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## Information and communication technology capacity of mHealth implementation for cardiovascular management in limited-resource settings in China, Vietnam and Kenya -A study from both patient and facility perspective

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**Statement of the Problem:** m-Health is increasingly becoming a promising solution to cardiovascular management around the world. Information and Communication Technology (ICT) play key roles for such intervention to succeed for improved health outcomes, however, the underlying infrastructure required for m-health implementation has not been adequately assessed, especially in limited-resource settings.

**Objective:** To evaluate the capacity of ICT in cardiovascular management in limited-resource Primary Healthcare Centers (PHCs) in China, Vietnam and Kenya, from both patients' and PHC providers' perspectives.

**Methodology & Theoretical Orientation:** Cross-sectional surveys were conducted in Kunshan City and Nanhe County in China, Chi Linh District in Vietnam and Nairobi City and Machakos County in Kenya. Our study included a total of 46 PHCs in limited-resource settings and 305 patients who utilized cardiovascular-related services at those PHCs.

**Findings:** We found that mobile phone ownership was highly prevalent among the sampled patients as on average 85% of sampled patients possessed a mobile phone. Patients in Kenya sent or received 3.84 text messages daily on average whereas the number was 1.4 and 1.6 among Chinese and Vietnamese patients, respectively. All PHCs in China and Vietnam could access internet although only 20% of sampled facilities in Kenya had internet access. In terms of hardware, all the 46 PHCs had at least one desktop or laptop computer. Ownership of tablet devices was rare in both Kenya and Vietnam whereas almost half of the facilities in China owned at least one tablet device. Almost all the PHCs owned at least one basic smart phone.

**Conclusion & Significance:** In selected PHCs in China, Kenya and Vietnam, use of ICT was prevalent at both the facility and patient levels with varying degree of deficit across platforms and countries. ICT environment appraisals are crucial to the design and implement m-Health interventions for limited-resource settings.

## Biography

Shuai Shao has her expertise in health system and chronic disease management in limited resource settings. She has published her research focusing on health system and chronic diseases in peer-reviewed journal and has presented at academic conferences in both China and United States. She has conducted her research in Kenya examining primary care based cardiovascular diseases management in urban slums. She has also provided advisory services on health financing to industry clients including MetLife and Roche. Prior to her current pursuit as Doctoral candidate, she was a Senior Research Manager with Access Health International in Shanghai, China. She is currently undertaking a Doctor of Philosophy from Melbourne School of Population and Global Health, University of Melbourne. With her sustained interests in ageing, gender equality, health system, non-communicable diseases in Sub-Saharan Africa. She aspires to improve access to quality health care and services for all, especially for the underprivileged groups.

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