Letter to Editor

Implementing National Digital Health Blueprint in India-The future opportunities and challenges

This vision of the National Health Policy (NHP)[1] of India is reinforced in the recently released National Digital Health Blueprint (NDHB). This NDHB is a follow-up to the NHP-2017, which aimed to deliver universal healthcare to all Indian people through the use of digital technology in order to improve efficiency and effectiveness. It strives upon building a digital health ecosystem in India, comprehensively covering domains such as inclusiveness, security, privacy, education, empowerment of the citizens, building blocks, interoperability, and multiple registries for a single source of data.[2]

However, the implementation of digital health systems and interventions remain suboptimal and scattered across the nation.[3] The letter proposes the exploration of social inequities to demonstrate how the existing status quo with regards to poor healthcare outcomes for these unprivileged is likely to continue despite the increased use of digital technologies.

Digital technologies provide easier access to several social determinants of health including employment, housing, education, and social networks. However, little is known about these digital determinants (ease of use, access, digital literacy, consumer segmentation approach, sustainability, cost, etc.) in India. The evidence base on how digitalization is impacting these determinants is relatively poor. This is more critical for rural populations of India, who have lesser availability and accessibility of digital tools and technologies creating a digital divide among them.[3] Furthermore, the sociocultural attributes of the users and providers of digital health services are likely to be diverse in the context of India. These factors can inform how the ongoing efforts to promote digital health can be optimized further. Right away, we can draw conclusive findings if we can address NDHB through a context, input, process, and product (CIPP) evaluation model. As per the CIPP model, the main goal of the NDHB should be to have a maximum reach to the beneficiaries, address their needs, do a background check, find resources and provide a solution to their problems, as well as plan for a good coverage, budget, strategies, and reach out to stakeholders. Further, the evaluation calls to check for the impact, effectiveness, transportability, sustainability, and adjustment related to the intervention and final action leading to develop, implement, and monitor the whole process.[4]

Digital health implementation in India is challenged by ongoing social health inequalities which are more pronounced by poor availability, accessibility, and digital literacy among the unserved and the underserved (especially in rural areas). To address the existing digital divide in India, the framework based on the existing health system, provided in the NDHB document,[1] has been discussed. Some key features and the identified barriers include access and delivery (digital divide), application building block (digital literacy, software compatibility, mobile availability, and cost), technology building block (security threats, Phishing, and hacks), data hubs, and infrastructure (server capacity, privacy, data storage, and retrieval). These barriers to the NDHB key framework can be addressed by providing uniform mobile and internet connectivity across all beneficiaries (digital divide), provide low-cost end mobile devices with internet connectivity to end users (accessibility & delivery), revalidation and user-friendly operations research on application building blocks, providing skillful manpower and health analytics (technology building blocks), high-capacity servers (data hub and infrastructure). It is necessary to determine how people's existing capitals shape their access to and use of digital technologies and what the implications of exclusion from the technologies are likely to be for the social determinants of health in the context of India. Such understanding may inform how people may overcome the vicious cycles of social health inequalities as well as the digital divide due to lack of digital literacy and other challenges, which are yet to be explored. As like in COVID-19 time, telepsychiatry has been suggested as a cost-effective technique for meeting the large unmet need for mental health services in rural and conflict-affected areas.[5] Digital health implementation in India is challenged by ongoing social health inequalities which are more pronounced by poor availability, accessibility, and digital literacy among the unserved and the underserved (especially in rural areas). The rise of digital health solutions and societal/technological advances in India provides an opportunity for addressing equity issues in a sustainable approach. The gains made in efficiency need to be matched with higher availability, accessibility, and digital literacy. Therefore, evidence-based research on digital determinants followed by policy development should acknowledge equity challenges as a priority to not perpetuate or increase the digital divide but to instead optimize sociocultural outcomes.

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Letter to Editor

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