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3	PhD Thesis Title	Effective and Affordable Quality Healthcare Delivery System in Rural India: A Model Based on Information Technology
		
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6	Date of Award of PhD degree	April 7, 2012
7	<p><u>Brief synopsis</u></p> <p>The Research work embodies a progressive and innovative use of information technology in improving the healthcare delivery system in India by employing very cost effective and affordable model for rural areas. The prime factors that affect healthcare delivery are non availability of doctors and distances between patients and health centers. This problem is more pronounced at rural areas primarily in India and as a result healthcare delivery systems in big centers get overloaded. The current challenges in the rural healthcare in India are addressed by the model designed and developed as part of this research:</p> <ol style="list-style-type: none"> <li>1. The challenge of easy availability of electronic health records at the point-of-care is addressed by our model / kiosk by providing simple and pragmatic health records. The non-essential data is excluded from the standard EHRs in this implementation by designing Employable EHR with all essential but minimal data sets.</li> <li>2. Non-availability of doctors at the primary healthcare centers in rural India is overcome by our kiosk through a facility to record vital signs of patients by a trained nurse or technician. Doctors can look at the recorded patient details at their convenience and provide diagnosis and medication to patients.</li> <li>3. Non-availability of experts in the primary healthcare centers is overcome by the use of telemedicine facilities provided by the kiosk. The kiosk has communication modules that increase the efficiency of data transfer and use low bandwidths to transfer data between the patient-end and the doctor-end.</li> <li>4. Increased turnaround times for diagnosis which delays the care and medication of patients is a major bottleneck in rural areas. Because of this the secondary and tertiary care facilities get crowded and will be expensive. This challenge is very well addressed by our integrated point-of-care diagnostics in the kiosk.</li> <li>5. The current process of diagnosing and providing medication depends on the doctor and is not standardized which leads to inefficiencies in most of the cases. Our kiosk with its workflow provides a standardized way of treating patients and this is a very big contribution to the healthcare industry especially in rural areas.</li> </ol> <p>The research addresses the current challenges in the rural areas. The kiosk offers medical diagnosis, ongoing patient care and has an ability to monitor patients remotely by using innovative applications with the underlying cost-effective technologies. Kiosk unifies diagnostic hardware like Microscope and Vital Signs Monitor with the diagnostic software. The software consists of modules for Electronic Health Records, Pathology, Radiology and Vital Signs Monitor. Kiosk offers simplicity and cost efficiency making it an ideal solution for use in rural areas where efficiency of healthcare delivery systems is critical. The research work helps in increasing the efficiency of healthcare delivery by improving the processes and creating information databases that can help the policy makers to take decisions to build more robust healthcare systems in India. The research aims at reducing the cost of healthcare by employing automation tools and using Information Technology.</p>	