E- Health in Bangladesh: Are we Ready for the Commuter?

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Over the past decade, Information and Communication Technology (ICT) has transformed healthcare in many countries.[1] Like developed and growing nations, Bangladesh benefits from ICT-based health services. Bangladesh is one of the few countries that provides free community-level healthcare through public hospitals. Bangladesh has 593 government hospitals, 467 upazila and union hospitals, and 126 secondary and tertiary hospitals. Bangladesh has 2,983 private hospitals and 5,220 private diagnostic centers dedicated to improving healthcare. Bangladesh, along with 57 other countries, has a lack of doctors, nurses, and midwives (less than 2.28 per 1000 population) and hospital beds (4 per 10,000).[2]

The current government's Digital Bangladesh campaign prioritizes ICT-delivered health care. The Ministry of Health & Family Welfare has developed e-Health services as part of the government's digital Bangladesh initiative.[3] Bangladesh has a Management Information System (MIS) department within the Directorate General of Health Services (DGHS) to maintain health information and e-Health systems. Bangladesh has partnered with development partners, corporate businesses, and NGOs to increase e-Health quality, efficiency, and safety.[4] The WHO (2003) defines e-Health as "being the leveraging of the information and communication technology (ICT) to connect providers and patients and governments; to educate and inform healthcare professionals, managers, and consumers; to stimulate innovation in care delivery and health system management; and, to improve our healthcare system.[5] Bangladesh has taken steps to strengthen e-Health infrastructure and use in the health sector. Management Information System (MIS) in Directorate General of Health Services (DGHS), Bangladesh connected all health points to the Internet in April 2009. Health and family welfare ministers in Bangladesh and the World Bank intend to automate over 300 public hospitals. Three hospitals were automated in 2012. These hospitals are NIKDU, Government Employees' Hospital, and Azimpur Maternity Hospital. Eventually, all hospitals will be automated.[6]

Challenges:
Insufficient ICT infrastructure
Bangladesh lacks sufficient ICT infrastructure, including computers, internet networks, printers, and electricity, to support e-Health. In addition, only a small percentage of the overall population has the ability to use computers. According to a survey by the Bangladesh Telecommunication Regulatory Commission, barely 4.5 percent of the overall population use the internet.[7]

Financial inadequacy
Acquiring, carrying out, and putting into action e-Health systems incur significant costs. The World Health Organization (WHO) states that insufficient finance is a major barrier to the development of e-Health in developing nations.[8]

Usability and user acceptance
The service provider in the government sector in Bangladesh possesses extensive expertise in e-Health applications. However, service recipients are not accustomed to using e-Health.

Absence of policy and regulation
Despite the adoption of a national ICT policy by the government of Bangladesh in 2009, it has not yet had any impact on hospitals. The current regulatory framework in this subject has not been updated to meet the increasing demands of the digital world.

The implementation of e-Health is currently in its nascent phase in Bangladesh. Therefore, it is crucial to prioritize the advancement of local e-Health systems, conduct extensive research on adoption rates, and focus on comprehensive studies regarding implementation strategies. Mere theoretical formulation of policies is insufficient; implementation of rules and policies is required. The significance of legal assistance, adherence to

national standards, and the formulation of policies are major focal points in several studies conducted by scholars. Twenty-nine It is recommended that all healthcare institutions maintain electronic patient records in order to deliver faster and higher quality healthcare services to patients. Electronic health records facilitate the storage, communication, and processing of medical information for all parties engaged in healthcare delivery.[9]

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