

# Arogya Bharat 2023

## REPORT

Addressing current barriers & unlocking critical pathways towards universal health coverage

A glimpse of the 9th NATHEALTH Annual Summit  
22 & 23 March 2023 . The Lalit. New Delhi

UNIVERSAL HEALTH

HEALTH FINANCING

DIGITAL HEALTH

ALLIED HEALTH

MEDICAL EDUCATION

CSR AWARDS

PATIENT SAFETY &  
QUALITY

INNOVATION &  
START-UP HUB

An initiative by

**NATHEALTH**<sup>®</sup>  
Healthcare Federation of India

In association with

**Digital Health & Innovation Partner**

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A MeitY Initiative with Govt. of Karnataka, Haryana, Gujarat & AP

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Healthcare Federation of India

# Arogya Bharat

2023



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**Event model:** Hybrid (Physical & Digital)

**The Digital Model:** A fully-equipped 3D Experience Platform for Virtual Attendance



Know more about the Summit



ADL-NATHEALTH Pathways to  
scale adoption of Digital Health  
in India - Report



PwC-NATHEALTH Health  
Financing Thought Leadership -  
Report



Dialysis delivery in India: demand,  
challenges and policy insights -  
Report



Allied Healthcare Professionals In  
India - Report



Win with Vaccines Campaign  
Report, Photo Book, Coffee Table  
Book



9th Annual Summit Event Picture  
Gallery



NATHEALTH Annual Report  
2022-23



8th Annual Summit Report

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The biggest health emergencies of our times have not just laid bare the myriad challenges and gaps in our health system, but also highlighted the importance of investing in 'well-being' at both personal and system level. It has ushered in an era of digital and technological innovations and advancements that is expected to help communities fulfil those requirements at a much faster pace. As India faces high disease mortality and morbidity from preventable causes and risk factors, improved access, and quality of personal health care, as well as increased reach of population-level interventions, could result in 3.9 million fewer deaths annually. [McKinsey Global Institute \(2022\)](#) estimates that poor health reduces global GDP by 15% each year – 2x the COVID-19 pandemic's negative impact in 2020. MGI estimates globally a boost in 0.4% annual GDP growth rate in a "healthy growth" scenario - adoption of major health interventions estimated to reduce disease burden by a further 6-10%.

Globally, nearly USD 3.9 trillion is needed to achieve the Sustainable Development Goals (SDGs) by 2030, more than double the current funding of \$1.4 trillion dedicated towards SDGs from domestic and international sources.

- In India, before COVID-19, it was estimated that over \$500 billions of private capital must be mobilized annually to meet all of India's sustainable development goals by 2030 (Blended Finance for a post COVID-19 world, Observer Research Foundation, July 2020).
- In India, Standard Chartered SDG Investment Map estimates a need for investments worth \$2.6 trillion to achieve the SDGs by 2030.

Globally, among LMIC (low- and middle-income countries), it is estimated that an additional \$274 billion in spending on health is needed per year by 2030 to make progress towards SDG 3 targets, and \$371 billion is needed to reach health systems targets in an optimistic scenario (Stenberg et al 2017).

## **Certain facts to be considered...**

- To address access, affordability, and quality healthcare, it is estimated that under a business-as-usual scenario, USD 256 billion would be needed by 2034 to achieve SDGs related to health (Funding Indian healthcare Catalyzing the next wave of growth - NATHEALTH PwC)
- With the adoption of new technologies and a focus on prevention and wellness, the funding requirement is estimated at USD 156 billion
- WHO's Global NCD Investment Case outlines 16 non-communicable disease "Best Buy Interventions" in LMIC, estimating that such investments would lead to 7 million lives saved and \$230 billion in economic gains, with benefits of \$7 per \$1 invested
- Horton et al (2017) identified 93 health interventions and associated cost-effectiveness estimates. The vast majority cost less than \$1,000/DALY averted, with over half under \$200/DALY
- WHO's High-Level Commission on Health Employment and Economic Growth (2016) found that each dollar spent in the health sector results in an additional USD 0.77 contribution to economic growth as a result of indirect and induced effects



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- IGC (2017) highlights evidence around health as an integral component of economic growth
- Health affects growth by augmenting worker productivity, increasing average life expectancy, subsequent human capital accumulation, and reducing disease burden
- In the Indian context, the main source of increase in worker productivity has come from improving nutrition

## How should the growth path ahead look like...

- World Bank Systematic Country Diagnostic for India in 2018 highlighted the role of inclusive growth, which involves investments into healthcare and human capital
- The Health Ministry and the 15th Finance Commission have called to boost India's public health expenditure to 2.5% of GDP by 2025, compared to 1-1.3% in recent years.
- The National Health Policy has mandated states to increase health spending on primary care by at least 10% every year to reach the target of spending 2.5%.

In spite of all the above, India's healthcare spend (~3% of GDP), is low even compared to other low- and-middle-income countries. **Private sector participation is extremely fragmented with significant barriers to scale, lack of regulatory clarity, and an uneven playing field where quality players from both organized and unorganized sectors are competing with the informal sector due to significant market failures.**

## To overcome the roadblocks, stakeholders and organizations need to...

- Leapfrog with the use of digital technologies to tackle the need for integration (of public with private, of cities to remote villages, of patients to care, of physical with remote)
- Embrace Continuum of Care – appropriate care delivery for patient needs
- Reinforce Regulatory Clarity and shaping an effective architecture - tied to the long-term vision and build quality technical capacity to enforce
- Revolutionize Medical Education and enable the Private Enterprise in strategic areas where private participation is a policy priority

## Objectives of the 9th NATHEALTH Annual Summit - Arogya Bharat 2023

Today, we stand at a crossroads of time which is ready for change. The path to achieve this holistic goal hinges on collaboration, where all the health industry stakeholders can come together, deliberate, cooperate, and work in tandem to bridge the vital gaps in service delivery. Public and private stakeholders both need to rethink on how they will address systemic issues in India, look at investing in and rebuilding healthcare infrastructure as a strategic asset. As a nation we must look at planning the next 5 years in the first phase, and then plan for the next decades by adding more elements to enable all of us to live the new normal. Private Sector is an important and a legitimate stakeholder in this journey ahead.

At NATHEALTH, we believe that there is a compelling need to create a unique platform conducive to meaningful dialogue that paves the way for collaboration among various stakeholders.

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With this objective, the theme of the **9th NATHEALTH Annual Summit - Arogya Bharat 2023 was Redefining the Role of Private Sector in Achieving Universal Health Coverage while addressing current barriers and unlocking critical pathways**. We believe that this further strengthened and reinforced the new post pandemic national healthcare agenda, for us to unite healthcare ecosystem especially at a time when the world finds itself at a challenging crossroad.

## Supporting the National Agenda

Actioning upon some of the post pandemic lessons and harnessing the true potential of the private sector therefore implies to:

- Effectively collaborate on the national UHC agenda: Successfully integrating into the ecosystem envisioned as Arogya Bharat, where both public and private sector deliver their responsibility while fulfilling their key obligations to key stakeholders
- Demonstrate real demand and innovate in channelizing this demand to scale hyper efficient models of care delivery

## Summit Framework

The NATHEALTH 9th Annual Summit - Arogya Bharat 2023: Redefining the Role of Private Sector in Achieving Universal Health Coverage while addressing current barriers and unlocking critical pathways, is designed to bring industry and the government together to discuss, deliberate and chart the way forward for a stronger and resilient India, which can be ready for any future complications and uncertainties. This was a platform to discuss learnings from the pandemic and the way forward, learn, and adapt from global best practices from everyone in the healthcare ecosystem from start-ups to philanthropic organizations, create new operating mechanisms, harness the knowledge and technology for best possible solutions.

## Inaugural Ceremony

Involved Government top Policy makers who touched upon the event deliberation themes. The session focussed on the event key theme and also saw release of whitepapers from NATHEALTH and its partners. The session further deliberated on...

- Effectively collaborating on the national UHC agenda: Successfully integrating into the ecosystem envisioned as Arogya Bharat where both public and private sector delivers their responsibility while fulfilling their key obligations to key stakeholders
- Demonstrating real demand and innovate to scale hyper efficient models of care delivery
- Leapfrogging with the use of digital technologies to tackle integration of public with private, of cities to remote villages, of patients to care, of physical with remote
- Embracing Continuum of care – appropriate care delivery for patient needs
- Reinforcing Regulatory Clarity and shape future architecture
- Revolutionizing Medical Education and enable the Private Enterprise in strategic areas

**Release of Publications: Arogya Bharat Report, Dialysis Whitepaper, Health Financing Paper, Vision Paper on East India**



# Executive Summary

## Plenary Sessions

The plenary sessions unified industry actors and key stakeholders for action from both private and public sectors, with NATHEALTH playing the role of the facilitator in charting out a robust and viable transformation agenda, the one for the unknown and unexpected – the future.

The primary focus areas of the plenary sessions in line with the objectives of 9th Annual Summit 2023 were as follows:

1. Building healthcare system capacity
2. Tackling of NCDs by providing precision medicine
3. Infrastructure expansion
4. Capacity management and optimization
5. Scaling up of digital health adoption
6. Healthcare innovation

## Plenary Session: Achieving Universal Health in Dialysis Through Strategic Public Private Partnership

Discussion Track - How to achieve universal health in dialysis in collaboration of the private sector with the government counterparts in the dialysis requirement

1. How to ensure accessibility and affordability in achieving Universal Health in dialysis through PPP?
2. What are the challenges faced by the private sector in delivery dialysis and what are the ways forward to tackle these challenges?
3. How to ensure quality of dialysis in reducing the mortality associated with the context of standards and guidelines of NABH and QCI?

Each year, approximately 220,000 Indian patients develop end-stage renal disease, resulting in a demand for 34 million additional dialysis sessions. Hemodialysis and peritoneal dialysis are the two primary complementary treatments provided to ESRD patients in India, with 94% of patients receiving hemodialysis. Despite the existence of around 5,000 dialysis centers and 3,340 nephrologists, it may not be enough to fulfill the growing demand for dialysis.

Dialysis delivery in India faces a lot of challenges. Starting from the lack of access to dialysis centers and machines across districts, lead to the low frequency of treatment, impacting the health of patients to the erratic and low rate of reimbursements for dialysis sessions affecting the operation of dialysis centers. There is a lack of skilled workforce including dialysis technicians and renal nurses.

The industry has identified various gaps in the training of healthcare professionals, such as addressing the shortage of Dialysis Technicians (DTs), providing short-duration courses to upskill existing nurses, doctors, and allied professionals, and addressing the need for more training centers in the country.

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Various measures are suggested to improve peritoneal dialysis (PD) treatment delivery in India, including implementing a PPP model, building patient awareness through education campaigns, reducing the cost of consumables, establishing and monitoring clinical outcomes, and promoting PD treatment through community healthcare.

## Plenary Session 2: Health Financing

Discussion Track - Healthcare financing for infrastructure creation through PPP models and VGF schemes for generating viable revenue and high asset utilization for expanding hospital & healthcare capacity

1. How to catalyze PPPs in healthcare infrastructure creation and viability gap funding (VGF) schemes in Healthcare?
2. Leveraging the AB-PMJAY network to cover the missing middle and Linking reimbursement to health outcomes.
3. Emphasizing the importance and relevance of value-based pricing of healthcare services in the Indian context, the best practices across the globe.

The health financing perspective in India is complex and multifaceted, and there are several agendas that need to be addressed in order to improve the health care system. One of the major challenges is the shortage of hospital beds, with only one bed per 1000 people, which is lower than the global average of 2.7 beds per 1000 people. This shortage of beds is compounded by the fact that hospitalization rates in India are expected to increase to 7-8%, which is an alarming rate.

Health financing is a crucial aspect of building a sustainable and effective healthcare ecosystem. It involves creating the necessary insurance and financing infrastructure to ensure that individuals have access to affordable and high-quality healthcare. By enabling healthcare financing, we can make a vast difference in our economy, leading to positive economic progress.

In emerging markets like India, where a large percentage of the population lives below the poverty line, healthcare financing can be a game-changer. The government's focus on creating the right ecosystem for healthcare and universal healthcare has made healthcare financing more critical than ever. To enable any economy to progress in the right direction with healthcare financing, three key factors must be considered.

VGF is an interesting scheme but not enough to hang the code. When structuring a PPP, it is essential to make models that are fundamentally more attractive, or showing it to the private sector in order to ensure success, also maybe to reform wholesale changes could be beneficial.

A successful healthcare project in one location has the chance of failing in another, if not re-adjusted to scale and reach. It is important to not treat hospitals as any other normal infrastructure project. It is important to pitch interesting incentives to investors for them to show interest. It is a long-term risk.

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The conference brought together key stakeholders from the central and state government, regulating bodies, private sector providers, private sector insurers, development partners, Healthcare PE players, and healthcare knowledge partners to deliberate on practical solutions to India's healthcare infrastructure problems. There was a roundtable discussion on "PPPs (VGF) in healthcare for infrastructure creation" and another one on the topic "Leveraging the network to cover the missing middle and Linking reimbursement to health outcomes".

The session aimed to answer the following key questions in presence of government officials, decision makers of various hospital and out of hospital care continuum chains including senior care, insurance firms, investors, start-ups and multilateral organizations, and more.

## **Plenary Session: Pathways to Scaling Up Digital Health Adoption**

Discussion Track - The impact of digitization in healthcare and how to leverage the innovation ecosystem to enhance healthcare standards

1. How Digital Technology can help in reimagining Primary Care in the Post COVID era
2. Key challenges to Digital adoption in Hospitals, MedTech, and Diagnostic Chains

Ayushman Bharat Digital Mission (ABDM) is enabling the National stack for a Patient-centric digital health ecosystem, to facilitate the continuum of care with the patient as the owner of data. One of the key objectives is to create a system of personal health records, easily accessible to individuals, healthcare professionals, and services providers, based on Aadhaar, Unified Payments Interface, and Mobile phones.

The COVID-19 pandemic has brought health equity to the forefront, exposing the disparities between those who can afford healthcare and those who cannot. This has led to a renewed focus on achieving universal health coverage, with primary healthcare being at the center of the call to action for the next few years.

In the Indian healthcare sector, one of the most significant challenges faced by smaller healthcare providers is their reliance on the cash economy. Most of them hesitate to go digital due to perceived tax-related challenges. This has prevented the adoption of digital tools that can help provide better care to patients. However, the COVID-19 pandemic has brought to light the need for digital solutions in healthcare, and it is time to address these challenges and move forward towards a more digital healthcare system.

Digital tools can also come in handy when it concerns training the healthcare workforce. The primary level is the base of our healthcare system, and nothing can work without it. However, before the pandemic, training in the healthcare sector required bringing people together in a room. This was the only way to train them effectively. But with digital tools, it is now possible to refresh their learning frequently and in a more cost-effective manner.

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This is especially important in the case of medical professionals who need to be updated with the latest developments and best practices. Another important area where digital tools can be leveraged is in diagnostic and early diagnosis. Telemedicine and other technologies have made it possible to provide medical consultations to patients in remote locations, which has been particularly helpful during the pandemic. However, what is most important is the continuum of care. The post-COVID era has seen progress in this area, with assisted telemedicine and the ability to send reports from primary to secondary-level healthcare providers. This enables healthcare providers to offer more comprehensive care to patients.

## Challenges in adoption of Digitization

- Challenges seen in digitization from the patient perspective in small towns, union territories, two or three tier locations is the stagnant consumer mindset reflecting in their behaviour as well, like patients still prefer physical documents, prefer standing queue rather than adopting to technology driven digital transformation.
- It also takes a significant amount of effort to create this awareness of letting the patients know the fact that it's for their benefit.
- Most importantly the lack of healthcare or the digital infrastructure, whether it is Internet, steady state Internet, power supplies.

## Thought Leadership Session: Future of Health & Areas of Imminent Breakthrough Opportunities

The pandemic has thus highlighted the importance of investing in healthcare, particularly in developing countries. While science and technology have played a significant role in addressing healthcare challenges, access to healthcare services remains a major issue. Furthermore, as populations age, the need for quality healthcare will become increasingly important. It is therefore crucial that we invest in institutions and human resources that can address the challenges that come with an aging population.

## Plenary Session: Scaling Up Allied Healthcare Skilling

Discussion Track - Bridging the demand-supply divide for Allied Health Professionals via structural interventions

- How Digital Technology can help in reimagining Primary Care in the Post COVID era.
- Key challenges to Digital adoption in Hospitals, MedTech, and Diagnostic Chains

Upskilling allied healthcare professionals can have a significant impact on employment generation and the soft influence of the country in exporting health professionals for the aging population of the world. By creating clear career pathways and opportunities for advancement, we can encourage more individuals to pursue careers in the allied healthcare sector, ensuring that we have a skilled workforce to meet the growing demands of the healthcare industry.

It is therefore essential to recognize the critical role played by allied healthcare professionals and take steps to upskill and empower them. This will not only benefit the healthcare sector but also

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have a positive impact on employment generation and the country's influence in the global healthcare market.

The session highlighted the need for India to produce qualified manpower for the healthcare sector beyond just physicians. He emphasized the importance of developing healthcare professionals who can assist doctors and draw salaries at par with the sector.

It is important to understand the landscape to know the weaknesses of the system. The sector needs to change and increase the aspirational value of potential students and service providers. Instead of referring to them as technicians, they should be referred to as technologists. The allied healthcare sector is a bit disorganized and it is the academia that can be the first wall to get them organized. It means that all the stakeholders including academies, industry players, hospitals, and government accreditors should come forward to make this happen.

The process of certification has a chance of being widely accepted by the industry if it's customized as per the requirement of the industry. The process has been initiated and the involvement & cooperation of the government in terms of giving recognition to independent certification will ensure optimum utility for the entire ecosystem. Secondly, independent certification is done through HSSC for rescaling upscaling and even scaling programs are being accepted widely.

Strong execution of identified interventions will enable us to break this vicious cycle and convert it into a virtuous one. The impact can be massive. It includes creating 3-4 million incremental jobs, improving health outcomes in India, and securing India's place as a global supplier of high-quality talent. With a well-planned and well-executed strategy, the shortage of allied health workers in India can be addressed.

The session aimed to address the challenges faced by frontline health workers, identify the gaps in their current profession and discuss potential solutions to address the key skilling gaps for allied health professionals. The role that both public and private sectors can play in their skilling was also discussed, along with potential challenges that may arise. The session featured industry experts and administrators who shared their insights on the topic.

## **Plenary Session: NATHEALTH Healthcare CSR Awards 2023**

Corporate Social Responsibility (CSR) has become a significant aspect of companies in India, especially after the new company act was passed in 2013. While CSR activities have evolved over the past few years, the COVID-19 pandemic has shown the positive impact of CSR activities in healthcare.

The NATHEALTH Healthcare CSR Awards 2023 acknowledges corporates and philanthropic organizations for commendable healthcare initiatives through CSR. The awards recognize companies' efforts in internalizing CSR into their everyday thinking, with applications accepted in

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four categories. These categories include Health Technology Innovations, Community Based Health Solutions, Environmental Health, and COVID-19 Preparedness and Resilience.

The jury shortlisted 63 applications (inclusive of CSR donors & implementers) individually reviewed to about 20 yards in various categories, out of which 40 belonged to community health. The convergence of the Indian Government & the private sector to promote tertiary care assorted with technology is of utmost importance. In fact, another figure that is very revealing is that each of the organizations on average touched 2.75 lakh lives. Celebration of success is an important part of team building & maintaining a self-assured team & making an organization a great place to work with.

## **NATHEALTH's CSR Campaign on Win with Vaccines**

The IPE Global Centre for Knowledge & Development and NATHEALTH implemented a public education campaign to improve COVID-19 vaccine confidence in five low-coverage districts across India. The targeted districts were Baksa, Chirang, South Salmara, and Udalguri in Assam, and Nuh in Haryana. This initiative was aimed at historically vaccine-resistant communities living in hard-to-reach geographies.

The project collaborated with government stakeholders, including district administration, health, education, and livelihood officials, as well as community members. The team nurtured influencers and developed a Behaviour Change Communication Campaign that aimed to sensitize over 2 lakh community members in a four-month period. The project successfully addressed myths and misconceptions surrounding COVID-19 vaccinations by employing a focused, ground-level approach. The project was a success due to community consultations, key engagements, and a Behaviour Change Communication campaign in local languages.

**Launch of Win with Vaccines Coffee Table Book** - The Win with Vaccines initiative used a Behaviour Change Communication campaign to engage with left-out, drop-out, and resistant (LODOR) communities. The photo book is a snapshot of the project process, beneficiaries, and the stakeholders.

## **Plenary Session: Patient Safety and Quality**

A Perspective Of Quality & Quality Systems in India the Healthcare Quality Development In India, Accreditation and its impact on Quality Role of Quality Tools

There are 6 crucial domains of healthcare quality:

- Patient Safety
- Patient centered
- Effectiveness
- Timelines
- Efficiency
- Equity



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Patient safety, fundamentally, is the spirit of ownership by all health care providers to continually aim to prevent and reduce risks, errors, and harm that occur to patients during the provision of health care. The fundamentals for patients' safety start with the Hippocratic oath, taken by medical Professionals. Currently, the lack of this institutionalized quality and safe care has resulted in a Russian roulette for patients.

A visit to the doctor, a diagnostic center, or a hospital has no assurance about quality care behind the scenes as there are bare minimum standards and no one to monitor. Many of these adverse errors occur in the areas of delayed or misdiagnosis medication. Incorrect medication, lab test errors, mislabelled specimens, radiology errors, the wrong side surgery, and equipment failures amongst others.

Coordination between healthcare providers, technology, drugs, and processes is crucial for patient safety due to medical technology advancements. Encouraging healthcare workers to report safety-related events in a non-punitive environment, community involvement, patient empowerment, impartial assessments, and education and training of healthcare workers are necessary for ensuring patient safety.

**Embracing Patient Safety:** Can we protect patients while ensuring access?, Global Patient Safety Action Plan (WHO), Opportunities and Challenges in India, Medication, Medtech Safety from Patient's Perspective. India has made significant progress in healthcare with improved access to skilled birth attendance, immunizations, and other priority services. However, poor quality services lead to a total of five million deaths each year, with one-third occurring in India.

Informal practitioners and poor quality care in both public and private sectors are major challenges. To address this, the Indian government has launched the National Quality Assurance Programme for Public Health Facilities, with published standards incorporating patient safety measures. Facilities that meet these standards will receive certification and financial incentives.

As per global research, a whopping 134 million adverse events that take place every year could be major, minor, disability or sometimes a death causing emotional impacts on family left to face losses, harming the reputation of the institutions and victimizing the healthcare.

- In the Indian scenario, adverse events did not receive any attention at all but in recent years, there has been a change in the narrative focusing more on patient safety concerns.
- The World Health Organization in 2019 passed a resolution on global patient safety, and that then culminated a roadmap, for global patient safety unveiling a plan for 10 years.
- There are 7 strategic objectives. And the good news is that India has signed on to the World's global patient's safety plan and has been involved in the genesis of the plan created. Some of the basic precautions before procedures & surgeries are planned and conducted.
- The World Health Organization will observe 17th of September as Patient Safety Day.

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## **Patient Safety Microsite & Campaign**

The microsite launch was part of a high-level campaign on “Choose Safer Healthcare”. NATHEALTH along with key partners such as QCI, NABH, and others are initiating a public education campaign on “Patient Safety and Quality Care”. The campaign seeks to improve patients and the general public’s understanding of safety measures that are important for patients and the quality of healthcare. Presently, patient understanding of many aspects of healthcare services is limited and several misconceptions exist. The campaign seeks to educate patients and consumers, establish the deep link between safety and quality, and give information out to people through simple messages and animated videos, short blogs, and/or infographics based on data and facts.

## **Innovation Session - Startup Interface & Innovation**

NATHEALTH arranged a business collaboration platform for healthcare start-ups and established businesses alike, during the 9th Annual Summit 2023. The opportunity offered owners of unique business opportunities in healthcare from around the world and India to showcase and exhibit to all the participants of the Annual Summit.

The Summit provided an opportunity to leading start-ups in healthcare to present their innovative business models and the key challenges they are facing. Start-ups and business leaders leveraged this platform to connect with each other for access to technology, investments, and collaboration to support the upcoming players in the healthcare ecosystem. In the audience, there were leading business accelerators, VCs, angel investors and leading healthcare companies and this facilitation led to mentorship, investments and partnerships with private sector leading to increased market access opportunities.



## Inaugural Session

A congregation of industry leaders' addresses & whitepaper releases to commence the Summit

## Leaders Speak

"For universal health coverage & MVT, a stronger workforce, and digital health growth, stakeholders should join forces."



### **Dr. V K Paul**

*Hon'ble Member (Health), NITI Aayog,  
Government of India*

*India has the widest platform of vaccines. India is offering top-notch healthcare services and to make India a success in Medical Value Tourism, it would be about transparency, quality, ease of transactions and above all accountability.*

After the pandemic, India has picked up on the healthcare front like no other nation. The country has delivered on diagnostics, technologists and pharmaceuticals and above all vaccines. This was India's strength and it was visible to the world. A total of about 280 diagnostic tests were certified by the Indian Council of Medical Research. Among these, 78% were Indian-made. India currently has the widest platform of vaccines with an entire bouquet of vaccines. Be it Adenovector vaccine, multiple protein subunits, mRNA, first DNA vaccine or intranasal vaccines.

### **India's achievements in terms of healthcare developments and its future vision**

The result of the pandemic have been multifold. Indian healthcare systems and its stakeholders have achieved breakthroughs and innovations on multiple fronts, such as...

- The rise of ABDM Digital Mission has strengthened our capacity in critical care, with a need to set the next vision for a large healthcare system for India.
- Under Universal Health Coverage, almost 60% of India's population is covered under secondary level treatment, together with PM-JAY and other state level schemes.
- The medical education space has seen tremendous progress in nursing, and other allied healthcare sectors, with a need to envision the future of the industry.
- India has realized that the progress for MedTech is based on the strength in the science, academia and the industry forces.
- The country's top-notch healthcare services are well on their way to make it a success in Medical Value Tourism - it would be about transparency, quality, ease of transactions and above all accountability.

India now needs to provide a workforce for the future, and private healthcare providers need to come forward for setting the quality and ethical training and to develop a strategic partnership with the government to build a PPP infrastructure. These are strategic initiatives to make India a global leader in healthcare.

## Leaders Speak

"Consistent efforts by the government & private players are ushering in new employment opportunities, and investments."



### **Dr. Prathap C Reddy**

Founder President NATHEALTH  
Founder Chairman Apollo Hospital, during  
the Inaugural Ceremony

*Good news is that to achieve future goals, the state and the central government has been continuously supporting NATHEALTH stakeholders' efforts in making healthcare more accessible, deliverable in quality and cost effective.*

The time has come that India can become a major healthcare player in the world, bringing good health to its people and giving a base for the globe for all its efforts. Good news is that to achieve future goals, the state and the central government has been continuously supporting NATHEALTH stakeholders' efforts in making healthcare more accessible, deliverable in quality and cost effective.

### **Making healthcare more accessible, qualitative, and cost effective**

Various enthusiastic initiatives are making a huge difference for India healthcare, like:

- By combing allopathy with naturopathy, the Indian government has ensured to make India a global healthcare destination.
- The future focus is on delivering care with the new technologies, push the medical tourism agenda, and use futuristic techs like artificial intelligence.
- Technological advancement through enabling digitization, robotics, 3D printing in healthcare is on its way to to provide precision medicine to patients.
- National bodies like NASSCOM are bringing IT enabled commendable job opportunities for people and a lot of foreign exchange in India.
- The number of accredited and quality hospitals providing excellent services to the people is increasing consistently.

In every single discipline of healthcare, Government of India in collaboration with the private players is leading in such a way to make India a global healthcare player, which will bring not only new employment opportunities, but also investments.



## Leaders Speak

"With 500 in-person attendees, 5000 virtual audience and a convergence of 15 federations, the Summit is bigger & better this year"



### **Dr. Shравan Subramanayam**

President, NATHEALTH

*The 9th NATHEALTH Annual Summit has brought together outstanding knowledge partners and experts from the industry, and outside of the industry, as also relevant global collaborations. Additionally, this convergence has seen 15 different federations across sectors joining hands with NATHEALTH.*

NATHEALTH Annual Summit 2023 is a convergence of different stakeholders of healthcare be it healthcare services, MedTech, healthcare financing, service providers, diagnostics, investors, not-for-profit organisations and much more. This year, 500 have registered for the event, which is the largest number of in-person attendees till date, and the summit witnessed over 5000 virtual attendees. Additionally, this convergence has seen 15 different federations across sectors joining hands with NATHEALTH.

### **Key priorities of the NATHEALTH Annual Summit 2023**

1. Building healthcare system capacity
2. Tackling of NCDs by providing precision medicine
3. Infrastructure expansion
4. Capacity management and optimization
5. Scaling up of digital health adoption
6. Healthcare innovation

NATHEALTH has brought together outstanding knowledge partners and experts from the industry and also from outside of the industry, as also global partners to put together the vision of the summit. Due to the same reason, the summit is also launching in-depth white papers on key strategic areas of Indian healthcare system.

Another feather in the cap is the NATHEALTH CSR Charter, which in its second year, is recognizing projects across CSR, as also acknowledging many members of the Indian CSR sector.

Happy to also share that NATHEALTH is taking significant strides and a significant change is NATHEALTH's expansion into the regions. NATHEALTH now has offices across the country with a team that is engaging pan India with health services providers and partners across the country through NATHEALTH secretariat.



## Whitepaper release

# Pathways to scale adoption of Digital Health in India



*Release of the Digital Health Whitepaper developed by ADL & NATHEALTH*

NATHEALTH, in association with Arthur D. Little, launched a study titled "Pathways to scale adoption of Digital Health in India", in the presence of Dr. V K Paul, Hon'ble Member (Health), NITI Aayog, Government of India, during the 9th NATHEALTH Annual Summit.

This report provides an overview of the drive toward the adoption of digital health in India. This report begins by mapping out the current landscape of digital health and ABDM adoption by different segments of providers and by patients, drawing key learnings from global digitization efforts and local success stories, as well as understanding barriers to adoption as perceived by different provider segments.

The report's findings are based on insights from 21 extensive interviews with government stakeholders and industry leaders and 2 comprehensive survey studies - one on the provider side, and the other on the patient side - centered on digital health and ABDM Adoption.

### **Key findings of the report:**

- Government initiatives to push digitalization have focused on increasing ABHA ID creation, incentivizing ABDM utilization, and driving payor-side consolidation. ADL's provider-side survey findings suggest that providers highly acknowledge digitalization benefits but require a push to undergo the process.
- Overall findings reveal that larger providers have adopted digitalization but don't understand the benefits of ABDM integration. For smaller providers, awareness of the benefits of digitalization and ABDM integration is a major bottleneck.
- Large private hospitals and labs are the most digital ecosystems, while small labs and out-of-hospital forward players in the provider segment are the least digitized. Uptake and use of ABDM by private players are poor across the spectrum of providers, even among high hospitals and labs.
- Digitalization has positively impacted the efficiency of healthcare operations across various case studies be it chemotherapy, OPD registrations, or organ transplantations.

## Whitepaper release

# Health Financing Towards Tackling Missing Middle and Result Based Financing - Building PPP Through Innovative VGF



*Release of the Health Financing Whitepaper developed by PwC & NATHEALTH*

NATHEALTH, in association with PwC, launched a whitepaper titled "Health Financing Towards Tackling Missing Middle and Result Based Financing - Building PPP Through Innovative VGF", in the presence of Dr. V K Paul, Hon'ble Member (Health), NITI Aayog, Government of India, during the 9th NATHEALTH Annual Summit.

Health financing is an important global agent. A good payment model and peer system has the defence of influencing healthcare in the right way in terms of affordability and quality. Health financing deals with the generation, allocation, and use of financial resources in the health system has become an area of major policy relevance globally in order to achieve Universal Health Coverage (UHC). So bringing in the right financing model is still a challenge in India.

### Three major challenges from a financing and care delivery perspective:

- **Insufficient infrastructure:** India's healthcare infrastructure is lopsided with top-quality medical facilities concentrated in major cities. There is a need to focus on increasing the number of hospitals and healthcare centres across regions evenly with an adequate number of qualified medical professionals, equipment, and all other operational facilities.
- **Inequitable health coverage:** Despite the government's recent push through the Ayushman Bharat scheme (PM-JAY) to cover the treatment of the poorest 40% of the population at empanelled tertiary care private hospitals, the overall penetration of health insurance in India remains low at 37%. It is because they are not poor enough to be covered by government-subsidized schemes but not rich enough to afford private health insurance.
- **Increasing healthcare expenditure:** While the cost of treatment in India is almost one-third compared to countries such as the US and the UK, Indians pay more out of their pockets than some of the poorest countries in the world for availing healthcare, mainly for lack of health insurance and inadequate funding for public health.

While technology dominates healthcare post-pandemic, the challenge of financing and delivering universal access to healthcare to India's population is immense, and the public sector on its own cannot plug the gaps.

## Road Map Towards Expanding Dialysis Delivery Capacity in India



*Release of the Dialysis Delivery Whitepaper developed by E&Y & NATHEALTH*

NATHEALTH, in association with E&Y, launched a whitepaper titled "Road Map Towards Expanding Dialysis Delivery Capacity in India", in the presence of Dr. V K Paul, Hon'ble Member (Health), NITI Aayog, Government of India, during the 9th NATHEALTH Annual Summit.

Government data has indicated that about 18% of Indian people are suffering from high blood sugar levels, about 22% are suffering from high blood pressure. Which indicates that 1 out of every 5 people are likely to face serious complications in their life. As per government estimates, nearly 220,000 patients develop end-stage renal disease (ESRD) annually in India, leading to an additional annual dialysis demand of 34 million treatment sessions.

### Key Challenges in Dialysis Delivery

- The lack of access to dialysis centres and machines across districts, has lead to the low frequency of treatment, impacting the health of patients to the erratic and low rate of reimbursements for dialysis sessions affecting the operation of dialysis centres.
- There is a lack of skilled workers, such as technicians and renal nurses. Another challenge is the low uptake of PD in India due to high costs and low clinical adoption.

### Recommendations

- The short-term recommendations focus on improving access to standalone dialysis centres through both PPP (Purchasing Power Parity) and non-PPP channels, optimal use of human resources, maintaining standards and mitigating other costs, as well as resolving Empanelment Delays through the provision of a defaulted "deemed approved status".
- The medium-term recommendations include job training and internship opportunities for DTs, short-term training for nurses on both HD and PD as well as training courses for AYUSH, BAMS, BHMS, and MBBS doctors to be formulated.
- Key recommendations for peritoneal dialysis is to enable PPP mode for PD treatment delivery with private service providers providing consumables and public sector providing care, building awareness amongst patients and establishing supply-side channels by enabling a reduction in the cost of consumables.



## Thought Leadership

# Allied Healthcare Skilling



*Dr. Ashutosh Raghuvanshi, Senior Vice President, NATHEALTH & Managing Director, Fortis Healthcare*

One of the most important futuristic visions for the industry is about the skilled and professional healthcare workforce. However developed technology or physical infrastructure is incorporated, cannot succeed unless we have an educated, trained and proper workforce positioned in the allied healthcare profession.

In the last decade, the number of seats for MBBS as well as for post graduates has increased. However, there has not been so much focus on allied healthcare professionals. Training of allied healthcare professionals are happening in an unorganized and fragmented manner. The lack of structured training initiatives for emerging skill sets, such as digital health provisioning and insurance, will exacerbate the problem in the future.

Interventions necessary to break this vicious cycle that will go a long way to get the allied healthcare professionals to another level:

- Enabling private enterprises in providing these training and helping in development of curriculum and programs.
- Proper certification and accreditation program through the skill council or any other policy makers would be a game changer for revolutionizing allied healthcare education.
- It's a collaborative responsibility of industry to provide a career path to all individuals who choose professions in allied healthcare and make sure that they become part of the inspiration to eventually run the organization.
- Strengthen placement support for the trained candidates, and enhance social and professional recognition
- A very promising effort for empowerment of allied healthcare professionals is to make them operational leaders and involve them in policy and decision making in an organisation.

## Thought Leadership

# Healthcare Safety - Empowering Patients



*Ms. Ameera Shah, Vice President, NATHEALTH & Managing Director, Metropolis Healthcare*

In the healthcare industry, there is a lot of focus on the industry's huge volatility and variance in the quality. Unsafe care is among the top 10 causes of death and disability globally, particularly in LMICs, with errors occurring in various medical domains. Patient safety is essential for achieving universal health coverage under the Sustainable Development Goals.

Informal practitioners and poor quality care in both public and private sectors are major challenges. To address this, the Indian government has launched the National Quality Assurance Programme for Public Health Facilities, with published standards incorporating patient safety measures. Facilities that meet these standards will receive certification and financial incentives.

### **NATHEALTH's initiatives in collaboration with QCI & NABH to tackle the issue of patient safety and quality healthcare:**

- NATHEALTH has taken an initiative to ensure empowerment in educating consumers and patients to differentiate good quality healthcare.
- NATHEALTH, along with key partners such as QCI, NABH, and others have initiated a public education campaign on "Patient Safety and Quality Care".
- The campaign focuses on the fact that encouraging healthcare workers to report safety-related events in a non-punitive environment, community involvement, patient empowerment, impartial assessments, and education and training of healthcare workers are necessary for ensuring patient safety.

The campaign will also focus on developing a culture of patient safety and a "fault-tolerant" healthcare system through standard operating procedures, identifying and reporting medical errors, and evidence-based patient safety activities such as infection prevention, safe surgical care, safe childbirth, medication safety, blood safety, and medical device safety.



# **Plenary Session**

ACHIEVING UNIVERSAL HEALTH IN DIALYSIS  
THROUGH STRATEGIC PUBLIC PRIVATE PARTNERSHIP



# Introduction



**Ms. Vrinda Mathur**

*Secretary, NATHEALTH*

*Senior Principal, Financial Institutions Consulting, Asia, IQVIA*

Renal failure is an important public health problem. However, it remains a mostly undocumented cause of premature death in developing countries, like India. There are two major types of complementary treatments offered to ESRD Patients in India: Hemodialysis (HD) Treatment and Peritoneal Dialysis (PD). Almost 94% of dialysis patients in India are on HD treatment. With nearly 5,000 existing dialysis centers and 3,340 nephrologists (estimated by the industry), this seems inadequate to meet the upcoming demand for dialysis, accelerated by various sociological and environmental factors.

Dialysis delivery in India faces many challenges. Starting from the lack of access to dialysis centers and machines across districts, lead to the low frequency of treatment, impacting the health of patients to the erratic and low rate of reimbursements for dialysis sessions affecting the operation of dialysis centers. There is a lack of skilled workers, such as technicians and renal nurses. Another challenge is the low uptake of PD in India due to high costs and low clinical adoption.

The short-term recommendations focus on improving access to standalone dialysis centers through both PPP and non-PPP channels, optimal use of human resources, maintaining standards and mitigating other costs, as well as resolving Empanelment Delays through the provision of default “deemed approved status”. Lastly, reimbursement rates are to be increased considering the overall cost of treatment to providers.

The medium-term recommendations include job training and internship opportunities for DTs, short-term training for nurses on both HD and PD as well as training courses for AYUSH, BAMS, BHMS, and MBBS doctors to be formulated. It also focuses on addressing infrastructure challenges and specific training required for surgeons, nurses, and patients for PD.

## Leaders Speak

### "Achieving Universal Health in Dialysis through Pradhan Mantri National Dialysis Program."



#### **Dr. Ranjan Choudhary VSM**

Advisor – Healthcare Technology, National Health Systems Resource Centre (NHSRC)

*The industry should develop revenue sharing models with partners being a nearby tertiary care hospital, a technical team, and standalone dialysis centres.*

*There is also a need to develop guidelines.*

Before 2016, the dialysis sector was unorganized with various unmet needs. In order to mitigate these issues, the Government of India rolled out the Pradhan Mantri National Dialysis Program. It aims to set up dialysis centres at every district in the country. Till date, the progress of the Program has been encouraging and 654 districts out of 750 districts are covered under the scheme already.

#### **Finding structural solutions for multifactorial issues regarding Universal Health Coverage**

**Accessibility:** The first step is to saturate all the districts in the country. The second target would be to ensure that a dialysis patient should get the dialysis services within 60 kms from his residence, so that his daily life is not disrupted. The government is dedicated to saturating all the districts in the country by 31st December, 2023.

There are areas like the far North-East areas where accessibility is difficult due to a plethora of challenges like geography, which creates hurdles in the scaling of operations, although they have resources, trained manpower, and equipment maintenance. Organizations like NATHEALTH, and its stakeholders can join hands to make a difference and support such regions in setting up centres.

**Affordability:** It is well known that the emergency is associated with dialysis and for that there has to be a mechanism. In this case, the industry should develop revenue sharing models with partners being a nearby tertiary care hospital, a technical team, and standalone dialysis centres. There is also a need to develop guidelines, which will benefit the dialysis ecosystem. NHSRC recommends that such a set-up should ideally be within 3 kms of a district hospital as the primary medical help is available in tier-2 and tier-3 cities. On the anvil is a report by the DGHS to resolve these issues.

**Quality:** The service partners had found out certain issues regarding guidelines and the water standards. It has been rectified and taken cognizance of the revised documents that have been issued to all the states, which incorporate the best of the water

standards. NHSRC has included a model document so that the states can quickly resort to that model document.

**Training:** There are programs for dialysis technicians under the National Skill Development Corporation. They run a one year program for dialysis technician, which costs Rs. 30,000. This type of training course should be promoted to get more trained skill manpower. Slow training is a big gap and the other is the supply chain of the consumables. The government is trying to promote peritoneal dialysis in every state, particularly in the hill stations of the North East. The government will also promote peritoneal dialysis where hemodialysis is not possible or equally in the areas where accessibility is a big concern.

**Digital Platform:** A digital platform for dialysis will soon be used by every state. NHSRC will link the payment with this portal and it will be accessible to the ABHA IDs. The NHA has helped the NHSRC with the data. The beneficiary order will be linked with PM-JAY in order to build up a state level renal registry. The IT platform has been accepted well by all the states. NHSRC has developed an API and has requested all other states, including medical colleges and the private hospitals, to start using this user-friendly platform.

# Plenary Session I

## Panel Discussion - Achieving Universal Health in Dialysis through Strategic Public Private Partnership

**Moderator:** Ms. Shambhavi Sharan, Manager, Tax and Economic Policy Group, Ernst & Young LLP

### Experts:

- Mr. Vikram Vuppala, Founder & Chief Executive Officer, NephroPlus
- Mr. Bhaskar Guha, Managing Director & Country Manager, Fresenius Medical Care India Private Limited
- Mr. Indranil Roy Choudhury, Group Chief Executive Officer, Apex Kidney Care Private Limited
- Dr. Saurabh Pokhriyal, Nephrologist, Co-founder & Director Vitus Care
- Dr. Narayan Pendse, Vice President, Medical Strategy & Operations, Fortis Healthcare
- Mr. Manish Sardana, President, PolyMedicure Limited



*Experts during the panel discussion*



# Achieving Universal Health in Dialysis Through Strategic Public Private Partnership

While talking about dialysis delivery in India, it is first important to estimate the demand for dialysis in the country. Almost 85% of the patients who need dialysis today in India do not receive treatment in time. Only 15% have adequate access, which shows that demand side versus the supply gap is tremendous. The PMNDP (Pradhan Mantri National Dialysis Program) is accessible only in few states. There is a significant lack of supply and it's primarily driven by affordability and access to the majority of the dialysis centre. The quality capacity is highly acute to the top 20 cities.

## **Collaboration of private sector & government to meet the dialysis requirement**

Invest areas to fill the capacity is a big challenge for the government. India's renal registry study is done every 5 years on a larger scale, but the ESRD population is mapped on district levels. The session discussed how the government can undertake the study of these clusters in each district. For any PPP to work effectively, the reach should go to the deepest part. Experts spoke how every taluka needs to have 3 dialysis centres with a minimum of 8-10 beds capacity in order for it to sustain. An average patient cannot pay Rs. 10,000 rupees per dialysis and thus the cost factor should be considered. India stands 138th in the global per capita income index, and hence the country needs to figure out an efficient way by which these beds could bring a balance between the affordability and the sustainability.

Approximately 60% of the patients travel more than 50 kms to access dialysis. Now that India's renal registry is set in place and the clusters are identified, then the country should move ahead and create models for the larger units. Once the renal registry mapping is done, the government can strengthen the capacity using a well designed private sector, which is more cost efficient. The private sector can bring in speed and efficiency to deploy additional capacity, and raise funding from private equity venture capital to ultimately create a massive impact. It is certain the well designed PPPs are the answer to address this demand-supply gap.

## **Way forward for achieving Universal Health in dialysis through PPP**

PPP is the answer for achieving Universal Health in dialysis in India. Dialysis is a chronic expansion from a patient's perspective. Many PPPs are ongoing in India since the last decade, but only lately have some of them have really brought together significant designs and impacts.

For instance, India has partnered with Uzbekistan PPPs to redefine dialysis there. India's healthcare experts designed a PPP model and worked with the Philippines their patients. The same model could not be implemented in India due to design and implementation hurdles. There needs to be a well designed PPP from a capital investment perspective, considering that the dialysis machine accounts for the majority of the spend structure machines, and further needs are of a RO plant, beds and so on. Well designed PPPs will insert a 10 year tenure. It can be 8+2 if there are no problems for the next 2 years.

# Achieving Universal Health in Dialysis Through Strategic Public Private Partnership

Secondly, the balancing between how far the patient has to travel versus how affordable it gets from the expenditure perspective becomes important. Hence, the most important recommendation is to create a large hub in the district headquarters with 25 machines. It is a dismal condition that only 50 out of 315 dialysis centres are functioning in a PPP model in India.

The currently-running PPP centres are at full capacity, and many are running for fourth cycles, which means patients come at 10 p.m. in the night and leave at 2:00 a.m. in the morning. This is exactly why the country needs the big hubs with more beds and better machine design features.

## Tackling the reimbursement issues

On an average, dialysis centres get payment in 8 months with a reimbursement level at 115th price. The working capital burden is high, the reimbursement has to be timely for the private sector to proactively participate in the final design element. There is a fundamental flaw in the system, which gives birth to 'no accountability' on the safety aspect of dialysis service providers. Dialysis can be risky for patients' lives. There should be accountability of the government, the regulatory body, the stakeholders, accountability for service providers or clinical safety.

## Challenges faced by the private sector in delivery dialysis

**Lack of skilled manpower:** One of the major challenges that service providers are facing is lack of skilled manpower in the country, whether it is the dialysis technician or the dialysis nurses or even the dialysis physician. There is a huge gap in supply and demand in terms of nephrologists. Dialysis analysis centres require periodic visits of doctors once in 7 to 14 days, but dialysis technicians and dialysis nurses are in scarcity and their knowledge is a big challenge. The dialysis whitepaper released during the summit suggests various short-term and long-term recommendations, NATHEALTH's stakeholders, in collaboration with the government can chart out further strategies basis the roadmap recommended.

**High custom duty on imported items:** The other challenge is related to the high custom duty on the materials and equipment imported for dialysis. There is about 7.5% custom

*Mr. Vikram Vuppala  
Founder & Chief Executive Officer, NephroPlus*

*The herculean problem will be solved once the Renal Registry is made, the clusters are identified and models are created for larger units. The private sector is capable of funding from private equity venture capital and creating a massive impact.*

*Mr. Bhaskar Guha  
Managing Director & Country Manager,  
Fresenius Medical Care India Private Limited*

*Learnings from the past suggest that we must focus on affordability and space. The government must focus on the G20 of medical devices and healthcare. The standardization needs to be affordable. If some of these prerequisites are met, all our plans will be successful.*



# Achieving Universal Health in Dialysis Through Strategic Public Private Partnership

duty the government has imposed on the import of key dialysis materials. Make in India is a challenge, whether it is a dialysis machine or spares.

**High cost of delivery:** Another factor is the input of dialysis material in US dollars. This is almost triple and it shows the huge challenge on the supply chain and high cost of delivery coupled with the low price points in our country.

As of 2021, even in a country with a similar economy as India, like Thailand or Mexico, the reimbursement for the patient was tuned per session, which was about 150 to 200 USD whereas in our country, this was as low as 25 USD. Taking the example of Bangladesh, their government allocates about 4000 USD per year for a dialysis patient, whereas in India it is about 2400 USD. This is a significant gap. The high cost of delivery and very low price margin of the business enhances sustainability.

**Lack of patient awareness:** This point is a very critical issue because the government has done a tremendous job in terms of making the population aware of tuberculosis. Now, if a patient is made aware jointly by the government as well as the service provider on the necessity of dialysis treatments, it would be extremely beneficial. Patients from the rural areas are reluctant in visiting the dialysis centres and care unable to make it even once in a week. The challenge remains to bring them to the centres thrice in a week for dialysis.

**Inadequate quality parameters:** There is lack of defined quality parameters and lack of proper measurement systems for the outcomes in the labs. It's important to understand whether it is a PPP program or a government scheme, to justify public spending, there has to be equally justified and measurable clinical outcomes.

**Erratic payment timelines:** The other challenge is the erratic payment timeline that needs to be dealt with, in order to create an efficient system.

## Issues that prohibit patients from undertaking dialysis

**Affordability:** The primary reason remains affordability. Taking an even rate of about 500 to 1000 rupees per day through the Ayushman Bharat Scheme, a patient requires 18,000 rupees a month just for the cost of dialysis. It doesn't include the cost of medications and the lab test to the patient. Adding that expense to 18000 comes to 25000. This is

*Mr. Indranil Roy Choudhury  
Group Chief Executive Officer, Apex Kidney Care Private Limited*

*Kudos to the government for ramping up the number of nephrologists in the country. There is a very clear need to cut concise programs to scale the available resources.*

*Dr. Saurabh Pokhriyal  
Nephrologist, Co-founder & Director, Vitus Care*

*The urea reduction is a very simple test of urea level which is taken before dialysis and at the end of the dialysis, which indicates the reduction of urea that may have occurred. All Indian hospitals providing this service are flourishing, providing a better-researched take on an individual's medical situation.*

# Achieving Universal Health in Dialysis Through Strategic Public Private Partnership

reason why many patients in India who are not covered by any insurance or some government schemes can't afford it.

In some states like Chandigarh and Kerala, the cost of dialysis is subsidized by the government by nearly 3000 rupees per dialysis session for every patient. However, the patient's payment for transport and other expenses adds to almost the same number. So the patient pays nearly 2000-3000 rupees out of their own expenses.

**Accessibility:** The second issue is accessibility. Most of the patients especially in rural areas don't have access to dialysis centres nearby and they are not able to sustain this for a long period of time. If a patient has to travel 120 kms back and forth for the dialysis, the family ends up in a financial crisis, and this derails the whole process.

India has about 2,20,000 patients who require dialysis, but in the long run only 20,000 had renal replacement therapy. It is not just dialysis or a transplant, nephrologists say they are unable to even follow up 2,00,000 patients, which essentially may point that these patients did not survive and these numbers are adding up every year.

By the end of this year, the government has plans to cover every district by the Pradhan Mantri National Dialysis program, and have a larger number of patients. Also, there is a need to make dialysis affordable and accessible for all.

## Ensuring dialysis standards in reducing the mortality associated

While there is an acute problem of a wide gap of access centres across the length and breadth of the country, it's equally important to care for quality standards and safety standards. There are various stakeholders including dialysis technicians, dialysis providers and also various forearms. Need of the hour is a source which defines standards related to facility, infrastructure and standards related to drugs and consumables.

NABH has already formulated one set of dialysis standards, in which NATHEALTH and its stakeholders were also key role players. The standards now also need to extend and implemented for dialysis under homecare, hospital based and even standalone centres.

*Dr. Narayan Pendse*  
Vice President, Medical Strategy & Operations, Fortis Healthcare

*It has been beneficial to create awareness among the patients as well as the healthcare providers about peritoneal dialysis. The government has increased the number of CAPD bags available in hospitals, this has helped in driving forward the peritoneal dialysis initiative as a part of the One Nation, One Dialysis program.*

*Mr. Manish Sardana*  
President, PolyMedicare Limited

*When MedTech is made more accessible and affordable, only then can the dialysis procedure also be accessible and affordable. The government is now creating high demand for MedTech; it is also important for awareness to be spread on how to use the same.*

# Takeaways

## Plenary Session

- Collaborate with industry stakeholders and government entities to improve access to dialysis through strategic public-private partnerships.
- Foster innovative and cost-effective dialysis solutions through collaboration and partnerships to enhance sustainability for service providers.
- Address the shortage of skilled manpower in the dialysis sector through training programs for technicians, nurses, and physicians.
- Improve accountability and safety standards for dialysis service providers to ensure high-quality care and minimize patient risk.
- Utilize artificial intelligence (AI) and machine learning (ML) to analyze patient data for personalized and efficient care.
- Encourage use of 3D printed personalized implants and devices for more effective treatment.
- Develop gene therapies and promote preventive care programs through collaborative approaches.
- Wearables and sensors enable real-time monitoring of vital signs and medication adherence, leading to proactive care.
- Reduce custom duties on imported dialysis materials and equipment to make them more accessible and affordable to patients.
- Promote information exchange and streamline administrative processes through the use of blockchain technology.
- Achieve universal access to dialysis and improve health outcomes for patients with kidney disease.



# Plenary Session

HEALTH FINANCING

# Introduction



*Mr. Sunil Thakur*  
*Treasurer, NATHEALTH & Partner, Quadria Capital*

Health financing is a crucial aspect of building a sustainable and effective healthcare ecosystem. It involves creating the necessary insurance and financing infrastructure to ensure that individuals have access to affordable and high-quality healthcare. By enabling healthcare financing, we can make a vast difference in our economy, leading to positive economic progress.

In emerging markets like India, where a large percentage of the population lives below the poverty line, healthcare financing can be a game-changer. The government's focus on creating the right ecosystem for healthcare and universal healthcare has made healthcare financing more critical than ever. To enable any economy to progress in the right direction with healthcare financing, three key factors must be considered.

The first factor is finance. It involves ensuring that the population puts money into individuals' pockets to finance their healthcare needs. Governments and private healthcare providers must work together to create affordable healthcare financing options that cater to everyone's needs. This ensures that people can access healthcare services when they need them without incurring high costs.

The second factor is infrastructure. Creating more infrastructure, especially in locations that need it the most, is crucial to improving access to healthcare services. Governments and private healthcare providers must work together to create healthcare facilities and medical equipment in areas that are underserved, such as rural areas.

The third and most crucial factor is creating a self-sustaining model for healthcare financing. This means creating a model that can manage high-quality, outcome-based healthcare and provide affordable healthcare services. To achieve this, governments and private healthcare providers must work together to invest in technology, research, and development to improve healthcare services' quality.

## Leaders Speak

"Value-based payment models is an important aspect of improving the health financing perspective in India."



**Mr. Ashish Rampuria**  
Director, PwC

*There are multiple models established in India that are now moving toward value-based care, including capitation payments to public hospitals and incentives for insurance companies. Health financing requires collaboration between providers, insurance companies and the government.*

The health financing perspective in India is complex and multifaceted, and there are several agendas that need to be addressed in order to improve the health care system. One of the major challenges is the shortage of hospital beds, with only one bed per 1000 people, which is lower than the global average of 2.7 beds per 1000 people. This shortage of beds is compounded by the fact that hospitalization rates in India are expected to increase to 7-8%, which is an alarming rate.

Another major challenge is the lack of health insurance coverage for a significant portion of the population, with 30% of the population not covered by any health insurance schemes. This leads to a high out-of-pocket expenditure of 48%, which can be a significant financial burden for many people. In order to bridge this gap, it is essential to find innovative solutions that can leverage existing government schemes like PM-JAY and provide affordable products to patients. Self-help groups and quotes can also be leveraged to minimize the risk of adverse collection.

Moving toward value-based payment models is another important aspect of improving the health financing perspective in India. This involves shifting from a fixed-pay-for-service model to a model that is focused on patient outcomes and quality of care. There are multiple models established in India that are now moving toward value-based care, including capitation payments to public hospitals and incentives for insurance companies.

Overall, improving the health financing perspective in India is a complex task that requires collaboration between providers, insurance companies, and the government. It is important to address the shortage of hospital beds, expand health insurance coverage, and move toward value-based payment models in order to improve the quality and affordability of healthcare for all Indians.



## Leaders Speak

"Economics as a discipline subscribes to the fact that supply of essentials creates its own demand."



**Mr. Rajib Kumar Sen**  
Senior Advisor, NITI Aayog

*The PPP model is workable and makes sense theoretically but needs to be implemented efficiently. The efficiency and the efficacy lie in how the risks are mitigated and innovative ways to get over those risks and problems. Having a dedicated doctor per facility is not important, they can be moved around within the vicinity as well.*

VGF (Viability Gap Fund) schemes need to be analyzed on the basis of two aspects, one, is the framework of the scheme and the second are the implementation aspects. The VGF is more functional in sectors like transportation rather than the social sectors like health education. The VGF exists for CapEx and OpEx as well, because the government was unaware of the issues faced by the social sector which is why the CapEx and OpEx subsidy is up to 50% for 5 years.

The efficiency and the efficacy lie in how the risks are mitigated and innovative ways to get over those risks and problems. If in each area there are 4-5 VGF schemes that are built and used efficiently then they get the economics of scale.

There are multiple issues on the level of implementation. Payments are not made on time in many instances, people are left waiting for months at a stretch. These problems need to be addressed at the contract level itself and a committee needs to be set up to address these issues as well. The issues, right now, are not included in the VGF funded PPPs we seen in India.

Economics as a discipline subscribes to the fact that supply of essentials creates its own demand. There is a lack of quality hospitals in tier 2 and tier 3 cities, and the shortage of medical care in these cities exists at a high level. Good facilities need to be developed, which cannot occur instantly, they need to happen slowly but steadily in order to bridge the gap. The government needs to get capital to establish medical schools and hospitals, and both expertise and capital are to be shared equally in proportion within the PPP framework. The PPP model is workable and makes sense theoretically, but needs to be implemented efficiently.

# Plenary Session II

## Panel Discussion I - PPPs (VGF) in Healthcare for Infrastructure Creation

Moderator: Mr. Mohit Khullar Managing Director, o3 Capital

### Experts:

- Ms. Visalakshi Chandramouli, Founding Partner, Tata Capital Healthcare Fund
- Mr. Pankaj Sinha, Investment Officer, IFC, International Finance Corporation
- Dr. Pranav Mohan, Lead - South Asia, Health & Education Investments Unit, Private Sector Operations Department Asian Development Bank
- Mr. Saurabh Suneja, Principal, National Investment & Infrastructure Fund (NIIF)
- Mr. Arpan Malhotra, Senior Vice President, Zone India, Healthcare Strategy & Business Development, Siemens Healthcare Private Limited



Experts during the panel discussion

## PPPs (VGF) in Healthcare for Infrastructure Creation

### Key Challenges in the PPP viability funding scheme

VGF (Viability Gap Fund) is an interesting scheme but not enough to hang the code. When structuring a PPP, it is essential to make models that are fundamentally more attractive, so that showing it to the private sector will ensure success, also maybe to reform wholesale changes could be beneficial.

The PPP in Bihar was envisioned to be a metro-city level project, and when it was started, two important political challenges were faced. It is important to not treat healthcare super speciality hospitals as normal infrastructure projects. For a road project, the key players are contractors, investors and other bureaucratic agencies. However, in a healthcare set up the enterprise is mostly private. It is important to pitch interesting incentives to investors for them to show interest. It is a long-term risk.

The key to establishing a successful PPP in the health sector is to strike a balance between the governmental bureaucratic needs and private sector expectations. Even when making beds, oxygen and other essentials in the hospital need to be accessible and subsidized to the middle and lower class. When there is an emergency, nothing is accessible in reality, which is why being realistic about subsidies is beneficial. It ensures that investors are not being led on, the work is clean and a reasonable negotiation can take place.

There is no set definition of subsidy but there are beds assigned under the CGHS (Central Government Health Scheme), that are reimbursed by the government. It is better to subsidize under the scheme rather than take it on upon the hospital because there will always be debate about what subsidized means.

### How to deal with clients that are PPP focused

PPP has had immense success in sectors like road, sports, and airports. The government's intention is accessibility and affordability. The private players want reasonable minimum profit and real profit. There is always a risk that the state might get caught up in bureaucratic formalities and their payment may be stalled or delayed. This is why establishing a Special Purpose Vehicle (SPV) is necessary, it ensures the private players are guaranteed to receive money.

*Ms. Visalakshi Chandramouli*  
Founding Partner, Tata Capital Healthcare Fund

*The investment in PPPs of cities in South India proves how successful a balance between private players and the government can be. The PPP businesses have turned out to be more successful than the non-PPP businesses and have reached their full capacity and extent.*

*Mr. Pankaj Sinha*  
Investment Officer, International Finance Corporation (IFC)

*PPP in the health sector works very differently from the transport or IT sector, and this a big learning for the key players in the health financing business. The stakeholders, the hospitals and the government are all equal players while establishing a PPP business. Which is why subsidization should be paid attention to.*

## PPPs (VGF) in Healthcare for Infrastructure Creation

When a health enterprise is calculating the number of tests and patients and the approximate expenditure and accounts overall, it is important to keep the private players in the loop. A minimum guarantee may be far-fetched but then the rates need to have some correlation with the volume. Changing the number of patients will automatically guarantee the contract providers for the concession agreement providing the mechanism of the rates undergoing a change with service of volume.

### Infra-creation in the healthcare sector

It is important to keep building hospitals but it is very different to run a hospital after building it. From an investor perspective, investing in companies high in the green field component. There is avoidance of such companies where there is a clash causing problems in the timeline of the payback. Which is why it is beneficial to divide this project into two parts, one being the infrastructure and other being the delivery component.

Infrastructure is an avenue that India is good at, there are big game players that could essentially build great quality hospitals with investment even from the government. This would encourage private investors to invest in the PPP projects situated in difficult areas. Right now, the investment happening in urban areas where the profit maximization is high and guaranteed but there is a need for this investment in the less developed area as well.

Innovative ideas like creating SPV's for the area are needed now more than ever. The key is to keep the investors involved from the first stage itself. There is no point in involving them after the building is already standing, it is encouraged to bring the players at the earliest stage. An example of this is in Jharsuguda by the Government of Odisha, where the private investor came in as a PPP.

### State level schemes

The UP-government's policy draft highlights the positive aspects of a VGF (Viability Gap Funding), which is still in the early stages of establishment. It is important for state governments to establish the viability of private players to invest in infrastructure projects through PPPs (Public-Private Partnerships). Rather than coming up with an entirely new VGF, it would be beneficial to cover and deal with existing issues and improve the already existing VGF. PPPs need to be utilized to their maximum potential to ensure efficient and effective implementation of infrastructure projects.

*Dr. Pranav Mohan*

*Lead - South Asia, Health & Education Investments Unit, Private Sector Operations Department, Asian Development Bank*

*From an investor perspective, it is beneficial to invest in a business that has a big green field component as well. Dealing with the infrastructure and the delivery component needs to be dealt with differently.*

*Mr. Saurabh Suneja*

*Principal, National Investment & Infrastructure Fund (NIIF)*

*It is important to structure a PPP which is attractive and can attract a lot of attention from investors. I think the PPPs should utilize the VGF schemes instead of creating a parallel PPP at the state level.*

## PPPs (VGF) in Healthcare for Infrastructure Creation

### Investing in a PPP business

Investing money in a PPP business can be complicated, there is direct contact with the government so there are some money constraints at the bureaucratic level. Even when the money is invested, there are delays for beyond 2 years which becomes complicated for private parties.

It is important to analyse which side the business is tilted towards, the government or the private party but more importantly, is it balanced enough to get a good return on the investment in 3 or 5 years. There is contracting of technical and legal capabilities but before that it is important to strike a balance in the investment with both the partners before negotiating a PPP contract. Moreover, it is essential to look at the exit criteria when looking for another investor. How will that investor look at this company and will it grow exponentially in 4-5 years?

Despite the Pradhan Mantri Jan Aarogya Yojna (PM-JAY) covering 500 million people, there are still issues with out-of-pocket expenditure, which accounts for 68% of healthcare expenditure in India. This means that there is a significant population of 1.4 billion people chasing after only 1.5 million healthcare providers. The private sector has stepped in to cover the remaining population through innovative products and marketing packages. However, there are still challenges, such as affordability and adverse selection, which limit the reach of these products to only 11% of the population.

Another important aspect is the lack of awareness among the population about the existence of these schemes. Private colleges have adopted a subscription model, where they treat people in villages adopted by the institution, which has been effective in increasing awareness and access to healthcare.

While the private sector has the potential to bring efficiency and address challenges in the healthcare system, it remains to be seen whether they will step up and take action. It is crucial to reduce out-of-pocket expenditure and increase awareness about healthcare schemes in order to fully realize the benefits of PM-JAY and other healthcare schemes in India.

*Mr. Arpan Malhotra  
Senior Vice President, Zone India, Healthcare Strategy &  
Business Development, Siemens Healthcare Private Limited*

*The investors should be informed about the complications at the earliest, rather than involving them at a later stage. An excellent example is the project in Jharsuguda by the Government of Odisha, which was very successful at the regional level.*



## Plenary Session II

### Panel Discussion II - Leveraging the Network to Cover the Missing Middle & Linking Reimbursement to Health Outcomes

**Moderator: Dr. Rana Mehta Partner & Leader Healthcare  
PricewaterhouseCoopers Services LLP**

#### Experts:

- Dr. K. Madan Gopal, Senior Consultant, NITI Aayog
- Mr. Gautam Chakraborty, Senior Health Finance Specialist, USAID
- Mr. Amitabh Dube, Country President, Novartis India
- Dr. Raajiv Singhal, Founding Member, Managing Director & Chief Executive Officer, Marengo Asia Healthcare
- Mr. Amol Naikawadi, Joint Managing Director, Indus Health Plus
- Mr. Mayank Bathwal, Chief Executive Officer, Aditya Birla Health Insurance



*Experts during the panel discussion*



## Leaders Speak

"An effective model is of private colleges' subscription model, where they treat people in villages adopted by the institution."



### **Dr. K. Madan Gopal**

Senior Consultant, NITI Aayog

*It is crucial to reduce out-of-pocket expenditure and increase awareness about healthcare schemes in order to fully realize the benefits of PM-JAY and other healthcare schemes in India.*

Despite the Pradhan Mantri Jan Aarogya Yojna (PM-JAY) covering 500 million people, there are still issues with out-of-pocket expenditure, which accounts for 68% of healthcare expenditure in India. This means that there is a significant population of 1.4 billion people chasing after only 1.5 million healthcare providers. The private sector has stepped in to cover the remaining population through innovative products and marketing packages. However, there are still challenges, such as affordability and adverse selection, which limit the reach of these products to only 11% of the population.

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While the private sector has the potential to bring efficiency and address challenges in the healthcare system, it remains to be seen whether they will step up and take action. It is crucial to reduce out-of-pocket expenditure and increase awareness about healthcare schemes in order to fully realize the benefits of PM-JAY and other healthcare schemes in India.

# Leveraging the Network to Cover the Missing Middle & Linking Reimbursement to Health Outcomes

## Predictability of costs and value for customers

Being a country with a very large population, India needs some kind of health cost financing mechanism. There is a need to look at product awareness for the missing middle class for the health insurance. In order to solve the problem of the missing middle, various initiatives were created like the Arogya Sanjivani, however these did not pick up. In order for these initiatives to be successful, awareness has to be created jointly by the industry.

- A role can be played by the government in creating awareness and contributing to popularizing the product and making it affordable and accessible to the masses.
- For the agencies (cost of distribution and healthcare delivery) at play, it is important to keep in mind that predictability and affordability of the product matter to the consumer.
- A recent study done by IIB (Insurance Information Bureau) under IRDA (Insurance Regulatory and Developmental Authority) which looks at all the data shared by the industry; about 25% of the insurance cost payment is under a short-based system. It is suggested to leverage the public properties in assets that have already been created by schemes like PM-JAY.
- To address the issue of out-of-pocket expenditure, it is necessary to focus not only on hospitalization costs but also on out-of-hospital costs, which account for 68% of healthcare expenditure in India.

## Controlling costs

The health sector is the pertinent sector in how to look at finance. There are different ways of doing it, by procuring the public systems, public institutions and the government weather.

The focus is to purchase certain health outcomes through multilateral agencies and donor communities and these outcomes are important to achieve. It is financed through different equipment, drugs and hospitals. This process is not as simple as procuring goods and services, procuring outcome in terms of impact is a different ball game altogether.

*Mr. Gautam Chakraborty  
Senior Health Finance Specialist, USAID*

*There are different ways of health financing and it includes procuring, involving the public systems, public institutions, and the government. It is also about the donor community, the multilateral agencies, who are all involved in the purchasing that leads to certain health outcomes.*

*Mr. Amitabh Dube  
Country President, Novartis India*

*The important part is that we are making significant progress and I must complement the government for establishing health technology assessment of India, which is looking into a value based approach for the sector.*

## Leveraging the Network to Cover the Missing Middle & Linking Reimbursement to Health Outcomes

A project was undertaken to impact maternal health globally, the intention was to save lives however, a lot of time was spent on monitoring the hospital system and clinical process. This process indicates that to procure outcomes, negotiations have to be initiated; a lot of communication has to be developed between the partners of the public systems whereas the private sector has a different form of functioning.

### Affordability and availability of the right drugs

The session gave an example of Novartis, a drug company based out of Switzerland, which is operating in 170 countries including India tries to develop a global drug. It is believed that innovation can be successful if it can be accessed by the majority of the population. This company provides innovative therapies. A global flagship programme that features sickle cell disease, leprosy and malaria has helped to raise 250 million dollars for Malaria and other tropical diseases.

The drugs are accessible to the wider population through the governments and private partners' innovative access. The three basic pillars of this process are, Reimbursement; the idea is to move away from value-based reimbursement to a national reimbursement drug list. Second is participating with private insurance providers to have therapy-based innovative based health insurance available. This therapy-based along with innovative therapies are packages that are available today. Lastly, to use the enormous knowledge capital that exists within this country, there must be development of innovative funding schemes.

### How to develop high quality drugs at an affordable rate

- The three major components to build an accountable healthcare system are affordability, accessibility and awareness. The fourth unit is where all these axes will rotate.
- In order to build a successful platform, the healthcare system needs to establish accountability to the society, accountability to the patient and accountability to all the stakeholders.
- The missing middle cannot even afford to enter the OPD, which is extremely vital for the survival of many.

*Dr. Raajiv Singhal*  
Founding Member, Managing Director & Chief Executive Officer,  
Marengo Asia Healthcare

*The point of question today is where is the missing middle segment which is sitting at a 40 crore people volume, which is a high number. Not just this, a monolith of multiple segments are missing in terms of the expenditure strata.*

*Mr. Amol Naikawadi*  
Joint Managing Director, Indus Health Plus

*Even when the PMJAY scheme was launched, the government tried to give importance and emphasis on the standardization of wellness centres, which is equally important, otherwise if you just create a product in different price points, then it won't work in a country like India.*

## Leveraging the Network to Cover the Missing Middle & Linking Reimbursement to Health Outcomes

- Even with the development of a reasonable insurance policy, attention needs to be paid at making it fool-proof and trustworthy because they have been denied access to essential healthcare.

### **The development of a preventive component.**

The product cannot just be sold as a marketing pitch after a person has been diagnosed. With the establishment of the PM-JAY scheme, camps and early detection centers have been set up. However, there needs to be an effective preventive healthcare measure and plan in place which educates the people about the various needs of early prevention.

*Mr. Mayank Bathwal  
Chief Executive Officer, Aditya Birla Health Insurance (Virtual)*

*One important factor in the question of affordability and the predictability for the consumer is that, what eventually gets priced in the product is a cost of distribution and the cost of healthcare delivery as well.*

# Takeways

## Plenary Session

- Healthcare infrastructure creation should be divided into infrastructure and delivery components.
- India has potential for infrastructure creation through government and private investments in PPP projects.
- Innovative ideas, such as creating SPVs, are needed to encourage investment in healthcare infrastructure.
- State governments should establish the viability of private players to invest in infrastructure projects through PPPs.
- PPPs need to be utilized to their maximum potential for efficient and effective implementation of infrastructure projects.
- Striking a balance in investment with both partners is important before negotiating a PPP contract.
- India faces challenges in healthcare access due to a large population chasing a limited number of healthcare providers and out-of-pocket expenditure.
- Private colleges have adopted a subscription model to treat people in villages, increasing awareness and access to healthcare.
- The private sector has the potential to bring efficiency and address challenges in the healthcare system.
- Affordability and availability of the right drugs is a challenge in India's healthcare system.
- Innovative therapies and funding schemes are required to make drugs accessible to a wider population.





# Plenary Session

PATHWAYS TO SCALING UP  
DIGITAL HEALTH ADOPTION

# Introduction



*Mr. Sanjeev Malhotra  
Chief Executive Officer, Centre of Excellence for IoT & AI, NASSCOM*

India's startup ecosystem has been thriving in recent years, with approximately 3000 deep tech startups spread across different sectors and growing at an impressive rate of 10%. Of these startups, around 500 are dedicated to healthcare technology, with a majority of them working on different areas such as diagnostics, curatives, patient care, hospital optimization, digitization of various processes, radiology, and image recognition.

The willingness of healthcare providers to work with digital solutions is also increasing, and the government's initiatives have helped lay the foundation for this transformation. The opportunity to work with different states and institutes in terms of the adoption of digital solutions is further helping to change minds.

A hospital in Punjab had long been facing a significant problem with cervical cancer and after working with hundreds of innovators and startups, a solution was discovered by means of a handheld device developed by a Pune-based company. The device enables paramedics to easily screen women in villages and detect cervical cancer early on and efforts are going on to adopt this solution in Punjab and spread it to other districts.

In the field of eye care and ophthalmology, glaucoma was a major cause of concern as it could lead to blindness and affect people's livelihood. However, an AI-driven handheld device based in Bangalore can detect serious eye disorders with a simple image in just two minutes. The importance of working in unification is emphasized to have wider recognition and adoption of these solutions as it would have an impact at all levels.

These solutions are not just limited to remote areas as some of the largest companies in the world are also eyeing them for the benefit of the public at large. These companies have taken up solutions from startups for remote training of their salesforce in the times of COVID and the adoption of solutions ranging from AR/VR solutions of remote working to AI predictive and image recognition when it comes to imaging.

The healthcare sector in India has immense potential, and by collaborating and sharing ideas, we can help advance the healthcare industry and address the common health concerns faced by women and other vulnerable groups.

## Leaders Speak

"To incentivize the adoption of digital health solutions, the NHA has launched the Digital Health Incentive scheme."



### **Shri Kiran Gopal Vaska**

*Executive Director, IT policy & Coordination,  
National Health Authority (NHA),  
Government of India*

*Ayushman Bharat Digital Mission (ABDM) seeks to break the current scenario of using the same application to consult a doctor. The success of the ABDM mission has been significant, with nearly one million people using the QR code system in 437 hospitals in 27 states.*

The Ayushman Bharat Digital Mission (ABDM) is a pioneering initiative by the Indian government aimed at creating a national digital health ecosystem. The mission seeks to achieve universal health coverage by incorporating all types of users and stakeholders. The ABDM mission follows certain technology and policy-level decisions or frameworks to achieve this goal.

- The mission's building blocks include registries that create a single source of truth.
- The mission also uses open APIs and interoperability to create an ecosystem of partnerships and buy-in from stakeholders. The India Enterprise Architecture Framework guides this entire policy side, privacy, and security by design.
- The ABDM mission aims to move from a disease-centric approach to a wellness-centric approach that is more holistic in nature.
- The mission seeks to achieve interoperability of health data, health claims, and services. The goal is to seamlessly flow health data from one entity to the other with the patient's consent to provide the best possible care.
- The mission aims to digitize health insurance and reduce processing time and costs.

In addition, it seeks to break the current scenario of using the same application to consult a doctor. The mission seeks to allow patients and doctors to use the app of their choice to find each other, book services, avail of services, and pay for them.

The Unified Health Interface and its role in the digital mission can improve the Indian healthcare ecosystem. The unique ID, Ayushman Bharat Health account, professional registry, and facility registry serve as the single source of truth that gives credibility to ecosystem players. To incentivize the adoption of digital health solutions, the NHA (National Health Authority) has launched the Digital Health Incentive scheme. Under this scheme, healthcare providers, diagnostic labs, and digital solution companies are rewarded for linking records. The NHA is also planning targeted outreach programs to promote the adoption of its digital health solutions.

## Leaders Speak

The success of the ABDM mission has been significant, with nearly one million people using the QR code system in 437 hospitals in 27 states. The implementation has saved users at least an hour and a half and has resulted in increased usability and stickiness, with 40% of users being second-time users. Partnering with NGOs, healthcare providers, and insurance companies can demonstrate the benefits of digital health solutions to the public. Finally, regulatory and accreditation bodies must clarify their role in the digital health space and work together to bring about appropriate regulations.

Thereby, the ABDM mission has the potential to transform healthcare delivery in India by creating a national digital health ecosystem. The mission's focus on interoperability, privacy, and security by design, and incentivizing adoption of digital health solutions are key to its success. Partnering with stakeholders and regulatory bodies can further promote the adoption of digital health solutions and bring about appropriate regulations.

## Leaders Speak

"The current pace of digital health adoption suggests that India could have over 1 billion digital health users by 2030."



### **Mr. Barnik Chitran Maitra**

Managing Partner,  
ADL India & South-East Asia

*The survey conducted by ADL shows that consumer demand for digital health solutions is high, with similar percentages of demand being observed across Tier one, Tier two, and Tier three cities.*

The use of digital health solutions in India has seen a significant increase in the past year. According to a survey conducted by ADL (Arthur D. Little), the use of digital health solutions has increased from 64% to 67% in the past year. This means that 50 million new users have used some kind of digital solution in the past year. This pace of adoption suggests that India could have comfortably over a billion digital health users by 2030. The most popular uses for digital health solutions are online pharmacies, health records, online physical consultations, home health and recovery management, and some e-diagnostics.

The survey conducted by ADL shows that consumer demand for digital health solutions is high, with similar percentages of demand being observed across Tier one, Tier two, and Tier three cities. In fact, in some cases, the adoption and awareness of digital health are higher in smaller cities than in larger cities. The demand exists across urban and rural areas in India.

### **The mapping index**

To determine who has adopted digitization and to what extent, the team at ADL developed an index. The index is a simple ten-point scale, where ten represents near-perfect digitization and zero represents no digitization. Based on the index, they mapped the full ecosystem of the private healthcare industry in India and found that nearly 90% of the industry has very little digitization today.

Large branded hospital chains account for only 10% of the private healthcare space but have adopted digitization, with a rating of seven to eight on the index. Large public hospitals and units have also adopted some basic sense of digitization, with a rating of five to six. Primary health centres fall between two to three on the index. However, digital adoption is lacking in small private hospitals, unorganized senior care, home care, and small private diagnostic labs.

Despite the fact that large hospitals have adopted digitization, not all of them have fully



## Leaders Speak

integrated with ABDM. This may be due to the lack of awareness of ABDM, the lack of incentives, and the absence of an interoperable system.

### Key drivers of digital health

The report also highlights that the majority of the sample recognized the value of personal health records, but only 10% were willing to pay for that functionality. As awareness and functionality increase, however, more people may be willing to pay for it.

The ADL survey suggests that there is significant demand for digital health solutions in India, but there are still many barriers to adoption, particularly in the private healthcare industry. However, the increasing adoption of ABDM suggests that the industry is moving towards an integrated digital health system, which may lead to improved healthcare outcomes for all.

One of the key drivers for the adoption of digital health solutions is the Ayushman Bharat Digital Mission (ABDM). The mission aims to create a national digital health ecosystem that achieves universal health coverage. The building blocks of registries come into the picture to create a single source of truth. The mission uses open APIs and interoperability to create an ecosystem of partnerships and buy-in from stakeholders. The India Enterprise Architecture Framework guides this entire policy side, privacy, and security by design.

The ABDM mission aims to move from a disease-centric approach to a wellness-centric approach that is more holistic in nature. The mission aims to do three things—interoperability of health data, interoperability of health claims, and interoperability of services. The mission seeks to seamlessly flow health data from one entity to the other with the consent of the patient to provide the best possible care. The mission aims to digitize health insurance and reduce processing time and costs.

The ABDM mission also aims to allow patients and doctors to use the app of their choice to find each other, book services, avail of services, and pay for them. The Unified Health Interface and its role in the digital mission can improve

# Plenary Session

## Panel Discussion I - How Digital Technology Can Help in Reimagining Primary Care in Post COVID Era

**Moderator: Mr. Neeraj Jain Country Director, Program for Appropriate Technology in Health (PATH)**

### Experts:

- Mr. Girish Krishnamurthy, Chief Executive Officer & Managing Director, Tata Medical
- Mr. Prabhat Sinha, Director of Public & Government Affairs Boehringer Ingelheim India Private Limited
- Ms. Ruma Banerjee, Vice President, Ambuja Neotia Healthcare Venture Limited



*Experts during the panel discussion*

## How Digital Technology Can Help in Reimagining Primary Care in Post COVID Era

The COVID-19 pandemic has brought health equity to the forefront, exposing the disparities between those who can afford healthcare and those who cannot. This has led to a renewed focus on achieving universal health coverage, with primary healthcare being at the center of the call to action for the next few years.

### Making primary healthcare more patient-centric

- To achieve patient-centric primary healthcare, there is a need to bridge the gap using digital technology, particularly in situations where there are not enough healthcare providers and disparities exist between urban and rural areas.
- Digital technology is slowly bringing in the culture of doctors reaching out to patients, and patient-centric care is becoming a reality with the help of digital platforms like Practo.
- From creating an interoperable data exchange between two entities to using highly intelligent equipment for remote scanning, digital health can revolutionize healthcare delivery. However, in the context of India, the focus should be on creating a connected and continuous healthcare system that is proactive, close to patients, and patient-centric.

### Using digital technology to bridge the healthcare gap

India faces a unique challenge in healthcare delivery, with significant primary and secondary healthcare problems in rural areas and chronic lifestyle diseases in urban areas. Digital health can help solve these problems by providing connected, continuous, and proactive healthcare that is close to patients, both physically and digitally. This patient-centric approach is a significant shift from the traditional payer and provider-driven healthcare system.

Primary healthcare is an area where digital technology can play a significant role in screening and diagnostics, enabling early detection and treatment. The private sector is crucial in achieving universal health coverage in India, with 70% of the population accessing private healthcare providers. Integrating technology into the fragmented private healthcare sector presents opportunities to improve healthcare delivery and reach more people.

*Mr. Girish Krishnamurthy  
Chief Executive Officer & Managing Director, TataMedical*

*Digital health needs to be close to the patient - both physically and digitally, it should also be patient centric, and all inclusive so that it is easily accessible to the patients. India runs the risk of being one of the most obese country by 2030, and the only way we can solve health issues like these are by implementation and usage of digital health strategies.*

## How Digital Technology Can Help in Reimagining Primary Care in Post COVID Era

The use of digital technology in healthcare can significantly improve access to quality care and help bridge the gap between urban and rural areas. Digital tools can help in remote consultations, diagnostic imaging, and monitoring of chronic conditions, enabling patients to receive timely care without having to travel long distances to access healthcare facilities. The use of AI in healthcare can help in the early detection of diseases, providing personalized care, and improving outcomes.

Digital health can also help in addressing the rising problem of obesity in India, with over 430 million Indians expected to be obese by 2030. The use of digital tools and platforms can help promote healthy lifestyles, provide nutrition and exercise advice, and monitor progress toward health goals.

### Opening up opportunities & possibilities

The integration of digital health technologies into the private sector has opened up a whole new world of possibilities. From telemedicine to digital platforms that enable seamless communication and record-keeping, these innovations are transforming the way healthcare is delivered in urban areas. While there are some challenges that need to be addressed, the benefits of digital health in the private sector are undeniable.

One of the key areas where digital health can make a real difference is in direct patient care. Telemedicine has been around for some time now, but it has really come into its own since the onset of the COVID-19 pandemic. While it is true that telemedicine will never fully replace in-person consultation, it has become an invaluable tool for initial consultations and follow-up care. Patients can now easily connect with healthcare providers without having to physically visit their offices, saving time and money while still receiving high-quality care.

Another area where digital health is making a difference is patient engagement. From providing patients with information through digital media to scheduling appointments and managing post-discharge communication, digital platforms are making it easier than ever for patients to take control of their health. E-prescriptions, for example, are now commonplace in urban primary care settings, and digital record-keeping too.

### Tackling the accessibility issue

There is still much work to be done to ensure that digital health technologies are accessible to everyone, particularly in low-resource settings. While the cost of digitization can be a barrier, it is essential to make these technologies more affordable and accessible to all. This is particularly important for small healthcare providers who may not have the resources to invest in expensive digital health solutions. One potential solution is to focus on scaling up successful telehealth pilot programs that have already been implemented. While many pilots have not been successful in the past, the COVID-19 pandemic has highlighted the potential and scaling of telehealth. However, there are

## How Digital Technology Can Help in Reimagining Primary Care in Post COVID Era

still challenges to overcome, particularly in terms of bringing small providers on board. To achieve this, India needs to focus on making digital health solutions more affordable for small providers, who are a vital part of the healthcare ecosystem in low-resource settings. Patients are unlikely to pay extra for digitized services, so the industry needs to find innovative ways to reduce the cost of these technologies without sacrificing quality or effectiveness.

### Challenges in the adoption of Digital Solutions

**Perceived tax issues:** In the Indian healthcare sector, one of the most significant challenges faced by smaller healthcare providers is their reliance on the cash economy. Most of them hesitate to go digital due to perceived tax-related challenges. This has prevented the adoption of digital tools that can help provide better care to patients. However, the COVID-19 pandemic has brought to light the need for digital solutions in healthcare, and it is time to address these challenges and move forward towards a more digital healthcare system.

**Training:** Digital tools can also come in handy when it concerns training the healthcare workforce. The primary level is the base of our healthcare system, and nothing can work without it. However, before the pandemic, training in the healthcare sector required bringing people together in a room. This was the only way to train them effectively. With digital tools, it is now possible to refresh their learning frequently and in a more cost-effective manner. This is especially important in the case of medical professionals who need to be updated with the latest developments and best practices.

**Diagnostics:** Another important area where digital tools can be leveraged is in diagnostic and early diagnosis. Telemedicine and other technologies have made it possible to provide medical consultations to patients in remote locations, which has been particularly helpful during the pandemic. However, what is most important is the continuum of care. The post-COVID era has seen progress in this area, with assisted telemedicine and the ability to send reports from primary to secondary-level healthcare providers. Decision support systems are also critical in the healthcare sector. There have been a few pilots in the past that have demonstrated the benefits of using decision- support systems in the treatment of chronic patients.

*Mr. Prabhat Sinha  
Director of Public & Government Affairs,  
Boehringer Ingelheim India Private Limited*

*It is important to focus on the diagnostic and early diagnostic features of telemedicine and the most essential is the continuum of care. These practices need to be scaled up in order for them to reach more and more people.*

*Ms. Ruma Banerjee  
Vice President, Ambuja Neotia Healthcare Venture Limited*

*There is a paradigm shift when the treatment becomes more personalized and separate. If digital technology in healthcare provides authentic information, the patients get more inspired to make the right decisions*



# How Digital Technology Can Help in Reimagining Primary Care in Post COVID Era

At the primary level, there is often a significant difference in the standard of care provided to patients. Standardizing care at the primary level is essential to ensure that patients receive the care they need, regardless of where they are located.

## **Solving the problem of access and availability through digital health**

Digital tools also have the potential to transform primary healthcare for those who cannot afford it. India has a large population of 1.4 billion people, and providing equitable healthcare services to everyone is a challenge. The Ayushman Bharat program defines about 270 different healthcare services, with about 100 services falling under primary and secondary care in the public health system definition. This is a significant level of care that needs to be provided to the majority of the population. The use of digital tools can help scale up the delivery of these services to ensure that everyone has access to quality healthcare.

Administratively and technically, digital tools can be used to review and monitor healthcare programs intensively. This is especially useful in remote locations where access to healthcare services is limited. By leveraging digital tools, it is possible to bring quality healthcare services to even the most remote areas of the country.

The Indian healthcare sector has a long way to go in terms of adopting digital solutions. However, the COVID-19 pandemic has highlighted the need for such solutions. There are several areas where digital tools can be leveraged, including training, diagnostic and early diagnosis, continuum of care, decision support systems, and standardization. By adopting these tools, it is possible to provide equitable healthcare services to everyone in the country, regardless of their location or economic status.

## **Challenges in healthcare delivery**

**Demand-supply gap:** The healthcare system in most countries is facing enormous challenges, one of which is the overwhelming demand for care services. The statistics are alarming - 90% of healthcare services are rented, and whether it's public or private, that superset is correct. In such circumstances, a formula based on experience treating about 50 lakh patients has been proposed to improve efficiency at the primary healthcare level.

In the power sector, there is a term called 'load,' which refers to the amount of electricity that is consumed in a given period. Similarly, in healthcare, the term load refers to the number of patients who need care on any given day. Across any demographic, whether it's a city, rural India, or outside India, the per day load is about one to 1.25%. This means that for every 100 people, one to 1.25% of them require care on that day. Out of those, about 30-40% go to tertiary care, 30% to primary care, and the rest don't seek medical help.



## How Digital Technology Can Help in Reimagining Primary Care in Post COVID Era

**Transformations of public systems:** For a population of 25,000 people that require care on any given day, close to 78,000 people must go to the public health system. Unfortunately, unless primary and secondary care in the public health system is transformed, addressing the problem of overcrowding in hospitals will be difficult. Over 95% of care is given free by the government, but there is a major gap in the system. Citizens don't know how to seek care, and the Known Citizen Drive was created to address this issue. Instead of registering patients below the poverty line or a card, the government needs to know the citizens. The Known Citizen Drive program has been successful in bringing in 1.5 lakh people into the system in just one week. By connecting four points - network, process, people, and tech platform - a transformation technique has been created.

**Infrastructure barriers:** Healthcare is generally delivered with human resources and infrastructure, be it digital or not. With this technique, a network of infrastructure, people, and processes has been created. Additionally, reimagining the process in healthcare has been done by a management team, as opposed to just medical professionals. Another critical part of this transformation is the use of paramedics, not just doctors and nurses, to solve healthcare problems. By unleashing the potential of regular BSc graduates and giving them a digital platform to do non-clinical and administrative work, specialists' time is freed up. For instance, 52% of specialist time is spent on non-clinical activity, and 35% is spent on administrative tasks. With the help of Brigadiers, the workload on specialists can be reduced, and their time can be used to treat more patients.

**The technology layer:** The last transformation layer is the tech platform, which can revolutionize the public health system with primary care. The success of this technique has been seen in Karnataka, Himachal Pradesh, and Telangana, and work is ongoing with NHA and ABDM to see how it can be replicated nationwide.

One of the main ways to improve efficiency at the primary healthcare level is to leverage digital technologies and services. With the help of technology, healthcare workers can provide care services to more people without compromising quality. For instance, telemedicine can be used to provide remote consultations to patients, especially those in remote areas. Additionally, electronic medical records can be used to keep track of patient records, reducing the need for paper records.

The use of wearable devices can also be instrumental in collecting patient data and monitoring their health status. Patients can monitor their vital signs, blood pressure, and glucose levels using these devices, and healthcare professionals can use the data to provide more personalized care.

### **The paradigm shifts in personalized & participatory healthcare**

There's no denying that healthcare is going through a paradigm shift. Gone are the days

## How Digital Technology Can Help in Reimagining Primary Care in Post COVID Era

when treatment was a one-size-fits-all approach. Today, patients want personalized care that takes into account their unique needs and circumstances. Digital health has emerged as a game-changer in this regard, providing patients with accurate and authentic information that empowers them to make informed decisions about their health.

One of the biggest advantages of digital health is that it puts patients in control of their health. By providing access to test reports and other health information, patients can make timely and informed decisions about their healthcare needs. This, in turn, empowers them to seek out the right clinician at the right time, ensuring that they receive the care they need when they need it.

### **Efficiency in urban primary healthcare through digital health**

Digital health is particularly important in urban healthcare, where the population is growing at an unprecedented rate. Wearables like Fitbit have become increasingly popular, encouraging people to be more conscious about their health and take proactive steps toward prevention. In primary healthcare centres, the focus is on prevention, with digital tools enabling patients and caregivers to come together and take control of their health conditions.

Of course, there are challenges in adopting digital health in primary care. Budget considerations, for one, can make it difficult to provide affordable digital technology to patients. Moderating digital groups can also be challenging, with the risk of misinformation being spread. However, if digital health becomes more affordable and accessible, providers will be more likely to adopt it, creating a more participatory and personalized healthcare system.

One of the biggest problems facing healthcare today is access and availability. For every 1800 people, there is only one doctor. This ratio increases dramatically in rural areas, where access to healthcare is limited. Digital health can help address this issue by providing population-level screening for diseases at the primary healthcare level. Early screening can help diagnose chronic diseases and other health challenges before they become more serious, ensuring that patients receive the care they need at the right time.

Digital health is transforming primary care by empowering patients and enabling them to take control of their health. It is making healthcare more personalized and participatory, while also addressing challenges related to access and availability. By adopting digital health solutions, healthcare providers can provide patients with the care they need, when they need it, and ultimately improve health outcomes for all.

## Plenary Session

### Panel Discussion II - Key Challenges to the Digital Adoption in Hospitals, MedTech & Diagnostic Chains & How to Overcome Those Challenges

**Moderator:** Mr. Gautam Khanna, Chief Executive Officer, PD Hinduja National Hospital & Medical Research Centre

#### Experts:

- Dr. Alexander Thomas, President, Association of Healthcare Providers India
- Dr. Om P Manchanda, Managing Director, Dr Lal Pathlabs
- Mr. Yash Prithviraj Mutha, Executive Director, Krsnaa Diagnostics Limited
- Mr. Sumeet Aggarwal, Managing Director, Midmark India Limited



*Experts during the panel discussion*

# Key Challenges to the Digital Adoption in Hospitals, MedTech & Diagnostic Chains & How to Overcome Those Challenges

## Digitization in Healthcare

Healthcare is reshaping the way we interact with healthcare professionals, share medical data or make decisions related to treatments & outcomes. There are plenty of examples like AI powered medical devices, remote patient monitoring, electronic health records.

As per medical survey the digital healthcare market was 12,000 crore roughly in 2018 and is expected to reach 48,000 crore in a couple of years which is a huge growth. Referring to KPMG, telemedicine market is growing very fast and is expected to be around 5.4 billion in 2025. There was 32% penetration of Aadhar IDs with around 34 crores ID being created and some 25 crore records were linked and the other significant point was that 75% were from public sector.

## The current concerns & possible solutions

The other point in question is that the large players were concerned with the privacy and the smaller players were concerned with the sharing. Healthcare innovation is to streamline & optimize medical software systems, reduce human errors, lower costs through integrated web & mobile experiences. As an example – the Aadhar IDs is linked to many benefits which people are acquiring. The idea behind it was creating centralized database and enabling digitization of other linked processes.

A small challenge faced by hospitals is concern over security of data migrating to the recently innovated Google cloud, and their systems don't interact to that thing. Probability of large hospitals finding solutions on the cloud is very low or next to nil. Eventually investing more on updating the servers within the organization is preferred over mobbing to Google cloud computing which enables scaling resources & increase storage to meet business demands without having to invest in physical infrastructure. Some of the breeding fears are – data loss or theft, account hijacking, data leakage, denial of service attacks – leading to loss of reputation that private players essentially run on.

Considering the digital scale of 1-10, smaller diagnostic players are on a scale of 1-2, with the smaller private hospitals on the scale of 3-4 and larger players on 8-9. The concept of digital is about changing consumer behaviour not only emanating from healthcare, but also emanating from other categories.

Food delivery apps developed their own apps recently, these business models could be launched due to technology. If this whole concept of digital was not there for them, then it would have been difficult to integrate multiple systems. An example here is one of a provider & then there is an order taking mechanism - technology has made this process feasible.

Therefore, the inception for digital health is changing the ecosystem and consumer behaviour, healthcare industry has a lot of legacy businesses and unfortunately digital is

# Key Challenges to the Digital Adoption in Hospitals, MedTech & Diagnostic Chains & How to Overcome Those Challenges

a top layer, but a lot has to change at the foundation. So technically, to create an integrated ecosystem, the sector needs to look into its own foundation of IT architecture that exists. Which is one of the reasons why large companies have been able to make amendments. There is a need to hire those skills in the system, to make that difference and change in the culture of the place.

## Challenges in the adoption of digitization

- Challenges seen in digitization from the patient perspective in small towns, union territories, two or three tier locations is the stagnant consumer mindset reflecting in their behaviour as well. For instance, patients still prefer physical documents, prefer standing queue rather than adopting to technology driven digital transformation.
- It also takes a significant amount of effort to create this awareness of letting the patients know the fact that it's for their benefit.
- Most importantly the lack of the healthcare or the digital infrastructure, whether it is Internet, steady state Internet, power supplies.

## Measures to improve digitization

As per a survey, there are about 20,000 member hospitals and most of them are small hospitals lacking awareness of the benefits & use of digital technology and are resistant to change. Second is about the cash economy - this is a real issue and India needs to tackle it. Apart from the lack of awareness, there is fear among healthcare workers, especially in the smaller cities, and a mistrust between the government and the private sector players.

- Private health care providers, which provide 70% of the care, need to leverage what the government is implementing.
- Healthcare providers can work in collaboration with many agencies and institutions working with patients.
- Citizen awareness groups should actively continue to promote the desired goal and as a healthcare provider it's important to educate the healthcare workforce.
- A book on technology for medical professionals has been launched this year and it's available for free to download.
- Prior to COVID, a technology course for healthcare workers was commenced in conjunction with the Public Health Foundation at the Indian Institute of Science and ISRO. Soon it will be available at a very nominal fee.

**Dr. Alexander Thomas**  
President, Association of Healthcare Providers India

*I think ABDM, as we all understand, is a very crucial keg. The current figures are impressive that shows amazing growth. As a very important public private partnership, AHPI has now got on board with NHA. We are trying to spread the news of technology, especially what the government is doing, especially to our smaller hospitals.*

**Dr. Om P Manchanda**  
Managing Director, Dr. Lal Pathlabs

*The starting point for digital health is the changing ecosystem, consumer behavior. The feature of contentment should not set in, as we still have a long way to go to improve the current status of technological advancements There will always be developments coming our way.*



## Key Challenges to the Digital Adoption in Hospitals, MedTech & Diagnostic Chains & How to Overcome Those Challenges

- Public private partnership AHPI (Association of Healthcare Providers India) has now got on board with NHA in collaboration with NATHEALTH and is an official partner trying to spread the news of technology, especially efforts expended by the government particularly for smaller hospitals.
- Webinars will be held with the smaller hospitals to educate them about the availability of innovation and how it would ease off life. And lastly, making quality, affordability, accessibility to health care available for the patients.

### Integrating digital technology with customers

In the Indian scenario, stakeholders are not immune to the disruption caused between digital healthcare space & linking it with customers, and as manufacturers of hospital furniture, three principles are observed:

1. Essence of time.
2. Being present at the right time and at the right place is important.
3. What gets measured gets improved.

Implementing these three principles enabled hospital beds to become intelligent beds permitting to monitor patients when they are reclining, contact less on few parameters, pre-determining an early warning score on the patient, facilitating quick actionable insights, sights that allow for doctors and caregivers to take prompt decisions. A look further at how India can partake actionable insights from equipment's presence at the right time & place will mean focussing on the time a doctor spends in a room, number of nurses deployed, hygienic measures (like hand wash, sanitizing) as mandated by the hospital, monitoring patients every second while they're on the bed, whether admitted at the hospital or home spent 8 hours on a bed.

### Hospitalizing potential population

As per the panel experts, ABDM brings a lot of benefits to the patient at large because it's like information exchange, real time available. For example – LinkedIn or Facebook is valued as there is a massive increase in the number of users day by day. Network building springs up new opportunities at a faster pace. Incentivizing providers may be the right steps, because they take it to a point where the patient takes it over as they realize its value. Data confidentiality is definitely a concern - may be real or perceived, a not so tech savvy person has to feel comfortable & safe with its usage. That confidence can be boosted by some tech guy hired by the company.

In addition, an outreach program for ABDM should be launched, not only for the company leadership, but also for the tech departments so that internally people can be seamlessly influenced and can work as a team.

### Electronic health records & more future needs

From technology perspective, the future initiatives that are emerging include ABDM a program launched by Indian Government to create digital health ecosystem for the nation



# Key Challenges to the Digital Adoption in Hospitals, MedTech & Diagnostic Chains & How to Overcome Those Challenges

which also promotes electronic health records. The ABDM aims to develop the backbone necessary to support the integrated digital health infrastructure of the country. Artificial intelligence is put into use to process this large information, identify data, trends and patterns which would probably help in predicting health outcomes.

Furthermore, with a huge smartphone penetration in the country, almost 600 million users and Mobile Healthapp is another technology initiative scheduling a blood test, uploading reports and a lot more. Last but not the least, there are concerns about data security, privacy and blockchain could be a way to securely preserve and store data in a tamper proof manner. ABDM has possibility of integrating with blockchain going forward as well. Some of the technology led initiatives could probably strengthen Bharat in near future.

## Educating the medical community - digitalizing the private sector

Technology suppliers can enable different players in the ecosystem to buy their products & thereby promoting technology adoption by private hospitals. For example, most members are hesitant about digitization as there is a lack of trust. Establishing trust in healthcare system is challenging. If there were insurance companies in the private sector or there is a payer and not the patient to do that, then there's a possibility for better adoption. Also, there is a need to jump that barrier very quickly and kind of put that trust into cloud and the server. And to demonstrate that cloud does work and it's not only limited to healthcare it's important to opt for better training program which allows for workflow articulation on a return on investment.

## Democratize Patient Data by hospitals

Ideally the patient owns the patient data, but the custodian is the hospital. Secondly, how the data can be democratized, without facing security issue. Patient data can only be shared with someone at the hospital unless the patient authorizes the hospital to do so, else not. Since the hospital is the custodian of the data here. Probability for the hospital to democratize the data anonymously is the question here. This is one of the missions of ABDM, that the data can be stored anonymously.

*Mr. Yash Prithviraj Mutha  
Executive Director, Krsnaa Diagnostics Limited*

*In tier two and tier three locations, people choose to use physical documentation because there is a fear of technology. After this challenge is dealt with, healthcare in India will take a monumental turn.*

*Mr. Sumeet Aggarwal  
Managing Director, Midmark India Limited*

*Equipment manufacturers are now working on technologies that can brave the task of being at the right place at the right time. That would help us be more efficient and can make a very big difference in patient care.*

## **Key Challenges to the Digital Adoption in Hospitals, MedTech & Diagnostic Chains & How to Overcome Those Challenges**

In the digital sphere there also is source code for various applications and some of these tenders where recently the government or the tender condition says that the source code and consequent data has to be transferred to the authorities or the regulators while allowing the government to have access to the data. Similarly, the tenure of these PPP tenders on the healthcare is just about three to five years.

By the time the solutions get deployed, the source code and the data have to be handed over to the government. As a constructive suggestion, it would be advisable to extend these tenders for ten years at least, so people get more time to implement and then basically build the solutions.

# Takeaways

## Plenary Session

- Collaboration between the private stakeholders and government's ABDM is necessary to integrate digital health technologies into primary care.
- Utilizing digital tools and platforms to promote healthy lifestyles, provide nutrition and exercise advice, and monitor progress toward health goals to address the rising problem of obesity.
- Innovative ways must be found to reduce the cost of digital technology while maintaining quality and effectiveness.
- Addressing the reliance on the cash economy and perceived tax-related challenges can encourage smaller healthcare providers to adopt digital tools.
- Collaboration between the private sector, government, and other stakeholders is necessary to provide equitable healthcare services to everyone.
- Leverage digital tools for training healthcare professionals, providing diagnostic and early diagnosis, and decision support systems.
- Digital platforms can facilitate patient engagement, such as e-prescriptions, digital record-keeping, and post-discharge communication.
- Digitization can be expensive and challenging for small healthcare providers, so there is a need to make digital health solutions more affordable and accessible to them.
- Standardizing care at the primary level is necessary to ensure that patients receive the care they need.
- The Ayushman Bharat program can benefit from digital tools to provide affordable healthcare services to everyone.
- Make the digital experience easy and accessible for patients through user-friendly interfaces, training programs, and customer support.



# Plenary Session

FUTURE OF HEALTH AND AREAS  
OF IMMINENT BREAKTHROUGH  
OPPORTUNITIES

# Future of Health and Areas of Imminent Breakthrough Opportunities



**Dr. Soumya Swaminathan**

*Chairperson, MS Swaminathan Research Foundation  
Former Chief Scientist, WHO*



**Dr. Harsh Mahajan**

*Past President, NATHEALTH  
Founder & Chief Radiologist, Mahajan Imaging*

## A look at the current scenario

The last three years have witnessed significant inequalities in access to healthcare products, particularly vaccines, during the pandemic. While science and technology have driven our response to the pandemic, ultimately finding solutions to make healthcare better, disparities still exist. Countries with a high median age, such as India, have experienced a higher death rate than those with a lower median age, such as Africa. One of the biggest challenges during the pandemic has been the lack of access to healthcare services, leading to delayed diagnoses and treatment. This has highlighted the need for innovations in healthcare to improve the accessibility and quality of care for all individuals. While India currently has a demographic dividend, with a young population, this is likely to change in the future, and the country will face the challenge of an aging population.

## The role of technology & the need for rapid development

The average life expectancy in India is currently 70 years, but the last 10 years of life are often spent dealing with multiple morbidities. This underscores the importance of quality healthcare and the need to invest in institutions and human resources that can address the challenges that come with an aging population. Fortunately, technology and science have played a crucial role in addressing healthcare challenges during the pandemic. Early detection screening, finding illnesses earlier, treating them earlier, and compliance follow-up have helped control the spread of the virus. Moreover, the rapid development of new platforms and discoveries has made it possible to conduct laborious tests, such as PCR tests, quickly and efficiently.

During the pandemic, WHO and other partners have set up several labs in Africa, where previously there were only two labs. This has helped increase access to PCR testing and improve diagnoses. Moreover, India has developed a rapid test that individuals can use to test themselves for the virus. However, challenges still remain. For example, tuberculosis (TB) continues to be a significant health issue in India, and only one in five patients with TB symptoms has access to molecular testing. Moreover, the microscopy test has low sensitivity.



## Future of Health and Areas of Imminent Breakthrough Opportunities

The pandemic has thus highlighted the importance of investing in healthcare, particularly in developing countries. While science and technology have played a significant role in addressing healthcare challenges, access to healthcare services remains a major issue. Furthermore, as populations age, the need for quality healthcare will become increasingly important. It is therefore crucial that India should invest in institutions and human resources that can address the challenges that come with an aging population.

### Healthcare challenges in India

**Need for increased investments:** The healthcare situation in India is complex and multifaceted, with a range of challenges that must be addressed in order to improve the health of the population. One of the major challenges facing the country is the high percentage of patient treatment provided by pharmacists. In some areas, up to 40% of patients seek treatment from pharmacists rather than trained medical professionals, leading to concerns about the quality and appropriateness of care.

To address this issue, there is a need for increased investment in healthcare infrastructure and training for healthcare professionals. In addition, innovative solutions such as AI-based rapid screening tools can help to improve the speed and accuracy of diagnosis, reducing the reliance on pharmacists and other non-medical providers.

**Improving public health with AI & more:** Tuberculosis (TB) is a major public health challenge in India, with a prevalence rate of over 2.6 million cases per year. To eliminate TB, there is a need for more sensitive screening tools and innovations such as AI-based rapid screening. Rapid X-ray machines with AI-based algorithms can be carried to communities and rapidly screen people, with radiologists able to confirm results quickly. In addition, there is the possibility of using tongue swipes or mouth swabs to detect *Mycobacterium tuberculosis* in a very short period of time, thanks to advances in AI-based machines.

**Nutrition & other challenges:** Dietary risks are another major challenge facing the health of India's population, with undernutrition, overnutrition, and micronutrient deficiencies all contributing to poor health outcomes. Anaemia is a particularly pressing issue, with prevalence rates above 15% or 16% in some states, particularly among pregnant women, young girls, and children. Despite efforts to address this issue, anaemia levels have remained high, while undernutrition is falling slowly and obesity is growing rapidly. To address these challenges, there is a need for increased investment in nutrition programs and initiatives that target the root causes of poor nutrition. This may include promoting healthy eating habits and increasing access to nutritious food, as well as addressing factors such as poverty and food insecurity.

The Sustainable Development Goals (SDGs) provide a framework for addressing many of these challenges, with SDG-3 focused specifically on ensuring a healthy life for all. However, progress towards achieving these goals has been slow, particularly when it

## Future of Health and Areas of Imminent Breakthrough Opportunities

comes to obesity. No country is currently on track to keep obesity rates flat or decline, with increasing rates observed among children aged 0-5 years.

Diabetes is also a major health challenge in India, with 1 out of 3 individuals in cities like Chennai suffering from the disease. This makes it a ticking time bomb that cannot be solved simply by investing in healthcare delivery systems. Rather, there is a need to think creatively about how to address the underlying causes of diabetes, such as poor nutrition and sedentary lifestyles.

Overall, the healthcare challenges facing India are complex and multifaceted, requiring a comprehensive and integrated approach that addresses the root causes of poor health outcomes. This may include innovative solutions such as AI-based rapid screening, increased investment in nutrition programs, and creative thinking about how to address the underlying causes of diabetes and other health issues. By taking a holistic approach to healthcare, India can work towards achieving the SDG-3 and improving the health and wellbeing of its population.

### **Drivers of disease patterns - enabling faster identification & surveillance**

Medical doctors focus on treating patients who have health issues, but at the population level, it is important to address the underlying drivers of diseases. In India, there are still water and sanitation problems in some areas that need to be resolved as they can impact people's health. Environmental health is also critical for human health, and individuals need to take care of the planet to prevent species from being wiped out at a rapid rate.

The emergence of zoonotic infections, such as COVID-19 is becoming more common due to factors such as increasing human contact with wildlife and habitat destruction. Genomic sequencing technology can help in preparing for future outbreaks by enabling faster identification and surveillance of new variants. AI can also play a crucial role in detecting patterns in data to identify new outbreaks quickly. However, human resources are still necessary to interpret the data and make informed decisions.

Research is crucial for developing new tools and digital solutions, such as vaccines and drugs, to combat diseases. The introduction of new drugs or vaccines requires clinical trials to establish efficacy and safety, which can take years. The COVID-19 pandemic has demonstrated the importance of fast-track clinical trials, but research is still necessary to ensure that new solutions are safe and effective.

Technology is enabling remote solutions for healthcare delivery, but it is essential to find the right applications for these technologies. For example, drug recovery can speed up the process of vaccine design by using mRNA technology platforms to create a vaccine within hours. However, animal and human testing is still necessary to ensure safety and efficacy. Harmonizing regulatory standards can also help speed up the trial process. Addressing the underlying drivers of diseases and preparing for future outbreaks

## Future of Health and Areas of Imminent Breakthrough Opportunities

requires a combination of technology, research, and human resources. It is important to take care of the environment and implement solutions for water and sanitation problems to improve overall health. Genomic sequencing and AI can enable faster identification and surveillance of new outbreaks, but human resources are still necessary to interpret the data. Research is crucial for developing new tools and digital solutions to combat diseases, and technology can enable remote healthcare delivery. Harmonizing regulatory standards can help speed up the trial process for new solutions.

### Adoption of digital innovations

The healthcare industry is rapidly evolving, and the adoption of digital innovations is a key aspect of this change. India has been at the forefront of this transformation, and the world is keenly observing how the country is rolling out digital architecture to improve healthcare. The Aadhar system is an excellent example of a well-thought-out digital initiative that has paved the way for other healthcare-related applications. However, the governance of such a system is also crucial, and there is a need for regulation of AI to avoid any negative consequences. The World Health Organization (WHO) has come up with a framework that outlines the ethical and regulatory considerations for the use of AI in healthcare. The principles focus on the ethical use of AI, and there is practical advice on the implementation of AI-based technology in hospitals. However, there are liability issues that need to be addressed, and health ministries must regulate new diagnostic devices based on AI.

Universal health coverage encompasses a wide range of healthcare services, from health promotion to disease prevention, rehabilitation, and end-of-life care. Startups are addressing the needs of the elderly, and there is a growing demand for devices and technology that can assist them. However, there is a disadvantage for those who are not digitally aware, as they may not have access to universal health coverage.

Furthermore, some people are out of reach and do not have physical access to healthcare. Philanthropy is playing an essential role in filling these gaps where government funding may not be sufficient. However, guidelines for pandemic management pose a challenge, and the WHO has introduced solidarity trials that rely on AI analysis to generate data quickly. Making guidelines is a time-consuming process that requires a systematic review and can take several years. The WHO's AI master analysis is constantly updating treatment guidelines to include drugs that are effective for public health intervention. Judging the efficacy of interventions requires considering both the cost and the benefits. Ethical and equity considerations also need to be incorporated into the guidelines, and medical professionals must adhere to them in both public and private settings. The pandemic has caused confusion among the public, as there has been a need to change guidelines as new data emerges.

In conclusion, the healthcare industry is undergoing a transformation, and the adoption of digital innovations is at the forefront of this change. India has made significant strides

## Future of Health and Areas of Imminent Breakthrough Opportunities

in this area, and the world is keenly observing its progress. However, there is a need for governance and regulation of AI to avoid any negative consequences. Universal health coverage is a crucial aspect of healthcare, and the needs of the elderly and those who are out of reach must be addressed. The pandemic has posed significant challenges, but with ethical and equity considerations, cost-benefit analysis, and adherence to guidelines, the healthcare industry can emerge stronger.

### The audience Q&A session

#### **What is the current situation regarding the pandemic in the country and in the world? Is it over or still ongoing?**

The SARS-COV-2 virus is a relatively new infection and is constantly mutating, which makes it challenging to control and eradicate. In comparison to the influenza virus, which is still prevalent and causes significant mortality rates globally, SARS-COV-2 is still in its early stages of evolution. Although it seems to have settled into a pattern, it is still infecting and killing people worldwide, especially those who are unvaccinated or live in low-income countries.

Currently, around 20% of people in low-income countries have received at least one dose of the vaccine, which may not offer long-lasting protection against the virus due to its constant mutations. Recent studies have shown that neutralizing antibodies are not effective against the XBB 1.6 variant of the virus.

The question remains whether the cases will continue to rise, leading to more hospitalizations. It is possible that the virus may become seasonal and continue to persist for a few years. It is critical to monitor the virus's behavior and update the vaccine to keep up with its mutations. Additionally, there is a need for a pan corona vaccine that can protect against all variants of the virus.

Overall, the SARS-COV-2 virus is still prevalent and infecting people worldwide. The virus's constant mutations make it challenging to control, and there is a need for ongoing surveillance and monitoring to update vaccines and develop new ones to keep up with the virus's evolution. The pandemic may continue for a few more years, and it is essential to continue taking precautions such as getting vaccinated, wearing masks, and practicing social distancing to protect ourselves and others.

#### **What short-term and long-term strategies should India adopt to address the issue of antimicrobial resistance, which is one of the major healthcare burdens worldwide, alongside HIV, TB, and non-communicable diseases?**

Antibiotic resistance is a serious global issue that requires a multifaceted approach. Hospitals and clinics should have infection control policies, and someone should be responsible for ensuring that these policies are followed. Additionally, data on antibiotic use and resistance patterns should be transparent and available to the public.

## Future of Health and Areas of Imminent Breakthrough Opportunities

Addressing environmental factors is also essential in tackling antibiotic resistance. Antibiotic use in livestock and poultry production should be carefully regulated to prevent the spread of resistance genes. The manufacturing of antibiotics also needs to be scrutinized to ensure that these drugs are being produced responsibly.

Unfortunately, the development of new antibiotics is not an attractive proposition for pharmaceutical companies as they are often reserved for use in dire circumstances. The WHO has created a classification system for antibiotics, which includes a reserve category for new antibiotics. This classification system aims to preserve the effectiveness of antibiotics and prevent the development of resistance. However, this has resulted in a lack of investment in research and development for new antibiotics.

Governments must incentivize pharmaceutical companies to invest in research and development for new antibiotics. This could include tax incentives, grants, or other forms of funding. There is also a need for increased collaboration between governments, academia, and the pharmaceutical industry to tackle this pressing issue. Ultimately, a comprehensive approach that includes reducing antibiotic use, improving infection control, and developing new antibiotics is required to combat antibiotic resistance.

### **As we talk about AI and predictability models in diagnostics, do you see chatbots replacing the GP in the near future?**

The advancement of technology has brought about significant changes in the field of medicine. With decision support systems, patients can input their symptoms and receive a diagnosis, potentially reducing the need for a physical visit to the doctor. However, this technology is not meant to replace doctors but rather to complement their skills and expertise.

Medical training needs to adapt to this changing landscape, with a greater emphasis on technology and data analysis. The role of doctors is shifting towards more intervention and treatment, rather than just diagnosis. With the support of decision support systems, doctors can spend more time with patients, providing a more personalized and comprehensive approach to healthcare.

Radiology is an example of a profession that will experience significant changes. While technology can aid in the diagnosis of certain conditions, the interpretation of images and the decision-making process still require human input. Radiologists will need to adapt their skills to incorporate new technologies, but their expertise in image analysis and interpretation will remain crucial.

In summary, technology will continue to revolutionize the medical field, but it will not replace doctors. The role of healthcare professionals will evolve, and there will be a greater emphasis on personalized, interventional care. The integration of technology into medical training can provide the best possible care to their patients.



## Future of Health and Areas of Imminent Breakthrough Opportunities

**What factors determine whether a country has an AI act in place, and why are ethical guidelines and regulations important for the development and implementation of AI technology?**

Recently, the Indian Council of Medical Research (ICMR) released a document on the use of AI and ethics. The 60 to 70-page document outlines ethical guidelines for the use of AI in healthcare. While regulation may come in time, it is important to ensure that any regulations are balanced and do not hinder the ability of doctors to provide the best possible care to their patients.

**What are the differences in the adoption of digital healthcare between Western countries like the US and countries like India, and what suggestions would you offer to accelerate India's progress in this area?**

The major difference in the adoption of digital healthcare between high-income Western countries like Germany and countries like India is the issue of interoperability. In high-income countries, legacy systems and regulations often make it difficult to transmit data between departments or buildings. In contrast, India has embraced an open-source architecture standard that allows different private players to bring solutions to the table, avoiding the problem of different companies building incompatible systems. This approach gives India an advantage in avoiding the interoperability issues that can hinder the outcomes of digital healthcare.

To accelerate India's progress in digital healthcare, a couple of suggestions could be to continue promoting and investing in open-source solutions and to prioritize the development of digital infrastructure in rural and underserved areas. Additionally, initiatives could be taken to increase digital literacy among healthcare providers and patients to ensure that they are able to fully utilize the benefits of digital healthcare.

**Is there a specific percentage of GDP that needs to be spent on healthcare in order for India to see significant outcomes, and are there any observations on this from other countries' healthcare systems?**

Investing in healthcare is crucial for a country's development and well-being of its citizens. India's current spending on healthcare is significantly lower than many other countries, and increasing it to at least 4-5% of GDP, as seen in countries like Thailand, can have a significant impact on the healthcare outcomes of our citizens. High out-of-pocket expenditure is a major barrier to accessing healthcare for many people in India, and increasing public healthcare spending can help reduce this burden.

Moreover, investing in healthcare not only benefits individuals but also has a positive impact on the economy as a whole. Healthy individuals are more productive, and a strong healthcare system can attract foreign investment and medical tourism.

However, increasing spending alone is not enough. It is also essential to ensure that the spending is utilized effectively and efficiently to address the healthcare needs of the

## Future of Health and Areas of Imminent Breakthrough Opportunities

population. This includes improving the healthcare infrastructure, increasing the availability of essential medicines and medical devices, and strengthening the healthcare workforce.

### **Is it appropriate for India to focus on the rehabilitation platform, given the current emphasis on improving individual quality of life and the growing interest in telemedicine?**

It's a great idea to prioritize rehabilitation in healthcare. There have been some successful initiatives like the one in Wayanad District of Kerala which provides end-to-end healthcare services including rehabilitation. A combination of physical healthcare and telemedicine can be effective in promoting physical exercise and rehabilitation.

With the emergence of virtual reality, there is also potential for virtual reality-based rehabilitation programs. So, it's definitely the right time to explore and invest in rehabilitation platforms for better healthcare outcomes. However, it is important to ensure that such technologies are accessible and affordable to everyone, especially those in rural areas.

### **How can the different ministries such as Health, Women and Child Development, and Food work together in India to address issues such as obesity and food hygiene? Is collaboration possible or will it continue to remain a challenge?**

A multi-sectoral approach is needed to address healthcare challenges in India, including issues related to food hygiene and obesity. For example, initiatives such as PDS school meals require collaboration between different ministries to promote healthy eating habits and combat climate change. The health ministry can play a leadership role in advocating for such efforts and bringing various stakeholders together. Overall, a collaborative approach is essential for creating a healthier and more sustainable future for India.

# Takeways

## Plenary Session

- Collaboration between government, industry stakeholders, and healthcare providers will become more necessary to address emerging health challenges in the future.
- The number of cardiothoracic centers may not be sufficient to deal with future health challenges, and new facilities may need to be built.
- Technology such as genomic sequencing and AI will continue to play a crucial role in preparing for future health challenges.
- Digital solutions and remote healthcare will become even more important and can speed up certain processes but need to be used correctly in the future.
- Medical doctors will increasingly need to address the driver of diseases at a population level in the future.
- Environmental health will continue to be critical to overall health in the future.
- Zoonotic infections and new emerging infections are likely to happen in the future, and preparedness measures will be needed.
- Research will remain important for establishing efficacy and safety of new drugs and vaccines in the future.
- Drug recovery will continue to speed up the process of vaccine design in the future.
- India is likely to continue to do well in rolling out digital architecture and healthcare stacks in the future.
- Governance and regulation of AI will become increasingly important to avoid negative consequences in the future.



# Plenary Session

SCALING UP ALLIED  
HEALTHCARE SKILLING

# Introduction



*Dr. Ashutosh Raghuvanshi  
Senior Vice President, NATHEALTH  
Managing Director, Fortis Healthcare*

When it comes to human resources in the healthcare sector, it is common to focus solely on physicians, overlooking the crucial role played by allied healthcare professionals. These professionals are the backbone of healthcare delivery, and given the shortage of physicians in the country, it is essential that we fill the gaps with skilled manpower.

In recent years, a number of initiatives have been undertaken to address this issue. The National Skill Council and the Health Sector Skill Council have done an outstanding job in creating vocational and allied healthcare courses, designing their curricula, and providing credentialing. However, more needs to be done to engage the private sector in upskilling allied healthcare workers and providing them with career aspirations and growth opportunities.

This upskilling of allied healthcare professionals can have a significant impact on employment generation and the soft influence of the country in exporting health professionals for the aging population of the world. By creating clear career pathways and opportunities for advancement, we can encourage more individuals to pursue careers in the allied healthcare sector, ensuring that we have a skilled workforce to meet the growing demands of the healthcare industry.

It is therefore essential to recognize the critical role played by allied healthcare professionals and take steps to upskill and empower them. This will not only benefit the healthcare sector but also have a positive impact on employment generation and the country's influence in the global healthcare market.

## Leaders Speak

"Concerted efforts are needed between academia, industry, and administration to create a skilled allied healthcare workforce in India."



### Mr. Alok Kumar

Principal Secretary (Medical Education),  
Government of Uttar Pradesh

*The Government of Uttar Pradesh launched an initiative called Mission Niramaya, which aims to produce quality nursing and allied healthcare professionals. Uttar Pradesh has become the first state in India to identify the importance of allied healthcare, but there is still a long way to go to produce a qualified and competent allied healthcare workforce.*

India needs to produce qualified manpower for the healthcare sector beyond just physicians. India needs to develop healthcare professionals who can assist doctors and draw salaries at par with the sector.

To address this need, the Government of Uttar Pradesh launched an initiative called Mission Niramaya, which aims to produce quality nursing and allied healthcare professionals. This initiative is focused on creating a drastic change in nurses in the next few upcoming years for the state of Uttar Pradesh and also for India as a whole.

Uttar Pradesh has become the first state in India to identify the importance of allied healthcare. However, there is a lack of leadership in this institution, and the complexity of different professions in the healthcare sector makes it difficult to focus on each one. Currently, there is no single body to deal with all the issues related to allied healthcare, unlike nursing, which has clear syllabuses and a hierarchical structure.

To address this, the Uttar Pradesh government is focusing on improving the paramedical setup this year. They have directed every government medical college to start co-located nursing and paramedical colleges to improve the quality of manpower passing out of these institutions. The availability of hospital and clinical material in the vicinity of these medical colleges will make it easier to start these courses. The hope is that the quality of manpower passing out from these colleges will be better than what is currently being offered.

There is a need for a concerted effort between academia, industry, and administration to create a skilled allied healthcare workforce in India. The government's initiatives like Mission Niramaya and the focus on improving the paramedical setup are steps in the right direction, but there is still a long way to go to produce a qualified and competent allied healthcare workforce.



### Issues with supply-demand

- Experts warn that there is a risk of supply surpassing demand in the healthcare sector.
- OT technicians who complete 2-3 years of training are paid below Rs. 10,000, making their study period unfruitful.
- Only 5% of technicians receive a salary of Rs. 20,000-30,000, highlighting a major issue with the wages in the sector.
- Lack of awareness and opportunities results in 50% of aspirants in paramedical colleges being unwilling to pursue these courses.
- Demand for MBBS is 10 times higher than that for paramedical courses, indicating a significant gap in the healthcare job market.

### Solutions to tackle the gaps

- Revamp the curriculum of paramedical courses to make it more relevant and up-to-date with industry requirements.
- Provide better salaries and career growth opportunities for paramedical professionals to attract and retain talent in the field.
- Develop partnerships between academia, industry, and government to create a streamlined and effective system for training and employment in the healthcare sector.
- Encourage private sector investment in healthcare to create more job opportunities and fill the gap between supply and demand.
- Invest in research and development to drive innovation in the healthcare sector and create new career opportunities for professionals.
- Increase public awareness about the importance and scope of paramedical courses and professions through targeted marketing and outreach campaigns.
- Encourage entrepreneurship in the healthcare sector to create more job opportunities and drive economic growth.
- Ensure that healthcare education and training institutions are adequately funded and equipped to deliver high-quality education and training to students.

### Learnings & future plans of the Uttar Pradesh Government

The Uttar Pradesh government is focused on developing and promoting paramedical education and training in the state and is willing to offer an application form to industry members who can set up platforms or colleges that issue recognized certificates. Certifications limited to private institutes or industry players are not pursued further, as the minimum criteria for government paramedic staff is a diploma.

In the next three months, the Uttar Pradesh government is expected to develop a policy for the development of paramedical education and training. The policy will pave the way for the establishment of multiple paramedical colleges with necessary facilities for students and faculty members, including hostels, staff quarters, academic complexes, and basic infrastructure.

## Leaders Speak

"India needs to drive standardization, improve trainers' quality, build infrastructure, and create a registry for trained professionals."



### **Mr. Kshitij Vijayvargiya**

*Managing Director & Partner,  
Boston Consulting Group (BCG)*

*A recent research has found only 6% of people who are in secondary education were aware of the job opportunities available under the allied health professionals - with low wages and less attraction impacting the scenario.*

The healthcare profession covers a vast spectrum of skilling, with 10 broad categories and 55 different professions. These professions range from motor skill and physical training such as physiotherapists and occupational therapists to technical training such as radiologists and lab science professionals, and even clinical coders. It is crucial to acknowledge the diversity of the healthcare profession and the significant contribution made by each of these professions towards the delivery of quality healthcare services.

### **How are the next 5 years looking?**

- Healthcare industry growth will lead to increased demand for services and professionals.
- Allied health professionals will be particularly in demand to meet this growing need.
- Supply of healthcare professionals will need to increase to meet the demand, or wages will rise.
- Specific professions like phlebotomists will see higher growth rates.

### **Awareness of the job opportunities**

- A recent research has found only 6% of people who are in secondary education were aware of the job opportunities available under the allied health professionals.
- The wages for these professionals are actually quite low, and not growing significantly.
- Support from PMKBY or various ministries have led to the rapid proliferation of training institutes.
- Two thirds of the institutes for lab and dialysis technicians are marred with challenges associated with lack of standardization of curriculum, infrastructure and connectivity with industry.
- Almost 65% of the trained professionals report that their skill does not match the industry standards.

- 23% report that there is a huge mismatch in the skill quality that creates a vicious circle that further exacerbates the problem.
- Staffing very often continues to be on third party payrolls.
- A recent survey revealed that only 47% of the allied health professionals were satisfied with the job.
- Almost 30% of them were looking to change their jobs in the next one year.
- 40% of them were actually looking to change their profession altogether in the next five years; only half of them were willing to recommend this job to a friend or a colleague.

The allied health sector has made robust recommendations for driving standardization, improving quality of trainers and infrastructure, and creating a registry for trained professionals. Technology will also play a vital role in driving standardization and bridging the gap between industry and training centers to create more employment opportunities. By working together, the industry can ensure that the healthcare workforce is equipped with the skills and knowledge they need to meet the growing demand for healthcare services and provide high-quality care to patients.

## Plenary Session II

### Panel Discussion - Industry Remarks Across Sectors on Allied Skilling

**Moderator:** Mr. Shishir Agarwal, Managing Director, Terumo India Private Limited

#### Experts:

- Mr. Ashish Jain, Chief Executive Officer, HSSC
- Dr. Shubnum Singh, Principal Advisor Health Policy Confederation of Indian Industry (CII) & Board Member, Healthcare Sector Skills Council
- Dr. Rajiv Yeravdekar, Dean, Faculty of Health Sciences, Symbiosis International (Deemed University)
- Ms. Nanki Lakhwinder Singh, Chief Executive Officer, Protribe Senior Care Services Private Limited
- Mr. Prashant Sharma, Chief Executive Officer & Managing Director, Charnock Hospital
- Mr. Kshitij Vijayvargiya, Managing Director & Partner, Boston Consulting Group (BCG)



*Experts during the panel discussion*



## Industry Remarks Across Sectors on Allied Skilling

### Develop an understanding of a university landscape

It is important to understand the landscape to know the weaknesses of the system. The sector needs to change and increase the aspirational value of potential students and service providers. Instead of referring to them as technicians, they should be referred as technologists. The allied healthcare sector is a bit disorganized and it is the academia that can be the first wall to get them organized. All the stakeholders including academies, industry players, hospitals, and government accreditors should come forward to make this happen.

### Uniformity in academics

It is vital to bring uniformity into healthcare academics. A simple differentiation to be noted is that the courses are not synonyms with program, which is an amalgamation of the courses. To bring this uniformity, the panel suggested the following:

- The sector needs to understand the timetable for the commencement of courses and the title designated to candidates upon successful completion.
- In accordance with the National Education Policy of 2020, entry-level, exit-level, and recognition of prior learning are required.
- Advanced courses should be provided to technologists who have already been in the industry for a long time, to save time.
- Every program needs to be credited, with a component of lectures versus experience-based learning. Industry needs to contribute to this process.
- The academy needs to collaborate and cooperate with the industry requirements at all levels.
- It is important to benchmark the program so that the recruiter offering the pay package can ultimately release brand value, TRP, and acceptability of the profession.
- An instance was shared which mentioned a collaboration of Symbiosis International University with Mahajan Imaging Labs to understand the industry requirements for bridging the gaps in terms of developing specific skill sets to raise a wholesome cadre, thereby leading to increased student campus hiring for jobs.

### Prominent role of technology for driving allied healthcare industry skills

The intent of using and exercising moderation is of utmost importance for optimum utilization of technology, Keeping in mind equity and equality, access to technology is the key to enthusing a learner to get into the field.

*Mr. Ashish Jain  
Chief Executive Officer, HSSC*

*It is not important to beat the standardization, it can get counterproductive to do so. There has to be flexibility in terms of customizing the program for the employer. There is immense respect for skilled healthcare professions and the aim is to now upskill them.*

*Dr. Shubnum Singh  
Principal Advisor, Health Policy, Confederation of Indian Industry (CII) & Board Member, Healthcare Sector Skills Council*

*It is important to indulge in social networking as a student and a teacher. There is an interdisciplinary existence of teachers, students and technology which is why it is important to capitalize off of each whenever permitted.*

## Industry Remarks Across Sectors on Allied Skilling

As per the discussion, there is an availability of doctors and nurses but there is a shortage of technicians with the right credentials. In this process the learner comes through a network and here is where technology comes into the picture evolving learning spaces. Technology in a learning environment, from the learner's perspective, makes it question its use. The future is Artificial Intelligence for course delivery. There must be some benchmark for what a learner knows and something the learner isn't familiar with. Assessment is important to understand the requirements of a thing in particular. Technology plays a key role here in pacing the learning process. Another important point is social networking comprising of doctors" nurses" and technology working together creating a platform for mutual respect, to leverage to growth & to be able to address the patient's perspective successfully.

A teacher is defined by the knowledge that they have but lack of update in the subject matter will not lead to the effective application of that knowledge to the students in the process unless the teacher upskills herself in the subject matter to know the impact its creating on the students. The GDA (General Duty Assistant) program was introduced in Himachal Pradesh in 2011 for schools without principals. Nurse educators undergoing the GDA training became principals, showcasing how upskilling can help people advance in their careers.

Today, the learner is far more familiar than the teacher with the digital world giving them an edge in getting hired faster. In recent years the power of digital healthcare is growing massively, and students from that sector can be imbibed into the healthcare industry.

To address the skill gap in the healthcare sector, upgrading the training modules is crucial. Research shows that 10,000 hours of training are required, which is equivalent to 7 years, but the Indian sector is lagging behind in this aspect. The frequent job changes in the sector also require constant learning of new skills. Hiring learners already trained in digital skills can aid in leveraging technology and converting them into skilled OT technicians, which can boost the industry's workforce. This approach can create enthusiasm among candidates to join the industry and bridge the skill gap.

### **Certification & Standardization of Allied Health Professionals**

The process of certification has a chance of being widely accepted by the industry if it's customized as per the requirement of the industry. The process has been initiated and the involvement & cooperation of the government in terms of giving recognition to independent certification will ensure optimum utility for the entire ecosystem. Secondly, independent certification is done through HSSC for rescaling, upscaling and even scaling programs are being accepted widely.

Standardization of all the allied health professional bills is the job of the commission already. Earlier standardization happened through the Ministry of Health and us working together in standardizing various allied health professions, working with various stakeholders including academia.



## Industry Remarks Across Sectors on Allied Skilling

As suggested by the government personnel, looking at the demand side, flexible standardization is the key to ensuring that every employer would customize their own requirements and needs accordingly & fulfill the same by upskilling the resource in the ecosystem. A new national credit framework has now come in place making the skills credit equivalent to all the credits in the formal education ecosystem ensuring mobility from the vocational to the formal and vice versa. Sufficient Standardization can always be done with stakeholder consultations.

As forecasted, over the next decade there is an exceeding requirement of 2 to 3 million people, for the Allied Health Sector. In addition to allied health, there is a requirement for many other professions referred to as skilled healthcare professionals different from allied health. The need to broaden the scope of doctors, nurses, allied health, and skill health professionals has risen largely because it's a team that is performing at different levels & not an individual, thereby, gaining respect for the healthcare fraternity. Social awareness has to be created for the additional allied healthcare departments since all specific healthcare individuals play an important role in the smooth functioning of the hospital at all levels.

**Some of the learnings from other industries can be leveraged in order to bring some of the elements back to healthcare.**

### Other Sectors Vs Healthcare

- Healthcare started in India in the mid-80s, and most of the private activities started in the 90s. It gained momentum in the last two decades.
- Countrywide tourism started in the 1940s with the first private hotels coming online and currently they deploy about 80 million people. And the industry size is close to 170 billion. As per a survey, the HR practices in tourism are far more evolved industry to an industry comparison basis.

**The issue of human resource management:** IT sector has been a significant contributor to India's economy, employing over 5 million people and boasting an industry size of 235 billion as of today. Unlike other sectors, the IT industry is not just an HR-oriented business but also a skills-oriented business, with a focus on producing high-quality manpower.

*Dr. Rajiv Yeravdekar  
Dean, Faculty of Health Sciences, Symbiosis International  
(Deemed University)*

*It took a long time to acknowledge the allied healthcare industry, which is why it is important to inspire aspirational students and acknowledge the people we call technicians as technologists and change the way the world views this sector of the healthcare industry.*

*Ms. Nanki Lakhwinder Singh  
Chief Executive Officer, Protribe Senior Care Services Private  
Limited*

*India will have 330 million seniors by 2050, so the country's 20% of the population will be seniors. Out of that, another 20% require acute care, which will be handled by medically-trained professionals. The rest of it will have to be taken care of by allied healthcare workers.*

## Industry Remarks Across Sectors on Allied Skilling

However, the healthcare industry faces challenges in terms of career progression for its technicians, hindering its evolution of human resource management.

**Hurdles in switching roles/jobs:** In contrast to the plug and play system in other industries like hotels, where an employee can easily switch from one company to another with a bit of cultural orientation, healthcare is more people-driven than process-driven, making it difficult to employ generalists instead of specialists. Formal healthcare comprises only 30% of the industry, with 70% being informal healthcare. The deployment of specialists is primarily in metropolitan cities, while non-metro cities primarily rely on generalists.

Therefore, there is a need to focus on creating skilled people with specialized skills and developing a genre for generally skilled people in the healthcare industry. A multi-skilled health worker who can perform multiple roles can prove to be useful in several clinical areas. For instance, a radiology technician can also be diverted to other diagnostic technicians like ECG if needed. If the generalist role can be formalized for people, the healthcare industry can do great as a service industry.

**The element of attraction:** Additionally, career progression in the healthcare industry needs to be more transparent to attract more people. For instance, in the hotel industry, a bellboy knows that they can become a front office manager in eight years and a general manager in 12 years, but healthcare technicians are unaware of their growth and promotion in the coming years. By formalizing the career progression of healthcare technicians, the industry can attract more people to join and provide better services to patients.

The healthcare industry can learn from other sectors to accelerate its growth and evolution of human resource management. It needs to focus on upskilling its workforce, developing a career progression plan, and formalizing the generalist role to attract more people to join the industry.

### **Geriatric Care – increasing demand in years to come**

The allied healthcare workers form the core of geriatric care and India is going to have 330 million seniors i.e. 20% of the population will be seniors by 2050. Out of that, maybe 20% require acute care. So about 20% of healthcare trained professionals are taking care of 20% of that number. The rest of it will have to be taken care of by allied healthcare workers. Within that again 60% of that allied healthcare worker population doesn't even have proper nomenclature as yet. Some people call them GDAs - general duty attendants. These are the people who will actually add dignity to old age.

Acute care is a very small part of the overall home care system and the senior care system, in fact, in the overall health care system, it is these people who go out there, they add dignity to your life.

## Industry Remarks Across Sectors on Allied Skilling

They have self-respect for the seniors. They take care of all their needs and yet they are not even trained. If the industry is able to get these people the right kind of credentials and the right kind of training, a lot of industry-level problems will get solved. Starting from financing the elder care industry, to insurance in the industry, to the payment capacity, to really what these people get paid and not that 10 - 15 thousand rupees, they will actually be shown a career path.

Can an attendant get a fast-track course into a nursing school? Can a therapist who is another subacute allied care player get a fast-track entry into psychiatry? These are questions to be answered. Supply is the issue here; demand is not the issue because these people are core. The emphasis is on getting the right people from a government or a private institution, to make a difference in people's lives through allied healthcare workers.

*Mr. Prashant Sharma*

*Chief Executive Officer & Managing Director, Charnock Hospital*

*People in healthcare are more driven as compared to the other sectors like tourism and information technology. We do not worry about the process, but focus on the skill of the individual. There is a need for a multiskilled healthcare worker who could essentially do multiple things from different departments.*

*Mr. Kshitij Vijayvargiya*

*Managing Director & Partner, Boston Consulting Group (BCG)*

*It is important for acts like the National Commission for Allied Health Professionals Acts to be passed. It is comprehensive in nature and provides robust recommendations for quality training and record of the healthcare professionals in India.*

# Takeaways

## Plenary Session

- Collaboration between different stakeholders in the healthcare industry, such as hospitals, universities will be crucial to address the shortage of skilled professionals in the allied health sector.
- Government tie-ups with private companies can help bridge the gap between the healthcare industry's demands and the skill set of allied healthcare professionals.
- Industry stakeholders can work together to create a more favorable, enabling environment for the health sector, such as developing training programs and upgrading training modules to address the skill gap.
- The Government can play a significant role in fostering collaboration by creating tie-ups between different institutions and providing incentives to promote the development of the healthcare industry.
- Collaboration between industry stakeholders can also help ensure certification and standardization of allied health professionals, promoting optimum utility for the entire ecosystem.
- Need for increased investment in technology to upskill and reskill allied healthcare professionals and meet the demand for skilled technicians in the healthcare sector.
- Leverage the power of social networking to create a platform for mutual respect and collaboration between different stakeholders in the healthcare industry.
- Upskilling can help people advance in their careers, as showcased by the GDA program in Himachal Pradesh.
- Upgrading training modules is crucial to address the skill gap in the healthcare sector.
- The power of digital healthcare is growing massively, and students from the sector can be imbibed into the healthcare industry.

## MoU signing between NATHEALTH & Andhra Pradesh Government



*The MoU was signed in the presence of Dr. V Vinod Kumar, IAS, Director of Medical Education, Government of Andhra Pradesh*

The MoU signed between the AP Government & NATHEALTH reflects how there can be an increase in the number of health workers and allied workers from an educational viewpoint. Andhra Pradesh healthcare industry serves to the needs of more than 54 million people that reside in the country, under the able leadership of honourable Chief Minister Sri YS Jagan Mohan Reddy.

### **The state spending & focus on healthcare**

As per a medical survey, healthcare expenditure in the state stands at a whopping 7.3% (whopping capital investment of 45,000 crore rupees) of the state budget, which is one of the best in the Indian states. Several factors are driving the growth of the healthcare sectors in the state which include an aging population, growing middle class, rising lifestyle, chronic diseases, embracing digital technologies, adopting AI, strengthening supply chain penetration of health insurance, and scope of PPPs.

The high percentage of institutional deliveries in Andhra Pradesh, with 50% of them happening in the private sector, highlights the acceptance and demand for private healthcare in the region. Additionally, the state has implemented Dr YSR village health clinics, which are staffed by a community health officer with a BSc nursing qualification, an MBBS doctor, and three to five Asha workers, and are built to serve a population of 2,500 to 3,000.

### **Public health a priority**

AP government has introduced the Noble initiative of the Family Doctor program to provide a wide range of health services (Anganwadi visits, school visits, anaemia monitoring, home visit to bedridden patients) to the rural population through dedicated doctors, being provided by the medical officers of 1142 PHCs through 10,032 village clinics. Every PHC with a population coverage of around 30,000. Is being insured with 2 medical officers in coordination with Panchayat Samiti.

AP is the first in the country to identify the importance of NCD prevalence and initiated a community-based survey which means every person will get his NCD screening done as per the Government of India guidelines. 75% of the total population or 92% of 30 plus

## MoU signing between NATHEALTH & Andhra Pradesh Government

population of Andhra Pradesh is already screened. AP ranks 2nd in terms of the total population screened, and 1st in screening of Abha IDs created in 30 plus population.

The admission of the referral case (requiring further referral to higher facilities) is further facilitated by Arogya Shree Hospitals which are appointed for every empaneled hospital under the Arogya program. The government has taken up many steps to strengthen secondary and tertiary health care.

The government has strengthened programs for CHC (Community Health Centre) area hospitals, district hospitals (promised special services of 15 specialties) standardized with the uniform staffing pattern, promising services of 5 specialists to an area hospital in other parts of the country called Taluka Hospital or sub-divisional hospital will have promised services of 9 specialties.

- Zero vacancy policy has been adopted, and a hospital comprising of a team of doctors, nurses, paramedical, allied & other healthcare professionals. Recruitment of 48,639 posts was done in the last one and a half years - 3899 specialist doctors, 2088 medical officers, 5777 staff nurses, 13500 ANMS, 10,000 community health officers, 250 data entry operators,
- The government has pumped in a whopping 16,855 crores for the infrastructure revamp to provide accessible and affordable health care.
- Under the Doctor YS Registry program, 85% of the population in the state is offered quality tertiary care free of cost. The state incurs an annual expenditure of 3300 crores under this program.
- A sum of. Rs225 per day is also given as post-treatment sustenance allowance to the patients to compensate for the loss of livelihood during their recuperation period under the Registry Asura program.

As per a recent survey, 1 in 10 Indians have a risk of developing cancer during their lifetime and one in 15 has the probability of dying due to cancer. To tackle this, the honourable Chief Minister has given a roadmap that by 2030 every citizen in AP shall have access to basic and advanced cancer treatment within the 50 km range of the state.

*Ms. Anu Acharya*

*Co-Chair South Chapter, NATHEALTH, Founder & Chief Executive Officer, Mapmygenome*

*The MoU is interesting because it does not just focus on the increase in healthcare professionals, but also the education perspective. It will allow us to look at the diagnostic footprint, and preventive healthcare from a broader lens.*

*Ms. Anitha Niranjan*

*Co-Chair South Chapter, NATHEALTH, Director, GHA Global Healthcare*

*Capacity building is the need of the hour, the more emphasis upon it, the better. This initiative does not just focus on healthcare but also focuses on AI, as well as technology, which is very exciting for Andhra Pradesh.*



# Takeaways

## Plenary Session

- The MoU signing between NATHEALTH and Director of Medical Education, Andhra Pradesh Government, shows a commitment to collaboration between public and private healthcare sectors.
- Private healthcare providers can leverage the government's infrastructure and policies to improve healthcare access and affordability.
- The MoU signing is a positive step towards achieving the government's goal of accessible and affordable healthcare for all in Andhra Pradesh.
- The collaboration will likely result in the development of innovative healthcare solutions for the state's population.
- Zero vacancy policy and infrastructure revamp have enabled the recruitment of over 48,000 healthcare professionals in Andhra Pradesh.
- CHCs, area hospitals, and district hospitals have been strengthened and standardized with uniform staffing patterns and specialist services.
- The Doctor YS Registry program offers free tertiary care to 85% of the state's population, costing the government 3300 crores annually.
- Post-treatment sustenance allowance of Rs. 225 per day is provided to patients under the Registry Asura program.
- The Andhra Pradesh Government aims to provide basic and advanced cancer treatment within a 50 km range for every citizen by 2030.
- The Government has invested in minimally invasive therapies and robotic surgeries, indicating a new era in healthcare.
- The Government can benefit from private healthcare providers' expertise in the latest medical technologies and therapies.



# 2nd NATHEALTH Healthcare CSR Awards 2023

The Chief Guest at the ceremony was Shri Rao Inderjit Singh Hon'ble Minister of State, Ministry of Statistics and Programme Implementation, Ministry of Planning and Ministry of Corporate Affairs, Government of India. The winners were selected after a thorough process of nominations and an esteemed Jury screening.

## Leaders Speak

"With 36% of private sector CSR funding being spent on healthcare, this has elevated India's status as a global healthcare center."



### **Hon. Shri Rao Inderjit Singh**

*Minister of State, Ministry of Statistics and Programme Implementation, Ministry of Planning and Ministry of Corporate Affairs, Government of India*

*The partnership between the private and public sectors has benefited India greatly, and CSR activities are a board-driven exercise. Boards have the freedom to decide where to spend 2% of the previous year's profits, with 36% of private sector CSR funding being spent on healthcare.*

Corporate Social Responsibility (CSR) has become a significant aspect of companies in India, especially after the new company act was passed in 2013. While CSR activities have evolved over the past few years, the COVID-19 pandemic has shown the positive impact of CSR activities in healthcare.

The recent NATHEALTH Healthcare CSR Awards ceremony was a benchmark for future awards, with eminent personalities serving on the jury, including NGOs. The awards recognized the efforts of those in the four verticals of health technology institutions, community-based health solutions, environmental health, and COVID-19 preparedness and resilience.

The partnership between the private and public sectors has benefited India greatly, and CSR activities are a board-driven exercise. Boards have the freedom to decide where to spend 2% of the previous year's profits, with 36% of private sector CSR funding being spent on healthcare. This has elevated India's status as a global healthcare center, with people from developing, developed, and rich countries visiting India for various treatments.

The NATHEALTH Healthcare CSR Awards ceremony should continue, inviting more people to participate in the future. While the government is expected to do more, the public often expects more than the government can deliver. The government's role is still significant in achieving healthcare excellence.

## Leaders Speak

"Each of the organizations celebrated on this platform has, on an average, touched 2.75 lakh lives, which is commendable."



### **Mr. C. K. Mishra**

*Former Secretary, Government of India,  
Mentor, Swasth Bharat Task Force, FICCI*

*The convergence of the Indian government & the private sector to promote tertiary care assorted with technology is of utmost importance. Each organization ended up touching 2.75 lakh lives. Celebration of success such as these awards is a big part of team building.*

NATHEALTH has grown very rapidly and has been successful in representing its intentions via known faces and personalities working round the clock. Rewarding people has never been never easy as it's strenuous to judge excellence, particularly with several excellent pieces on board. The panel refers to a methodology (% over work done) that decides who's performed the best. Nevertheless, judging an event really means knowing how much there is to know. It's a huge learning experience in the Indian scenario, at a national level to pull in the valuable resources, talents and ideas which are the most critical thing to ultimately contribute to excellence via a joint effort.

### **Highlights that are commendable**

**Response:** First, the event has received an overwhelming response known from the exceeding number of applications, displaying keen motivation on behalf of the applicants to showcase their extraordinary work, get recognition by winning an award & at the same time inspire other resources to replicate their excellence which is not mundane or but distinct & discreet.

**Reach:** The second thing is the kind of reach. That the work that the applicants have been doing, the organizations have been doing. The reach is not just in terms of the lives you touch, it goes beyond that.

**Quality:** The third, is that Quality was addressed or emphasized after a long period. In the Indian scenario, the surplus is managed at the cost of compromising on quality & this dearth needs to be ceased.

The jury shortlisted 63 applications (inclusive of CSR donors & implementers) individually reviewed to about 20 yard in various categories, out of which 40 belonged to community health. In fact, another figure, that is very revealing is that each of the organizations on average touched 2.75 lakh lives. Celebration of success, such as these awards, is an important part of team building and maintaining a self-assured team that can keep making an organization a great place to work with.

## Leaders Speak

"India should have a 10-20% allocation for health out of its entire CSR spending to ensure investments in relevant sectors."



**Mr. Ashwajit Singh**  
NATHEALTH North Region Chair  
Founder & Managing Director,  
IPE Global Group

*CSR being a mandated rule by the government is what is encouraging most companies to come forward and contribute. Platforms like NATHEALTH can assist in the implementation of such mandated CSR steps to see the much-needed change in CSR implementation.*

The ethos and philosophy of CSR can be conveyed through one famous quotation "When God blesses you financially don't raise your standard of living, raise your standard of giving".

NATHEALTH, along with IPE Global Centre for Knowledge & Development, implemented a public education campaign to improve COVID-19 vaccine confidence in five low-coverage districts across India. The targeted districts were Baksa, Chirang, South Salmara, and Udalguri in Assam, as well as Nuh in Haryana. This initiative was aimed at historically vaccine-resistant communities living in hard-to-reach geographies.

Over 2 lakh people were impacted (sensitized), more than 50+ stakeholders were engaged in 111 communities, with 25 vaccination camps and used multiple tools from nukkad dance, world paintings, banners, and more.

The project collaborated with government stakeholders, including district administration, health, education, and livelihood officials, as well as community members. The team nurtured influencers and developed a Behaviour Change Communication Campaign that aimed to sensitize the community members in a four-month period. The project successfully addressed myths and misconceptions surrounding COVID-19 vaccinations by employing a focused, ground-level approach. The project was a success due to community consultations, key engagements, and a Behaviour Change Communication campaign in local languages.

CSR being a mandated rule by the government is what is encouraging most companies to come forward and contribute to a certain amount. Health and education are two very key important sectors of the country, and if India can have a 20% or 10% allocation for health out of the CSR spending that would see investments going to the relevant places where it will make an impact. Platforms like NATHEALTH can assist in the implementation of such mandated CSR steps to see the much-required change in CSR implementation.



## NATHEALTH Healthcare CSR Awards 2023

The NATHEALTH Healthcare CSR Awards 2023 acknowledges corporates and philanthropic organizations for commendable healthcare initiatives through CSR. The awards recognize companies' efforts in internalizing CSR into their everyday thinking, with applications accepted in four categories. These categories include Health Technology Innovations, Community Based Health Solutions, Environmental Health, and COVID-19 Preparedness and Resilience.

### The esteemed Jury

- Mr. Chandra Kishore Mishra, Former Secretary, Government of India
- Dr. Indu Bhushan, Ex-CEO, Ayushman Bharat
- Ms. Roli Singh, Additional Secretary & Mission Director National Health Mission, Ministry of Health and Family Welfare, Government of India
- Dr. Rajani Ved, Director, Health, India Office Bill & Milinda Gates Foundation (BMGF)
- Ms. Sheena Chhabbra, Senior Health Specialist, World Bank
- Dr. Samapti Guha, Professor, and PhD. Coordinator Centre for Social Entrepreneurship, Tata Institute of Social Sciences, Mumbai

The jury selected the most deserving awardees out of the 63 applications received across corporates, and implementation partners. The award gives organizations and corporates their deserved recognition and establishes their project among the biggest names in the Indian Health Sector.

### Win with Vaccines Coffee Table Book (under the aegis of NATHEALTH CSR Charter)

The Win with Vaccines initiative used a Behaviour Change Communication campaign to engage with left-out, drop-out, and resistant (LODOR) communities. The photo book is a snapshot of the project process, beneficiaries, and stakeholders.



*Launch of Win with Vaccines Coffee Table Book in the presence of Hon. Shri Rao Inderjit Singh Minister of State, MoSPI, Ministry of Planning and Ministry of Corporate Affairs and Mr. C. K. Mishra, Former Secretary, Government of India, Mentor, Swasth Bharat Task Force, FICCI*



# NATHEALTH Healthcare CSR Awards 2023 Ceremony



*Hon. Shri Rao Inderjit Singh, Minister of State, MoSPI, Ministry of Planning and Ministry of Corporate Affairs, Gol, at the ceremony*



*The CSR Awards Ceremony in process*



*Winner: Project Suswathya by Child In Need Institute (CINI)  
Category: Community based Health Solutions:*



*Winner: Vaccine On Wheels by Jivika Healthcare  
Category: Covid 19 preparedness and resilience*



*Runner up: Tata Memorial Centre, Mumbai  
Category: Community based Health Solutions*



*Winner: NTPC Ltd for Revival and operation of  
Municipal Solid Waste Plant, Karsada, Varanasi  
Category: Environmental Health*



*Runner up: Project Manyata by MSD For Mothers India  
Category: Community based Health Solutions*



*Runner up: Project SCREEN by Wipro Ge Healthcare Pvt Ltd  
Category: Community based Health Solutions*

# Takeways

## Healthcare CSR

- Government tie-ups with corporates and NGOs will remain a key strategy to achieve social and economic development goals.
- Collaboration between public and private sector entities will drive innovation and create more effective solutions to societal issues.
- Industry stakeholders should continue to share best practices and lessons learned to improve the effectiveness of CSR initiatives.
- Collaborative efforts to be made to ensure that CSR projects are sustainable and have a lasting impact on the communities they serve.
- Industry stakeholders and government agencies should jointly develop strategies to measure the impact of CSR initiatives.
- Collaboration with local communities will be an important aspect of CSR projects to ensure that their needs are being met.
- Collaborative initiatives should be developed to promote education, healthcare, and environmental sustainability.
- Industry stakeholders to be encouraged to form alliances with other companies to jointly fund CSR projects.



# Plenary Session

PATIENT SAFETY & QUALITY

# Introduction



*Ms. Ameera Shah  
Vice President, NATHEALTH  
Managing Director, Metropolis Healthcare*

Patient safety, fundamentally is the spirit of ownership by all health care providers to continually aim, to prevent and reduce risks, errors, and harm that occur to patients during the provision of health care. The fundamentals for patients' safety start with the Hippocratic oath, taken by medical professionals. Currently, the lack of this institutionalized quality and safe care has resulted in challenges.

A visit to the doctor, a diagnostic center, or a hospital has no assurance about quality care behind the scenes as there are bare minimum standards and no one to monitor. Many of these adverse errors occur in the areas of delayed or misdiagnosis, medication. Incorrect medication, lab test errors, mislabelled specimens, radiology errors, the wrong side surgery, and equipment failures amongst others.

In the global context, according to the WHO patient safety report 2019, - unsafe or poor-quality care is among the top 10 causes of death and disability across the world.

The whole idea is to drive the concept of patient safety by launching a microsite that really talks about choosing safer health care; by uploading videos on medicine, hospital diagnostic safety guidelines & resources, short blogs, leadership codes & social engagement activities thereby reducing the risk of errors & resulting fatalities.

An example of the pathology industry, states that there are 300,000 labs in India, of which, only 2000 are accreditors. Even today 99.99% of labs are left unmonitored with zero standards, no audits, and no external testing. So, launching a patient safety microsite is a tremendous initiative by NATHEALTH, the Government of India, QCIA, NABH and the industry, all are coming together to show solidarity with patients on ensuring that their safety is top priority.



## Plenary Session VIII

### Panel Discussion I - Quality and Accreditation System and its Impact in the Healthcare E-space

**Moderator:** Ms. Abha Mehndiratta, Non Resident Fellow, Center for Global Development

#### Experts:

- Dr. Vijay Agarwal President, CAHO
- Mr. Narendra Varde Managing Director, Roche Diagnostics India, Neighbouring Markets
- Mr. Srikant Srinivasan Head Service South Asia, GE Healthcare
- Mr. Chhitiz Kumar Vice President, Health Systems, Philips
- Dr. Rupak Barua Director & Group Chief Executive Officer, AMRI



*Experts during the panel discussion*



# Quality and Accreditation System and its Impact in Healthcare E-space

## Healthcare - Quality

The Institute of Medicine has identified 6 crucial domains of healthcare quality:

1. Patient Safety
2. Patient centered
3. Effectiveness
4. Timelines
5. Efficiency
6. Equity

Indian society is not a one strata society, so quality for one and all is unattainable. Healthcare leaders are actually aiming to “walk the talk “and create a culture which nurtures quality and safety. The quality dimensions of the organization have to be on high priority, as much as the institution aspires to be financially viable and sustainable. The parameter of quality has to be viewed more as a prudent investment rather than an expense.

Getting an accreditation becomes the kind of a milestone and calls for celebration. Little do the hospitals realize that the accreditation is short-lived since it’s just the inception of the journey of quality.

Quality is needed at all levels in all the departments, whether it is the Department of Cardiology, housekeeping, paediatrics, or security. The culture of quality requires more collaboration and team building and a perspective of learning, unlearning, and re-learning at the extreme. In order to rectify the mistake, embracing it is the first step towards delivering quality; followed by analysis of the same.

For example, CAHO, an organization that has created a platform called Convert, where hospitals are invited to report their adverse events anonymously and then the corrective measures to be taken to make it patient-centric. For example, majority of the hospitals

*Dr. Vijay Agarwal  
President, CAHO*

*Technology is the one thing that can make healthcare equitable, affordable and efficient. Accreditation is the first step to a quality journey in the world of healthcare, it proves so much about the skill of an individual.*

*Mr. Narendra Varde  
Managing Director,  
Roche Diagnostics India, Neighbouring Markets*

*If quality is important in the automobile industry, for MedTech, it is absolutely paramount. The country is progressing in that direction because the government has started to allow labs and hospitals to make decisions based on value features.*

## Quality and Accreditation System and its Impact in Healthcare E-space

grant the rights and responsibilities of the patient not being communicated to them, translated in a language that a person can understand as a corrective measure for quality. Last but not least, we need to develop a culture where we are able to embrace innovations simultaneously. Technology on the other hand can make healthcare equitable, affordable, and efficient thereby contributing to quality healthcare.

### Importance of quality in Healthcare

Taking quality up a notch is an impending goal for the Indian healthcare industry. In the healthcare industry, diagnostics coupled with MedTech products are of paramount importance. It's very rare that a person heading for a blood test is educated about the methodology based on which the reports are generated, whether it's done with good quality metrics or it's automated or semi-automated. This is where it becomes a responsibility of the government to make sure that accreditation is really pushed so that there's at least some kind of a basic benchmark for people to know" behind the scene "results. As a part of the accreditation, it should be mandatory to set up some basic SOP on how labs function on day to day basis.

The efforts of the government should definitely be applauded for taking drastic steps to combat covid by not only assessing different technologies but shelling out more currency to form public & private partnerships.

The next step that follows is Value-based Procurement so that the right technology with the right kind of environment gets the right price and benefits the patient. To combat limited awareness, the Government has taken strong steps in that direction, by permitting labs and hospitals to take decisions where 30% of the decision can be based on value features. But this information, again, needs to be percolated. This is where HTA (Health Technological Assessment) comes into the picture - a combination of cost-effectiveness and getting the right technology, the right innovation for the patient.

### Equitable delivery of medical care

The Indian healthcare industry implements & introduces quality systems, quality processes, and quality protocols, but maintaining equity, and equitable medical Services generally is a major reason for concern. On the other hand, equitable delivery of medical care is highly essential in the healthcare industry. To start with, manpower comprising of credential-privileged doctors, all medical professionals or paramedics play a crucial role in delivering equitable quality care who are not only well qualified but can handle the systems with efficiency.

The patient RMO ratio is also very important. If a patient is in critical care, or under ventilation, the patient ratio should be 1:1, or 1:2, or 1:4, and so forth.

## Quality and Accreditation System and its Impact in Healthcare E-space

The help of technology should be taken to store all of our services (data) on our process systems (electronic medical system), like prescriptions or medical records.

### Fabricated system awareness

As per the panel experts, an ecosystem needs to be designed, which has patient safety as the primary concern. For example, markets in Europe or in the US are highly evolved and cultivated as far as the system of awareness, processing, reporting adverse events, technology-based use; on all of these parameters. Obviously, India is still evolving in terms of healthcare.

The Indian Government needs to take lead and put up strong & transparent policies in place ensuring all adverse events & all near misses are reported. Secondly accreditation should be in place since the healthcare industry is dealing with lives. Examples are NABH and QCI that are already working on 100 % coverage of accreditation.

The other aspect is creating awareness on behalf of all common citizens about our rights, responsibilities, quality and safety.

Referring to systems and processes very clearly, there are 2 expectations - One is a leading indicator and one is a lacking indicator in terms of safety or quality. It does not indicate that a catastrophe has taken place, it could be a near miss pointing out at an impending danger that something could go wrong. Hence, reporting without fear or without the thought of punitive action coming in fatalities could be avoided largely. Stakeholders in the industry are liable for ensuring that we put this in place as its extremely important. India has started to implement the parameters for patient safety & quality under the leadership of the already established countries like USA.

### NABH – creating an ecosystem of quality in India

Established in 2005 under the Ministry of Commerce, NABH has always catered to the needs of the healthcare industry. There was no looking back post launching 23 standards including all kinds of facilities.

*Mr. Srikant Srinivasan  
Head Service South Asia, GE Healthcare*

*Using the point of care solution became more accessible during COVID with the establishment of home ICUs and rapid testing kits. Exactly like this, technology will allow quality to be simplified for the common man.*

*Mr. Chhitiz Kumar  
Vice President, Health Systems, Philips*

*Establishing agencies like the tumor board virtually puts the patient at the center. The patients can get a second opinion while being present only virtually. Technology breaks the barrier and digital technology has led to improving integration across the continuum of healthcare.*

## Quality and Accreditation System and its Impact in Healthcare E-space

The need of the hour is to enter the domain of digital technology. More and more hospitals and healthcare organizations are opting for digital health processes and NABH has also collaborated with ABDM. ABDM has already launched ABHA, HFR, and a health professional registry. NABH is committed to supporting ABDM and an MOU with ABDM has been signed promoting the components of ABDM. NATHEALTH certifies the health initiatives as demanded by the NABH & ABDM.

NABH will soon launch digital health standards for hospitals as they are moving towards the digital health processes. The standards will be uploaded on the website and all the stakeholders can comment on data standards.

### How does the future look like?

As per the panel experts, there is a lot of scope for trained quality managers who can handle, implement and assess the results flawlessly. An initiative to train the trainers, in the form of quality managers who can implement these processes is important. There are some digital initiatives taking in. There is a lot of scope for more rigorous training. The Indian Government did a fantastic job as seen in cases of covid many rapid tests were allowed for the patient and simultaneously managing bio-hazardous substances on the other hand. So, in any healthcare system, especially the Indian scenario, the vision is to enable AI, to deliver care to the last mile without a doctor having to physically do so or depending on top notch brains

NABH has done an amazing role by changing the entire quality landscape in India since 2006, But a major vertical is missing and it's the Home healthcare. NABH is striving to provide some of the quality solutions in providing uniformity across so many companies providing home healthcare. A few more standards are being worked upon like telepathic clinics and then dialysis.

*Dr. Rupak Barua  
Director & Group Chief Executive Officer, AMRI*

*We are working towards a future where even an ASHA worker is able to deliver an efficient point of care to a patient with a little bit of help from AI. With a little support from the clinical decisions support systems, this alternative set up would be the ideal reality.*

## Plenary Session VIII

### Panel Discussion II - Embracing Patient Safety: Can We Protect Patients While Ensuring Access?

**Moderator:** Prof. Anupam Sibal Group Medical Director, Apollo Hospitals

**Experts:**

- Dr. Pavan Choudary, Chief Executive Officer & Managing Director, Vygon
- Mr. Sanjiv Navangul, Managing Director & Chief Executive Officer, Bharat Serums & Vaccines Private Limited
- Mr. Rishubh Gupta, General Manager, Baxter
- Dr. Ratna Devi, Director, Patient Academy for Innovation & Research
- Mr. Sanjeev Vashishtha, Managing Director & Chief Executive Officer, Pathkind\*



*Experts during the panel discussion*



## Embracing Patient Safety: Can We Protect Patients While Ensuring Access?

As per global research, a whopping 134 million adverse events that take place every year could be major, minor, disability or sometimes a death causing emotional impacts on family left to face losses, harming the reputation of the institutions and victimising the healthcare.

- In the Indian scenario, adverse events did not receive any attention at all but in recent years, there has been a change in the narrative focusing more on patient safety concerns.
- The World Health Organization in 2019 passed a resolution on global patient safety, and that then culminated a roadmap, for global patient safety unveiling a plan for 10 years.
- There are 7 strategic objectives. And the good news is that India has signed on to the World's global patient's safety plan and has been involved in the genesis of the plan created. Some of the basic precautions before procedures & surgeries are planned and conducted.
- The World Health Organization has decided to observe 17th of September as patient safety day.

### Empowering patients

In the Indian scenario, patients are not going to get empowered on their own. The healthcare industry in collaboration with the Indian Government is responsible to give them the right tools, the right knowledge, the right environment. And that is only possible unless we ourselves are empowered. Interestingly, patient journeys don't begin and end

with hospitals. There are various touch points and not all touch points are under the control of hospitals. Hospitals and healthcare institutions and facilities play a larger role in engaging patient's touch point, so that the entire ecosystem becomes patient safe.

So how can the industry collaborate better? This is where the patient academy comes in. There is something called the Asian Patient Safety Network, which engages patient leaders from eight countries, it has an advisory board. There's also an Asia - India patient safety network that has about 60 patient organizations in this group.

*Dr. Pavan Choudary  
Chief Executive Officer & Managing Director, Vygon*

*Allopathic healthcare should not get a bad name, there are many mistakes that are made even by mainstream healthcare that may be the cause of a lot of mishaps. After we recognise the issues at hand, nothing can stop us from seeing a brighter future.*

*Mr. Sanjiv Navangul  
Managing Director & Chief Executive Officer, Bharat Serums & Vaccines Private Limited*

*We talk a lot about patient safety, but sometimes we are so obsessed with the quality that we ignore some of the other parts. It is important to focus on aspects like reporting outcomes and patient safety while considering money.*

# Embracing Patient Safety: Can We Protect Patients While Ensuring Access?

## Quality issues

Erroneous diagnosis means the illness is caused by misdiagnosis, or treatment executed by a doctor, a nurse, or pharmacist, or could be a technical error. Modern-day allopathic healthcare should refrain from getting a bad name.

- The big culprits here could be errors of mechanical skilling, pumping mistakes, line maintenance, connecting a ventilator properly, faulty systems, poorly designed systems lastly.
- Then poor communication and improper documentation are the other factors.
- Resource waste constraints and inappropriate medical devices.
- ICUs are not always manned by experts.
- There are cultures and issues, also nurses hesitate to point out a mistake, followed by dead silence of guilt.
- The number of unnecessary procedures performed annually is 7.5 million
- Many doctors are overburdened by the workload which eventually accounts for fatalities.

## Counselling patients for safety

The prime responsibility of the healthcare industry is to build patients' confidence and educate patients in possible ways. With the advent of technology, we can do a lot more in empowering patients about their own safety. Additionally, all pharmaceutical companies' lab advisory boards should try to represent real patients in it.

## More focus on solutions

First is better training or health care supply. For example, almost half of the patients with upper respiratory disorders in the US still receive antibiotics whereas CDC says that 90% of upper respiratory infections are viral. and should not be treated with antibiotics.

Secondly, the medical technology industry, as well as the hospitals focus on the electrical safety of medical devices. Whereas, research shows that the biggest problems are there in mechanical issues.

*Mr. Sanjeev Vashishtha  
Managing Director & Chief Executive Officer, Pathkind*

*Our products are fantastic and the healthcare industry is thriving in India. What we could do to improve is to include patient safety and awareness. Our communication angle as pharmaceutical companies can be worked upon.*

## Embracing Patient Safety: Can We Protect Patients While Ensuring Access?

Some other solutions include requiring hospitals to develop systems to avoid medical errors and report on serious medical errors, delegating only specially trained doctors in intensive care medicine, and increasing the number of nurses, updating knowledge so that the safest procedures are used because technology moves at one speed and skill moves at another.

there could be a platform where patients can provide feedback on their experiences, and this feedback can be used to improve the system's performance.

Another way to channel experiences into a positive force is to encourage patient advocacy groups. These groups can help create awareness and put pressure on the system to implement changes. They can also provide a platform for patients to share their experiences and help others going through similar situations. By creating a network of support, patients can feel empowered and less isolated.

Finally, it is crucial to encourage doctors and hospitals to listen to patient feedback and take it seriously. By working together and making the patient's experience a priority, the system can be improved and everyone can benefit. It is essential to remember that patients, doctors, and hospitals all have a shared goal of providing the best possible care. By focusing on this shared goal and working together, positive change can be achieved.

*Mr. Rishubh Gupta  
General Manager, Baxter*

*The regulatory landscape is changing monumentally in India, which means that the products entering India will be safer. It may be an increased cost of vigilance but as an industry this is a great opportunity for the industry where negotiation of this regulation can lead to a lot of success.*

*Dr. Ratna Devi  
Director, Patient Academy for Innovation & Research*

*In order to reach the optimal care and accessibility for the patients, collective patient histories could take us to another level. It can be a cohesive research without pointing out any companies just experience within the healthcare industry, which can help us a lot.*

# Takeaways

## Plenary Session

- Effective communication between healthcare providers and patients is essential for quality healthcare delivery.
- Preventive care and early detection of diseases can significantly reduce healthcare costs and improve outcomes.
- Patient empowerment on quality through education and involvement in healthcare decisions can lead to better outcomes.
- The healthcare industry should adopt a patient-centric approach that prioritizes the needs and preferences of patients.
- Transparent pricing and billing practices can improve trust between patients and healthcare providers.
- Incentivizing healthcare providers for quality outcomes rather than the volume of services provided can improve the quality of care.
- Remote monitoring and telehealth services can improve access to healthcare for underserved communities and rural areas.
- Incorporating social determinants of health, such as housing and access to healthy food, into healthcare delivery can improve health outcomes.
- Ensuring diversity and inclusion in clinical trials can lead to better healthcare outcomes for all populations.
- Public health initiatives, such as vaccination programs and disease prevention campaigns, are critical for promoting public health and preventing disease outbreaks.

# Launch of Patient Safety Microsite & Campaign





## Leaders Speak

"QCI, NABH & NATHEALTH's Patient Safety Campaign is a significant step towards improving patient safety and quality in today's scenario."



### **Dr. Narottam Puri**

*Principal Advisor, Quality Council of India; Advisor (Medical Operations), Fortis Healthcare; Advisor-Healthservices and Medical Value Travel, FICCI; Hony. Professor, Indian Medical Association; Co-Founder, Centre for Design and Innovation*

*Leaders need to invest money, to bear the fruits of the efforts invested in healthcare safety. Focus on equality is paramount. As Oscar wine quoted, "We live in a world where we know the cost of everything, but the value of nothing."*

There is an old adage, which says that "Wisdom is the daughter of experience". A lot has been heard about what is wrong with hospital systems, callousness in providing patient safety and quality, and patients' rights. Nobody seems to talk about the patients' responsibilities.

If a patient skips the prescribed medication, the results are going to be inadequate. Preventing risks and reducing harm is the fundamental theme of patient safety. As enunciated, 5 people in low income countries die because of medical errors. In other countries, 4 in 10 are affected due to adverse events in OPD settings - 80% of these are preventable and 50% of the patient harm is caused by medication, contributed by the pharma industry and the hospitals. A campaign launched by the World Health Organization (WHO) last year, observed September 17 as Patient Safety Day.

In line with the global efforts, following three principles are observed on patient safety movement via a dedicated website by NATHEALTH:

- Information
- Education
- Communication – not just within the institution, but also to the the patient's relatives is very important.

Furthermore, leaders need to invest money, to bear the fruits of the efforts invested in healthcare safety. Focus on equality is paramount. As Oscar wine quoted, "We live in a world where we know the cost of everything, but the value of nothing."

# Overview on Patient Safety Campaign and the Significance in Today's Scenario



**Dr. Ravi P Singh**  
Secretary General, QCI

*For quality in the healthcare ecosystem in the country I am happy that the team at QCI has taken a step forward in collaborating with NATHEALTH, which is emerging as one of the biggest advocacy groups in the healthcare ecosystem.*



**Prof. (Dr.) Mahesh Verma**  
Chairman, NABH  
Vice Chancellor, CGS IP University, New Delhi

*It's an opportunity to congratulate NATHEALTH for launching the Microsoft, promoting patient safety, healthcare. We are very happy to partner with NABH. This collaboration is for the larger purpose of improving health of every citizen in the country. In the year of India as G20 presidency, I think this initiative will take us one step closer to the mission of one earth one family and one future.*



**Dr. Atul Kochhar**  
CEO, NABH

*Partnering with more than 1700 big and small hospitals in 8 countries has led to worthwhile creation of empowered patient safety measures likely to have huge impact in the long term. I congratulate the entire team, which will be working under the very able guidance for Dr. Narottam Puri and Mr. Siddharth Bhattacharya, and NATHEALTH for supporting this venture.*



# Start-up & Innovation Hub

## Start-up & Innovation Hub

NATHEALTH arranged a business collaboration platform for healthcare start-ups and established businesses alike, during the 9th Annual Summit 2023. The opportunity offered owners of unique business opportunities in healthcare from around the world and India to showcase and exhibit to all the participants of the Annual Summit.

The healthcare industry confronts a multitude of challenges such as escalating costs, growing burdens, data fragmentation, and rigorous regulatory frameworks. In this context, startups are playing a pivotal role in driving the digital transformation of healthcare by creating innovative solutions that address some of these issues. These startups are revolutionizing various domains of healthcare with cutting-edge solutions including health risk assessment, disease management, telemedicine, e-pharmacies, drug discovery, clinical development, med-tech, diagnostics, AI/ML-powered clinical decision support, health monitoring, fitness and wellness, and more.

### **Impact of a strong and integrated digital health ecosystem:**

- Enhancing access to quality healthcare, through affordable diagnostics and reduced costs
- Optimization of healthcare delivery systems, with better patient outcomes
- Increasing the efficiency of healthcare providers, and enhancing health monitoring
- Facilitating healthcare data interoperability, and enabling Data based insights

In the Union Budget 2023-24, the government has allocated Rs 283.5 crore for the Startup India Seed Fund Scheme, providing an immense boost to innovation through start-ups. However, these startups need the support of the ecosystem to create opportunities for scaling these solutions and enabling go-to-market opportunities. The Startup Innovation Hub presents a platform for Startups to engage with Hospitals, Diagnostic Chains, MedTech Enterprises, and Public Healthcare stakeholders.

The Start-up and Innovation Hub sessions enabled some of the leading HealthTech start-ups in India and showcase their offerings across six major themes:

1. Patient Engagement
2. AI-based Clinical Decision Support solutions
3. TeleHealth
4. Digital Therapeutic/MedTech
5. BigData/Analytics
6. Hospital Automation

The event featured a range of engaging activities including panel discussions, AMA sessions, and curated roundtables. Additionally, the event featured an exclusive pitch session where startups showed their solutions to leading stakeholders from healthcare, MedTech, and pharma companies. This pitch session offers an unparalleled opportunity for startups to connect with potential partners and investors, and to gain valuable exposure in the industry.

## Start-up & Innovation Hub

Panel Discussion I - Opportunities for health Tech Startups in India in Clinical Decision Support & Big Data & Digital Health

Moderator: Mr Amit Mookim, VP & General Manager, South Asia, IQVIA

### Experts:

- Mr. Kabir Mahajan, Associate Director, Mahajan Imaging & Labs
- Dr. Arjun Dang, CEO, Dr Dang's Lab
- Ms. Anu Acharya, Founder & CEO, Mapmygenome
- Mr Deepak Sahni, Founder & CEO, Healthians
- Mr Girish Raghavan, VP, Digital Engineering & Technology, GE Healthcare



*Experts during the panel discussion*



## Start-up & Innovation Hub

### Panel Discussion II - Opportunities for Startups in the area of Hospital Automation & Patient Engagement

Moderator: Mr Vidur Mahajan, CEO, CARPL.ai

#### Experts:

- Dr. Sameer Gupta, Director, Metro Hospitals
- Ms. Ruma Banerjee, VP, Ambuja Neotia Healthcare Venture Limited
- Dr. Dhruv Joshi, Cofounder, CEO, Cloudphysician



*Experts during the panel discussion*

# Start-up & Innovation Hub

## Panel Discussion III - Fund Sights and Growth Journey

**Moderator:** Ms Apoorva Shrivastava, Founder & CEO, Resolve360, Rehabunified Pvt. Ltd/NASSCOM

### Experts:

- Mr. Arun Agarwal, Founder, Janitri
- Mr. Rahul Ranganathan, CEO, NuGenomics
- Dr. Raajiv Singhal, Founding Member, MD & CEO, Marengo Asia Healthcare
- Mr. Sunil Thakur, Treasurer, NATHEALTH and Partner, Quadria
- Mr. Anjan Bose, Founder Secretary General, NATHEALTH and Former President, Philips Healthcare and Consumer Lifestyle
- Mr. Gautam Khanna, CEO, PD Hinduja National Hospital and Medical Research Centre
- Mr. Ashish Bhatia, COO, Fortis Hospital, Delhi



*Experts during the panel discussion*



# Start-up & Innovation Hub at a glance



## Start-up & Innovation Hub Participants

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# Summit Wrap up & Concluding Remarks



## Concluding Keynote Address

**Mr. Rizwan Koita Co-Founder, Citius Tech, Koita Foundation**

Healthcare is very complex and digitizing healthcare requires a lot of stakeholders to work together both in the public as well as private sector. There is a significant amount of disparity in the level of sophistication, in the ability to invest, in the ability to understand the intricacies of the digital health space. In all aspects, it could be viewed as a marathon and start to plan for the digital health transformation as a marathon and not a sprint. Whether it's a large company or a startup, if too many resources are invested too quickly it results in burn out, then the probability to win a marathon is very low. Pacing oneself rightly in this scenario well increases the chances of getting a reward eventually.

As per panel experts, to make progress in digital health, the ability to reduce complexity for all stakeholders including healthcare technology vendors has to be worked upon to avoid building custom solutions for each of their clients in turn not requiring them to execute their own way. Defining standardizations in data sharing, continuity of care, goes a very long way in defining & implementing digital health.

Secondly, many healthcare providers whether in India or outside India often don't have all the means to invest. Stipulating some level of financial support, either through compliance incentives or capex becomes crucial. Many insurance companies are extremely motivated, animated & keen on providing certain benefits to partners or hospitals who intend to go digital. And that could be something as simple as just positioning their claim settlements on priority in addition to reducing the turnaround cadence for claims. Consequently, e-Claims get settled faster than traditional claims and can go a huge way in creating financial incentives.

Some entities are corporatized, to mention, technology vendors often work with small & big vendors who have a more corporate type structure. In conjunction with a CEO is a certain head of technology, an engineering team, & other department. A look at labs and pharmacies, exhibits the tendency to be more structured. Hospitals are often either government hospitals, & multifarious of them are trust owned. The key decision makers often are doctors who are inadequate, they don't have a reporting hierarchy and therefore, enabling to accelerate digital health into the vendor and the service provider community will result in having a huge percolating effect by giving a much larger bank for the buck then targeting doctors or hospitals directly who are much challenged to adopt & create some kind of financial incentive.

On the consumer front, creating an incentive, especially in a price sensitive market like India, can go a long way. For example, Possibility of the lab companies who could share lab data on your Aadhar ID (link ABHA to the hospital records) and not hand over a printed document, saving the printing cost, saving paper, & eventually saving the delivery cost by post to patients. Maybe it could work well in the Indian scenario, but that itself is not a

## Concluding Keynote Address

compelling argument for many doctors and hospitals where there is a real cost and labour associated with volatile clinical protocols, altering the way of work, so on and so forth. Expecting consumers to suddenly become so actualized about their health that everybody starts maintaining their PHR very promptly is an idea out of reach yet. Big companies around the world have tried to come up with the personal health record solutions and strategies, and most of them have not been a success. Different people working in an uncoordinated manner without a certain common theme or common objective; lack of co-ordination between the govt. & the industry are few challenges.

There are 3 heads revolving around the Indian government and industry

- Innovation and research.
- Regulation incentives.
- Capacity building and marketing.

There is a real need for digital health innovation in India. Western solutions that have worked really well in a lot of areas in countries like USA & Europe will not work in India because either they were over architected for the Indian market or are too expensive, or not necessarily aligned with the workflows on the ground level in India. It's important that we create a digital healthcare startup ecosystem. The Indian government and industry can co-ordinate with the startups.

- Creating an ecosystem where we have doctors and hospitals who are open to piloting new technologies & become early adopters.
- The Indian government and healthcare industry can converge integration between research institutions, healthcare organizations to broaden digital health rapidly.
- Academic institutions can provide internship opportunities to really bright kids who are keen to do stuff in digital health. Only then they can somehow get connected to small companies, large companies in the digital health pace.
- There's a lot of talent out there, but it's very difficult to find motivated companies & individuals or young engineers to get connected in absence of some framework.
- The Indian government in the industry can monitor regulations and incentives. With the upcoming digital health guidelines, NATHAELTH is involved with NABH contributing to digital health standards.
- ABDM is a phenomenal opportunity to standardize and create a certain set of common standards for transporting data across one hospital to the other, between doctors, between labs, and so on and so forth.
- Capacity building and marketing, improving the awareness levels of all stakeholders.
- A couple of days of training or a few hours, done rightly can solve a lot of the apprehensions that exist in the mind of doctors and hospitals about using digital health.
- A new curriculum which can be embedded into an MBBS program with a certain degree of medical knowledge breeding doctors & nurses who are preliminarily tech savvy.

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**9th Annual Summit Arogya Bharat 2023 Report**  
Healthcare Federation of India (NATHEALTH)

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