

Service Blueprint for Improving Clinical Guideline Adherence via Mobile Health Technology

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Abstract : Background: To improve the delivery of paediatric healthcare in resource-poor settings, Community Health Workers (CHW) have been provided with a paper-based set of protocols known as Community Case Management (CCM). Yet research has shown that CHW adherence to CCM guidelines is poor, ultimately impacting health service delivery. Digitising the CCM guidelines via mobile technology is argued in extant literature to improve CHW adherence. However, little research exist which outlines how (a) this process can be digitised and (b) adherence could be improved as a result. Aim: To explore how an electronic mobile version of CCM (eCCM) can overcome issues associated with the paper-based CCM protocol (poor adherence to guidelines) vis-à-vis service blueprinting. This service blueprint will outline how (a) the CCM process can be digitised using mobile Clinical Decision Support Systems software to support clinical decision-making and (b) adherence can be improved as a result. Method: Development of a single service blueprint for a standalone application which visually depicts the service processes (eCCM) when supporting the CHWs, using an application known as Supporting LIFE (Low cost Intervention For disEase control) as an exemplar. Results: A service blueprint is developed which illustrates how the eCCM solution can be utilised by CHWs to assist with the delivery of healthcare services to children. Leveraging smartphone technologies can (a) provide CHWs with just-in-time data to assist with their decision making at the point-of-care and (b) improve CHW adherence to CCM guidelines. Conclusions: The development of the eCCM opens up opportunities for the CHWs to leverage the inherent benefit of mobile devices to assist them with health service delivery in rural settings. To ensure that benefits are achieved, it is imperative to comprehend the functionality and form of the eCCM service process. By creating such a service blueprint for an eCCM approach, CHWs are provided with a clear picture regarding the role of the eCCM solution, often resulting in buy-in from the end-users.

Keywords : adherence, community health workers, developing countries, mobile clinical decision support systems, CDSS, service blueprint

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