Introduction to mHealth—focused issue on evidence-based eHealth adoption and application

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eHeath has played an important role in improving healthcare services in many developing and developed countries at reducing health disparities and improving health equity (1). These solutions have also been used to improve access to sources of knowledge for both patients and healthcare providers. The advancements in Electronic Health Records (EHR), Picture Archiving and Communication Systems (PACS), and Health Management Information System (HMIS) provide support to healthcare professionals and managers for better decision-making. Teleconsultations using live and store-and-forward technologies have improved access of people to specialized healthcare services in almost all the subspecialties (2). The use of Internet and hand-held devices has opened new avenues for health promotion. Most of this use is driven by reduction in Internet charges, high use of mobile phones and PDAs, and lowering of hardware cost (3). These enablers have led to high teledensity and a tremendous increase in connectivity. However, there is a need of highlighting evidence in the following areas:

(I) Beneficial outcomes on health of individuals, communities and improvement of health systems: the biggest problem in the adoption of eHealth currently is the lack of evidence required to convince the decision makers about the health outcomes and impact of eHealth solutions compared to traditional methods of service provision (3). This problem also compounds due to evidence in the relevant environment, marked by lack of capacity and readiness for eHealth;

(II) Lack of evidence to ensure benefits reach populations without adequate access to health services. While the access to mobile phones and internet is becoming ubiquitous, there is still lack of evidence on the use and benefits of eHealth in rural and remote areas of the world. Most solutions lack penetration due to technology requirements, language limitations, or health system requirements. It is therefore important to focus on technologies that can benefit populations living in remote areas by improving their access to health care services and information (4);

(III) Lack of information on technologies/applications that are best suited to help prepare for or mitigate the effects of disasters, pandemics, and emerging and re-emerging diseases. Apart from the growing burden of illnesses, many countries have also suffered from natural disasters, such as tsunami and earthquakes, and new emerging diseases like Ebola, SARS and Avian Flu.

These problems have shown that the current health systems in these countries are not sufficient to deal with such emergencies. It is therefore important to explore the benefits of using various eHealth technologies currently available to deal with such disasters and illnesses. Such evidence can also help adopt these technologies as part of regular services, and thus enhance chances of better response in case of such unforeseen situations in the future (5,6). Over the past decade the number of primary studies evaluating the practical implementation and integration of e- and mHealth systems has steadily grown.

The articles included in this focused issue highlight the use of innovative solutions in communities and health organizations in remote parts of the world. The articles

demonstrate partnerships between health and technology related organizations to overcome barriers of literacy, bandwidth and relevance, thus improving adoption of these solutions with all types of users. The articles also provide evidence of improvement in health systems and the health of targeted populations.

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Footnote

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