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AN INTEGRATED MOBILE HEALTH PLATFORM

An integrated digital platform for mobile health in the public sector in South Africa

BACKGROUND

Reducing maternal and child mortality is a global health priority, with South Africa, like many other middle- and low-income countries, implementing various programmes to improve maternal health. In 2014, South Africa launched an initiative to use mobile phone technology as part of a suite of interventions (e.g. increased access to contraception, improved coverage of breastfeeding) to address the relatively high maternal mortality ratio (MMR), child mortality rate and perinatal mortality rate (PNMR) in South Africa. Mobile health (mHealth) is recognized as having significant potential to address health issues in developing countries, notably maternal and child health. One of the mHealth interventions launched is MomConnect, a mobile maternal health messaging system that has been uniquely successful in achieving national scale, registering more than a million unique pregnancies from all locations in the country, within two years of launching. A key contributor to the success of MomConnect was the use of a technical architecture provided by the National Health Normative Standards Framework for Interoperability in eHealth in South Africa (HNSF), that was launched in 2015 by the South African National Department of Health (NDoH), providing a framework supporting the development of interoperable systems and adoption of messaging and data standards. At present, most mHealth applications are developed by private organizations and it is difficult for any governance structure to either control the content in these applications, or where the data resides, or what is done with the data. Each application acts in isolation, often re-building core elements with little adherence to standards that governance structures can then enforce. The situation in South Africa is ripe to implement a technical platform supporting a governance framework for the management of mobile devices and apps that can provide the opportunity to include mHealth apps for use in the public health sector and ensure that data from these apps is included within the national public health information system and not held independently in siloed information systems.

TECHNOLOGY DESCRIPTION

A novel integrated digital platform for the South African NDoH that builds on the MomConnect architecture and extends digital support for public health services to the first 1,000 days of life, in line with the Department's revised Road to Health booklet. This new digital framework will allow the NDoH to control applications offered in the public health sphere, as well as reduce mobile application fragmentation, assist in the enforcement of privacy and provide valuable insight into mobile application uptake, usage and impact. It will ensure that all apps deployed in the public health system through this platform will contribute data into the public health information system, and consume data from common registries and services, avoiding a situation where multiple mobile apps are sending and receiving data to and from isolated and siloed information systems.

CURRENT STATUS

The new digital framework has been developed and includes a South Africa NDoH app store. The framework is in the beta prototype stage, being tested using an existing NDoH mHealth app.

INTELLECTUAL PROPERTY STATUS & PUBLICATIONS

The framework was built using Open Source tools.

OPPORTUNITIES

The technology developers are seeking funding for optimization of the platform and implementation of other mHealth apps.

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