

m-Health care services: New opportunity for health care in India

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Abstract

Health care access on Mobile phone is gaining worldwide popularity. Mobile penetration in developed countries is more than 100%. Even in developing countries like India where providing healthcare to the underserved is a challenge; m-health is best suitable solution to address. It helps to overcome two critical issues involved in traditional health care i.e. loss of communication and growing distance between patient and doctor. This technology has immense potential to be realized to get desired outcome. For this Indian government have to take initiative regarding development of efficient policy framework and to make m-health as its integral part. There is a need to develop flexible and comprehensive base, well defined guidelines and authorities for gaining mass acceptance. The main objective of this paper is to identify the gaps, risk and barriers that hinder the growth of m-services in India.

Keywords: m- health care, telemedicine, medical apps, disease management, user friendly, health care market

1. Introduction

Telemedicine has emerged as powerful tool in health care sector from the fusion of medical sciences and IT technologies. It involves electronic sharing of medical data from one site to another with the help of electronic communications. The Doctor- Patient virtual consultations enable the patients to get quick treatment without travelling long distances ^[1]. The cost effectiveness, lower bandwidth, easy accessibility and use of collaborated tools like video, voice and medical data have increased effectiveness and efficiency for delivering tele health care in remote areas. Telemedicine also provides enough flexibility for doctors to divide their time between physical and virtual consultations. It includes variety of applications like telecardiology, teledermatology, teleoncology etc.

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 issues ^[2]. Variety of applications have been developed for the patients so that they can keep the record of health status such as weight loss, diabetes control, diet and physical activity, clinical decision-making, vaccinations, medical education, training and disease management. The main advantages of using mobile devices are that these devices are connected and are always with the patients. Therefore, it serves them in everyday life and is becoming almost ubiquitous worldwide. There are multi stake holders from multidisciplinary domains who are collaborated for making m-health care services affordable for rural masses. These stakeholders include United Nations agencies and other international bodies, m-Health project teams, Hardware and software vendors, Healthcare regulation authorities, Telecom regulation authorities.

2. M- Health Care

Mobile health care employs the use of Android and Smart phones for achieving health outcomes. It involves short

Table 1.1: shows few useful websites developed for self-monitoring system.

SR. NO	WEBSITE	WEBSITE/ MOBILE APP	DESCRIPTION
1	Healthy You Card ^[3]	Mobile app	Search engine to search doctors, hospitals, diagnostic centers, helps online booking of appointment, provides SMS/e- mail service for modification, cancellation and reminders regarding appointments.
2	M Health Basics	Website	Provides detailed information on Mobile for Health India.
3	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.
4	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.
5	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.
6	Lybrate	Mobile app	Provides Patients with a one click emergency support system, search tool for nearby ambulance services, book appointment, helps in managing medical records.
7	Health Care at Home	Website	Delivers high quality clinic care, provide protocols to customers and satisfying work environment for trained employees.

Source: report published by NHP India

3. Challenges in providing m-health services

About 70% of India's population dwells in rural areas with huge regional disparities^[4]. Therefore; it becomes a challenge for the government to provide qualitative health care services to rural masses. Moreover, low paying capacity, illiteracy, poor infrastructure, insufficient funds etc. poses additional burden on service providers. The challenges involved providing m-health services are:

1. Resistance to changes: Generally the healthcare stakeholders resist to change their well-established work practices because dealing with such projects increases their work load as well as expenditure^[5]. Undefined rules and regulations also increase their resistance to change.
2. Integration with existing IT systems: The integration of mobile apps with existing health care system is necessary for the effective working of m-health care system. For this, Stake holder and other health care providers should prepare certain policies, standards and guidelines for the implementations of m-health services^[6].
3. Maintaining confidentiality of records: It is important to maintain the confidentiality of personal records and data of patients. For this to happen, various laws and regulatory bodies should be established with definite rules, procedures, fines and punishments.
4. Research and innovations: There can be different innovative ways by which health care providers can interact with the patients with the use of mobile devices but these ways are seldom exploited^[7]. Innovation demands creative ideas and continue research and development,
5. Which is not possible for every organization to do such efforts.
6. Market Volatility: Market conditions tend to change very frequently. Similarly taste, habits and behavior of a consumer also changes rapidly. The demand becomes inconsistent and unpredictable in such changing environment and often it becomes critical to stay at current apps.

4. Conclusion

The mobile phone market is persistently changing to make phones more user friendly. Mobile phones are equipped with new technologies and devices that enable customer to interact with anyone, anywhere and anytime through web access. Therefore, using them in health care delivery system is beneficial to stakeholders, healthcare providers and patients. To make m-health care programs to succeed, it is necessary to redesign the existing health care system by making relevant policy decisions, legal frame work and well defined structures. There is a huge potential in m-health care system which needs to be exploited.

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6. References

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