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2nd National Workshop on Sustainable Energy Ecosystems for Decentralized Healthcare

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Panel Discussion: Impact and Scope for Energy Interventions in Primary Health Care

The healthcare priorities and energy requirements of a PHC would depend on a number of geographic, demographic and operational parameters specific to the region. SELCO Foundation has worked closely with Karuna Trust, Swasthya Swaraj, Center for North Eastern Studies, Tribal Health Initiative and other health and technology partners to understand the typology of health centers and implemented energy and efficiency solutions designed to improve healthcare delivery. This panel focused on the learning from these projects and the scope and requirements for further **work**

Panelists: Dr. Sr Aquinas (Swasthya Swaraj) and Mr. Ashok Rao (CNES), Mr. Venkatnarayan Chekuri (Karuna Trust)

Moderated by: Ms. Huda Jaffer (SELCO Foundation)

Panel Discussion: Impact and Scope for Energy Interventions in Primary Health Care

Impact

- **Improved, reliable service delivery:** Earlier, anxiety prevailed while dealing with patients after 6pm, since power disruptions were very unpredictable. Post the energy intervention, there has been a dramatic improvement in service delivery. Emergency cases post 6 pm are handled at the primary level with a cut down on referrals. This also reduces the out of pocket expenditure for the poor.
- **New service additions:** There are services now being offered which were not seen as a possibility at primary levels. Diagnostic, curative and even auxiliary critical services like purification of water made easier. Constant supply of power has enabled technology based interventions, better supply chain management and better delivery of doorstep services like mobile dental clinics.
- **Improved staff retention:** Earlier, retaining of staff was difficult as ANMs often have to stay in un-electrified sub centers which was difficult with high levels of insecurity. Young doctors on boat clinics did not have time to study once it was dark. Reliable electricity availability is giving them a dignified living and working environment, causing reduction in attrition.
- **Saving cost and human resources:** There is a huge saving with respect to cost and man power as health workers earlier had to travel long distances to procure diesel and repair generators. In Boat clinics, they also had to travel frequently to get vaccines and blood in ice boxes. Solar refrigerators have made it possible to store these at the point of care itself, while also monitoring the temperature remotely for better maintenance.

Future Scope

- **Re-thinking primary services:** Earlier even x-rays used to be considered as a secondary service. Good diagnostics, obstetrics, skilled health workers, emergency services all need to be a part of primary health care as it is the first point of contact for most of our population. To reduce the burden on secondary health care, a lot of services need to brought down to the primary level.
- **Budgeting for reliable energy as a part of healthcare delivery:** Most modern and digital medical equipment are energy dependent and energy intensive. Energy has to be a part of budgeting and planning due to the high dependency else the quality of services come down. In health care, reliability is more important than cost, as the lives of the poor are at stake. Energy audits needs to be done at every primary health center and budgeted for accordingly
- **Focus on nutrition, safe drinking water:** Forty percent of the diseases at a rural level are water borne and they can be avoided with precaution. A sustainable ecosystem can be built with small food processing units to promote better nutrition through locally grown foods. This can also act as a supplementary and complementary model for lactating mothers.
- **Planning for future needs:** Energy requirements are never static and are ever changing. What might be priority today might not be tomorrow. Planning needs to be done accordingly and energy solutions need to be designed for it to be made available on a more widespread scale.

Panel Discussion: Financing, Policy and Partnerships for Scaling Energy-health Initiatives

Primary Health Centers are the backbone of public health system in India. There is a growing recognition of the need for reliable electricity to deliver better health services at PHCs. Several States, with the help of National Health Mission, have deployed solar back-up systems in over 600 PHCs cumulatively. On the other hand, private healthcare and energy practitioners have been partnering to optimize sustainable energy solutions specifically to the health needs of the region. Cross learnings from these pilot initiatives can help develop a roadmap for bridging the energy gaps in the public health system. What financing mechanisms, policy pathways and partnerships are necessary to scale these initiatives?

Panelists: Prof. Muraleedharan (IIT Madras), Mr. Sanjeev Jain (CREDA), Ms. Kanika Gulati (GE)
Moderated by: Mr. Vivek Shastry (SELCO Foundation)

Panel Discussion: Financing, Policy and Partnerships for Scaling Energy-health Initiatives

Technology Considerations

- **Design for rural contexts:** When equipment's are being designed, factors to keep in mind would be affordability, reliability, ruggedness, efficiency to suit the Indian rural context. Additional points to bear would be ease of availability of parts and replacements which could be accessible at a local level
- **Focus on long term ownership:** In the public sector, tenders, commodification, cost of acquisition is focused on and not cost of long term ownership. The linkage of providing the entire solution with ecosystem support goes a long way. Staff training for new medical equipment should be a part of the procurement process.
- **Benchmarking design and efficiency:** Many States are deploying standardized systems for PHCs, as there are no existing benchmarks for efficient equipments and context specific design guidelines. These guidelines need to be developed.
- **Strengthening service networks:** Maintenance needs have to be addressed with having plant operators, cluster technicians for routine checks, basic training for health center staff, additional servicing staff for equipments in remote areas, having spares being kept at the district level etc.

Financing Channels

- **Public Private Partnerships:** In cases where government health centers are managed in partnership with private NGOs, the partner NGOs can raise the financing required for efficient medical equipments. The cost of the decentralized energy intervention can also be repaid over time through the monetary savings from alternate energy sources.
- **Financing through Banks:** Private banks have financing schemes for expensive medical equipment. This scheme could also be leveraged to finance efficient equipment together with decentralized energy as one package. However, such financing is availed mostly by private hospitals, as NGOs or Government facilities may not want to take on debt.
- **Energy in Infrastructure budget:** Tamil Nadu has set the example by allocating a certain amount for solar energy within the infrastructure budget for new sub centers. Provision for procuring higher efficiency equipment can also be made through a similar process.

Policy Pathways

- **Strengthening Sub-Centers:** Sub centers are the first point of care for the poor. Evidence from Tamil Nadu shows significant increase in footfall at sub centers after infrastructure upgrades. Introducing more decentralized services with reliable electricity can further improve this and reduce the load on secondary and tertiary care.
- **State Nodal Agencies:** In Chattisgarh, the State Nodal Agency for Renewable Energy has taken the lead to provide standardized decentralized energy systems to over 500 PHCs. The agency designed the system, pooled in financial resources , as well as coordinated the installation and maintenance through its own network of technicians.
- **Pooling local development funds:** For scaling solutions effectively, it is important to involve State nodal agencies from the energy as well as health departments. In tribal or backward areas, local development and welfare funds can also be pooled in.
- **Evidence based recommendations:** The outcomes of various pilot interventions should be documented in the form of patient footfall, reduced referrals to tertiary care, improvement in infant mortality etc. This evidence can justify the need to scale up initiatives. Academic institutions should be close partners in this process.

Next Steps

- **Design guidelines for different healthcare typologies:** The variation and future needs of healthcare and related energy implications for delivering healthcare in different contexts need to be documented to facilitate replication.

- **Maternal and Infant Care:** Reducing maternal and infant mortality is very critical at the primary care level. The entire package of efficient equipment with reliable energy for delivering effective care need to be evaluated in different contexts.

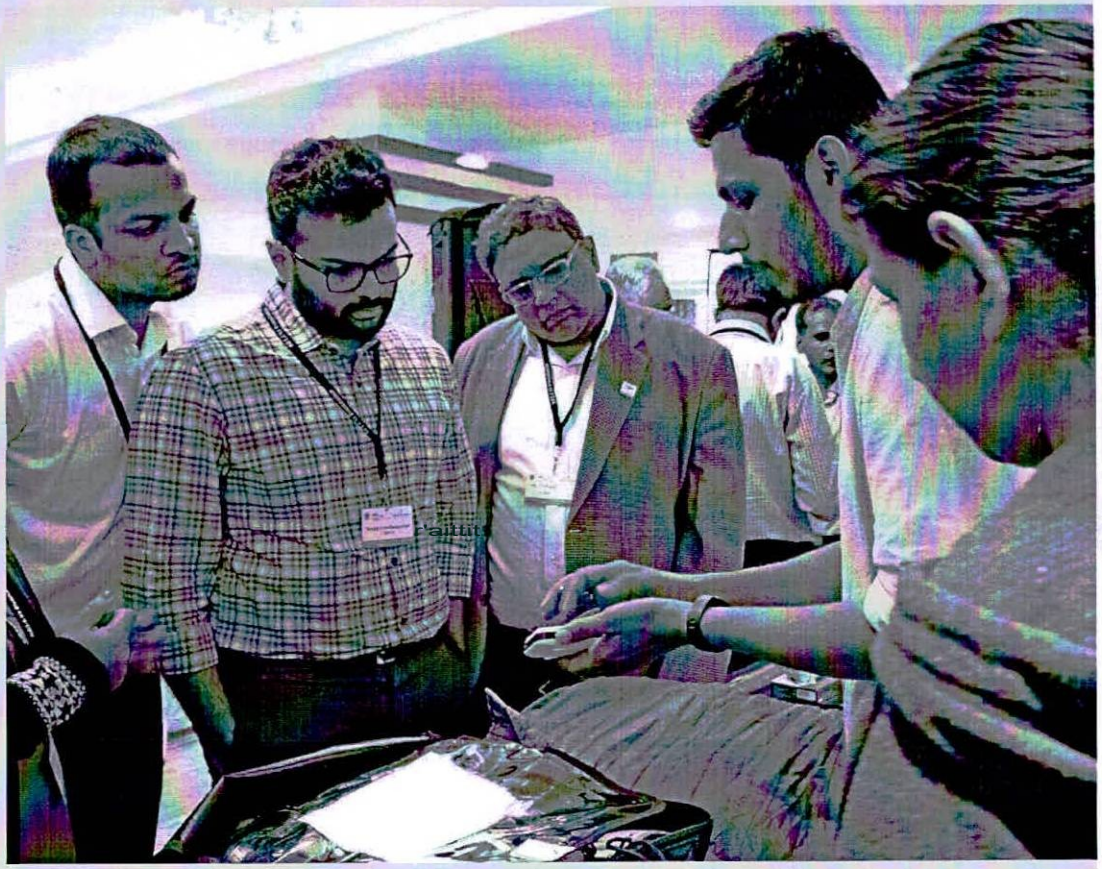
- **Cold-chain:** Effective cold chain solutions are needed for community health workers at the village level. Health workers currently need to go to the PHCs to procure vaccinations which takes a lot of their time and money.

- **Efficient secondary care:** There is a need to bring in basic secondary care equipment down to the primary level. These include efficient medical grade oxygen concentrators and imaging equipment such as X-Ray and Ultrasound.

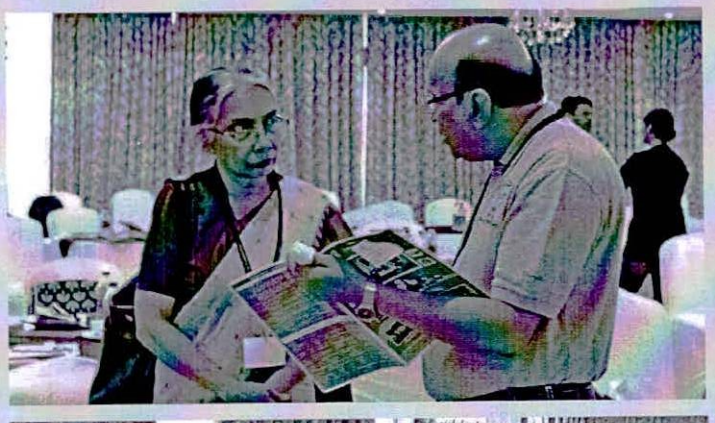
- **Point of care devices:** The energy and health link can be used to give people mental and physical support. With maintenance kits with glucometers, blood pressure and heart monitors at a door step level can be appropriate use of technology acting as a preventive measure

- **Academic partnerships:** Academic institutions can play an important role in monitoring and evaluation of various initiatives, and to generate fresh ideas to decentralize healthcare for the poor.

- **Policy advocacy:** A stronger representation from health practitioners is needed and strengthening of their voices will help in scaling up such initiatives. It is crucial to sensitize the government about the criticality of energy access at every level of health delivery.



Photos



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