ABSTRACT

Health care access and affordability is a problem all around the world with large numbers of individuals.Technical roadblocks make medical health care process more challenging than it needs to be, and it is not easy to get the right information from the hands of caregivers. When the right information is hard to find or access, doctors and nurses often doing redundant test to gather information they need to determine the clinical outcome. This approach has grown too expensive and the data is hardly to be accurate. Through health application, there are avenues through which health care delivery can be improved especially using mobile health applications and Personal Health Record (PHR). Creative use of new mobile health and PHR has the potential to reduce the cost of health care and improve health care.PHR application had a long held appeal as a way to empower patients by providing them with lifetime access and accurate information about their health.

This study will research about developing PHR applications in mobile device usingtest-driven development method and HealthVault framework to cover all the main characteristics and features in designing the mobile applicationbased on four PHR characteristics: comprehensive, interactive, patient-controlled and secure.Analyzing and model in this application using UML and C# programming language. The rest result show that the system is built accordance with the system design and user requirements.

The result of this research is to create mobile health application that expected to help and facilitate the patient in controlling their own medical record easily and comprehensively.

Keyword: Personal Health Records, Mobile Application, Test Driven Development, HealthVault.