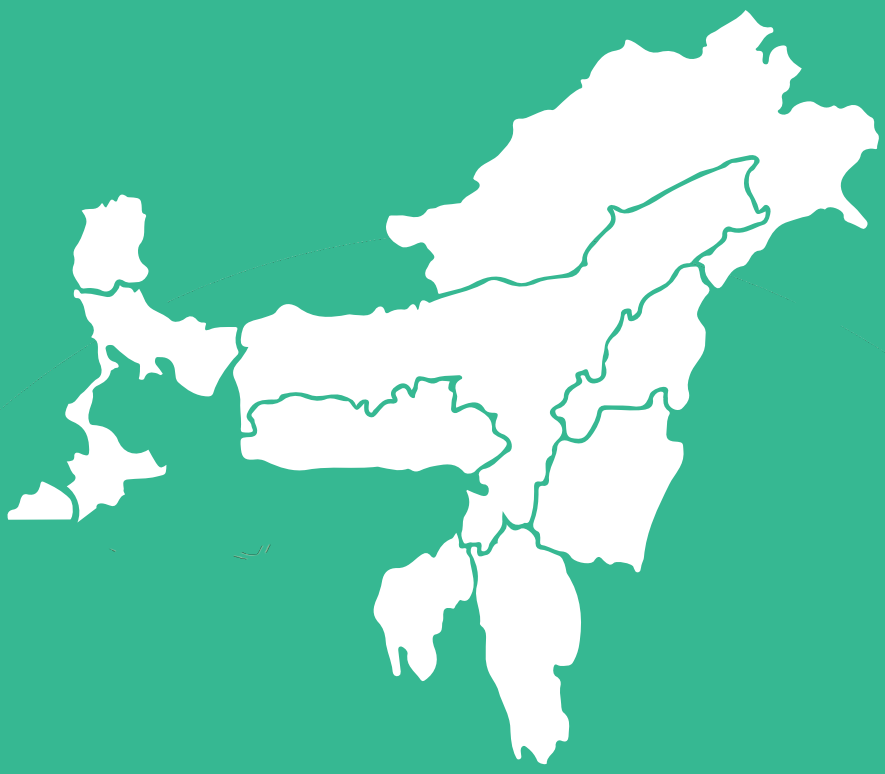
ENERGY FOR HEALTH

IKEA Foundation

H T Parekh FOUNDATION

SELCO FOUNDATION

ENERGY FOR HEALTH SUMMIT NORTH-EASTERN REGION CHAPTER' 24 REPORT



ENERGY FOR HEALTH SUMMIT
NORTH-EASTERN REGION CHAPTER' 24

SELCO Foundation and partners hosted the "Energy for Health Summit | North-Eastern Region Chapter" an event to showcase the impacts and progress so far in solar powering 25,000 health facilities in India. It fostered a discussion on strategies and plans for action on the ground to enable climate-resilient healthcare systems for all 8 states in the North - Eastern Region by 2026.

28th and 29th February 2024

Location: Kiranshree Grand New Airport Rd, Mirzapur, Ganakpara, Guwahati, Assam

Table of Contents

Day 1

Day 2

Summary

The "Energy for Health Summit | North-Eastern Region Chapter," hosted by SELCO Foundation and partners, served as a platform to showcase the impacts of solar-powered healthcare facilities in India and discuss strategies for climate-resilient healthcare systems in the North-Eastern Region by 2026. With 191 attendees and 11 speakers, including stakeholders from government, health departments, NGOs, and enterprises, the summit aimed to address challenges in healthcare access exacerbated by difficult terrain and climate change variability.

The summit featured panel discussions and workshops focusing on key themes. Day 1 highlighted the intersection between energy and health impacts, emphasizing the role of reliable energy in enhancing healthcare accessibility and quality. Discussions also centered on strategies for sustainable operations and maintenance of solar energy systems in healthcare facilities.

Closed-door sessions facilitated strategic planning and discussions among government officials, NGOs, clean energy enterprises, and the SELCO team, focusing on progress and future plans for energy-enabled healthcare centers in the North-Eastern states.

Day 2 explored innovations in energy-efficient medical technologies, leveraging technology and public-private partnerships to bridge healthcare delivery gaps. The Catalyze Tech Awards showcased innovative solutions targeting unmet public health needs through energy efficiency and decentralized care delivery. Discussions on leveraging financial resources highlighted challenges in public health expenditure and accessing philanthropic capital.

The summit concluded with a workshop co-hosted with CLEAN, addressing challenges and critical components of the Clean Energy Access Network, focusing on system design, operation, maintenance, and after-sales servicing support.

Overall, the summit provided valuable insights, fostering collaboration among stakeholders to advance sustainable healthcare ecosystems in the North-Eastern Region.

Energy for Health Summit

DAY 1

Context Setting

Day 1: Context Setting

Rachita Misra -Context of the Northeast Region:

- Difficult terrain, rich natural resources, low population density, and remoteness present challenges for healthcare access.
- Climate change variability with floods and landslides adds further complexity.

Program Strategy

1. Needs assessment: Identify health service needs and prioritize facility upgrades.
2. Energy efficiency: Optimize energy use in health facilities before considering additional power sources.
3. Technology and innovation: Introduce new medical technologies for decentralized healthcare delivery.
4. Systemic approach: Build capacity through training, supply chain management, and financing solutions.
5. Operations and maintenance: Ensure long-term sustainability through robust O&M systems.

Program Achievements

- Solar power deployment in many health facilities across the Northeast.
- Innovative solutions like mobile clinics and boat clinics for remote areas.
- Successful collaboration with various stakeholders during COVID-19.

Call to Action

- **Partnership:** Invited collaboration from Northeast states to implement the program in all 8 states.
- **Knowledge sharing:** Emphasized the importance of learning from the Northeast experience for scaling up the program nationally.

Summary

The program aims to improve healthcare access and empower health workers in the Northeast through a sustainable and scalable energy-based approach, with the potential for broader national application.

Energy for Health Summit

SESSION 1

Day 1

Session 1: Working on Intersections: Impacts from 'Energy for Health'
Speakers: Dr. Kumar G.S , Mr. Venkat Chekuri & Ms. H Lalmuankimi
Moderator: Surabhi Rajagopal

Introduction

The panel discussion, led by a diverse group of experts, delved into the multifaceted challenges of delivering healthcare in the Northeast region of India and comparable areas. The conversation centered around the critical role of reliable energy in overcoming geographical and infrastructural barriers to enhance healthcare accessibility and quality.

Contextual Challenges

The Northeast region, characterized by its difficult terrain, rich natural resources, low population density, and remoteness, faces significant healthcare delivery challenges. Climate variability, marked by floods and landslides, further complicates these issues. Panelists discussed the program's goals to improve healthcare access, empower the health workforce, develop a climate resilient healthcare system, and ensure sustainable, scalable solutions.

Key Discussion Points

Geographical and Infrastructure Barriers

Geographical Challenges: The panel acknowledged the region's hilly terrain, heavy rainfall, and frequent landslides, which obstruct healthcare access.

Infrastructure Limitations: Discussions highlighted the difficulties posed by inaccessible roads and unreliable electricity, affecting medical procedures and equipment usage.

Resource Constraints: The lack of proper infrastructure and financial resources in remote communities was recognized as a significant hurdle.

Importance of Reliable Energy

Energy is vital for powering essential medical equipment, extending service hours, and ensuring the delivery of critical care, especially in remote areas with poor connectivity.

Successful Initiatives

Swami Vivekananda Youth Movement (SVYM): The use of solar powered mobile healthcare units was discussed as a means to provide services in remote areas.

Karuna Trust: Venkat Chekuri emphasized the shift to clean energy like solar power to reduce dependence on costly and unreliable energy sources, advocating for local skill development in equipment maintenance.

National Urban Health Mission (NUHM) & Mizoram Experience: Highlighted the necessity of a reliable power supply to reduce infant and maternal mortality rates, showcasing the effectiveness of emergency lighting during power outages.

Program Achievements

Deployment of solar power in health facilities across the Northeast and innovative solutions like mobile and boat clinics were noted as significant achievements. The program's success in fostering collaboration during the COVID19 crisis was also highlighted.

Summary

The discussion underscored the critical role of sustainable and reliable energy solutions in overcoming the healthcare delivery challenges in the Northeast region. By leveraging technology, innovation, and collaborative efforts, the panelists discussed how energy can be a catalyst for improving healthcare access and quality in remote areas.

Looking Ahead

The conversation concluded with an optimistic outlook on the replication potential of these models, not just within India but globally, in regions facing similar challenges. The importance of operational sustainability, maintenance considerations, and community engagement was emphasized as vital for the long term success of such initiatives.The panel called for partnerships and knowledge sharing to extend the program's reach and impact, emphasizing the potential for national scalability based on the Northeast's experience

"We shifted from expensive diesel and generators to clean energy like solar. Training unemployed youth for equipment maintenance is crucial. Local availability of skills is key. Dependency on the main grid poses challenges during emergencies, not just in remote but also urban areas."

Mr. Venkat Chekuri
Secretary - Karuna Trust

"In partnership with SELCO, we set up two energy efficient kiosks in remote tribal areas, enabling telemedicine for 594 patients, with just 38 needing hospital referral. Our first use of solar was during evening awareness programs in Mysore's tribal communities, where we lit our mobile health vehicle with solar panels, showcasing solar's healthcare versatility. Acknowledging health's ties to WASH, education, and socioeconomic conditions, we tackled energy scarcity by outfitting our mobile health unit with solar panels, doubling as a floodlight for remote village visits."

Dr. Kumar G S
Head – Health Sector
Swami Vivekananda Youth Movement

"We struggle with procedures like stitching due to inadequate lighting, especially during emergencies. Heavy rains and landslides delay pregnant women reaching health facilities, increasing maternal and infant mortality rates. Power outages from fallen trees last 10-15 minutes, affecting vaccine storage and immunization. In cases of snake or dog bites, we are unable to provide services."

Ms. H. Lalmuankimi
Public Health Manager

Energy for Health Summit

SESSION 2

Day 1

Session 2 : Health Systems Sustainability: Strategies for Operations & Maintenance
Speakers: Ms. Ibamonlang Nongbri, Mr. Ayush Gupta, Mr. Fazle Mustaba, Ms. Subhasini Srinivasan
Moderator: Ms. Rachita Misra

Context Setting

The discussion commenced with a focus on maintenance challenges concerning solar energy systems in healthcare facilities. Key points included the importance of regular maintenance for optimal functionality, promoting ownership and skill enhancement, technical solutions, geographic constraints, infrastructure issues, and ecosystem development.

Partnership for Solarization

The significance of partnerships was highlighted in solarizing healthcare facilities despite geographical challenges. The discussion identified difficulties in maintenance procurement and the critical role of frontline workers.

Appreciation for Impactful Work

The discussion recognized impactful work including opensource platforms for public service delivery, global collaborations, and continuous improvement.

Local Resources and Maintenance:

Mr. Fazle Muztaba highlighted the importance of local resources trained for basic maintenance, advocating for reduced transaction costs and enhanced community connection.

Key Highlights and Solutions

Challenges: Geographic variations, limited budgets, unforeseen expenses, remote locations, lack of spare parts, limited expertise, standardization challenges, and high transaction costs.

Solutions: Budget allocation, improved spare parts management, remote monitoring systems, standardized equipment, data analysis, basic troubleshooting training, local partnerships, training local resources, and improved communication.

Conclusion

The panel emphasized the importance of capacity building, remote monitoring, CRM, tollfree helplines, and collaborative learning for sustainable operations and maintenance of solar energy systems in healthcare facilities.

"It's a continuous learning for us, we listen to field staff to understand what could be the best solutions because sometimes the best solution does not come form us
I look forward to not just sustainability at the government level but self sustainability at the health facility level. These are simple equipment and can be maintained at that level"

Ms. Ibamonlang Nongbri
State Program Manager, National Health Mission, Govt. of Meghalaya

When you have DRE do we have skilled man power to take care of basic maintenance? So it's becoming more and more important to enhance and build local capacity

We need to have tiered mechanism of trouble shooting and OnM and learn from solar water pumping lesson, where basic trouble shooting can be done at site level and then comes the second level.

Mr. Ayush Gupta
Head, Global Strategy & Performance
for Access to Energy, Schneider Electric

We should not build point solutions but broader platforms that can be configured /customized. Especially in OnM you need to know what sort of problem is coming in, that is where platform comes in and the platform is built in such a way that these platforms can be configured.

Ms. Subhashini Srinivasan
Technical Architect, eGovernments Foundation

We have local resources who are trained for basic maintenance. We intend to have at least one person at the District level. When the local resources speak in their own dialect, the people can connect better and that way even we have reduced transaction cost.

Mr. Fazle Muztaba
Founder & Managing Director
Envo Renewable Energy Services Pvt Ltd

Energy for Health Summit

CLOSED DOOR SESSIONS

Day 1

Close Room Session 1: Mizoram and Meghalaya

Session Agenda:

Update progress and ways forward on Energy for Health Centres in Mizoram, Meghalaya, and Manipur

Opportunities and Models for O&M

Mapping Ecosystems, funding sources, and best practices for efficient Health care systems

Overview of the Need for Public Infrastructure Management in General:

The context provided an overview of the challenges usually faced, especially in O&M in the Energy for Health Access.The participants from each state were requested to share their learnings on Operation & Maintenance for stage 1 Phase.

State Wise Updates on DRE for Health Centres:

Meghalaya:

The discussion highlighted by discussing the program trajectory and progress that took place in Meghalaya since 2020. The program started by strengthening subcenters during COVID. They covered 100 Subcenters in 11 Districts. Solarized 65 Health facilities, covering 2 Districts. NHM, Meghalaya, to leverage 70% for the HC solarization of 300 subcenters. SF to support these centers with technical support. 64 subcenters and 25 PHCs have additionally been solarized. Each of these centers were provided with free medical appliances for Maternal & Child Healthcare, Immunization & Screening & Diagnosis.

Mizoram

Signed MoU with the Health Ministry, with 90% leverage from SF to cover 420 Health Facilities in all the 11 Districts to be completed by 2025. The program started in 2023 July, with identifying partners/trainers who were given solar training and finding local solar vendors.

Key Learnings

- Efficient use of energy during different seasons
- Training provided on solar utilization
- Capacity building within the staff from the PHC
- Research & Monitoring for efficient energy consumption

Summary

- Procurement: Check with the portal (GEM) for energy efficient medical equipment.
- Identifying aspirational districts/blocks/centers for strategy implementation.
- Institutionalizing basic tasks such as reminders for Immunization checks, staff training, and capacity building.

Conclusion

Finance is required for Operation and Maintenance, for running of the program itself. This is something to look forward to collectively and not to see this as a short term project basis.

Close Room Session 2: Assam, Manipur and Tripura focused on the Role of CSOs in Energy for Health program

Session Agenda:

Update progress and ways forward on Energy for Health Centres in Manipur, Assam and Tripura

Key Learnings Opportunities and Models for O&M Mapping Ecosystems, funding sources, and best practices for efficient Health care systems

Introduction

The closed door session with Assam, Manipur, and Tripura focused on the Role of CSOs in the Energy for Health program. SELCO Foundation provided an overview of their work in Assam and Manipur, followed by a presentation on Tripura. Participants engaged with various medtech innovations to explore their relevance in respective geographies.

Relevance of Technologies

Participants shared insights on the relevance of technologies in their regions. Rafulik Islam highlighted the importance of a microscope at the village level. Mr. Sujith from Tripura discussed integrating mobile apps for last-mile connectivity. Bikromjit Narzary emphasized the significance of maternal care, and Bhaswati Goswami stressed the importance of technologies in areas with no road connectivity.

Major Disease Burdens

Doctors from various hospitals highlighted significant disease burdens. Challenges include anemia cases, vectorborne diseases, and infrastructure issues affecting vaccine efficacy. Highrisk pregnancies, anemia, TB, and drug dependency are prevalent concerns. Dr. Jagdish shared insights on the impact of solar systems on electricity bills.

Key Highlights of the Session

Challenges

- Lack of access to healthcare facilities in remote areas.
- High dropout rates for routine immunization.
- Shortage of healthcare staff in remote areas.
- Difficulty reaching mothers and children for essential healthcare services.
- Nonfunctional healthcare facilities due to power outages.
- Challenges in reaching isolated communities during natural disasters.
- High burden of diseases like malaria and waterborne illnesses.
- Lack of communication and transportation infrastructure in remote areas.

Specific Examples

Challenges

- Tripura: High malaria prevalence, low immunization rates, and lack of access to healthcare in tribal areas.
- Flood Prone regions of Assam: Instances of difficult childbirth due to lack of access to functional healthcare facilities.

Solutions

- Community mobilization and awareness campaigns.
- Strengthening healthcare infrastructure, especially in remote areas.
- Exploring innovative solutions like telemedicine and portable healthcare units.
- The session concluded with a comprehensive understanding of challenges and potential solutions to improve healthcare access in the regions discussed.
- The Government is interested in covering at least 3 districts with a target of 60 PHC's in Manipur this year.

Nagaland Specific Health Services Needs:

Participants: Venkat Chekuri (Karuna Trust), Longon Chio, Temjenmoa Jamir (IDAN) Senti, Tzudir (ECS), Sanjay, Chonglila, Longliliba (Nagaland Solar Enterprise)

Discussion Points

- Emphasized on unique disease burden
- Focus on last mile infrastructure development, no proper facility or infra is present at the rural level
- Focus on requirement of nurses and ANMs at the last mile, currently there's 1 nurse available /2-3 phcs and timely diagnosis isn't reached
- Basic health services requirements
- Mobile medical units telemedice access to diagonists , man power nurses anms , 1 nurse for 2-3 PHCs, functional labour rooms and units as phcs are over burdened
- Anc delivery, immunization
- Particular disease comes from bison , causing arthritis and fatal —addressing the local disease burden
- Improve connectivity and internet in nagaland

Insights

Unique Disease Burden: The discussion emphasized the importance of addressing the unique disease burden specific to certain regions or communities. In Nagaland, there is a particular disease originating from bison, causing arthritis and potentially fatal outcomes. Tailoring healthcare strategies to address such localized health challenges is crucial.

Last Mile Infrastructure Development: There's a significant emphasis on improving healthcare infrastructure at the last mile, particularly in rural areas. Lack of proper facilities and infrastructure hampers timely diagnosis and access to basic health services, highlighting the need for investment in infrastructure development.

Shortage of Healthcare Personnel: The shortage of nurses and Auxiliary Nurse Midwives (ANMs) at the last mile is highlighted as a critical issue. With only one nurse available for every 23 Primary Health Centers (PHCs), addressing the manpower shortage in healthcare, especially in rural areas, is imperative.

Mobile Medical Units and Telemedicine: To overcome challenges related to infrastructure and shortage of healthcare personnel, leveraging mobile medical units and telemedicine is suggested. These technologies can improve access to healthcare services, enable timely diagnosis, and connect patients with healthcare professionals remotely.

Basic Health Services: Ensuring access to basic health services such as antenatal care, immunization, and delivery services is crucial. Functional labor rooms and units are essential to handle the burden on PHCs and ensure safe deliveries in rural areas.

Improving Connectivity: Improving connectivity and internet access, particularly in regions like Nagaland, is vital for facilitating telemedicine services, accessing medical information, and enhancing communication between healthcare facilities and professionals.

Sikkim Specific Health Services Needs:

Participants: Dr. Kumar GS (SVYM), Roshan, Zeenath(SF), Honey Agarwal (Sattva), Dr. Salona Mukhia, Dr. Anusha Tewari (Health Dept, Govt. of Sikkim)

Discussion Points

- Reporting on portal and connectivity is an issue at high altitudes
- Solarization for back up
- Solar in not the only renewable source of energy
- Phcs are higher priority sub centers are next stage
- Transport was challenge and phc didn't have
- The PHCs to be considered first as the sub centres though delivery points don't do delivery
- There will medical equipment upgrade
- The communicable disease and infertility are high
- The roof conditions and wring in the facility is bad
- Need budget , technical specification, institution readiness, officials are interested
- Higher altitude calls for higher kw system capacities

Insights

Connectivity Challenges at High Altitudes: Reporting on portals and maintaining connectivity is identified as a significant issue in areas with high altitudes. Addressing infrastructure limitations, such as internet connectivity, is crucial for efficient data reporting and communication in remote regions

Solarization for Backup Power: Solar power is suggested as a solution for providing backup power in areas where traditional electricity sources may be unreliable or unavailable, ensuring continuity of essential services, particularly in remote areas.

Diversification of Renewable Energy Sources: While solar power is mentioned, it's noted that it's not the only renewable energy source available. This suggests a broader consideration of renewable energy options based on local resources and needs.

Priority of PHCs Over Sub-Centers: Primary Health Centers (PHCs) are highlighted as higher priority facilities compared to subcenters, even though subcenters may serve as delivery points. This prioritization may stem from PHCs being equipped to handle a wider range of medical services and emergencies.

Transportation Challenges: Challenges related to transportation, such as the lack of transport for PHCs, are mentioned. This highlights the need for logistical support to ensure the efficient delivery of healthcare services, especially in remote areas where access may be limited.

Medical Equipment Upgrade: Upgrading medical equipment in healthcare facilities is recognized as a need to improve the quality of healthcare services and ensure access to modern and functional medical equipment.

Prevalence of Communicable Diseases and Infertility: The high prevalence of communicable diseases and infertility in the region underscores the importance of targeted healthcare interventions and resources to address specific health challenges prevalent in the community.

Infrastructure Maintenance Issues: Concerns regarding the poor condition of infrastructure, such as roof conditions and wiring in facilities, highlight the need for ongoing maintenance and investment in infrastructure to ensure the safety and functionality of healthcare facilities.

Requirements for Implementation: To address the identified challenges and implement solutions effectively, there is a need for budget allocation, technical specifications, institutional readiness, and the involvement of interested officials. This indicates the importance of coordination and planning at various levels of governance.

Capacity Considerations for High Altitudes: Higher altitude areas require higher kilowatt (kw) system capacities for energy provision, emphasizing the need for tailored infrastructure solutions that account for the specific environmental conditions and energy requirements of remote regions.

Arunachal Pradesh Specific Health Services Needs and Status Quo:

Participants: Mr. Vinayak Hedge(Selco - India), Mr. Fazle Muztaba(Envo), Pawan (SF), Rabindra Prasad (Karuna Trust)

Discussion Points

- 60% of the facilities do not have electricity
- Low population density
- Sparse
- Most places are off grid
- Access to energy is a requirement
- Small hydro have come up, waterfall are so many
- More ways alternative sources of renewable energy
- Sub centers have delivery points
- Solar water heaters
- Critical – system designs are incorporated so maintenance and logistics , advanced technology has to be utilized so maintenance goes down given the terrain

Insights

Energy Access Challenges: Significant challenges related to energy access are highlighted, with 60% of facilities lacking electricity. Addressing energy poverty is crucial to ensure the provision of essential services, including healthcare, in underserved areas.

Low Population Density and Sparse Distribution: The low population density and sparse distribution of communities contribute to the difficulty in providing infrastructure and services, including energy access. Innovative approaches are needed to ensure efficient and sustainable energy solutions tailored to the local context.

OffGrid Locations: Many areas are offgrid, indicating the absence of connection to centralized energy distribution networks. This requires decentralized energy solutions to meet the energy needs of these communities effectively.

Utilization of Alternative Renewable Energy Sources: Exploring alternative sources of renewable energy, such as small hydroelectric projects and utilizing waterfalls, is emphasized to address energy access challenges and leverage local resources for sustainable energy generation.

Integration of Solar Water Heaters: Solar water heaters are mentioned as a specific technology being utilized to reduce reliance on non-renewable energy sources, indicating a focus on leveraging solar energy for meeting specific needs such as water heating.

Importance of System Design and Maintenance: System design considerations are crucial to ensure efficiency and ease of maintenance, particularly given the challenging terrain. Advanced technology and innovative approaches should be employed to minimize maintenance requirements and optimize system performance.

Energy for Health Summit

CLOSING SESSION

Day 1

Dr. Ravi Kannan
Cachar Cancer Hospital and Research Centre
2023 Ramon Magsaysay Awardee

Introduction:

The inception of Cachar Cancer Hospital stemmed from community driven efforts aimed at tackling the lack of accessible cancer care in Northeast India. With a focus on providing affordable treatment, the hospital endeavors to mitigate the impact of treatment duration and travel on patients.

1. **High Cancer Incidence:** Lifestyle factors such as tobacco and alcohol consumption contribute to the high incidence of cancer in the Northeast region. This underscores the urgent need for intervention and preventive measures.

2. **Opportunities for Intervention:** Despite the relatively small population in the Northeast, there exists a significant opportunity for intervention to address the growing burden of cancer.

3. **Transition to Comprehensive Care:** Recognizing the limitations of low cost care, there has been a paradigm shift towards providing comprehensive cancer care. This approach aims to address dropout rates and socioeconomic barriers faced by patients.

4. **Socio-economic Challenges:** A realization of low treatment completion rates has prompted introspection into the socio-economic barriers hindering patients' access to care. Approximately 80% of patients are daily wage earners, highlighting the financial strain they face during treatment.

5. **Interventions to Address Dropout Rates:** Initiatives such as providing employment opportunities for caregivers and implementing software for followup appointments have been introduced to mitigate dropout rates and ensure continuity of care.

6. **Home Care Program:** The introduction of a home care program for patients with advanced stage disease has improved trust and accessibility to healthcare services, particularly for those unable to travel to the hospital.

7. **Patient Centric Approach:** The hospital has adopted a patient centric approach by transitioning to a one time payment model for lifetime cancer care, aiming to alleviate financial burdens on patients and their families.

8. **Treatment Progress:** Significant progress has been made in treating 70% of cancer patients, with plans underway to enhance accessibility through the establishment of satellite centers in remote areas.

9. **Deployment of Health Workers:** Health workers are deployed in remote regions to facilitate education, early detection, and palliative care initiatives, ensuring holistic support for cancer patients throughout their journey.

Energy for Health Summit

SESSION 1

Day 2

Session 1: Innovations in energy Efficient Medical Technologies for NER
Speakers: Dr. Priyanka Bajaj, Dr. Niranjan Joshi, Ms. Kshama Kothari, Mr. Dinesh Songara
Moderator: Dr. Tejaswi Balasundaram

Key Insights

- **Leveraging Technology for Healthcare:** Emphasis on leveraging technology like medical devices, diagnostics, and digital health systems to bridge gaps in healthcare delivery, particularly in remote areas.
- **Public-Private Partnerships:** Collaboration between government supported initiatives and nonprofit organizations like PATH demonstrates a concerted effort to address public health challenges.
- **Supporting Deep Science Innovations:** Fostering innovations from ideation to market readiness, focusing on maternal and newborn health, noncommunicable diseases, and primary healthcare.
- **Climate and Health Intersection:** Recognizing the intersection between climate change and health, with a focus on resilience and adaptability in healthcare systems.
- **Supporting Startups:** Providing guidance through incubation processes, including regulatory approvals and market understanding.

- **Challenges of Piloting Innovations:** Operational challenges like efficacy, efficiency, procurement complexities, and data management hinder successful implementation in last mile areas.
- **Addressing Operational Challenges:** Awareness of regional procurement standards, user centered design, and community deployment are crucial for overcoming operational hurdles.
- **Challenges in Deploying Medical Interventions:** Discussion on the gap between development and deployment, hidden operational costs, multi level planning, and government procurement complexities.
- **Data Management Challenges:** Lack of standardized data collection, training, and support for data management at the ground level.
- **Ground Realities:** Real World feasibility testing, user centered design, and affordability considerations for healthcare innovations in resource limited settings.

Call to Action/Factors to Integrate While Designing

- **Early User Involvement:** Engaging potential users in the design phase to gather feedback and ensure usability.
- **Real World Piloting:** Conducting pilot programs to identify and address challenges before scaling up.
- **Standardized Data Collection:** Developing guidelines for data format and storage to ensure interoperability.
- **Collaborative Partnerships:** Navigating government procurement processes and building sustainable partnerships.
- **Human Centered Design:** Designing devices that meet the needs of healthcare workers and patients effectively.
- **Transparent Cost Structure:** Ensuring transparency in pricing for both initial purchase and ongoing use.
- **Sustainable Business Model:** Developing a model that considers the entire life cycle cost of the device, including maintenance and support.

"Understanding the problem statement and finding innovative, costeffective solutions is crucial for decarbonizing and improving energy systems, especially in regions like the Northeast. Designing for the end user is key, whether it's healthcare workers, beneficiaries, or government agencies involved in public health. The deployment of solutions marks just the beginning of a complete cycle."

Dr. Priyanka Bajaj
PATH

"Low resource requirements and operational level validation are crucial for innovation success, along with understanding commission structures and establishing a chain of command. Deep science innovations should undergo rigorous development stages, including prototype development and market readiness, to ensure commercial viability."

Dr. Niranjan Joshi
CCAMP

"Technology can create equitable access to healthcare, but solutions must be tailored to different market needs, whether in the public or private sector. Prioritizing gaps in public health provisioning, including price point, durability, and system provisioning, is essential for addressing healthcare challenges."

Dr. Kshama Kothari
Social Alpha

"Data security and management are paramount in healthcare innovation, as patient data privacy must be ensured at all stages. Sustainability of healthcare innovations requires alignment with government logistics plans and careful consideration of supply chain logistics at the last mile."

Mr. Dinesh Songara
WISH Foundation

Energy for Health Summit

SESSION 2

Day 2

Catalyze Tech Awards for Energy Efficient MedTech Innovators

Launched in January, SELCO Foundation received 10 applications from medtech enterprises proposing solutions across diverse areas for support in training, implementation assistance, and development of an evidence base system for innovations. These innovations ranged from portable, digital handheld devices that require no consumables, to digital apps tailored for frontline workers in areas with low network connectivity.

Criteria of selection: Solutions targeting unmet public health needs through energy efficiency and decentralized care delivery.

The following enterprises were declared as winners of the challenge

- **CareMother by Doto Health:** A solar powered MCH kit
- **Round Works Technologies:** Alveofit, a digital spirometer device
- **Perkant Tech Private Limited:** Abhay Parimiti, a consumable free spotcheck device monitor for vital signs in last mile areas
- **TeleHealth Innovations Foundation:** Intelehealth App, an aid for front line workers in low network connectivity zones

"They say necessity is the mother of innovation but innovation is the mother of change."

"Same as dream, innovate, initiate and integrate. Why integrate? It is an integration of ideas and skills together. Success is when we work together for shared success."

"It is very important to achieve scale. Without scale your idea can remain a good idea and die a natural death. With scale, it gets sustainability"

"You need sensitivity and knowledge of local conditions. That's why you don't necessarily need to depend on specialists but depend on ideas coming from partners who have local knowledge"

Mr. Sanjoy Hazarika
Managing Trustee and Founder,
Center for North East Studies & Policy Research
gave a special keynote address

Innovation and impact

- Emphasized the importance of innovation and collaboration for creating positive change.
- Highlighted the success stories of award winners and their potential to inspire others.
- Stressed the need for **scale and sustainability** to ensure longterm impact.

Lessons learned from the boat clinic initiative

- **Focus on local needs and context:** Understanding local challenges and knowledge is crucial for successful interventions.
- **Building trust:** Earning the trust of communities is essential for longterm success.
- **Meeting people where they are:** Providing services that are accessible and convenient for the target population.
- **Patient Centered approach:** Prioritizing the needs and perspectives of the communities served.
- **Data and documentation:** Importance of documenting research and project work for learning and sharing knowledge.

Energy for Health Summit

SESSION 3

Day 2

Session 3: Leveraging Financial Resources

Speakers: Mr. Srikrishna Sridhar Murthy, Ms. Meena Seram, Ms. Liinai Margaret, Mr. Joby V K

Moderator: Mr. Thomas Pullenkav

Key Insights

- **Current State of Public Health Expenditure:** Current State of Public Health Expenditure: India's public health expenditure is low, around 1 to 1.5% of GDP, with plans to increase to 2.5% by 2025. However, this is still significantly lower than the global average of around 6%.
- **High OutofPocket Health Expenditure:** Approximately 50% of health expenditure in India is out of pocket, posing a significant challenge for individuals, especially the poor and underserved.
- **Government Priorities in Fund Allocation:** Government focus seems to prioritize managing healthcare delivery services over infrastructure development or nonmedical operational expenses.
- **Challenges in Accessing Philanthropic Capital:** There appears to be a disconnect between the availability of philanthropic capital and its effective utilization in the healthcare sector, necessitating greater transparency and strategic mobilization of resources.

- **Limited NGO Absorption Capacity:** Despite growing philanthropic capital, most NGOs lack the scalability and systems to absorb large amounts of funding.
- **Uneven Distribution of Resources:** The Northeast region receives disproportionately less CSR and philanthropic funding compared to other parts of India.
- **Opportunities for Mobilizing Additional Resources:** There's potential in CSR spending, donations from Ultra High Networth Individuals (UHNIs), and retail giving. Collaboration among stakeholders is crucial for improving financing for health programs.
- **Challenges in Accessing Healthcare in Northeast India:** Lack of nearby health centers, poor road accessibility, shortage of healthcare workers, and limited awareness about health issues and vaccinations.
- **Mosonie Social Economic Foundation's Work:** Organizing free medical camps, creating awareness about vaccination, and partnering with SELCO Foundation to install solar power systems in health centers.
- **SELCO Foundation's Financing Models:** Pilot model, Public Private partnership (PPP)model, and Technical assistance model.
- **Challenges and Opportunities:** Resource constraints, stakeholder engagement, piloting and scaling, taking initiative and demonstrating commitment, and interdepartmental collaboration.
- **Government Funding:** Ministry of Health and Family Welfare (MoHFW), State budgets, and National Program for Climate Change and Health.

Key Highlights from the Discussion

- **Challenges and Solutions:** Identifying the right funding sources, matching donors with the right projects, lack of discoverability, capacity building gap, and limited innovation.
- **Opportunities:** Leveraging partnerships, focusing on impact, blended finance, understanding local needs, and utilizing various funding sources.
- **Sources of Funding Discussed:** Aspirational District Fund, District Mineral Fund (DMF), Corporate Social Responsibility (CSR) funding, and Philanthropy.
- This panel discussion emphasized the importance of collaboration, prioritization, and capacity building in improving healthcare financing and solar electrification in India, especially in remote and underserved areas.

"On one side there is money, on the other side, we have NGOs and CSOs like Mosonie, who don't know how to tap it, who don't know where the opportunities lie. And I think that's where organizations like Sattva, SELCO Foundation, and ICC can actually come in and create these platforms where there's more collaboration and policy engagement and how other funds can be tapped, how can these NGOs bring about some amount of leverage into the ecosystem."

Mr. Thomas Pullenkav
Selco - India

"Any NGO or CSR firstly they have to communicate with competent authorities of the State. While solarising health, various stakeholders will need to be involved. You need to showcase what impact it is going to give. And then you have priorities for which health facilities need to be focused and then move further.

From different sectors like Forest department, Energy department, if we pull in, along with MOHFW funding and other NGOs can be done, but we have to plan properly.

Dr. Meena Seram
State Nodal Officer Maternal Health Department, Govt. of Manipur

"Climbing up the hill, I met many people coming down, especially during the rainy season when road accessibility is very difficult.

Initially, the amount which we were spending only on travel was coming to 7500 plus. When we started the monitoring, we started to realize that we were spending so much on travel costs."

Ms. Liinai Margaret
MOSONiE

"We have more money than we can absorb. Are we ready for the absorption? No. only 20 Nonprofits have over 100 crore as their budget. Others are way too small. They don't have the systems needed for scalability."

Can economic value be generated from all of this work? If we are able to show the economic benefits of solving healthcare in a clean energy ecosystem to the state, to the community, we can unlock a lot of blended finance coming from various organizations including CSR."

Mr. Srikrishna Murthy
Sattva

"Somewhere we need to tap the CSR fund or philanthropy because it's a responsibility of the CSR as well as other philanthropies and other critical stakeholders to come together as partners and leverage funds."

Mr. V K Joby
SELCO Foundation

Energy for Health Summit

SESSION 4

Day 2

Session 4: Navigating for the North East: Exploring Supply Chains, Skills, and Installation needs: CoHosted with CLEAN and AIC SELCO Foundation

Context: The panel discussion centered around the challenges and critical components of Clean Energy Access Network, focusing on insights, challenges, system design, operation, maintenance, and after-sales servicing support.

Geographical Considerations, Assessment and System Design:

Mr. Vishal Toro
CLEAN

- Operational in Assam, Meghalaya, and Nagaland, CLEAN collaborates with Clean Energy Enterprises, local NGOs, and partners.
- The CEE Access Network, a non-profit based in Pune, drives DRE projects with SELCO Foundation and 200 industry associations.
- Key challenges include the lack of policy advocacy and financial constraints, addressed through strategies like solar demonstrations and media coverage.
- In Meghalaya and Assam, collaborations with local stakeholders and state policies facilitated DRE roadmaps across various sectors.

Mr. Vinayak Hegde
Selco Solar Light Pvt Ltd

- Emphasized the importance of thorough assessments before DRE installations, considering factors like route to health facilities, load calculation, and points of use.
- Insightful discussions focused on cost implications, planning processes, and timelines, highlighting the need for local context consideration.

Mr. Fazle Mustaba
ENVO

- Stressed the importance of assessors' technical expertise and specific system designs tailored to local contexts.
- Advocated for robust surveys and planning to ensure effective budget allocations and successful implementations.

Mr. Saurabh Sharma
Sanjog

- Shared experiences from projects focusing on rural livelihoods, disaster response, and health center empowerment, showcasing the intersection of energy and health.
- Highlighted the importance of proactive local government involvement and community engagements for sustainable impact.

NGO Perspectives and Recommendations

Mr. Sujit Ghosh
VHAT, Tripura

- Advocated for cross-learning opportunities between states and suggested piloting initiatives in Tripura for easier government acceptance.
- Emphasized workshops and community connections for effective ground implementation.

Mr. Rishikesh Mishra
WRI, India

- Proposed exploring various renewable energy sources beyond solar for enhanced energy access.
- Raised questions regarding cost implications and key factors for consideration in assessments, especially concerning local needs and infrastructure.

Mr. Jervis Lalramnghaka
JD Society, Mizoram

- Shared experiences of assessments and operational challenges, highlighting the importance of local resources and thorough planning.
- Discussed the challenges of remote areas and the need for buffer time and budgets for surveys.

Installation and Maintenance Challenges

Mr. Sijil Joseph
SELCO Foundation

- Underlined the significance of site-specific and geographic assessments for effective system design and planning.
- Advocated for comprehensive data collection and quality assurance from health facilities, emphasizing the importance of local teams and training.

Mr. K Chingkhiungamang
RNBA, Manipur

- Stressed the importance of load profiling, future upgrade considerations, and energy efficient technology assessments in DRE installations.
- Discussed challenges related to procurement, supply chains, and the need for standardized practices.

Session Insights and Recommendations

- Highlighted the critical role of local teams, skilled technicians, and ongoing training for successful installations and maintenance.
- Advocated for remote monitoring systems, local service points, and strengthened supply chains to overcome logistical challenges.

The panel discussion provided comprehensive insights into the challenges, strategies, and best practices of DRE initiatives, emphasizing the importance of local context considerations, collaborative efforts, and ongoing support for sustainable energy access.

Energy for Health Summit

CLOSING SESSION

Day 2

Mr. Jeevan Kumar Jeethani
Senior Director, DRE India (NER Champion)

1. DRE solutions offer significant benefits, particularly in their ability to generate power where it is needed most. Considering the large swathes of land in the region, a cost analysis reveals that DRE is a cost-effective option.

2. The success of DRE solutions in providing reliable energy access in the North Eastern Region (NER) of India makes it a model worth emulating across the country.

3. With 425 units already operational in NER, there remains ample scope for further development. This not only reflects positively on livelihoods but also distinguishes the region from others globally.

4. The NER context presents great potential and consequently, a growing demand for DRE solutions.

5. Support in NER is essential to facilitate the operationalization of healthcare facilities (HCFs) with reliable power. Ensuring basic power requirements for health facilities is crucial for delivering quality healthcare to the last mile. Special thanks to Sustainable Futures (SF) for spearheading this initiative.

6. Local power generation not only ensures reliability but also proves to be cost-effective compared to transporting power from the main grid to remote areas.

7. It's imperative for Sustainable Futures (SF) to integrate lessons learned from DRE implementation into policy frameworks for wider applicability.

To collaborate or for more information, reach out to us

info@selcofoundation.org
SELCO Foundation