



Recent prospect of mobile health care service for health care in India

Ila Sehrawat

Assistant Professor, Department of Management Studies, BPSMV, Kanpur, Sonipat, Haryana, India

Abstract

Health care access on the movable is gaining worldwide quality. Mobile penetration in developed countries is quite 100%. Even in developing countries like India wherever providing care to the underserved could be a challenge; m-health is that the best suitable resolution to deal with. It helps to overcome two crucial problems concerned in traditional care i.e. loss of communication and growing distance between patient and doctor. This technology has large potential to be complete to induce the specified outcome. For this Indian government have to be compelled to take initiative concerning the event of economical policy framework and to create m-health as its integral half. There's a requirement to develop a flexible and comprehensive base, well-defined tips and authorities for gaining mass acceptance. The most objective of this paper is to identify the gaps, risk and barriers that hinder the expansion of m-services in India.

Keywords: mobile penetration, m- health care, communication, telemedicine, medical apps, disease management

1. Introduction

Mobile health, a term used for the follow of drugs and public health supported by mobile devices. The term is most ordinarily employed in reference to exploitation mobile communication devices, like mobile phones, pill computers and PDAs, and wearable devices like sensible watches, for health services, info, and knowledge collection. The mHealth field has emerged as a sub-segment of eHealth, the employment of knowledge and communication technology (ICT), like computers, mobile phones, communications satellite, patient monitors, etc., for health services and data. mHealth applications embrace the employment of mobile devices in grouping community and clinical health knowledge, delivery of care info to practitioners, researchers, and patients, time period observation of patient important signs, and direct provision of care (via mobile telemedicine). While mHealth definitely has application for industrial nations, the field has emerged in recent years as mostly an application for developing countries, stemming from the speedy rise of movable penetration in low-income nations. The field, then, mostly emerges as a way of providing bigger access to larger segments of a population in developing countries, similarly as up the capability of health systems in such countries to supply quality care. among the mHealth house, comes operate with a spread of objectives, together with raised access to care and health-related info (particularly for hard-to-reach populations); improved ability to diagnose and track diseases; timelier, additional actionable public health information; and distended access to in progress medical education and training for doctors. According to an analyst firm, around 2.8 million patients worldwide were employing home observation service supported equipment with integrated property at the end of 2012. The figure doesn't embrace patients that use observation devices connected to a laptop or movable. It solely includes

systems that consider monitors with integrated property or systems that use observation hubs with integrated cellular or fixed-line modems. It forecast that the quantity of home observation systems with integrated communication capabilities can grow at a compound annual growth rate (CAGR) of 26.9 % between 2011 and 2017 reaching 9.4 million connections globally by the top of the forecast period. The quantity of those devices that have integrated cellular property rose from 0.73 million in 2011 to concerning 1.03 million in 2012, and is projected to grow at a CAGR of 46.3 % to 7.10 million in 2017.

Middle income and especially low-income countries face a plethora of constraints in their healthcare systems. These countries face a severe lack of human and physical resources, as well as some of the largest burdens of disease, extreme poverty, and large population growth rates. Additionally, healthcare access to all reaches of society is generally low in these countries.

Today, after 69 years of Independence of India, man has become completely connected to the world of Internet and its various facilities; the most important one being the availability of healthcare services being provided online. The irony of this fact is that even today, the lower strata of our nation have still not been able to use the numerous ICT facilities available. The rural families and those who live in remote areas are still away from the benefits of the advent of technology and are thus living in poor health conditions even today. They are far from the reach of fast, honest and efficient medical advice and treatments of renowned practitioners

According to a World Health Organization (WHO) report from June 2011, higher-income countries show more mHealth activity than do lower-income countries (as consistent with eHealth trends in general). Countries in the European Region are currently the most active and those in the African Region the least active. The WHO report findings also included that

mHealth is most easily incorporated into processes and services that historically use voice communication through conventional telephone networks. The report was the result of a mHealth survey module designed by researchers at the Earth Institute's Center for Global Health and Economic Development, Columbia University.

The WHO notes an extreme deficit within the global healthcare workforce. The WHO notes critical healthcare workforce shortages in 57 countries—most of which are characterized as developing countries—and a global deficit of 2.4 million doctors, nurses, and midwives. The WHO, in a study of the healthcare workforce in 12 countries of Africa, finds an average density of physicians, nurses and midwives per 1000 population of 0.64. The density of the same metric is four times as high in the United States, at 2.6.

The burden of disease is additionally much higher in low- and middle-income countries than high-income countries. The burden of disease, measured in disability-adjusted life year (DALY), which can be thought of as a measurement of the gap between current health status and an ideal situation where everyone lives into old age, free of disease and disability, is about five times higher in Africa than in high-income countries. In addition, low- and middle-income countries are forced to face the burdens of both extreme poverty and the

growing incidence of chronic diseases, such as diabetes and heart disease, an effect of new-found (relative) affluence.

Mobile tending employs the employment of automaton and Smartphone's for achieving health outcomes. It involves short messaging services (SMS), general packet radio service (GPRS) and global positioning system (GPS) technologies, high-quality cameras, and sound recorder etc. to manage, monitor and diagnose health problems. type of applications are developed for the patients in order that they will keep the record of health statuses like weight loss, diabetes management, diet and physical activity, clinical decision-making, vaccinations, medical education, training and unwellness management. The most benefits of victimization mobile devices are that these devices square measure connected and are invariably with the patients. Therefore, it serves them in daily life and is changing into virtually omnipresent worldwide. There are multi-stakeholders from multidisciplinary domains World Health Organization are collaborated for creating m-health care services reasonable for rural lots. These stakeholders embrace WHO and different international bodies, m-Health project groups, Hardware and code vendors, tending regulation authorities, medium regulation authorities.

Table 1: Few useful websites developed for self-monitoring system

Sr No.	Website	Website/Mobile App	Description
1	M Health Basics	Website	Provides detailed information on Mobile for Health India.
2	OB Insulin	Mobile app	Helps to determine starting dose of Insulin for pregnant ladies, calculate both long and short Acting Insulin helps to select between regular insulin and faster acting medications.
3	Health PIE – Patient [Information and Empowerment System	Mobile app	Helps to manage personalized and adaptive information, treatment scheduler, personalized Health statistics, doctor on call and much more.
4	Mswasthya-CDAC	Mobile app	Helps in patient monitoring, blood pressure monitoring, vaccination alert, diabetes monitoring, calorie counter, BMI calculator, search doctor, medical emergency, provides nutrition facts, OPD schedule.
5	Health Care at Home	Website	Delivers high quality clinic care, provide protocols to customers and satisfying work Environment for trained employees.
6	Healthy You Card	Mobile app	Search engine to search doctors, hospitals, diagnostic centres, helps online booking of appointment, provides SMS/e-mail service for modification, cancellation and reminders Regarding appointments.
7	Lybrate	Mobile app	Provides Patients with a one click emergency support system, search tool for nearby Ambulance services, book appointment, help in managing medical records.

Challenges in providing m-health services

About 70th of India's population dwells in rural areas with immense regional disparities. Therefore; it becomes a challenge for the govt to produce quality health care services to rural lots. Moreover, low paying capability, illiteracy, poor infrastructure, inadequate funds etc. poses an extra burden on service suppliers. The challenges concerned providing m-health services are:

- Resistance modification: usually the tending stakeholders resist to change their well-established work practices as a result of managing such comes will increase their work also as expenditure. Indefinite rules and laws additionally increase their resistance to vary.
- Integration with existing IT systems: the combination of mobile apps with existing health care system is important for the effective operating of m-health care system. For

this, neutral and different health care suppliers ought to prepare sure policies, standards and pointers for the implementations of m-health services.

- Maintaining confidentiality of records: it's necessary to keep up the confidentiality of private records and knowledge of patients. For this to happen, numerous laws and regulative bodies ought to be established with definite rules, procedures, fines and punishments.
- Analysis and Innovations: There are often completely different innovative ways in {which} by which health care suppliers will move with the patients with the employment of mobile devices however these ways that are rarely exploited. Innovation demands inventive ideas and continues analysis and development.
- Market Volatility: Market conditions tend to vary terribly oftentimes. Similarly, habits and behaviour of a client

additionally modification chop-chop. The demand becomes inconsistent and unpredictable in such dynamical setting and sometimes it becomes important to remain at current apps.

Conclusion

The mobile market is persistently dynamical to form phones a lot of easy. Mobile phones are equipped with new technologies and devices that modify the client to move with anyone, anyplace and anytime through internet access. Therefore, victimization them within the health provision system is useful to stakeholders, tending suppliers and patients. To form m-health care programs to succeed, it's necessary to revamp the prevailing health care system by creating relevant policy selections, legal framework and well-defined structures. There's a large potential in m-health care system that has to be exploited.

References

1. Vital Wave Consulting. mHealth for Development: The Opportunity of Mobile Technology for Healthcare in the Developing World. United Nations Foundation, Vodafone Foundation. Archived from the original on 2012-12-03. 2009, 9.
2. Cipresso P, Serino S, Villani D, Repetto C, Selitti L, Albani G *et al.* Is your phone so smart to affect your states? An exploratory study based on psychophysiological measures. *Neurocomputing*. 2012; 84:23-30.
3. Adibi, Sasan, ed. *Mobile Health: A Technology Road Map*. Springer. 2015, 1. ISBN 978-3-319-12817-7.
4. Germanakos P, Mourlas C, Samaras G. A Mobile Agent Approach for Ubiquitous and Personalized eHealth Information Systems. *Proceedings of the Workshop on 'Personalization for e-Health' of the 10th International Conference on User Modeling (UM'05)*. Edinburgh. 2005, 67-70.
5. Adibi, Sasan, ed. *mHealth Multidisciplinary Verticals*. CRC Press (Taylor & Francis Group). 2014, 259. ISBN 978-1-482-21480-2.
6. Gallagher J, O'Donoghue J, Car J. Managing immune diseases in the smartphone era: how have apps impacted disease management and their future?. 2015. <http://www.tandfonline.com/doi/abs/10.1586/1744666X.2015.1010518>