

Abstract

1.1 Background:

The availability of good quality drinking water is a basic human need. To ensure the quality of water, regular testing needs to be done. The quality and the timeliness of these reports are very important. In this endeavour, the researcher was able to make the public water quality reporting procedure fast, efficient of higher quality by making an amalgamation of a mHealth solution and an electronic information system.

1.2 Method:

The researcher used Focused Group Discussions, Semi-structured interviews to gather data and qualitative data analysis was used to analyse them and identify the requirements of the system. After a meticulous design process and a swift agile software development process, the final product, “Electronic public water quality assessment tracking system for southern Province, Sri Lanka” was crafted and it was given the name “AquaFast” for easy referring. It consists of a mobile application and a web application connected with a server.

1.3 Results:

The identified major themes were data quality, system quality, service quality, and infrastructure and improvement suggestions. An android app was developed for the PHIs, MLT and Microbiologist and a web application was developed for the other stakeholders with added functionalities including aggregated reports, GPS data and water source location photos.

1.4 Conclusion:

This electronic solution was able to improve the public health data collection process in the field setup. This solution was perceived as easier and faster. There was mainly positive feedback from the stakeholders about the new system and they are ready to accept the new system.