Global Strategy on Digital Health

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Digital technology has been a revolutionary foray in education, industry, research and recently, healthcare. Digital health encompasses various aspects of technology like information and communication, mobile health, data-recording and telemedicine. There has been an exponential and unregulated increase in digital health services in last few years which have raised concerns over data privacy, ethical standards and quality of services. The World Health Organization recently released the global strategy on digital health as a visionary document that provides a framework for countries to implement and expand digital health services. The following update briefly highlights the salient features of the update.

Keywords: *eHealth strategy, Health system, Public health, Technology.*

Digital technology has been a recent and innovative addition to healthcare. Healthcare delivery faces problems of high burden of infections and non-communicable diseases, dearth of human resource, inequitable distribution of healthcare, lack of personalized care and limited preparedness for emergencies in both developed and underdeveloped countries. Advances in technology have improved communication, patient outreach facilities and access to medical information. Patients have emerged as consumers and doctors as service providers, where patients now play a more participatory role in healthcare decisions. Patient-centered healthcare prompted research and development of technology, which paved way for digitalization in health care. The Sustainable development goals envision for universal access to quality healthcare with financial risk protection, which can be achieved through use of technology in a cost-effective manner [1]. A resolution was passed in May, 2018 at the 71st World Health Assembly to develop digital technology for the advancement of health of the people of the world by identifying the relevant digital services and prioritizing their use, so as to promote equitable and universal access to health for all [2].

Digital health has many facets including e-health, mobile-health (m-health), medical informatics and telemedicine. Its role has been diversified beyond just electronic data recording to telemedicine, which gives accessible and cost-effective virtual access to doctors, teleradiology for improved image interpretation, real-time data reporting, and use of mobile based applications for healthcare and therapeutics [3].

The World health organization recently announced Global strategy on digital health 2020-2024 with the vision to "*improve health for everyone, everywhere by accelerating the adoption of appropriate digital health* [4]." It redefines digital health to "*the field of knowledge and practice associated with any aspect of adopting digital technologies to improve health, from inception to operation*," thus making it more comprehensive [4]. The strategy is aimed to facilitate countries to optimize the use of digital healthcare technology in a sustainable, equitable, accessible and scalable manner such that it enables patients to manage their health better, develop improved communication with healthcare providers and help countries monitor impact of the health policies for further improvement. Its key objectives and framework for action are shown in ***Box I***. The Global Strategy also emphasizes the need to develop inter-sectoral coordination to integrate financial, organizational, human, and technology resources for best utilization of digital services.

In future, digihealth is expected to help more efficient utilization of resources to improve patient care. The National eHealth strategy toolkit formulated by WHO can help the countries integrate information and technology in their health care systems [5].

STATUS IN INDIA

Few digital health missions already adopted by Government of India include Mother and child tracking system, hospital information system, drugs and vaccines distribution system and ASHA-Soft (an online portal by Government of Rajasthan for capturing beneficiary

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Box I Global Strategy on Digital Health 2020-24

Objectives

- Engage stakeholders on a shared global agenda on digital health.

- Build and consolidate global digital health capacity that reflects national needs.

- Commit and engage stakeholders to advance digital health in every country.

- Improve measurement, monitoring, research and practice in digital health.

Framework for action

- Commit: To identify the stakeholders and make them responsible. 'Champion' countries to be identified which can share their experiences about digital health and guide other stakeholders.

- Catalyse: To accelerate the process of developing and implementing digital health technology after a needs assessment. To facilitate collaboration between countries with common interests and create a roadmap for cooperation in development of technology and related services.

- Measure: To monitor for safety and effectiveness of technology with key indicators and targets. This will be able to identify redundancy and suggest further improvements.

- Increment and iterate: To assess the status of activities and collaborations for future recommendations and optimization.

Source: World Health Organization. Global Strategy on Digital Health, 2020-2024 [4].

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information for each ASHA and managing her incentives accordingly) [6]. In connivance with the technology reform, India set up the National health portal to provide access to medical information with integrated services like online registration system, details of nearest health facility, information, education and communication material, personalized health records, mHealth, tele-medicine, eRaktKosh and information about AYUSH/ naturopathy/spirituality services [7]. The Ministry of Health and Family Welfare released the National digital health blueprint in April, 2019 [8] under the vision of National health policy, 2017. The document is an action plan to help achieve digitalization of health records at district level, maintain registries for important diseases and link primary health care services with referral care services. The other key components include creation of unique digital health ID, supply chain management for drugs, payment gateways, and provision for standards and regulations within the operating framework regarding patient safety, quality of services, privacy and data security.

Indian academy of pediatrics (IAP) has also recently launched the digital health platform in the year 2020, known as dIAP [9]. The key components include use of technology for professional education and capacity-building of pediatricians through online videos, webinars, and reference scientific content, and a personalized patient education platform that is reliable and updated for ready reference.

CHALLENGES

Even though Digital Health seems to be a promising modality, it brings with it few challenges. Medical information can be misinterpreted by patients when acquired over casual web portals and unreliable online resources [10]. Medical devices can report data hacking and loss of data, which raises concerns over data safety and privacy [11]. The sole use of a digital platform for healthcare delivery lacks personal touch and trust in doctor-patient relationship. Lack of training of human resource in application usage and interpretation of technology also poses a threat to ethical practicing standards [11]. The implementation of digital health services will require good governance to ensure data privacy, and efficient management of available resources, while maintaining highest possible societal and ethical standards [12].

A review of 34 published studies on health governance interventions reported that strategies which used authentication of information, provided for accessibility of data for communication, and auditing with quality assurance of technology, were found supportive [13]. The European public health alliance recommended involvement of the end-user during development and implementation of digital health (person-centered care) to improve practical applicability of technology, emphasized involvement of primary and secondary health services including pharmacies, and suggested that digital health be positioned as a supplement to traditional healthcare,

instead of its alternative [14]. Similar hurdles will have to be identified and tackled during implementation of the proposed National digital health mission in India.

Digital health holds promise to be a revolutionary paradigm in improving information, education, communication, health monitoring, diagnostics and data handling. The Global strategy by WHO provides a framework for countries to develop, implement and collaborate these services in the best interest of consumers. The National Digital Health Mission can help create and deliver the most suitable personalized digital health ecosystem for India.

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