PATHWAYS FOR PHILANTHROPY

SATTVA
Delivering High Impact.

OPPORTUNITIES PRESENTED BY AYUSHMAN BHARAT DIGITAL MISSION (ABDM) TO STRENGTHEN PRIMARY HEALTHCARE

MARCH 3, 2022

ABOUT THE ROUNDTABLE

Sattva brought together funding agencies, not-for-profits, subject matter experts, advisors to government, and private sector leaders, actively involved in the digital health ecosystem and primary healthcare to discuss the opportunities presented by the Ayushman Bharat Digital Mission (ABDM) to strengthen primary healthcare in the country

The discussion focused on key challenges in adoption and scalability of digital health initiatives in light of ABDM, exploring existing and potential ways to address challenges, and identifying critical areas as well as actionable steps for philanthropic interventions from an immediate, as well as long-term perspective.

BACKGROUND AND CONTEXT

India has made significant progress in terms of healthcare, aided by efforts by the government, private sector and philanthropy. Between 2015 and 2020, the maternal mortality rate has decreased

from 130 to 113 per lakh live births[1], while the incidence of tuberculosis has reduced considerably from 217 to 188 per lakh of the population[2].

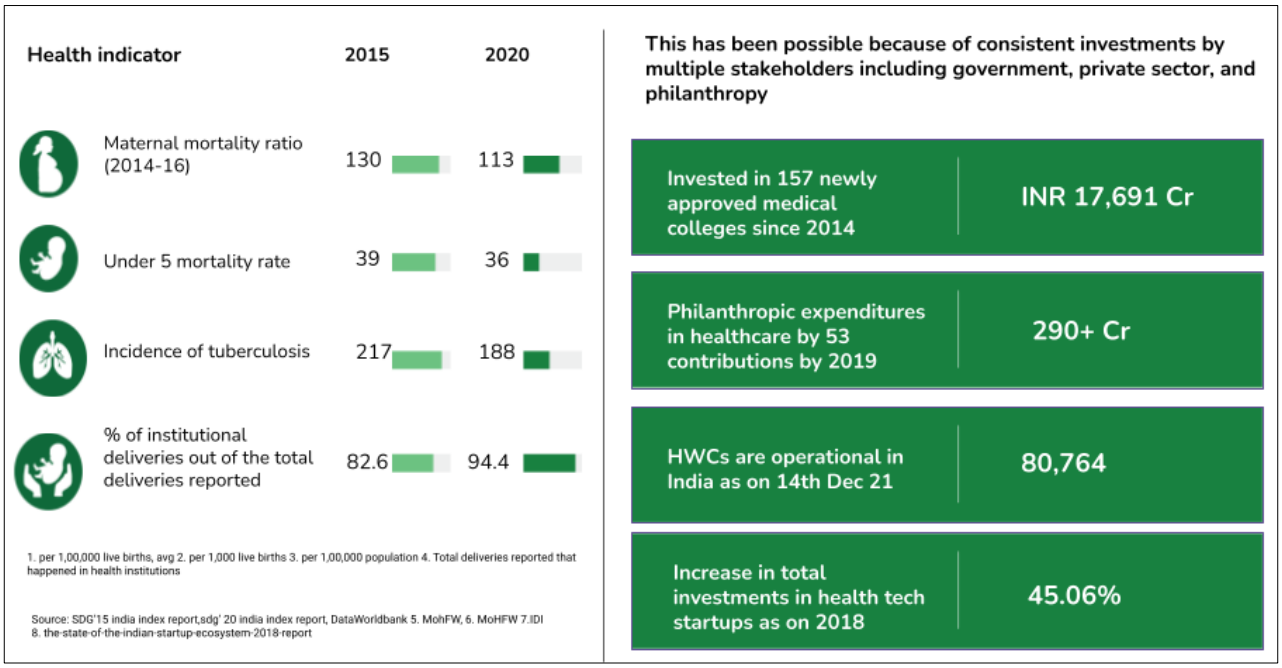

Fig 1: Progress in Critical Health Indicators[3]

However, concerns around accessibility and affordability for all sections of the population across the country still persist. Technology is emerging as a key enabler to bridge some of these gaps, following the introduction of the National Health Stack that provided the basic components for the development of the digitally enabled Ayushman Bharat and other health programmes in India.

The Ayushman Bharat Digital Mission has been launched with the objective of strengthening accessibility and equity of health services for citizens. It aims to leverage digital solutions to bridge the gaps between citizens and other stakeholders in the healthcare delivery mechanism. Through ABDM, citizens would receive healthcare-specific identification in the form of ABHA (Ayushman Bharat Health Account) IDs, which would connect them with health facility registries – aggregated information sources for clinics, health professionals, and pharmacies.

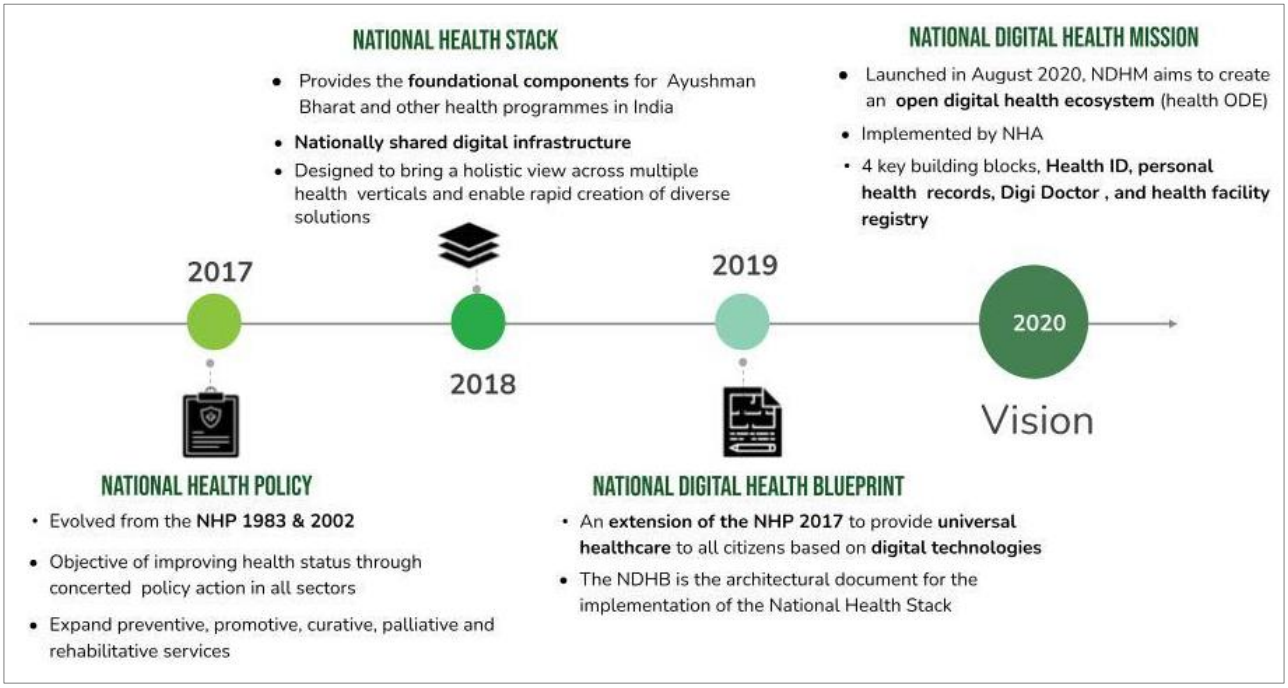

Fig 2: Evolution of ABDM[4]

The mission also envisions the creation of a health information database that could be made accessible to health practitioners with the beneficiaries' informed consent, thus facilitating portability in health services nationwide.[4] ABDM relies on the JAM trinity – Jan Dhan accounts, Aadhar and Mobile connections – as well as increasing penetration of the internet in the country, to develop a platform for digitally governed, cashless, paperless healthcare delivery to all sections of the population.

Through the development of a country-wide interconnected and interoperable health management information system, including longitudinal medical records of patients, ABDM promises effective functioning for healthcare providers. ABDM will also enable the availability of quality health data that can be used by decision and policy makers, researchers, and innovators to build evidence and propose targeted interventions in healthcare.

Propelled by the Digital India initiative, a number of government schemes are also designed to enable digital inclusion and access to citizens. In addition to this, a burgeoning digital public goods landscape that facilitates the creation of customised solutions in the welfare space is also poised to support the deployment of ABDM. Several applications have already been approved for integration within the ABDM platform, resulting in the creation of a unified health interface (UHI) – a single interface to offer solutions for citizens and healthcare providers.[5] Thus, ABDM presents great

potential to improve last-mile healthcare delivery for all sections of the Indian population. Even as the ecosystem appears primed for the country-wide rollout of the ABDM, several systemic and user-level barriers could impede its success. While systemic barriers include policy and structural challenges, user level barriers are more behavioural in nature.

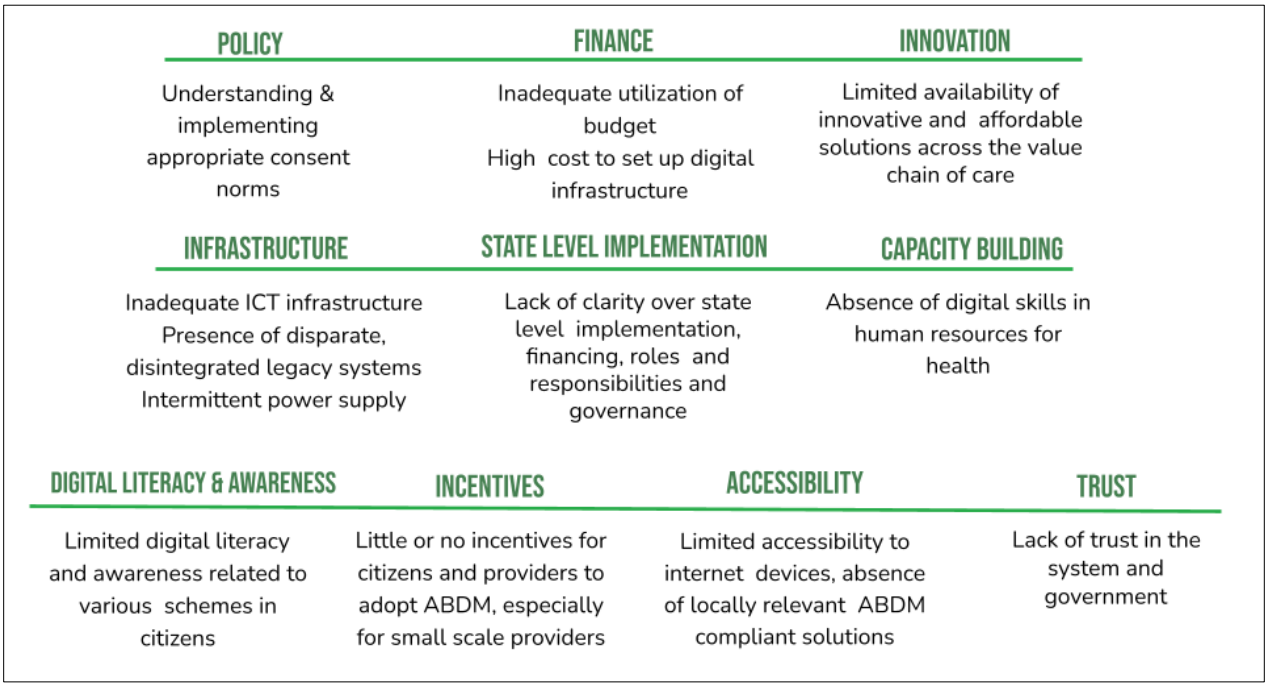

Fig 3: Systemic barriers to adoption of digital solutions[6]

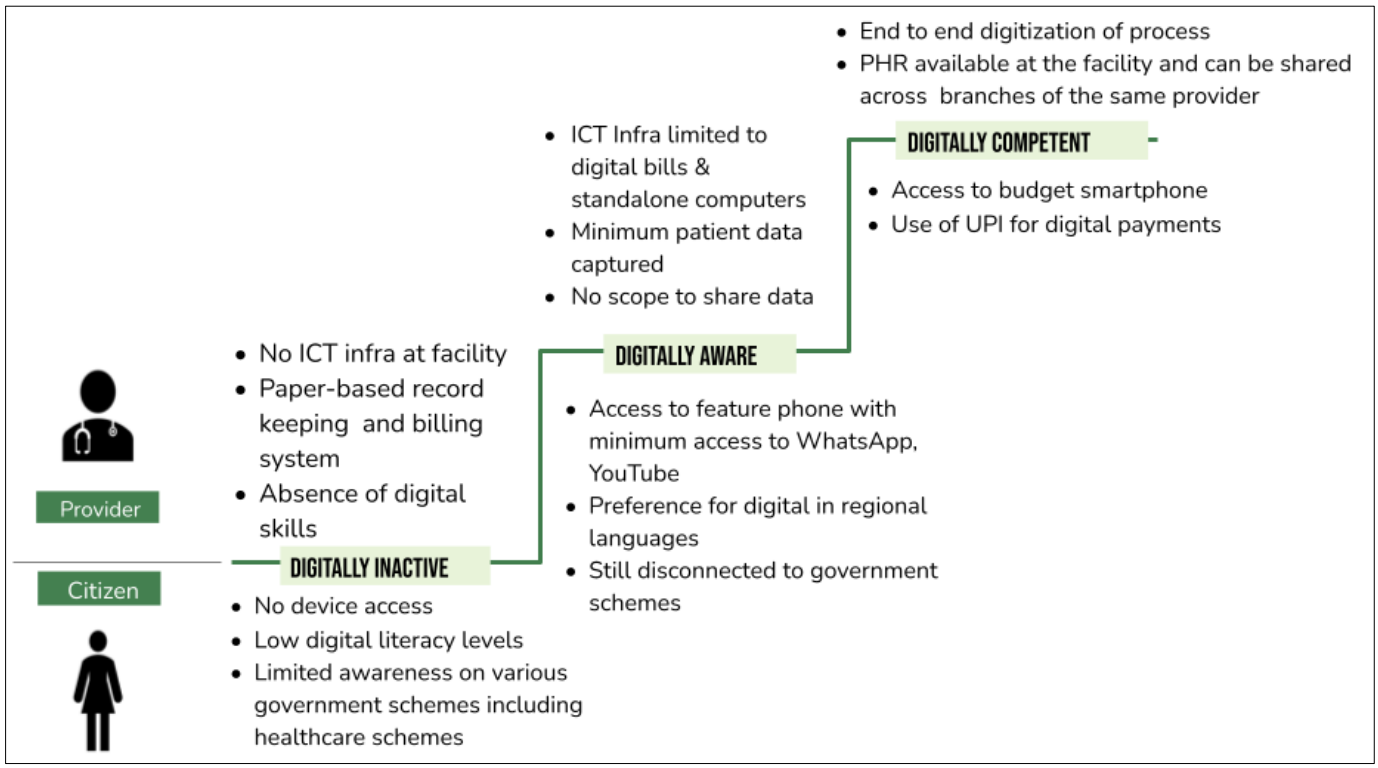

Fig 4: User barriers to adoption of digital solutions[6]

The following sections explore how these challenges can be approached, and how philanthropy can play a role in strengthening primary healthcare in the country through ABDM.

KEY INSIGHTS FROM THE DISCUSSION

In order for ABDM to be leveraged effectively at the primary healthcare level, there is a need to address foundational challenges around digital infrastructure, digital literacy and workflow design; and focus on addressing existing health and digital inequities.

The seamless execution of the Ayushman Bharat Digital Mission calls for a robust digital infrastructure to support its allied systems. This includes ensuring last-mile internet connectivity and setting up communication channels to facilitate healthcare delivery as well as governance at various levels. It is crucial to look into the quality of these services available among underserved and excluded populations, to minimise impediments in service delivery. While such an approach could resolve some systemic challenges, there are a number of user-level barriers that need targeted attention.

Foremost among these is **building digital literacy for citizens**. At a population scale, citizens are categorised by their levels of digital awareness and activity. Of these, users who are either unaware, inactive or sceptical of digital systems tend to be excluded from programmes. Yet another segment of the population finds itself excluded owing to a lack of the necessary documentation to enrol themselves for schemes.

Interventions in digital literacy should account for these differences and offer necessary support. **Digital literacy programmes could be designed with younger populations** (20-25-year-olds) at the centre, as not only is this segment more receptive to, and familiar with technology, but is also seen to conduct digital functions for older members of their family thereby playing a critical role in facilitating access to digital services.

In the context of digitising healthcare, literacy programmes should also **incorporate concerns around data privacy**. It is observed that mistrust of digital channels stems from personal or vicarious experiences of personal data being stolen, or frauds being committed using personal identifiable information (PII). It would be important for healthcare personnel working with beneficiaries across varying levels of digital literacy, to address concerns around PII and define mechanisms to resolve these.

> PEOPLE ARE SCARED OF REVEALING SOME DETAILS. MANY WOMEN GAVE THEIR HUSBANDS'/SONS' MOBILE NUMBERS BUT JOINED WITH THEIR MOBILE. THEY WERE SCARED OF BEING 'STALKED' ON THEIR MOBILE NUMBER. GETTING PEOPLE TO JOIN A DIGITAL MISSION WILL REQUIRE MUCH EDUCATION, ON WHAT INFORMATION TO GIVE AND WHAT NOT TO GIVE (DATE OF BIRTH WITH YEAR AS AN EXAMPLE).
>
> **DR. SUNIL ANAND, ECHO**

This would also entail providing **healthcare personnel special training** in working with citizens who might be digitally inactive. The design of such programmes could be optimised to ensure that the administrative onus does not fall on any one level of healthcare workers. The public healthcare system could adopt practices from private sector systems – particularly the **distribution of general and specialist tasks** between nurses and physicians – in the interest of system strengthening.

The maturing of the payer model in India has the potential to systemically accelerate digital adoption and improve quality of care. This also needs to be coupled with investments in medical research and establishing incentives for fundamental re-design and overhaul of existing systems.

Globally, universal health coverage has been supported by the payer model, which involves the government like the National Health Services in UK which is a publicly funded healthcare programme, or like the incentivized payments through Medicare and Medicaid for hospitals that adopt an EHR system as a means of improving quality of care in the US. Both the payer models in these cases demand the aggregation of data in standardised formats, which is facilitated by digital means. This results in seamless processing of claims.

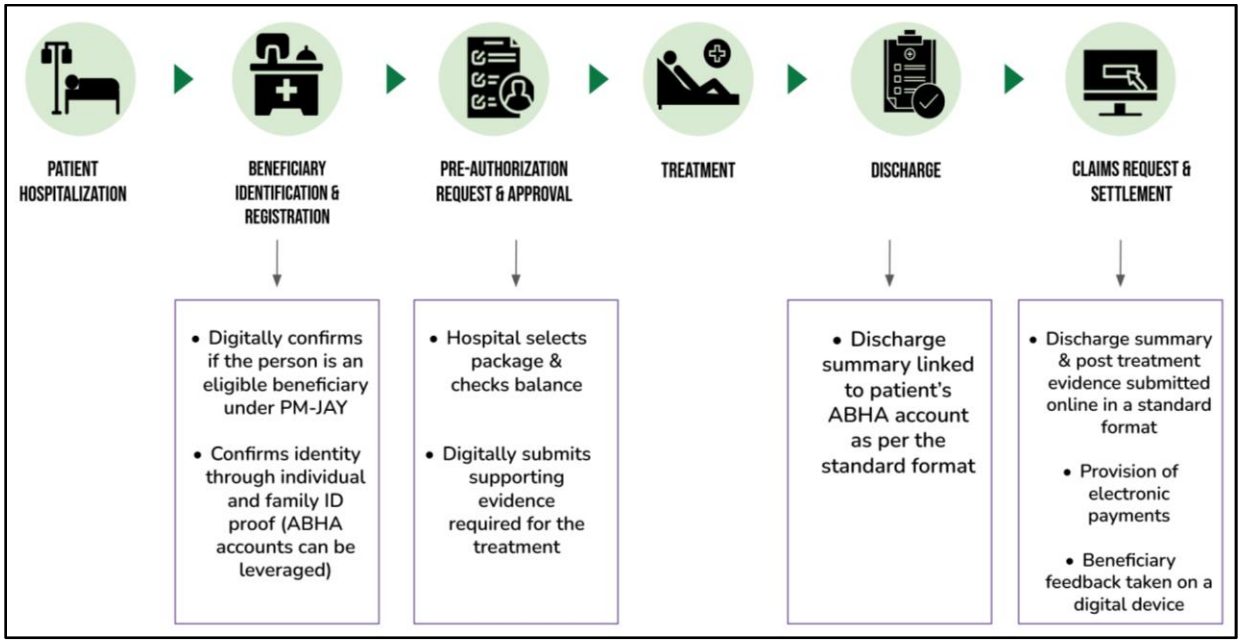

Fig 5: Maturing of PM-JAY model driving digital adoption[7]

With the implementation of PMJAY, the payer model is expected to mature in India, which would also lead to acceleration of digital adoption and remove bottlenecks in service delivery.

The adoption of digital channels in health would also encourage research in evidence-based medicine, as real-time data collection on digital channels offers a rich database for medical research. Medical research in India has hitherto been based on physically collected data, which results in data systems becoming siloed. Adopting digital platforms for health would allow for common data repositories to be built, with doctors and specialists having access to consistently increasing evidence for near-real-time data analysis.

> THERE'S A LOT OF SILOS.
> WE HAVE THREE KINDS OF DATA, IN PAPER FORM, IN ELECTRONIC FORM BUT NOT STANDARD, OR IT IS IN ELECTRONIC AND STANDARD BUT IN SILOS. SO, WE HAVE TO BREAK THE SILOS, BRING THE DATA TOGETHER.
> AGAIN, WHAT IS THE INCENTIVE? BECAUSE THERE IS NO INCENTIVE FOR ANYBODY TO DO SO MUCH OF A HERCULEAN TASK, TO REDO THE SYSTEMS, BRING EVERYTHING TOGETHER.
> **DR PANKAJ GUPTA**
> **(TAURUS GLOCAL CONSULTING)**

Additionally, there is a need for a system-wide rethinking of processes that focuses on the integration and interoperability of digital health solutions. This is in direct contrast to current practices in developing problem-specific solutions in isolation, which are difficult to scale.

A comprehensive approach would facilitate information exchange across the system, which in turn could drive better decision-making in patient care, staff training and management, resource allocation, and policy-making. Such a change, however, needs to be incentivised so that barriers to use, especially among healthcare providers are eliminated.

There has to be a strong focus on building appropriate and contextualised value propositions and incentives for users, both on the citizen and provider side to empower them and drive adoption.

Digital solutions are met with resistance by a bulk of citizens as well as service providers. For widespread digital adoption, it is crucial that the reasons for this resistance be addressed for both sets of users, accounting for their age, gender, geography and value derived from the platforms. Healthcare personnel who are used to physical modes of data aggregation and consultation, including doctors and other front-line workers, tend to exhibit resistance towards technology-based solutions. This often stems from limited experience with, or visibility on the value they can derive from these solutions.

For this segment, it is important to highlight how digital solutions could simplify diagnosis, record maintenance and continuous monitoring for a large beneficiary base. It is also essential that it is communicated to all the stakeholders across the chain, how a policy change or a new initiative could facilitate their work.

A critical step towards achieving this is to involve all stakeholders in the healthcare value chain, from bureaucrats to hospital administrators, practitioners and front-line workers, in the process of

deploying digital solutions. It is also necessary to devise solutions that do not require considerable training or frequent troubleshooting for healthcare providers to adopt in everyday operation.

It is seen that technology adoption is driven primarily by the demonstration effect, especially among segments with a trust deficit in government or bureaucratic systems. This implies that trust in new solutions is established when users see its successful use among their peers, social circles and influencers. Digital adoption, therefore, could be accelerated by initiating communication campaigns that highlight the value that digital solutions provide, and making their use aspirational.

> IT IS A CHALLENGE TO EVALUATE THE UNDERSTANDING OF HOW THE POLICIES ARE INTERPRETED AS THEY GO DOWN. WHEN POLICIES ARE MADE, HOW THOSE POLICIES ARE EXPLAINED TO THE PEOPLE IN THE VALUE CHAIN IS VERY IMPORTANT BECAUSE PEOPLE RESPOND TO WHAT THEY UNDERSTAND.
>
> DR ANURADHA JAIN (USAID)

Trusted channels for a segment, that is, their community healthcare workers, PHC doctors, community level leaders could be roped in for such campaigns in order to establish credibility.

While there is an abundance of emerging solutions, it is critical for existing proven solutions to be curated and scaled up, and the newer solutions to strongly focus on simplicity of use and solving pain points across the value chain.

There currently exist a number of solutions in the ecosystem, however, these either do not work in collaboration, or are unable to scale beyond a certain population segment due to limited buy-in or scarcity of patient capital.

> WE NEED TO DEVISE A FRAMEWORK FOR PILOTS IN HEALTH ON THE LINES OF GLOBAL REPORTING INITIATIVE FRAMEWORKS IN SUSTAINABILITY.
> SO THAT EFFORTS ARE NOT DUPLICATED ONCE A CERTAIN STANDARD IS REACHED, YOU ONLY NEED TO SCALE IT.
>
> KALYAN MANGALAPALLI (NASSCOM)

In the case of solutions for low-resource settings, particularly, implementation and adoption have a long gestation period. Under these circumstances, the success of digital initiatives becomes contingent upon consistent implementation support, building upon existing systems that involve all stakeholders – local government, technology partners, healthcare providers and citizens.

> THERE IS AN INCREDIBLE AMOUNT OF EFFORT THAT NEEDS TO GO IN RIGHT NOW IN ORDER TO REMOVE SOME OF THE DISINCENTIVES IN THE SYSTEM FOR CREATING GOOD DATA.
>
> ANUNAYA JAIN (JHPIEGO)

In case of new solutions, it is important for developers to understand the bottlenecks users face, that might translate into inertia towards active adoption. Digital solutions that see widespread adoption are designed to solve problems for their users. In the case of healthcare which involves many layers of data, users require solutions that simplify activities such as accessing comprehensive medical records, for instance. For healthcare providers to overcome the adoption barrier, the solutions for electronic medical recordkeeping would have to be intuitive, so as to ease the shift from physical records. Such solutions would have to be codesigned with users to understand their pain points and effectively address them.

There has to be focused state capacity building across administrative and HRH teams along with a publicising of successful models to drive demand and ensure adoption for digital solutions across states.

The state implementation machinery for ABDM needs to develop new competencies for an efficient physical-to-digital transition. Therefore, significant capacity-building measures have to be undertaken for state personnel and human resources for health (HRH) to handle the hardware and software pertaining to ABDM in the course of everyday operation. For such an exercise to be effective, it would also have to be preceded by a digital capacity and infrastructure audit for all institutions involved. It is also important for the leadership of state and district-level institutions to be oriented for the active implementation of the mission, for all levels of stakeholders to participate in driving change.

It is also important to eliminate disincentives for healthcare personnel – for example, duplication of effort due to data entry in physical and digital registers – that prevent active adoption of digital solutions. For this, implementing agencies should be capable of enacting dynamic design changes in response to user feedback, and ensuring that digital solutions blend seamlessly with their workflows. Agencies could achieve this by collaborating with the local administration as well as

state governments, to ensure that these solutions are designed with the users and their real-time workflows in mind, and any disincentives for use are removed at the time of trial and implementation.

Civil society organisations also have a crucial role to play here. These organisations also require capability building to ensure that they can assist with the dissemination of digital solutions by tapping into their connect within the community, as well as their engagement with state actors.

> CAPACITY OF INDIVIDUALS, INSTITUTIONS, & DEPARTMENTS NEEDS TO BE AUGMENTED. AUDITING DIGITAL CAPACITY AT EVERY LEVEL IS IMPORTANT TO DESIGN INTERVENTIONS.
>
> RAJASEKHAR KALIKI
> (PIRAMAL FOUNDATION)

PATHWAYS FOR PHILANTHROPY

Digital solutions in healthcare promise to address a plethora of problems around scale and access to quality service. However, the first question to be asked in the healthcare space is whether a certain problem truly warrants a digital solution. If it does, the next question to be asked is whether the technology employed by the solution actually simplifies an activity (and thus solves a problem) for its intended users. Philanthropic resources should therefore be channelled towards areas where an assertive answer can be obtained for these questions, that is, whether the use of technology actually eliminates impediments for citizens as well as healthcare providers.

Though philanthropic funding in digital health has shown a growing trend in recent years, there are areas where these investments can be refocused for better outcomes. For instance, establishing convergence among multiple pilots that are being funded in siloes, developing a common framework to assess the feasibility and the impact of the solutions funded, and creating a mechanism to learn from each other or highlight exemplars.

There is a strong need to look at a common platform for philanthropic investment to drive efficiencies, ensure critical needs are addressed systematically, provide choice of investment and increase the return on investment in terms of impact and scale. It is of urgent importance to develop a tech-driven one-window choice mechanism hosted by the government to drive investment on ABDM in areas of need.

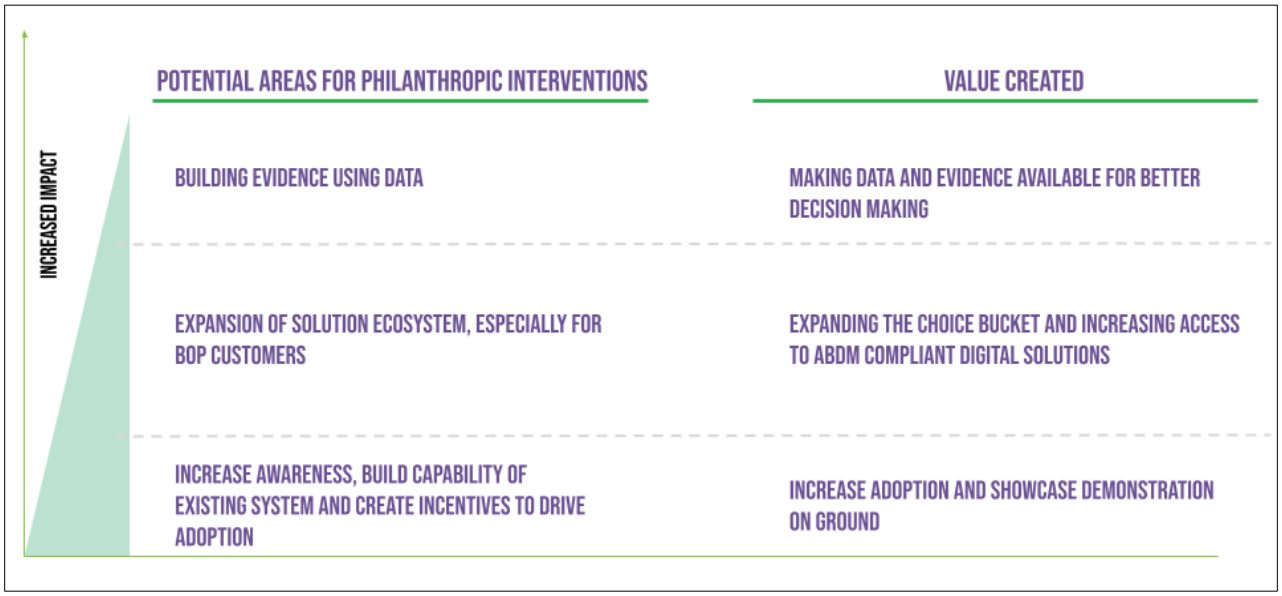

Fig 6: Potential areas for philanthropic investments and their probable value unlock [8]

Today, philanthropic investment can be targeted across the following areas:

Awareness generation, capability building of existing systems and incentivising users to showcase successful demonstration, and drive adoption.

Philanthropic investments could facilitate capability-building exercises of various stakeholders to ensure sustained buy-in from all users. Such exercises could be conducted for

- *Healthcare providers* across the value chain, in partnership with state academic institutions, focusing on the *usability of the digital platforms*.
- *Local CSOs*, to acquaint them with the latest schemes and policies related to ABDM to *influence user-side adoption*.
- *Government bodies* at multiple levels, capacity building of the government or supporting capacity within the government is an important area. Philanthropic organisations are well-equipped to collaborate with government departments and units, ascertain gaps and areas of priority, and *facilitate the necessary resources to ensure the timely adoption of digital solutions*.

It is also important to **incentivise groups of users through the successful demonstration of use cases** to drive adoption. This can be done by campaigns demonstrating the role of digital solutions in reducing the burden of their day-to-day activities; in increasing efficiencies through models of task-shifting and task sharing, and linking payments applications for on-time remuneration (for community workers such as ASHA workers). Awareness campaigns involving community health workers, youth and community structures like the SHGs, Arogya Samiti's and so on could propel adoption among a wider user base.

Additionally, it is crucial to **create solutions that cater to digitally inactive and aware groups** of providers and citizens. This could include the development of a low-cost health management information system (HMIS) on an elastic cloud that makes it accessible and easy to use for small service providers for underserved groups. Digitally inactive citizens could benefit from an assisted telemedicine model wherein intermediary personnel like a CHO from the public sector, or other community influencers could be trained to bridge the gap between patients and doctors.

Expansion of the solution ecosystem, especially for BoP customers to enable a relevant basket of choice for both citizens and providers.

In order for a variety of solutions to be available for all segments of users, a reliable ICT infrastructure needs to be established. Philanthropic interventions could focus on strengthening the infrastructure

at the primary healthcare level, such that it facilitates the uptake of digital solutions among front-line workers. In areas where a skeletal infrastructure exists, philanthropic spending could be channelled towards sponsored, low-resource technological solutions for doctors and healthcare providers in underserved communities. This could go a long way in ensuring that new solutions do not exclude a considerable section of the population.

Another urgent area of intervention is the review and integration of existing systems to ensure compliance and compatibility with ABDM. Alternatively, philanthropy could also support the scaling up of existing, successfully piloted solutions for a larger beneficiary base. The larger outcome of interventions of this nature would be the expansion of the choice bucket and increased access to ABDM-compliant solutions for beneficiaries.

Building of appropriate evidence using data for better decision making across the health system.

Effective healthcare delivery also benefits from evidence-based research, the data pool for which can be facilitated through digital platforms. Philanthropy could aid the creation of anonymized data sets available in the public domain, which could be used for research, development and decision-making. This is especially crucial in a post-pandemic scenario where timely prediction of disease patterns, and real-time evidence-based data analysis could have far-reaching impact. Datasets from large segments of the population could contribute to the development of a horizontal data lake for generalised study, as well as vertical disease management for conditions with the highest disease burden within a given community.

Alternatively, funding could be directed towards studying gaps in adoption of such platforms, how users could be nudged towards digital inclusion and addressing concerns around consent and data privacy.

CONCLUSION

ABDM holds great potential to revolutionise healthcare service delivery at the primary level in India. Given the enormity of existing challenges, however, stakeholders should take a graduated approach for driving adoption sustainably and building a thriving and relevant solution ecosystem. It is critical to prioritise the focus for solution areas and addressing them sequentially with gradual expansion, rather than taking the approach of solving for everything right from the first day. The first priority for implementing organisations should be to establish user buy-in with simple solutions to core user problems, which could vary from section to section. It is across the spectrum of these interventions that philanthropic organisations have a critical role to play.

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ABOUT SATTVA

We are an organisation driven by the mission to end poverty in our lifetime. Our work focuses on scalable solutions for sustainable social impact. We work with our clients - corporations, philanthropists, foundations and social organisations - to achieve social impact goals effectively and maximise the social return on their investment. Deep understanding across sectors and collaboration with multiple stakeholders drive our work. This approach helps us and our clients develop holistic solutions for solving critical societal problems.

We offer end-to-end support covering:

- Research
- Strategy consulting
- Implementation support
- Programme design and management
- Monitoring and Evaluation
- Impact assessment
- Social audit
- Talent solutions
- Organisation development programmes
- Data and technology products and more as needed in our quest for better solutions.

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4. Figure 2: Evolution of ABDM
   - 4.1. National Health Authority, Ayushman Bharat Digital Mission
5. National Health Authority, Ayushman Bharat Digital Mission
6. Figure 3: Systemic barriers to adoption of digital solutions, Figure 4: User barriers to adoption of digital solutions
   - 6.1. Primary interviews conducted with domain experts by Sattva
7. Figure 5: Maturing of PM-JAY model driving digital adoption
   - 7.1. National Health Agency, Pradhan Mantri Jan Arogya Yojana
8. Figure 6: Sattva analysis

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