A NATHEALTH Initiative

Released: January 2021

NATHEALTH™
Healthcare Federation of India

THE KNOWLEDGE RESERVOIR

VOLUME 1

A Unified Voice of Healthcare Leadership across Key Opinion Areas









Produced by: Health Biz Insight

Executive Summary

NATHEALTH was formed with the vision to be the unified and credible voice of Indian healthcare. As a joint representation on behalf of all stakeholders, NATHEALTH's initiatives are targeted towards meeting its key goals.

The activities, including 9 webinars conducting throughout the year 2020, depict these very key focus areas of NATHEALTH, which can be broadly classified as under:

- Active Collaboration and Presentation of Thought Leadership
- Targeted Partnerships & Meaningful Engagement
- Building & Enhancing Public & Government Trust
- Proactive Communications & Active PR
- Catalyzing Innovations in Healthcare

With each activity and initiative, the Federation aims to increase the penetration of its unified voice across the industry; and particularly works toward improved communication channels with the Government.

One of the crucial areas for NATHEALTH's ingenuity is to create a Knowledge Reservoir. The Reservoir's role being: To be a joint representation of all the voices of healthcare leaderships, across various prominent themes, issues & challenges. To study the roadblocks, to assess the capacities, and to find substantial ways and improve the outcomes.

The First Volume of the Knowledge Reservoir has been brought out to kick-start the year 2021 with renewed motivation on the way ahead for the sector.

This compilation brings forth 9 critical topics.

They were discussed in depth by the collated efforts of various healthcare leaders. The detailed results of which can be read ahead in this report.

A quick glimpse is presented here as well.

Executive Summary

Data Analytics in COVID-19

Data analytics has been the buzz word since the last few years. During the pandemic, the need for data analysis enhanced even further. The healthcare sector generates heaps of data, as is known. Although, what matters is how this data is gathered, analyzed, and used to arrive at adequate evidence for enabling path-breaking decisions.
The event discussed analytics, India's data trajectory, data capture process, issues in access and sharing improvements; plus, how COVID-19 gave jet speed to the process. The industry now hopes that the momentum stays high, to steer the sector in the right direction even in the future.

13 crore downloads were seen in 1 month after the Aarogya Setu app launch

Telehealth/Digital Health during COVID-19

The subject highlighted how practicing telehealth in today's times is the right way ahead. Telehealth is anything that makes distance meaningless. Although, good connectivity is necessary to enable telehealth. India has come a long way in the last few decades and has improved connectivity. After the Telemedicine Guidelines were issued during COVID-19 by the Government, many organizations adopted telehealth and started trainings.
Accreditations for telemedicine delivery also started coming in soon after the telemedicine guidelines came in. The event also focussed on major roles and models of telehealth. However, few key elements to bear in mind for the future of telehealth are that it has to be self-sustaining, revenue generating, compliant and future ready. Only then, the platform can survive and grow.

India has seen a 300% surge in teleconsults during the pandemic

Future of Indian Healthcare Eco-System: A Collaborative Approach

The context was to discover how a collaborative approach can elevate the Indian healthcare sector to a higher level. Due to COVID-19, a need has risen for a comprehensive review of the healthcare landscape in India. The challenge, though seemed insurmountable at the starting line, regained balance and India is coming out of it safely and strongly.

Executive Summary

All of which was possible when India's entire healthcare sector made collaborative efforts. It is now vital to maintain the momentum. The event shared various successful results achieved via collaborations, future opportunities, and also future plans of the Government.

NHA aggressively empanelled 2500 hospitals in less than 2 months after COVID-19 hit

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The Strategic Purchasing of Healthcare

The Indian government has up till now paid for services in a traditional way, which usually has less accountability. Due to Ayushman Bharat & NHA's active role now, there have been reforms in the way strategic purchasing is approached. Key questions to ask during purchasing are: What mix to procure? In what volume to procure? From whom? How to procure?
The event discussed cognizance about payment fairness, use of technology & IT for enforcing strategic purchasing, NDHM's role, accountable care, possible solutions and ways to overcome challenges faced in the strategic purchasing of healthcare.

NHA launched IT 2.0, a stronger technical mechanism for Ayushman Bharat, which can be widely used for strategic purchasing decisions

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The Need for Skilling and Upskilling of Healthcare Providers and Medical Students

Healthcare industry has been stressing the need to skill and upskill in order to meet the manpower shortages being faced. During COVID-19 too, the pinch was felt. However, respite came in the form of Directives by the Government released on March 26th 2020, in which protocols for online training and skilling were laid down. This, combined with rigorous efforts of all the industry stakeholders, improved the situation.
The event also focussed on skilling and upskilling on the job, and pathways to fill gaps. Moving to non-COVID-19 times, the experience and new policies will come in handy to keep upgrading the manpower in Indian healthcare.

India will need 200,000 skilled staff & 10 times the dialysis machines in the next decade

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Executive Summary

Strengthening the Ecosystem Resource Mobilization, Capacity Building, and Scalability (By bringing together Government and Industry Partners)

COVID-19 brought along with it increased capacities of the healthcare sector. India was able to boost, and in a short span, its pharma productions, PPE manufacturing and also testing kits production. The event spoke about how recently, the Government also made efforts by clearing dues of CGHS, GST and other pending payments to the private sector, to assist them with financial requirements. The Government has even pushed the telemedicine guidelines, through which digital healthcare has taken a boost.
For instance, while EHR was mandated during the Clinical Establishments Act, not many hospitals really adopted EHR. COVID-19 enabled the widespread use of such technologies. Future possibilities were discussed, like upscaling of the med tech sector's capacity and improvements in logistics. The event also deliberated on attracting players to surge capacities in healthcare, efficiently working with the government, and understanding viability issues.

In a hospital set-up, only 10% processes are value-based

Changing nature of healthcare demand and how can it be revived?

The healthcare industry is still shaking due to the COVID-19 quake. Hospitals and med tech sectors have been hit hard. In such a scenario, how can demand be brought back? The webinar shed some light on it.
A mix of building trust again with patients to redefining the hospital business models, the panel spoke about it all. Financial support models, shift to a virtual world (digital health), change and improvement in insurance models, supply chain management, innovations - came to fore as some of the key factors that can help in driving back growth and demand.

By sensor technology, nurses can save 24% time spent in machine locating, allowing hospitals faster TATs & higher outputs

Value of diagnostics today: technology, testing capacity, and accessibility are key drivers

The year 2020 saw more regulations in the diagnostic sector, accountability, and

Executive Summary

better systems were put in place, and the Government focussed on organizing the sector in an improved manner. The market is big enough. The entry of larger, well-established hospital chains validates the need for standardized testing policies, helps validate the industry too with more recognition.
The future will see better quality standards and more certifications. The webinar discussed how stringent regulations, better Government control and enhanced capacities can work to further improve the status and outcomes of the sector.

India has 145,000 labs in the country, & only about 11,500 skilled manpower

MedTech Sector's role in the Government's vision of a Self-Reliant India

As is a known fact, India has an almost 70% import reliance. Though, in 2020, the focus shifted on the supply chain and has led the Government to rethink on diversifying the supply chains. A key lesson has been to have less dependency on outside India, and on particular countries or geographies.
Most of the key starting material (KSM) of the med tech sector has always been imported, that too mainly from China. Time has come for the Government to now improve its Make in India program in this sector. The event discoursed how regulations, incentives and proper Government support can enable much better Make in India programs for the med tech industry.

6-7% growth hampers due to manufacturing disabilities in the med tech sector

In Summation

The webinars brought together an apt mix of industry leaders like:
Senior Government Officials, Senior Government Consultants, Business Founders, Managing Directors, CEOs, Physicians, Scientists, R&D Experts, Vice Chairmen, Vice Presidents, Deans, Executive Directors, and Strategy Officers.

The report encapsulated perfectly the recipe for growth of the Indian healthcare sector - which can be achieved by a blend of collaboration, concerted efforts of the Government, well-planned PPPs, favourable policies, adequate investments, innovations, skilling and a strong will to work in a unified manner for this growth.

Data Analytics in COVID-19

Data analytics has been the buzz word since the last few years. During the pandemic, the need for data analysis enhanced even further. The healthcare sector generates heaps of data, as is known. Although, what matters is how this data is gathered, can be analyzed, and used to arrive at adequate evidence for enabling path-breaking decisions. The webinar discussed all these points, plus how COVID-19 gave jet speed to the process. The industry now hopes that the momentum stays high, to steer the sector in the right direction even in the future.

Session guests:

Mr. Amit Mookim
Managing Director, IQVIA South Asia

Dr. Tavpritesh Sethi
Physician-Scientist & Assistant Professor at IIIT Delhi

Mr. Kiran Anandampillai
Advisor - Technology, National Health Authority (NHA)

Moderator:

Dr. Vidur Mahajan
Head of R&D, CARING Mahajan Imaging

Stakeholders, data analysis and COVID-19

Data analytics has the potential to enhance healthcare delivery, and be used as human data science. Various stakeholders worked and are working together with the Government to manage and tackle the pandemic. The webinar shed light on some of these initiatives. For instance, IQVIA has been working on changing the clinical landscape along with different Governments. During COVID-19, the organization created a Care Registry for patients, to gather and analyze data.

IIT Delhi also developed methods to analyze data during COVID-19. The institution has generated certain evidences from the data. The experts at IIT Delhi have applied a learning policy from the conglomerate of data that gets received. Data regarding socio-economic systems, GDP, along with COVID-19 data is regularly analyzed and understood. At the start, it assisted in explaining (up to an extent) the discrepant burden of COVID-19 world over.

Para data, which means the entire data, has been combined with the on-ground numbers using machine learning. Solutions are then arrived at on how to tackle COVID-19. Data from the WHO is also used to work out forecasting methods for COVID-19.

Additionally, IIT Delhi is working with the Government to create communication channels. In a pandemic scenario, is it important to understand what should be communicated, to whom, and in which format. Different phases require different strategies, data gets used to arrive at these strategies and also at the timelines at which they should be implemented. Data has been used extensively for understanding resource allocations and the gaps.

The webinar discussed how the NHA launched its COVID-19 helpline (1075) and enabled people to report their symptoms on the Aarogya Setu app. Till the date of this webinar, the app had gathered data of almost 7 lakh people.

The NHA has shifted to a cloud platform due to COVID-19 and has rerouted the helpline calls to cloud telephonies. The staff has also been given a different CRM, which they can operate from their phone.

The data from 900+ agents' calls gets collected at a central system. It was discussed how the Government had brought out the first paper by NITI Aayog on National Health Stack in August 2018. However, things moved slowly. NDHM, which has the role of implementing the National Health Stack, got a push during COVID-19 and speed has been accelerated. Across various Governments and states, there is an overall push in adopting technology to gather data on COVID-19.

The webinar informed how tech is used to track data on people who are in home quarantine, who are undergoing treatments in various locations, and more.

Challenges in data

India is like a group of micro countries, there are 30 countries in one country. Hence, the base for data is huge. However, the mindset about using data has been similar to conducting a post-mortem, meaning at later stages. Although, during COVID-19, India needed and still needs as real time data as possible. Add to that the complexity of a disconnected system to deal with.

We have been working on changing the clinical landscape along with different Governments. During COVID-19, we have created a Care Registry for patients. Such initiatives will help in accurate data capture and analysis

Mr. Amit Mookim
Managing Director, IQVIA South Asia

India still does not have a ready framework for data. Experts opined that the framework has to be made dynamic, which can assist in devising strategies to move forward.

Global examples were shared. Like Switzerland, which re-opened the schools and other systems way before other countries. It was because they had a better healthcare system with more beds. They could manage to treat their COVID-19 patients, even if people were to fall ill.

Only the countries that could do aggressive contact tracing and containment have been able to flatten the curve and restrain the spread of the virus. In COVID-19, past data is of no use.

What only works is the ability to track and analyze data in real time, and extract learning and future methods from it successfully.

Connectiveness of the system and the ability to pull out the data in a timely manner, works.

For this to be successful, people and systems have to voluntarily share data.

India is in a phase where it took time to put data pieces in place, to get public private data together to analyse. Especially during March to June 2020, there were many unknown variables.

India's data trajectory

As per the experts at the webinar, data is the only tool in the arsenal that India has. Data analytics has 3 phases: 1) Descriptive 2) Predictive and 3) Prescriptive. India has been in the descriptive phase so far; which means that data emerges and some policy action happens.

Most of the world is in the predictive phase. India, too, can still make some headway with predictive analysis. However, India and even other countries, have hardly been able to tap prescriptive analysis till date.

India has fragmented data and thus it is difficult to build systems out of it. The quality of output is as good as the input, and so far, India's input has been an issue. Such national fault lines showed up strongly during COVID-19.

Plus, some questions to ask are:

How the Government views the access to data? Does India really believe in open data policies? How will personal health data be handled? Arriving at more appropriate and enabling policies will help India to do more on data analytics. For instance, the NDHM will soon come up with the Personal Data Protection Bill, which will give more clarity on data and the sharing of it.

Another example is the National Health Stack, which will improve the accessibility of data, especially as there will be a framework in place; more trust will also be built this way.

Data capture, access and sharing

It was discussed how the Government is committed to improve data capture and analysis. Before everything else, data capturing is vital. The RT-PCR Act is helping in capturing accurate data during COVID-19. An example of Uttar Pradesh was shared, which has

IIT Delhi works closely with the Government to generate certain evidences from collective data, by applying a learning policy. Data regarding socio-economic systems, GDP, along with COVID-19 data is also analyzed and understood

Dr. Tavpritesh Sethi
Physician-Scientist & Assistant Professor at IIIT Delhi

NHA launched its COVID-19 helpline - 1075 and enabled people to report their symptoms on the Aarogya Setu app. Till date, the app has gathered data of almost 7 lakh people and the data from 900+ agents' calls also gets collected at a central system

Mr. Kiran Anandampillai
Advisor - Technology, National Health Authority

done impressive work in capture of line level data - from surveillance, quarantine, to beds management.

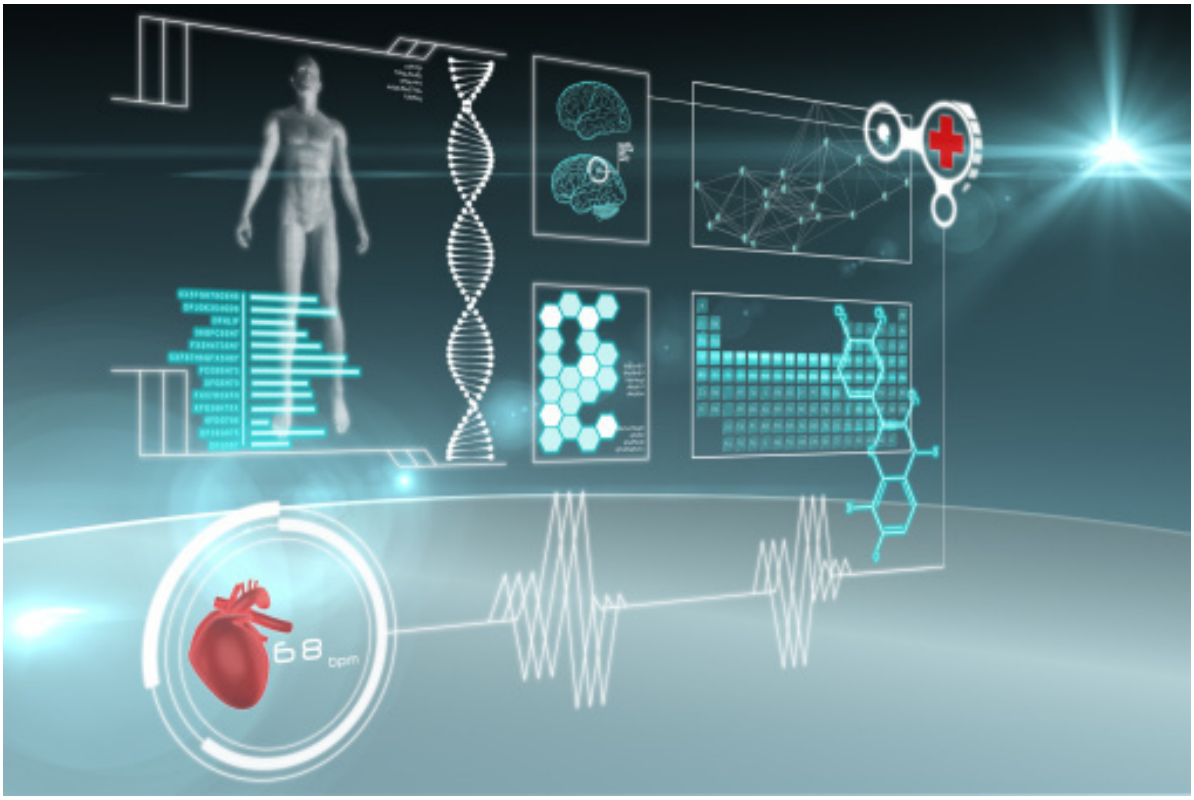
The event put forward how certain fundamental pillars need to be in place first, even for non-COVID-19 times. Like, a database of India's facilities, doctors, other healthcare infrastructure, patient health records, if all this is available readily, then the ability to work through them is easier.

India, which saw 13 crore downloads a month of the Aarogya Setu app, putting proper systems in place, surely is a possible activity.

India has a digital highway in place, people are willingly sharing info on various Government apps.

All these are positive signs for data. Of course, the owner of data will always be the patient - as per India's policy. All others with access to this data are simply custodians, who are not supposed to misuse this data.

If India can work through its trust deficits and build appropriate policies, the country can surely match global standards in data analytics.



Telehealth/Digital Health during COVID-19

The event highlighted how practicing telehealth in today's times is the right thing to do. Telehealth is anything that makes distance meaningless. Although, good connectivity is necessary to enable telehealth. India has come a long way in the last few decades and has improved connectivity. After the Telemedicine Guidelines were issued during COVID-19, many organizations adopted telehealth and started trainings. Accreditations for telemedicine delivery also started coming in soon after telemedicine guidelines came in.

However, few key elements to bear in mind are that telehealth has to be self-sustaining, revenue generating, compliant and future ready. Only then, the platform can survive and grow.

Session guest:

Dr. K Ganapathy

FACS, FICS, FMS, Ph.D., Neurosurgery

Moderator:

Mr. Vikram Thaploo

CEO, TeleHealth at Apollo Hospitals

COVID-19 effect on telehealth policies & pactices

The webinar started with the thought that telehealth has proved to be a boon in the COVID-19 times. With the Government issuing Telemedicine Guidelines, the sector has been able to adopt the technology in a much larger fashion. Also, telehealth has to be ever-evolving, as technology becomes obsolete very soon.

It was told that almost 95 patients from 100 patients will still need non-COVID-19 care, hence, telehealth is here to stay.

An example was shared of how even 19 years back, Apollo Hospitals was doing paediatric echo cardiograms remotely and controlling the systems from Madras (now Chennai).

Healthcare workers are also at risk during COVID-19 times. Telehealth is helpful and safe even for them. In fact, a quarantined doctor can see patients via telemedicine. Although, every healthcare worker that uses telehealth, should be trained appropriately for the same

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It was shared that as early as March 24, 2000, world's 1st VSAT commissioned village was started and way back in March 1876, world's 1st tele consult was made. However, for the platform to elevate and get well adopted, political support, will, plus a staunch support from the Government is required.

Due to the pandemic, the US set-up 500 million for telehealth, and removed major stringent regulations to enable telemedicine adoption largely. If a regulatory-strict US can change its laws to allow practice of telehealth, then other countries can also learn from this example.

Healthcare workers are also at risk during COVID-19 times. Telehealth is helpful and safe even for them. In fact, even a quarantined doctor can see patients via telemedicine.

India has seen that even the AYUSH department and the homeopathy industry have issued guidelines for telemedicine usage. Suddenly, what did not happen in the last 20 years, has happened in few months. In just a couple of months after the pandemic hit India, 50-60 hospitals started using robots, even drones and everything was indigenous, made in India by start-ups.

The IRDA has already announced that insurance companies will have to recognise tele consults as a normal mode of treatment.

Various roles and models of telehealth

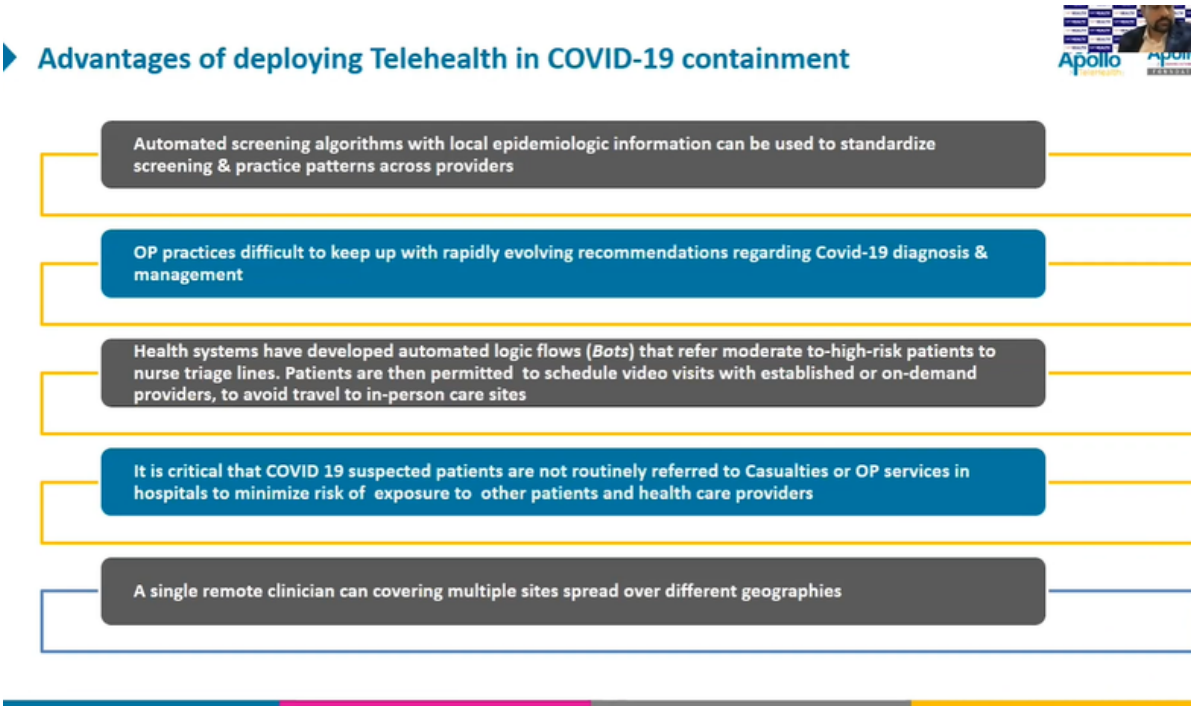
Even PM Modi had mentioned that telehealth has to be a critical component of India's national strategy to combat COVID-19. It is thus vital for resources to be mobilized to build infrastructure and capacity for telehealth.

Less than 5% COVID-19 patients need hospitalization and less than 1% need ICU care. Hence, the main goal of telehealth is to keep people out of hospitals.

One model of telehealth can be where ASHA workers and/or basic healthcare workers can go in the field and collect data on their tabs and send it back to a centralized system. From there, data can be analyzed by a SOP and can help shape Government policies.

Tele-screening can be used to identify patients needing further diagnostic tests. Such a step can bypass the doctor and save a lot of time of the physician.

Specially trained healthcare workers can be attached with each step of the process and lab reports can also be sent online. E-prescriptions can also be made, maybe even without needing to physically visit the doctor or the clinic/hospital.



Mobile health units can be developed for telehealth, which can go around locations and the clinician can be consulted via telemedicine tools. Such units can cover many health screenings.

Also, some important components of telehealth should be kept in mind, like: the right technology, set-up, patient education, recruiting virtual providers, training on best practices, and negotiating payments with payors (E.g., PPPs with Governments and tie ups with insurance companies for easy digital payments enablement systems, and more).

Ordinary mobile phones can help in tele consults, there is no need for expensive equipment, especially for COVID-19 symptoms. Simple tools like digital stethoscope, pulse oximeter, portable ECG, ultrasound, all are available now a days. Connected with wireless transmission facility, these can be used easily for tele consults, in a less expensive manner.

Organizations and providers should not wait for higher bandwidth to start using telehealth. As mentioned, not a very large set up is required to start off.

Future of telehealth

Digital health is about shifting the point of care. In future, hospitals will only be restricted for in patients and high-end surgeries.

However, behavioural changes are required and higher adoption of telemedicine, even patients should adopt it in a huge way. Apollo Hospitals is doing 9,000-10,000 tele consults/day, this can happen only if the patients are also on board.

A glimpse into the future:

- From 20-30 tests right now with just a drop of blood, soon 50-60 tests can be done in near future.
- Emergence of concepts like: Hospital in your pocket & Lab in your pocket. Healthcare will be delivered through kiosks.
- Doctors will reach patients where the patients are.
- Based on concepts like e-sanjeevani (Government's initiative on telehealth), future will see politicians proposing telemedicine units in their agendas.
- Future hospitals will be judged by their strong telehealth facility.
- Use of AI in telehealth will improve and increase.

Suggestions for improvement & self-sustainability

- More work is required to develop support systems, AI, machine learning.
- The human angle will always remain. Telehealth in itself is perhaps not the apt way to deliver care. It should be ideally supplemented with face to face meets. Perhaps in 80/20 ratio and can be contextual, can depend case to case. Consider this: Maybe someone won't like to hear that their kid needs a heart transplant over a screen.
- Private players should develop a business model around tele consults.
- The Government should provide incentivization for all stakeholders.
- Insurance will have a big role to play here.
- Every medical society (neuro / cardio, and more) should take telemedicine and customize it as per the disease/healthcare requirements.
- Absolute transparency should be kept. It will take care of medico legal hassles. Most litigations are not a result of bad clinical outcomes, but a result of not handling the situations and behaviours properly. Empathy for patients should be kept.

India should be ready to embrace remote healthcare with open arms. This will now be the new norm. India is not going back to a world without the word 'digital health' in it.

Future of Indian Healthcare Eco-System: A Collaborative Approach

The context of the webinar was to discover how a collaborative approach can elevate Indian healthcare sector to a higher level. Due to COVID-19, a need has risen for a comprehensive review of the healthcare landscape in India. The challenge, though seemed insurmountable at the starting line, has regained balance and India is coming out of it safely and strongly.

Session guest:

Dr. Vipul Aggarwal

IPS, Dy. CEO, National Health Authority

Moderator:

Mr. Shishir Agarwal

MD, Terumo India Pvt. Ltd.

Leader, NATHEALTH Med Tech Forum

India's comeback from COVID-19 has been mainly due to the concerted efforts of all stakeholders involved, a collaborative approach. To further enhance the sector and the healthcare delivery situation in India, long standing gaps in healthcare need to be addressed. The delivery system is right now predominantly driven by private players and from out-of-pocket expenses. Though the latter part has been addressed to some level by PM-JAY.

There are shared goals among stakeholders for getting viable outcomes from a scheme like PM-JAY. This requires a high level of collaboration to work towards value-based healthcare. The question to address is: How can both sides of the river, public and private, come together to build a more robust eco-system for the future?

Results via collaborations

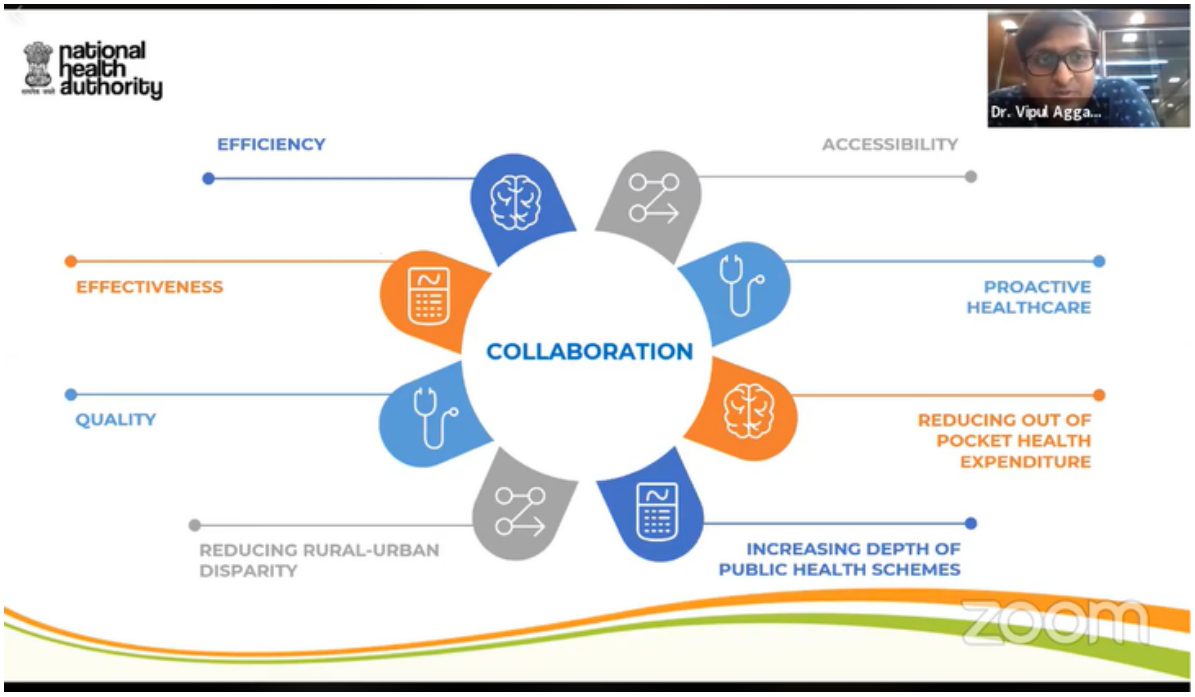
NHA increased aggressively its partners and collaborations under the pandemic situation. Almost 50% hospitals had to shut operations due to COVID-19, but there still remained non-COVID, critical patients that needed care. Plus, COVID-19 patients had to be handled.

NHA has generated 12.6 crore e-cards under PM-JAY already, out of the total 54 crore targeted population. Next target is to increase awareness, reach the remotest locations of India, achieve horizontal expansion, plug loopholes and gaps, improve healthcare infrastructure qualitatively

Dr. Vipul Aggarwal
IPS, Dy. CEO, National Health Authority

Multiple stakeholders worked and are working in collaboration to handle COVID-19 and also improve the overall reach of healthcare delivery, like: NHA, State health agencies, Ministries of GoI, District implementation units, Insurance companies, Public & private hospitals, Implementation support agencies & TPAs. Below are some of the results achieved through few short-term collaborations:

- NHA empanelled 2500 hospitals in less than 2 months.
- NHA started and is successfully running a 24x7 COVID-19 call center (1075).
- Government put in place an analytical system, an insights team, to provide state-of-the art dashboards for decision making.
- Kept co-ordinating with PM-JAY's 22,000 hospital base.
- From no PPE made in India, became the 2nd largest PPE maker of the world in 3 months.



Long-term collaboration goals are now required for the future, like:

- Building up a digital health eco system, where NHA plays a role with an already-robust IT system in place.
- Explore the role of private sector in the whole framework; explore synergies.
- Gain better insights into Indian healthcare system deficiencies with more data crunching.
- Using the strength of Government machinery, willingness, money & human resources to build further collaborations.
- Popularizing PM-JAY (target is to cover 2 crore people annually).
- Further confidence building for healthcare quality through NHA's quality accreditation program.

Future opportunities for collaborative initiatives

The Government has a target to increase the healthcare spending to a minimum of 5% of GDP in the next few years, which can be achieved through a scheme like PM-JAY. However, there is still about 45% private participation for delivery.

Future plans and opportunities can be seen as follows:

- Build, improve and increase public capacity.
- Explore the large scope for generating sustainable livelihood opportunities.
- Explore increased collaboration for sustainable businesses.
- Use of emerging technologies for

improving efficiency and also effectiveness of the existing healthcare eco-system.

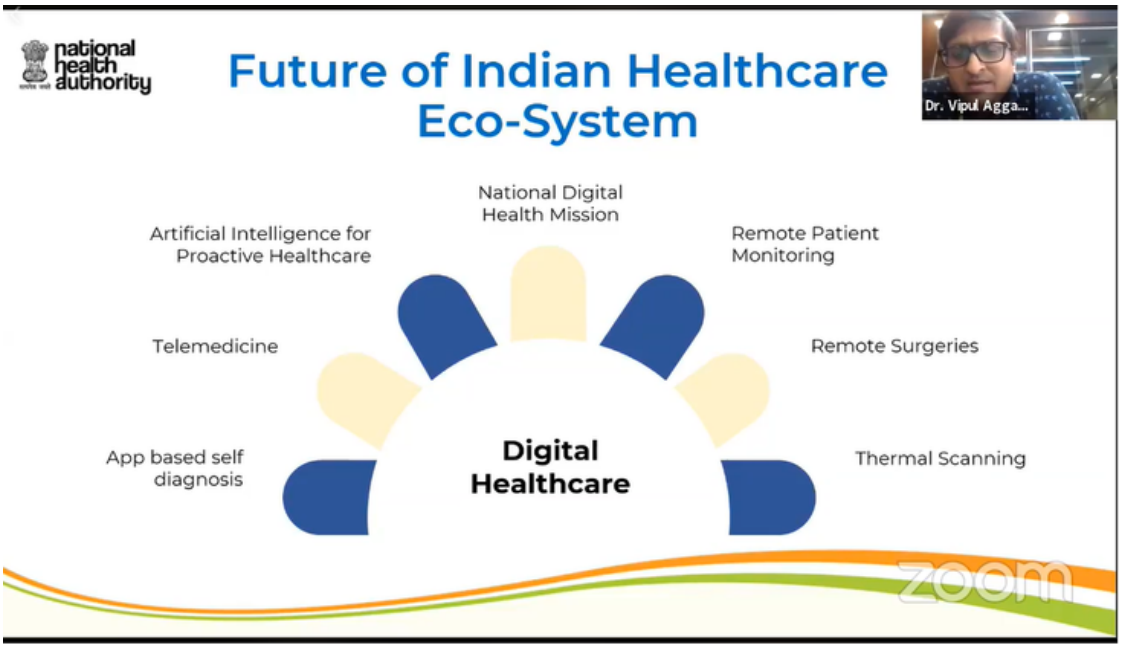
- Solutions to be explored under multi-stakeholder collaboration, multi-sectoral & trans-disciplinary approach, basic & applied research.

Future plans of the Government

NHA has been working to improve the status of Indian healthcare. Under its various programs, the following future plans feature:

- Access to National Health Resource Repository, Central Bureau of Health Intelligence (data on doctors, equipment, beds, etc.), use of geo tags.
- Stringent norms on Infection Prevention & Control (IPC) with financial stimulus.
- Community engagement for IPC.
- Building robust logistics and supply chain for healthcare.
- Impetus to medical education and research institutes.
- Bio safety labs level 4 and above, built at zonal level.
- Strategic purchase of services through PPP model.

The missing middle: Special plans are being explored to cover the 'missing middle'. A section that is not too poor to come under PM-JAY, and not too rich to avail private care. To cover this segment, Government would like to strengthen the private sector's role.



A meeting was conducted with private insurance players, and NHA is exploring on how it can provide a platform to run pilots, and how can insurance cover be made more affordable with lower premiums for the missing middle.

Viability gap funding: This is a risk sharing model, under which the Government is sharing the risk with private players to help them enter in tier 2 & 3 locations. Few projects are in the pipeline and in future the Government will provide more confidence to the private sector to enter such markets.

Collective bargaining: Again, this is a plan for private players functioning or entering the tier 2 & 3 markets. This is an assistance provided by the Government for the private partners to enable them in getting lower prices for medicines and also other healthcare related equipment and essentials.

The Government has also set up an empowered group, which only focusses on establishing collaboration with the private sector.

Government's target is for India to become a unified entity. The rural-urban gap is already being bridged through portability feature, wherein people can avail of healthcare services in any state, and not just where they belong to/stay. The Government has also started pilot project in four districts to find accessibility gaps, based on which, future designs will be created.

Collaborative initiatives took place for managing COVID-19 and multiple stakeholders became a part of the collaboration to fight the pandemic in India. Making the country self-sufficient and stronger together to tackle the challenge. It shows how collaboration can take Indian healthcare many notches higher even in the future.

The Strategic Purchasing of Healthcare

The Indian government has up till now paid for services in a traditional way, which usually has less accountability. Due to Ayushman Bharat & NHA's active role now, there have been reforms in the way strategic purchasing is approached. Key questions to ask are: What mix to procure? In what volume to procure? From whom? How to procure? The webinar tried to cover as much ground as possible to provide solutions and remedies to overcome challenges faced in the strategic purchasing of healthcare.

Session guests:

Dr. Indu Bhushan

CEO, National Health Authority (NHA)

Ms. Preetha Reddy

Executive Vice Chairperson - Apollo Hospitals

President - NATHEALTH

Mr. John "Jack" Langenbrunner

Sr. Advisor for Financing and Health Insurance

Moderator:

Mr. Sunil Thakur

MD, Quadria Capital

The requirements of purchasing keep changing from time to time. The Government has to keep revisiting questions like: if they want to buy expensive services that only a few can avail or buy services that are cheaper but can be availed by larger number of people. If it's very cheap, people may not have any incentive to avail the services through the scheme, as they may be able to buy it themselves. It will be like providing subsidy for buying salt to everyone.

For PM-JAY, this issue was dealt with deciding to buy higher value services and latest technology-based services, which can also change regularly. Quality and implementation strategy are also parameters to be considered while purchasing.

All stakeholder representatives on the panel agreed that services have to be delivered of the highest standards with best outcomes. It is not about who delivers the services, but the outcome quality. The panel lauded the Government for historic steps like formation of the NHA and launching Ayushman Bharat, in terms of regulating outcomes.

Cognizance on fair pay

The industry feels strongly about the pricing issues and that there is a gap between what the government wants to pay and what the private sector can manage with. The gaps have to be dealt with in a strategic way.

Pricing of health benefit packages is an evolving method and path. We are flexible have revised the rates too regularly. We understand that in a diverse country like India, cost structures change often and can be based on locations

Dr. Indu Bhushan
CEO, National Health Authority

Some suggestions floated by the panel to regulate price fairness:

- Adopt DRG models (world over have been adopted and have been successful). India can also do outcome measurements based on DRG models, which can be more value-based.
- Look at the entire healthcare bundle and what outcomes will come out of it. Then price it. Instead of worrying about single deliveries like cost of X-Rays, etc.
- Launch successful PPPs. Learn from examples like Chittoor and Bilaspur (Apollo Hospitals runs successful non-covid PPPs here)*. Assam, Uttarakhand, UP, Maharashtra - they have done well under Ayushman Bharat PPPs.

- Learn from countries like the US, where special adjustments for the poor are made, as they visit hospitals at later stages in a medical condition, thus their costs of treatments go higher. NHA should also look at the average treatment cost for the poor – under Ayushman Bharat.
- Bring more pragmatic and scientific approach to pricing. Pricing mechanism should be cognizant about fixed and variable prices.
- Ongoing Accountability Mechanism should be made better.
- Create pathways and make it possible to identify indicators from these pathways.
- Keep evolving health packages; which health conditions to include and price.
- Ensure pricing is high enough to incentivize private participation, and low enough to make the gov-

NHA can do more over the next few years to bring payment fairness. Ongoing Accountability mechanism should also be made better. Pathways can be created to identify indicators

Mr. John "Jack" Langenbrunner
Sr. Advisor for Financing and Health Insurance

World over, DRG models have been adopted and have been successful. India should also adopt outcome measurements based on DRG models. This will make healthcare more value-based

Ms. Preetha Reddy
Executive Vice Chairperson - Apollo Hospitals
President - NATHEALTH

-ernment programs sustainable.

- Bring evidence-based costing to the table. To help the government understand where private sector needs higher pricing models.
- Understand that pricing changes with locations, in a diverse nation like India.
- Compare public and private subsidies. Public sector gets up to 60% advantage. Share it with the private sector.
- Undertake costing studies and update them every 1-2 years.

The private sector can find ways quicker to cut costs and become leaner, as per studies. It is an advantage for them that they can respond relatively quickly.

However, a proper support system from the government is also required to enable private sector to work its full potential.

**Apollo Hospitals' Bilaspur PPP is 25-year-old with Coal India (a* PSU). The

arrangement was that Apollo took over the hospital and the profit gets shared between both partners.

Under the Chittoor PPP, Apollo Hospitals took over a district hospital, added 500 beds and increased the OPD footfall from under 1000 to more than 5000 today.

The government funds a part of the project. It has a facility for 250 in patients and the outcomes are at times better than city hospitals. The facility uses telemedicine extensively, along with almost every latest tech available.

Under the same PPP, Apollo also runs a skilling center, where 100,000 people have signed up from neighbouring villages and panchayats.

Use of technology & IT for enforcing strategic purchasing

Having a strong MIS is a critical element of strategic purchasing. One needs to see what is being delivered. There should be enforced accountability and a system to detect fraud. To enable the above, NHA is digitizing and recording end to end process, which gives a lot of data to be analyzed further to better the systems. Plus, use of AI and machine learning is also done. The NHA calls it IT 2.0, which is an even stronger technical mechanism for Ayushman Bharat.

National Digital Health Mission: The government has started pilots in some union territories. Under NDHM, the government will be providing health IDs (voluntary for people) and link them to an HER system. Once there is free consent of individuals, then records can be seamlessly shared, enabling intra-operability, better quality of care and better accountability.

Accountable care: Technology has the capacity to drive value-based and accountable care. The US has an Accountable Care Act, under which they are running several pilots and demonstrations. In the US, the provider delivers the entire health package on pre-decided parameters, under accountable care models.

Even in Europe, value-based care is an emerging trend. India too can perhaps look at an Act of its own.

Especially, as states like Tamil Nadu, Karnataka, Maharashtra are already looking at value-based care for purchase of services.

India still needs to work on developing value-based care models.

A pertinent question to ask is: How prepared is the private sector for VBC?

An example shared was of when Apollo Hospitals started 37 years ago, and used to witness 70% bills in cash and 30% funded by the government or insurance. Now, the ratio has flipped.

Purchasing has become centralized, and it is time that the private sector realizes that it can get better prices through VBC.

It is the need of the hour that the provider willingly adopts and delivers VBC. The private sector should have responsible margins.

A data driven, outcomes driven, pragmatic approach can improve the purchasing scenario in India.

The Need for Skilling and Upskilling of Healthcare Providers and Medical Students

Healthcare in India has a known shortage of skilled manpower. Over the last few years, the industry has been stressing the need to skill and upskill in order to meet the shortage. During COVID-19 too, the pinch was felt.

However, respite came in the form of Directives by the Government on March 26, 2020, in which protocols for online training and skilling were laid down. This, combined with rigorous efforts of all the industry stakeholders, improved the situation. Moving to non-COVID-19 times, the experience and new policies will come in handy to keep upgrading the manpower in Indian healthcare.

Session guests:

Mr. Gautam Khanna
CEO, P.D. Hinduja Hospital

Dr. Rajiv Yeravdekar
Dean, Faculty of Health & Biomedical Sciences,
Symbiosis International University - SIU

Mr. Punit Kohli
MD, Fresenius Medical Care India Pvt. Ltd.

Dr. Uma Nambiar
Executive Director, Gimcare Hospital &
Chairperson, DHIA

Moderator:

Dr. Rasika Birewar
Co-Founder
AAA HealthCare

When COVID-19 struck, hospitals struggled with dearth of people, staff in almost every department.

Situations worsened during lock down periods. To top it all, the Government was issuing healthcare guidelines up to two times a day sometimes. Hospitals had to keep up with the pace.

However, the tough situations made organizations realize that they can harness the collective knowledge of all their people. They can get expertise from extended contacts, and learnt how to get knowledge quickly from all available sources. In short, it was upskilling along the way.

Skilling and upskilling on the job

Hospitals trained their staff regularly during COVID-19. It was a major game changer in handling the situation. When hospitals realized that it is not only the chest physicians, but others physicians and staff can also handle COVID-19 patients, the other staff also was provided training, both online & offline.

The webinar discussed how Hinduja Hospital, which runs Allied Healthcare Training Courses in 11 categories, moved to online systems and blended online & offline learning.

Additionally, the Government also kept releasing training modules, which were used. Plus, learnings from countries like Italy were adopted. The Health Sector Skills Council (HSSC) also introduced some online trainings for COVID-19, which proved helpful.

Overcoming skilling challenges

Not all category of staff has access to digital tools as others. Hence, during COVID-19, hospitals found creative ways to skill such staff. Hinduja Hospital's HoDs would arrange zoom calls and they would have their staff

Hospitals should institutionalize training programs, so that it becomes a routine and is not just a leader-driven activity. The routine should be followed by hospitals, irrespective of who's leading

Dr. Uma Nambiar
Executive Director, Gimcare Hospital & Chairperson, DHIA

At Hinduja Hospital, we run Allied Healthcare Training Courses in 11 categories. They were all moved to online systems and we also blended online & offline learning. It helped us keep the skilling rate consistent

Mr. Gautam Khanna
CEO, P.D. Hinduja Hospital

join in with them; sharing the digital mediums to skill the staff.

Tier 3 hospitals generally face skilling challenges even during non-COVID-19 times, especially for appropriately trained nurses. However, during COVID-19, because many nurses returned to their natives, it helped tier 2 & 3 hospitals.

An example was shared of Gimcare Hospital, which, despite being a tertiary care hospital with high quality standards, had faced skilled manpower issues. The facility overcame the challenges by training the staff 6-8 months before the opening date, in basic IT (as it is a fully digitized hospital), NABH policies, and SOPs.

Certain training challenges can also be overcome if hospitals can generate simple training videos and circulate to their staff, which can be watched at ease in their own time, after working hours, after household chores. It was highlighted how training programs tend to become in-dividual-driven. If the leader leaves, the programs may suffer or shut down. Hence, hospitals should have sustainable systems put in place, which can survive even if leader/s keep changing. Sustainability will ensure consistency in the level of care and quality of staff.

Assessing the shortage and pathways to fill gaps

The webinar focussed on the gaps and future requirements of trained manpower, and how India can work towards filling the gap. An instance of the dialysis industry was shared. It seems that only 10% hospitals in India do dialysis, meaning roughly about 4500 hospitals, which use about 45,000 machines. India mandates one person for every three machines, thus the country has about 15,000 dialysis technicians and stroke nurses. End stage renal disease patients are about 2.4 million, from which around 250,000 are on dialysis and roughly 200,000 patients add annually to this figure.

Training, re-training, skilling, COVID-19 has brought to fore the importance of all this. It is the man behind the machine, who's more or equally vital for quality healthcare delivery

Dr. Rajiv Yeravdekar
Dean, Faculty of Health & Biomedical Sciences,
Symbiosis International University - SIU

Similar to Government-launched medical parks, skilling hubs should be set up. India can invite many medical device plants if such hubs are successful; they can attract foreign investments too in India

Mr. Punit Kohli
MD, Fresenius Medical Care India Pvt. Ltd.

Thus, by the next decade, India will need 10 times the dialysis machines and close to 200,000 trained staff, with conservative figures.

Such huge gaps, if anticipated in advance, can help the sector skill manpower in advance. Remote training mechanisms can be used, also clinical data management can be done remotely.

Below are some suggestions from the panel to upscale skilling:

- Tailor-made courses for India. Science students from 12th grade to be trained virtually, with a one-year internship. This can take care of some entry level manpower upskilling issue.
- Launch contemporary nurse and paramedics training programs.
- Locate MBBS doctors, provide them with 6-9 months course on various specialities, so that they can learn basic management and thus can clinically manage the patients and/or centers.
- Introduce the word "paramedic" and related functions and define their roles properly in the literature.
- Deploy an Inverted Pyramid Approach (learning can be taken from Symbiosis, which uses it); train technologists, so that doctors and other clinical staff can focus on clinical healthcare delivery.
- Teach dynamics of learning in a team, ethics and legal aspects.
- Upskill doctors in strategic management, cost management, communications, these are essential aspects of healthcare delivery.
- Launch simulation-based programs.
- Tie up with relevant global and Indian associations.
- Students are already millennials - they are tech savvy - India should focus on training the faculty and senior professionals for adoption and using technology.
- Not just skills, but competency building should also be done.
- Properly define roles and capacities. A nurse should not be

making the patient bed. India has a ratio of one nurse per three patients. Introduce concepts like one nurse plus two nurse assistants per few patients.

- Have increasing roles of physician assistants, free the physicians from documentation work.
- Realize the importance of intermediate skills and roles. Additionally, hospitals should recognize such a trained staff and recruit them. Make career categories for attendants and support staff in a hospital, so that people can aspire to train in them.
- Study the gap in demand and supply. The market has a set of trained people even presently, but hospitals do not have the need for many of those skills.

Thus, the gap should be studied and catered to.

Another suggestion was to perhaps consider renaming hospital staff like housekeeping as Infection Control Assistants. Train them in infection control. It can add value to their perception of the work they are doing, plus they will understand their role in preventing infections.

Lastly, the webinar ended with another food for thought idea: Like CSR, why not make a fixed percentage spending on training compulsory for corporates. They can train in the same area of expertise as the company's own focus. Policy changes can go a long way.

Strengthening the Ecosystem Resource Mobilization, Capacity Building & Scalability

(By bringing together Government and Industry Partners)

COVID-19 brought along increased capacities of the healthcare sector. India was able to boost its pharma productions, PPE manufacturing and also testing kits production. Recently, the Government also made efforts by clearing dues of CGHS, GST and more to the private sector. The Government has even pushed the telemedicine guidelines, through which digital healthcare has taken a boost. Though a lot is still left to desire, with even the med tech sector needing to upscale its capacity.

Session guests:

Dr. K Madan Gopal
Senior Consultant, NITI Aayog

Dr. Shyama Nagarajan
Managing Director, Saha Manthran Pvt. Ltd.

Dr. Chandy Abraham
CEO, ITC's Healthcare Project in India

Mr. Sanjiv Navangul
Managing Director & CEO, Bharat Serums and Vaccines Ltd.

Moderator:

Mr. Himanshu Sikka
Chief Strategy & Diversification Officer, Practice Lead - Health, IPE Global Limited

It is a known fact that India's healthcare delivery is fragmented, with even the private sector being overwhelmed. One way to put it is - a billion of population is dependent on a million to provide healthcare.

However, things are looking bright and capacities are building up, with more concentrated efforts.

The pharma sector went up the value chain. Many companies collaborated with global companies, and have built capacities over the last couple of decades. Taking a cue from pharma, other areas of healthcare delivery can also boost up.

Government can look at building regulatory corridors, like the one India has with the US. As a result, 1/3rd of the tablets sold in the US are made in India. The Government can look at exploring such corridors with countries where India has no presence.

Attracting players to surge capacities in healthcare

Experts on the panel suggested ways to attract and invite players, especially for the non-clinical areas, to explore the industry. Some of the suggestions were as follows:

- Philanthro-capitalism should be promoted in India (it includes application of management and business practices adapted for making social impact). India is a country with large pool of big corporates, who can be roped in for this.
- Invite companies to work outside the clinical delivery area; for entry into the payor and supply side.
- IT companies can enter healthcare, as healthcare has been using IT extensively.
- Strategic learning from other sectors should be taken regularly. For instance, how lean management came from Toyota, and now healthcare also uses the business strategy.
- Finance companies, hospitals and patient groups work together in US to enhance healthcare delivery systems. Companies like Boeing and Walmart also work on such models. India can explore

Healthcare has been given infrastructure status since 2017. However, hardly any players or organizations have actually used this benefit. The Government should re-think its approach for making healthcare attractive for private sector

Dr. K Madan Gopal
Senior Consultant, NITI Aayog

and adapt from here.

- Various product companies are already champions in supply chain. They can enter healthcare in the supply chain side.

Working with the Government

For any sort of scaling up and/or capacity building, Government support is vital. However, it has been noticed in India that the regulatory framework changes often, which becomes a challenge for the private players. As they start to settle down, the regulations change, RoI becomes difficult.

For scalability to increase in healthcare, the Government should work around such rapid regulatory changes and make healthcare more attractive to the private sector.

The PPP scenario in Indian healthcare too is still maturing and evolving. Many PPP models have been successful in diagnostics and dialysis sectors. In such cases, services and activities were standardized. Hence, the expectations were clearer.

For instance, the Government provided the land, private sector put up the technology and funds; a structured relation was made possible.

In healthcare, the regulatory framework changes often. It is a huge challenge for private players to keep up with the changes. RoI becomes difficult in such scenarios

Dr. Chandy Abraham
CEO, ITC's Healthcare Project in India

However, on other fronts, only a few successful PPPs have seen the light of the day. Government tends to have a socialist mindset, and the private sector looks at profits and volumes, thus, making PPPs difficult to sustain.

The pharma sector was able to produce quality affordable generic drugs, which has enabled many successful PPPs in pharma.

Some panel suggestions for fruitful Government collaboration are:

- Healthcare/hospitals are opex intensive, unlike other sectors, which are capex intensive. This should be considered during PPPs.
- Replace traditional PPP approach with hybrid models (road infrastructure sector has done it), where fixed costs/financing both are considered.
- Cluster based approach can be looked at. For primary care clinics and wellness clinics, private firms

can take up clusters from the Government and manage.

- Detailed feasibility study to be done for all PPPs. Example: Uttar Pradesh did a successful mobile healthcare PPP, as a proper feasibility study was done before hand.
- Viability gap financing is not enough for PPPs to work. Value for money assessment should also be looked at, for sustenance.
- Accreditation and assessments should be done on a much larger scale.
- Existing healthcare infrastructure is underutilized because of manpower shortage. Many district hospitals run with 30-40% shortage.
- The issue can be addressed through tie-ups with medical educational organizations.

Understanding viability issues

As per studies quoted by the panel, statistics say that in a healthcare set-up, 90% processes are non-value, and 10% are value-based. If the sector can find ways to reduce the non-value variants, then the viability can go up. Non-value includes long form filling, longer waiting times, and more. There are 5 ways in which viability can be improved:

1) Define value
2) Map processed
3) Create the flow
4) Ensure people come through pull and not push
5) Create perfection/1st time yield

The sector should also consider formation of innovation incubators. In India, only two hospitals have such incubators, while there should be more. Usually, product companies are known to have innovation incubators, but not hospitals. A more scientific approach is required for hospitals.

More than 15 lakh beds are required for the Ayushman Bharat scheme to be fully implementable. It is high time to put some thought into how private players can be invited to set these up. Capacity building is required. For which, the healthcare industry was granted infrastructure status in 2017.

In most cases, no feasibility study is done while finalizing PPPs. It is important to do a detailed feasibility study, to know if a PPP will work or not. India has very few successful examples of PPPs undertaken after such a study

Dr. Shyama Nagarajan
Managing Director, Saha Manthran Pvt. Ltd.

However, hardly a few organizations have actually used this benefit. Insurance market should also be made more effective to improve scalability.

Lastly, in the current COVID-19 scenario, where vaccines are on their way, managing cold chains for vaccines is important. Plus, the Government should not take full procurement or load of distribution.

Build more regulatory corridors. Like the one India has with the US. As a result, one-third tablets in US are made and supplied by India. More such collaborations are required for growth

Mr. Sanjiv Navangul
MD & CEO, Bharat Serums and Vaccines Ltd.

For vaccinations to be more viable, private companies should also be allowed to undertake the process.

Changing nature of healthcare demand and how can it be revived?

The healthcare industry is still shaking due to the COVID-19 quake. Hospitals and med tech sectors have been hit hard. In such a scenario, how can demand be brought back? The webinar shed some light on it. A mix of building trust again with patients to redefining the hospital business models, the panel spoke about it all. Financial support models, digital health, change and improvement in insurance models, supply chain management - came to fore as some of the key factors that can help in driving back growth and demand.

Session guests:

Mr. Rohit Sathe
Vice President, Philips Health Systems,
Indian Subcontinent

Mr. Sumeet Aggarwal
Managing Director, Midmark India Pvt. Ltd.

Ms. Meenakshi Nevatia
Managing Director, Stryker India

Mr. Vivek Tiwari
Founder & CEO, Medikabazaar

Moderator:

Mr. Pavan Choudary
Managing Director
Vygon India Pvt. Ltd.

Healthcare delivery will never be the same again. Nor will the kind of demand that generates. Virtual delivery and virtual demand are the future of healthcare.

Moving towards a virtual world

The panel suggested ways on how hospitals can change their strategies to meet and attract the changing demands. Some of them are as below:

- Hospitals to build confidence in people that facilities are safe and sanitized.
- Hospitals to redefine their business model. A shift from the doctor's chamber being the hub to patients' homes.
- Hospitals to project themselves as a continuum of care; as not just a physical building, but beyond it.
- Understand that telemedicine will change the epicenter of care delivery. Patient dignity is better protected via telemedicine.
- Introduce concepts like e-ICUs, where hospitals can monitor machines across the digital space. The command center to be placed at a different location and the physical ICU at another. Patients can be set up at home with the critical care equipment, which can transmit the information to the command center at the hospital.

Role of the Government

Indian Government should also look at innovating itself. The Government plays a critical role in impacting demand and the passage of patients into hospitals. It is important to consider how policies are shaped. The army that fights need to eat as well; so, the hospitals should earn enough to stay sustainable and profitable. An instance: Maharashtra initially reserved 80% of beds for subsidized COVID-19 treatments. However, the court soon overturned this decision and announced that hospitals have the right to earn for the

Med tech companies can assist hospitals with some management consulting and can partake the risks with hospitals. We can offer more than vanilla financial assistance; this is wholesome partnering

Mr. Rohit Sathe
VP, Philips Health Systems, Indian Subcontinent

Demand has shrunk in healthcare right now. However, we still have NCDs and other diseases affecting us, COVID or no COVID. There is a pent up demand, which will eventually flow in

Mr. Sumeet Aggarwal
Managing Director, Midmark India Pvt. Ltd.

the services they provide. There is a gross mismatch between capacity to treat and the disease burden. On top, the Government had increased the health cess by 5%. Deep introspection is required by the Government to plan out the demand.

Role of med tech sector

The overall perception of the panel was that even though the demand has shrunk, India still has the burden of NCDs plus non-COVID-19 ailments. There is pent up demand, which will eventually flow in.

One key element to increase demand would be reaching to tier 3 & 4 cities. Hospitals now have to focus more on value and improve their reach even better.

While the med tech sector can support the hospitals in every way possible. The panel explained how the med tech sector has kept its supply chain active, even if hospitals may be doing just one surgery a day from 10 surgeries a day. As, equipment is still required and has to be maintained.

Some suggestions of the panel on the role of med tech sector are as follows:

- Reduce prices of products to increase the access for the market.
- Deferred payment methods can be adopted. Med tech companies and hospitals can together devise ways to manage tech acquiring and flexible payment options.
- Step up OR integrations. Example: simulating a surgery in a different setting, to enable digital surgery management in a better way.
- Adopt financial support models. Example: When Boeing and Airbus collaborated, they saw the airline business was taking a hit at that time and airlines may not afford to buy their aircraft. Hence, they came up with financial support models for airlines. Similar models can be innovated by the med tech

Hospitals need to redefine their business models; they need to be present where patients are. The projection should be of a Continuum of Care, rather than being just a physical building

Ms. Meenakshi Nevatia
Managing Director, Stryker India

We have introduced intuitive procurement tools for microplanning on inventory and consumption patterns study. Data from more than 10,000 hospitals has been studied for this

Mr. Vivek Tiwari
Founder & CEO, Medikabazaar

sector for hospitals.

- Offer management consulting, partner with hospitals to share risk.
- Connected care solutions by med tech companies should be leveraged to help hospitals reach patients remotely and keep their business going.
- Introduce Intuitive Procurement Tools, with micro-planning on inventory and consumption patterns study. It can reduce the burden on the hospital's inventory side. Use IoT intervention for seamless inventory flow.
- Use innovation. A simple thing like a sensor on medical devices and a tracking system can save 24% of nurses' time in locating the machines. Which can ensure faster TATs and reduced ALOS, and increase the capacity to cater to more patients.
- Customize products for tier 3 & 4 cities; invest in technologies required for tier 1 & 2.

Insurance and innovation

Insurance will have a significant role in improving the demand. A lesson can be taken from the refrigerator industry, which had reinvented itself when the sector saturated. They reduced the size of the fridge, got it to hotels and dorms. Some suggestions that were highlighted:

- Insurance should become standardized, just like the intake of Vit C and D has become.
- Open up the slates; example: get elderly population with co-morbidities into the ambit.
- Innovative products that can reduce ALOS are not adopted by hospitals, as the insurance sector is reluctant to cover treatments with same day discharge. This should change. Day care should be included in insurance.
- Insurance companies should learn from the med tech and keep upgrading their policies.

Value of diagnostics today: technology, testing capacity, and accessibility are key drivers

The year 2020 saw more regulations in the diagnostic sector, more accountability, better systems were put in place, and the Government focussed on organizing the sector in an improved manner. The market is big enough. The entry of larger, well established hospital chains validates the need for standardized testing policies, helps validate the industry too with more recognition. The future will see better quality standards and more certifications. The webinar discussed how stringent regulations, better Government control and enhanced capacities can further improve the status and outcomes of the sector.

Session guests:

Mr. Sanjeev Vashishta
Managing Director & CEO, Pathkind Diagnostics

Mr. Bharath Uppiliappan
CEO, Dr. Lal PathLabs Ltd.

Mr. Rahil Shah
CEO & Director, NM Medical

Mr. Arjun Ananth
CEO, Medall

Moderator:

Mr. Anand K
CEO, SRL Diagnostics

During, COVID-19 testing approvals were given to just a handful of labs by the Government. It showed the lack of quality players in the sector. Plus, it also ensured proper visibility, casebility and accountability. Systematic approvals were given out, which maintained the quality and service levels. Governance mechanism was put in place.

The panel iterated that such a mechanism should be in place permanently, even for non-COVID-19 times.

The challenges

Experts spoke about various challenges plaguing the diagnostics sector currently. Some of them were:

- India has 145,000 labs in the country, but no regulations. It is a challenge to co-exist in an unorganized sector.
- Huge dearth of qualified manpower. Only about 11,500 qualified pathologists, mirco-biologists, phlebotomists are available. Only 12% labs are manned by qualified people. India
- has world's 19% disease burden, but only one percent of the worlds technicians to manage it.
- Only 15-16% organized players.

India has 145,000 labs, but no regulations. It becomes tough for organized players to exist in the market. Plus, we have huge dearth of qualified manpower. India has only 11,500 qualified pathogists, mircobiologists, phelbotomists. Only 12% labs are manned by qualified professionals

Mr. Sanjeev Vashishta
Managing Director & CEO, Pathkind Diagnostics

- Not enough awareness about quality. If a doctor guides a patient to the lab next door, which may or may not have proper quality, patients do not see it as an issue. They trust blindly.
- Trust deficit between Government and the private sector. Most PPPs are met with misalignment issues.
- Poor infrastructure in small cities and towns with low quality tech bandwidth. Even if mobile tech has reached all corners in India, the bandwidth is still poor in many locations, which hampers the speed at which real-time data is passed or shared.
- Logistics are in a bad shape. Even today, it takes two days if a sample from a remote area like North East has to reach any kind of central testing lab.
- No central repository of patients. Prevalent data breakage, no

The Finance commission has suggested to increase healthcare spend from 0.95 to 3% of GDP. Roughly, 10% spend here is for diagnostics. About 6 billion investment is still required, which the private players alone cannot provide

Mr. Arjun Ananth
CEO, Medall

Even if India gets hi-end machines, there is still dearth of trained manpower to manage them. Private sector needs to invest in training. The Government should also pay fairly, consider all associated costs while paying the private players

Mr. Bharath Uppiliappan
CEO, Dr. Lal PathLabs Ltd.

seamless flow of shared patient data. Healthcare being a state subject, adds to the problem. There is no uniform policy, every state has its own policy. For diagnostic players who are operating at the national level, this is a big challenge.

Role of the Government

The Finance Commission had suggested to increase the healthcare spend from 0.95% to 3% of the GDP. Roughly, 10% of this spend is for the diagnostics sector. Hence, about 6 billion investment is required. However, such a huge investment is not possible just by the private players. The Government has a role to play here.

Some suggestions shared by the panel to improve the situation are:

- Government should propagate PPP models, recognize its own role as the payor and promote diagnostics as a business opportunity.
- Government should make timely payments for services taken from the private players.
- A uniform and stable policy should be put in place, and implemented at state levels. Regardless of elections and budget allocations, this policy should be protected in the eco-system.
- For PPPs and collaborations with the Government, just a skewed focus on test kits to arrive at a price is not the right way (which was done for COVID-19 testing too). Government should consider other costs associated of doctors, technicians, upkeep.
- Have more successful Government and private sector collaborations. For COVID-19 testing, the Government was able to do just 10,000 tests/day. This increased to 15 lakh tests/day after they allowed private sector to join in.

Learnings and future pathways

The panel spoke about how the metro cities in India have the capacity to test 2-3x more volumes.

During COVID-19, the Government did well to curb the costs of tests and removed hurdles like doctor prescriptions for getting a test done. Along with this, few insurance companies started reimbursing testing. Everything helped stabilize the situation.

However, for the future and non-COVID-19 times, India has to consider increasing its capacity. Bring in machines that can have an output of 1000 tests an hour, and more.

Till now, pathology was considered as a back end system, but COVID-19 taught the importance of testing. Consider this: Even with India's huge population, hardly 20% people have given their blood for testing at any given time.

Also, with one sample, India does less than two tests. The output should and can be improved. Learning should be taken from countries like Europe (1:7), Brazil (1:10), US (1:15) and UK (NHS 1:24).

Some recommendations of the panel for the future are as follows:

- Only high-end machines won't help. Right skilling and upskilling are required.
- Focus more on wellness testing, innovate and bring out products around this. The wellness and preventive sector is growing by 25% CAGR. Ride on this wave.
- Use of NDHM will bring visibility and accountability, along with issues of privacy. Learn from the financial sector on this challenge and find ways and arrive at protocols to secure health data generating from labs.
- Move towards greater adoption of digital practices. Booking, tracking tests online, getting results online and digital payment options.
- Do more CMEs and work with doctors to create awareness.

In the near future, it is estimated that the sector will be 93,000-crore. Time to re-look at the systems and re-invent, to make this estimation and reality.

The diagnostic industry has been the real hero during COVID-19. Labs made investments in infrastructure, conducted training, increased capacity, without worrying about the RoI

Mr. Rahil Shah
CEO & Director, NM Medical

MedTech Sector's role in the Government's vision of a Self-Reliant India

As is a known fact, India has an almost 70% import reliance. Though, in 2020, the focus shifted on the supply chain and has led the Government to rethink on diversifying the supply chains. A key lesson has been less dependency on outside and particular countries or geographies. Most of the key starting material (KSM) of the med tech sector was imported, that too mainly from China. Time has come for the Government to now improve its Make in India program in this sector.
The webinar discussed how regulations, incentives and proper Government support can enable a much better make in India for the med tech industry.

Session guests:

Mr. Himanshu Baid
Managing Director, Poly Medicure Ltd.

Mr. Vivek Kanade
Executive Director, Siemens Healthineers

Mr. Sunil Khurana
CEO & Managing Director, BPL Medical Technologies Private Ltd.

Mr. Amit Chopra
Managing Director, India, South Asia & Middle East, Thermo Fisher Scientific

Moderator:

Ms. Charu Sehgal
Partner and Lifesciences and Healthcare Leader,
Deloitte Touche Tohmatsu India LLP

India has surely made strides in innovation under the med tech sector. However, software innovation has ruled the charts more. India still lags behind in hardware innovations. Which is how the sector feels impaired and becomes import-dependent.

Along with a surge in training of domain knowledge, India needs to put in place proper entry barriers for imports – for the Make in India campaign to do better.

Bringing in improvements

In early March 2020, India brought in test kits from the US. However, very soon, Indian players worked with the Government and ramped up the testing capacity and manufacturing of kits within the country. India had a huge latent capacity, which was suddenly activated. Testing equipment were repurposed, breakdowns were fixed in record times, and deep collaboration was done amongst stakeholders.

The future too, can be planned to continue on this sustained pathway. Some key pointers shared by the panel on improving the status of a self-reliant India, are as below:

- Tackle manufacturing disability; like high cost of materials, no proper supply chain ecosystem, and Government duties. Studies show such disabilities hamper the growth of the sector by 6-7%.
- There are no proper standards or control of imports practices. While, manufacturing in India faces too many hurdles and regulatory issues. For instance, no GST on imports and high GST on India-made products. Correct this scenario.
- Bring transparency in pricing. India still dependent on MRP. Ensure that the products are only marked up by 30-40% and not more, to give a required push for self-reliant India.
- The Government should re-look at its schemes for med tech.

Siemens is setting up an innovation center in Bengaluru. We will bring together hardware and software innovations to bring in synergies from both entities for newer innovative models. It will also have start-up incubators

Mr. Vivek Kanade
Executive Director, Siemens Healthineers

Med tech sector should do gap analysis before entering the market. Understand which locations suit you, focus on customer satisfaction, and ensure servicing and life-cycle control is done

Mr. Sunil Khurana
CEO & MD, BPL Medical Technologies Pvt. Ltd.

Indian companies should focus on the perception of quality and brand of Make in India. Acceptability will improve in the global market this way. We should also invest higher in R&D activities

Mr. Himanshu Baid
Managing Director, Poly Medicure Ltd

Indian Government can learn from countries like China, which have a healthcare scale 10 times larger than India. Local manufacturing is supported by the government there with favourable policies

Mr. Amit Chopra
MD, India, South Asia &
Middle East, Thermo Fisher Scientific

- Example: Under the PLI schemes, 180 crore were earmarked for the sector, but hardly anyone applied. Reason: terms and conditions were too stringent, which discouraged organizations.
- Promote partnerships and M&As. There is no need to reinvent the wheel every time. Even companies from outside India are interested, but only the right partnership terms will attract them. Look at developed markets/countries for partnerships.

Companies can also work on challenges on an organizational level. Some ideas floated around are as follows:

- Do a gap analysis before entering the market, understand which locations suit your company. focus on customer satisfaction, ensure servicing is also provided with sales.
- Life-cycle control should be enabled.
- Have your own kitchen. Decide which components are to be imported which can be made in India.
- Put in place proper systems for handling product cycle failure; it is an inevitable part of innovation.
- Learn from countries like China, which has a healthcare manufacturing scale that is 10 times larger than India. It is mainly due to supportive Government policies that boost local manufacturing.
- Do technology alliances.
- Plan to improve the perception around quality and brand of make in India products.
- Learn from pharma, which grew exponentially after USFDA set up shop in India. Now India is a leader in pharma exports with high quality.
- Med tech sector lacks consistency in quality in India-made products. Fix this.
- Invest in R&D. Only 10-15 Indian

Indian companies have a turnover of more than 100-150 crore, as they are able to innovate.

- Create high manufacturing lines.
- Create a strong supplier base. Example: A car needs 800 parts, but only about 20 parts are made by a car manufacturer, rest 780 come from suppliers.

What can the Government do

Indian companies have a turnover of more than 100-150 crore, as they are able to innovate.

- Create high manufacturing lines.
- Create a strong supplier base. Example: A car needs 800 parts, but only about 20 parts are made by a car manufacturer, rest 780 come from suppliers.
- The Government should identify top 4-5 areas where India needs to innovate in manufacturing, like precision medicine.
- Have consistent and transparent medium- to long-term beneficial policies.
- Help in developing a supplier base.
- Establish a really good regulatory set up and quality gate.
- Avoid policing, rather partner with players to set up proper standards and regulatory systems.
- Academia partnership should be undertaken.
- Learn from countries like China, which completely banned import of used machines from other countries, 12-13 years back. Instead, they rotated inside the country. India should also adopt this; otherwise, Indian players will stay threatened about their investments inside the country.
- Launch PLI schemes for the MSME sector (right now PLI schemes are only available for large companies).

Acknowledgements

NATHEALTH would like to thank its Knowledge Partners

Bain & Company, BCG, Deloitte, PwC,
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NATHEALTH would like to thank its sponsors for the Communication Campaigns

Apollo Hospitals Enterprises Ltd., Baxter (India) Pvt. Ltd., Biomerieux India Pvt. Ltd., Dr Lal PathLabs Pvt. Ltd., Fortis Healthcare Ltd., Johnson & Johnson Pvt. Ltd., Mahajan Imaging Pvt. Ltd., Metropolis Healthcare Ltd., NM Medical-Unit of Rahu Health & Medical Tourism, P.D. Hinduja National Hospital & Medical Research Centre, Philips, Polymedicure Ltd., Roche Diagnostic India Pvt. Ltd., Smith & Nephew Healthcare Pvt. Ltd., SRL Ltd., Terumo India Pvt. Ltd., Thermo Fisher Scientific India Pvt. Ltd., Wipro GE Healthcare Pvt. Ltd.

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