most patients were satisfied with the service quality, some highlighted the need for shorter waiting periods for follow-up treatments. Patients requiring continuous care, particularly for chronic conditions, sometimes face delays due to limited MMU availability.

Suggestions:

- Increase MMU Frequency: More frequent visits in high-demand areas, particularly for chronic disease patients, can improve treatment continuity.
- Introduce Appointment Systems for Follow-Ups: Structured scheduling can ensure that followup cases are prioritized, reducing waiting times for critical care patients.
- **Expand Diagnostic Capabilities:** Increasing the range of diagnostic tests available in MMUs can reduce dependency on external facilities and enable quicker health assessments.

The feedback from Surat reflects the success of the MMU initiative in delivering healthcare to underserved populations. By addressing the challenges identified, the program can further strengthen its impact and ensure sustained improvements in community health.

3.6. Conclusion of the chapter

The analysis of the Jan Chikitsa Seva Project across Kutch, Chhotaudepur, Bhavnagar, and Bharuch highlights the substantial progress made in improving healthcare access and the positive impact of the Mobile Medical Units (MMUs) in these regions. The findings celebrate the success of the project, while also identifying key opportunities for continued growth and enhancement.

In Kutch, the MMU services have been warmly welcomed by remote, underserved communities like Valka Mota and Kane Sakariya, where access to healthcare has been a significant challenge. The community's enthusiastic response underscores the value of the program, although addressing health literacy, increasing women's access to care, and overcoming logistical barriers will further strengthen the program's reach.

Chhotaudepur has experienced a strong demand for healthcare services, highlighting the tremendous impact the MMUs are making. Expanding resources, adding diagnostic capabilities, and introducing more gender-sensitive care approaches will help the project better meet the needs of this growing community.

In Bhavnagar, the MMUs have been effective in providing essential healthcare services. Further improvements in medication supply consistency, patient education on chronic conditions, and addressing women's health concerns like malnutrition and UTIs will enhance the overall health outcomes in the region.

In Bharuch, the community would benefit from improved emergency transport services and the establishment of fixed healthcare centres for chronic care, alongside enhanced diagnostic capabilities. These efforts will significantly improve the delivery of healthcare in the region.

Overall, the findings underscore the transformative impact of the Jan Chikitsa Seva Project across Gujarat. The success seen in each region reflects the program's potential, and the next section will offer tailored recommendations to ensure its continued growth and long-term success.

Chapter 4 – Conclusion and Recommendations

4.1. Conclusions

The Jan Chikitsa Seva Project has made significant strides in improving healthcare access for underserved populations in rural Gujarat, particularly in districts like Chhotaudepur, Bhavnagar, Bharuch, Kutch, and Surat. The project has successfully filled numerous healthcare gaps and provided vital services to underserved populations in spite of some obstacles. The following are important findings:

Improved Access to Healthcare

For rural populations, the Mobile Medical Units (MMUs) have proved crucial in lowering travel obstacles, especially in places with few or no healthcare facilities. The project has improved timely access to care, decreased the prevalence of untreated chronic ailments, and facilitated early intervention for acute illnesses by delivering medical services directly to the communities. In the regions of Chhotaudepur and Bhavnagar, this has led to improved patient outcomes, especially for conditions like hypertension, diabetes, and respiratory infections.

• Effective Chronic Disease Management

The management of chronic diseases, which are frequently disregarded in rural areas because of irregular medical follow-ups, has benefited greatly from the MMUs. The availability of continuous therapy and monitoring for diseases including diabetes, hypertension, and cardiovascular problems has been praised by patients, particularly in Bharuch and Bhavnagar. Continuous care has resulted in fewer complications and better management of these conditions, leading to overall improvements in quality of life for many.

• Positive Community Feedback and Trust

Community members have given the project positive reviews. Patients' trust in the MMUs has grown as a result of their observations of the medical staff's professionalism and compassion. Free provision of essential medications has alleviated financial burdens, allowing families to reallocate resources toward other necessities, such as education and nutrition. Since community support encourages higher involvement and engagement in health programs, this trust is essential to the project's long-term success.

• Resource Limitations and Regional Disparities

Despite the positive impact, the MMUs face challenges related to resource limitations, particularly in Chhotaudepur, where demand for healthcare services often exceeds the available capacity. Further impeding the MMUs' capacity to offer complete care are shortages of medications, diagnostic equipment, and emergency transportation. Furthermore, geographical differences in healthcare requirements—such as Bhavnagar's need for gender-sensitive care—emphasize the need for specialized healthcare solutions that cater to the unique requirements of various populations.

4.2 Location-wise Recommendations

4.2.1 Location: Chhotaudepur

4.2.1.1. Increase MMU Capacity

- **Context**: Chhotaudepur faces a particularly high demand for healthcare services. The existing MMUs are stretched beyond their capacity, leading to longer waiting times for consultations and potentially compromising the quality of care provided to patients.
- **Recommendation**: To address this, additional MMUs should be deployed in areas experiencing high patient inflow. Deploying more MMUs would not only reduce the strain on the existing units but also ensure that patients with chronic or complex conditions, such as diabetes and hypertension, receive the attention they require in a timely manner.
- **Implementation**: This can be done by identifying key hubs within the district, such as central villages with a high population density, to ensure strategic placement of extra units. Moreover, additional medical staff should be hired to support these new units, particularly in specialized areas like paediatric care and chronic disease management.

4.2.1.2. Enhanced Diagnostic Services

- **Context**: One of the recurring challenges in Chhotaudepur is the lack of diagnostic resources. The existing MMUs often rely on referrals to urban healthcare centres for more detailed diagnostics, causing delays in treatment.
- **Recommendation**: Introducing more diagnostic tools such as portable glucose monitors, blood pressure monitoring devices, rapid diagnostic kits for common conditions, and basic laboratory equipment can vastly improve the diagnostic capacity of MMUs. This would enable quicker diagnosis and immediate treatment during MMU visits.
- **Implementation**: A phased roll-out of these diagnostic tools in high-demand areas could reduce referrals to distant hospitals, ensure timely interventions for conditions like diabetes and hypertension, and improve health outcomes by enabling faster decision-making.

4.2.1.3. Community Health Awareness Programs

- **Context**: Preventive healthcare is a key element in reducing the long-term burden on healthcare services. In rural areas, many preventable diseases, such as skin infections and malnutrition, are common but can be mitigated through education.
- **Recommendation**: Expanding health awareness campaigns focused on basic hygiene, nutrition, and preventive health measures is crucial. For instance, campaigns on handwashing, safe food practices, and vaccination awareness can have a profound impact on public health. Furthermore, programs aimed at improving maternal and child health should be prioritized to reduce preventable diseases.
- **Implementation**: Collaborating with local community organizations and schools to implement these programs can help engage the wider community. Mobile health vans can also carry out health screenings as part of these educational campaigns, identifying early signs of malnutrition or other preventable conditions.

4.2.1.4. Strengthen the Referral System

- **Context:** Referral inefficiencies often delay access to specialized healthcare, adding strain to local resources and MMUs.
- **Recommendation:** Improve coordination between MMUs and hospitals and explore telemedicine options to provide remote consultations with specialists.
- **Implementation:** Establish digital communication channels for real-time updates on patient referrals and leverage telemedicine to offer specialist consultations, reducing travel and wait times for referred patients.

4.2.1.5. Expand Transportation Services

- **Context:** Limited ambulance and transport options lead to delays, particularly for patients needing urgent care or referral to the Civil Hospital.
- **Recommendation:** Increase the number of ambulances and optimize transportation logistics for timely patient transfers, especially for critical cases.
- **Implementation:** Add additional ambulances to the fleet and organize a routing system to prioritize patients in critical condition. Utilize partnerships with local transport services for enhanced coverage in remote areas.

4.2.2. Location: Bhavnagar

4.2.2.1. Gender-Sensitive Healthcare Staffing

- **Context**: Bhavnagar has unique regional challenges, particularly in terms of addressing genderspecific health needs. Women, especially in rural Gujarat, often face cultural and social barriers that prevent them from seeking medical care, particularly for sensitive health issues like reproductive health or domestic violence.
- **Recommendation**: Employing more female healthcare workers within the MMUs would help create a more inclusive and safe space for female patients. This would encourage women to feel more comfortable seeking medical assistance, particularly for issues that require gender-specific expertise, such as maternal health, family planning, and gynaecological conditions.
- **Implementation**: Female doctors, nurses, and health counsellors can be recruited, and their presence would foster a more inclusive environment. In addition, community outreach programs could be tailored to address these sensitive topics, helping reduce stigma and empowering women to seek care.

4.2.2.2. Consistent Medicine Supply

- **Context**: Bhavnagar has faced issues with medication shortages, which disrupt patient care, especially for those managing chronic conditions. Stockouts can lead to delays in treatment, which may aggravate patients' conditions, particularly for diseases like diabetes, hypertension, and other long-term health concerns.
- **Recommendation:** Establishing a centralized inventory management system that tracks the usage of medicines in real-time and triggers automatic replenishment requests would ensure a consistent supply of essential medications. Furthermore, collaborating with local pharmacies to create a network of backup sources could ensure that if MMUs run out of stock, they can quickly access the necessary drugs.
- **Implementation**: A robust software system to monitor medicine stocks could be implemented, and regular audits could be carried out to ensure timely replenishment. Partnering with local pharmacies to keep a supply of essential medications would minimize disruption, especially for long-term treatments.

4.2.2.3. Expanded Educational Outreach

- **Context**: Chronic disease management can be complex, and patients in rural regions may lack knowledge about how to effectively manage their conditions.
- **Recommendation**: Expanding patient education on chronic disease management, lifestyle modifications (such as diet and exercise), and safe medication practices is essential. This would enable patients to manage their conditions effectively and reduce hospital visits. Moreover, improving patient compliance with prescribed treatments can improve long-term health outcomes.
- **Implementation**: Educational materials, such as pamphlets, community workshops, and mobile health apps, could be introduced to facilitate learning. Additionally, MMU doctors and nurses could dedicate time to explain the importance of lifestyle changes, healthy eating, and adherence to prescribed treatments during consultations.

4.2.2.4. Improvement of Emergency Services

- **Context:** Emergency response in Bhavnagar is limited, resulting in delays for critical cases requiring urgent treatment.
- **Recommendation:** Increase ambulance availability and maintain a consistent supply of essential emergency medications.
- **Implementation:** Add more ambulances to the region's healthcare network and create an emergency medical kit inventory for each MMU, restocked monthly to ensure continuity.

4.2.2.5. Scalability and Increased Coverage

- **Context:** Growing patient numbers indicate a need for expanded MMU coverage across more villages or with increased visit frequency.
- **Recommendation:** Scale MMU operations to cover additional areas and increase visit frequency in high-demand zones.
- **Implementation:** Map high-need villages and organize additional MMU visits to these locations. Data on patient inflow can help identify the most effective allocation of resources.

4.2.3. Location: Bharuch

4.2.3.1. Improved Emergency and Transport Facilities

- **Context**: Bharuch experiences an influx of patients with acute conditions that require immediate transport to hospitals for advanced treatment. Currently, transport facilities are limited, and many patients face delays in emergency care due to inadequate emergency services.
- **Recommendation:** Increasing the number of ambulances and improving the transport infrastructure would significantly reduce response times and improve outcomes for emergency cases. Ambulances equipped with basic life-support equipment could help stabilize patients before they reach hospitals.
- **Implementation**: Establishing a fleet of ambulances dedicated to emergency responses can be supplemented by community-based transport systems that facilitate quicker access to medical care. Partnerships with local transportation services could be explored to meet the demand.

4.2.3.2. Fixed Healthcare Centres in High-Need Zones

- **Context**: While MMUs provide mobile healthcare, some patients with chronic or severe conditions require ongoing care that cannot be managed through sporadic MMU visits. Fixed healthcare centres can serve as hubs for continuous care, diagnostics, and follow-up visits.
- **Recommendation**: Establishing permanent healthcare centres in high-need zones, particularly near large rural settlements or towns, would help provide continuous care to patients with chronic conditions. These centres could offer regular check-ups, lab tests, and specialized care for long-term conditions.
- **Implementation**: By identifying high-demand areas with large populations, GMDC can work with local governments to set up fixed clinics equipped with basic diagnostic tools and staffed with a team of healthcare professionals. These centres could serve as the backbone of the region's healthcare infrastructure.

4.2.3.3. Expanded Diagnostic Capabilities

- **Context**: Diagnostic services in Bharuch are often limited, which can result in delayed diagnoses and treatment, particularly for conditions that require early intervention like malaria, typhoid, and diabetes.
- **Recommendation**: Expanding diagnostic capabilities by equipping MMUs with portable diagnostic kits for diseases like malaria, typhoid, and diabetes would allow for quicker diagnosis

and better treatment outcomes. This would reduce the reliance on distant hospitals for diagnostics, ensuring that patients receive timely care.

• Implementation: Mobile diagnostic units or "point-of-care" testing kits could be introduced in the MMUs to provide immediate results. Regular training for MMU staff on how to use these tools would ensure effective utilization, particularly in rural areas where access to laboratory-based diagnostic services is limited.

4.2.3.4. Introduce Female Healthcare Workers

- **Context:** Female patients require gender-sensitive healthcare to address unique health issues comfortably.
- **Recommendation:** Increase the recruitment of female health workers to improve consultation rates and address women's health issues more effectively.
- **Implementation:** Focus recruitment on female staff for MMUs and organize women-centered health sessions covering reproductive health, nutrition, and hygiene.

4.2.4. Location: Kutch

4.2.4.1. Improve Accessibility to MMUs in Remote Villages:

In Kutch, particularly in villages like Ravapar and Mata na Madh, there is a significant challenge in reaching remote areas due to poor road conditions and limited transportation options. It is advised to increase the number of visits in order to improve accessibility to the MMUs, particularly in villages where patient demand is strong. Even the most isolated villages can obtain timely medical care if efforts are made to provide more accessible routes or use different modes of transportation, including motorcycles or 4x4 vehicles that can handle harsh terrain.

4.2.4.2. Increased Focus on Health Education and Awareness Campaigns:

The doctor who works with the MMUs in Kutch pointed out that a major obstacle to bettering healthcare outcomes is a lack of health literacy, particularly among rural and uneducated populations. It would be essential to broaden health education initiatives to cover important topics including disease prevention, appropriate medication use, and hygienic habits. The required health knowledge could be disseminated through interactive sessions in regional languages, particularly in community centres and schools. This would lessen misconceptions about taking medications as prescribed and stop the spread of common illnesses, especially malnourishment and skin infections.

4.2.4.3. Enhance Women's Health Programs:

According to the interviews done in Kutch, women encounter particular health problems such malnourishment, UTIs, and reproductive health problems, which are made worse by social and cultural constraints. Expanding gender-sensitive health care in the area is crucial to addressing these problems. It is possible to make women feel more at ease seeking medical attention by increasing the number of female health workers in MMUs and setting up health camps just for women. Additionally, addressing some of the underlying causes of these health problems would involve raising awareness of the significance of proper diet, hydration, and cleanliness practices.

4.2.4.4. Improved Diagnostic Services and Referral Systems:

Although Kutch's MMUs offer fundamental diagnostic examinations, there are still gaps in the services offered for more complicated ailments. The ability to diagnose illnesses on-site can be significantly enhanced by utilizing more sophisticated diagnostic instruments, such as portable ultrasound machines, even though the current testing capabilities (such as CBC, malaria, and RFT) are sufficient for quick assessments. Enhancing the referral process for patients in need of secondary or tertiary care is also essential. Delays in follow-up care could be avoided by making sure that patients receive diagnostic reports on time, perhaps by SMS or app notifications.

4.2.4.5. Infrastructure Improvements for Emergency Care:

Although the MMUs are effective for general health services, emergency cases in Kutch require better infrastructure, especially for critical patients who need quick transfers to larger hospitals. Increasing the availability of ambulances and ensuring that these are well-equipped with life-saving tools would reduce response times during emergencies. Furthermore, creating local partnerships with private hospitals for immediate emergency care could also improve the chances of timely intervention for patients with severe conditions.

4.2.4.6. Long-Term Healthcare Infrastructure and Multispecialty Facilities:

The lack of multispecialty hospitals in Kutch is a recurrent issue, as noted by the MMU staff. To address this, it is recommended that GMDC partner with local or national healthcare providers to set up fixed, multispecialty healthcare centers in Kutch. These centers can serve as primary hubs for chronic disease management, maternal and child healthcare, and specialized consultations. By creating a well-networked healthcare infrastructure in high-need areas, Kutch can ensure that residents have access to comprehensive care close to home, reducing the burden on MMUs and improving health outcomes.

4.2.5.1. Expand MMU Coverage:

Residents across Surat, including industrial areas like Pandesara and Udhna, as well as peri-urban and lower-income neighbourhoods such as Limbayat and Katargam, reported significant challenges in accessing timely healthcare through MMUs. The lengthy wait times of up to two weeks for follow-up treatments, which interfere with continuity of care and make medical conditions worse, are one of the main issues raised.

4.2.5.2 Improve Awareness Campaigns for Preventive Health Practices:

The data indicates that many residents in Surat, especially those in lower-income neighbourhoods like Limbayat and Katargam, lack awareness about preventive healthcare. Expanding health education campaigns that focus on hygiene, nutrition, and early disease detection is crucial. These campaigns could include interactive sessions in local languages, taking help from community leaders and schools to amplify their reach and effectiveness.

4.2.5.3 Strengthen Referral Systems for Specialized Care

Residents of Surat reported difficulties getting to secondary and tertiary medical facilities, especially following their first consultations with the MMUs. It is essential to streamline the referral process by utilizing a strong network of both public and private hospitals. Delays can be greatly decreased and patient outcomes can be enhanced by putting in place a system where MMUs help patients with referrals and follow-up reminders via SMS or phone calls.

4.2.5.4 Prioritize Long-Term Healthcare Infrastructure Development

The necessity of long-term medical facilities in underserved communities was brought up often in Surat's comments. Reliance on MMUs for routine care will be lessened by working with local authorities to set up static healthcare centers, especially in areas with high population density and healthcare demand. These centers can focus on providing specialized services and managing chronic illnesses effectively.

4.2.6. Overall recommendations

- Expand MMU and Staff Capacity: To meet the rising demand for services, it is imperative to increase the number of MMUs and hire additional medical professionals. Additionally, this would lessen the workload for current employees, enabling more individualized patient care.
- Ensure Continuous Medication Supply: Stockouts could be avoided by putting in place a realtime inventory tracking system, especially for drugs used to treat chronic illnesses. Patients could have continuous access to necessary treatments with the help of a simplified supply chain system.

- Strengthen Community Health Education Programs: Increasing public health initiatives on subjects like diet, hygiene, and the prevention of chronic diseases may help communities adopt healthier lifestyles and lessen their reliance on emergency MMU visits.
- Improve Patient Feedback Mechanisms: GMDC and its partners will be able to gather real-time patient comments through surveys or community meetings on a regular basis, facilitating ongoing service delivery process improvement.
- Focus on Infrastructure and Emergency Services: Improving infrastructure, including the expansion of transport services and the provision of diagnostic equipment, would improve the ability to respond to emergencies and ensure more comprehensive care, particularly in rural and remote areas.

4.2.7. Long-term strategic goals

To ensure the sustainability and scalability of the Jan Chikitsa Seva Project, GMDC should focus on the following long-term strategic objectives:

- Fostering Partnerships: Collaborating with local government bodies, NGOs, and private healthcare providers will expand the project's reach and enable resource-sharing. This will contribute to the development of a more extensive healthcare system, enhancing the caliber and availability of services in underprivileged areas.
- Leveraging Technological Advancements: By combining mobile health technologies with telemedicine services, remote consultations can be arranged, enabling patients in remote places to consult with specialists and receive follow-up care without having to make lengthy travels.
- Expanding to New Regions: Given the project's achievements in the original districts, GMDC ought to think about extending the MMU model to additional underprivileged areas of Gujarat. This would increase the project's impact and reach more underserved places with inadequate healthcare facilities.

4.3. Chapter Summary: Way Forward

In Gujarat, the Jan Chikitsa Seva Project has greatly increased access to healthcare for marginalized communities, successfully treating both acute and chronic illnesses while building community trust. Notwithstanding its achievements, issues like regional inequities, pharmaceutical shortages, and resource constraints still exist. Increasing MMU capacity, improving diagnostic services, guaranteeing steady pharmaceutical supplies, and putting gender-sensitive healthcare solutions into practice are some of the main areas for improvement.

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Appendix

1. Success stories

1.1. Bharuch

Field	Details		
Centre Name	Rajpardi		
Patient Visited Dates	22 May, 29 May, 5 June		
Patient Name	Dinesh Mitha Vasava		
Age	56 years		
Gender	Male		
UHID	r9pylypk0wbq		
Chief Complaint	High sugar level + high blood pressure		
Details on Complaint	Sugar level: 625 mg/dL BP: 140/90 mmHg		
History of Presenting	History of diabetes and hypertension for 4-5 years. Recently stopped medication for 3-4 months.		
luness	Past Medical History		
Diabetic	Yes		
Hypertensive	Yes		
Heart Disease			
Any Other History	None		
	Vitais Kecorded		
Height	5.9 feet		
Weight	65 kg		
Blood Pressure	140/90 mmHg		
SpO2	97%		
Pulse Rate	77 bpm		
Respiratory Rate	16 bpm		
Temperature	Normal		
	Intervention & Treatment Advised		
1. Amlodipine	5 mg once a day after food (for 15 days)		
2. Metformin	500 mg thrice a day before food (for 15 days)		
3. Glimipride	1 mg twice a day before food (for 15 days)		
Investigations Report	RBS every week & blood pressure measure		
Provisional Diagnosis	DM + Hypertension		
Final Diagnosis	DM + Hypertension		
Follow-Up Status	Follow every Wednesday		
Patient's Feedback	"I, Dinesh Mitha Vasava, had high blood sugar and blood pressure for 4-5 years. Upon my first visit to the ambulance, my sugar level was 625 mg/dl. The doctor started treatment for diabetes and hypertension and advised me to strictly maintain my diet. I am thankful to the GMDC GVT Apollo staff and doctor, as my levels are now under control."		

Field	Details
Centre Name	Rajpardi
Patient Visited Dates	13 July, 20 July, 27 July
Patient Name	Champaben Jentibhai Vasava
Age	56 years
Gender	Female
UHID	GMDC5240518132
Chief Complaint	High sugar level + high blood pressure
History of Presenting Illness	History of diabetes and hypertension for 4-5 years. Recently stopped medication for 3-4 months.
	Past Medical History
Diabetic	Yes
Hypertensive	Yes
Heart Disease	No
Any Other History	None
Vitals Recorded	
Height	149 cm
Weight	46 kg
Blood Pressure	130/77 mmHg
SpO2	97%
Pulse Rate	87 bpm
Respiratory Rate	20 bpm
Temperature	Normal
	Intervention & Treatment Advised
1. Telmisartan	40 mg once a day after food (for 14 days)
2. Metformin + Glimipride	500 mg + 1 mg twice a day before food (for 14 days)
Advice	Avoid eating potato, rice, sweets, salty, spicy, and oily foods
Investigations Report	RBS every week & blood pressure measure
Provisional Diagnosis	DM + Hypertension
Final Diagnosis	DM + Hypertension
Follow-Up Status	Follow every Saturday
Patient's Feedback	"I, Champaben Jentibhai Vasava, had high blood sugar and blood pressure for 4-5 years. The doctor started treatment for diabetes and hypertension and advised me to strictly maintain my diet. I am thankful to the GMDC GVT Apollo staff and doctor, as my levels are now under control."

Field	Details
Centre Name	Rajpardi, Bharuch
Patient Visited Dates	18 June, 25 June, 9 July
Patient Name	Mrs. Subadraben Ishwarbhai Vasava
Age	58 years
Gender	Female
UHID	GMC5240618654
Chief Complaint	Skin itch and rash for 3 weeks
History of Presenting	Skin rash with severe itching for 3 weeks, worsened with sweat exposure. No fever, pain, swelling, nausea, vomiting, or
Illness	headache. No other complaints.
	Past Medical History
Diabetic	No
Hypertensive	No
Heart Disease	No
Any Other History	None
Vitals Recorded	
Pulse Rate	96 bpm
Blood Pressure	120/80 mmHg
SpO2	98% on room air
Temperature	Normal
Respiratory Rate	17 cpm
	Intervention & Treatment Advised
1. Terbinafine	250 mg once daily after meal for 7 days
2. Levocetirizine	5 mg once daily after meal for 7 days
3. Clotrimazole Cream	10 mg/g, apply once daily for 7 days
Advice	Take medications as prescribed. Keep area clean and dry, apply ointment twice to thrice daily. Maintain hygiene, avoid tight clothing, avoid brinjal, citrus, and milky foods.
Investigations Report	None
Provisional Diagnosis	Taenia infection
Final Diagnosis	Taenia infection
Follow-Up Status	Patient took treatment for 2 weeks; itching stopped within 2-3 days, and rashes resolved after 10 days.

Field	Details		
Patient Name	Madhuben Vasava		
Age	44		
Gender	Female		
UHID	5s4mzkrwb50b		
Chief Complaint	Itching on arm		
History of Presenting Illness	Skin rashes with itching on arm		
Past Medical History	Diabetic: No, Hypertensive: No, Heart disease: No		
Vitals Recorded	Pulse Rate: 88, SPO2: 98, Temperature: Normal (N), Respiratory Rate: 19		
Intervention & Treatment Advised	Clotrimazole cream, Terbinafine 250mg oral tab, Levocetirizine 5mg		
Investigations Report	Nil		
Provisional Diagnosis	Fungal infection		
Final Diagnosis	Fungal infection		
Follow-up Status	Recovered from fungal infection		
Patient's Feedback	"I am Madhuben Vasava, had skin rashes with itching on arm, got immediate attention of GMDC-GVT MMU and had proper treatment on-site. Very thankful to GMDC GVT APOLLO staff and doctor."		
Dates of Visit	1st Visit: 22nd March, 2nd Visit: 29th March, 3rd Visit: 5th April, 4th Visit: 19th April		

1.2. Chhotaudepur

Field	Details
Centre Name	Kadipani
Patient Visited Dates	5th April 2024, 12th April 2024, 19th April 2024
Patient Name	Karanbhai G Rathva
Age	6
Gender	Male
UHID	bh1d2j5blpww
Chief Complaint	Right parotid swelling
History of Presenting Illness	Patient has right parotid swelling for the last 2 days
Past Medical History	Diabetic: No, Hypertensive: No, Heart disease: No
Vitals Recorded	Pulse Rate: 88, SPO2: 98, Temperature: 98.7°F (3rd visit), Respiratory Rate: 19
Intervention & Treatment Advised	Acetaminophen 125mg/5ml oral syrup, Amoxicillin 200mg & Clavulanic 28.5mg/5ml oral syrup
Investigations Report	Nil
Provisional Diagnosis	Mumps
Final Diagnosis	Mumps Parotitis
Follow-up Status	Recovered from mumps viral infection
Patient's Feedback	"I Karanbhai G Bhil had right side cheek swelling, got immediate attention of GMDC-GVT MMU and had proper treatment on-site. Very thankful to GMDC GVT APOLLO staff and doctor."
Dates of Visit	1st Visit, 5th April, 2nd Visit, 12th April, 3rd Visit, 19th April

4 B. IELLEF FORCE GV Se G S d. similier sourcemes કટકીયા આવે છેલ્લા અનેક લર્જરા) માધામાં ઉદરી ભाषनगर धली हया उरपा छता चल sal. ચર્યુ ન હતું. આભાગ્લી લાન ચૌરડીમાં 2113 છે. તેમાંઘી દલા શરૂ હરવામાં આવ છે. 2410 भा हपाधी भने सामजीना सीमजु साप रमन સ્વાર પયેલું છે. GMD6- 2. ch. 2) जी भेडि84 21 विधा આલુ રાવાથી ફ્રીઓ સારવાર, દવા અને રીપોર ગામમાં જ ચાય છે. સ્પમારે ભીભ ગામમાં દ્વે ગાઈવેટમાં દવા લેવા જવુ પડતું નથી. डोइटर टीम रपनी (जानकट नो प्यूप NYUL ELOCICIE.

2. Newspaper clippings and MMU Schedules



2.1. Newspaper clipping of Jan Chikithsa Seva from Kutch:

જીએમડીસી જીવીટી દારા સીએસઆર પ્રવૃત્તિ હેઠળ સુવિધા ફાળાવાઇ ઉંમરસરના આસપાસના ગામોને હવે મળશે મેડિકલ વાનનો લાભ

ભારકર ન્યૂઝ. દયાપર

ઉમરસર જીએમડીસી જીવીટી દ્વારા સીએસઆર પ્રવૃત્તિ હેઠળ ઉમરસરના આજુબાજુના ગામોમાં હેલ્થ કેર સુવિધા માટે આધુનિક મોબાઈલ મેડિકલ વાન જન ચિકિત્સા સેવાની ગુનેરી ગામે મુકવામાં આવી હતી.

તાલુકા પંચાયત પ્રમુખના પ્રતિનિધિ જાડેજા જસુભા ધ્વારા આ સુવિધાનું ઉદ્ઘાટન

કરવામાં આવ્યુ હતું. તેમના સાથે ગુનેરી જૂથ ગ્રામ પંચાયતના સરપંચના પ્રતિ નિધિ જગુભાઈ ખોખર સાથે જીએમડીસી ઉમરસર પ્રોજેક્ટના ઇનચાર્જ જનરલ મેનેજર એસ.સી જગ્રાવત, છાછીયાભાઇ, આશિષ સુવાગયા, મહોબતસિંહ માશેક તથા ઉપસરપંચ નરેન્દ્રસિંહ જાડેજા, માજી સરપંચ દેવુભા જાડેજા તથા સર્વે ગુનેરી ગામના રતનજી મેઘરાજી જાડેજા, કાનજી જાડેજા,



ગ્રામજનો અને આગેવાનો હાજર રહ્યા હતા.

2.2. MMU'S Kutch Schedule:

Gujarat Mineral Development Corporation Limited (GMDC)													
Location: Lignite Project, Mata No Madh, Tal: Lakhpat/Nakhtrana, Dist: Kutch, Gujarat - 370601,													
	Gramya Vikas Trust (GVT)												
	Mobile Medical Unit Schedule - Mata No Madh (MNM) Project (FY.2024-2025)												
Day	Day	Sr. No	Starting Place	Starting time	Distance km/time	Place of Arrival	Arrival time	Camp Location	Departure time	MMU Stay time	Core & Buffer Project Name	Averag e Usage km per dav	Remark
		1	GMDC colony	09:00 AM	20km/30min.	Kotda Madh	09:30 AM	Near Gram Panchayat office	11:30 AM	120 Min.	Matano Madh		
1	Monday	2	Kotda Madh	11:30 AM	11km/20min.	Mata No Madh	11:50 AM	Near Gram Panchayat office	02:20 PM	120 Min.	Matano Madh	60	Lunch at Matano Madh
		3	Mata No Madh	02:20 PM	18km/30min.	Lifri	02:50 PM	Near Jamalma Temple	04:50 PM	120 Min.	Matano Madh		
2	Tuesday	4	GMDC colony	09:00 AM	2km/10min.	Ravapar	09:10 AM	Near Luhana Samajvadi	01:10 PM	210 Min.	Matano Madh	12	Lunch at Ravapar
_	,	5	Ravapar	01:10 PM	2km/10min.	Nagviri	01:20 PM	Near Nagviri Bus stand	03:50 PM	150 Min.	Matano Madh		
	Wednesda y	6	GMDC colony	09:00 AM	11km/15min.	Mafatnagar	09:15 AM	Near Hajibhai's shop	11:15 AM	120 Min.	Matano Madh	40	
3		7	Mafatnagar	11:15 AM	2km/10min.	Sodha Camp	11:25 AM		01:55 PM	120 Min.	Matano Madh		Lunch at Sodha Camp
_		8	Sodha Camp	01:55 PM	18km/35min.	Mevanagar	02:30 PM	Near Anganwadi kendra	04:15 PM	105 Min.	Matano Madh		
4	Thursday	10	Valka Meta	12:20 PM	14km/30min.	Valka Nana	12:45 PM	Near Masjid Near Pamdaynir Tompla	12:30 PIVI	165 Min	Matano Madh	- 38	Lunch at Nana Valka
_		11	GMDC colony	09:00 AM	26km/45min	Ashanar	09-45 AM	Ashanar Garbi Chowk	12:45 PM	180 Min	Matano Madh		Lunch at Nana Valka
5	Friday	12	Ashapar	12:45 PM	5km/20min.	Bhadra Nan-Mota	01:05 PM	Near Bhadra Mota Anganwadi kendra	04:05 PM	150 Min.	Matano Madh	60	Lanch at Bhadra
6	Saturday	13	GMDC colony	09:00 AM	6km/20min.	Ghadani	09:20 AM	Near Anganwadi kendra, Vathan Chowk	12:20 PM	180 Min.	Matano Madh	17	
		14		10.00.004	cl /20 :	Neveras	12-40 PM	Near Neveves Rus stand	04-00 PM	170 Min	Matano Madh		Lunch at Navavas
		14	Gnadani	12:20 PIVI	6km/20min.	Ivavavas	12.401101	Near Navavas Bus stanu	04.00 FIV	170 10111.	Iviatano iviatin		cullen at wavavas
		14	Gnadani	12:20 PIVI	ькт/20min.	IVavavas	12.40110	ivear ivavavas bus stanu	04.00 P W	170 10111.	Watano Watan		
		14	Gnadani	12:20 PW	6Km/20min.	Navavas	12.40110	ivear ivavavas bus stanu	04.00 PW	170 10111.	Watano Waun		
		14	Gnadani	12:20 PM	Gujarat N	/ineral Dev	elopm	ent Corporation L	imited	(GMD	C)		
		14	Gnadani	12:20 PM	Gujarat N	Aineral Deve	elopm	ent Corporation L	imited	(GMD)	C)		
		14	Gnadani	12:20 PM	Gujarat N	Aineral Devel	elopm , Umarsar,	ent Corporation L Tal: Lakhpat, Dist: Kutch, Gu ílkas Trust (GVT)	imited	(GMD)	C)		
		14	Gnadani	12:20 PM	Gujarat N Locat	Aineral Deve tion: Lignite Project Guile Medical Unit	elopm , Umarsar, iramya \ New Sch	ent Corporation L Tal: Lakhpat, Dist: Kutch, Gu Tikas Trust (GVT) edule - Umsar Project (F)	imited	(GMD)	C)		
Day	Day	Sr. No	Starting Place	Starting time	Gujarat N Locat Mob Distance km/time	Aineral Devo tion: Lignite Project G ile Medical Unit Place of Arrival	elopm , Umarsar, iramya \ New Sch Arrival time	ent Corporation L Tal: Lakhpat, Dist: Kutch, Gu /ikas Trust (GVT) edule - Umsar Project (F) Camp Location	imited ijarat - 3706 (.2024-202 Departure time	(GMD) 01, 25) MMU Stay time	C) Core & Buffer Project Name	Averag e Usage km per day	Remark
Day	Day	Sr. No	Starting Place Umarsar ADM	Starting time 09:00 AM	Gujarat N Locat Mob Distance km/time 6km/15min.	Aineral Deve tion: Lignite Project G ile Medical Unit Place of Arrival Umarsar	elopm , Umarsar, iramya \ New Sch Arrival time 09:15 AM	ent Corporation L Tal: Lakhpat, Dist: Kutch, Gu (ikas Trust (GVT) edule - Umsar Project (F) Camp Location Umarsar Village Chowk	imited ijarat - 3706 7.2024-202 Departure time 11:45 AM	(GMD) 01, 25) MMU Stay time 150 Min.	C) Core & Buffer Project Name Umarsar	Averag e Usage km per day	Remark
Day	Day Monday	14 Sr. No 1 2	Starting Place Umarsar ADM Umarsar	Starting time 09:00 AM 11:45 AM	Gujarat N Locat Mob Distance km/time 6km/15min. 5km/15min.	Aineral Deve tion: Lignite Project G ile Medical Unit Place of Arrival Umarsar Chhuger	elopm , Umarsar, ;ramya \ New Sch Arrival time 09:15 AM 12:00 PM	ent Corporation L Tal: Lakhpat, Dist: Kutch, Gu ikas Trust (GVT) edule - Umsar Project (F) Camp Location Umarsar Village Chowk Village Chowk	imited ijarat - 3706 7.2024-202 Departure time 11:45 AM 02:00 PM	(GMD) 01, 25) MMU Stay time 150 Min. 90 Min.	C) Core & Buffer Project Name Umarsar Umarsar	Averag e Usage km per day	Remark Lunch at Chhuger
Day	Day Monday	14 Sr. No 1 2 3	Starting Place Umarsar ADM Umarsar Chhuger	Starting time 09:00 AM 11:45 AM 02:00 PM	Gujarat N Locat Mob Distance km/time 6km/15min. 5km/15min. 2km/10min.	Aineral Deve tion: Lignite Project G ile Medical Unit Place of Arrival Umarsar Chhuger Chhuger	elopm , Umarsar, iramya \ New Sch Arrival time 09:15 AM 12:00 PM 02:10 PM	ent Corporation L Tal: Lakhpat, Dist: Kutch, Gu fikas Trust (GVT) edule - Umsar Project (FY Camp Location Umarsar Village Chowk Village Chowk Village Chowk	imited 	(GMD) 01, 25) MMU Stay time 150 Min. 120 Min.	C) Core & Buffer Project Name Umarsar Umarsar	Averag e Usage km per day	Remark Lunch at Chhuger
 Day 1 2	Day Monday Tuesday	14 Sr. No 1 2 3 4	Starting Place Umarsar ADM Umarsar Chhuger Umarsar ADM	Starting time 09:00 AM 11:45 AM 02:00 PM 09:00 AM	Gujarat N Locat Mob Distance km/time 6km/15min. 5km/15min. 2km/10min. 10km/30min.	Aineral Deve tion: Lignite Project G ile Medical Unit Place of Arrival Umarsar Chhuger Chhuger Chhuger	elopm , Umarsar, iramya \ Arrival time 09:15 AM 12:00 PM 02:10 PM 09:30 AM	ent Corporation L Tal: Lakhpat, Dist: Kutch, Gu (ikas Trust (GVT) edule - Umsar Project (FY Camp Location Umarsar Village Chowk Village Chowk Village Chowk Village Chowk	imited jarat - 3706 /.2024-202 Departure time 11:45 AM 02:00 PM 04:10 PM 12:30 PM	(GMD) 01, 25) MMU Stay time 150 Min. 120 Min. 180 Min.	Core & Buffer Project Name Umarsar Umarsar Umarsar Umarsar	Averag e Usage km per day	Remark
 Day 1 2	Day Monday Tuesday	Sr. No 1 2 3 4 5	Starting Place Umarsar ADM Umarsar Chhuger Umarsar ADM Guneri	12:20 PM Starting time 09:00 AM 11:45 AM 09:00 PM 09:00 AM 12:30 PM	Gujarat N Locat Mob Distance km/time 6km/15min. 2km/10min. 0km/30min. 6km/15min.	Aineral Deve tion: Lignite Project G ile Medical Unit Place of Arrival Umarsar Chhugervandh Guneri Sayra	elopm , Umarsar, ,ramya \ New Sch Arrival time 09:15 AM 12:00 PM 02:10 PM 09:30 AM 12:45 PM	ent Corporation L Tal: Lakhpat, Dist: Kutch, Gu (ikas Trust (GVT) edule - Umsar Project (FV Camp Location Umarsar Village Chowk Village Chowk Village Chowk Village Chowk	imited ijarat - 3706 /.2024-202 Departure time 11:45 AM 02:00 PM 04:10 PM 12:30 PM 03:45 PM	(GMD) 01, 25) MMU Stay time 150 Min. 120 Min. 120 Min. 150 Min.	C) Core & Buffer Project Name Umarsar Umarsar Umarsar Umarsar	Averag e Usage km per day	Remark Lunch at Chhuger
Day 1 2 3	Day Monday Tuesday Wednesda	14 Sr. No 1 2 3 4 5 6	Starting Place Umarsar ADM Umarsar Chhuger Umarsar ADM Umarsar ADM	Starting time 09:00 AM 11:45 AM 09:00 AM 12:30 PM 09:00 AM	Gujarat N Locat Mob Distance km/time 6km/15min. 2km/15min. 10km/30min. 10km/50min. cshc/15min.	Aineral Deve tion: Lignite Project G ile Medical Unit Place of Arrival Umarsar Chhugervandh Guneri Sayra Mudhan	elopm , Umarsar, ramya \ New Sch Arrival time 09:15 AM 12:00 PM 09:10 PM 09:30 AM 12:45 PM 09:50 AM	ent Corporation L Tal: Lakhpat, Dist: Kutch, Gu (Ikas Trust (GVT) edule - Umsar Project (F) Camp Location Umarsar Village Chowk Village Chowk Village Chowk Village Chowk Village Chowk	imited ijarat - 3706 (.2024-202 Departure time 11:45 AM 02:00 PM 04:10 PM 12:30 PM 12:30 PM 12:30 PM	(GMD) 01, 25) MMU Stay time 150 Min. 120 Min. 120 Min. 130 Min. 150 Min.	C) Core & Buffer Project Name Umarsar Umarsar Umarsar Umarsar Umarsar	Averag e Usage km per day	Remark Lunch at Chhuger
Day 1 2 3	Day Monday Tuesday Wednesda Y	Sr. No 1 2 3 4 5 6 6 7 7	Starting Place Umarsar ADM Umarsar Chhuger Umarsar ADM Guneri Umarsar ADM Mudhan	2:20 PM Starting time 09:00 AM 11:45 AM 09:00 PM 09:00 AM 12:30 PM 09:00 AM	Gujarat N Locat Mob Distance km/time 6km/15min. 5km/15min. 2km/10min. 10km/30min. 2km/15min. 23km/50min. 6km/15min.	Aineral Deve tion: Lignite Project G ile Medical Unit Place of Arrival Umarsar Chhuger Chhuger Chhuger Chhuger Guneri Sayra Mudhan Shiyot	elopm , Umarsar, iramya \ New Sch Arrival time 09:15 AM 12:00 PM 09:30 AM 09:30 AM 09:50 AM 09:50 AM	ent Corporation L Tal: Lakhpat, Dist: Kutch, Gu (ikas Trust (GVT) edule - Umsar Project (F) Camp Location Umarsar Village Chowk Village Chowk Village Chowk Village Chowk Village Chowk Village Chowk Village Chowk	imited ijarat - 3706 (.2024-202 Departure time 11:45 AM 02:00 PM 04:10 PM 12:30 PM 03:45 PM 12:50 PM 04:05 FM	(GMD) 01, 25) MMU Stay time 150 Min. 120 Min. 180 Min. 150 Min. 150 Min. 150 Min.	Core & Buffer Project Name Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar	Averag e Usage km per day	Remark Lunch at Chhuger Lunch at Sayra Lunch at Siyot
Day 1 2 3 4	Day Monday Tuesday Wednesda y Thursday	Sr. No 1 2 3 4 5 6 7 7 8 9	Starting Place Umarsar ADM Umarsar Chhuger Umarsar ADM Guneri Umarsar ADM Mudhan Umarsar ADM	12:20 PM Starting time 09:00 AM 09:00 AM 12:30 PM 09:00 AM 12:50 PM 09:00 AM	Gujarat N Locat Mob Distance km/time 6km/15min. 2km/10min. 10km/30min. 6km/15min. 28km/50min. 8km/15min.	Aineral Deve tion: Lignite Project G ile Medical Unit Place of Arrival Umarsar Chhuger Chhuger Chhugervandh Guneri Sayra Mudhan Shiyot Atdo	212-30 FM 21000000000000000000000000000000000000	ent Corporation L Tal: Lakhpat, Dist: Kutch, Gu fikas Trust (GVT) edule - Umsar Project (FV Camp Location Umarsar Village Chowk Village Chowk Village Chowk Village Chowk Village Chowk Village Chowk Village Chowk	imited ijarat - 3706 /.2024-202 Departure time 11:45 AM 02:00 PM 04:10 PM 12:30 PM 04:05 PM 12:30 PM 04:05 PM	(GMD) 01, 25) MMU Stay time 150 Min. 120 Min. 120 Min. 130 Min. 130 Min. 130 Min. 130 Min.	Core & Buffer Project Name Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar	Averag e Usage km per day	Remark Lunch at Chhuger Lunch at Sayra Lunch at Siyot Lunch at Gaduli
Day 1 2 3 4	Day Monday Tuesday Wednesda y Thursday	14 Sr. No 1 2 3 4 5 6 6 7 8 9 9 10	Starting Place Umarsar ADM Umarsar Chhuger Umarsar ADM Guneri Umarsar ADM Mudhan Umarsar ADM Atdo Umarsar ADM	2:20 PM Starting time 09:00 AM 11:45 AM 02:00 PM 09:00 AM 12:30 PM 12:50 PM 09:00 AM 12:30 PM	Gujarat N Locat Mob Distance km/time 6km/15min. 2km/15min. 2km/15min. 6km/15min. 23km/50min. 6km/15min. 20km/30min.	Aineral Deve tion: Lignite Project G ile Medical Unit Place of Arrival Umarsar Chhuger Chhuger Chhuger Chhuger Atao Sayra Mudhan Shiyot Atdo Gaduli Lakhpat	212:30 fm 210000 2100	ent Corporation L Tal: Lakhpat, Dist: Kutch, Gu (ikas Trust (GVT) edule - Umsar Project (F) Camp Location Umarsar Village Chowk Village Chowk	imited ijarat - 3706 (.2024-202 Departure time 11:45 AM 02:00 PM 04:10 PM 12:30 PM 04:05 PM 12:30 PM 04:15 PM 12:30 PM	(GMD) 01, 25) MMU Stay time 150 Min. 120 Min. 150 Min. 150 Min. 150 Min. 150 Min. 150 Min. 180 Min. 210 Min.	Core & Buffer Project Name Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Lakhpat- Punrajpur	Averag e Usage km per day	Remark Lunch at Chhuger Lunch at Sayra Lunch at Siyot Lunch at Gaduli
Day 1 2 3 4	Day Monday Tuesday Wednesda Y Thursday Friday	Sr. No 1 2 3 4 5 6 7 7 8 9 10 11	Starting Place Umarsar ADM Umarsar Chhuger Umarsar ADM Mudhan Umarsar ADM Mudhan Umarsar ADM Lakhpat	12:20 PM Starting time 09:00 AM 11:45 AM 09:00 AM 12:30 PM 09:00 AM 12:30 PM 09:00 AM 12:30 PM	Gujarat N Locat Mob Distance km/time 6km/15min. 2km/15min. 2km/30min. 6km/15min. 20km/30min. 8km/15min. 10km/30min. 6km/15min.	Aineral Deve tion: Lignite Project G ile Medical Unit Place of Arrival Umarsar Chhuger Chuger	212-30 FM 2100000 21000000000000000000000000000	ent Corporation L Tal: Lakhpat, Dist: Kutch, Gu (ikas Trust (GVT) edule - Umsar Project (F) Camp Location Umarsar Village Chowk Village Chowk	imited ijarat - 3706 (.2024-202 Departure time 11:45 AM 02:00 PM 04:10 PM 12:30 PM 04:15 PM 12:30 PM 04:15 PM 12:30 PM 03:45 PM	(GMD) 01, 25) MMU Stay 150 Min. 120 Min. 120 Min. 150 Min. 150 Min. 180 Min. 180 Min. 180 Min. 180 Min.	Core & Buffer Project Name Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar	Averag e Usage km per day	Remark Lunch at Chhuger Lunch at Sayra Lunch at Sayra Lunch at Gaduli Lunch at Gaduli Lanch at Kanner
Day 1 2 3 4 5	Day Monday Tuesday Wednesda y Thursday Friday	Sr. No 1 2 3 4 5 6 7 8 9 10 11 12	Starting Place Umarsar ADM Umarsar ADM Guneri Umarsar ADM Mudhan Umarsar ADM Atdo Umarsar ADM Lakhpat Umarsar ADM	12:20 PM Starting time 09:00 AM 11:45 AM 09:00 PM 09:00 AM 12:30 PM 09:00 AM 12:30 PM 09:00 AM 09:00 AM	Gujarat N Locat Mob Distance km/time 6km/15min. 2km/15min. 2km/15min. 23km/50min. 6km/15min. 20km/30min. 10km/30min. 10km/30min.	Aineral Deve tion: Lignite Project G ile Medical Unit Place of Arrival Umarsar Chhuger Chhuger Chhuger Chhuger Mudhan Shiyot Atdo Gaduli Lakhpat Kanner Baiyavo	212:30 fm 21000 2100	ent Corporation L Tal: Lakhpat, Dist: Kutch, Gu (ikas Trust (GVT) edule - Umsar Project (F) Camp Location Umarsar Village Chowk Village Chowk	imited ijarat - 3706 (.2024-202 Departure time 11:45 AM 02:00 PM 04:10 PM 12:30 PM 04:05 PM 12:30 PM 04:15 PM 12:30 PM 03:45 PM 12:30 PM	(GMD) 01, 25) MMU Stay time 150 Min. 120 Min. 150 Min. 150 Min. 150 Min. 150 Min. 180 Min. 180 Min. 180 Min.	Core & Buffer Project Name Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Umarsar Lakhpat- Punrajpur Panandhro Ext.	Averag e Usage km per day	Remark Lunch at Chhuger Lunch at Sayra Lunch at Siyot Lunch at Gaduli Lunch at Kanner

2.3. MMU's Surat Schedule:

	Lignite Project Tadkeshwar									
Week-1&3										
Days	Location	Time								
	Tadkeshwar (Talav Faliyu)	12:30 PM to 03:00 PM								
Monday	Tadkeshwar (Grampanchayat)	03:30 PM to 07:00 PM								
	Tadkeshwar (Tanki faliyu)	09:00 AM to 11:00 AM								
	Tadkeshwar (Mergha Faliyu)	11:15 AM to 01:00 PM								
Tuesday	Tadkeshwar (Khodi amli)	02:00 PM to 04:30 PM								
	Roswad	09:30 AM to 12:30 PM								
Wenesday	New Roswad	01:00 PM to 04:30 PM								
	Ushker	09:30 AM to 12:30 PM								
Thursday	Munjlav	01:00 PM to 04:30 PM								
	Togapur	09:30 AM to 12:30 PM								
Friday	Dharampur	01:00 PM to 04:30 PM								
	varethi	09:30 AM to 12:30 PM								
Saturday	Tadkeshwar (Parsi Faliyu)	01:30 PM to 04:30 PM								
	Lignite Project Ghala									
	Week-2&4									
Days	Location	Time								
	Ghala (Grampanchayat)	09:30 AM to 12:30 PM								
Monday	Ghala (Ramvison colony)	01:00 PM to 04:30 PM								
	Dungra	09:30 AM to 12:30 PM								
Tuesday	Dhatva	01:00 PM to 04:30 PM								
	Karjan	09:30 AM to 12:30 PM								
Wenesday	virpur	01:00 PM to 04:30 PM								
	Machii	09:30 AM to 12:30 PM								
Thursday	Bodhan	01:00 PM to 04:30 PM								
	vadod	09:30 AM to 12:30 PM								
Friday	Nogama	01:00 PM to 04:30 PM								
	vadesiya	09:30 AM to 12:30 PM								
Saturday	kolakui	01:00 PM to 04:30 PM								

3. Interview Questionnaire

Introduction:

• Facilitator's Opening Remarks: Welcome the participant, explaining the purpose of the interview. The goal is to gather feedback on the Jan Chikitsa Seva Project, focusing on the healthcare services provided to villagers and to understand the doctor's experiences in implementing the scheme in the village. Encourage an open discussion and let the participant know that their feedback is essential for improving the project.

• **Participant Introduction**: Please introduce yourself (name, role in the Jan Chikitsa Seva scheme, and the village where you serve).

Section 1: Overview of the Jan Chikitsa Seva Scheme

- 1. When did the Jan Chikitsa Seva scheme start in your village?
 - Follow-up: Can you describe how the scheme was introduced and its initial impact on the community?
- 2. What do you believe is the primary objective of the Jan Chikitsa Seva scheme?
 - Follow-up: Do you think the objectives have been effectively communicated to the community?

Section 2: Health Issues and Service Delivery

- 3. Which disease or health issue do you find is most prevalent among the villagers?
 - Follow-up: How does this condition affect the community, and how does the scheme address *it*?

Section 3: Challenges and Implementation

- 4. What are the major challenges you have faced in implementing the scheme in your village?
 - Follow-up: Have there been any specific obstacles related to patient access, logistics, or community engagement?
- 5. How many types of medical tests and services are available through the Mobile Medical Units (MMUs)?
 - Follow-up: Are there any critical health services or diagnostic tests that are missing or need to be added?

Section 4: Effectiveness and Improvement

- 6. In your opinion, how can the Jan Chikitsa Seva scheme be made more effective?
 - Follow-up: Are there any specific areas, such as outreach, frequency of visits, or services provided, that need improvement?
- 7. What specific recommendations would you provide to enhance the effectiveness of the scheme?
 - Follow-up: Do you think increasing awareness or training for healthcare workers would improve service delivery?

Section 5: Community Engagement and Impact

8. How has the local community responded to the Jan Chikitsa Seva scheme?

• Follow-up: Are there any challenges in getting the community to trust or engage with the services provided?

- **9.** How can local leaders or community members be more involved in ensuring the success of the scheme?
 - Follow-up: Have you seen any positive changes in community support since the scheme began?

Section 6: Sustainability and Expansion

- **10.** What factors are critical for ensuring the long-term sustainability of the Jan Chikitsa Seva scheme?
 - Follow-up: How can these factors be addressed to ensure that the scheme continues to serve the community effectively?
- 11. Do you believe the scheme should be expanded to other villages or regions?
 - Follow-up: What do you think are the potential challenges in expanding the scheme, and how could they be overcome?

Section 7: Closing Reflections

- **12.** Do you think the Jan Chikitsa Seva scheme has made a lasting impact on the health of the community?
 - Follow-up: Can you share any specific stories or examples where the scheme helped improve a person's health?
- **13.** Would you suggest any further improvements or adjustments to the Jan Chikitsa Seva scheme?
 - Follow-up: If you had the authority, what one change would you implement to improve the scheme?
- 14. Any final thoughts or recommendations on how the Jan Chikitsa Seva scheme can evolve or expand in the future?
 - Follow-up: What other services or programs would you like to see incorporated into this project?

Facilitator's Closing Remarks:

- Summarize the key points discussed during the interview.
- Thank the participant for their valuable insights.
- Explain how their feedback will contribute to improving the Jan Chikitsa Seva project.