

National Digital Health Blueprint (NDHB)

August 27, 2019

Source: Ministry of Health and Family Welfare

Background

The National Health Policy 2017 had defined the vision of 'health and wellbeing for all at all ages'. Continuum of Care is a concept strongly advocated by the Policy. These lofty ideals are sought to be achieved by refactoring the existing schemes and introducing several new schemes including some digital initiatives. **Citizencentricity, quality of care, better access, universal health coverage, and inclusiveness are some of the key principles on which the Policy is founded.** All these aspirations can be realized principally by **leveraging the power of digital technologies.**

In the above context, the Committee constituted by the Ministry of Health and Family Welfare recognized the need for creating a framework for the evolution of a **National Digital Health Eco-system (NDHE)**. The **result is the National Digital Health Blueprint (NDHB)**, which is more than an architectural document, as it provides specific guidance on its implementation as well.

Against the above background, the Committee constituted by the Health Ministry to create an implementation framework for the National Health Stack (NHS) proposed by NITI Aayog, has come up with the National Digital Health Blueprint, after surveying the global best practices in adoption of digital technologies holistically.

Vision

To create a National Digital Health Ecosystem that supports

Universal Health Coverage in an efficient, accessible, inclusive, affordable, timely and safe manner, through provision of a wide-range of data, information and infrastructure services, duly leveraging open, interoperable, standards-based digital systems, and ensuring the security, confidentiality and privacy of health-related personal information

The Vision of NDHM encapsulates the goals of NHP 2017 and aims to leapfrog to the digital age by providing a wide range of digital health services.

Objectives of the National Digital Health Blueprint

The Objectives of NDHB are **aligned to the Vision of NHP2017 and the SDG's** relating to the health sector. These include:

- Establishing and **managing the core digital health data** and the infrastructure required for its seamless exchange
- **Promoting the adoption of open standards** by all the actors in the National Digital Health Eco-system, for developing several digital health systems that span across the sector from wellness to disease management
- **Creating a system of Personal Health Records**, based on international standards, and easily accessible to the citizens and to the service providers, based on citizen-consent
- Following the best principles of **cooperative federalism** while working with the States and Union Territories for the realization of the Vision
- **Promoting Health Data Analytics** and Medical Research
- Enhancing the efficiency and effectiveness of Governance at all levels
- Ensuring **Quality of Healthcare**.
- Leveraging the Information Systems already existing in the health sector

Recommendation

It recommends to establish National Digital Health Mission (NDHM) as a purely government organization with complete functional autonomy on the lines of Unique Identification Authority of India (UIDAI) and Goods and Services Network GSTN

Layered approach to conceptualizing the blueprint



Building blocks of NDHB

While the Blueprint has identified 23 Building Blocks, a few of the critical capabilities of NDHE, addressed by appropriate combinations of the Building Blocks, are explained briefly along with a schematic of the Blueprint, such as:

Identification

- Unique identification of Persons, Facilities, Diseases and Devices is a key requirement and challenge as well in NDHE. The Blueprint handles this requirement through 2 Building Blocks, namely;

1. Personal Health Identifier (PHI)
2. Health Master Directories & Registries.

- The uniqueness in identification of Persons (citizens) required as an essential attribute of PHI is sought to be achieved through a combination of **Aadhaar-based Identification/ Authentication** for schemes notified under Section 7 of the Aadhaar Act, and through other specified types of identifiers in respect of the rest.

Citizen to be in Control:

The Blueprint achieves these complex and mandatory requirements through a combination of a few Building Blocks, namely, Consent Manager, Anonymizer and Privacy Operations

Centre.

Service Access/ Delivery:

- Omni-channel access/ delivery are an important capability required in NDHE. This is achieved by a combination of Web (India Health Portal), Mobile (MyHealth App) and Call Centres besides Social Media Platforms.
- The Command, Control and Communication Centre enable real-time monitoring and real-time interventions needed in the NDHE.
- Given the significant spread of smartphones and the prospects of its further growth, The Blueprint emphasizes the **'Mobile First' principle** for majority of stakeholder-facing services.

Interoperability:

- The most important contribution of the Blueprint is its advocacy of Interoperability, which is a prerequisite for development of integrated digital health services and continuum of care but also for the autonomous development of innovative value-added services by entrepreneurs.

Two Building Blocks, namely, the **Health Information Exchange and the National Health Informatics Standards enable and promote the interoperability of various building blocks.**