

## CSIR and HP jointly develop integrated cloud-enabled eHealth Centre

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The Council of Scientific & Industrial Research (CSIR) and Hewlett Packard on December 11, 2012, announced the launch of a rapidly deployable and fully integrated cloud-enabled eHealth Centre (eHC). The eHC solution has been developed by HP and CSIR. The first eHC has been successfully implemented and tested in partnership with O.P. Jindal Gramin Jan Kalyan Sansthan, 3M India, Maharaja Agrasen Medical College (MAMC) and Orion eServices at Chausala village in Kaithal district, Haryana. Over 4000 patient visits were recorded in the first 100 days of operation.

The eHealth Center is a fully integrated cloud-enabled healthcare solution that can be set up to provide affordable and preliminary healthcare in remote areas that have no immediate access to primary healthcare. The solution integrates medical instruments that collect basic patient health data with an eHC Health Cloud and enables medical diagnosis through remote consultation using built in videoconferencing options.

The eHealth Center was developed and co-funded by CSIR and HP. The eHC is an integral part of the CSIR 12th plan vision for Enabling Affordable Community Health through Information Technology (EACH-IT) and CSIR is providing the required connectivity, medical equipment and infrastructure. HP is providing the required Information technology infrastructure including IT equipment and cloud enabling the electronic medical records (EMR) solution with remote monitoring and consultation and a health policy dashboard. This initiative is part of HP's Sustainable and Social Innovation programs and showcases HP's commitment to align with the government's healthcare priorities.

"This initiative of CSIR and HP creates a platform for the fourth paradigm of science, data-intensive discovery, while bringing affordable healthcare services to the doorstep of people. CSIR, which has made phenomenal contributions in the Indian generic-drug industry and has developed the genomic landscape of the people of India, is now positioned to use the eHealth Center data for novel discoveries to create ultra affordable health care products and services. The success of CSIR-led Open Source Drug Discovery Program gives us confidence that open innovation for healthcare will play an important role in the data intensive world," said Professor Samir K. Brahmachari, Chief Mentor CSIR-OSDD Unit, Director General CSIR and Secretary DSIR, Ministry of Science & Technology.

"HP is collaborating with government health authorities and organizations to reinvent medical processes, modernize systems, and develop solutions that dramatically expand access, improve healthcare, and save lives. The eHealth Centre is an example of our commitment to social innovation and to the government's priorities, reiterating our belief of shared value," commented Neelam Dhawan, Vice President and General Manager, Enterprise Group and Country Managing Director, HP India.

O.P Jindal Gramin Jan Kalyan Sansthan facilitated access and delivery of the solution in Chausala village as well as the necessary social engineering. The first eHC at Chausala is operated by and remotely connected to Maharaja Agrasen Medical College (MAMC). Medical aseptic training, specialized medical consumable kits, electronic stethoscopes, corrosion protection and solar reflective coatings for eHC were provided by 3M India Limited. Orion eServices provided integration of the medical equipment and other devices with the health cloud, and provided training to the eHC personnel.

"eHC is a perfect example of technology in healthcare. The eHC Health Cloud technology will ensure that people get the benefit of state-of-the-art medical services at their doorstep, instead of having to travel long distances to urban centers. It gives me a sense of fulfilment to have supported such an idea and I feel delighted to have been able to provide my people with specialist services of this kind. I look forward to promote more such initiatives and provide the best for our people," said Naveen Jindal at the occasion.

"We are excited to partner with HP and CSIR in enabling this innovative social initiative. We are confident that this unique initiative will help the rural population in the hinterland, by providing easy access to and availability of quality healthcare. We have used our innovative technologies and customized solutions to ensure improved healthcare outcomes through this initiative. Today, the burgeoning population of India needs robust access to medical facilities and the idea of social empowerment takes on a new meaning with this initiative. We look forward to seeing it scale up successfully over the next couple of years," commented Ajay Nanavati, Managing Director, 3M India & 3M Lanka.

A study conducted by the Indian Institute of Public Opinion<sup>2</sup> found that 89 per cent of rural Indian patients have to travel an average of 8 kilometres (5 miles) to access basic medical treatment and the rest have to travel even further. The eHC solution is expected to address these challenges. It is a solution that is housed in a standard shipping container which can be quickly transported to remote areas of the country by air, rail or by land transport. It is affordable and easily deployable as compared to brick and mortar alternatives and is equipped with basic cloud-integrated diagnostic equipment, a telemedicine studio, laboratory and a pharmacy. Paramedics can staff the eHC, with specialist medical interventions provided through remote medical consultation. This minimizes the need for onsite skilled doctors in isolated locations. Remote monitoring of the eHC functioning and its equipment is done through the eHC Health Cloud, minimizing absenteeism and equipment downtimes.

The eHC Health Cloud integrates the process of healthcare delivery and health data collection. This centralized patient information sets the platform for data-driven research such as disease surveillance by tracking disease patterns and risk factors. The health profile of the region as well as monitoring of the daily usage of the eHC is enabled by an integrated eHC dashboard, providing comprehensive yet digestible analytics that will help health policymakers