

### **Concept Note- “Health Energy Nexus”**

The primary health system in India is one of the key pillars of the National Health Mission of the Government of India. It has come a long way in providing essential services such as maternal and child health, vaccinations, and most importantly, affordable healthcare to all. While, the coverage of primary health facilities expands across India, the public health system's effectiveness in quality health care delivery is hindered by manpower issues, lack of infrastructure including equipment, building design, utilities and so on. This has rendered basic and comprehensive healthcare for underserved communities inaccessible and expensive, with them having to look for alternate private health care options locally or travel long distances to reach the district public hospital.

One of the key infrastructure gaps that has been observed is that of reliable energy availability. As of 2015, nearly 35 million citizens in rural India relied on PHCs for primary health services not connected to the grid, while an even greater number of health facilities facing irregular power supply. In the absence of electricity and reliable energy for heating, services catered by health institutions such as institutional deliveries, pediatric emergencies, and administering of vaccines get severely affected. Energy access in health centres is also imperative as a means to facilitate communication services, tele-health applications and to retain skilled health workers.

Alternative solutions for augmenting the energy needs of health facilities combined with efficient health equipment can transform the delivery of health services by making it affordable and accessible to rural poor. As we go ahead with time, the dynamic nature of health risks along with the goals of the National Health Mission, the range of services provided at the primary health care level will have to increase, thus, also increasing the energy demand. The solution to bridge this energy gap, therefore, needs to have a two- pronged approach: energy independence and energy efficiency.

Rapidly dropping prices of sustainable energy options like solar will not only help phase out the more expensive diesel generators being used as power backup with a cleaner source of electricity, but the capacity of these systems can be expanded, given their modular nature, to meet the energy needs as additional services are added. As the range of services expand, energy efficiency is also of paramount importance. Along with augmenting energy supply, demand side management, by way of introducing more energy efficient equipment can help reduce the net energy demand of health facilities, but also enable them to provide additional services with minimal incremental addition to their energy needs. Combination of technology and communication could also solve some of the issues of arising from lack of qualified manpower at the point of delivery.

While over the foreseeable future, India needs to work towards enhancing the current ecosystem of healthcare delivery at the primary level, it also needs to think ahead in terms of what could be the potential needs of the community in terms of health care, thus driving a comprehensive public health system which aims at an effective service delivery at a decentralized level. To reach healthcare targets and transform healthcare from a privilege into a

right, strategic steps must be taken beyond allocating human and financial resources, with equal emphasis on appropriate technologies for a resilient health system.

**Energy access and Health – *Towards effective primary health care delivery***

Conventionally, infrastructure for healthcare has largely included equipment and building condition, with some basic information on electricity and water availability. In recent years, with the Indian Public Health Standards (IPHS) released in 2012, electricity availability was given significant importance by Government of India. The WHO has also recognized the important role of electricity access in enabling health systems to function effectively. Having said that, very little attention continues to be given to the link between electricity access and sustainable delivery of health services. The energy-health nexus can be approached from two perspectives. One that ensures the delivery of various essential health services with improved electricity access, and on the other hand, better health services would lead to better utilization of electricity access.

**Expanding healthcare service delivery – *Towards decentralised ecosystems***

With the global transition from the MDGs to the SDGs, to meet these sustainability goals, is one of the core principles that will facilitate this shift in the right direction. In health care, the question that needs to be asked is whether the level of decentralization so far is sufficient, or is this only the beginning? There is still significant dependence on large hospitals for various services, many of which if provided at the primary health care level, combined with a seamless information and diagnostics system that connects all the three levels of the public health system in India, can act as the much needed turning point for a paradigm shift. The key is to develop an understanding of health care needs at the local level, which can drive customized and inclusive solutions in terms of low-cost, quality and affordable healthcare that can be deployed at the primary level.

