In Brief

Mobile Consulting: An Option to enhance Healthcare Access in Pakistan

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Context

Pakistan is a Lower Middle Income Country (LMIC) with a population of 212 million. Poverty is a major issue in Pakistan with 24% population living below the national poverty line. The country's Human Development Index ranking is 146 out of 187 countries across the world; highest Infant and Under Five Mortality in the region. The GDP percentage in health expenditure increased from 0.77 in 2015-16 to 0.91 in 2016-17 though, it is still 2nd lowest in the region after Bangladesh. Pakistan's government is committed to provide Universal Health Coverage through a comprehensive Primary Health Care system based on a three tiered public healthcare delivery system.

Problem

Despite the government's efforts, the public health sector cover only 21% of health consultations and the challenges of accessibility, availability and affordability still persist; more among women and rural population. Poor access to healthcare is a key challenge and a cause of hospitalization, high mortality, health care costs and long-term disability. 78% population has subscribed to mobile phones: 36.86% is broadband & 35.90 % mobile internet user; & 93% men while 39% women. Can mobile-consulting be an option to enhance access to healthcare for communities with minimal healthcare access in Pakistan?

Methods

Between April 2019 and March 2020, we gathered data on national digital policy, existing mConsulting services and the feasibility of digital health to enhance access to healthcare. The study was conducted in a remote rural area of Karachi, Pakistan. We held interviews and ran workshops with community residents (n=100), digital health and health program experts (n=7), local healthcare workers (n=10) and respectable (n=10). Guides were developed to gather data about their use, experiences and perceptions on feasibility of digital health in the country. Interview and

> Mobile Consulting is when patients consult with Healthcare Workers about a Health Issue using some form of digital communication, e.g. mobile phone, tablet.

Findings

1. Access barriers to healthcare include:
   i. Community-based workers only provide preventive services
   ii. Government run primary healthcare facilities mostly work till 2:00 p.m.
   iii. Local providers include midwives, pharmacists, lady health visitors & uncertified providers (quacks)
   iv. Patients have to travel long distances, incurring high travel costs to access care.
2. Travel expenses add to healthcare cost & inversely effect health seeking resulting in delayed access high morbidity, complications & mortality
3. 4/5 residents (n=80/100) were subscribed to a mobile phone service, while 1/3rd use mobile internet.
4. Several e/digital health projects were launched during last 20 years; most of these could not be up-scaled due to inadequate e/digital health policy, legal and funding frameworks.
5. Many e/digital services exist but are not officially acknowledged due to absence of regulatory and monitoring mechanisms
6. Nearly all the existing e/digital projects & services have top-down approach they lack community ownership, public-private partnership & multidisciplinary team of experts.
7. General willingness amongst community-level stakeholders to use mConsulting, provided such services are trustworthy and of high quality.
8. The health & technology experts strongly believed that digital health is the 'Way Forward' to enhance access to high quality healthcare.

workshop notes were transcribed, coded and themes were developed.

Recommendations

Policy-Level

Extend current policy frameworks, including ratification with UN, to:

1. Develop guidelines for practising and regulating digital health, including mConsulting
2. Design legal and funding frameworks
3. Define standards and regulation for operationalization of digital health solutions
4. Develop protocols/algorithms for different cadres of healthcare providers involved in digital health provision;
5. Design mechanisms & systems for remote consultation
6. Develop monitoring and supervision frameworks & mechanisms

Operational-Level

Co-create a public-private partnership, hybrid digital-health (combination of physical contact, audio/video consultation & referral) model that:

1. Has participation of all concerned stakeholders including community and experts from health, technology, policy, accreditation/regulation, marketing & behavior change
2. Links healthcare providers working across all level of healthcare facilities-community-based to secondary/tertiary
3. Comprises of all essential components of the digital-health package including; technology, Health Service Package, community preparedness, branding, marketing & Behavior Change Communication
4. Train health and administrative personnel on digital health interventions & operations

Conclusion

Within Pakistan, 'Digital' health seems a feasible option to enhance the capacity of public health sector for improving access to quality healthcare. Pakistan's government acknowledges the potential of digital health and has demonstrated its political will towards digitalization by including it in 2025 vision and piloting several small projects. However, despite success, none of these was scaled-up pertaining to numerous reasons; major being non-involvement of concerned stakeholders and lack of sustained funding.

The current crisis resulting from COVID-19 has confirmed the significance and practicality of digital health for increasing health system resilience and coping with an emergency situation. Our study suggests that digital health is a feasible option for improving access to quality healthcare for under-resourced communities living in remote rural areas. There is willingness from key stakeholders to undertake mConsulting if such services are reliable and of high quality. However in order to incorporate mConsulting in the healthcare pathway, principal policy and wider health system's elements have to be in place e.g. formulation of 'Digital' health policy and elaboration of accreditation and regulatory frameworks. Moreover, a robust partnership between public and private sector is a pre-requisite for launching a digital platform as around 80% healthcare is being provided by private providers. Such an initiative has to be a co-creation of community and relevant experts from health, technology, policy, accreditation/regulation, marketing and behavior change.