

2 YEARS
of Ayushman Bharat
Digital Mission

**BEST PRACTICES &
INNOVATIONS**

2022-23



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1. Introduction

Ayushman Bharat Digital Mission (ABDM) is a national initiative that aims to provide affordable, accessible, and inclusive healthcare to all citizens of India by leveraging technology. Launched in September 2021 by the Hon'ble Prime Minister, ABDM aims to create the world's largest digital health ecosystem, supporting universal health coverage and developing the necessary backbone for an integrated digital health infrastructure in the country.

States/Union Territories (UTs) play a critical role in the nationwide adoption of ABDM, by building an active digital health ecosystem that ensures the benefits of digital healthcare reach every citizen of the country. They are the driving forces to deliver healthcare to the citizens. Since the nationwide launch of ABDM, States/UTs have been undertaking various efforts to adopt ABDM. Looking at the progress the States/UTs have made thus far, there are multiple learning lessons that emerge from their journeys.

This report aims to showcase the best practices adopted by the States/UTs to implement and adopt ABDM. These efforts are enabling States/UTs to contribute and participate in the ABDM ecosystem. The report is divided into seven sections: Section 1 provides an overview of the document; Section 2 includes best practices associated with levers that enable ABDM adoption, such as governance, finance, technological infrastructure, capacity building, and information, education, and communication (IEC); Section 3 includes the best practices regarding the core building blocks of ABDM, namely the Ayushman Bharat Health Account (ABHA), Health Facility Registry (HFR), and Health Professional Registry (HPR); Section 4 includes best practices associated with linking of health records; Sections 5 and 6 respectively include best practices associated with ABDM use cases and incentives to scale up ABDM adoption.

This report highlights the successes achieved by States/UTs in implementing ABDM, shares their unique experiences, and encourages other States/UTs to adopt similar best practices to achieve a nationwide digital health ecosystem.

These practices have been identified and documented basis NHA's various interactions with States/UTs, along with the practices that States/UTs may have presented during ABDM workshops, review meetings, etc. The best practices shared in this document may not be exhaustive, and as with any large-scale mission, with increased adoption, more best practices will continue to emerge and evolve in the future.

2. Getting Started: Levers for ABDM Adoption

This section includes best practices associated with levers that enable ABDM adoption, such as governance, finance, technological infrastructure, capacity building, and information, education, and communication (IEC). These levers collectively ensure effective coordination, adequate resources, robust technology, skilled workforce, and informed engagement, contributing to a smooth and timely ABDM adoption.

2.1 Governance

NHA has released [guidelines for setting up a State ABDM Office](#), on 8th March 2022. The guidelines offer flexibility to States/UTs in various aspects to ensure they can best meet their unique requirements. Some of the practices followed by States/UTs for ABDM governance are mentioned below:

a. Convergence of ABDM with a State/UT's ongoing digital health schemes/initiatives -

In terms of planning for implementation, driving convergence of ABDM with an allied digital health initiative of the State/UT can help drive resources/ bandwidth for ABDM implementation. Instances where States have aligned their ongoing Digital Health initiatives with ABDM include **Karnataka** (eHealth Karnataka) and **Kerala** (eHealth Kerala), among other States. **Uttar Pradesh** has further gone ahead to institutionalise ABDM in the State by registering the State ABDM Office as a society.

b. Setting up the Program Management Unit (PMU) - The medium of hiring the PMU has differed across States/UTs. For instance, **Madhya Pradesh** has released a Request for Proposal (RfP) for hiring an agency as a PMU, **Gujarat, Ladakh and Chhattisgarh** have released advertisements for hiring candidates from the open market for their respective PMU, **Meghalaya** has conducted walk-in interviews for selecting individuals to constitute its PMU, meanwhile, **Manipur** hired the staff for its PMU through the National Institute for Smart Government (NISG). **Andhra Pradesh** has made the strategic decision to leverage the team working on digital health in the State to constitute its PMU. In addition to the aforementioned pathways, deputation from State/UT government or local bodies is another means for hiring resources for the PMU.

c. Onboarding a technical organisation - Given the flexibility granted to the States/UTs in terms of defining the composition of the PMU, some States/UTs have opted to onboard technical experts to constitute the majority of the PMU given the technical expertise required for ABDM implementation. **West Bengal**, for instance, has opted for a consultancy approach and brought in domain experts in government for each aspect of implementation as part of its PMU.

d. Reviewing progress regularly - Monitoring the progress being made in the State/UT for ABDM implementation, is an essential component of governance. States/UTs are recommended to incorporate this element in their respective implementation plans from the very beginning. Some examples of the same are mentioned below:

- i. **Kerala's** governance plan included setting up a State - level coordination committee chaired by the Principal Secretary of Health and District coordination committees headed by the District Collectors. Professional bodies and Private hospitals representatives were also made of the District coordination committees. Further, checklists were prepared for each stage of implementation followed by a daily progress review by SMD at the State level and frequent reviews by the district and State committees.
- ii. In **Andhra Pradesh**, weekly review meetings were conducted by SMD with the State Nodal Officer, State Level IT Team & Registrars/Verifiers of State Medical Councils (All Systems of Medicine).
- iii. In **Meghalaya**, a review meeting was chaired by the SMD every Saturday to evaluate the overall progress.

- iv. In **Chhattisgarh**, the progress on ABDM implementation was prioritised by the SMD in review meetings with Chief Medical & Health Officer/ Civil Surgeon cum chief Hospital Superintendents where the weekly progress on ABDM building blocks - ABHA, HFR, HPR, and Scan and Share implementation were reviewed and accordingly action was taken.
- v. In **Goa**, ABDM review is undertaken by the officials at Directorate of Health Services (DHS) as part of the monthly meetings attended by all Chief Medical Officers (CMOs) of various programmes like Non Communicable Disease Cell (NCDC), National Health Mission (NHM), State Family Welfare Bureau (SFWB), etc.
- vi. **Gujarat** instituted a review system as part of the 100-day campaign to prioritize ABDM adoption in the State, which was closely monitored by the Hon. Chief Minister's Office and Hon. Chief Secretary's Office, on a weekly basis. Along with setting targets for ABHA, HFR and HPR saturation, the State arranged single point of contact at district, corporation and health facility level, extended dedicated support to poor performers and established mechanisms for incorporating feedback and corrective action. The State also involved stakeholders at each level of hierarchy (State, Region, District, Block, Village) from the initial stages of planning for implementation which helped in greater awareness and accelerated roll-out.
- vii. In **Delhi**, the training of health facility staff by the District MIS expert at the district level is being monitored at the state level.
- viii. In **Puducherry**, Hon'ble Lt. Governor monitors the ABDM progress quarterly, while the Chief Secretary of the UT reviews the progress on a monthly basis. A fortnightly review is done by the Secretary of Health and Director of Health, and weekly review is conducted by the ABDM Nodal Officer with District Nodal Officers, Medical Officers, ASHAs and DEOs.
- ix. **Punjab's** SMD conducted monthly review meetings with the Civil Surgeons of all districts to monitor the registration of HFR and HPR. Additionally, the state has deputed dedicated personnel for monitoring ABDM implementation, including district nodal officers for the 23 districts and 4 divisional coordinators for training and supervision.

e. Internal mechanisms for change management - In situations of change of resources within the State ABDM Office, internal knowledge management systems may be set up to ensure the complete transfer of ABDM related context and knowledge.

2.2 Finance

NHA has laid down [guidelines](#) for fund allocation and disbursement for Human Resources (HR), Capacity Building (CB), and Information, Education, and Communication (IEC) components. The key recommended practices as well as the experience from the States/UTs are listed below:

a. Opening a separate bank account for ABDM, adhering to the guidelines of the Ministry of Finance - To facilitate the disbursement of funds from NHA to the State/UT, proper banking arrangements at State/UT level is crucial. The State/UT Government is directed to abide by the following:

- i. Open a separate designated bank account viz. Administrative Expenses at the State Mission Office in line with the directives of the Ministry of Finance [Refer to Annexure II of the State Guidelines for the same.
- ii. Adopt Public Financial Management System (PFMS) for facilitating just-in-time releases and monitoring funds usage, including the generation of online utilisation certificates for the same.

b. Adhering to budget request templates and close coordination with NHA - Adhering to the templates prescribed by NHA for fund requests (as shared with the states in letter no. S-12019/128/2021-NDHM dated 29th September 2022 for allocation of funds for undertaking CB and IEC activities under ABDM) can aid in timely disbursements of funds from NHA. In addition, leveraging the State PoC from NHA for any coordination for resolution of any queries can help avoid multiple rounds of back and forth between the State and NHA, for the release of the funds.

c. Planning with a buffer period - It is recommended that States/UTs plan activities that are dependent on the funds allocated by NHA with a buffer period to account for any unforeseen delay in the disbursement of funds.

d. Leveraging funds proactively - The funds earmarked for States/UTs are released in multiple tranches by NHA. The release of a subsequent tranche is dependent on the utilisation of at least 75% of the previous tranche. The State/UT is required to submit a Utilisation Certificate (UC) indicating the 75% usage of the tranche, to be able to receive the next tranche of funds. Hence, proactive leveraging and utilisation of funds earmarked by NHA for specific themes is essential.

In this regard, raising any challenges to NHA early on for procurement-related or deployment-related concerns is recommended. **Ladakh and Andhra Pradesh** have leveraged such an approach to demonstrate timely availing and utilisation of their respective funds in the 2022-23 financial year.

e. Internal procurement of funds - As the financial support from NHA does not cover components such as hardware/software infrastructure, some States/UTs have leveraged other sources of funds to finance them.

- i. National Schemes/ Programmes** - Multiple States/UTs, such as **West Bengal, Chhattisgarh and Puducherry** have leveraged funds from **National Health Mission (NHM)**, **Emergency COVID Response Package (ECRP)**, **SmartCity**, etc. to support hardware financing or for initial HMIS setup. In order to leverage funds from NHM, **Karnataka** utilised funds from **Arogya Raksha Simitis (ARS)**. Other avenues for mobilising funds that the States/UTs may consider are **Members of Parliament Local Area Development Scheme (MPLADS)** and **Rogi Kalyan Samiti (RKS)/Hospital Management Society (HMS)**.
- ii. State Schemes/Programmes** - States have also mobilised State specific schemes/programmes (eHealth in **Karnataka**) for overall ABDM implementation. Similar to MPLADS at the central level, States/UTs can also leverage the **Members of the Legislative Assembly Local Area Development Scheme (MLALADS)**.

2.3 Technological Infrastructure

2.3.1 Software

To generate digital health records, healthcare providers must be equipped with digital health solutions, such as a Hospital Management Information System (HMIS) or Lab Management Information System (LMIS). For the digital health records to become a part of the ABDM ecosystem to enable seamless linkage, exchange and management of health records, with patient consent, the given digital solution at a facility/programme, must be integrated with ABDM.

States/UTs may be at different stages of their digitization progress, some States/UTs may not have any digital health solution, while some States/UTs may have a digital health solution with varying degrees of adoption across the State/UT. To become an active part of the ABDM ecosystem, the various digital health solutions/programmes within the State/UT must be integrated with ABDM,

and adopted successfully across all facilities. The recommended action steps for States/UTs with respect to software readiness are mentioned below:

a. Getting State/UT-specific HMIS, health programmes, and other digital health solutions to become ABDM-enabled - The recommended route for States/UTs with in-house digital systems (HMIS, digital health platforms, digital solutions for State/UT-specific health programs, etc) is to get such systems integrated with ABDM. States such as **Tamil Nadu, West Bengal, Kerala and Andhra Pradesh** have proactively followed such an approach, to get their systems ABDM enabled at the earliest. Integration with ABDM, allows the existing solutions to perform ABDM functionalities, such as generating ABHA numbers, linking digital health records with ABHA, sharing health records with due patient's consent, and enabling interoperability of health data among all solutions that become ABDM-enabled. Details regarding the ABDM integration process can be found in section 2.3.2.

b. Procuring an ABDM-enabled HMIS - States/UTs that may not have an HMIS, have opted for procurement of an already ABDM-enabled HMIS and scaled up its penetration across the State/UT. NHA has released [guidelines](#) on the minimum viable features and standards of ABDM-enabled HMIS/LMIS, along with recommended and optional features, that States/UTs can refer to. In order to procure and deploy these solutions, States/UTs can directly approach a public or private solution provider for leveraging their software. Many such players are offering their solutions at a low cost or are free for a certain time period. The complete list of ABDM-enabled solution providers (HMIS/LMIS) can be found on the [ABDM website](#). NHA also offers the provision to evaluate these digital solutions based on the availability of various features. This [feature](#) can be found under the 'Partners' section on the ABDM website. **Karnataka and Uttar Pradesh** have utilised funds from NHM for procurement and deployment of HMIS. Other possible avenues for financing procurement of ABDM-enabled HMIS are mentioned in section 2.2.

c. Ensuring implementation of ABDM-enabled versions of Government Health Programmes in the State/UT - As States/UTs play an integral role in the on-ground implementation of national health programmes, they are advised to ensure that the ABDM-enabled version of these programmes is being adopted throughout the State/UT. Several national health programmes have already integrated or are in the process of integrating their systems with ABDM, to become a part of the digital health ecosystem.

ABDM-enabled versions of national health programmes such as the Non-Communicable Disease (NCD) Program, Reproductive and Child Health (RCH), etc. are live in production. These ABDM-enabled national health programmes can be leveraged to drive ABDM adoption and implementation in the State/UT. For instance, **Andhra Pradesh** leveraged the NCD enumeration drive to create ABHA at a large scale. This was possible because the digital solution used for the enumeration drive was ABDM-enabled. Similarly, **Chhattigarh** is generating ABHAs and linking records at community health center (CHC) and primary health center (PHC) level using ABDM-enabled versions of the NCD app.

2.3.2 ABDM Integration

As mentioned in the earlier section, the first step toward software readiness for ABDM, States/UTs may ensure the present software is integrated with ABDM. In order to initiate the integration of any programme/solution with ABDM is to register on the [ABDM Sandbox](#). Once the application is approved by NHA, access is provided to Sandbox APIs. The integration process is phased into three key milestones: Milestone 1 (ABHA creation), Milestone 2 (linking of health records), and Milestone 3 (sharing of health records). There are multiple avenues for support available to solution/programme in their integration journey with ABDM that may be leveraged:

- **Leveraging Sandbox documentation:** NHA has released detailed documentation for each Milestone that lists down the functional requirements and API sequencing and offers step-by-step guidance to the integrators in their integration journey. Integrators are encouraged to leverage the [sandbox documentation](#) to understand mandatory/optional features and recommended workflows.
- **Utilising existing NHA support:** Each integrator is assigned a dedicated PoC from NHA, to provide the required functional and technical support during the integration journey. Additionally, NHA conducts regular support workshops, financial support for security audits, and a dedicated grievance portal for resolving all queries from integrators.
- **Utilising Connectors:** Ecosystem partners such as Driefcase (<https://abdm.gov.in/partner-offers-details/Nw==>) and C-DAC (<https://ndhmexchange.uat.dcservices.in/FHIRConnector/>) are offering connectors (plug-and-play API suite) to integrators for their ABDM integration.

These connectors enable seamless integration of a digital solution with ABDM, wherein the integrator can directly use the connector APIs, thereby expediting the integration process while reducing the integration effort. AarogyaSri Health Insurance Scheme of **Andhra Pradesh** has initiated its integration with the help of the connector being offered by C-DAC.

2.3.3 Hardware

The availability of necessary technical infrastructure and resources to support digitization is a precursor to ABDM adoption. Therefore, it is essential to perform the scoping for an **ABDM-enabled ecosystem of State/UT Health software/applications** and figure out the pathways to **best leverage existing hardware** for ABDM implementation. NHA has released suggestive **hardware guidelines for states and healthcare institutions**.

These guidelines are intended to help the States/UTs in the planning, assessment, and procurement of the IT hardware, including IT specifications of various hardware equipment to operate applications in line with ABDM for all the healthcare institutions in the State/UT. These guidelines can also become the basis of a gap assessment tool that can be leveraged to plan and upgrade/procure the required hardware.

- **Uttar Pradesh** is one such state that has undertaken the preparation of a gap assessment tool to understand the hardware requirement for public facilities.
- **Andhra Pradesh** leveraged the guidelines to frame IT infrastructure recommendations for UPHCs and PHCs and procured the necessary hardware through NHM.

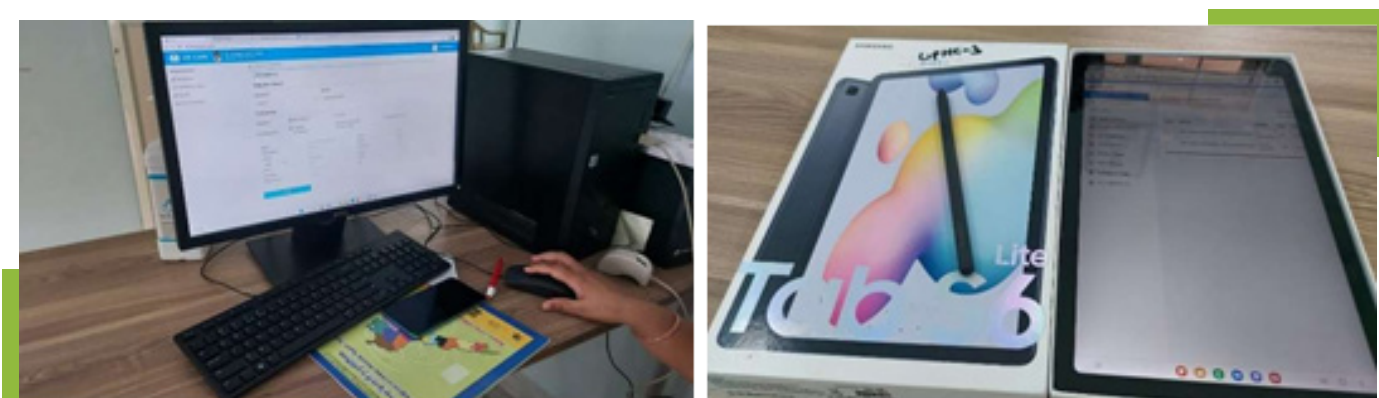


Figure: Desktops and Tabs Provided for Urban PHCs and Rural PHCs in Andhra Pradesh.

2.4 Capacity Building

Capacity building is an integral component to ensure successful ABDM adoption across the country. Recognizing the same, all States/UTs have undertaken multiple training sessions, both **online and offline**, spanning District Nodal Officers, Verifiers, Facilitators, and other digital solutions-related personnel. Attempts have been made to actively **engage the officials at the block and district level** through virtual workshops, **on-ground training**, etc.

a. **Dadra and Nagar Haveli and Daman and Diu** (DNHDD) followed a phased approach for building capacity of the hospital staff for using an HMIS at health facilities. The first step was to provide general training on how to use computers. Once the doctors were comfortable with using computers, they were trained on using the HMIS. Subsequently, it was proposed that at least 40% of the doctors at each facility switch to digital prescriptions on a voluntary basis. Over time, the proportion of doctors at each facility using the HMIS increased. In this manner, DNHDD emerged as one of the model UTs during the ABDM pilot in 2020.

b. **Arunachal Pradesh** conducted **hands-on training** on ABDM building blocks and registration of health facilities and healthcare professionals on HFR and HPR respectively, **district-wise by master trainers**. The state also organised virtual training for Doctors every Saturday.

c. **Tamil Nadu's** **state and district-level workshops** for sensitization and orientation on ABDM implementation for State and district officials came from 3 directorates (Directorate of Medical and Rural Health Services (DMS), Directorate of Medical Education (DME), Directorate of Public Health and Preventive Medicine (DPH)).

d. **West Bengal**, in addition to the training conducted at the state level for all District nodal officers and District verifiers, conducted **follow-up training** for all facility managers (both government and private facilities).

e. **Telangana**, in order to ensure smooth coordination, the State identified a **state coordinator** and provided 24x7 support to all the district coordinators to clear doubts that were raised during HFR & HPR registration. Telangana has also planned block-level training and training of trainers (**ToTs**) **from Doctors to ASHAs**.

- f. **Bihar** involved **development partners** in its training to ensure the quality of training being delivered.
- g. **Andhra Pradesh** had a multipronged approach toward capacity building:
- i. The state followed a **decentralised model** of capacity building. The state organised physical training workshops for state officials and medical officers and the district teams undertook the training for healthcare professionals junior to the medical officers including the frontline workers.
 - ii. The state **prepared training material for UPHCs with separate modules for each functionary** including the receptionist, staff nurse/ANM, doctor, pharmacist, and lab technician. The frontline healthcare workers were familiarised with possible instances that may come up during ABHA enrollment on the ground.
 - iii. The state conducted **district-wise virtual training** for the facility managers along with an **hour-long helpline** for query resolution for HFR onboarding. The hour-long helpline was also open to healthcare professionals to address any queries related to HPR onboarding.
- h. **Uttar Pradesh** conducted **alternate-day virtual training cum meeting sessions** with the district team.
- i. In **Karnataka**, virtual training sessions on HPR registration for all public healthcare professionals like Doctors, Nurses, and Community Health Officers (CHOs), were carried out with the assistance of regional coordinators.
- j. **Jharkhand** carried out capacity building & handholding sessions on HPR, HFR and ABHA creation for District Nodal Officers of ABDM, District Verifiers of ABDM, Hospitals Managers of all public & private facilities, all District Data Managers (DDM), all District Program Managers (DPM), nurses of public & private hospitals, nodal officers of Ayushman Bharat - Mukhya Mantri Arogya Yojana (AB-MMJAY) at the district level.
- k. **Kerala** undertook multiple capacity building initiatives as listed below:
- i. District nodal officers and district verifiers conducted various in-person and online training sessions for government medical officers, doctors and nurses.

ii. A group of master trainers was formed who gave multiple sessions in individual districts and systems of medicine including modern medicine, homoeopathy and AYUSH. State-level ToT was conducted by the Department of Homoeopathy focusing on the ABDM integration of AHIMS, the Department's web based application.



Figure: State-level workshops and meetings in Kerala

l. In **Chhattisgarh**, whenever new facilities are onboarded onto ABDM, the State trains the facility manager/staff regarding ABHA creation during OPD registration, Scan and Share and health record linking.

m. **Ladakh** has incorporated ABDM capacity building initiatives for community health workers in the training sessions conducted by ABDM-enabled programmes such as NCD and RCH. Further, the UT conducted in-person district-level workshops to sensitise and orient state and district officials on ABDM and eHospital implementation, along with block-level training sessions for Auxiliary Nurse Midwives (ANMs) and Community Health Officers (CHOs). To supplement this, a dedicated WhatsApp support group was created for each block to address queries, provide technical assistance, and share resources and updates.

n. **Delhi** is following a ToT model for imparting training on HPR and HFR. Additionally, frontline workers are being continuously trained through virtual and physical mode.

o. In **Punjab**, ABDM ToT has been conducted at the State Headquarter. Trainers have given training till the Auxiliary Nurse Midwives (ANMs) level at the district level.

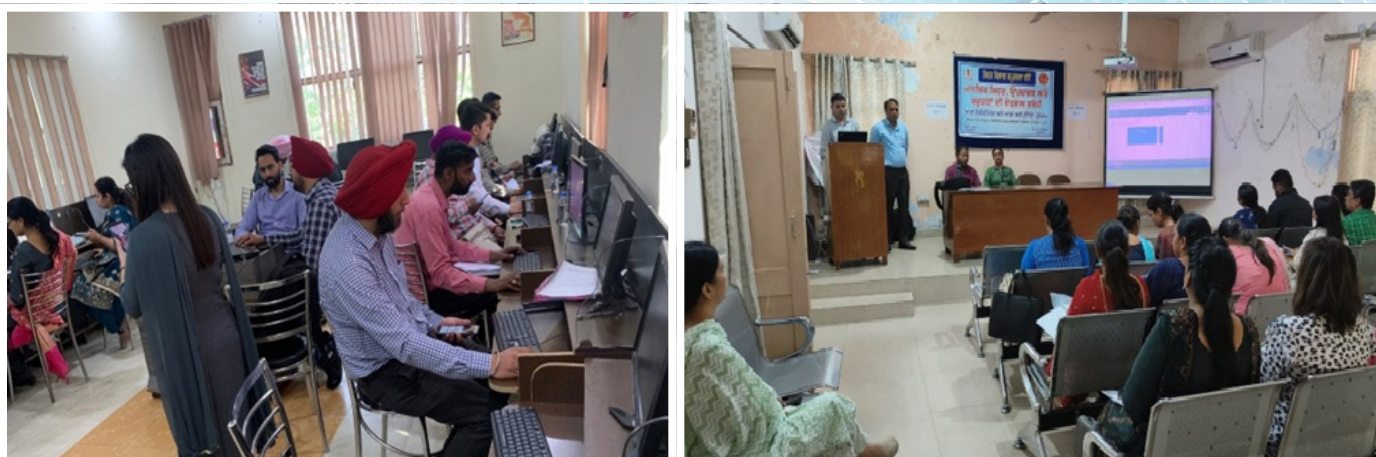


Figure: District-level workshops in Punjab

p. **Puducherry** trained Lower Division Clerks (LDCs)/Data Entry Operators (DEOs) of various departments for ABHA generation. NSS volunteers were also trained for continuous follow up with clinics and hospitals to register themselves under ABDM.

q. **Gujarat's** capacity building initiatives include the following:

- i. Multiple training sessions, online and offline, spanning State Officials, State Programme Nodal Officers, District Nodal Officers, Verifiers, Facilitators, ANM and ASHAs.
- ii. Virtual and in-person training for all district programme coordinators (DPC) in ToT model. Materials and walk-through of building blocks were developed and shared with the team. Regular interactions were scheduled to address the concerns, if any.

2.5 Information, Education, and Communication (IEC)

IEC is a critical element for inducing behaviour change for proactive participation from all stakeholders in the successful implementation of ABDM. The envisioned digital transformation in healthcare is intended to augment the capacities and capabilities for a wide range of stakeholders. Therefore, it necessitates effective communication regarding the mission, its objectives, and its envisioned impact with all stakeholders.

Therefore, it necessitates effective communication regarding the mission, its objectives, and its envisioned impact with all stakeholders. For instance, clear communication to decision makers/ government officials is essential to drive effective implementation, for healthcare professionals/ providers as well as citizens, IEC is essential to encourage their participation in the ecosystem.

NHA has created a [repository of IEC resources](#) across multiple channels of communication, which is hosted on the ABDM website. This is available for all to view and utilise. States/UTs have utilised a combination of all forms of media - print, radio, display, social media, on-ground camps, etc. and have leveraged the content shared by NHA by translating it into the required [vernacular languages](#).

Some other practices/ approaches are listed below:

a. **Kerala** has initiated awareness campaigns for ABHA generation at identified eHealth-enabled locations. The state installed ABDM kiosks at various events such as the IEEE conference in Cochin, and various state and district level melas to improve the visibility of ABDM. The state also published HPR, HFR, Scan & Share and ABHA user manuals in **Malayalam**, for better awareness among health workers of the state. Other IEC activities undertaken by the State include ABHA campaigns at different centres like DMO Office Kollam, Chadayamangalam etc for creating health accounts for employees, session on ABDM for paramedical staff and for students at various Ayurveda Colleges of the state. Finally e-Hospital HMIS, and ABHA awareness classes to medical officers, in all districts of Kerala.

b. **Arunachal Pradesh** has included HMIS and Telemedicine orientation lectures in the **MBBS curriculum**. The state also conducted a two-day ABHA creation drive at the **State Legislative Assembly** for the Chief Minister, State Legislative Assembly Speaker, Leader of Opposition, Cabinet Ministers, Deputy Chief Minister, MLAs, Assembly office staff and security personnel.



Figure: ABHA generation drive at the State Legislative Assembly, Arunachal Pradesh

- c. To sensitize the public and facility staff, **Tamil Nadu and Telangana** have placed IEC material at all public facilities spanning Primary Health Centres (PHCs), Secondary Care Hospitals, and Tertiary Care Hospitals. Additionally, the materials are printed on foam board in standard calendar size (8.5" x 11") to ensure quality.
- d. **Telangana and Andhra Pradesh** have prepared circulars, announcements, and guidelines according to the ABDM Policies and shared the same with all the district coordinators.
- e. **Telangana** has shared detailed documented materials and PPTs on an open-source platform for ease of access.
- f. The strategy undertaken by **Andaman & Nicobar Islands and Arunachal Pradesh** was to integrate the IEC of ABDM with other Health and wellness schemes.
- g. **Andaman & Nicobar Islands** also conducted community-level awareness campaigns and placed IEC materials like banners, foam boards, and stickers in public places along with distributing pamphlets at health institutions and various inter-island ticket counters.



Figure: IEC materials at Health and Wellness Centers (HWCs), inter-island ticket counters in Andaman & Nicobar Islands

h. **Puducherry** is advertising the importance of ABDM in health melas, on local television channels and community radio. The UT has also sent out an SMS with a link to the ABHA portal to all citizens, asking them to create their ABHA.

i. **Goa** conducted **ABHA Camps at schools during the PTA meetings/school** gatherings to disseminate information regarding ABDM in the community. In addition, the State adopted various other strategies to sensitise the general population including:

- i. ABHA advertisements on the state transport **buses**, playing **Radio jingles** in local language, ABHA **advertisements in popular dailies** in 3 languages viz. English, Konkani, and Marathi, placement of **ABHA standees at the INOX theatre complex in Panaji and Police stations** across the State.
- ii. The State also identified several **other stakeholders who can catalyse ABDM adoption** by spearheading information dissemination activities. This included nodal officers from educational institutes, students from the Goa Institute of Management, and Swayampurna Mitras (front-line workers responsible for communicating information about government schemes by going door-to-door).

j. **Chattisgarh** is placing banners/posters/pamphlets in all health camps, political gatherings, melas, Rajyotsav (State establishment events). IEC activities through local TV, FM channels, digital holdings etc have been planned as well. For tribal areas, the IEC activities and corresponding content will be translated in the local language.

k. **Ladakh** has undertaken multiple IEC initiatives for ABDM:

- i. Awareness campaigns at educational institutions such as colleges, where the UT introduced ABHA App to the students and staff while facilitating on-the-spot creation of ABHA.
- ii. ANMs and CHOs were mobilised to raise awareness among citizens at the community level, about ABDM and its advantages.
- iii. For marginalised populations who cannot easily access these services or visit health facilities for support, Ladakh has followed the model of “meeting people where they are”.
- iv. The officials in **Ladakh** used **twitter** to spread awareness about ABDM in their local language.

l. **Bihar** directed ANMs to mobilise ASHAs to spread awareness about the ABHA generation camps and mobilise citizens to attend the same. These camps were also covered in local newspapers.

m. During its visit to educational institutes, **Uttarakhand** distributed customised notebooks that had a QR code for ABHA registration on its cover page and instructions to create the same on the back cover. Students were told to show these notebooks to their parents and ask them to create their ABHA.



Figure: Customised notebooks with ABHA portal QR code distributed by Uttarakhand

- n. **Madhya Pradesh** conducted **ABHA generation drives in schools** and designated 7th April as **ABHA day** dedicated to information dissemination regarding the Mission.
- o. **Tripura** incorporated discussion on ABHA ID generation, easy hospital appointments through QR Code Scanning, etc. in the monthly **ASHA Bharosa Diwas** undertaken at the SDH-CHC-PHC level.
- p. **Meghalaya** involved the **village representatives**, i.e. the local heads, as well as **ASHAs** and other health workers to mobilise people for ABHA registration. The state is also planning to organise **roadshows** for disseminating information on ABDM.
- q. In **Karnataka** the utility of ABHA was conveyed by the Hon'ble Health Minister on various platforms. The GramaOne Centres under the Directorate of Electronic Delivery of Citizen Services (EDCS) were used to sensitize people regarding ABHA.
- r. **Delhi** initiated a month-long mass ABHA generation drive in May 2023 where ASHA Workers are creating ABHA for the citizens. ASHA led ABHA creation drive through School Health Scheme and School Health & Wellness Programme in coordination with the Education and WCD departments has also been planned.
- s. **Punjab** undertook several initiatives to spread public awareness about ABDM through **AIR-FM/ Private FMs, panels/hoardings/banners on the road transport corporation buses, audio campaigns** through Passenger Information System at **28 bus stands**, as well as posters/ pamphlets and standees displayed in **Government Hospitals** (DH/SDH) at entrance, registration counters and OPD area.



Figure: IEC material deployed in state's road transport corporation buses, bus stands in Punjab

A successful strategy for higher retention of different stakeholders is to **articulate and communicate the value proposition for each stakeholder** separately. These should be communicated as the key benefits that each stakeholder may achieve by participating in the ABDM ecosystem.

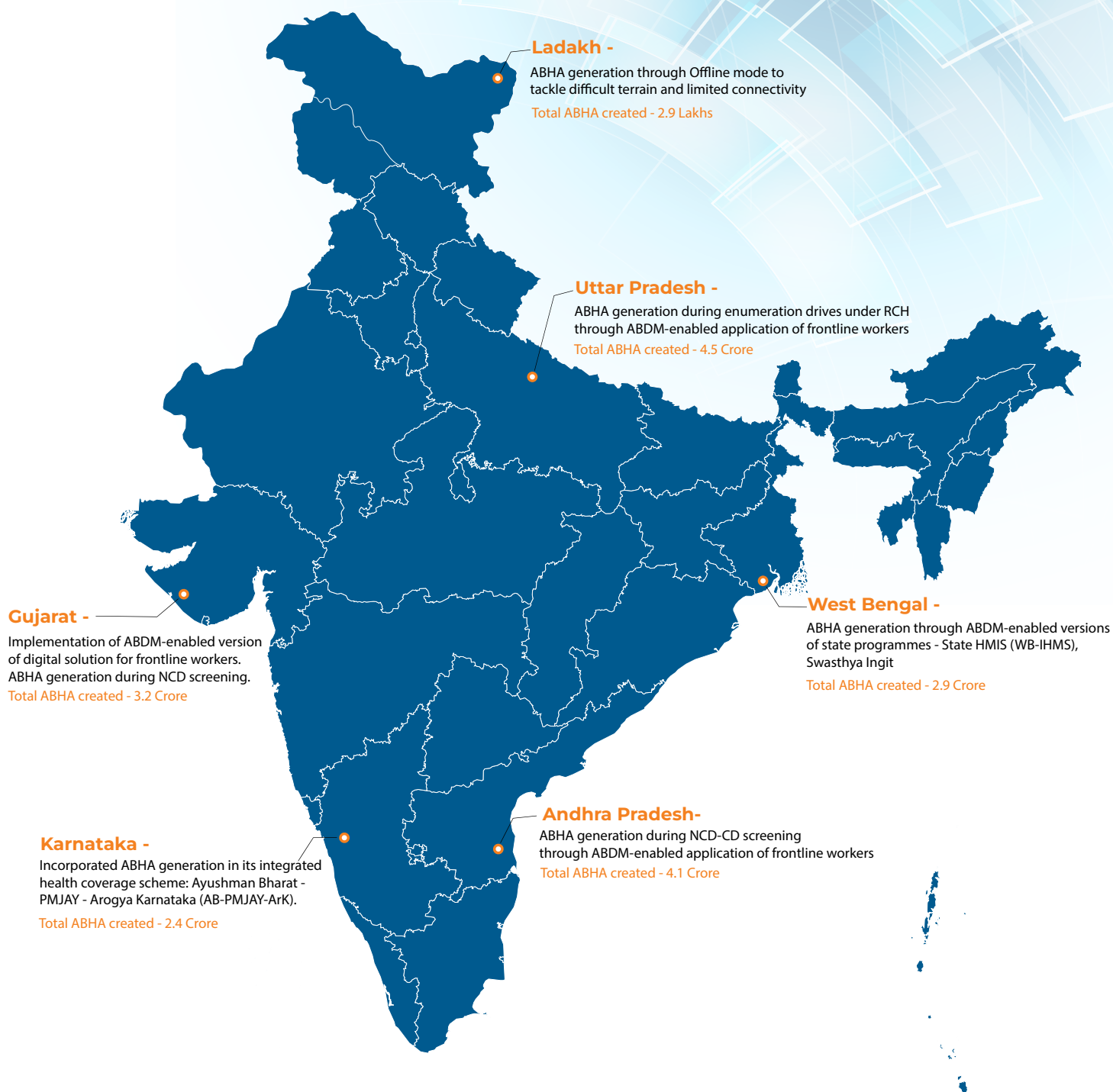
3. Key Building Blocks

This section includes the best practices from States/UTs regarding the core building blocks of ABDM, namely the Ayushman Bharat Health Account (ABHA), Health Facility Registry (HFR), and Health Professional Registry (HPR). There are multiple pathways for populating these ABDM registries. States/UTs have leveraged a combination of multiple pathways to achieve their current levels of adoption. Some of the best practices are highlighted in this section.

3.1 Ayushman Bharat Health Account (ABHA)

The Ayushman Bharat Health Account (ABHA) Number is a randomly generated 14-digit number designed as a unique identifier for individuals participating in India's digital healthcare ecosystem. The ABHA Number is used for the purposes of authenticating individuals and threading their health records (with informed patient consent) across multiple systems and stakeholders in the healthcare ecosystem.

ABHA - SPOTLIGHT



Data as on 25th August, 2023

Source: <https://dashboard.abdm.gov.in/abdm/>

(i) ABHA Creation

Based on the current ABDM architecture and State experiences, the recommended practices for ABHA creation at scale are:

I. HMIS Portal generated ABHA -

ABHA can be generated when citizens visit a medical facility, using an ABDM-enabled HMIS at health facilities. A prerequisite for using this method for ABHA creation is to ensure that the HMIS being used at the facility, is integrated with ABDM. This can be done through either API integration of the existing HMIS with ABDM or implementing an ABDM-enabled HMIS. This method helps register the individual at the point of care and ensures record collection till the continuum of care. There are multiple States/UTs that have opted for this pathway, some of which are mentioned below:

- a. **Andhra Pradesh, Uttar Pradesh and Karnataka** created ABHA(s) at the registration counter during OPD visits to Public Health Institutions.
- b. **West Bengal** used State HMIS (WB-IHMS) for ABHA generation through Online OPD ticket booking, IPD admission, IPD Diagnostic/ Pharmacy, and Online Discharge.

II. Programme Portal generated ABHA -

Any programme (central or State/UT-specific) that successfully completes integration with ABDM sandbox (at least Milestone 1 of integration) is capable of generating ABHAs through its own portal. Govt. national healthcare programs such as NCD Program, RCH, Nikshay etc., or State healthcare programmes offer ABHA creation through their own web portals and/or applications. Various States/UTs have adopted this approach to generate ABHA at scale:

- a. **West Bengal** used State Programs like Swasthya Saathi (State Insurance Scheme) and Swasthya Ingit (State Telemedicine Service) for ABHA registration.
- b. **Karnataka's** early gains for ABHA creation came from the CoWIN portal. Eventually, other program-specific portals like Comprehensive Primary Health Services - Non-Communicable Diseases (CPHC – NCD), Pradhan Mantri National Dialysis Programme (PMNDP), and Nikshay were also used for ABHA creation.

The state also incorporated ABHA generation in its integrated health coverage scheme: Ayushman Bharat - PMJAY - Arogya Karnataka (AB-PMJAY-ArK). ABHAs are automatically created for patients who are being issued the AB-PMJAY-ArK co-branded cards at the GramaOne Centres under the Directorate of Electronic Delivery of Citizen Services (EDCS).



Figure: ABHA number in Karnataka's AB-PMJAY-ArK co-branded card

- c. **Assam** used the NCD portal to generate ABHAs at Health and Wellness Centres. The state also leveraged RCH portal and ANMOL application for ABHA creation.
- d. **Gujarat** is auto-generating ABHA at the time of enrollment in Pradhanmantri Jan Arogya Yojana – Mukhyamantri Amrutum (PMJAY-MA).

III. Digital Health Solutions' Portal generated ABHA -

These solutions may be either private or public, central or State/UT-specific. They need to be ABDM enabled (at least Milestone 1 of integration) in order to be able to generate ABHA numbers. These solutions particularly helped during enumeration drives which enabled ABHA generation at scale. Some instances of States/UTs that have leveraged this pathway include:

- a. **Andhra Pradesh** has devised unified digital solutions/applications for each group of functionaries in the state's healthcare ecosystem which are used for delivering primary health programs in the state. For instance, MO AP Health App for Medical Officers, ANM AP Health App for ANMs, etc. In order to leverage its existing solutions to increase ABHA saturation, the state has decided to integrate these apps with ABDM to enable them to create ABHAs.

For instance, the state-embedded ABHA generation within the ongoing NCD-CD screening by ANMs & ASHAs. The application used for the NCD screening (ANM AP Health) was integrated with ABDM enabling the same app to generate ABHAs for the citizens at the end of each screening. The benefits of ABHA creation and its uses were also communicated to the citizens during the enumeration drive.



Figure: NCD-CD survey and ABHA creation During House-to-House Visits in Andhra Pradesh.

b. **Uttar Pradesh** leveraged enumeration drives at scale under RCH for ABHA generation. This was done through the eKavach application which was first integrated with ABDM to enable the generation of ABHAs.

c. On similar lines, as the field staff in **Gujarat** was well versed with TeCHO+ application and NCD portal, they were instructed to ensure using ABDM-enabled version of these applications and generating ABHA for all beneficiaries/individuals screened. This has become as an SOP for the field staff in their routine activity.

IV. ABHA Website generated ABHA -

ABHA website offers ABHA creation for individuals as well as [Facility Login](#) for ABHA generation at scale. An operator can log in using the Facility ID and generate ABHA for citizens through multiple options: Aadhaar OTP, Aadhar biometric, Driving licence, or PAN. Some States/UTs that have leveraged the ABHA website include:

- a. **Karnataka** - The facility login feature of the ABHA website was used during OPD registrations at public facilities specifically for biometric authentication, in cases where the HMIS did not offer the same.
- b. **Telangana and Odisha** - Both States used the ABHA website for generating ABHAs for citizens at Common Service Centres (CSCs), which are the access points for delivery of Government-to-Citizen (G2C) e-Services to citizens.
- c. **Mizoram, Goa, and Meghalaya** - In the absence of an ABDM-enabled digital solution that could be leveraged for ABHA creation during outreach camps and outdoor kiosks, these states used the facility login feature of the ABHA website to create ABHAs during these events.

Other mediums for ABHA generation are:

I. Offline mode of ABHA creation - In order to accommodate areas with limited or no internet/mobile connectivity, NHA has made the provision of an offline mode of ABHA creation. For this, the demographic details of the citizens are noted down either through **paper-based forms** which can be later uploaded at centres with IT infrastructure and internet connectivity through the ABHA portal, HMIS/programme portal, or other digital solutions that are ABDM enabled. ABHAs can also be generated offline through **digital devices** that have undergone the sandbox integration process of ABDM. The provision to create ABHA in offline mode is only enabled for select Center/s which is enabled upon request. The permission-based access is provided by ABDM upon request.

- a. **Uttar Pradesh** is one of the states that also utilised offline mode of ABHA creation. This was done using the offline mode in eKavach application during the RCH enumeration drive. This mode of authentication is referred to as demographic authentication wherein the Aadhaar number and demographic details such as name, date of birth, and mobile number of the citizen are recorded to generate ABHA without OTP. This mode of authentication was also leveraged in cases where the citizens did not have their mobile number linked to Aadhaar.
- b. Owing to its geographical terrain and limited internet connectivity, both **Arunachal Pradesh and Ladakh** leveraged the offline mode of ABHA creation in remote areas.

II. Outreach Camps - ABHA generation through outreach camps can be done through an assisted mode on the ABHA portal or HMIS/programme portal or other digital solutions that are ABDM enabled. Different formats of Outreach Camps were leveraged by different states for engaging citizens and creating ABHAs. Some instances are mentioned below:

a. Some states have undertaken doorstep campaigns to bring ABHA generation as close to citizens as possible.

i. **West Bengal** created ABHA through a camp mode outreach program, Duare Sarkar, organised at the gram panchayat and municipal ward level.

ii. **Arunachal Pradesh** embedded on-the-spot ABHA generation in its monthly 'Sarkar Aapke Dwar' (Government at your doorstep) program and Integrated health check-up camps.

iii. **Chhattisgarh** generated ABHA alongside the generation of Ayushman Card in a special drive called Aapke Dwar Ayushman (ADA), undertaken on a war-footing

b. **Assam** undertook mass ABHA generation in the monthly Swasthya Sewa Abhiyan – Special Health Melas and Special ANC Drives.

c. **Bihar** arranged ABHA creation camps at sub-centers with the support of development partners.

d. **Uttarakhand** organised Hill Yatra where a van called Arogya rath went door to door in hilly regions for ABHA Creation. The van also covered schools and colleges and created ABHA for students. The state set up kiosks for ABHA generation with outdoor events of other departments like the Food Fair organised by the Food and Safety Department.

e. **Goa** set up a kiosk for ABHA generation during the assembly session and created ABHAs for MLAs and police personnel. The State also set up kiosks for ABHA generation at the Purple Fest, a first-of-its-kind inclusive fest in India that celebrates persons with disabilities.

f. **Gujarat** has incorporated ABHA creation with various ongoing campaigns such as Mamta Clinic, Mamta Day, NCD Day scheduled once in a week. Further, the State's Health Department has collaborated with line departments such as Education, Women & Child Development Dept., Dept. Of Science & Technology to offer multiple channels for ABHA generation for wider reach to the last mile.



Figure: Camps, program meetings, handholding sessions in Gujarat.

For the purpose of **authentication**, biometric authentication is recommended for individual ABHA creation while demographic authentication is recommended for both ABHA creation for individuals as well as at scale. **Andhra Pradesh and Karnataka** leveraged biometric authentication for individual ABHA creation at public facilities. Meanwhile, **Andhra Pradesh and Uttar Pradesh** leveraged demographic authentication for ABHA creation at scale during enumeration drives. NHA has also introduced the face authentication option to create ABHA through the ABHA app. **Goa** has trained PHC Colvale staff to generate ABHA ID using this mode on android mobile phones.

(ii) Sustaining the momentum of ABHA creation:

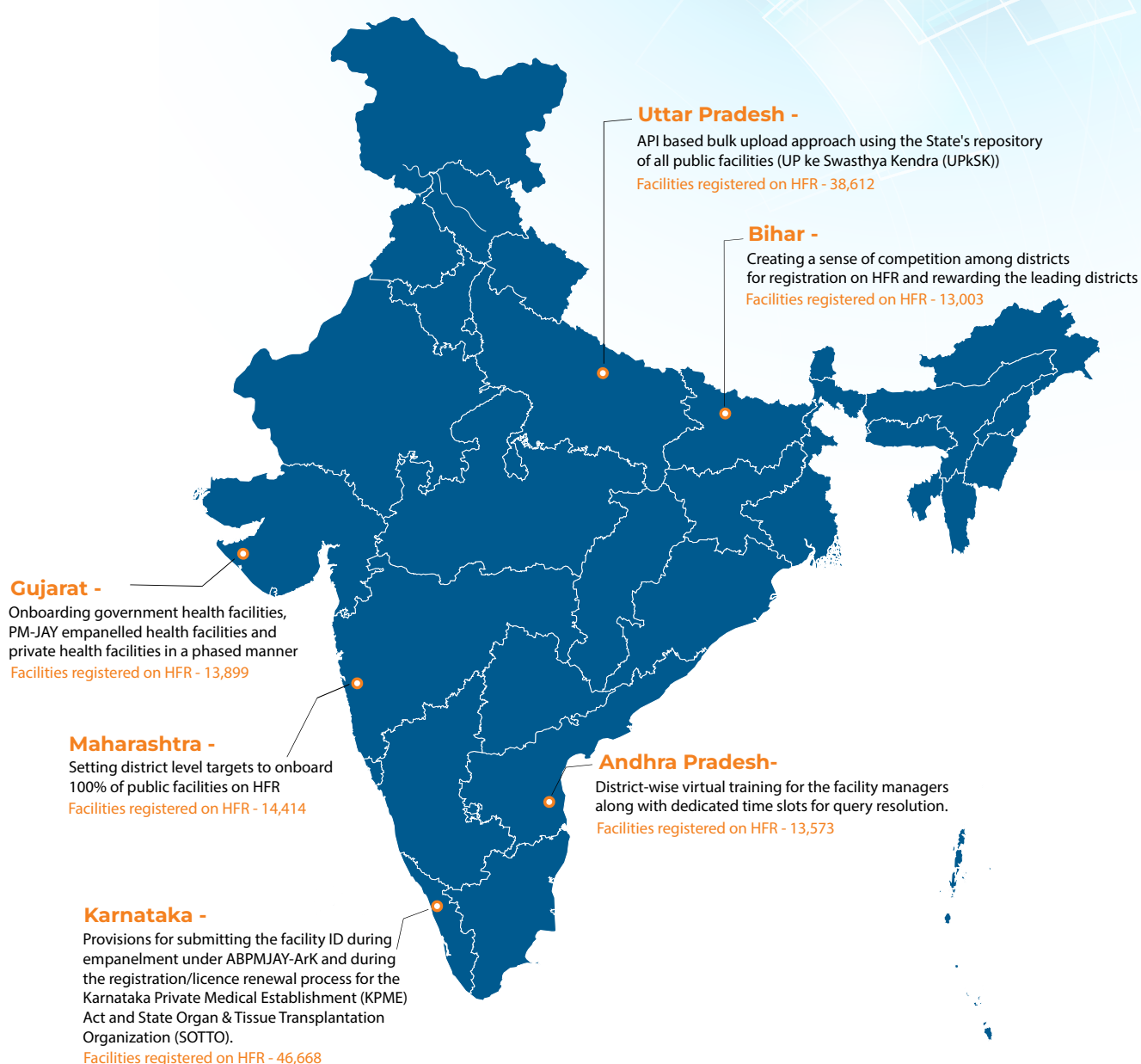
In addition to initiating ABHA creation, it is important to sustain the momentum to reach saturation. Some of the practices adopted by the State/UT are mentioned below:

- a. Demonstrating the usability of ABHA to its beneficiaries is one way to sustain the generation and use of ABHA. In this direction, there have been instances wherein **separate registration counters** have been set up at some public facilities in **Andaman and Karnataka** for patients with ABHA to **demonstrate faster registration**. **Karnataka** has also established separate counters for ABHA generation in public hospitals to run it in a sustainable mode.
- b. **Puducherry** encouraged ABHA as a part of school IDs.
- c. **Gujarat** included ABHA generation as an assessment parameter as part of reviews in the Health Department of the State to ramp up efforts on the ground.

3.2 Health Facility Registry (HFR)

Health Facility Registry (HFR) is a comprehensive repository of health facilities of the country across modern and traditional systems of medicine. HFR includes both public and private health facilities, including hospitals, clinics, diagnostic laboratories, imaging centres, pharmacies, etc. The facility gets a unique 12-digit Facility ID, giving the facility an identifier in the healthcare ecosystem.

HFR - SPOTLIGHT



Data as on 25th August, 2023

Source: <https://dashboard.abdm.gov.in/abdm/>

Some of the recommended practices for onboarding facilities to HFR and sustaining its momentum are elaborated below:

(i) Onboarding:

While most States/UTs have **prioritised public healthcare facilities over private players to kickstart HFR registration**, their approach has varied. There are two main pathways for registration on HFR and the instances where States/UTs have leveraged each of them are mentioned below:

a. Self mode using HFR website - The facility manager logs in to the **HFR portal** using their Health Professional ID (HP ID) and registers their facility, post which the application has to be verified by the State/UT/district nodal officer/verifier.

- i. **Andhra Pradesh** used data from the **NIN-TO-HFI portal** (National Identification Number to Health Facility of India) as base data for their public facilities and asked the verifiers at the district level to ensure that the data is updated and exhaustive. The State then conducted district-wise virtual training for the facility managers on how to register their facilities along with dedicated time slots for query resolution. The state did not opt for the creation of health facility ID through API or a bulk upload pathway as they wanted to **sensitize the officials at the hospital during this process**.
- ii. **Arunachal Pradesh, Puducherry, and Sikkim** leveraged the **Clinical Establishment Act** to nudge their facilities to register on HFR and **conducted monthly reviews of HFR saturation status** at the State ABDM Office level.
- iii. **Karnataka** created provisions for submitting the HF ID and HP ID, during empanelment under **ABPMJAY-ArK** and during the registration/licence renewal process for the **Karnataka Private Medical Establishment (KPME) Act** and **State Organ & Tissue Transplantation Organization (SOTTO)**.
- iv. **Jharkhand** leveraged the **AB-MMJAY scheme** to nudge hospitals (Public & Private) empaneled under the schemes as well as new hospitals registering under the scheme to register on HFR and furnish their details on the HEM Portal.

b. Through API Integration - Integrators/Technical Partners can leverage HFR Onboarding APIs to register facilities in bulk:

- i. **Uttar Pradesh** made an unprecedented effort to **geo-tag all public health facilities to create a repository** (UP ke Swasthya Kendra (UPkSK)) which was then leveraged for onboarding public facilities on HFR through API based bulk upload approach. The added advantage that Uttar Pradesh derives from this repository is that any new facility that registers on UPKSK is also on boarded on HFR.
- ii. For operational ease, **Bihar** has used the mapping feature available in the District Nodal officer login to map multiple health facilities to respective facility manager (Facility manager of a PHC (block) mapped to all lower level health facilities i.e. APHC and HSC in that block) instead of submitting individual health facility applications through the respective facility manager's login.

(ii) Sustaining the momentum for registration on HFR:

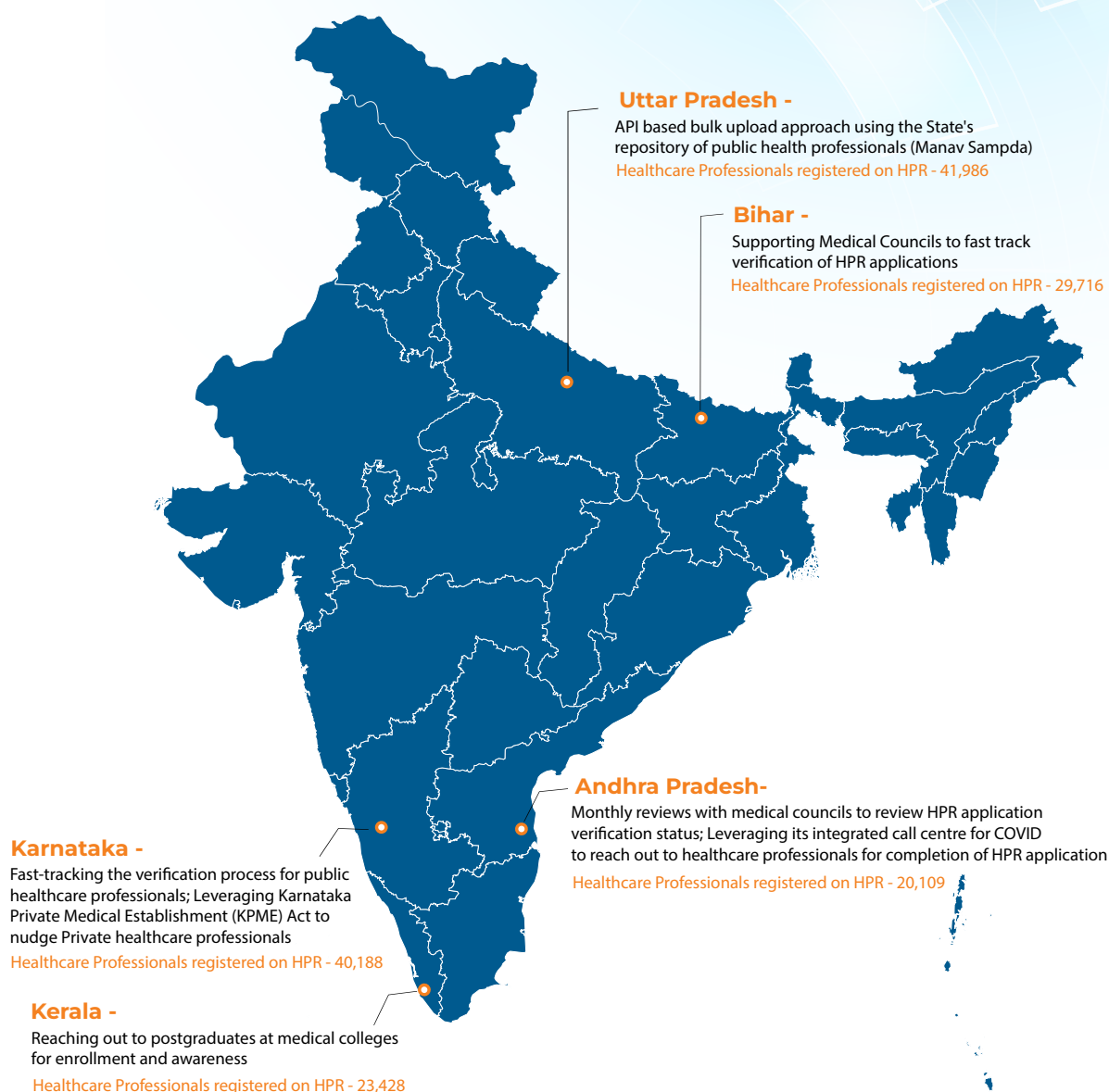
To further accelerate HFR onboarding, the following States/UTs have undertaken different methods such as:

- a. **Bihar** has attempted to create a **sense of competition among districts for registration** on HFR and rewarding the leading districts. In order to **expand the coverage and rope in the private players**.
- b. **Puducherry** has attempted to rope in the **Indian Medical Association (IMA)** to reach out to private facilities.
- c. **Delhi** is seeking active support from professional bodies like Delhi Medical Association (DMA)/ Indian Medical Association (IMA)/ Indian Society of Anaesthesiologists (ISA)/ Indian Academy of Pediatrics (IAP) in getting health facilities to register on HFR.

3.3 Health Professional Registry (HPR)

Healthcare Professionals Registry (HPR) is a comprehensive repository of registered and verified practitioners delivering modern as well as traditional healthcare services across India. HPR is envisaged to evolve into a citizen-centric and practitioner-centric platform in compliance with global healthcare standards. The healthcare professional gets a unique 14-digit HP ID, giving them an identifier in the healthcare ecosystem.

HPR - SPOTLIGHT



Data as on 25th August, 2023

Source: <https://dashboard.abdm.gov.in/abdm/>

The best practices associated with onboarding on HPR and sustaining its momentum are elaborated below:

(i) Onboarding:

Similar to HFR, the preferred route to initiate HPR onboarding has been through public health professional onboarding. States/UTs preferred this method due to an available list of health professionals that could be verified through existing councils. There are three main pathways for registration on HPR and the instances where states have leveraged each of them are mentioned below:

a. Self-registration using the HPR portal - Healthcare Professionals can use the [HPR Portal](#) to generate an ID and register themselves on HPR.

i. **Arunachal Pradesh and Kerala** issued [circulars to government professionals](#) to register themselves under HPR. [Arunachal Pradesh also issued circulars to DMOs](#) to oversee and ensure registration under HPR accompanied by [monthly reviews of HPR saturation status](#).

ii. **Karnataka** followed two broad strategies for onboarding its professionals on HPR:

1. For [public](#) healthcare professionals, the state focused on fast-tracking the verification process. The state facilitated the verification of government healthcare professionals on HPR as the state is already responsible to conduct verification of these professionals at the time appointment.

Thus, senior officials at the state level were provided login credentials to verify the public healthcare professionals.

Further, public healthcare professionals were urged to provide their Healthcare Professional ID (HP ID) during the salary processing. The same approach was used for doctors/nurses during fresh recruitment.

2. [Private](#) healthcare professionals were nudged to register on HPR under the Karnataka Private Medical Establishment (KPME) Act. Written communication regarding the same was sent out from the State Mission Director to all private facilities.

The state also engaged actively with the leadership and technical teams of the state medical councils for all systems of medicine to get them aware of ABDM and guide them with the verification process. **Chhattisgarh** also followed a similar approach and provided periodic hands-on training to various councils for medical professionals regarding verification of HPR applications.

iii. **Andhra Pradesh** reached out to public healthcare professionals to get them registered on HPR and mobilised two levers to accelerate HPR onboarding:

1. Recognizing the dependency on the medical councils for verifying health professionals, the state **scheduled monthly reviews with the council** to review the volume of applications pending and the reasons for the same.

2. At the same time, the state mobilised its **integrated call centre** (which was set up for COVID) to reach out to health professionals and follow up with them regarding any missing data or drafts that needed to be completed.

iv. **Jharkhand** leveraged the **AB-MMJAY** scheme to nudge the Healthcare Professionals (Public & Private) working for AB-MMJAY-empaneled hospitals to register on HPR and furnish their details on the HEM Portal.

v. **Puducherry** issued circulars to pharmacy councils and private medical colleges to enrol all doctors on HPR.

b. HMIS/LMIS Portal generated HPR - ABDM-enabled and HPR linked HMIS/LMIS can be used by a healthcare professional to create HP ID and then register in the Healthcare Professional Registry.

- i. This pathway was leveraged in Mumbai, **Maharashtra**, to onboard healthcare professionals at private clinics. This pathway is being proactively used by private Digital Solution Companies (DSCs) which have performed the HPR integration.

c. Bulk upload through API Integration - Integrators/Technical Partners can leverage HPR Onboarding APIs to register facilities in bulk:

- i. **Uttar Pradesh** created a repository (Manav Sampda) of all the regular and contractual staff working in the Uttar Pradesh Health System and integrated Manav Sampda with HPR to generate HP IDs. They further linked the salary disbursement and promotions (through Annual Confidential Reports (ACR)) to the repository by mandating an eHMRS code for the same. This was done to ensure higher uptake and speed up the process. Additionally, the state of Uttar Pradesh addressed cases of limited digital literacy by asking these professionals to enter data offline (on paper) which was later entered online.
- ii. Similarly, **Gujarat** is in the process of integrating its HRMS system, AarogyaSathi, with the Healthcare Professional Registry.

In order to smoothen the onboarding experience for healthcare professionals, **Andhra Pradesh** took multiple steps such as:

- a. The list of prerequisites for registration i.e Academic Certificates, Active Council Membership & Appointment Orders were communicated in advance, and conceptual clarity on HP ID, HPR Address/Alias, Facility ID & ABHA Address, etc. was provided in detail.
- b. They further focused on grievance redressal. A virtual forum for query resolution was created. In the case of knowledge gaps, the issues were addressed at District or State level while technical issues were sent to the ABDM-HPR Team.

Recognizing the additional efforts required from medical councils to fulfil their role as verifiers, **Kerala** has instructed the councils to recruit two additional resources to act as council verifiers, the HR fund for the same will be met by SDHM ABDM PMU.

(ii) Sustaining the momentum on registrations on HPR:

Some States/UTs have exhibited the vision to think beyond the initial HPR registration drive.

- **Maharashtra**, for instance, is conducting regular awareness drives to maintain a regular flow of healthcare professionals generating HP IDs and registering on HPR. Additionally, they are continuously reaching out to the central team for any recent updates and training to be provided for recent updates if any. They have also collaborated with a private partner in order to onboard private professionals.

- **Arunachal Pradesh and Andhra Pradesh** are encouraging health professionals to register on HPR by themselves to **nudge behaviour change in health professionals in the long term**. **Arunachal Pradesh** is also focusing on **communicating the benefits** of the ABDM ecosystem and HPR registration to create **long-term buy-in**.
- **Delhi** has sought the support of **Delhi Medical Council and Delhi Nursing Council** in spreading awareness among the Medical and Nursing Professionals regarding HPR.
- **Kerala** reached out to **postgraduates at medical colleges** and enrolled them in HPR, making them aware of HPR as well as the Mission.

4. Linking of health records in ABDM

This section includes best practices associated with linking of health records with ABHA. This allows citizens to access, manage and store their health records digitally using Personal Health Record (PHR) applications or health lockers.

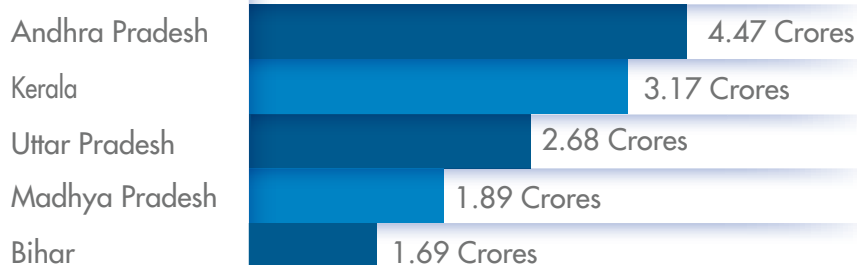
Digital health and wellness records can be linked to citizens' ABHA using a solution/programme that has completed Milestone 2 of integration. Accordingly, States/UTs are advised to ensure that the integration process for their State/UT-specific solutions/programmes and the implementation of central/State solutions/programmes adhere to the following:

Implementation of all compulsory use cases - States/UTs are advised to ensure that their State/UT-specific solutions/programmes implement all compulsory use cases as mentioned in the **sandbox documentation**, as part of each milestone of the integration process, especially building **Health Information Provider (HIP)** services. This includes HIP-initiated linking and user-initiated linking. HIP-initiated linking allows the solution/programme to link a citizen's health records with their ABHA, both instantaneously, for new records, and in bulk for existing records. **Andhra Pradesh** used HIP-initiated linking to link all the health records that were generated during the large-scale NCD enumeration drive, providing a boost to the number of health records linked in the State.

Declaration of Facilities - In order to ensure that the ABHA created and health records linked through public health programmes are attributed to the respective State, States should ensure that the programmes, both central and State-specific, have declared all their associated health facilities on ABDM Health Facility Registry (HFR). This will ensure that the ABHA and health records are mapped to the point of generation.

Complete on-ground adoption post integration - States/UTs should ensure that successful integration of a solution/programme, both central and State/UT-specific, translates to actual on-ground implementation, where ABHA is generated/captured for every patient and every instance wherein health records are generated, are actively linked with patient's ABHA. Further, States/UTs need to ensure that health records from all sources, including health facilities and central/state programmes, are actively linked to the patients' ABHA.

Leading States for Linking of records



Data as on 25th August, 2023

Source: <https://dashboard.abdm.gov.in/abdm/>

5. Scaling Up: ABDM Use Cases

In order to demonstrate the value proposition of ABDM to its stakeholders, NHA has introduced a QR-Code based solution (**Scan and Share**) in ABDM-empaneled facilities to enable patients to scan the QR code of the facility and share their demographic details. This minimises the long queues at the registration counter and reduces the entry of incomplete and inaccurate data.

Leading States for Scan and Share



Data as on 25th August, 2023

Source: <https://dashboard.abdm.gov.in/abdm/>

The recommended best practices to increase the uptake of Scan and Share at health facilities and successfully convey the intended value proposition are as follows:

a. Increasing awareness -

- i. Uniform, attractive IEC material containing the QR code for Scan and Share displayed prominently at the entrance and around the registration desk for enhanced adoption
- ii. Use Scan and Share IEC videos in the waiting areas

b. Ensuring adequate infrastructure -

- i. Address IT infrastructure/connectivity-related issues at the facility
 - Ensure the OPD area in the hospital has uninterrupted telecom signals
 - Free Internet connectivity through WiFi access points, if available, to be given to patients and patient caretakers
 - Availability of bio-authentication machines (finger scan) at OPD registration counters for the generation of ABHA
 - QR code scanner to be deployed at all the OPD registration counters for the generation of OP slips.
- ii. Arrange token display screens and public announcement systems at the OPD registration area of bigger hospitals
- iii. Appoint a few dedicated staff during the initial roll-out and align the overall team for adoption

c. Nudges for adoption -

- i. Fast track registration can be demonstrated through a separate counter for those coming through scan and share
- ii. Seeking support from active Personal Health Record (PHR) Applications for early adoption.
- iii. Communicating the use case to data entry operators about accurate data entry in lesser time.

d. Training and Assessment -

- i. Training of trainers - Some master trainers may be assigned at each facility for training the key staff across the facility
- ii. Training must also be given to Data entry operators (DEO) on “Scan and Share”, “Scan and Pull” and HMIS software
- iii. Training of the ground staff of the hospital including the security guard, hospital attendants, and nursing staff for re-emphasizing the overall awareness and adoption
- iv. Seeking feedback from patient experience for better use cases

Some of the above-mentioned best practices have been observed across various States/UTs and their health facilities that helped them to deploy Scan & Share and increase its uptake:

i. Fast Track counters - Instances of separate counters for patients coming through scan and share were observed at health facilities in **Karnataka, Uttar Pradesh**, and various AIIMS across the country. By sharing their demographic details with the facility through scan and share, these patients were able to avoid the long registration queues on the other counters and experience fast-track registration.

ii. Support from PHR partners - Successful deployment of Scan and Share requires the presence of ground staff familiar with Scan and Share who can assist patients to use it. As Scan and Share is a new use case, support from PHR partners in terms of scan and share kiosks at facilities with dedicated staff to assist patients has been observed as a key enabler for early adoption. Driefcase, Paytm, and Ekacare are some of the PHR partners supporting facilities in **Uttar Pradesh and Karnataka**.

iii. Training facility staff - While support from PHR partners has proved to be crucial for early adoption, the sustenance of Scan and Share usage necessitates building the capacity of the hospital staff, especially DEOs and the ground staff. AIIMS Raipur, **Chhattisgarh** and certain facilities like Malkhan Singh Hospital in **Uttar Pradesh** have undertaken efforts to train their ground staff, including the security guards, help desk operators, ward boys etc. to assist in Scan and Share and other related activities.

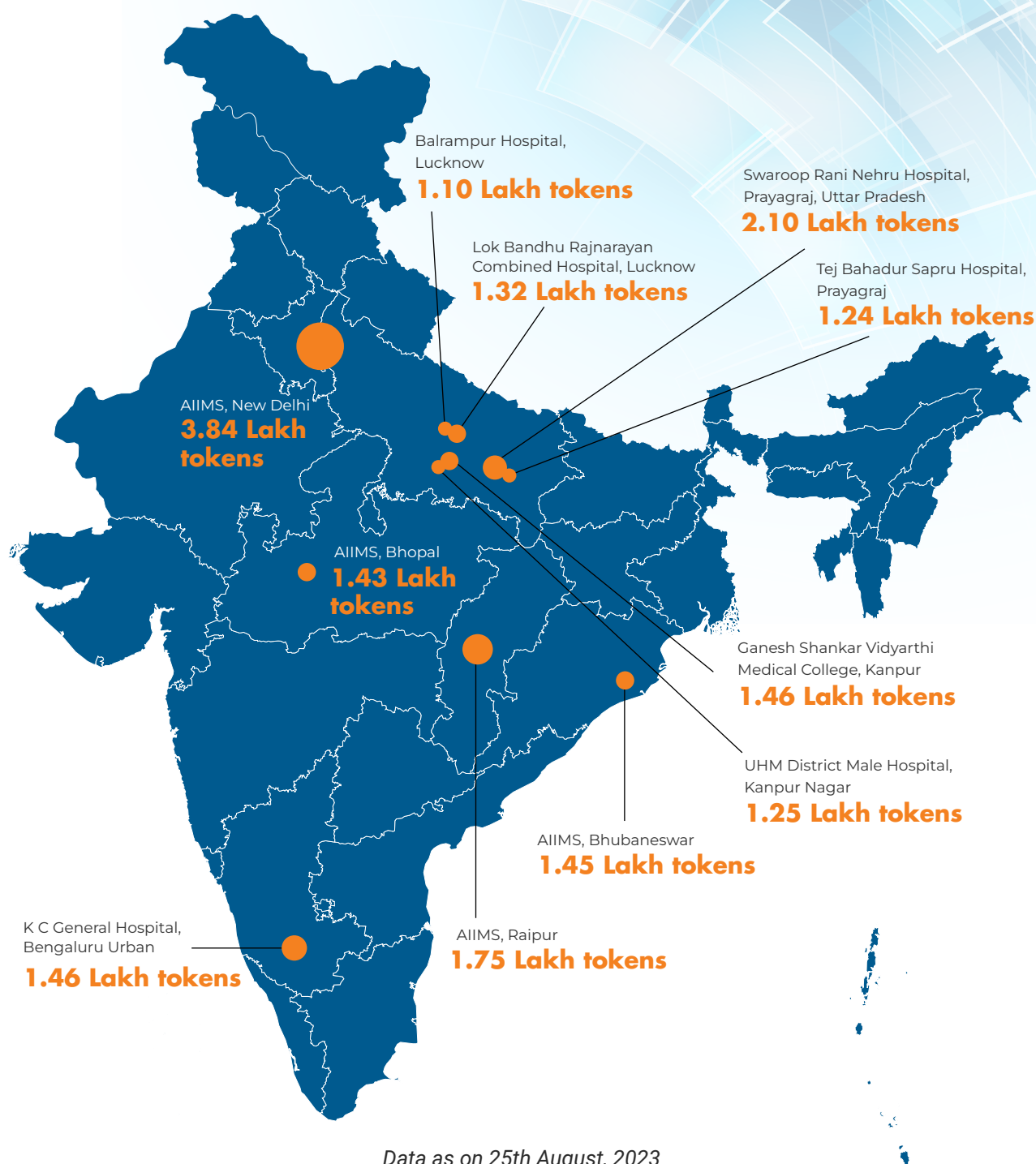
iv. Supporting infrastructure - One of the primary reasons for the high uptake of Scan and Share at AIIMS across the country is that a large proportion of the supporting infrastructure like Wi-Fi, computers, DEO, display screens & public announcement systems, are already in place.

v. Active Monitoring - Uttar Pradesh and Karnataka have ensured regular visits to healthcare facilities by State officials to monitor the deployment and usage of Scan and Share. This has nudged facilities to approach Scan and Share's uptake more proactively.

Another successful use case for ABDM has emerged in the form of **"Scan and Pull"**. In this case, the data entry operator at the health facility scans the patient's ABHA QR code from their ABHA card or PHR app profile. Once successfully scanned, the patient's demographic details are shared with the facility's HMIS and are auto-populated in the registration form. This process significantly reduces the time required for registration, resulting in shorter queues at the registration counter.

Additionally, it minimises instances of incomplete and inaccurate data entry. **Ladakh** is among the first States/UTs to implement Scan and Pull on a large scale where Scan and Pull is being used in all major health facilities in the UT.

Leading Hospitals for Scan and Share



6. Leveraging Incentives

NHA intends to support different healthcare facilities like clinics, hospitals, and laboratories in adopting the ABDM ecosystem to make the benefits of digital health accessible to every section of society. In this direction, NHA has released the [Digital Health Incentive Scheme for ABDM Adoption](#) with an estimated initial financial outlay of INR 50 Crore. Based on the initial feedback received from different stakeholders, NHA issued a [corrigendum to the DHIS](#), to make it more inclusive and to achieve the intended object of the scheme.

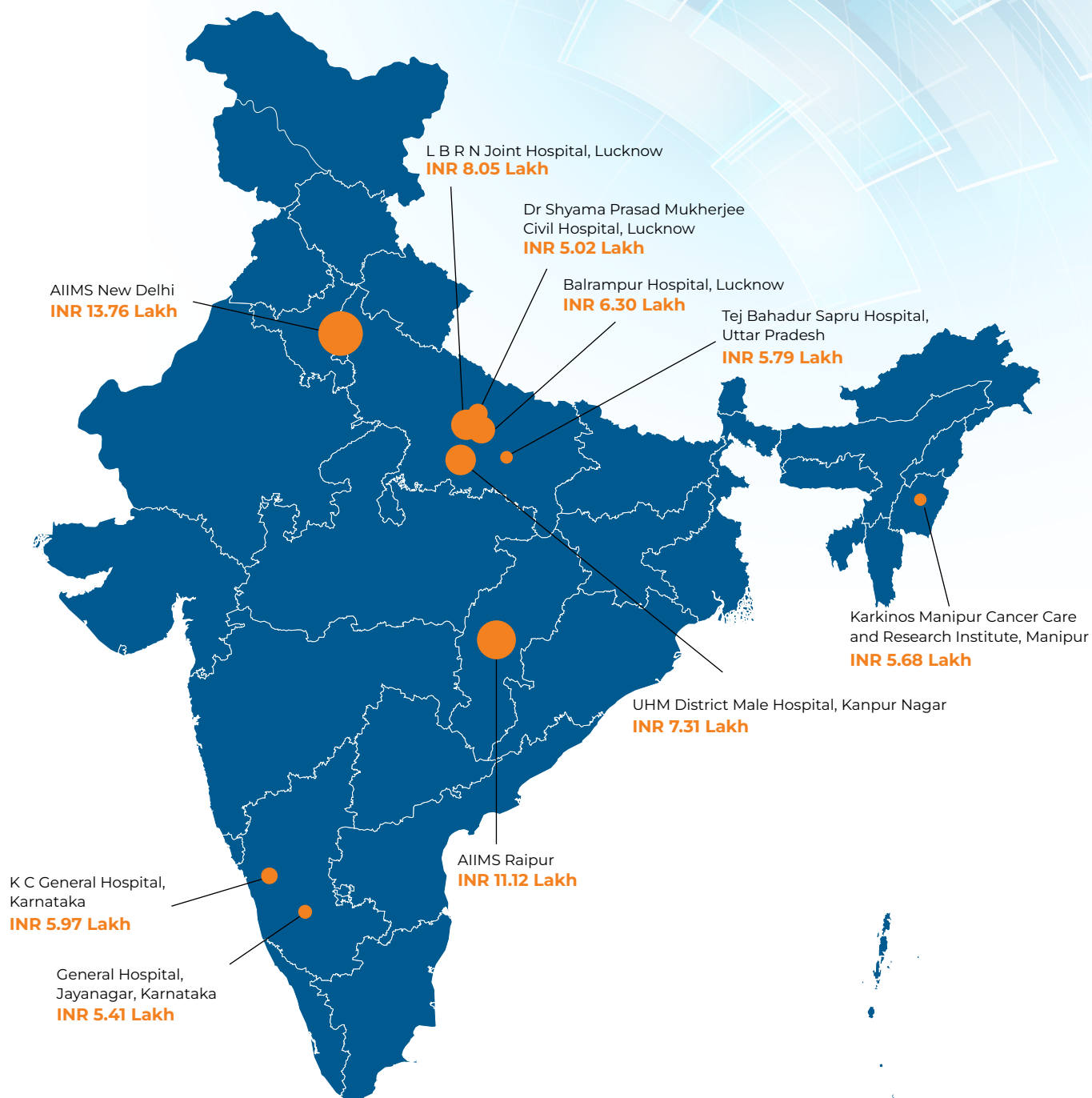
Following are some key points regarding the policy that the States should take note of and leverage to accelerate ABHA-linked transactions:

- a. There are three main groups of beneficiaries of the scheme:
 - i. All Health facilities like Clinics, Nursing Homes & Hospitals
 - ii. Laboratory/Radiology diagnostics centres
 - iii. Entities providing ABDM-enabled digital solutions (Digital Solution Companies)
- b. The scheme lays down the base-level criteria i.e. the minimum number of digital health transactions required by each beneficiary to become eligible for the incentives

Additionally, other modes of incentives have also been leveraged in the past. In October 2022, the National Health Mission initiated financial incentives for ASHAs (frontline workers) as part of a two-month campaign. These incentives were given to ASHAs for mobilising citizens to health facilities, generating ABHAs, and seeding ABHA numbers in any concerned program portal. States/UTs can choose to extend this incentivization scheme or initiate their own schemes to continue incentivizing their officials and in turn, accelerate ABDM adoption. For instance:

- **Puducherry** is providing incentives to ASHAs for ABHA creation through CPHC NCD portal, eSanjeevani Portal, National Dialysis Program and other possible ways as guided by MoHFW.
- **Madhya Pradesh**, on the other hand, is utilising its CB/IEC funds to incentivize ABDM adoption by creating a sense of competition at the village level and rewarding the leading villages.
- **Bihar** issued letters of appreciation to its Council/District/Block officials as a token of recognition when it was recognized for its performance during the Aarogya Manthan 2022.

Leading Hospitals under Digital Health Incentive Scheme



*From Jan'23 to May'23

Source: <https://abdm.gov.in/DHIS/recipient-list>

Acknowledgements

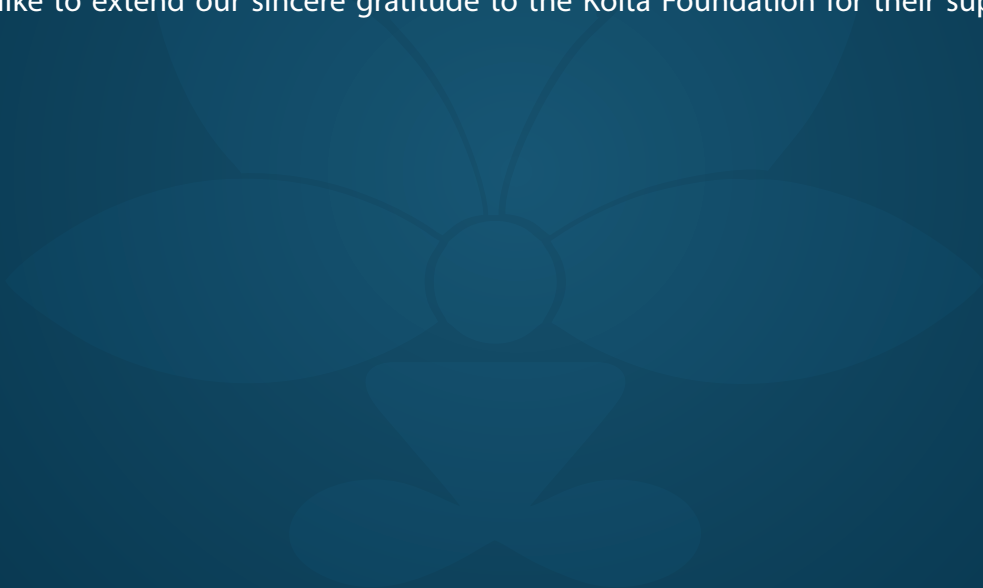
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