

COVID 19 and Digital Health Transformation in India

The onset of COVID-19 disrupted the already overburdened and stretched Indian healthcare system, revealing gaps in care, and exacerbating inequities in access. The repeated waves of infection accelerated the ongoing digital transformation of the healthcare sector in many important ways. For example, the government of India successfully rolled out (a) COWIN application (tech backbone of India's vaccination drive) and (b) National Digital Health Mission (backbone to support the integrated digital health infrastructure of the country). This article will review these trends and identify key areas of future development.

Digital health transformation vis-à-vis COVID 19

COVID has acted as a catalyst in the rapid uptake of digital healthcare technologies, although unregulated, to a large extent. Digital health tools & technologies are transforming the way public health systems work, patients seek care and healthcare providers provide care.

- The key digital health trends witnessed in the public sector were ranging from disease surveillance, ensuring continuum of care amidst times of COVID led crisis and enabling human resources for health. Another key strategy implemented by the Ministry of Electronics and Information Technology (MEITY) is incorporating Geo-Fencing and Interactive Voice Response Service (IVRS) features on mobile phones as steps for containment.
- The health-tech start-ups carved out a niche for the preventive digital health platforms that cater to the specific patient sector along with the mushrooming of various teleconsulting platforms supported by private hospitals and private players like DocOnline, Practo etc. The pandemic also witnessed a surge of various home-based care providers that came to the rescue and helped ease off the over-burdened hospitals.

- The scale-up of the existing life-cycle platforms like **e-Pharmacies** played a crucial role in strengthening the response for COVID-19. It is estimated that e-pharmacies will cater to 70 million households in India by 2025, driven by adoption of e-commerce, mobile-first consumer behaviour, and improved digital payment infrastructure¹. In a post COVID era, ePharmacy will continue to play a critical role in streamlining chronic care and along with offline retail pharmacies, will co-drive the value for consumers².
- India also took a herculean task of vaccinating its 1.3 B population against the virus with the help of in-house digital application – CoWin. Positive public response to **COWIN with total registrations at 95,20,99,713** till 7 January 2022³. The efficiencies gained due to its usage led the Prime Minister of India to offer CoWin as a global public good and many countries are currently planning to opt for its technology.
- Government's teleconsultation services, including e-Sanjeevani, are leveraging information and communication technology to remotely enable diagnosis, treatment, and management of diseases. In record time, the National Telemedicine Service has conducted more than 10 million teleconsultations (serving 90,000 patients every day), with a plan to expand the service to over 15 million health and wellness centres by 2022⁴.
- The COVID-19 outbreak led to an acute and drastic shortage of essential supplies, including personal protective equipment, diagnostics, and clinical management. To help ease the burden, the Government's E-marketplace- GeM portal enabled more than 7,400 products in about 150 product categories and reduced bidding & delivery time to just 3 & 2 days.⁵
- The implementation of National Digital Health Mission (NDHM) will create an entire digital ecosystem envisioned to provide universal health coverage with the use of appropriate technologies. The NDHM is aimed to be an omnichannel healthcare solution that will allow people to have access to telemedicine, e-pharmacies, diagnostics, and insurance claims management, all in one place. Five themes that will drive NDHM led growth: (a) Transparency of information, (b) Interoperability, (c) Standardization across health claim process, (d) Digitizing the prescription, (e) Environment for innovation.

¹ <https://timesofindia.indiatimes.com/blogs/voices/covid-19-an-opportunity-in-disguise-for-e-pharmacies-in-india/>

² <https://ficci.in/spdocument/23316/FICCI-ePharmacy-Whitepaper.pdf>

³ <https://dashboard.cowin.gov.in/>

⁴ <https://pib.gov.in/PressReleasePage.aspx?PRID=1760862>

⁵ <https://pib.gov.in/PressReleasePage.aspx?PRID=1608752>

Digital health trends amidst pandemic

We are also witnessing many emerging trends within life sciences industry such as:

- Rise of **on-demand healthcare and smart consumer** with patients having higher expectations and demanding more from their providers.
- Rise of **disruptive tools and technologies** such as Artificial Intelligence (AI)/ Internet of things and use of Augmented reality/Virtual Reality for diagnosis, treatment and training which will aid digital health transformation in healthcare.
- **Gradual shift towards evidence-based medicine and value-based healthcare models.**
- Last but not the least, **upgrading the digital skills of employees & companies** will boost technical capabilities to help drive digital innovation across the organization⁶.

The technology-driven interventions that the COVID-19 pandemic caused in India have dramatically changed how patients and clinicians interact, and healthcare is provided. In important ways, these changes are empowering patients and increasing access. The digital transformation is changing the delivery of healthcare services in ways that facilitate increased value for the healthcare system, improving quality and driving innovative clinical practices.

Author:

Ms Shweta Bhardwaj is Chair, Digital Health CoE, APACMed and Associate Director, Sustainable Health Systems Policy, Johnson & Johnson

Inclusive & sustainable digital health transformation journey

The government might consider several measures for increasing uptake of digital health in a more inclusive and sustainable way such as:

- Increased **transparency around National Digital Health Mission (NDHM)** and inclusion of industry viewpoints around its design, strategy, and implementation.
- Appropriate **regulatory frameworks in place** that foster patient trust & privacy – as well as enable faster adoption for the emerging technologies.
- Developing **appropriate value-based assessments, funding, and reimbursement frameworks** for digital health tools and technologies.
- **Nationwide HIS compatibility for data interoperability** and making the data available for analytics as well as epidemiological trends and Real-World Evidence (RWE) studies.
- A **national strategy to build the patient-centred digital health ecosystem by investing in digital literacy & patient apps and portals** that address the needs of underserved populations, and patient training for varied digital literacy levels.⁷

⁶ White paper on Digital Health reforms: Implications on Industry

⁷ White paper on Digital Health reforms: Implications on Industry