



National Digital Health Mission

*Healthcare Professionals Registry
Consultation Webinar: 6th July 2021*

Agenda

- I. Housekeeping
- II. The Journey to NDHM
- III. Consultation Process Till Date
- IV. Principles of NDHM
- V. NDHM Architecture Overview
- VI. Principles of Registries
- VII. HPR Vision
- VIII. HPR Ecosystem Design
- IX. Who is HPR for?
- X. How will HPR be populated?
- XI. How will HPR data be governed?
- XII. Next Steps

Housekeeping

1. All participants are muted and will not be allowed to share video for the duration of the Webinar.
2. Following the core content of the Webinar, a Q&A session will be held. **All questions are to be submitted through the Q&A Box - our moderator will ensure that they are answered appropriately**
3. Please ensure your questions are concise and targeted towards the points raised in this Webinar or the HPR Consultation Paper released on **Tuesday, 22nd June**
4. If there are any technical difficulties joining, please double check your internet connection and rejoin

NDHM intends to develop HPR in a holistic, consultative manner. Please voice your opinions on issues raised here respectfully.

Journey to NDHM

The National Digital Health Mission (NDHM) is the outcome of an iterative process involving stakeholders across the health ecosystem

National Health Policy 2017

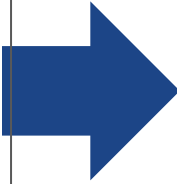
The National Health Policy, 2017 policy advocated extensive deployment of digital tools for improving the efficiency and outcome of the healthcare system

National Health Stack 2018

Vision for a digital stack for health laid out with key objectives and principles

National Digital Health Blueprint 2019

Framework of building the National Digital Health Network finalized



Consultation Process Till Date

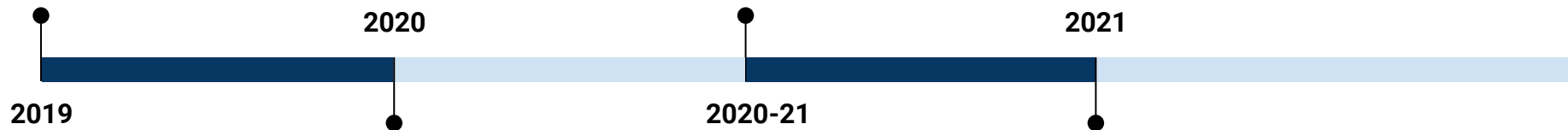
NDHM is currently conducting the fourth round of consultations, and will continue to engage with ecosystem stakeholders as the initiative

1st Level of Consultations

An initial round of consultation was held prior to releasing the National Digital Health Blueprint in 2019

3rd Level of Consultations

One-on-one consultations with specific stakeholders including insurance companies, govt. Health programmes, licensing authorities, medical councils, among others, were held after the pilot to gather feedback on specific building blocks



2nd Level of Consultations

Before launch of the NDHM pilot in August 2020, a series of consultations were held with varied groups of stakeholders at the state and central level

4th Level of Consultations (Current)

Currently ongoing consultations with ecosystem stakeholders through consultation papers released for various building blocks

Principles of NDHM

The NDHM architecture has been designed in keeping with the core functional and technological principles outlined in the NDHB

Functional Principles

Educate and Empower

Universal & Inclusive

Think Big,
Start Small,
Scale Fast

Security & Privacy by Design

National Portability

Accountability

Technology Principles

Interoperability

Building Blocks

Single Source of Truth

Open APIs

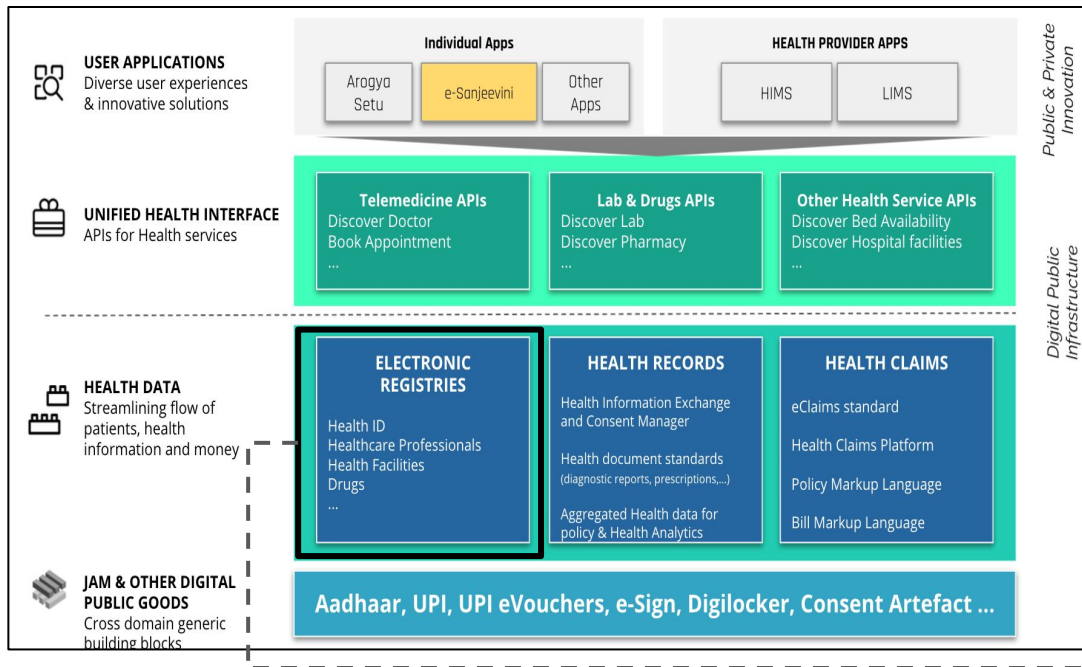
Minimalist Design

Leverage Legacy

NDHM Architecture Overview

NDHM has been designed as a technology stack to enable the **interoperability of health / health related data and digital health services**

The NDHM Stack



Features

- Layers work **interoperably** to enable patients, professionals or providers' digital health journeys
- Data layer comprises registries, standards & APIs for **access, exchange & storage** of health / health related data
- Will **connect to other digital ecosystems** in India (e.g., UPI) to activate new use cases and service delivery modes

Consultation papers and webinar focuses on design fundamentals of the core registries

Principles for Building Registries

Three core principles drive the design of the core NDHM registries to ensure concrete value creation for stakeholders

1

Establish Trust

How do we ensure clean, clear and verified data?



Demographic Info

Aadhaar Verification



Contact Details

OTP authentication



Registration

Verification by a certifying board



Education

Verification by the institute

2

Design for Value

Why should a stakeholder be a part of the registry?

- Discovering pain points of an entity for whom the registry is being built
- Identifying possible solutions for the existing gaps and making them an integral part of the registry
- Adding value to the entity by integrating the registry with entire health ecosystem

3

Ecosystem Adoption

What are the use cases of the registry?

- Identifying all entities in the healthcare ecosystem who currently use data which is planned to be a part of the registry
- Identify avenues of value creation for the entities which align with data captured by the registry
- Engage with entities to adopt the registry as primary source of required data

Enrolment in HPR is completely voluntary; incentives of key stakeholders will be incorporated in design to ensure that the platform constantly generates value for the ecosystem

HPR Vision

The Healthcare Professionals Registry is envisioned to serve as a source of truth for data on healthcare professionals in the country

Key Challenges

- Absence of a trustable dataset for all Healthcare Professionals with universal identifiers
- Varied levels of data verification and digital system maturity across states

Solution

Create a scalable digital repository of data on Healthcare Professionals that is verified by appropriate governing authorities / councils

Digitizing the Healthcare Professionals Journey

Preparation & Education

Enrollment and graduation from any form of education, training

Qualification & Licensing

Evaluation, registration and credentialing

Management

Personnel administration, training, and governance

Discharge & Retirement

Retirements and ensuring continuity of medical services

Example: Lifecycle of an ASHA Worker



ASHA worker in Rajasthan appointed by local community bodies and enrolls in HPR to receive HPID via ASHA Soft



ASHA undergoes training and capacity building courses before assumption of duties and this is recorded against HPID



ASHA receives incentive payments through bank info linked to HPID

ASHA migrates yet due to common identifiability gov programmes do not lose visibility

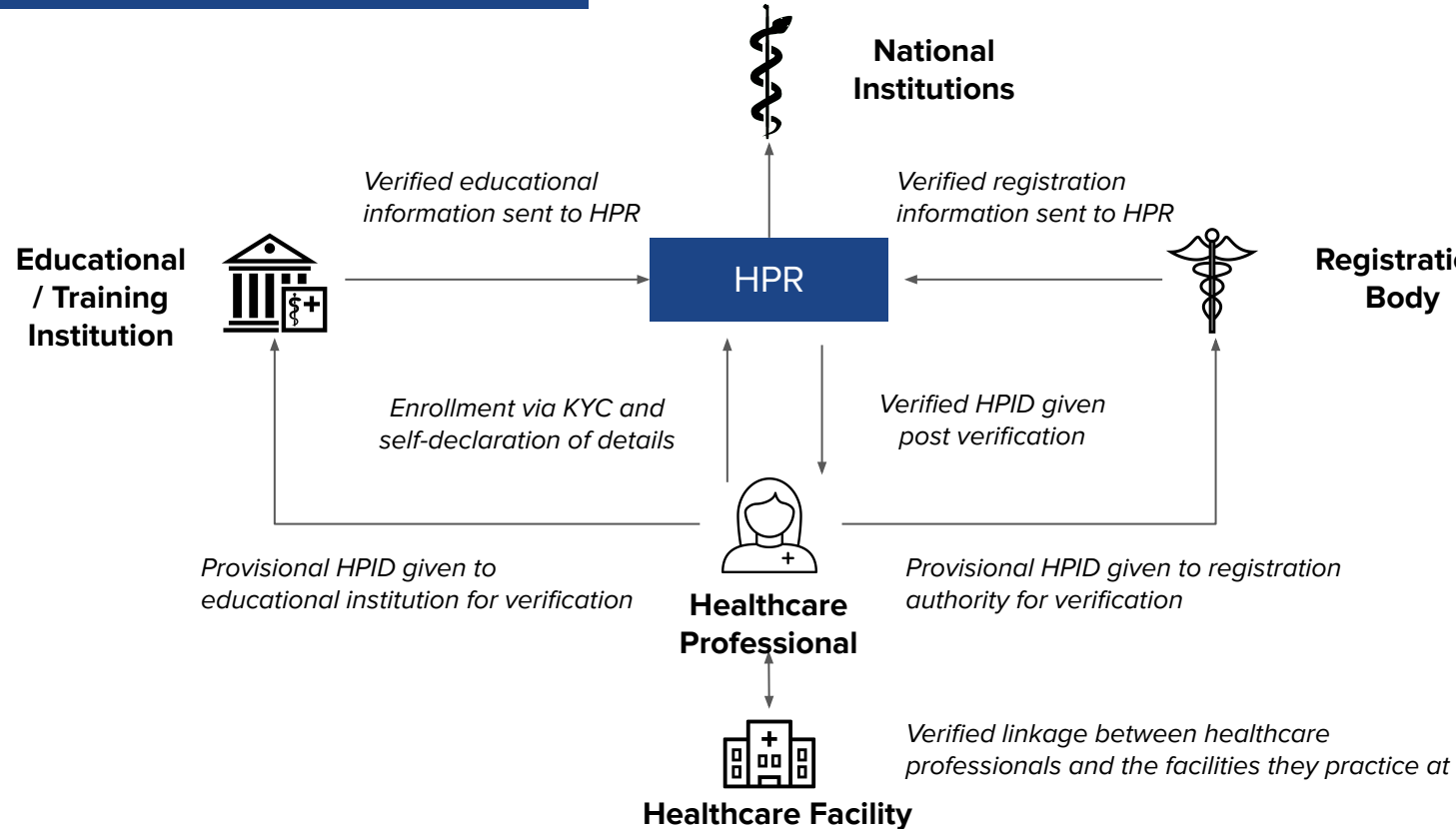


Upon ASHA retirement, details of retirement are captured in HPR and mapped against an HPID (now in 'Retired' status)



HPR Ecosystem Vision

Below is the snapshot of the ecosystem elements working together to establish authenticity and integrate to provide benefits



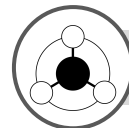
Issue #1: Who is HPR for?

The choice of which professionals are to be included in the Healthcare Professionals Registry has significant implications on registry design



Patient Centric Vision

- **Overview:** Only categories of professionals that **directly interact** with patients to provide health services will be included, such as medical doctors, nursing professionals
- **Key Implication:** A more selective HPR may **drive greater trust** in the registry among patients - as the HP categories included already have robust mechanisms for verifying their professionals
- **Key Risk:** Risk **limiting NDHM's inclusivity** and missing an opportunity to digitize and streamline the journeys of other categories e.g., paramedics



Ecosystem Centric Vision

- **Overview:** In addition to the categories addressed in the patient centric vision, other health professionals **who indirectly or directly deliver health services** to patients or hospitals
- **Key Implication:** HPR may be **truly inclusive** and grant a nationally recognized digital identifier to allied / non core professionals
- **Key Risk:** Carries greater **risk to data quality and trust**; existing verification mechanisms for these professionals may not be as robust as for doctors and nurses

Key Issues Raised for Consultation (Issues detailed in Section 4.4 of HPR Consultation Paper)

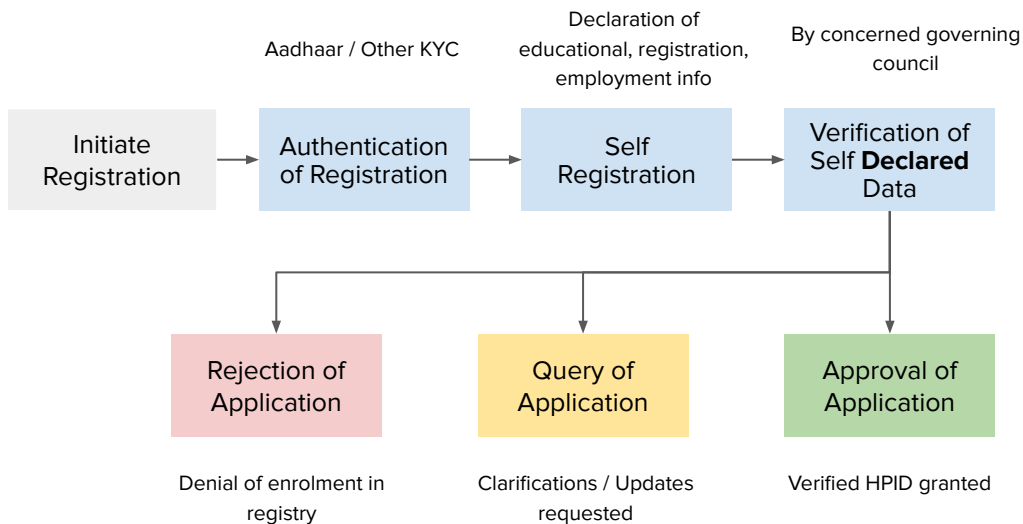
1 Are there other models or approaches to be considered?

2 Are there other risks or implications to be addressed?

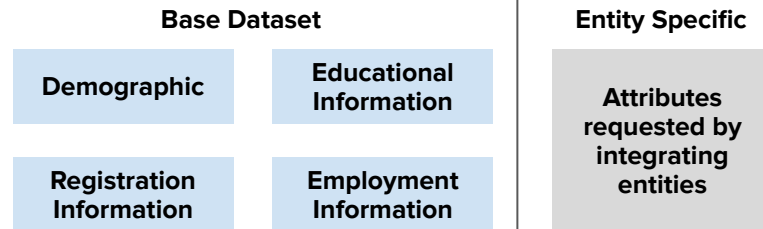
Issue #2 : How will HPR be populated?

HPR will standardize a minimum set of data attributes, create mechanisms for integrating existing datasets and ensure that all data is verified by a concerned authority

Mode of Record Creation



Data Types in HPR



Verification Mechanisms

By Authority



May be suited to HPs with well defined governance e.g., doctors, nurses

By Employer



May be suited to less regulated HPs e.g., allied health professionals

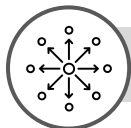
Key Issues Raised for Consultation (Issues detailed in Section 5.9 of HPR Consultation Paper)

1 Are there other possible mechanisms?

2 Are we collecting the right data?

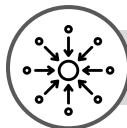
Issue #3 : How will HPR data be governed?

There are multiple approaches to data governance of HPR that have functional and technical implications



Decentralized Data Governance

- **Overview:** Responsibility for data maintenance rests with the governing authorities who regulate various HP categories
- **Key Implication:** NDHM's role is limited to providing an IT platform and exposing APIs to enable digital verification of records; catalyzes a data culture and complements a **patient centric ecosystem vision**
- **Key Risk:** HP categories who do not have robust governance structures backed by digital systems may be unable to integrate with HPR until they build them, harming adoption



Centralized Data Governance

- **Overview:** NDHM will liaise with governing councils / entities to manage and maintain the HPR dataset
- **Key Implication:** HPR is a master data set and is synchronized to replica databases managed by other entities; NDHM will collaboratively build and maintain verification mechanisms where applicable; complements **ecosystem centric vision**
- **Key Risk:** Assuming ownership of data maintenance may pose **operational challenges** both to the legally mandated governing councils / bodies as well as to NDHM

Key Issues Raised for Consultation (Issues detailed in Section 5.9 of HPR Consultation Paper)

1 Are there other models or approaches to be considered?

2 Are there other risks or implications to be addressed?

Next Steps

The success of HPR depends on active participation and adoption of the registry by the ecosystem

All participants are requested to:

1. Read the full text of the consultation paper released on **22nd June**
2. Provide comments on the consultation paper against relevant questions by **20th July**
3. Share your feedback through the form that will be shared with you after this webinar

Pre-Submitted Q&A

1. How do we do validations for these registries and what support can we get to onboard doctors we have on our platform?
2. Can we incentivize the doctors running their own clinics or working at multiple hospitals to be a part of this process?
3. What is the metric of success for this project? How are we dealing with remote locations for data collection ?
4. Will AYUSH facilities be part of the HPR building block?
5. Who shall host, maintain and audit the registry, and how will duplicacy be avoided in the data?
6. What are the roles and responsibilities of states in the development of the registry?
7. How do you define "allied professionals"? If they include dieticians and counselors, then why are we talking about "patient centricity" and not about people in general?
8. How will NHA ensure the data quality of healthcare professionals in HPR?
9. Is there any opt out mechanism for healthcare workers? Will professionals not registered in this be barred from providing any services?