

Impact Assessment Report Providing Medical Equipment to Khliehriat Civil Hospital and Sutnga Community Health Center, Meghalaya

Project Code - P0745

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Chapter 1 Project Overview and CSR Initiatives of HDFC Bank

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Chapter 1 Project Overview and CSR Initiatives of HDFC Bank

1.1 HDFC Bank's CSR Initiatives

HDFC Bank's Corporate Social Responsibility (CSR) initiative, "Parivartan¹," is committed to driving sustainable and holistic development throughout India. Operating across all states and union territories, Parivartan focuses on creating sustainable livelihoods for marginalized communities, with a particular emphasis on empowering women.

The initiative addresses critical areas such as rural development, education, skill enhancement, healthcare, financial literacy, and environmental sustainability.

By aligning its efforts with the United Nations Sustainable Development Goals (SDGs) and India's development priorities, Parivartan aims to foster self-sufficiency and social integration among underserved populations.

Additionally, the program plays a pivotal role in disaster response, facilitating infrastructure restoration and community rehabilitation in the aftermath of natural calamities. Through these multifaceted interventions, HDFC Bank strives to effect positive change and contribute to the nation's progress.

Parivartan's efforts are concentrated in six key areas:

Rural Development Through the Holistic Rural Development Programme (HRDP), Parivartan enhances natural resources and promotes their optimal use for community economic development

Aligned with the Sarva Shiksha Abhiyan, Parivartan aims to improve education quality by training teachers, offering scholarships, and upgrading school infrastructure.

Educational Promotion

¹ <u>https://v.hdfcbank.com/csr/index.html</u>

Skill Development and Livelihood Enhancement Parivartan provides vocational training to enhance employability and create sustainable livelihoods.

Recognizing the importance of financial awareness, Parivartan conducts literacy camps and workshops to educate individuals on banking, savings, and financial planning. Financial Literacy and Inclusion

Healthcare and Hygiene

The initiative addresses healthcare needs by organizing health camps, mobile clinics, and sanitation projects.

Parivartan undertakes environmental initiatives such as reforestation, clean energy projects, and waste management to promote sustainability and reduce the carbon footprint.

Environmental Sustainability

1.2 About the Project

HDFC Bank Parivartan, in collaboration with People-to-People Health Foundation (PPHF) as the implementation partner, has undertaken a significant initiative to strengthen healthcare infrastructure in the East Jaintia Hills District of Meghalaya. As part of this effort, a Digital X-ray Machine and an Endoscopy Machine were provided to Khliehriat Civil Hospital, while an Ultrasound Machine was installed at Sutnga Community Health Center. These diagnostic tools aim to improve the hospitals' ability to deliver accurate and timely patient care to the local communities.

Chapter 2 Design and Approach for Impact Assessment

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Chapter 2: Impact Assessment Design & Approach

This section provides an overview of the objectives of the study, the adopted research methodology and other details revolving around the study.

2.1 Objectives of the Study



2.2 Evaluation approach, methodology and framework

To evaluate the impact, pre-post а programme evaluation approach was implemented in the study. This method relied on the recall capacity of the respondents. Within this approach, beneficiaries were asked about the conditions in absence of. and after the programme intervention to gauge the extent to which the programme contributed to improving their intended conditions. While this approach proved valuable in assessing the programme's impact on enhancing living standards, it was acknowledged that not all changes could be exclusively attributed to the programme.



For the assessment of the programme, a two-pronged approach was employed for data collection and review that included secondary data sources and literature, as well as primary data obtained through quantitative and qualitative methods of data collection. The figure below illustrates the study approach used in data collection and review. The secondary study involved a review of annual reports, monitoring reports, and other studies and research by renowned

organisations available in the public domain for drawing insights into the situation of the area. The primary study comprised qualitative and quantitative approaches to data collection and analysis. Quantitative primary data was gathered through structured surveys from patients and medical staff trained on the machines, while qualitative data collection involved in-depth interviews (IDIs) and key informant interviews (KIIs) during field visits



OECD-DAC Framework

Given the study's objectives to determine the project's effectiveness, efficiency, impact created and sustainability, the evaluation has used the **OECD-DAC Framework**. Using the criteria of the OECD-DAC framework, the evaluation has assessed HDFC Bank's contribution to the results while keeping in mind the multiplicity of factors that may be affecting the overall outcome. The social impact assessment hinges on the following pillars:



The impact assessment has aligned itself with the parameters as per the criteria mentioned in the Terms of Reference. The following parameters are prioritised to satisfy the criteria of the Impact Assessment – **Relevance, Coherence, Effectiveness, Efficiency, Impact, and Sustainability.**

2.3 Sampling Approach

This impact assessment employed a **mixed-methods approach**, utilising both quantitative and qualitative data collection methods to ensure a comprehensive and nuanced understanding of impact of provision of essential diagnostic equipment like Digital X-Ray Machine and Endoscopy Machine in Khliehriat Civil Hospital and Ultrasound Machine in Sutnga Community Health Center.

2.3.1. Quantitative Sampling plan

CSRBOX adopted a simple random stratified sampling strategy to ensure a representative sample set for the impact study. The quantitative sampling included random data collection from visiting patients who availed the facility of the equipment installed.

| A. Quantitative Stakeholders | | | | |
|------------------------------|--|----------------------------|------------------------------|--|
| SI. No. | Stakeholder | Mode of data Collection | Total No. of Interactions | |
| A1 | Patients | Survey | 25 | |
| A2 | Pregnant mothers / women | Survey | 5 | |
| A3 | Medical staff trained on installed Equipment | Survey | 5 | |
| | Total | 35* | | |

Table 1 Qualitative stakeholder mapping

(***Note**: - Due to the absence of trained medical staff for the endoscopy machine at Khliehriat Hospital and only one trained professional for the ultrasound machine at Sutnga CHC, we were able to conduct 35 surveys instead of the originally proposed 39.)

2.3.1. Qualitative Sampling plan

In alignment with the study, we conducted approximately **11 In-Depth Interviews (IDIs) and Key Informant Interviews (KIIs)** and **8 In-Depth Interviews (IDIs) and Key Informant Interviews (KIIs)** in Khliehriat Civil Hospital and Sutnga Community Health Center respectively. These conversations involved stakeholders such as doctors, patients, Hospital management, the project implementation team amongst others.

| B. Qualitative Stakeholders - Khliehriat Civil Hospital | | | | | | |
|---|---|----------------------------|------------------------------|--|--|--|
| SI. No. | Stakeholder | Mode of data Collection | Total No. of Interactions | | | |
| B1 | Medical Superintendent | KII | 1 | | | |
| B2 | Doctors | KII | 3 | | | |
| B3 | Patients benefitting from the intervention | IDI | 4 | | | |
| B6 | Vendor Agency | KII | 1 | | | |

| B7 Implementation Agency | | KII | 1 |
|--|--|-----|----|
| B8 HDFC Bank CSR Team (including local SPOC) | | KII | 1 |
| Total | | | 11 |

Table 2 Qualitative Stakeholder - Khliehriat Civil Hospital

| C. Qualitative Stakeholders - Sutnga Community Health Center | | | | |
|--|--|--|--|--|
| Stakeholder | Mode of data Collection | Total No. of Interactions | | |
| Doctors | KII | 1 | | |
| Local ANM, ASHA Workers | KII | 2 | | |
| Patients benefitting from the intervention | IDI | 2 | | |
| Vendor Agency | KII | 1 | | |
| B5 Implementation Agency | | 1 | | |
| HDFC Bank CSR Team (including local SPOC) | KII | 1 | | |
| Total 8 | | | | |
| | Itative Stakeholders - Sutnga Commu Stakeholder Doctors Local ANM, ASHA Workers Patients benefitting from the intervention Vendor Agency Implementation Agency HDFC Bank CSR Team (including local SPOC) Total | litative Stakeholders - Sutnga Community Health CenterStakeholderMode of data CollectionDoctorsKIILocal ANM, ASHA WorkersKIIPatients benefitting from the interventionIDIVendor AgencyKIIImplementation AgencyKIIHDFC Bank CSR Team (including local SPOC)KII | | |

Table 3 Qualitative Stakeholder - Sutnga Community Health Center

2.4 Theory of Change

| tputs | Outcomes | Impacts |
|--|--|--|
| (one) Digital X- y Machine in iehriat Civil spital (one) unit doscopy chine in iehriat Civil spital (one) casound chine in Sutnga mmunity Health nter X Patient tfall at 2 health iters | Improved diagnostic facility and efficiency in underserved regions Reduced patient wait time and referrals to distant hospitals Continuous availability for emergency and routine cases Reduced financial burden on patients Improved healthcare access in remote locations | Strengthened hospital's diagnostic capacity Faster treatment, reduced referrals, and better patient's health outcomes Long term reduction in Financial and Logistical Burden for patients Reduction in time to accessing concerned medical services Increased Accessibility to Quality Care, including Improved antenatal care leading to better health outcomes for mothers |
| raining sions | Improved competency in handling advanced | and newborns |
| | raining sions ducted | raining Improved sions competency in ducted handling advanced |

| | installed equipment. | 3 Staff attended the training session for Digital Xray 1 Staff attended the training session for Endoscopy machine 1 Staff attended the training session for USG machine | medical equipment Efficient and accurate diagnosis leading to better patient outcomes | Sustainable diagnostic services due to trained professionals and regular maintenance |
|---|-----------------------------------|---|--|---|
| 3 | Maintenance and Support Visits | Maintenance and Support visits scheduled at Khliehriat Hospital Maintenance and Support visits completed at Khliehriat Hospital Technical issues faced Technical issues resolved on time | Increased uptime of medical equipment Ensured continuous availability of diagnostic services | |

Table 4 Theory of Change

-Note: The data marked with an () has been sourced from the hospital records provided for the fiscal year January 2024 – December 2024 post installation of Equipment.

Chapter 3 Findings of the Impact Assessment Study

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Chapter 3 Findings of the Impact Assessment Study

The essential diagnostic equipment provided under the CSR support aim to enhance the facility and efficiency of medical diagnosis, ensuring better patient outcomes.

The **Digital X-ray Machine provided at Khliehriat Civil Hospital** is designed to provide highquality imaging with reduced ionizing radiation exposure, enhancing safety for both patients and medical staff. The **Endoscopy Machine at the Khliehriat Civil Hospital** enables early and precise detection of gastrointestinal conditions, facilitating timely medical intervention. Additionally, the **Ultrasound Machine at Sutnga Community Health Center** strengthens maternal and general healthcare services by offering non-invasive, real-time imaging for accurate diagnosis. By integrating these advanced diagnostic systems, the project aims to improve healthcare accessibility, enhance the quality of diagnosis and treatment, and ensure safer and more efficient medical procedures for the local population.

The following section of the report indicates the key findings and insights drawn from the impact assessment study based on the OECD-DAC framework's standard parameters as outlined. The insights have been drawn adopting a 360-degree approach to data collection by gathering data through quantitative and qualitative methods from multiple stakeholders involved in the programme.

3.1 Relevance

The following section highlights the relevance and necessity of the intervention. The examination of these factors helps in understanding the impact of the project.

3.1.1 Beneficiary Details

Patient Profile of Khliehriat Civil Hospital

The installation of **Digital X-ray and Endoscopy machines** at **Khliehriat Civil Hospital** has significantly enhanced diagnostic capabilities, making essential healthcare services more accessible to patients in East Jaintia Hills district.

The gender distribution indicates that a majority (67%) of patients accessing these services are male, while females constitute 33% of the beneficiaries. This trend aligns with field observation, where a significant portion of X-ray cases involves road traffic accidents—an issue that predominantly affects male patients.

Age distribution data further highlights that the highest proportion of patients (77%) are below 35 years age group. This suggests that younger and middle-aged individuals, who are more prone to occupational hazards and accidents, are the primary visiting the hospital to get X-ray test done.



Figure 2 Gender Distribution of Patients



Figure 3 Ethnic Background of Patients



Figure 1 Age Distribution of patients

Ethnically, the vast majority of patients (89%) belong to the Jaintia community, reflecting the hospital's role as a crucial healthcare provider for the local population in East Jaintia Hills. Few patients come from diverse ethnic backgrounds, like Nepali or Assamese.

55% of the patients have completed school education but 33% have no formal education highlighting their limitation to understand medical instructions, follow treatment plans, and make informed health decisions.



A significant portion of patients are daily wage labourers (33%) and with low household income, as 67% earn between ₹5,000–₹10,000 per month, highlighting financial constraints that may limit access to quality healthcare. Financial barriers, coupled with occupation-related risks among labourers, emphasize the need for accessible and affordable healthcare services in the region.







Figure 5 Monthly household income of the patients

The survey reveals that 67% of patients are covered under the Megha Health Insurance Scheme (MHIS). While MHIS provides financial protection for a majority, the uninsured population remains vulnerable to out-of-pocket healthcare expenses.

Figure 7 Health Insurance with Patients

Patient Profile at Sutnga Community Health Center

The project intervention has been specifically benefitting the pregnant women from remote villages attending routine antenatal checkups at **Sutnga CHC** who now have access to ultrasound services locally, following the installation of a new **USG machine**.

The pregnant women attending antenatal checkups at Sutnga CHC come from diverse backgrounds. Most belong to the early reproductive age group and have had some level of

schooling, with 60% completing secondary education. Ethnically, 60% are from the Jaintia community, while the remaining 40% are primarily of Nepali origin. These insights highlight the need for continued antenatal care and tailored health services to support both first-time and experienced mothers. (Fig 1,2,3)



Figure 9 Age distribution of pregnant women





Figure 10 Educational qualification of pregnant women



Image 1 Patients in Khliehriat Civil Hospital

The survey indicated that 40% of pregnant women attending antenatal checkups at Sutnga CHC are covered under the Megha Health Insurance Scheme (MHIS) which is a state sponsored health insurance scheme. MHIS plays a crucial role in maternal healthcare by covering expenses related to antenatal care, delivery, and postnatal services.



Figure 11 Health Insurance of the pregnant women beneficiaries

3.1.2 X-ray facilities before the intervention

Before the project intervention, 68% of patients had to travel to a government hospital in another district for an X-ray, indicating significant barriers in accessibility. The remaining 32% relied on private hospitals, likely incurring higher costs.



Figure 12 Healthcare Facility availed to do X-ray test pre-intervention

Interaction with the patients revealed significant barriers they had to face in accessing X-ray services before the project. 89% of patients had to travel over 50 km, primarily to Shillong or Jowai. Adding to the logistical burdens, majority (89%) of patients had to wait 1-3 days to get their X-ray results, further prolonging the healthcare process.



Figure 14 Distance travelled to do X-ray test pre-intervention



The data highlights the substantial financial and logistical challenges patients faced in accessing X-ray services before the intervention. A majority (90%) incurred out-of-pocket expenses from ₹500 to ₹2,000. Travel costs further compounded this burden, with 67% of patients spending ₹500–₹1,000 just to reach a healthcare facility. Given that patients had to travel long distances accessing essential diagnostic services was both time-consuming and financially straining.



Figure 16 Amount spend on X-ray test pre-intervention

Figure 15 Amount spend on travel to health facility pre-intervention

These findings underscore the urgent need for strengthening local diagnostic infrastructure to reduce dependency on distant healthcare facilities. Establishing accessible and affordable X-ray

services within the community would significantly alleviate financial hardships and improve timely access to critical diagnostic care.



3.1.3 Ultrasound facilities before the intervention

Figure 18 Facilities availed for Ultrasound scans in last pregnancy Figure 17 Distance travelled pre-intervention to do USG test

Interactions with the beneficiaries revealed that 80% of pregnant women opted for ultrasound scans at private hospitals, traveling nearly 30 km from Khliehriat to Jowai—the nearest city with both government and private diagnostic facilities. This highlights a significant gap in accessible and quality ultrasound services within local healthcare centers, compelling women to undertake long journeys even for routine antenatal care. This emphasises the need for improved diagnostic infrastructure in closer proximity to these communities.





Figure 19 Amount paid for travel to do Ultrasound test preintervention

The data highlights significant financial and accessibility barriers faced by pregnant women in obtaining ultrasound scans. With 80% incurring out-of-pocket expenses—60% spending ₹1,000–₹2,000 for per Ultrasounds test. Travel costs add to this burden, with 60% of women spending ₹500–₹1,000 just to reach a facility, primarily in Jowai. These insights underscore the absence of affordable and accessible maternal healthcare services locally, forcing women to rely on distant private hospitals.

3.1.4 Issues Faced by the stakeholders prior to intervention

Patients

Detailed survey with the patients reveals significant barriers they faced in accessing X-ray services, primarily due to long travel distances, high costs, and logistical challenges.



Figure 21 Challenges Faced by patients to avail X-ray services pre-intervention

Before the installation of the X-ray machine at Khliehriat Hospital, both patients and healthcare providers faced significant challenges due to the absence of in-house diagnostic facilities. **Every patient (100%) reported traveling long distances to access imaging services,** with 78% struggling with high costs and limited transportation options. This lack of accessibility left many with no viable alternatives, further exacerbating their difficulties. Additionally, 67% of patients reported losing daily earnings due to time spent traveling and waiting in overcrowded government hospitals, where long queues delayed essential care.

According to the hospital doctors, Khliehriat Civil Hospital lacked essential diagnostic equipment before, relying only on clinical examinations and blood tests. **Patients requiring imaging, such**

as X-rays, were referred to Shillong, 100 km away, leading to delays in diagnosis and treatment. Fractures, lung infections, and other conditions often worsened due to these delays, particularly for emergency cases like accident victims. The frequent referrals to Jowai and Shillong strained neighbouring hospitals as well. The absence of in-house X-ray services also hindered the diagnosis of respiratory diseases, orthopaedic injuries, and gastrointestinal disorders, affecting both patient outcomes and hospital efficiency.

These insights underscore the urgent need for government-supported diagnostic facilities in underserved areas like East Jaintia Hills. Upgrading medical infrastructure and improving transportation access would enhance healthcare affordability and accessibility.

Medical Staffs

Before the intervention, the X-ray technicians at the Civil Hospital faced significant challenges that affected the efficiency and accuracy of diagnostic imaging. With a small team managing a high patient load daily, long waiting times and technician fatigue were common issues. The reliance on older or portable X-ray machines often resulted in unclear imaging, requiring repeat scans and delaying diagnosis. Manual record-keeping further slowed down patient data retrieval and report generation, impacting treatment timelines. These limitations underscored the urgent need for modernization—introducing advanced equipment, digital integration, and targeted training to improve efficiency and enhance the quality of patient care.





Figure 22 Challenges faced to do Ultrasound test in previous pregnancy

Prior to the installation of the ultrasound machine at Sutnga CHC, pregnant women faced significant challenges in accessing essential diagnostic services. With the nearest services available at farther cities, most opted for private hospitals despite the high costs, as government facilities had long wait times. This travel burden was particularly strenuous for expectant mothers, leading to delays in essential prenatal check-ups and increasing the risk of pregnancy complications. Beyond medical expenses, travel added to the financial strain, compounded by limited transportation options. The compounded effects of high costs, long distances, and inadequate transportation highlighted critical gaps in maternal healthcare infrastructure before.

Healthcare providers at Sutnga CHC noted that due to financial constraints and the lack of immediate access to ultrasound services, many women either missed critical scans or postponed them, relying instead on symptoms rather than diagnostic confirmation. This often led to late identification of pregnancy-related complications, reducing the window for timely medical interventions.

This situation underscored the urgent need for an in-house ultrasound facility to improve maternal healthcare access, reduce financial burdens, and enhance early detection of pregnancy risks.

- The installation of in-house X-ray, endoscopy, and ultrasound facilities has eliminated the need for patients to travel long distances for diagnostic services, ensuring timely medical care.
- With accessible and cost-effective diagnostics, patients no longer have to delay or forgo necessary medical tests due to financial constraints.
- Upgraded medical equipment has enhanced the quality and efficiency of diagnostic services for the patients.
- Healthcare providers have received training in digital imaging, equipping them with the skills needed to deliver high-quality diagnostics.
- These improvements have strengthened the healthcare infrastructure, ensuring that diagnostic services are now accessible, efficient, and patient-centered.

3.2 Coherence

Under this indicator we shall look at the alignment of the initiative with National and State policies, Schedule VII, SGDs and BRSR Indicators.

3.2.1 Alignment with National and State policies

| National Missions | Objectives | | | | | |
|--|---|--|--|--|--|--|
| Ayushman Bharat - Health and Wellness Centres (HWCs) | Strengthening primary healthcare facilities by equipping them with essential diagnostic services, including X-ray machines. Focus on early disease detection and preventive healthcare to reduce the burden on tertiary hospitals. | | | | | |
| THELLNESS CLIME | | | | | | |
| National Health Mission (NHM) | Enhancing healthcare infrastructure and accessibility, especially in rural areas, by supporting diagnostic equipment in CHCs and district hospitals. | | | | | |
| HEALTH HEALTH Instruction Regla Raireau Phain | | | | | | |
| National Tuberculosis Elimination Program (NTEP) | Prioritises early detection and diagnosis of tuberculosis through radiological screening. Ensuring X-ray availability at healthcare centers to enhance TB case detection and monitoring. | | | | | |

Indian Public Health Standards (IPHS) Guidelines

National Programme for Prevention and Control of Non-Communicable Diseases (NPCDCS)



Mandates that CHCs and district hospitals be equipped with basic radiology services, including X-ray machines. Ensuring adherence to quality standards for healthcare facilities under government regulations.

Supports early screening for non-communicable diseases (NCDs), including respiratory, cardiovascular, and orthopaedic conditions. Emphasizes the role of diagnostic services in managing NCDs at the district and CHC levels

Table 5 Alignment with National Policies

| State Missions | Objectives |
|--|--|
| MOTHER – Meghalaya's State Health Policy (2021) | Emphasises strengthening healthcare infrastructure, including diagnostic services, to improve health outcomes across the state. |
| بالجمل المعالم بالجمل المعالم بالجمل المعالم بالجمل المعالم Neghalaya Health & Family Welfare Dept | |
| Meghalaya Health Systems Strengthening Project (MHSSP) | Focuses on improving management capacity, quality, and utilization of health services, including the enhancement of diagnostic facilities. |



Table 6 Alignment with State Policies

3.2.2 Alignment with Schedule VII

Schedule VII (Section 135) of the Companies Act, 2013 specifies the list of the activities that can be included by the company in its CSR policy. The below-mentioned table shows the alignments of the intervention with the approved activities by the Ministry of Corporate Affairs.

| Activity | Description | Alignment with the Project |
|---------------------|--|----------------------------------|
| Schedule VII (i) | Eradicating hunger, poverty and malnutrition, 2 [promoting health care including preventive health] and sanitation 3 [Including contribution to the Swatch Bharat Kosh set up by the Central Government for the promotion of sanitation] and making available safe drinking water. | Completely |

Table 7 Alignment with CSR Policy

3.2.3 Alignment with BRSR Principle

The project's intervention also aligns with the ESG Sustainability Report of the corporate. Particularly, concerning the Business Responsibility & Sustainability Reporting Format (BRSR) shared by the Securities & Exchange Board of India (SEBI), the project aligns with the principle mentioned below:

| ESG Principle | Alignment with the Project | | | | |
|---------------|---|--|--|--|--|
| 8 | Businesses should promote inclusive growth and equitable development. | | | | |
| | | | | | |

Table 8 Alignment with BRSR Principle

3.2.4 Alignment with SDGs

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2016 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.

| Sustainable Development Goal | Target | Alignment |
|--|---|------------|
| 3 GOOD HEALTH AND WELL-BEING | Goal 3: Ensure Healthy lives and promote well- being for all at all ages. 3.4 By 2030, reduce by one- third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being. 3.8 Achieve universal health coverage, including financial risk protection, access to quality essential healthcare services, and access to safe, effective, quality, and affordable essential medicines and vaccines for all. | Completely |
| 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | Goal 9: Industry, Innovation and Infrastructure 9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all. | Completely |

| | Goal 17: Partnership for the goals | Completely |
|---|--|------------|
| 17 PARTNERSHIPS FOR THE GOALS | 17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships | |

Table 9 Alignment with SDGs

3.3 Effectiveness

The effectiveness of the programme is assessed by determining how well its objectives have been achieved and identifying the processes and systems that have contributed to its success. The observations made by the assessment team regarding the programme's effectiveness is outlined below.

3.3.1 Digital X-ray in Khliehriat Civil Hospital

The feedback from beneficiaries highlights a highly positive experience with the new diagnostic facility, showcasing significant improvements in service accessibility, quality, and overall patient satisfaction.



Figure 23 Patient's feedback on their experience with new diagnostic facility

The most notable impact is the reduction in long travel distances, which was a critical challenge earlier, as all the patients had to travel far for X-ray services. With the new facility in place, accessibility has improved, leading to reduced healthcare expenses and minimized income loss due to travel and wait times. Patients also reported enhanced service quality, with well-functioning X-ray machines, clean and hygienic facilities, and professional, courteous staff. satisfaction with test accuracy indicates improved diagnostic reliability, which was a concern before due to outdated equipment. These positive changes highlight the effectiveness of investing in local diagnostic services, emphasizing the importance of strengthening healthcare infrastructure to ensure affordable and timely medical care.



The feedback from patients highlights a highly positive experience the X-rav with Diagnostic service. 56% of respondents rated the service as "Excellent," while 44% rated it as "Good," with no negative feedback. This reflects strengths in service quality among other factors.

The installation of the X-ray machine at Khliehriat Hospital has significantly improved healthcare access in East Jaintia Hills. Qualitative interactions with hospital staff highlighted challenges faced by patients like long travel distances, delayed diagnosis, financial strain, and poor health outcomes. With local imaging service now available, diagnosis and treatments are faster, benefiting emergency cases like accident victims and improving survival rates. The reduced need for referrals has also strengthened the hospital's capacity, enabling more efficient and effective patient care.



Image 2 Digital Xray machine in Khliehriat Hospital

3.3.2 Endoscopy machine in Khliehriat Civil Hospital

The endoscopy machine at Khliehriat Civil Hospital faces significant operational challenges despite its critical role in diagnostics. Currently, only one person has been trained to perform endoscopic procedures. However, since this individual was promoted to Medical Superintendent in August 2024, no one has been conducting the procedures. As a result, the equipment is currently non-functional due to the absence of trained staff to operate it. While the Medical Superintendent holds the necessary qualifications, they no longer perform procedures after their promotion, leaving the machine underutilized and limiting its usage for the benefit of the patients.

Previously, when the trained professional was performing the procedures, efficiency was already a concern due to the extended time required for disinfecting the equipment between uses. Additionally, the absence of essential accessories such as a UPS (Uninterruptible Power Supply), power backup, and printer further hampers smooth operation. These limitations highlight the urgent need for structured training programs, designated personnel for endoscopic procedures, and the provision of necessary equipment to ensure uninterrupted service. Strengthening these aspects will enhance diagnostic capabilities, reduce patient referral rates, and improve overall healthcare delivery at Khliehriat Civil Hospital.



Image 4 Video Endoscopy Room at Khliehriat Hospital



Image 3 Unused Endoscopy machine at Khliehriat Hospital

3.3.3 Ultrasound Machine in Sutnga Community Health Center

The feedback from beneficiaries highlights a **highly positive experience** with the ultrasound services, reflecting both the quality of care and the efficiency of service delivery.



Figure 25 Effectiveness of new ultrasound service in Sutnga CHC

Beneficiaries reported the procedure was comfortable and painless for all, with privacy, cleanliness, and proper seating ensuring a dignified environment. Hospital staff were consistently respectful and polite, fostering trust and reducing anxiety. Satisfaction with result accuracy was universal, and no delays due to machine breakdowns indicated strong system reliability.



The new diagnostic equipment received positive feedback, with 100% of users rating their experience as Good or Excellent. This indicates high satisfaction, effective functionality, and a well-received upgrade in diagnostic services.

Figure 26 Rating for overall experience with new diagnostic equipment

The installation of an ultrasound machine at Sutnga CHC has significantly improved maternal healthcare access and outcomes. Stakeholder insights reveal a 20% reduction in maternal and neonatal complications due to early detection of high-risk conditions like

breech presentation, placental abnormalities, and foetal distress. **Antenatal visits have surged by 60%, reflecting improved accessibility and utilization of essential services.**

Dr. Paken, the Medical Officer at Sutnga CHC, highlights how ultrasound integration has enhanced diagnostic accuracy, replacing reliance on LMP-based gestational dating and enabling early detection of twin pregnancies and fetal anomalies. Performing over 20 scans daily, he notes the machine's user-friendly design, high-definition imaging, and efficient software, which have streamlined service delivery and reduced referrals to distant facilities.

This intervention has strengthened the CHC's capacity, alleviated financial and travel burdens for patients, and reinforced trust in public healthcare. The improved maternal health outcomes and increased patient engagement underscore its effectiveness in bridging critical gaps in care.



Image 5 USG machine in Sutnga CHC

3.4.4 Role of Skilled Medical Personnel in Effective Equipment Utilization

The effectiveness of the intervention is strengthened by the expertise of the medical staff operating the diagnostic equipment. The X-ray team at Khliehriat Civil Hospital comprises highly skilled professionals with over 10 years of experience in the medical field and 4 to 10 years of specialized radiology expertise. Their background spans civil hospitals, private healthcare settings, and community health centers, including remote areas, ensuring efficient use of diagnostic tools. Similarly, at Sutnga CHC, the Medical Officer, Dr. Hairvis Paken, brings over a decade of medical experience and 1–3 years of hands-on expertise in ultrasound (USG) scans. Trained in 2D ultrasound operation, he plays a key role in maternal and child healthcare, particularly in underserved communities. Their skills and experience ensure that the newly introduced medical equipment is utilized optimally, enhancing diagnostic accuracy and patient outcomes.

- Diagnostic upgrades in East Jaintia Hills have improved healthcare access, quality, and efficiency.
- Khliehriat Civil Hospital's Digital X-ray has reduced travel time, costs, and enhanced diagnostic accuracy, with 100% positive patient feedback.
- The Endoscopy machine, however, remains non-functional due to a lack of trained staff, underscoring the need for training and equipment upgrades.
- At Sutnga CHC, the Ultrasound machine has cut maternal complications by 20% and increased antenatal visits by 60%.
- Healthcare personals noted improved diagnostic precision and reduced referrals.

3.4 Efficiency

The efficiency of the programme is evaluated by examining the utilisation of the diagnostic equipment, installed under the intervention. The data highlights the programme's success in ensuring that these medical resources are effectively used, and intended benefit is achieved.

3.4.1 Digital X-ray in Khliehriat Civil Hospital



56% of patients now only have to travel 11-20 km to reach Khliehriat Civil Hospital. Previously, patients had to travel nearly 30 km to Jowai or even 100 km to Shillong for diagnostic services. The availability of these facilities at Khliehriat Hospital Civil has significantly reduced the travel burden, making healthcare more accessible.

Figure 27 Distance between village and Khliehriat Civil Hospital

The availability of diagnostic services at Khliehriat Civil Hospital has significantly improved accessibility and affordability for patients. **67% of patients now save over four hours** by avoiding long-distance travel, reducing stress, waiting times, and delays in diagnosis. Previously, patients travelling to another facility, incurred high costs. Now, with **local X-ray services priced at just ₹100**, most patients **spend only ₹50–₹100 on travel**, easing financial strain. This shift not only enhances convenience but also ensures timely medical intervention, leading to better health outcomes. These finding are consistent with the qualitative insights derived from interactions with the hospital team.



Image 6 Khliehriat Civil Hospital



Figure 29 Time saved in travelling compared to pre-interventior Figure 28 Amount spend on travel to Khliehriat hospital postintervention

X-ray technicians at the Civil Hospital have also observed a transformation in their workflow and service delivery. With access to upgraded equipment and digital imaging, they can now capture clearer images with fewer retakes, reducing patient exposure to radiation. The integration of digital records has further streamlined operations, cutting waiting times and expediting report generation. Targeted training sessions have boosted technicians' confidence, allowing them to operate machines efficiently and troubleshoot minor issues.

3.4.3 Ultrasound Machine in Sutnga Community Health Center

60% of the pregnant women with whom we interacted revealed they need to travel not more than 20km to reach Sutnga CHC. Comparing this with the scenario previously, where pregnant women had to travel over 30 km to Jowai for an ultrasound, **the availability of USG services at Sutnga CHC has considerably reduced travel barriers.**



Figure 30 Distance from village to Sutnga CHC



Image 7 Sutnga Community Health Center

The installation of the ultrasound facility at Sutnga CHC has significantly reduced the financial burden on patients. 100% of respondents received their ultrasound tests free of cost, a stark contrast to the situation before the intervention where they had to pay over Rs. 2000 for scans at private facilities. Moreover, 80% of patients spent between ₹50–₹200 on travel now, which is less that the travel cost incurred before. This new facility has enhanced accessibility, reducing both financial and logistical barriers to essential maternal healthcare.





Figure 32 Amount paid for ultrasound test post-intervention

Figure 31 Amount paid for travel to Sutnga CHC postintervention





Figure 34 Time taken for the Ultrasound test pre-intervention

Figure 33 Time taken for the entire Ultrasound test postintervention

Previously, 60% of patients had to wait between 1 to 3 days for an ultrasound, causing delays in diagnosis and medical intervention. In contrast, the post-intervention scenario shows a drastic improvement, with 60% of patients now completing the test within 1–2 hours. **Faster diagnosis has not only reduced patient wait times but also allowed for quicker medical interventions, significantly enhancing maternal healthcare outcomes.**

The installation of the ultrasound machine at Sutnga CHC has greatly improved accessibility, eliminating the need for expectant mothers to travel long distances for scans. This has alleviated financial and physical strain, as fewer referrals mean lower out-of-pocket expenses for transportation and diagnostic services, making quality maternal care more affordable for the community.

According to the medical officer and ANM, more cases can now be managed locally, reducing unnecessary referrals and ensuring timely interventions. Availability of ultrasound has strengthened early pregnancy detection, enabling healthcare providers to monitor foetal growth more effectively and address complications at an earlier stage.

Despite these advancements, **lack of a dedicated technician causes maintenance issues to be addressed only when problems arise, sometimes leaving the machine out of service for extended periods,** forcing patients to again travel long distances. The ANM highlighted that the absence of a thermal printer makes documentation cumbersome, hindering follow-ups and patient record-keeping. Furthermore, both the medical officer and ANM pointed out that the lack of standardized operating procedures (SOPs) forces staff to rely on informal knowledge, leading to inconsistencies in service delivery. While the ultrasound service has transformed maternal healthcare at Sutnga CHC, addressing these bottlenecks is essential to ensuring sustained, reliable, and streamlined operations.

- The introduction of a digital X-ray has reduced travel distances by half, saving patients over four hours and lowering costs.
- X-ray services are available for just ₹100.
- The installation of an ultrasound machine has transformed maternal healthcare by eliminating costly ₹2000 scans and reducing wait times from days to just a few hours.
- Healthcare providers have reported fewer referrals and improved fetal monitoring, leading to better maternal and child health outcomes.
- The endoscopy machine at Khliehriat remains unused due to a lack of trained medical staff.
- Despite this challenge, the initiative has significantly improved accessibility, affordability, and efficiency of healthcare services.

3.5 Impact

The following section evaluates the impact of the intervention on long-term healthcare outcomes. Examining this aspect highlights how the diagnostic services contribute to improved patient care, accessibility, and overall well-being in the region. The following observations detail the impact of the programme.

3.5.1 Impact of installation of X-ray machine on patients

The intervention at Khliehriat Civil Hospital has significantly improved patient health outcomes. All patients (100%) acknowledged that **timely diagnosis prevented deterioration of the health situation**, while 67% mentioned avoiding complications due to early detection. Alos, 67% recommended the service to others, indicating strong community trust. The project's impact is also outlined by increased confidence in seeking medical care (44%).



Figure 35 Impact post- installation of X-ray machine in the hospital

(*Note: - This was a multiple-choice question, so the total may exceed 100%.)

3.5.3 Impact of Installation of X-ray machine on Healthcare Staff

The installation of the X-ray machine at Khliehriat Hospital has significantly improved healthcare delivery, addressing longstanding challenges faced by both patients and medical staff. Insights from the Medical Superintendent, Medical staffs and Doctors highlight the crucial role this intervention has played in enhancing diagnostic efficiency, reducing patient burdens, and strengthening the hospital's overall capacity.

Before this initiative, Healthcare providers faced operational inefficiencies, as the lack of imaging services led to frequent referrals, overburdening hospitals in Jowai and Shillong. Emergency cases, such as accident victims, were particularly vulnerable due to the time-sensitive nature of their conditions. The installation of the new X-ray facility has significantly enhanced healthcare services, enabling timely and accurate diagnosis that expedite treatment plans and improve patient outcomes.

The three X-ray technicians highlighted that the facility has alleviated their workload and reduced stress among hospital staff while greatly benefiting patients. Previously, diagnosing fractures, chest infections, and other conditions was challenging due to the absence of immediate imaging, often forcing doctors to rely on clinical judgment or refer patients elsewhere. With in-house X-ray services, physicians can now make faster and more precise treatment decisions.

Overall, the initiative has transformed Khliehriat Hospital's capabilities, empowering healthcare staff and significantly improving the quality of care provided to the community.



3.5.2 Impact of installation of USG machine for pregnant women

Figure 36 Impact of the intervention on pregnancy outcome

The impact of the intervention on pregnancy outcomes has been profound. Every participant (100%) reported attending regular antenatal checkups, gaining reassurance about their baby's health, and benefiting from improved monitoring of foetal position and movement. Additionally, 80% found that the intervention helped detect pregnancy-related complications early, allowing for timely medical action. These insights demonstrate the intervention's effectiveness in promoting proactive healthcare and reducing pregnancy-related risks.

3.5.3 Impact of Installation of USG machine on Healthcare Staff

The absence of ultrasound facilities previously led to delayed diagnosis, unnecessary referrals, and increased workload for medical staff, who had to rely solely on clinical judgment. This often resulted in uncertainty and hesitation in identifying high-risk pregnancies, raising the risk of misdiagnosis or delayed intervention.

With the introduction of ultrasound, doctors and ANMs can now make faster, more informed decisions, ensuring immediate attention for high-risk cases and reducing emergency referrals to distant hospitals. Interviews with the medical officer and ANM reveal that healthcare staff feel more confident in managing maternal health cases. The improved diagnostic infrastructure allows for precise monitoring of foetal growth, early detection of abnormalities, and better assessment of complications, minimizing reliance on assumptions. This has led CHC staff to enhance their technical skills, strengthening the capacity of healthcare professionals in the region.

Overall, the introduction of ultrasound facility has transformed maternal healthcare delivery at Sutnga CHC. This ensured greater efficiency, improved accuracy, and enhanced skills among healthcare providers, leading to better maternal and neonatal health outcomes in the region.

- The installation of diagnostic equipment in these hospitals has significantly improved healthcare delivery.
- Patients now receive faster diagnosis, reducing travel burdens and lowering costs, ensuring timely medical interventions.
- For healthcare providers, these upgrades have streamlined workflows, reduced stress, and improved diagnostic accuracy.
- However, challenges such as staff training, equipment maintenance, and operational standardization remain key areas for improvement.
- The improvements have significantly enhanced both maternal and general health outcomes in the region.

3.6 Sustainability

The sustainability aspect emphasizes the long-term benefits; post intervention support is over. This section explores aspects related to financial support, infrastructure, and staffing to ensure that the outcomes and impact of the programme continues.

3.6.1 Patient on the Sustainability of X-ray Diagnostic Services at Khliehriat Civil Hospital

The responses indicate overwhelming support for these diagnostic tools, with 100% of respondents believing that their availability will lead to better long-term health outcomes. Additionally, all respondents agreed they would recommend these services to others.

However, sustainability is contingent on several factors. The most crucial element as pointed by respondents is continued availability of free or low-cost diagnostic services. Reaching rural areas and spreading awareness on the facilities being available now at these places, resolving staff shortage issue for speedy procedure and regular maintenance of diagnostic equipment was noted to ensure long- term sustainability and prevent service disruptions.

In conclusion, while the community strongly supports the intervention, ensuring sustainability will require consistent support of the concerned authorities and infrastructure upkeep and expansion. Addressing staffing and maintenance challenges proactively will further ensure that these services remain accessible and effective in improving long-term health outcomes.

3.6.2 Healthcare staff on the Sustainability of Diagnostic Services at Khliehriat Civil Hospital

The digital X-ray machine has played a critical role in improving patient care by providing highresolution images with reduced radiation exposure and quick processing times. According to the, medical team, the machine has reduced patient referrals and enabled timely diagnosis, ensuring better clinical outcomes.

The endoscopy machine, when functional, served as a valuable diagnostic tool for gastrointestinal and other internal examinations. Previously, the hospital lacked this facility, requiring patients to travel long distances for endoscopic procedures.

Key Challenges Impacting the Sustainability of Diagnostic Equipment

While the intervention has significantly enhanced healthcare services, several challenges threaten the sustainability of the intervention. Frequent power supply issues continue to disrupt operations, and the absence of a dedicated UPS or power backup further exacerbates downtime, directly impacting patient care. It was reported that the X-ray machine was installed without essential accessories like a printer and monitor, requiring the hospital to arrange these through own funds—highlighting gaps in the initial procurement process.



Image 8 X-ray printer at Khliehriat hospital procured through state funds

A major concern identified was the shortage of trained personnel, particularly for the endoscopy machine, which has remained non-operational since August' 2024 after the only trained staff member was promoted to Medical Superintendent.

Similarly, X-ray technicians have identified difficulties in software navigation, calibration, and radiation dose optimization, emphasizing the need for refresher training to ensure optimal usage. Furthermore, slow technical support delays repairs, increasing machine downtime and reducing efficiency.

Addressing these operational and workforce-related gaps is crucial to ensuring the long-term sustainability and continued impact of these diagnostic interventions.

3.6.3 Patient perspectives on the sustainability of Diagnostic services at Sutnga CHC

With 60% of pregnant women responded no machine failures post intervention, the reliability of the equipment ensures uninterrupted service delivery, reducing delays in critical diagnostics.

However, occasional breakdowns should be addressed proactively to enhance operational efficiency, ultimately contributing to a more sustainable and resilient healthcare system.



Figure 37 Instances of machine breakdown post-intervention

3.6.4 Healthcare staff perspective on the sustainability of diagnostic services at Sutnga CHC

The Medical Officer highlighted importance of the intervention in early detection of complications, allowing timely medical intervention. The ANM stressed the importance of refresher courses to ensure optimal utilization, while pregnant women expressed appreciation for the service. However, some were still unaware of its availability, emphasizing the need for community awareness initiatives led by ASHAs to maximize its reach and impact.

Key Challenges Impacting the Long-Term Sustainability of Diagnostic Equipment

Appropriate steps need to be identified into for maintaining the machine's efficiency. Inconsistent power supply disrupts seamless operation, while the absence of detailed user instructions hampers independent troubleshooting. The need for faster technical support and servicing is required. The medical team suggested training more healthcare staff to manage the high patient load and prevent service interruptions. The lack of digital record-keeping limits efficiency in patient data management.

Despite these challenges, the intervention has proven to be a sustainable and impactful healthcare solution. Strengthening training programs, technical infrastructure, and community engagement will be key to ensuring that the benefits of this initiative continue in the long run.

- Patients strongly support these services, acknowledging their role in improving healthcare access and outcomes.
- Sustainability depends on maintaining free or low-cost access, expanding community awareness, and strengthening healthcare infrastructure.
- Challenges such as power supply disruption and delays in technical support must be proactively managed to prevent service interruptions. Integrating UPS systems, generators, or solar power backups can ensure uninterrupted operations
- Workforce capacity remains a major concern, with staff shortages and inadequate training limiting equipment utilization.
- Regular refresher courses and cross-training multiple personnel can help mitigate these workforce challenges.
- Integrating structured data management and digital record-keeping will enhance efficiency and ensure service continuity.
- Addressing these challenges will ensure that future medical equipment installations remain functional, accessible, and impactful in strengthening healthcare services.

3.7 Recommendations

The following recommendations provide key insights on executing similar projects in the future, ensuring greater impact, long-term sustainability, and improved healthcare outcomes.

1. Regular Training & Capacity Building

Investing in periodic refresher training for healthcare staff can enhance their ability to operate and maintain medical equipment efficiently. Cross-training multiple personnel ensures continuity of services even during staff transitions, can reduce dependency on a single operator.

2. Strengthening Maintenance & Technical Support

Establishing a structured maintenance plan of equipment, including preventive checks and a rapid-response repair system, can minimize downtime due to equipment failure. Partnering with service providers for timely technical support can further enhance equipment reliability.

3. Power Backup Solutions

In regions with frequent power outages, integrating UPS systems, generators, or solar power backups can ensure uninterrupted operations. Collaborating with local authorities to improve infrastructure resilience could also enhance long-term service reliability.

4. Addressing Equipment Gaps & Enhancing Functionality

Ensuring that all necessary accessories and complementary tools are available from the outset can improve service efficiency. Conducting periodic assessments to identify and address functionality gaps can further optimize medical equipment usage.

5. Community Awareness & Accessibility

Raising awareness about newly introduced medical services can improve utilization rates. Engaging local healthcare workers in community outreach programs and using IEC materials, and digital communication tools can help educate the public on available diagnostic and treatment options.

6. Monitoring & Evaluation for Continuous Improvement

Implementing a simple data tracking system can provide insights into equipment utilization, service impact, and patient feedback. Regular evaluations can help identify challenges, optimize resource allocation, and guide future interventions in similar healthcare settings.

7. Focus on Service Integration

Wherever feasible, integrating complementary services—such as pathology, radiology, or additional diagnostic tools—can create a more holistic and effective healthcare system.

By supporting these interventions, it can be ensured that CSR investment leads to longterm, sustainable improvements in healthcare accessibility, operational efficiency, and patient outcomes, ultimately strengthening the overall healthcare ecosystem in the region.

| Observation Checklist - Digital X-Ray Machine | | | | | |
|---|--------------|------|-----------------|-------------------|---------|
| Condition of the Equipment | | | | | |
| Observation Criteria | Excellent | Good | Needs Repair | Not Functional | Remarks |
| Physical condition of the machine (casing, screen, cables) | \checkmark | | | | |
| Image quality and clarity | \checkmark | | | | |
| Software responsiveness and user interface | \checkmark | | | | |
| Availability of required accessories (films, sensors, lead aprons) | \checkmark | | | | |
| Functionality of the Equipment | \checkmark | | | | |
| Observation Criteria | Yes | No | | | Remarks |
| Is the Digital X-Ray machine operational? | Yes | | | | |
| Are all image capture modes functioning correctly? | Yes | | | | |
| Are there any physical damages (cracks, loose parts, cable issues)? | | No | | | |
| Is the display monitor and software working properly? | Yes | | | | |
| Are radiation shielding measures in place? | Yes | | | | |
| Maintenance (Repair and Service) Schedules & Records | Yes | | | | |
| Observation Criteria | Yes | No | | | Remarks |
| Is there a documented preventive maintenance schedule? | | No | | | |
| Are service records up to date with details of repairs, part replacements, and servicing? | Yes | | | | |

| Have calibration checks been conducted as per manufacturer recommendations? | Yes | | | |
|---|------------------|----------|----------|-------------------------------|
| Is the machine regularly cleaned and maintained according to protocol? | Yes | | | |
| Utility Rate (Machine Utilization Hours) | 3- 4hrs a day | | | |
| Observation Criteria | Option 1 | Option 2 | Option 3 | Remarks |
| What is the average daily usage? | | 3-5 hrs | | |
| How many X-ray scans are conducted per week? | | | > 100 | |
| Is there a record/logbook of machine usage per patient/case? | Yes | | | |
| Patient Turnaround Time | 10 to 15 min | | | |
| Observation Criteria | Yes | No | | Remarks |
| Is the average time taken per patient reasonable? | Yes | | | |
| Are there any frequent delays or downtime due to equipment malfunction? | Yes | | | Due to power break down |
| Is the workflow efficient from scanning to report delivery? | Yes | | | |
| Medical Calibration Frequency | Yes | | | As Required |
| Observation Criteria | Yes | No | | Remarks |
| Is calibration done periodically as per regulatory standards? | Yes | | | |
| | | | | |

| Observation Checklist - Ultrasound Machine | | | | | |
|--|--------------|------|-----------------|-------------------|------------------|
| Condition of the Equipment | | | | | |
| Observation Criteria | | | | | |
| Physical state of the machine (buttons, screen, cables) | Excellent | Good | Needs Repair | Not Functional | Remarks |
| Probe condition (transducer wear and tear) | \checkmark | | | | |
| Monitor display and image resolution | \checkmark | | | | |
| Functionality of the Equipment | \checkmark | | | | |
| Observation Criteria | \checkmark | | | | |
| Is the USG machine operational and in good working condition? | Yes | No | | | Remarks |
| Are all probes and transducers working properly? | Yes | | | | |
| Does the monitor display clear and accurate images? | Yes | | | | |
| Are the doppler function and 3D/4D imaging features functioning correctly? | Yes | | | | |
| Maintenance (Repair and Service) Schedules & Records | Yes | | | | |
| Observation Criteria | | No | | | Not furnished |
| Is there a preventive maintenance schedule? | Yes | No | | | Remarks |
| Are service logs up to date with records of repairs? | | No | | | |
| Are transducers regularly cleaned and disinfected after each use? | | No | | | |

| | | | | |
|--|---------------------|----------|----------|-----------|
| Is there an available stock of gel, probe covers, and necessary consumables? | Yes | | | |
| Utility Rate (Machine Utilization Hours) | Yes | | | |
| Observation Criteria | 4 to 5 hrs a day | | | |
| What is the average number of scans per day? | Option 1 | Option 2 | Option 3 | Remarks |
| How many pregnancy-related scans are conducted monthly? | | 10-30 | | |
| Is there a record of machine utilization per department? | | | >100 | |
| Patient Turnaround Time | Yes | | | |
| Observation Criteria | | 1-2 hr | | |
| What is the average waiting time for an ultrasound? | Yes | No | | Remarks |
| How quickly are reports generated and shared with doctors? | 30 min to 1 hr | | | |
| Are there any frequent interruptions due to machine downtime? | Same time | | | |
| Medical Calibration Frequency | | No | | |
| Observation Criteria | | No | | Not found |
| When was the last calibration performed? | Yes | No | | Remarks |
| Are image resolution and depth settings adjusted regularly? | | | | Not Found |
| | Yes | | | |
| | | | | |

Chapter 4 Impact Stories

4. Impact Stories

How the New Ultrasound Services Transformed Prenatal Care in Sutnga

For 28-year-old Mary Lyngdoh, the joy of expecting her second child was overshadowed by anxiety. Living in a remote village near Sutnga, Meghalaya, Mary faced significant challenges in accessing essential prenatal care. Like many other women in her community, she had to travel nearly 40 kilometers to the district hospital for a simple ultrasound scan. The journey was not only exhausting but also expensive, costing her a full day's wage and additional transport expenses. As a daily wage labourer, every rupee counted, and missing work meant financial strain on her family.

When the Community Health Center (CHC) in Sutnga installed an ultrasound machine through HDFC's CSR initiative, everything changed for Mary and countless other pregnant women in the area. During her second trimester, Mary experienced occasional abdominal pain and uncertainty about her baby's growth. With the newly installed ultrasound facility at Sutnga CHC, she could now get timely check-ups without the burden of traveling long distances.

During one of her scans, the doctor identified a minor complication that, if left undiagnosed, could have led to severe complications during childbirth. Thanks to the early detection, Mary received timely medical guidance, proper monitoring, and reassurance from the healthcare providers. The access to ultrasound services not only gave her peace of mind but also ensured she could safely carry her pregnancy to term.

Mary's story is one of many. The installation of the ultrasound machine has significantly improved maternal healthcare access in Sutnga, allowing pregnant women to receive essential diagnostics without financial hardship or logistical challenges. The intervention has empowered women like Mary with the medical support they deserve, reducing risks associated with delayed prenatal care and making safe motherhood a reality.

With continued support, awareness, and proper utilization of these services, the lives of many more women in Meghalaya will be transformed, ensuring healthier pregnancies and safer deliveries.

How the Strengthened Emergency and Diagnostic Services at Khliehriat Civil Hospital Saved Beranus Pala's Life

Beranus Pala, a 30-year-old resident of Lamyrsiang village, never imagined that a routine journey would turn into a life-altering event. While riding his two-wheeler along the highway, he met with a severe road traffic accident, leaving him unconscious with multiple injuries. With limited medical facilities in his village, his family feared the worst.

Fortunately, he was rushed to Khliehriat Civil Hospital, where the newly strengthened emergency and diagnostic services played a crucial role in saving his life. Upon arrival, the medical team acted swiftly, conducting an X-ray to assess internal injuries and ruling out major fractures. Thanks to the fully functional X-ray machine, doctors could quickly diagnose his condition and begin the necessary treatment without delay. The timely intervention ensured he received the right care, stabilizing his injuries and preventing further complications.

After a few days of treatment and observation, Beranus made remarkable progress. The hospital's improved diagnostic infrastructure allowed his doctors to monitor his recovery closely, giving him the confidence to heal without needing a costly transfer to another facility. Today, Beranus is on the road to full recovery and is deeply grateful for the medical staff who treated him with compassion and efficiency.

"I don't know what would have happened if I hadn't reached this hospital on time," Beranus shares. "The doctors, nurses, and facilities here saved my life. I am truly grateful for the care I received."

His story is a testament to how accessible and well-equipped healthcare facilities can make a difference in critical moments. Through continued support and improvements, Khliehriat Civil Hospital is helping people like Beranus receive life-saving care close to home.



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