

Mobile health (mHealth) Innovative prospects for health and well-being through mobile technologies

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**Mobile health (mHealth)
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A mobile phone is a multipurpose and powerful device capable of performing a number of tasks that are beyond its primary purpose of communication. There is a lot of publicity around mobile technology, especially smartphones and a number of new and innovative functionalities and/or apps which are capable of addressing needs in new areas are being launched daily.

In India, inadequate resources and a huge section of the people living in remote and tribal/hilly areas have led to a large healthcare gap. Around 900 million Indians currently accessing to some form of mobile connection for communication. The unparalleled spread of mobile technologies and advancements in their innovative application to address health priorities has evolved into a new field of eHealth, also known as mHealth. India's healthcare system is suitable for innovation and Mobile Health (mHealth) has a potential to overcome healthcare challenges around access, cost, and quality. mHealth is the practice of medicine and public health supported by mobile devices. In addition to basic public health issues, hospital and health care personnels supply is limited in rural areas.

In the healthcare universe mobile technology is making enormous storm. mHealth (or mobile health) is commonly defined as the provision of health care services through mobile technologies. mHealth is about using mobile and wireless devices to improve health status of

the people. The service could be as simple as using the mobile's SMS function to send alerts and reminders or utilizing inbuilt mobile sensors or apps to capture and infer clinical data of the patient/clients.

In India, the scope for leveraging mHealth as an alternate health care delivery channel is considerable. mHealth surveillance activity is further predominant in countries in the low-income (40%) and lower-middle income groups (27%) than those in the higher-income groups. Community mobilization and health promotion initiatives addressed general health information or specific public health issues such as H1N1, HIV/AIDS, immunization and vaccination, reproductive health, chronic illness, and blood donation. SMS was the primary method of communication used in the initiatives. mHealth is more effective when tailored to specific social/ ethnic/demographic group using informal language. mHealth presents remarkable opportunities to have a definite positive impact on global health.

Need of mHealth services:

India reflects the blunt difference between developed and emerging markets in mHealth. The healthcare backgrounds of each country create different motives for using mHealth. Indian population cover about three quarter of their medical expense out of their own pocket and suitable care is beyond the financial reach of many of the Indians. India has only 0.6 doctors per 1000 people, the huge majority of health care personnels are concentrated in urban areas and rural population usually receive care from accredited social health activists (ASHA) rather than trained medical personnel. Majority of the trained health care personnels are concentrating in metropolitan and semi urban towns, telemedicine and mHealth methods will have to be adopted.

Advantages

It is simple, low cost and immensely user-friendly service. It has a potential to enhance the speed and accuracy of healthcare delivery. Mobile health (mHealth) provides real-time access to health information to empower health workers and the public at large. The mHealth is improving timely access to emergency and general health services and information, managing patient care, reducing drug shortages at health clinics, enhancing clinical diagnosis and treatment adherence among others, IEC activities and counselling. Apart from the role of mHealth in service provision, there is a quite scope of mHealth use in changing the behaviour of people.

Challenges

Lack of awareness among public and data security concerns, low expectations from healthcare staff and lot of unattractive manual intervention is emerged as key challenges for mHealth adoption in India. Attitudinal barriers of health care providers to mHealth also need to be addressed. There is also an issue of technical barrier in the form of doubts about the quality of data entry and analysis. There is also a need to keep the end user in mind while designing mHealth services.i.e. Prevailing work culture (Health care personnels perspective) and ease of use (Health care personnels and people's attitude).

India needs mHealth to provide care and compensate the already lacking healthcare personnels workforce and infrastructure. The country does not meet the minimum WHO recommendations for healthcare personnelsworkforce and bed density. A large segment of the low-income group lacks access to quality healthcare. It is vital to leverage newer ways like mHealth to make quality and affordable healthcare accessible to everyone in the community. The productive result from mHealth will depend on creating the right 'fit' between mHealth applications and healthcare needs of the public. In other words, mHealth should be need-driven of the people not technology-driven.

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