



Hypertension Scoping Study

Exploring Mobile Health Technology for the Management of Hypertension in the Aboriginal and Torres Strait Islander Community Controlled Health Sector.

The challenge

Chronic disease is the greatest contributor to the mortality gap between Aboriginal and Torres Strait Islander people and non-Indigenous people with Cardiovascular disease (CVD) the leading cause of death for Aboriginal and Torres Strait Islander people. Hypertension is a causal risk factor of CVD. Inequity in levels of access to health information and services is a contributing factor to the disparity in CVD diagnosis and mortality among Aboriginal and Torres Strait Islander people and non-Indigenous populations. With the growing prevalence of smartphones and other mobile devices, mobile health (mHealth) represents an increasingly useful way for people to access health information and tools to understand, monitor and improve their health.

Our response

Researchers at the Australian E-Health Research Centre (AEHRC), CSIRO's digital health research program, have developed an mHealth based platform. This clinically validated mHealth platform will be a customised (app + Web portal) to hypertension management. As a base platform, the capacity of the app will include Blood Pressure (BP) data collection and tracking by way of Bluetooth sphygmomanometer. This clinical collection will mitigate human error and ensure rigour in measuring not only systolic and diastolic reading independent of the patient but also track the frequency of Home Blood Pressure Monitoring (HBPM). Education components of the app will be delivered via text messages and educational videos/links covering information on hypertension and antihypertensive medications. (Figure 1).

Codesign Partners

The Queensland Aboriginal and Islander Health Council (QAIHC) is a leadership and policy organisation. It was established in 1990 and is the peak organisation body representing Aboriginal and Torres Strait Islander Community Controlled Health Organisations (ATSI CCHO) in Queensland at both a state and a national level. QAIHC membership is comprised of ATSI CCHOs located throughout Queensland which deliver holistic care that is patient and family centred, at no cost to the patient and at a single location. In delivering comprehensive primary health care, ATSI CCHOs also provide treatment, prevention and early intervention, rehabilitation and recovery services.

Self-governance of primary health care for Indigenous People is recognised nationally and internationally as best practice. Community-control is a process which allows the local community to be involved in the priorities, protocols and procedures as determined by the community.

This Scoping Study was undertaken to determine whether further consideration of hypertension mHealth is a relevant priority with the Aboriginal and Torres Strait Islander Health Sector and to provide valuable insights about the needs, preferences and priorities of how Aboriginal and Torres Strait Islander people may wish to engage with mHealth for hypertension management.

The Scoping Study aimed to investigate and how m-health may apply to hypertension management within Models of Care (MOC) in ATSI CCHOs.

The Results

Six overarching themes were identified; technology, interoperability, screening risks and thresholds, education and patient engagement. There are two key findings from this Scoping Study. Results contribute narrative information about the perceived value that mHealth may have in the contexts of ATSI CCHO patients and MOC. The consultation process and subsequent findings have built a culturally respectful foundation to guide engagement, partnership, co-design and implementation of hypertension mHealth with ATSI CCHOs in their communities.

The CSIRO mHealth platform uses smartphones and other mobile devices, to enable real-time information exchange between patients and healthcare service providers. mHealth can provide support and timely interventions, and by engaging patients in managing their own health conditions it has the potential to move the balance of power from healthcare providers to healthcare users and reduce the healthcare burden.

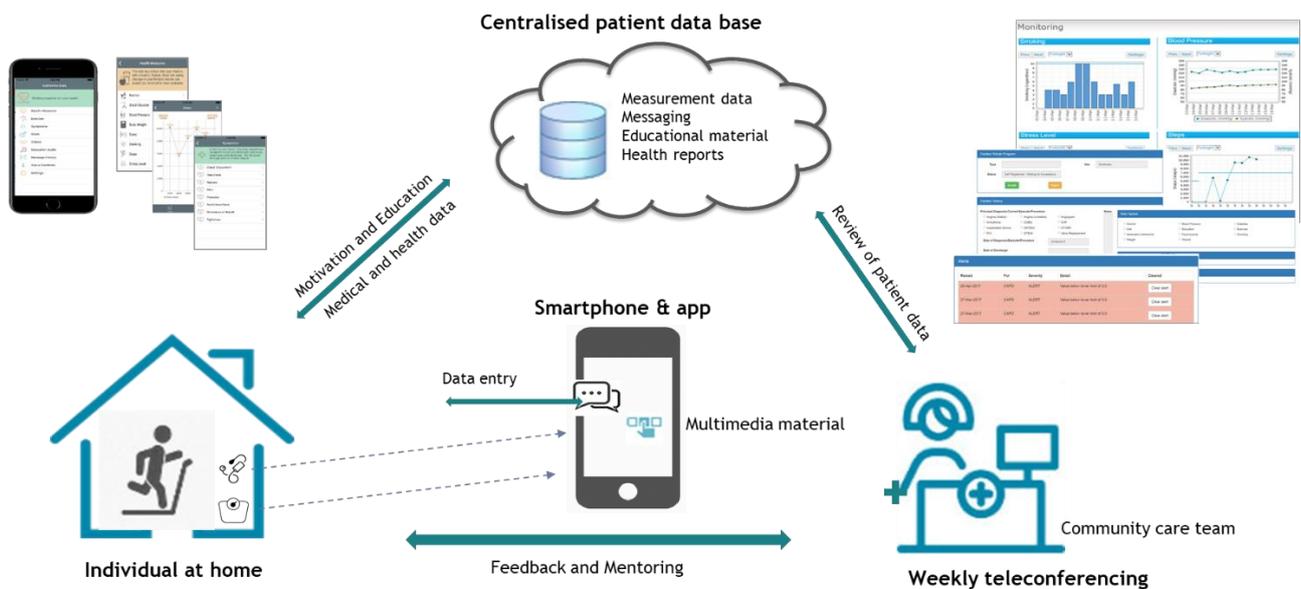


Figure 1: CSIRO Mobile Health Platform

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