



## Evaluation of a Mobile Application Tool to Assist Health Care Providers in Cardiovascular Risk Assessment and Management

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### ABSTRACT

**Background:** Cardiovascular disease (CVD) is the leading cause of death worldwide.<sup>1</sup> Unfortunately, CVD risk assessment and management (RAM) services face many challenges and barriers in the community. Mobile technology offers the opportunity to empower patients and improve access to health prevention strategies to overcome these barriers.<sup>2</sup> The purpose of this study was to pilot test the Arabic and English versions of the EPIRxISK™ CVD risk calculator in the public sector.

**Methods:** Pilot testing of an Arabic and English version of the online application EPIRxISK™ for CVDRAM (Figure 1) was done by potential users from a sample consisting of the general population and pharmacists attending community pharmacies. Participants' feedback was gathered in a qualitative interview which was recorded and transcribed for quality assurance and review by the research team. Responses from all interviews were analyzed and recommendations were made to finalize the application before phase II of the study. In phase II, quantitative and qualitative methods will be utilized to assess the feasibility of implementing a community pharmacy-based CVD risk assessment program using the English and Arabic versions of the EPIRxISK™ online application.

**Results:** In phase I, a total of 9 pharmacists from community pharmacies and 5 general participants from the general population were interviewed. As shown in Table 1, the analysis of the interviews resulted in themes related to five frameworks: engagement, functionality, aesthetics, information, and subjective quality. Overall, the themes demonstrated acceptance and satisfaction with the features of the application. Phase II is currently in progress.

**Conclusion:** The overall results of this study are indicative that the use of the EPIRxISK™ application for CVDRAM may be of benefit in Qatar, considering it is the first available in the Arabic language. The tool is likely well equipped to support continuous and standardized CVDRAM in Qatar's primary care sector.<sup>3</sup>

**Keywords:** Cardiovascular Disease, Cardiovascular Risk, Mobile Application, Web Application

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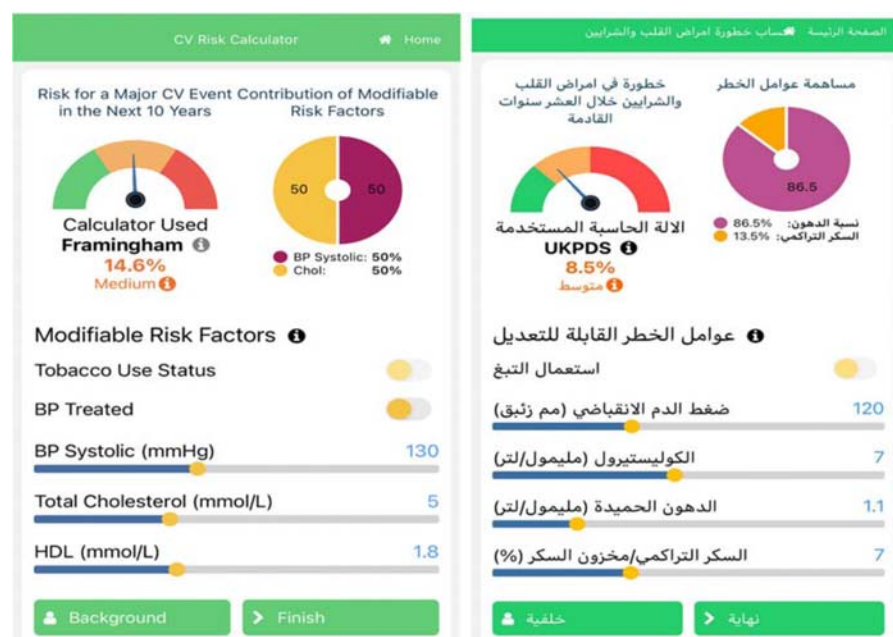
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**Table 1.** Emerging themes from the pharmacists and general population interviews.

Framework	Theme from pharmacists	Theme from general population
Engagement	High interest due to the presence of sufficient content	Interesting and engaging content
Functionality	Good functionality in terms of high performance and accuracy	Accurate and user friendly
Aesthetics	High level of visual appeal	Simple and professional layout
Information	Comprehensive, clear and concise information	Contains thorough and important information
Subjective Quality	Frequent use, high rating, and willingness to recommend to relevant population	High rating and willingness to use and recommend to relevant population

**Figure 1.** Screenshot of the EPIRxISK Mobile Application (English and Arabic).

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