



**POST COVID HEALTHCARE WORLD:
THE NEW BEGINNING**

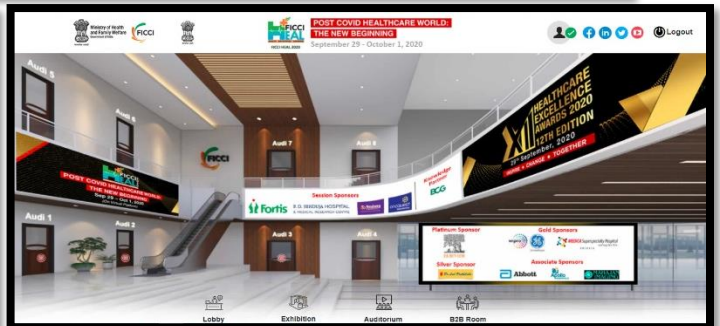
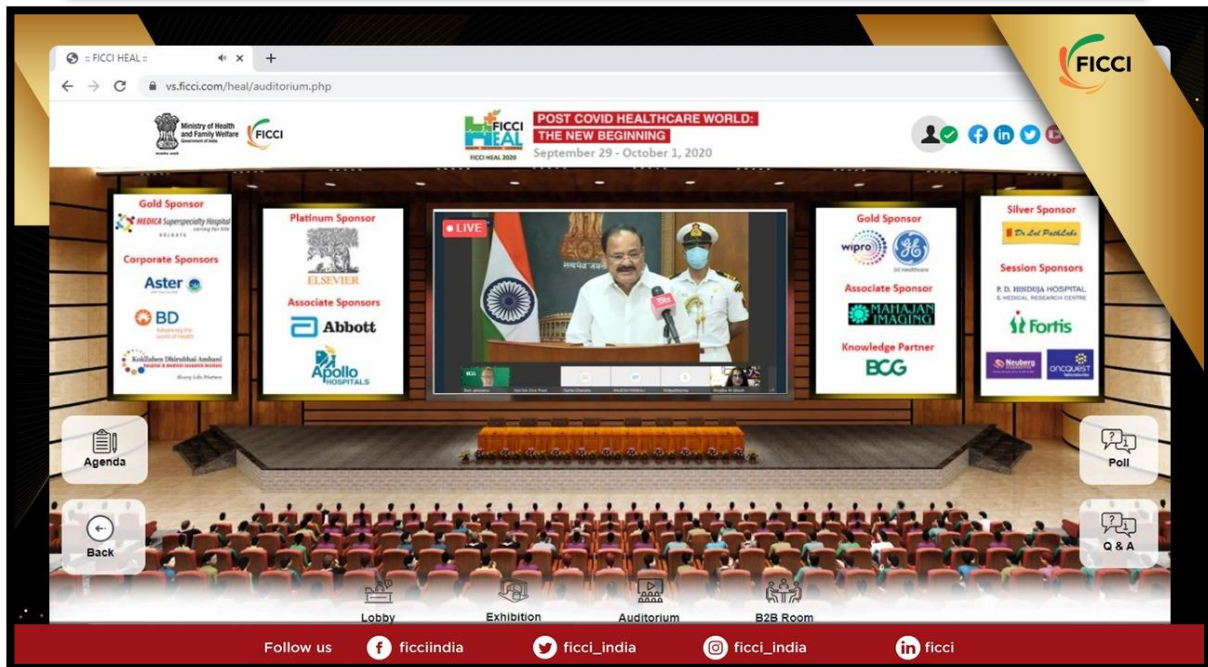
Sep 29 – Oct 1, 2020
(On Virtual Platform)

Recommendations

For all healthcare stakeholders

FICCI's Annual Healthcare Conference- FICCI HEAL 2020

On our Virtual Platform- FICCI BIKE



Key Recommendations

Short term (for COVID-19)

Recommendation	Government	Industry	Collaboration
COVID-19 is not a pandemic- it is a combination or synthesis of two endemics- new virus (SARS-CoV2) and non-communicable diseases (NCDs)- hence a ' Syndemic '. A global syndemic demands a global response - we need to share our experiences and learnings and work in close collaboration to forge a more constructive response.	✓	✓	✓
We need to re-humanise the crisis- it should not be just about the data and numbers, but about saving lives of the people.	✓	✓	✓
Develop strategies to tackle and avoid infodemic through traditional as well as social media.	✓	✓	✓
The decisions by the government need to be enforced and implemented at all levels - right from the center to the states, districts and panchayat or local administration level, across the country.	✓		
There should be extensive involvement of public health experts as well as medical experts for the planning and decision making.	✓		
COVID safe behaviour will act as the social vaccine , in the absence of a clinical vaccine- we need to collaborate to bring in a behaviour change in the society	✓	✓	✓
Promote Indian traditional system of medicine that is scientifically established, especially Ayurveda which has proven effective as immunity booster against the coronavirus	✓		
For vaccine development, we need to focus on two key aspects- Efficacy and Safety	✓	✓	
Efficient and equitable distribution of vaccine to the entire population is crucial. Vulnerable and higher risk categories need to be catered to first.	✓		
Close collaboration between governments, civil society organisations, academia along with pharma industry is important for finding solutions to the various concerns of effectiveness, transportation, implementation as well as to help in fast tracking the vaccine development process.			✓

Rapid antigen tests should be used more for surveillance and testing of larger population in lesser time. RT-PCR test should be used as the gold standard test	✓	✓	
Appropriate awareness generation amongst the population should be carried out on the types of tests available	✓	✓	
For revival of the economy , government should take additional measures to enhance spending like abolish the long-term capital gain tax and initiate mass manufacturing	✓		
RBI should help aggregate the demand , enhance infrastructure spending and work towards recapitalization of public sector banks	✓		

Long-term

Recommendation	Government	Industry	Collaboration
Build a healthcare system that is pro-active and patient-centric, with much greater focus on primary and preventive care.	✓	✓	✓
Increase our public health spending to at least 3% of GDP at the earliest	✓		
Build a strong public healthcare system to be able to effectively detect, trace, test, isolate and care for the affected. A good surveillance system is crucial.	✓		
Real-time updates and transparency amongst the government authorities as well as appropriate and adequate communication to the public is crucial for the response to any disease outbreak.	✓		
Build our public health capacities- infrastructure and services- with seamless coordination between both public and private systems.			✓
Strengthen the healthcare workforce at all levels through appropriate and sustainable partnerships between public and private sector.			✓
Nurses form the backbone of healthcare ecosystem. Support nursing and midwifery leadership at all levels of the health system to contribute to health policy development and strategic decision-making in organisations.	✓	✓	
Develop programs for mental health well-being of healthcare workers, other employees as well as the community through appropriate tools.	✓	✓	
Future healthcare facilities should be physically prepared to handle situations of disease outbreak with provision for expansion of bed capacity, infectious disease wards, unidirectional flow of patients and hospital staff, proper donning and doffing areas, adequate air quality and infection control measures	✓	✓	

Strengthen our critical care infrastructure - not just in urban areas but also in tier III-IV cities as well district and village level	✓	✓	✓
Expand the infrastructure under Ayushman Bharat with greater participation from private sector		✓	
Make the AB-PMJAY program viable and sustainable for the private hospitals	✓		
Stable regulatory, policy and pricing framework is vital to give confidence for investing in the country- whether for MedTech sector or Healthcare delivery infrastructure	✓		
We need to increase our MedTech exports in order to balance the imports in the country	✓	✓	
Global MedTech companies can play the role of brand ambassador for India.	✓	✓	
A focused R&D Policy for Pharma sector and increased budgetary allocation for research should be implemented urgently	✓		
Enhance Industry-Academia collaboration for healthcare research as well as for appropriate skill development			✓
The digital health system should be able to scalable and user-friendly	✓		
Build tools and technologies that will aid the doctors and healthcare providers in digitizing the records for better adoption of digital health			✓
An open source digital platform will further facilitate enhanced adoption of digital technologies as it will enable all entities- whether public or private to leverage the transformative healthcare delivery solutions.			✓
Mainstream and integrate home healthcare in the overall healthcare ecosystem to increase affordability and access even to remote areas	✓	✓	
Promote the acceptance and efficacy of Ayurveda system as well as its manufacturing excellence and integration with modern medicine	✓	✓	

Overview

Endemic diseases have had the history of adding to the economic burden of any country by impacting health, livelihoods, agricultural production and ecosystems. Nevertheless, the impact seen due to COVID-19 pandemic has no precedence in recent human memory. It has not just stretched our healthcare systems but brought in a mammoth socio-economic calamity- that will leave longstanding scars.

Countries around the world are working to extenuate the vast challenges posed by the pandemic- with healthcare systems being at the epicenter of the crisis- both physically and financially. It was estimated that healthcare sector in India alone faced operational losses to the tune of 14,000 crores for a quarter.

Today, as healthcare providers continue to put colossal efforts in fighting against the pandemic by finding ways to manage the vulnerable and affected, the reverberations of the current crisis are being felt across spectrum, heralding the onset of irreversible changes to come. The ability to deal with these new and accentuated challenges and our resilience will determine our success to adjust to the new normal and be prepared for the post-COVID world.

Along with the challenges, it is expected that the current scenario will open up a **plethora of opportunities** giving way to a renewed healthcare delivery system- including newer care delivery models, enhanced use of digital tools and other technologies, greater focus on preventive and primary care along with point of care and home-based care, restructured facilities and operating models, and boost to local manufacturing as well as R&D in products and treatment for better health outcomes.

COVID-19 has also acted like a catalyst by accelerating the changes required, in order to truly transform the healthcare sector. Government authorities, health professionals, organizations, civil society and experts from across the spectrum have been working together, leveraging technologies and innovating working models.

It is also evident that the pandemic has brought in a **huge paradigm shift in how healthcare is envisioned**- by the government, the industry as well as the community at large- that will help bring in the much needed and strong reforms to transform the healthcare sector and achieve our vision of Universal Healthcare.

Hence, the FICCI Healthservices Committee carefully crafted this year's Conference Theme as **"Post-COVID Healthcare World- The New Beginning"**.

FICCI HEAL conference this year had numerous engaging and insightful deliberations on **how our healthcare world is changing post-COVID and our learnings for the future of healthcare delivery**, not just in India but the entire world.



Dr Sangita Reddy, President, FICCI and Joint MD, Apollo Hospitals Group said, "At no other time in the world has health care been so center stage. At no other time have the problems been so intense and required us to innovate, ideate and collaborate".

The virtual conference was inaugurated by **Shri M Venkaiah Naidu**, Hon'ble Vice President of India and was supported by the **Ministry of Health and Family Welfare** (MoHFW), Government of India.

The **pre- and post- conference sessions over the three days** highlighted the impact of COVID as well as lessons and opportunities for the future healthcare systems- across the spectrum, including evolving care delivery, developments in diagnostics, enabling digital technologies, rise in home healthcare, changing pharma landscape, self-reliance in medical technology. There was a parallel stream of **Scientific Sessions** that focused on the clinical challenges faced due to COVID-19 and the response from various stakeholders.

We are thankful to all our **eminent speakers and stalwarts from the government and the industry** for sharing their knowledge and wisdom throughout the sessions that will help all of us in creating a roadmap for the future.



“The conference deliberations highlighted the paradigm shift in the economy and society. Post pandemic, the healthcare ecosystem will be driven by the behavioural changes in the society, awareness about health, hygiene and fitness, scaling up of preventive and primary care at the grassroots with digitalisation of the health systems in the country.”

Dr Alok Roy, Chair, FICCI Health Services Committee & Chairman, Medica Group of Hospitals



“Our biggest learning from COVID-19 has been ‘being *Atmanirbhar*’. From growing from 1 to 1837 labs, we have learnt that if we stand united, nothing is impossible. The deliberations during the 3-day FICCI HEAL 2020 will help pave the way for better diagnostic and treatment outcomes for patients across the country.”

Dr Harsh Mahajan, Co-Chair, FICCI Health Services Committee & Founder & Chief Radiologist, Mahajan Imaging

The conference received more than 3750 registrations from across 30 countries and the sessions were attended by wide range of audience- healthcare providers, clinicians, nurses, representatives of diagnostics, medical devices and pharma companies, government institutions, embassies as well as students and faculty from educational institutions.

Participants- 3750 | from 30 countries

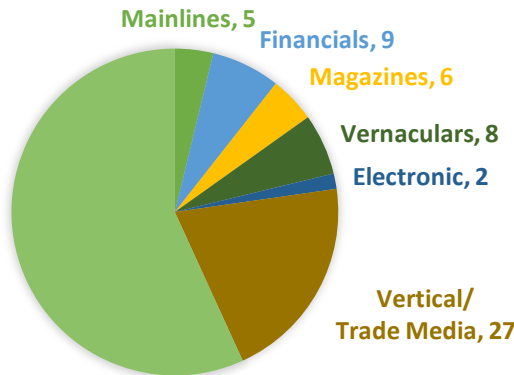
	Re-logins	Stall Visit	Card Exchange	Audi1	Audi2	Audi3	YouTube
Total	5985	1219	5619	4623	3072	2404	4600+

Media Coverage for the Conference

Electronic & Print Media Coverage for FICCI HEAL 2020

132 Total

Wires/
Online, 75



Private sector should join PM-JAY platform: Cabinet Secretary

OUR BUREAU
New Delhi, September 29
Private sector hospitals, particularly those belonging to big groups, should come forward to join the PM Jan Arogya Yojana (PM-JAY) which has emerged as a hugely successful platform for delivering tertiary care within two years of its launch, said Cabinet Secretary Rajiv Gauba on Tuesday.

The larger challenge of making healthcare affordable and accessible will continue to be there even after the Covid-19 pandemic, Gauba said addressing a FICCI event Heal2020.

"We need to improve our health infrastructure by coming up with innovative solutions, new approaches so that healthcare delivery can improve, especially at the last mile. We must improve healthcare indicators and make them comparable to the developed countries," he said.

India has emerged from a State of total dependence on imports to being exporters of

Covid-19 necessary medical items. "I urge FICCI and the healthcare industry to launch mass awareness on Covid-19 appropriate behaviour as economic activities open up. With the advent of the festival season and winter it's important that people don't let their guard down," he added.

Sangita Reddy, FICCI President said that at no time in history has healthcare been so centre-stage. "We must collectively ideate, build new solutions and stand up to serve in the face of all kinds of adversities. India has handled the Covid crisis with tremendous innovation, bravery, alacrity and has come together in a way that we can all actually be very proud of," she said.

Former environment and forests secretary, CK Mishra, said the private sector has proven to the world that India is the hub of cost-effective treatment. "We have moved ahead, the speed or the destination can be questioned but the fact that we are taking the correct path cannot be denied. It is time to celebrate the success and good work and move ahead," he said.

Mishra emphasised healthcare is a partnership between the private and public sector. "It is the government's responsibility to create a platform to facilitate this. The private sector participation adds value to the entire spectrum of public health which should be at the core of our belief," he remarked.

Naidu asks pvt sector to pitch in to develop modern healthcare facilities in rural India

New Delhi, Sep 29 (PTI) Vice President M Venkaiah Naidu on Tuesday called for making good quality healthcare accessible and affordable for all and urged the private sector to pitch in to develop modern facilities in rural India.

He said the private sector can come forward and expand its footprint through the public-private partnership.

Stressing on the need to capitalise on the core competences of each stakeholder in the country, he said people can take the best from the world to strengthen the healthcare delivery system.

He urged the private sector to take full advantage of Atmanirbhar Abhiyan in order to give a fillip to the manufacturing of various medical devices, including hi-tech and advanced equipment.

Naidu also noted that the COVID-19 pandemic has taught people the overriding importance of staying healthy.

He said fitness coupled with a balanced diet was essential to stave off diseases.

He also pointed out that sedentary lifestyle was one of the main culprits behind the growing incidence of non-communicable diseases in the country.

Naidu urged people to make physical activity a part of their daily routine to remain fit.

Addressing a FICCI event on post-COVID healthcare world, he said new beginning should also be about going back to old habits.

"Our ancestors have prescribed a nutritious rich food. We should avoid fast-food and mindless eating," he said.

Condemning the instances of stigma and discrimination against frontline warriors and COVID-19 patients, the vice president said such behaviour was unacceptable and must be stopped in the bud.

"It is important that we do not discriminate against anyone who is COVID positive or anyone who has come in contact with a COVID patient. We have to promote empathetic attitude and positive messaging around COVID-19," he stressed.

Call for public-private partnership in health

EXPRESS NEWS SERVICE
#Bengaluru

THE webinar at the 12th FICCI Healthcare Excellence Awards on Tuesday saw a pitch being made for public-private partnership to provide the much-needed boost for the health sector in India to make medical services affordable and accessible to all.

Addressing the webinar during the three-day 'HEAL 2020' when the awards were given away Rajiv Gauba, Cabinet Secretary, Government of India, urged the private sector to come forward and join the Pradhan Mantri Jan Arogya Yojana (PM-JAY) movement.

"Private sector hospitals, particularly the big groups, should come forward and join this platform," he said.

In just two years after its launch, the PM-JAY movement has become a hugely successful platform for delivering tertiary care to some of the most vulnerable sections of the Indian population. "As a country, we have emerged from a state of total dependence on imports to being exporters of Covid-19 medical items. Today, we have 187 labs in the government sector and 749 private labs for Covid testing," Gauba said.

However, the larger challenge of making healthcare affordable and accessible will continue even after the Covid-19 situation. "We need to improve our health infrastructure by coming up with innovative solutions, new approaches so that healthcare delivery can improve, especially at the last mile."

CK Mishra, former secretary, Ministry of Environment, Forest and Climate Change, said healthcare partnership between the private and public sector is the pooling of resources from both sides in taking the country ahead. "It is the government's responsibility to create a platform to facilitate this."

NDHM can unlock an incremental value of Rs 1.5 lakh cr for the healthcare industry: FICCI-BCG Report

Surveys conducted by BCG across doctors and patients highlight that 85% of the clinicians used digital platforms for patient interactions during the lockdown

EHealthWorld | September 30, 2020, 15:18 IST

New Delhi: A joint publication by BCG and FICCI titled "Leapfrogging to a Digital Healthcare System: Reimagining Healthcare for Every Indian" was released at the 14th annual health conference FICCI HEAL by M Venkaiah Naidu, Hon'ble Vice President of India, Dr Sangita Reddy, President FICCI and joint MD Apollo Hospitals, and Bart Janssens, Managing Director and Senior Partner, Boston Consulting Group.

Surveys conducted by BCG across doctors and patients highlight that 85% of the clinicians used digital platforms for patient interactions during the lockdown. 55% of the clinicians found these platforms to be an effective medium for providing care. Additionally, 60% patients across metro and tier 1 cities reported they would continue using digital platforms for primary care in the post Covid world due to the fundamental benefits of shorter waiting time and easy access to qualified doctors. In addition, as per reports, the lockdown period saw teleconsultation services being accessed by over 2000 small towns, with 80% patients being first-time users.

PTI - Last Updated: Oct 01, 2020, 10:47 PM IST

Synopsis
"The (COVID-19) crisis showed the fault lines in the health sector, India is investing too little in health and it is one of the lowest in the world. This crisis has shown that we need to do much more and we need to invest more in the primary, secondary and critical care," India Bhushan was quoted as saying in the statement.

NEW DELHI: The coronavirus crisis highlighted that the country was investing too little in the health sector, CEO of AB-PMJAY Indu Bhushan said on Thursday as he stressed on the need to invest more in primary, secondary and critical care.

Addressing a webinar titled 'Digital Revolution Going Viral' during FICCI HEAL 2020 event, he said the crisis has spurred some reforms and digital health is one of them, according to a statement issued by FICCI.

"The (COVID-19) crisis showed the fault lines in the health sector. India is investing too little in health and it is one of the lowest in the world. This crisis has shown that we need to do much more and we need to invest more in the primary, secondary and critical care," Bhushan was quoted as saying in the statement.

Bhushan, CEO of Ayushman Bharat- Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) and the National Health Authority, said the National Digital Health Mission (NDHM) blueprint was developed over the last two years, which aims to provide a unique health ID to every citizen and link them together with electronic health records.

The aim is to improve transparency in the sector, make health services more accessible, interoperable, and make policy more evidence-based, he said.

Digital health mission can unlock ₹1.5 trln in value for healthcare: Study

1 min read. Updated: 30 Sep 2020, 06:29 PM IST

Neetu Chandra Sharma

The surveys conducted by BCG across doctors and patients highlight that 85% of the clinicians used digital platforms for patient interactions during the lockdown

NEW DELHI: The National Digital Health Mission has the potential to unlock ₹1.5 trillion in incremental value for India's healthcare industry in about 10 years, a joint report by Ficci and Boston Consulting Group (BCG) said on Wednesday.

The report - Leapfrogging to a Digital Healthcare System: Reimagining Healthcare for Every Indian - highlighted that the adoption of an open digital health ecosystem will mark a fundamental shift in the way the healthcare market currently operates, and stakeholders interact.



Social media platforms including Facebook, Twitter, LinkedIn and YouTube

**POST COVID HEALTHCARE WORLD:
THE NEW BEGINNING**
Sep 29 – Oct 1, 2020
(On Virtual Platform)

Excerpts from the Inaugural Address

Shri M Venkaiah Naidu, Hon'ble Vice President of India

Addressing the inaugural session of FICCI HEAL-2020, Shri Naidu said, "We have to make available good quality healthcare, accessible and affordable to all. We must capitalize on the core competence of each stakeholder in the country. We must also draw best from the world to strengthen our healthcare delivery system."

Shri Naidu also complimented FICCI members who have not only been sharing the best practices and solutions to combat the pandemic but have been supporting the government in augmenting healthcare facilities. He appreciated the role of private hospitals in rising to the occasion and battling COVID-19, and offering their facilities, manpower, equipment in treatment of COVID and non-COVID patients during this crucial hour.

He shared that the world's largest health coverage program, the Ayushman Bharat, is now being expanded to every section of the country. This would ensure that much larger section of uncovered population including informal sector workers are provided health coverage. He urged the private sector to participate in the program and also come forward to expand their footprint through public-private partnership for setting-up modern healthcare facilities in the rural areas. "Private players have added to the capacity and capability of our healthcare system in the country. They will continue to play an important role in augmenting the infrastructure and skills in the sector. There has to be a collaborative effort from the industry and the civil society in supporting the government's initiatives," he emphasized.

Highlighting the potential of *Atmanirbhar Bharat*, the Vice President added that with the expansion of the healthcare sector, the public and private hospitals, the demand for pharmaceutical products, medical devices and equipment will increase in the coming years. He urged the private sector to take full advantage of the *Atmanirbhar Abhiyan* and give a fillip to the manufacturing of various medical devices.



Emphasizing on the need of adopting the traditional Indian lifestyle, Shri Naidu added that this pandemic has taught us the overriding

importance of staying healthy, both physically and mentally. "We have to follow the concepts of 'Dinacharya' - daily regime and 'Ritucharya' - seasonal regime to maintain a healthy life. Fitness coupled with a balanced diet is essential to stave off illness. I suggest that Yoga and meditation should become part of daily time-table along with sports in schools and colleges once normalcy returns," he stated.

Hon'ble Vice President released the FICCI-BCG Report on 'Leapfrogging to a Digital Healthcare System- Reimagining Care Delivery for Every Indian'

COVID-19 pandemic has profoundly impacted all socio-economic aspects of our lives, while also inspiring promising innovations, particularly in digital healthcare models. From the telemedicine guidelines being announced in March 2020 to the launch of national digital health ID in August 2020, we have already started to see the digital era in Indian healthcare take shape.



With this view, FICCI, in partnership with **Boston Consulting Group (BCG)**, undertook a study to layout the contours of the **Open Digital Health Ecosystem** as envisioned in the National Digital Health Mission

(NDHM) announced by the honorable Prime Minister Sri Narendra Modi on 15th August 2020. The Report titled, "**Leapfrogging to a Digital Healthcare System- Reimagining Care Delivery for Every Indian**", was released by Shri M Venkaiah Naidu during the Inaugural Session of this 14th FICCI HEAL.

We are now at the cusp of the digital 3.0 era of Open Digital Ecosystems that represents a fundamental change in the way the government can leverage technology for public care delivery and enable private sector innovation. Creation of a shared public digital infrastructure can be leveraged by both public and private players to deploy new solutions that enhance the end-user experience. The report undertakes a collaborative approach to ensure that multiple perspectives across government bodies, private sector entities, developers, and the user community are brought to the forefront.

Messages from Key Speakers

Dr V K Paul, Member (Health), NITI Aayog, addressing the Session on '*Learnings for the Future*', on day-3 of the conference said that the pandemic had laid bare some of the stark realities of our healthcare systems highlighting that no one across the globe was prepared for this crisis. He expressed, "we have learnt that investment in healthcare must be given its due importance. We need a much stronger healthcare system in India that comprises of both the public (center and state) as well as the private healthcare systems- whether it is in terms of infrastructure or healthcare workers, and there needs to be a seamless connect between the public and private system". He urged the private sector to join the Ayushman Bharat program in full strength to make this public-private connect stronger and more inclusive.

He also emphasized, "the pandemic has been a global reality check of future challenges to healthcare sector. The specialist deficient is profound in our country. We need, at least, five times the existing number of specialist doctors. A lot needs to be done by way of creating the resources and infrastructure".

Dr Paul shared that according to the new guidelines for the Priority Sector Lending, the RBI has doubled the credit limit for improvement of health infrastructure, including those under Ayushman Bharat. "The investment cap for health facilities in Tier II to Tier VI cities has been enhanced from Rs 5 cr to 10 cr. This was one of the demands from the sector and should be considered a stimulus under the new RBI guidelines," he said.



Elucidating on the need to change social behaviour, Dr Paul informed that the central and the state governments were embarking on a behaviour change endeavour from next week. "This needs to be a *Jan-Aandolan* of an unprecedented magnitude. We are worried about the festive and winter season upon us, and therefore, to work on the preventive side is even more important," he said. He urged the industry to rise to the occasion and disseminate the messages of embracing the mask, physical distancing, hand hygiene, using AYUSH products and protecting the elderly- which will act as the 'social vaccine' in absence of a vaccine and help strengthen the preventive efforts across the country.

Mr Rajesh Bhushan, Secretary, Ministry of Health and Family Welfare, Government of India, also addressing the same session, said that lessons and **learnings for the future** will flow from what we are doing at present. "It is important that we have critical care infrastructures not only in urban cities but also

in Tier II-VI cities. We need to seriously visualise critical care hospital blocks at district headquarter levels,” he added.

He also mentioned that seamless public and private sector collaboration is imperative for not just infrastructure but also for skilling and reskilling of healthcare human resources in the country.

Elaborating the ongoing efforts of the government, Mr Bhushan said that, “there were three major strands of the COVID response in the country. First, the government adopted the ‘Whole of the Government Approach’ which meant that the responsibility of handling the crisis was not only on one ministry but on the entire government. 11 Empowered Groups involving all relevant ministries were constituted. Multiple ministries have worked in an orchestrated manner and in tandem to tackle the pandemic and to strengthen the effects of the nodal ministry, the MoHFW, in ensuring that we put our best foot forward,”.



Second, Mr Bhushan said that, ‘the government utilised the unique grassroots public health network of India, which includes foot soldiers like 10 lakh *Asha* workers, lakhs of ANMs, *Anganvadi Sevikas* and *Sahikas* who did the surveillance, mapped the containment areas and performed house-to-house searches for active cases”. Third, he mentioned that the proactive role played by the central government was pivotal for the response. He also shared some important learnings from the pandemic.

Dr Scott Atlas, Special Advisor to the President of the United States, Member, White House Coronavirus Task Force, Robert Wesson Senior Fellow, Hoover Institution, Stanford University, USA also addressed the conference during the Session on '**Digital Revolution Going Viral**'. He shared that the United States has used digital health effectively during the COVID times and that there has been an explosion of telemedicine mainly for diagnostic purposes.

Dr Atlas explained that, “Telemedicine is one of the positives that has come out of this very tragic period. Its use was accelerated because of the necessity and the need for mobilizing resources and making them available to people who were either forced to not come to medical centres due to the lockdown or were

afraid to do so". He also shared that some of the rules and restrictions were relaxed to facilitate the adoption of telemedicine for example rules for payment through insurance, which helped scale-up telemedicine initiatives, especially the innovative and start-up businesses.

He further expressed that the pandemic has made us realise that digital health is much more important than what we had thought and it will drive a more creative use of medicine and benefit the society greatly, especially for rural and distant geographies. Telemedicine and healthcare digitisation will proliferate into the future healthcare system more significantly given the access to high bandwidth and better technology.



Dr Atlas, while commending India's NDHM, shared that there are a lot of concerns in the USA for privacy and security of data- particularly of medical care information. It is important that any healthcare system should address these concerns aptly. He further expressed that COVID-19 has also taught us that it is important that data collection and management is done accurately to be able to use it effectively- as besides the clinical part, the logistical part of data usage is also crucial to any healthcare system.

He also suggested that while India's spirit of innovation and entrepreneurship is huge, there is a need that young entrepreneurs also focus on not just education but experience within the sector to better understand the need of the sector.

Dr Indu Bhushan, CEO, AB-PMJAY and the National Health Authority (NHA), GoI, addressing the session on '**Digital Revolution Going Viral**', said that the National Digital Health Mission (NDHM) blueprint was developed over the last two years, which aims to provide a unique health id to every citizen and link them together with electronic health records. The aim is to improve transparency in the sector, make health services more accessible, interoperable, and make policy more evidence-based.

Drawing a parallel with other government initiatives, Dr Bhushan said that India has gone through the FinTech revolution and the Unified Payment Interface (UPI) that has revolutionized the financial sector and we aim to do the same thing in the health sector through the NDHM.

He also shared that, "NDHM has citizens at the center of the whole concept and we are adopting privacy and security in the design itself and not as an afterthought. We are also focusing on the inclusivity of the digital health system so that the population with barriers of literacy, language or connectivity can also be included through simple solutions. The implementation of NDHM has been initiated on a pilot basis and

we are acting on the 'start small, think big and scale fast' principle, and hopefully, in six months you will start seeing the impact on a larger ecosystem,".



Highlighting the impact of COVID-19 on digital health, Dr Bhushan said that the crisis has spurred some reforms and digital health is one of them. "The crisis showed the fault lines in the health sector. India is investing too little in health and is one of the lowest in the world. This crisis has shown that we need to do much more and we need to invest more in the primary, secondary, and critical care," he emphasized.

Prof Arvind Panagariya, Professor of Economics and the Jagdish Bhagwati Professor of Indian Political Economy, Columbia University delivered the *Keynote Address- 'Macro-Economic Impact of COVID on World & India'*. He commended the early measures by the Indian government and expressed that, "the strict lockdown was indeed effective since we bought a lot of good time to not only ramp up our medical supplies but also build up our defences in terms of broader employee structure for healthcare. This helped us in limiting the infection in initial months, but subsequently we have not been able to sustain that effort since we have a bigger challenge as compared to some developed countries due to limited healthcare resources and infrastructure".

In economic terms, he shared that the impact of COVID-19 has been felt as a massive shock across the world. While India's GDP fell by 23.9% in the Apr-June quarter, the GDP of UK was down by 21.7% and Spain by 22.1%. Germany handled COVID better with GDP fall of 11.7% and USA 9-10% in that quarter. However, the economic impact in USA was felt more in the subsequent quarter given that the second wave that hit them was spread wider geographically.

Further, he shared that, in India, the most affected sectors have been transportation, hotels and manufacturing with the sharpest declines in revenues. While agriculture sector showed some growth, it did

not help much since it constitutes only 15% of our economy in terms of output. *He shared some of the recommendations for the RBI and Indian government that have been covered in the Key recommendations.*



He also shared that, “recovery of economy will depend on how well we can recover against COVID. It will take time to get back to the original economy, which will not happen unless the workers return to their workplaces completely”.

As for impact on healthcare, he shared that USA has been facing similar issues like in India, over reduced footfalls of patients and hence reduced revenues. While he assured that the pent-up demand will open up once things normalize, he also suggested that public health systems as well as other public infrastructure needs to be strengthened in the country- mainly at the local government level.

He also recommended that public spending on healthcare should be increased immediately and we should focus on expanding and strengthening the Ayushman Bharat model. This program has the scope to give the patient a choice to where he wants to get treated while covering the expenses, at the same time provides opportunity to private sector to expand while putting a pressure on the public sector to put in their best. He also advised that government and private sector should together work on proper enforcement as well as the costing of healthcare services.

Prof Richard C Horton, FRCP FMedSci, Editor-in-Chief, The Lancet - *Valedictory address*

Prof Horton shared the experience of earlier influenza pandemic that accelerated political and societal change across the world and led the path of Universal Healthcare and improved health in many countries.

He further shared, “the COVID-19 pandemic has precipitated not only a health crisis but also an economic and political crisis, disproportionately affecting the poorest population. The World Bank has estimated that 100 million people will be tipped into an extreme poverty and worsening inequality. Also, 80 million children are missing their essential vaccinations”. He also said that we are living in a state of radical uncertainty, but this is an opportunity to learn lessons and find solutions for future.



Deliberating on how the world prepares for a post-COVID scenario, Prof Horton expressed that, “what we are experiencing is not a pandemic but a ‘Syndemic’. It means that there is a synthesis between COVID-19 and non-communicable diseases, and when these intersect or combine, it causes high mortality, on the backdrop of poverty and inequality”. He further mentioned that this is an important distinction and should be addressed appropriately for finding better solutions.

He also shared that most of the countries were not prepared for this pandemic or syndemic and we all need to work towards strengthening our public health capacities, surveillance systems as well as healthcare workforce across the ecosystem.

He further emphasized that, “a global syndemic demands a global response. We should be sharing our experiences and learnings with one another to forge a more constructive and coordinated response”. *His other suggestions for the future have been included in the key recommendations arising from the conference.*



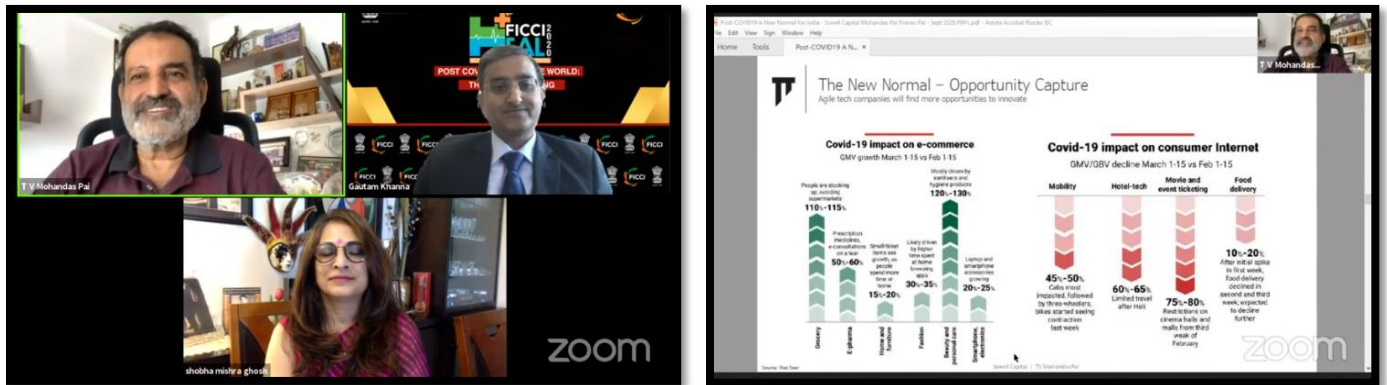
Valedictory Session with Prof Richard Horton

Mr T V Mohandas Pai, Adviser, FICCI Skills Committee & Chairman, Manipal Global Education delivered a *Keynote Address on 'Post-COVID19: A New Normal for India'*. Sharing the economic impact of COVID-19 on the world, he said that quarterly data exhibits a fall in GDP growth rates in most of the countries and these rates are expected to remain negative over next 2-3 quarters. With a global stimulus of USD 12 trillion and no expected rise in interest rates, it is projected that there will be a huge upsurge of liquidity which shall create asset bubbles across the globe, hence impacting our spending and investments.

While commending the Indian government’s efforts, he shared that we have seen a lot of reforms in various sectors including labour, agriculture, defence as well as infrastructure, which will reshape the Indian industry in coming years.

He also highlighted that, “the biggest impact of the pandemic has been the change in human behaviour across the world. We have started using more digital technologies and e-platforms across the spectrum-whether it is e-commerce, education, healthcare or banking, which is transforming the way we live and do business”.

Mr Pai further shared the various facets of new reality that include collapse in crude oil and aviation sector as well as rise of tech companies globally that will continue to accrete disproportionate control over new value creation. He also shared that Indian tech companies are also accelerating their path to domination and Agile tech companies will find more opportunities to innovate.



In healthcare sector, he shared that, “development of a Bharat Health Stack to serve as an open collaborative platform and digitisation along with AI and Machine Learning will help us accelerate to the New Reality, where data will be much more valuable than before”.

He concluded by saying that “the biggest learning for businesses has been that they need to reconfigure their business strategies to adjust to the new reality, adapt digital technologies faster and retain enough cash in their balance sheets to be better prepared in future”.

Key Learnings and Experiences from the Pandemic

At global level-

- The pandemic has brought in challenges at all levels- economy, society and government systems. However, it has brought **healthcare to center-stage**, compelling us to take healthcare more seriously and help make it more inclusive and accessible.
- We have learnt that the initial months of a pandemic- when we do not have much information on the disease- are the most crucial for saving lives.
- We should not consider the pandemic as a war as this virus will not be defeated, rather we should negotiate our terms with the virus to achieve peaceful co-existence.
- COVID-19 is not a pandemic- it is a combination or synthesis of two endemics- new virus (SARS-CoV2) and non-communicable diseases (NCDs)- hence a '**Syndemic**'. This is leading to high mortality, with the backdrop of poverty and inequality. It is important to address all these issues in order to find appropriate solutions to the crisis.
- **Science** has been at the center and has been critical for not just understanding this syndemic, but also in guiding our response to it.
- The pandemic has also revealed that our society is very brittle and has brought to the forefront the **vulnerable groups** that need to be protected- the elderly, people with chronic illnesses as well as the ones at the frontline.
- **Diagnostics and testing strategy** played a key role in assessing the impact of the virus on the population and hence is significant in understanding the evolution of the disease.
- The pandemic enabled us to **re-engineer** our minds, supply chains, business models across the world. The point of care shifted from brick and mortar healthcare facilities to patient homes and mobile phones.
- The crisis has demonstrated that that there is no limit to science and research. The **vaccine timelines** have been reduced from 10 years to almost 18 months, given the intense research over past few months.
- COVID-19 broke the various barriers- geographical, organisational, sectoral and even the time-zone. It has also revealed the best of us given that we saw a huge **collaborative spirit and solidarity** not just amongst the clinicians but also amongst various stakeholders.
- The pandemic also highlighted the significance of the contribution of organisational teams across the globe and **innovative HR practices** to ensure that employees are motivated, retained and engaged appropriately-



"During the pandemic, the pressure to get sufficient number of components at the right place and at the right time was immense. However, there wasn't a single company around the world that refused help when asked."

Mr Kieran Murphy, President & CEO, GE Healthcare

which was extremely crucial for proper functioning of healthcare organisations and delivery of quality care to the patients.

- We have underestimated the **importance of communication** during the pandemic, leading to a world-wide infodemic- an endemic of information, where it has been difficult to segregate the misinformation. Countries that have been successful in managing the pandemic have had very clear lines of communication with their population.
- COVID-19 has also taught us that, for us to analyse and utilize the healthcare **data** appropriately, it is important that the data collected is accurate.
- It enabled us to leverage digital solutions for centralized monitoring of patients like never before, enhancing remote technologies for scanning the patients as well as operating the machines, while protecting the healthcare workers. This is a long-lasting impact and we will see greater adoption of **digital and remote technologies** in the future.

For India-

- The pandemic has forced us to **rethink** and **refocus on health** of the population.
- The crisis has shown the fault lines in the health sector and re-emphasized that India is investing too little in health and is one of the lowest in the world. We need to **invest** much more in the primary, secondary as well as critical care.
- **Prevention** played an important role during the pandemic.
- We realized the importance of **behaviour change** for effective prevention from an infectious disease of this measure.
- Although India acted early on certain fronts, our response to the outbreak could have been bigger in terms of energy, capacity, technical capability, efficiency and reach.
- India has also learnt lessons in **stewardship** during a national crisis- where the central, state and local governments worked in tandem. However, the whole response from the government needs to be scaled up and mounted specifically by increasing capacities at the district level.
- There have been **partnerships and collaborations** like never before- various stakeholders from the entire healthcare ecosystem and beyond joined hands to forge solutions.
- We have been able to use outcomes from even small healthcare facilities and compare them to global data for better outcomes.
- We cannot be over dependent on any other country for technology, products or any other healthcare resources. We have learnt to be **self-reliant** (*atma-*



“We have come a long way, but every day has been a new learning experience. Time and patience are the two important warriors for humans now. Till the time a vaccine is discovered, we have to rely on individual responsibilities to protect ourselves.”

Dr Narottam Puri, Advisor, FICCI Health Services Committee; Former Chairman-NABH; Advisor-Medical, Fortis Healthcare

nirbhar) in terms of APIs, medical equipment and consumables, diagnostics as well as oxygen sufficiency.

- COVID-19 provided the opportunity to scale up our **testing capacity** through collaborations and complete indigenization of manufacturing as well as enabled us to carry out testing in a logistically efficient manner.
- We have realized the importance of ensuring that the **essential health services** are not hampered during an outbreak.
- A transformational learning for India has been the use of **digital health solutions** for enhancing access to healthcare services- both COVID and non-COVID care.
- **Data** has played a vital role in combating the disease. We have been able to use data on outcomes from even small healthcare facilities and compare them to global data for better outcomes.
- **Home healthcare** witnessed a paradigm shift- from managing patients with early discharge or those who could not go to the hospital, home healthcare organisations scaled up by using helplines, tele-consults, home sample collection as well as remote monitoring of asymptomatic and mildly symptomatic patients at home.
- The pandemic has shown that **nurses'** knowledge is essential to healthcare given their unique relationship with patients, their families and communities.
- We have learnt the significance of **mental health** during the crisis and realized the need for augmenting our capacities in the field of psycho-social support and mental wellbeing amongst the community as well as the healthcare workers.

Best Practices for Management of COVID

Combating the pandemic has been different across the globe. The approach varied from region to region. In [SEARO](#) region, surveillance and contact tracing have played a key role. Case-based intervention approach, visiting each house and educating the population as well as implementing intense quarantine measures in phases have been observed to be very beneficial. Such measures were also observed in other countries across the globe.

In [Bhutan](#), intensive contact tracing was followed, tracking tourist and nationals, applying rapid containment measures alongside understanding the trend and burden of pandemic. Various kinds of contact tracing methods were followed including tracing apps. Wearable token-band was used for elderly as a proximity app that traced a nearby symptomatic case. Use of Bluetooth to identify close contacts was also effective.

The [Republic of Korea](#) started the drive through early testing and diagnosis that helped alert possible contacts with symptoms. Risk communication and managing infodemic were critical factors.

[Thailand](#) implemented measures like risk-based categorization and lockdown, made compliance to mask mandatory, while drawing learnings from previous epidemics like SARS and MERS. They also leveraged community health volunteers all over the country and engaged into peer to peer discussions.

In Germany, the parameters of communication were data based in terms of cases, infection rate and disease severity. While in Cuba, they leveraged the primary healthcare system and laid emphasis on essential health services.

In India, government, while preparing extensively for COVID care infrastructure, implemented a strict nationwide lockdown. Forecasting of bed capacity, rapid hiring and capacity building of staff and scaling up of health facilities proved to be helpful. The government launched Arogya Setu app for COVID tracking and educating citizens, which now has 156 million users, and implemented extensive surveillance through rapid task forces in affected regions. Scaling up of domestic manufacturing, promoting *Atmanirbhar Bharat*, ramping up of diagnostic labs across the country were vital measures that helped combat the rising pandemic.

“We need to emphasise upon ‘**Sustain**’- for crucial measures, ‘**Accelerate**’- where we have gaps and ‘**Innovate**’- as things evolve during a pandemic and **collaborate** extensively.”
- **Dr Roderico H. Ofrin**, WHO Representative to India

During a pandemic, we should **adopt best practices based on evidence** and **adapt** the ones that are practical and do-able for local area. At the same time, we should discuss and innovate continuously.
- **Dr Randeep Guleria**, Director, AIIMS-Delhi

There were a lot of examples of best practices and solutions from various **States** like- UP where double testing of influenza-like illness (ILI) and COVID-19 was done; Kerala where early containment could be successfully managed in the first wave as well as productive community surveillance in Assam. There were many inter-state learnings that were adopted across the country.

In Delhi, the containment strategy especially opting for home isolation and home care was very effective for patients with mild symptoms and has now become a global case study. This strategy also helped save hospital beds for the critically ill. Further, restricted movement, containment and micro-containment zones worked in controlling the increasing number of cases. Hotels were converted into resting centres for doctors and healthcare workers. The Delhi government also formed committee to hire specialists and medical post graduate students to address the rising need for specialized manpower.



Mumbai's Dharavi model has also been a successful strategy. Dharavi is Asia's largest slums with almost 9-10 lakh population living in 2.5sq km area. With around 200-500 people sharing one community toilet and small factories clustered in that area, social distancing and quarantine posed as a huge challenge.

It was observed that the Community toilet was the main source of transmission of infection. Measures like closure of factories and street foods, distribution of food packets were implemented. Proactive approach strategy was adopted that included screening entire population by a team of doctors with door to door mapping through thermal scanners to identify high risk contacts. Numerous community camps were organized and multiple ways of testing was used to identify cases. A 200-bed hospital was set up within 18 days and school, colleges, sports complexes were converted into institutional quarantine centres where symptomatic cases were treated.

Diagnostics for COVID-19 in India

India was proactive in learning more about the virus through research- where the virus came from, how it is mutating, its sequencing etc. India was also technologically well-equipped for testing the virus but the **scale and capacity for testing was a challenge in the initial months**. Some of the other challenges faced were-

- RTPCR Tests are complicated and needed specialised molecular labs and equipment
- It was not possible to ascertain the magnitude of infection initially and hence the labs were unable to calculate the demand for the tests- there was a lot of uncertainty around all aspects
- There was no time to plan for scaling up the capacity of labs across the country
- There was not adequate home collection capacity with the labs- which consumes much more resources than sample collection in the lab itself
- Labs faced great difficulties in logistics and transportation specifically in the initial lockdown
- Viability was a concern for the private labs in the initial months and constant changes and questioning by the state authorities on pricing and quality posed a huge challenge

However, these challenges were overcome through **collaboration** and excellent coordination amongst all stakeholders- the government, private sector labs, research institutions as well as device manufacturers. Given these efforts, testing was ramped up exponentially from 1 lab in January to 1800+ labs conducting 1.5 million tests per day in September.

The government and the **ICMR** played the vital role of scaling up the capacity in the public sector within days, supporting the private sector in partnering and scaling up as well as setting up of standards and guidelines for the testing to eliminate any concerns of quality of indigenous kits.

COVID-19 opened up the **opportunity for indigenization** of medical devices including the testing equipment, like never before. The country realized the importance of 'Make in India' as most of the international device companies had to cater to the demand of their own country first- whether it was kits or raw materials. Starting from the first indigenous kit manufacturing by Mylab, today the country has 90 COVID-19 kit manufacturers.



“We need to stay focused on latest technologies in diagnostics as experts are envisioning a future where we can monitor our health with samples taken from sweat, breath, sputum, saliva, nasal, faeces and the various wearables- changing the face of modern day diagnostics forever”

Dr Arvind Lal, Advisor, FICCI Health Services Committee and Executive Chairman, Dr Lal PathLabs

Now, there are a variety of tests available for COVID-19 diagnosis, yet the **RT-PCR remains the gold-standard test**. Rapid antibody tests (PCR) can be helpful for mass screening but should be followed up with an RT-PCR for symptomatic negatives. Other testing methods, like serology and culture, may not provide the same level of sensitivity as a PCR test and hence the risk of false negatives increases.

COVID-19 also provided opportunities for exploring **new business models as well as new avenues for testing** like the drive-through testing, mobile testing facilities, enhanced point of care testing- many of which will define the future of the sector. Increased adoption of digitisation will also help redefine the business models as well as the processes and reporting.

Digital Health

The COVID crisis has spurred some reforms and digital health is largest one of them. **Telemedicine** was one of the key solutions to respond to the **non-COVID essential health services** across the country. The clinicians and providers had the time and mind space in the initial phase of the lockdown to think and reach out for another medium that could enable them to connect with their patients. There was a scale up to the extent of 4000 tele-consultations in a day, from about 500 a day pre-COVID, for a large corporate hospital.

“A Command Center- that is usually set up in a hospital was set up at the State level to direct the patients to the facility where bed or ventilator was available. This was extremely productive and can be effectively adopted for future of care delivery”

Mr Kieran Murphy, President & CEO, GE Healthcare



The sector witnessed a 67% decline in the inpatient doctor visit in the initial months but almost **500% increase in online consultations**. Data suggests, almost 50 million people accessed e-healthcare and 80% of telemedicine users were first time users.

While private sector either scaled-up or adopted innovative digital health solutions, the government also utilized telemedicine and digital health platforms extensively. The **eSanjeevani** portal of the government witnessed 4 lakh consultations during the pandemic.

The pandemic has also led to developing of new **remote strategies for clinical management** of affected and non-affected people and testing of both staff and the patient. Usage of tele-consultation, eICUs – virtual ICUs was enhanced.

Usage of **digital learning platforms** for healthcare increased by almost 65 per cent during COVID. Many organisations adopted and evolved their e-learning modules to enable the healthcare professionals learn and understand the functionalities of advanced essential equipment like ventilators in a very short span of time. Clinicians have used such platform to not only update themselves on the new clinical solutions but also explore information on mental health issues.

COVID also gave an opportunity to a large group of companies and organizations to come together, which in normal times would not have collaborated. Convergence, like the **Swasth App**, did not only help in responding to the crisis by rapidly deploying COVID care solutions, but will also help accelerate the adoption of NDHM by contributing to building of big digital healthcare infrastructure in the country.

HR Practices during pandemic

Human Resource management played a pivotal role during the pandemic to ensure employees' emotional and mental well-being to protect and safeguard their resilience. The pandemic was unlike any previous challenge and has immensely **impacted the healthcare workers personally and professionally**. Yet, healthcare workers across the globe have shown a phenomenal intrinsic motivation to care for people. It has also made us realise the importance of collaboration and communication.

Organisations developed various initiatives to enhance learning during the pandemic which included **Intensive training, Upskilling and developing Online Courses**. To support the employees, most organisations and healthcare facilitates arranged for continuous communication with department heads and **in-house psychologists and psychiatrists** to address employees' concerns and anxieties. Clinicians and frontline healthcare workforce were encouraged to share their experiences on how safe it has been for those treating COVID patients, to encourage others, along with motivational talks by organisational and external leaders. Most hospitals, although facing losses in revenues, used **innovative ways for retaining and motivating** healthcare workers to support them for putting in extra hours at work.

"Many innovative practices and transformations have taken place on the HR front during the pandemic. The HR teams have silently worked in the background to ensure that employees are appropriately engaged and motivated and hospital functions are not hampered."

Mr Gautam Khanna, Co-Chair, FICCI Healthservices Committee and CEO, P D Hinduja Hospital

Hospitals also **created proper facilities** for employees' accommodation, travel and food etc. as doctors and nursing staff were scared to go back home from fear of infecting their families. Assurance for the safety for the workforce as well as their families was a must.

Digital technology was used extensively in the form of tele-consults, online trainings, online volunteer programs and automation of HR services. These **changes in HR practices as well as new models of HR management will form the new norm** for the industry post the pandemic.

Drugs and Pharmaceuticals

The impact of pandemic on the pharmaceutical sector has been massive especially on manufacturing, supply chain, resources, marketing and customer base. The short-term impact so far has been negative. While there have been very **positive collaborations between the government and the pharma industry**, the **cost of manufacturing has amplified**. Additionally, there have been challenges with the supply of products.



Although the business has been impacted severely, the **digital engagement has seen significant rise**. Digitalization will bring in cost rationalization opportunity both in terms of linear field force as well as digital means and models of engagement.

COVID has also brought in a significant structural **change in consumer behaviour**, given the accelerated shift towards the digital health eco-system and limited option to seek care at home. Unified health ID, as envisioned by the government, will help make the future of healthcare delivery in the country more patient-centric. Post-COVID there will be a shift in patient centricity from science-based approach to a science-digital and service-based approach.

Vaccines for COVID-19

So far, Vaccine has been the single most defining invention that has reduced the mortality and saved hundreds of billions lives from such disease outbreaks. Dealing with the pandemic crisis affecting 186

regions across world, vaccination for COVID-19 will be the **most massive effort in adult immunization** across the globe.

“India is clearly ramping up for the vaccination challenge and it is not just about production. We will produce for India and the world. One of the critical aspects of administering vaccines is human resources and India has the human resource to do that. “The National Health Service (NHS), UK is looking to acquire doctors and nurses from India to help them in this challenge. This is a tremendous opportunity for India to showcase its capabilities.”

Dr Sangita Reddy, President, FICCI and Joint MD, Apollo Hospitals Group

Governments and WHO are fostering regular open dialogue between researchers and vaccine developers to expedite the exchange of scientific results, debate concerns and propose rapid and robust methods for vaccine evaluation. The major **challenges** to be faced by government while developing vaccine against COVID-19 would be-

- adequate production of the amount of vaccines to meet the population size of every country
- transportation, distribution and implementation for countries with large population
- effective post vaccine follow-up


Government in India is also planning strategies on how to provide vaccines to the high-risk population, vaccine transportation, provision of extensive training to healthcare professionals for vaccine handling. With the goal to protect public health and minimize societal and economic impact by reducing COVID-19 mortality, the frontline workers in health and social care settings and high-risk adults will be targeted first in Phase 1.

Atmanirbhar Bharat for MedTech

Government of India is proactively working towards making India *Atmanirbhar* in space of Medical Devices. COVID has accelerated the government’s efforts for collaborating with the industry, which is evident through the numerous innovative solutions- whether for manufacturing and scale up of diagnostic kits, ventilators or PPEs. To attract investments, various steps have been taken including the recent launch of **Production Linked Incentive (PLI) Scheme** and **Promotion of Medical Devices Park** scheme, allowing 100% **FDI** through automatic route etc. along with the overall steps taken by the government towards ease of doing business. Yet there are learnings from other countries that we need to consider:

Ireland

- As a part of the EU, Ireland offers a **large market** as well as a **large pool of highly skilled workforce** to the companies
- The **corporate tax** rate is low at 12%
- Ireland has high ranking for **Ease of Doing Business**



“We are planning to develop 4 medical devices parks and the Government will finance up-to Rs 100 crores for the same. The medical device parks will have common infrastructure facilities that any medical device company would require and the land allotment will be on an economical rate”

Mr Navdeep Rinwa, Joint Secretary, Department of Pharmaceutical, GoI

- The **Regulator** in Ireland works closely with the industry even at the individual company level to make sure that the compliances are met. They even provide their support and handholding to the companies that are new in the country.
- **Collaboration between industry and academia** – While Ireland education system is ranked top 10 globally, which attracts and retains the best talent across the globe, they work in very close collaboration with the industry. The academic institutes keep updating their skill training as per the industry needs, hence making the students industry-ready at all times
- Ireland **actively encourages R&D** with world class clinical research facilities in the country. Government also encourages exchange of technology and idea by offering generous grants. This results into 77% med-tech companies having R&D facilities in Ireland.


Malaysia:

- In the journey to make medical devices as one of the fastest growing sectors on Malaysia, the country has seen the potential in abundance of natural rubber in the country and has become the major producers of **consumable medical devices**
- Malaysia offers a **strong support of ancillary industries** to medical device companies to boost their growth along with the high-class **infrastructure**
- The country has a pool of world class **highly trained** and skilled workers
- The role of **facilitation of the investing company** is very important. Malaysia hand holds the investors starting from signing the project till the completion and implementation of the project

Science of Ayurveda

Ayurveda is based on traditional health practices, which provide lifestyle advocacies to boost immunity that helps in the prevention of various kind infectious diseases. Ayurvedic medicines have seen enhanced adoption during the pandemic since they have a lot to offer in uncomplicated cases and have the ability to build a robust preventive protocol.

Various initiatives have been undertaken by the Ministry of AYUSH that have had significant positive impact on the industry amid COVID outbreak, and are expected to have an encouraging outcome and relevance in the long-term. The Ministry has also announced the 'AYUSH Taskforce' under the chairmanship of Dr Bhushan Patwardhan, to undertake key research and issues pertaining to AYUSH related treatments for the ongoing pandemic. Government may also allow the promotion and sale of ayurvedic medicines that help build immunity against the novel corona virus (these will exclude medicines that include ingredients such as heavy metals) and are already established as immunomodulation therapy/medicines.



“There has been a quantum leap for belief and usage of Ayurveda during the pandemic. Over 90% of Indian households have adopted Ayurveda for building immunity. Additionally, it offers a smoother healing system and is environment friendly, which attracts people from across the globe.”

Shri Anurag Sharma, Member of Parliament; JMD, Baidyanath and Chair-FICCI AYUSH Committee

Recommendations for the future

Short-term for COVID-19 pandemic

General

- A global syndemic demands a **global response**- we need to share our experiences and learnings and work in close collaboration to forge a more constructive response.
- The way we have reported and responded to the pandemic, through statistics and data, has de-humanised the crisis. It is important that we **re-humanise** the crisis in order to learn the lessons from it that will help us to be more prepared for the future.
- India has an excellent **science as well as business enterprise**, that has played a key role and worked in collaboration for the pandemic response. However, we need to think of strategies to scale them up for a much more effective and timely response for future crisis.
- The fear and uncertainty of COVID-19 led to an **infodemic** in the entire world- whether it was through social media or through research papers and studies. We need to develop strategies to tackle and avoid future infodemic situations, which not only hamper clear or proper messaging to the community but also may lead to mass levels of misinformation. **Healthcare Opinion Leaders** must reach out through **Social Media** to help give clear messages on 'Do's and Don'ts' as well as provide clarification on the myths or fake messages.
- The government and industry both need to work towards building programs for **mental health** well-being of employees as well as the larger community through appropriate tools.

Behaviour Change to tackle the pandemic

- We need to work towards preventing the illness from COVID-19 through behaviour change measures amongst the community at a massive scale.
- COVID safe behaviour will act as the **social vaccine**, in the absence of a clinical vaccine and will be the most significant pillar out of the 5-pillar strategy of the government- prevention, vaccine, surveillance and disease containment, care seeking and testing.
- Behaviour change strategy needs to be **implemented at all levels of the society** in collaboration with all stakeholders- central, state and local governments; industry; media; civil society as well as the community.
- We need to learn from the second wave in countries like France and Spain, where more young population is getting infected due to unchanged behaviour.

"While strengthening the 'whole of the government approach', we must **transit towards 'whole of the society approach'** and change the health seeking behaviour of the society."

- **Mr Rajesh Bhushan**, Secretary, MoHFW,
Government of India

Strategy for Diagnostic Testing

- **Rapid antigen tests** should be used more for surveillance and testing of larger population in lesser time, especially in containment zones.
- **RT-PCR** test, that is the gold standard test, should be the key test. All the symptomatic negative cases detected through a rapid test should be tested again with RT-PCR.
- Appropriate **awareness generation** amongst the population should be carried out on the types of tests available so that the concerns and confusion amongst them can be minimized.
- Testing should be enhanced further for areas which have higher positivity/infection rates, until the optimum level of testing is achieved- which means that the rate of positivity is not increasing.
- We need to be prepared through stronger public-private partnership for **detection of hidden transmission**, once the infection rate drops and social life normalizes.
- We also need to be strongly prepared for **re-infection** in the country- the protocols that should be followed as well as the resources that would be required.
- Given that a lot of testing through **serology** has been undertaken over past few months, the public and private sector need to work together to compile and analyse the data from serology testing for better research.

Vaccines for COVID-19

- **Efficacy** and **safety** are two important aspects for effective vaccine development. **Artificial Intelligence** should be used to predict these accurately.
- It is equally important to study the possibility of **coronavirus mutation**.
- Ensuring strategies to gain access to vaccines once developed and **efficient and equitable distribution** to the entire population will be crucial. Vulnerable and higher risk categories need to catered to first.
- **Close collaboration** between governments, civil society organisations, academia along with pharma industry is important for finding solutions to the various concerns of effectiveness, transportation, implementation as well as to help in fast tracking the development process.
- To manage risk and uncertainty, it is important to tie up with more than one vaccine developer for access to approved vaccine. For **multiple options**, collaboration between Indian pharma companies and research institutes is essential
- There is a need to **ramp up the capacity of filling vials and syringes and packaging** them in highly sterile conditions in order to avoid bottle neck in vaccine distribution during the pandemic.

Governance during a pandemic

- The biggest learning achieved from this pandemic is that we need to '**act early**'.
- Every decision taken at the central or state level during a disease outbreak should be **based on science**.

- The decisions need to be enforced and implemented at all levels- right from the center to the states, districts and panchayat or local administration level, across the country. A **wholesome approach** should be forged for such disease outbreaks.
- There should be extensive involvement of **public health experts** as well as **medical experts** for the planning and decision making.
- **Real-time updates** and **transparency** amongst the government authorities as well as appropriate and adequate **communication** to the public is crucial for the response to the pandemic.
- There is also a need for a **strong and committed political leadership** for appropriate decision making at all levels.

Revival of the Economy

The revival of economy in India needs the support from both- Reserve Bank of India (RBI) and Government. Some of the key suggestions are:

- **RBI should help aggregate the demand.** As we are unlocking the economy and the workers are returning, although still hesitant, the supply response becomes feasible, which was not the case during the tough lockdown. We should not worry about inflation as of now, since in an economy where the supplies will now be rising, it will itself help mitigate the inflation. Hence, the case for RBI help in aggregating the demand through steps like further lowering of interest rates and some monetary expansion will be strong.
- RBI also needs to pay attention on the **exchange rate**. Recently, very large inflows of foreign capital have led to appreciation of Rupee and we need to go back to the depreciated rate of Rupee as that will determine the competitiveness of our goods in the global marketplace. We also need to regain the lost bit of export share which will further help aggregate the demand.
- The **government** needs to **enhance infrastructure spending**. They should accelerate the projects already underway by quickly removing the bottlenecks. This will also help create jobs as it is a labour intensive activity, and restore confidence of the people which is important for expansion of private consumption.
- The government should also work towards **recapitalization of public sector banks**. From 2014-17, we have waited too long and the initial INR 70,000 crore package was not adequate. This is the time when the government can provide a much greater stimulus and pre-emptively try to recapitalize the public sector banks.
- There is a strong need to strategize ways for **increasing the country's revenues**, which can be done through privatization and monetization of assets. It is time to reconsider the defunct department of investment public asset management and move ahead aggressively to privatize the public sector enterprises. Further, other ministries should monetize various assets like roads, ports, airports, transmission lines etc. to gain the momentum.
- Further, the government can take the below measures to **increase consumption**:
 - > abolish the long-term capital gain tax so that people can utilize that money to spend on other avenues
 - > the tax slabs should be reduced to three from the current seven and the tax for the middle class should be reduced to some extent to give an impetus to spending

- > initiate mass manufacturing across sectors that can help to reduce the cost of goods so that more people are able to buy them

Long-term Post-COVID recommendations

Healthcare delivery- changing the approach

- We need to build a healthcare system that is **pro-active** and not reactive in nature. This is possible through better preventive and primary care infrastructure with equal participation of public and private sector.
- We need to **equip every Primary Healthcare Center (PHC) with telemedicine tools** to enhance equity and access to care delivery.
- We need to embrace ourselves for the future healthcare system which will be **patient-centric**, where patient will drive the pace, timing and location of care delivery.
- Technology will play a pivotal role in managing non-communicable and life style diseases in future. We need to work with a vision of **leveraging technology to the maximum** in order to keep the population healthy- integrating and studying past records, setting and sharing clinical benchmarks, seamless connectivity and interoperability of health records for timely detection of health concern, and providing corrective measures and management tools before it becomes an emergency.
- We need to work towards cloudifying and personalising healthcare to the maximum through appropriate use of **digital technologies**.
- We also need to work towards **reducing cost of care** while increasing the productivity of the system.

Build a strong public healthcare system

- We need to **strongly invest in public healthcare system** to be able to effectively detect, trace, test, isolate and care for the affected during a disease outbreak.
- While we should build our public health capacities- infrastructure and services, it is imperative to have **seamless coordination** between both public and private systems.
- Our **disease control program** needs to be strengthened for future challenges.
- We need to **adopt evidence-based practices** along with effective **communication** strategies.
- We have to identify and protect the **vulnerable population**.
- There is a strong need for good **surveillance** system for healthcare to be able to **pick up new disease threats** in a timely and appropriate way in the future.
- **Data collection** has to be real-time and accurate with seamless coordination between local, state and central authorities.
- Extensive public sector **testing capacity** is required for responding to any infectious disease outbreak to help in timely detection and identification of affected people.
- Capacities for **monitoring** need to be strengthened **at the community level** along with public engagement, proper counselling measures and training on behavioral changes.

Strengthen Healthcare Infrastructure

- We need to strengthen our **critical care infrastructure**- not just in urban areas but also in tier III-IV cities as well district and village level. Private sector should partner with the government for building critical care hospital blocks at the district headquarters.
- Nationwide **infrastructure for infectious disease surveillance and outbreak response** needs to be re-considered and improved through **better digital platform** and real time data solutions in order to be future ready. The current position of District Disease Surveillance Officer (DDSO) needs to be revitalized since most of them have been lying vacant.
- Expansion of infrastructure for **Ayushman Bharat**- currently there are only 10,000 private hospitals. In order to make it successful and achieve our goal of equity in access to healthcare, **maximum private hospitals need to join the program**. However, it is important that the government and private sector work together to make the program **viable and sustainable** for the private hospitals.
- The government should also consider providing **appropriate incentives** and a suitable business environment for investors to focus their funding on healthcare infrastructure building especially in smaller cities and rural areas.

Enhance Diagnostic Testing Capacity and Strategy

For future pandemics, we need to be prepared for and ensure-

- **Continued testing of other essential health concerns** (non-pandemic related) like for cardiology, oncology etc. which should not be neglected.
- **Testing capacity** should be enhanced amongst public and private sector through appropriate infrastructure building.
- Adequate and timely **communication** amongst the government and local authorities as well as other stakeholders for seamless coordination.
- Unhampered **logistics and transport** of samples as well as supplies and equipment under any circumstances.
- During a pandemic **only essential parameters of testing reports** should be mandated for recording to enable easy and fast processing
- Apart from tests, **radiology and imaging** should be explored through adequate research and evidence to support the detection of disease and its impact.
- Technologies like **AI and ML**, coupled with appropriate data, should be adequately utilized and leveraged for better testing outcomes.

Augment the Healthcare Workforce

- India has an acute shortage of healthcare workforce and the pandemic has forced other countries to increase their focus on the trained manpower from India. This means **we need to be present- as well as future- ready**.

- The workforce needs to be **strengthened at all levels**- doctors, specialists, nurses, laboratory technicians, grassroot level workers as well as allied healthcare workers across the continuum of care. Specialists need to be increased to 2.5 times and nurses to 3 times of the current levels.
- There is a need for policy change so that we can train more people for sustained flow of manpower in the coming years. Although the government has taken several steps in recent years, we would need to scale up these measures through **appropriate and sustainable partnerships** between public and private sector.
- During a pandemic, we need to implement adequate measures to avoid situations of **overburdened healthcare workers** when there is a surge in patients.
- Programs for **orientation and re-orientation of workforce** to respond to any disease outbreak as well as **continuous skill upgradation of grassroot level workers** across the country should be developed through stakeholder partnerships.
- **Digital learning** can become a significant part of the medical curriculum as well continued learning, given the extensive web-based training that has been carried out over the past few months.
- We also need to work towards **building inclusive programs on anxiety management and mental well-being** of the healthcare workforce during a pandemic

Empower the Nurses

- The government and industry need to support **nursing and midwifery leadership at all levels** of the health system to contribute to health policy development and strategic decision-making. Encourage transformational leadership in nurses that can help achieve extraordinary outcomes.
- For inclusive policy making and support, the government should work towards revamping and **restructuring nursing departments**, stop deputation-based roles and provide adequate Nursing Positions based on merit.
- We need to enable midwives and nurses to practice to the full extent of their education and training by **updating relevant regulatory frameworks** and providing appropriate **workplace supports**.
- There is also need for continuous collaborative practice between the **academia and industry** to help provide the students with appropriate skill-sets and make them industry-ready.
- The public and private sector need to ensure **decent working conditions and enabling environments** for midwives and nurses.
- The nursing **associations** and other professional bodies need to work in close collaboration for betterment of the sector.

Reform HR Practices in healthcare organisations

Efficient and adequate human resource management measures in organisations play a vital role in forging an effective response during a disease outbreak.

- Adequate measures need to be taken for **retaining, counselling and keeping the entire staff motivated** including doctors, nurses, paramedics and non-clinical staff during a pandemic

- Continuous training programs (online or in-person) should be conducted for skilling and capacity building of employees including **constant communication and education** about the pandemic process and clinical protocols
- Safe environment and employing of **safety measures** for employees and their families, separate pandemic care manuals for workplace, home and other places need to be created.
- Organisations need to ensure **job security and salary protection** for all employees.
- Organisations also need to provide **assurance to employees and their families** that they would be taken care of in case they get infected.

Improve Structural and Design Changes in Healthcare Facilities

The pandemic made us realize that many large hospitals across the country lack sufficient infrastructure for tackling infectious diseases. While designing the healthcare facilities in future it is important to consider the following:

- maintain focus on **key principles of hospital building**- infrastructure should be physically prepared to handle situations of disease outbreak.
- ensure that there is provision for **expansion of bed capacity** in emergency or crisis.
- for infectious diseases like COVID-19, a facility should have at least **three levels**- Level-1 as the quarantine facility; Level-2 as hospital with oxygen therapy and Level-3 with both oxygenation as well as intensive care.
- a typical infectious disease ward layout should include all the service/treatment section in between.
- ensure **unidirectional flow** of patients and hospital staff and **negative pressure ventilation** in wards and isolation rooms.
- create **patient bio-containment unit** with separate entrance in emergency department.
- create a robust **one-way triage flow** for the hospital emergency department as well as referral screening/pre-triage unit in front of or adjacent to emergency department access.
- crucial features like **dry wall, proper donning and doffing areas, touch-less sensor based** automatic door for all entrance areas, are important.
- the **air quality** should not be compromised at any section of the hospital and infection control guidelines should be adhered to efficiently. Treating exhaust air before leaving into atmosphere is critical.
- centralized and standalone cooling system to incorporate by-pass system to create negative pressurized and fan-filtered exhaust system as well as incorporating advanced technologies for pressurization, dilution, filtration and purification to **reduce risk of airborne transmission** are important.
- effects of environmental conditions like temperature, relative humidity affect the activity of a virus, hence we should work towards **enhancing filtration**. Higher MERV filters should be preferred in dense and high-risk spaces.
- **personalized ventilation systems** for certain high-risk tasks, HEPA filters and local exhaust ventilation should be used for source control.
- consider challenges of wind flow, fire safety as well as heating, ventilation and air conditioning (HVAC) and temperature.

Expand and Integrate Home Healthcare

- **Integrate home healthcare in the overall healthcare ecosystem** to increase affordability and access even to remote areas
- Home healthcare can become an alternative to avoid admission, readmission and alternate to hospital care to reduce burden on hospitals.
- **Accreditation** should be encouraged to ensure quality and outcome-based care at home.
- Home healthcare should be part of all **private and government payor schemes** to help reduce overall cost of healthcare delivery under universal health coverage.
- Chronic disease management should encompass home healthcare to incentivise and keep people healthy and outside the hospital.
- There should be **enhanced collaborations** between Pharma, Medical Device and Home Healthcare companies for expansion of out-of-hospital infrastructure in the country.

Enhance Digital Health Adoption

- **Scalability, usability and reduction in friction**- are key to effective digital health system.
- Data harnessing and information sharing should be done in the most **secured** way as possible under the National Digital Health Mission. While the government is working towards the privacy and security under the NDHM, the industry needs to be more pro-active about **cybersecurity and digital health standards**.
- Along with the use of advanced technologies, we need to build the healthcare ecosystem that is patient-centric. The built-in consent management in the NDHM framework is laudable. However, there is a need for **mass advocacy and training for healthcare providers** across the country, specifically in the unorganised sector, to reduce reluctance and enable them to use the various elements of NDHM effectively.
- We also need to build **tools and technologies that will aid** the doctors and healthcare providers in **digitizing the records** for better adoption of digital health
- We also need to focus on simple changes in workflows and architecture to support adoption of digitisation. Aspects of **variations in cultures, values as well as feasibility** need to be considered for better user-experience.
- An **open source digital platform** will further facilitate enhanced adoption of digital technologies as it will enable all entities- whether public or private to leverage the transformative healthcare delivery solutions.
- Using **Artificial Intelligence and algorithms** for common concerns and simple decision support systems will also aid in better adoption of digital tools.
- The digital health adoption across the country will not only help transform the care delivery but also the entire ecosystem including the pharma and MedTech industry by providing tremendous **data analytics** opportunities as well as avenues for **new business models**.
- Use of advanced digital health technologies should form a part of the **medical curriculum** at all levels across the country, to help prepare the future healthcare workforce to be better prepared for its extensive use.

Leverage the opportunity for Drugs and Pharmaceuticals

- India's dependence on China for APIs (Active Pharmaceutical Ingredient) is massive and the price difference has been significant. Although the government has been intending to reduce this dependence and COVID has provided the opportunity to be self-reliant, there is need for **deeper reforms** for augmenting our capacity for manufacturing of APIs.
- India has not discovered a single New Chemical Entity (NCE) over the last decade. We are generic supplier to the world. While the government plans to create a separate department for **Research & Development (R&D)** with a focus on discovering new drug molecules, it scrapped the weighted tax deduction incentive given for R&D earlier. What India needs is a focused R&D Policy and increased budgetary allocation for research. India also needs to start incentivizing R&D appropriately as well as enhance Industry-Academia collaboration.
- There is a need for **stable pricing policy regime** in the country. Continuous updation of National List of Essential Medicines (NLEM) leads to inconsistent pricing regime and hence poses challenges for running the businesses.
- **Digital Startups** is a big opportunity at present in the pharmaceuticals industry. India, with its rich human capital and talent, will play a significant role in contributing to innovative digital business models.

Make MedTech sector attractive, while making it *Atmanirbhar*

- Need of clarity in **strategic priority** – It is important for the government to strategise the priorities in order to make India *atmanirbhar* in medical devices. The two important priorities should be to create infrastructure like med-tech parks and to upgrade the skill of the healthcare practitioners.
- To **attract investments**, it is important to **increase the healthcare spending** in the country. If we look at the APAC region, India shares 55% of the pollution, however the healthcare spend is only 7%. This gap needs to be filled in order to generate demand and bring investments. There is also a need for **stable regulatory, policy and pricing framework** to give confidence in investing in the country.
- **Collective Win** Environment – If we want the medical devices sector to be successful as the pharmaceuticals, we need to see the entire industry as one. Policies with bias of Indian vs MNCs, Government vs Private will not help the industry to grow at a brisk pace.
- Making **Multi Nationals the Brand Ambassador** – Taking learnings from markets like Ireland, India need to understand that the large global med-tech companies can play the role of brand ambassador for India. Such companies can bring the technology, business processes, manufacturing excellence as well as professional education. While the local companies can leverage these offerings from MNCs, they can offer deep market insights, skilled labour pool, access to start-ups and supply chain.
- Imbalance is the problem – If we analyse the import figures of countries having med-tech hubs, it shows a clear picture that all these countries import huge volume of medical devices, however the

difference is that they have equally high numbers of exports. Hence, it is important to understand that imports are not bad, it is the **imbalance between the import and export** numbers which is the problem.

- **Demand**, the engine of growth – The production capacity increases with the increase in demand and not just through increase in factories. India can increase its exports in medical devices by focusing on its strengths and prioritising the categories of devices which has high demand in the country.

Promote Indian traditional system of medicine- AYUSH

- **Establish evidence-based research for AYUSH**- Traditional Chinese medicine (TCM) has been playing a critical role in the prevention, treatment and rehabilitation of novel coronavirus pneumonia. Official figures showed that 91.6 percent of the patients in Hubei province, and 92.4 percent of patients nationwide have been treated with TCM. Similarly, it is essential that India encourages **research and promotion of AYUSH system** of medicines that are scientifically established for treatment and rehabilitation of patients of infectious and respiratory diseases. It is also essential to **integrate AYUSH with modern medicine** through this established research. It is also essential to cover the practitioners and doctors of AYUSH under public **insurance** schemes.
- **Promote manufacturing excellence** for Ayurveda through integrating Indian ayurvedic companies with GMP guidelines and adopting international standards
- **Promote the acceptance and efficacy of Ayurveda system of medicines globally**. There exists an immense scope of international exchange of Ayurveda-related information and co-operation with other countries for collaborative efforts in the development of traditional system of medicine. Popularity and practice of AYUSH systems does exist to varying extent in many countries. However, the global acceptance and popularity of Ayurveda falls far behind in comparison to that of Chinese traditional medicines. There is a need to have a strategic plan of action for promotion of Ayurveda. A **taskforce** may be established to promote and **build brand Ayurveda** with the below objectives:
 - To achieve acceptance and obtain legal recognition for Ayurveda in treatment, prevention and rehabilitation of chronic and lifestyle diseases as well as wellness
 - To achieve global recognition of Ayurveda practice, products and clinical establishments in various countries
 - To achieve recognition for Ayurveda educational institutes as well as Ayurvedic practitioners
 - To promote collaborative research on Ayurveda system between countries
 - To promote health education and community health initiatives based on Ayurvedic knowledge via international cooperation between non-government organizations in India and abroad
 - To create awareness on Ayurveda through promotional programs, workshops, conferences



Excellence in Scaling-up of Manufacturing for COVID demand



Excellence in Home Healthcare



Excellence in Hospital Preparedness for COVID-19



Excellence in Telemedicine/ Digital Health

Recognizing Initiatives Towards COVID 19

FICCI Healthcare Excellence Awards 2020 held virtually on Sept 29, 2020

FICCI has been organising Healthcare Excellence Awards since 2009 aimed at felicitating organizations and individuals for their contributions to the industry by innovating for increased efficiency, affordability and improved performance of healthcare delivery at large. The Awards have emerged as a definitive recognition in the Indian healthcare industry, based on innovation, impact, sustainability and scalability which form the four criteria for evaluation.

The 12th edition of FICCI Healthcare Excellence Awards on the theme, 'Inspire. Change. Together' was held virtually on 29th Sep 2020. Global Consulting firm **Ernst & Young LLP** is the **Official Tabulator** and the Awards are supported by **Astron Healthcare**.



Continuing the long legacy of recognizing best practices in the industry this year in the backdrop of COVID pandemic and to recognize the courage of healthcare workers, special categories were introduced. The **COVID categories** included Excellence in Scaling-up of Manufacturing for COVID demand, Excellence in Hospital Preparedness for COVID-19, Excellence in Home Healthcare and Excellence in Telemedicine/ Digital Health.

The Awards Ceremony was graced by:

Chief Guest - Mr Rajiv Gauba, Cabinet Secretary, Government of India

Guest of Honour and Jury Chair – Mr C K Mishra, Former Secretary, Ministry of Environment, Forest and Climate Change, Government of India



Mr Rajiv Gauba, Cabinet Secretary, Gol



Mr C K Mishra, Former Secretary, MoEFCC and MoHF, Gol

Award Jury



9 winners and 3 special mentions were shortlisted. Doyens of the healthcare industry were also felicitated with:

- **Lifetime Achievement Award** to **Prof K Srinath Reddy**, President, PHFI
- **Healthcare Personality of the Year** to **Dr Preetha Reddy**, Vice Chairperson Apollo Hospitals Enterprise Limited and **Dr Om Manchanda**, MD & CEO, Dr Lal PathLabs Ltd.
- **Healthcare Humanitarian Award** to **Dr Ravindra & Dr Smita Kolhe**, Social Activists, Melghat
- **Special Award** for Doctor/ Nurse/ Other Healthcare Worker to **Dr Camilla Rodrigues**, Consultant Microbiologist, Chairperson Infection Control Committee, P D Hinduja Hospital & MRC and **Ms Minimole Varghese**, Chief Nursing Officer, Fortis Hospital Mulund

Award Winners

Sr	Category	Name of organization	Initiative name
1	Excellence in Scaling-up of Manufacturing for COVID demand	Vanguard Diagnostics Private Limited	VDx Viral Transport Kit TM a 100% 'Make in India' initiative

Sr	Category	Name of organization	Initiative name
1	Excellence in Hospital Preparedness for COVID 19 - Hospital	Apollo Hospitals, Chennai	Project Kavach - Preparation and Response to COVID 19 Pandemic
2	Excellence in Hospital Preparedness for COVID 19 - Hospital	Christian Medical College, Vellore	Hospital Infection Control Committee acting as a COVID-19 central command centre in CMC Vellore

Sr	Category	Name of organization	Initiative name
1	Excellence in Hospital Preparedness for COVID 19 - Standalone Diagnostic Centre or Blood Bank	Max Lab, Saket	Initiate/Expand/Sustain the growing demand of Covid 19 testing

Sr	Category	Name of organization	Initiative name
1	Excellence in Home Healthcare	HealthCare atHOME India Pvt Ltd.	Home Isolation Services

Sr	Category	Name of organization	Initiative name
1	Excellence in Telemedicine/ Digital Health	Aster DM Healthcare	Aster COVID-19 Tele-triage service
Special Mention by Jury			
2	Excellence in Telemedicine/ Digital Health	Aravind Eye Hospital, Pondicherry	Eye care delivery through Vison Centers using low cost technology & tele ophthalmology services in rural areas

Sr	Category	Name of organization	Initiative name
1	Innovative Medical Device/ Technology	Translumina Therapeutics LLP	Vivo ISAR: World's first Dual Drug Polymer Free Drug Eluting Coronary Stent Technology

Sr	Category	Name of organization	Initiative name
1	Excellence in Capacity Building	Apollo MedSkills Limited	Healthcare Skills Development Training for BC youth of the country in association with National BC Finance Development Corporation for building highly responsive healthcare workforce including pandemic management

Sr	Category	Name of organization	Initiative name
1	Excellence in Social Initiative	Maulana Azad Institute of Dental Sciences	Mobile Dental Clinic Project and its branches : 1) Project Neev: School Oral health care Program 2) Project AMMA: Comprehensive oral health care program for elderly 3) Project A TEAM: ASHA TRAINING, EVALUATION AND MONITORING 4) ASHA HUMARI MUSKAAN 5) Tobacco Cessation In Outreach activities
Special Mention by Jury			
2	Excellence in Social Initiative	Bhaktivedanta Hospital & Research Institute (A Project of Sri Chaitanya Seva Trust), Thane	1) Rural & Tribal Healthcare through Door-step Clinics – Outreach Camps 2) Happy & Healthy Farmers 3) Training Rural & Tribal youth as Caregivers – Enabling them to be employed
3	Excellence in Social Initiative	Reliance Foundation, Ghansoli Navi Mumbai	Alliance for Saving Mothers and Newborns (ASMAN)

<p>HEALTHCARE PERSONALITY OF THE YEAR</p>  <p>Dr Preetha Reddy Vice Chairperson Apollo Hospital Enterprise Ltd.</p>  <p>Dr Om Prakash Manchanda Managing Director Dr Lal PathLabs Ltd.</p>	<p>LIFETIME ACHIEVEMENT AWARD</p>  <p>Prof K Srinath Reddy President Public Health Foundation of India</p>
<p>HEALTHCARE HUMANITARIAN AWARD</p>  <p>Dr Ravindra & Smita Kolhe Social Activist Melghat, Maharashtra</p>	<p>SPECIAL AWARD FOR COVID 19</p>  <p>Dr Camilla Rodrigues Consultant Microbiologist, Chairperson Infection Control Committee P D Hinduja Hospital & Medical Research Centre</p>  <p>Ms Minimole Varghese Chief Nursing Officer Fortis Hospital, Mulund</p>

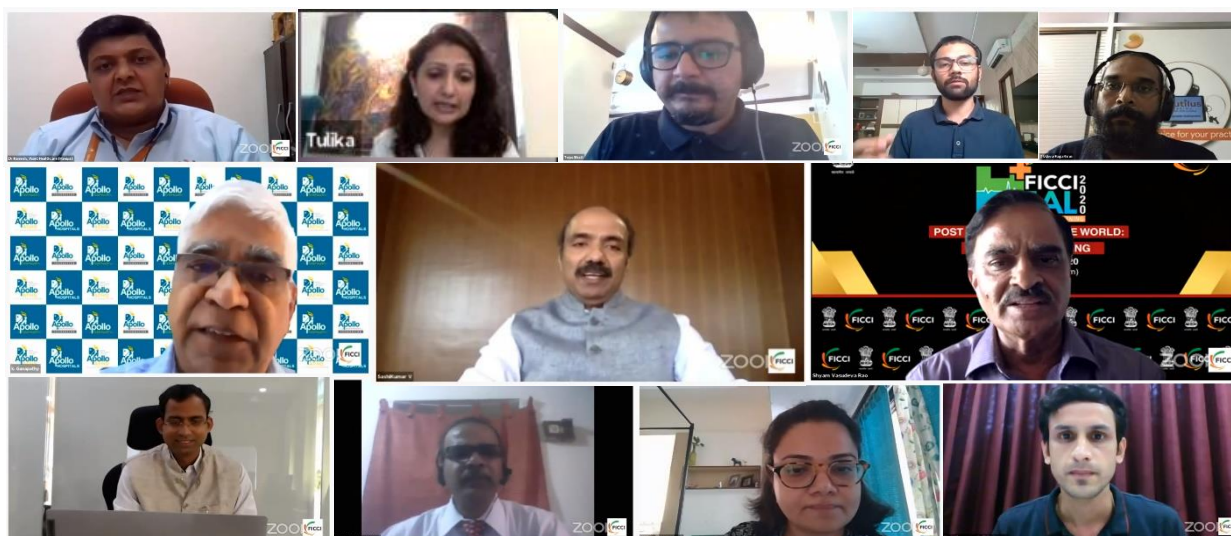
<p>GENERAL AWARD CATEGORIES</p>  <p>Translumina Therapeutics LLP Innovative Medical Device/ Technology</p>	<p>COVID-19 AWARD CATEGORIES</p>  <p>Vanguard Diagnostics Pvt. Ltd. Excellence in Scaling-up of Manufacturing for COVID Demand</p>  <p>Maulana Azad Institute of Dental Sciences Excellence in Hospital Preparedness for COVID 19 - Standalone Diagnostic Centre or Blood Bank</p>				
 <p>Maulana Azad Institute of Dental Sciences Excellence in Social Initiative</p>	 <p>Apollo MedSkills Ltd. Excellence in Capacity Building</p>	 <p>Apollo Hospitals Chennai Excellence in Hospital Preparedness for COVID 19 - Hospital</p>	 <p>Christian Medical College Vellore</p>	 <p>HealthCare atHOME Pvt. Ltd. Excellence in Home Healthcare</p>	 <p>Aster DM Healthcare Excellence in Telemedicine/ Digital Health</p>

Other Highlights of the Conference

MedTech Bootcamp

An innovation ecosystem in the country needs pool of talent that can think out of box and work in multidisciplinary subjects to innovate; access to funds; facilitating regulatory environment; Intellectual Property laws. To take them to next level, a robust Medtech ecosystem robustness a network of OEMs, industrial designer, Medical Parks etc. for developing strategic partnerships. In India we need to strengthen this segment to make India *Atma-nirbhar* in manufacturing of indigenous Medtech innovative products.

With this background a MedTech Bootcamp was organised during the FICCI HEAL 2020. The entire session was divided into two parts. First, there was a **Panel Discussion on 'Bridging the Gap- Innovation to Commercialization through Partnerships'**. The discussion was moderated by **Mr Sashi Kumar**, Co-Chair, FICCI Medical Devices Committee; Managing Director, Phoenix Medical Systems. The panellists were invited from various industry domains and backgrounds, which included BIRAC, BEL, NID, AMTZ, Sohum Innovation Labs, Trivitron health and Centre for Design and innovation. The panellists deliberated on various opportunities available for MedTech innovators in India and how innovators can propel themselves in the next level. They informed about the support, facilities and opportunities available in their respective organisations for the MedTech innovators.



FICCI HEAL MedTech Bootcamp

In the second part of the program, **twelve innovators** were given opportunity to make presentations and showcase their innovations. This session was moderated by **Mr Shyam Vasudev Rao**, Co-Chair, FICCI

Medical Devices Committee; Founder & Director, Forus Health. Innovators talked about the problems being addressed by their innovation and the opportunities created thereby. Presentations also showcased the solution and the value proposition being offered. Innovators also shared their go to market (GTM) strategy, their key demands and other support required from the industry and the government.

To continue the momentum and address the needs of the innovators in the MedTech space, FICCI has started a new initiative to create a **Network for MedTech innovators**. The objective of the initiative is to facilitate Indian MedTech start-ups to become world class and globally competitive. The first-year goal of the initiative is to have a network of 100 innovators and to have at least 10 incubators as part of the initiative.

Glimpses of other sessions



**HR Practices-
Changing Models**



**Home Healthcare-
the changing paradigm**



Realizing Atmanirbhar Bharat through Make in India



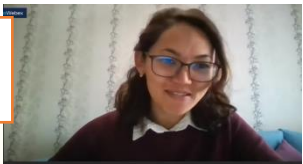
Structural and Design Changes in Healthcare Facilities



Cyber Security in Healthcare



Fight with COVID-19: KSMA, Kyrgyzstan



As numbers of COVID-19 cases were increasing and there were shortages of hospitals and professional medical workers the hostel of Kyrgyz State Medical Academy (KSMA) was converted into the hospital for COVID-19 patients based on National Centre for Phthisiotherapy(NCP).



Scientific Sessions- some glimpses



Private Healthcare at the forefront of battle with COVID-19:

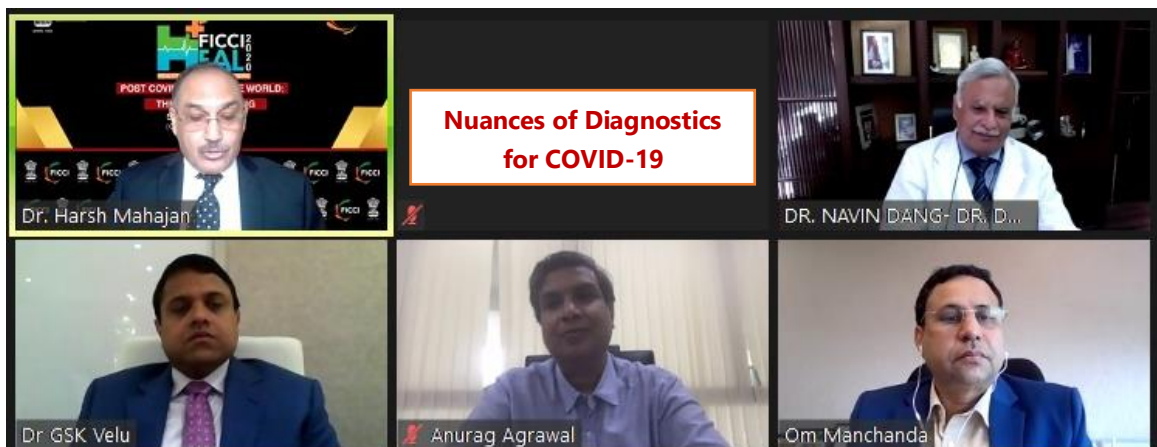
From Strategy to Frontline Trenches

Some of the private hospitals showcased their efforts, initiatives and innovative strategies for COVID response

COVID-19: Spectrum of clinical syndromes, complications



Nuances of Diagnostics for COVID-19





Therapies for COVID-19: Current therapies and their effectiveness?



2020 (Year of the Nurse)- Before and Beyond

Non-COVID treatment: Changing protocols



Vaccines for COVID 19: Have we reached the finishing line?

A tribute to the COVID Healthcare Workers

Via Cisco Webex

CORONA WARRIORS

POST COVID | THE M...
Sep 2
(On Virtual Platform)

Dr Alok Roy

"As the coronavirus pandemic paralyzes the lives of the people, the frontline health workers and doctors have been putting up with unpleasant events to treat the infected. We salute their untiring, selfless, dedicated efforts!"

Dr Alok Roy, Chair, FICCI Health Services Committee and Chairman, Medica Group of Hospitals

Via Cisco Webex

#CelebratingHealthcareHeroes

FICCI HEAL 2020: Post-COVID Healthcare World - The New Beginning #Day1

#CelebratingHealthcareHeroes

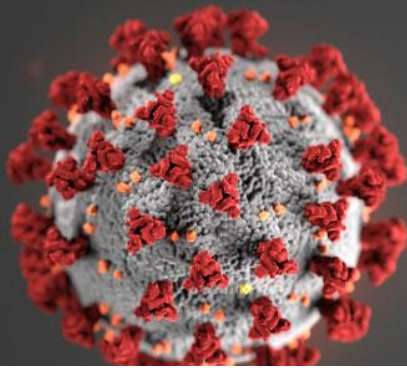
Via Cisco Webex

#CelebratingHealthcareHeroes

FICCI HEAL 2020: Post-COVID Healthcare World - The New Beginning #Day1

Mr Pullela Gopichand
Chief National Coach for Indian Badminton Team & Former Indian Badminton Player

#CelebratingHealthcareHeroes



FICCI Response to COVID-19

FICCI has been **actively engaged with various Ministries, NITI Aayog, WHO as well as the Empowered Groups** under the Disaster Management Act 2005 at multiple levels through

- ✓ **Policy intervention**- through Advocacy, Representations and Reports
- ✓ **Strategic support**- surveys for identifying resources, facilitating logistics and mobility for human resources and medical supplies and equipment
- ✓ **Information, education and communication** material for General Public as well as for Hospital Preparedness and Training and protection of healthcare workforce
- ✓ FICCI, in collaboration with Tech Mahindra, set-up a **24X7 Helpline** to advise non-COVID patients regarding available private sector facilities
- ✓ FICCI **SOPs** for Industry Post Lockdown (including health sector)
- ✓ FICCI **Exit Strategy**

Key submissions and documents by FICCI Health Services Committee and FICCI Swasth Bharat (Public Health) Task Force:

100+ recommendations for COVID care infrastructure, testing, pricing of COVID treatment, fiscal and non-fiscal representations, public health strategies etc. were submitted to the government

- ✓ FICCI Strategy Paper for **private sector participation** for COVID-19
 - ✓ **Pricing framework** for COVID treatment in private hospitals
 - ✓ FICCI-EY Study on **economic impact** of COVID-19 on hospitals and labs
 - ✓ FICCI strategy on **augmenting healthcare Human Resources**
 - ✓ FICCI Recommendations on **further Strategy for COVID Containment**
 - ✓ Unified representation with other Associations on **Fiscal & Non-Fiscal recommendations**
 - ✓ FICCI-NATHealth joint papers on **dedicated COVID-19 hospitals, Fever clinics, Telemedicine, Home Healthcare, Transition Care Centers**
-
- **FICCI E-learning modules on COVID-19** for capacity building of healthcare workers
 - **FICCI Sensitisation module** on COVID-19 for General Public
 - **FICCI Guide for Organisations (Vol I&II)** to help better prepare workplaces for prevention of infection as well as for enhancing their productivity through workplace flexibility and workforce preparedness
 - **FICCI-WHO Guidance Document for Safer Workplaces** to help equip the industry to restart businesses post the lockdown. This includes general and health guidelines as well as behaviour guidelines for infection prevention and control for workplaces, travel and market places

Session-wise Speakers at FICCI HEAL 2020

Opening Session- “A Tribute to COVID Healthcare Workers”	
Dr Alok Roy, Chair, FICCI Health Services Committee and Chairman, Medica Group of Hospitals	
Dr Harsh Mahajan, Co-Chair, FICCI Health Services Committee & Founder & Chief Radiologist, Mahajan Imaging	
Mr Gautam Khanna, Co-Chair, FICCI Healthservices Committee and CEO, P D Hinduja Hospital	
Dr N Subramanian, Co-Chair, FICCI Health Services Committee and Director, Medical Services & Sr. Consultant- Urology, Indraprastha Apollo Hospitals	
Dr Narottam Puri, Advisor, FICCI Health Services Committee; Former Chairman- NABH; Advisor-Medical Operations & Chairman- Fortis Medical Council, Fortis Healthcare Ltd	
(Hony) Brig Dr Arvind Lal, Advisor, FICCI Health Services Committee and Executive Chairman, Dr Lal PathLabs	
Session Moderator- Ms Shobha Mishra Ghosh, Assistant Secretary General, FICCI	
Keynote Address- Impact of COVID on Society and Culture	
Mr T V Mohandas Pai, Adviser, FICCI Skills Committee & Chairman, Manipal Global Education	
Introduction by Mr Gautam Khanna, Co-Chair, FICCI Healthservices Committee and CEO, P D Hinduja Hospital	
Business Sessions	Scientific Sessions
Changing landscape of Pharma Industry	Private Healthcare at the forefront of battle with COVID-19: From Strategy to Frontline Trenches
<p><u>Chair</u>- Mr Navdeep Rinwa, Joint Secretary, Department for Pharmaceuticals, Government of India</p> <p><u>Moderator</u>- Ms Priyanka Aggarwal, Managing Director & Partner, Healthcare Practice, BCG India</p> <p><u>Convenor</u>- Mr Anurag Khera, Senior Vice President, Glenmark Pharmaceuticals</p> <p><u>Panelists</u>-</p> <ul style="list-style-type: none"> ▪ Mr Gagan Singh Bedi, MD, AstraZeneca Pharma India ▪ Ms Namita Thapar, ED, Emcure ▪ Mr Prashant Tandon, Founder & CEO, 1MG ▪ Mr Kirti Ganorkar, CEO, Sun Pharma India 	<p><u>Convenor of Scientific Program</u>- Dr Arati Verma, Sr Vice President - Medical Quality, Max Healthcare</p> <p><u>Chair & Moderator</u>: Dr Nandakumar Jairam, Advisor, FICCI Health Insurance Committee; Chairman & CEO, Columbia Asia Hospitals</p> <p><u>Panelists</u>-</p> <ul style="list-style-type: none"> ▪ Dr Alok Roy, Chair-FICCI Health Services Committee and Chairman, Medica Group of Hospitals ▪ Dr Anupam Sibal, Group Medical Director, Apollo Hospitals Group ▪ Dr Harish Pillai, Chair, FICCI Medical Value Travel Committee and CEO, Aster India, Aster DM Healthcare ▪ Air Marshal Dr B Keshav Rao (Retd), Group Head Medical Operations, Fortis Healthcare ▪ Dr Sandeep Buddhiraja, Group Medical Director, Max Healthcare ▪ Dr Vinay Aggarwal, Past National President- IMA & MD, Pushpanjali Medical Centre
Diagnostics- Pandemic & Beyond	COVID-19: Spectrum of clinical syndromes, complications
<p><u>Chair & Moderator</u>- (Hony) Brig Dr Arvind Lal, Advisor, FICCI Health Services Committee and Executive Chairman, Dr Lal PathLabs</p> <p><u>Convenor</u>- Dr Ravi Gaur, Director & Chair- Medical Strategy & Advisory Committee, Oncquest Labs</p> <p><u>Presentation</u>- Mr Rahul Guha, MD & Partner, Lead - Healthcare and Lifesciences practice, BCG India</p> <p><u>Panelists</u> –</p> <ul style="list-style-type: none"> ▪ Ms Ameera Shah, Managing Director, Metropolis Healthcare 	<p><u>Chair & Moderator</u>: Dr B K Rao, Chairman, NABH; Chairman, Department of Critical Care and Emergency Medicine, Sir Ganga Ram Hospital</p> <p><u>Speakers</u>-</p> <ul style="list-style-type: none"> ▪ Dr Tanu Singhal, Pediatrician and Infectious disease specialist, Kokilaben Dhirubhai Ambani Hospital & Medical Research Institute, Mumbai ▪ Dr V Ramasubramanian, Infectious Disease Specialist, Apollo, Chennai

<ul style="list-style-type: none"> ▪ Dr Ravi Gaur, Director & Chairman- Medical Strategy & Advisory Board, Oncquest Laboratories ▪ Dr Sujeet Kumar Singh, Director, National Centre for Disease Control (NCDC) ▪ Mr Narendra Varde, General Manager & Country Head, Abbott Diagnostics ▪ Dr Sujay Prasad, Medical Director, Neuberg Diagnostics 	<ul style="list-style-type: none"> ▪ Dr Anjan Trikha, Professor, Dept. of Anesthesia and Critical Care, AIIMS ▪ Dr Neeraj Jain, Chairman and Senior Consultant, Dept of Chest Medicine, Sir Ganga Ram Hospital, New Delhi ▪ Dr Samir Parikh, Director, Mental Health & Behavioural Sciences, Fortis Healthcare
Inaugural Session	
<p><i>Welcome Address</i> Dr Sangita Reddy, President, FICCI and Joint MD, Apollo Hospitals Enterprise Ltd</p>	
<p><i>Theme Address</i> Dr Alok Roy, Chair, FICCI Health Services Committee and Chairman, Medica Group of Hospitals</p>	
<p><i>Release of FICCI-BCG Knowledge Paper on “Leapfrogging to a Digital Healthcare System- Reimagining Care Delivery for Every Indian”</i></p>	
<p><i>Inaugural Address</i> Shri M Venkaiah Naidu, Hon'ble Vice President of India</p>	
<p><i>Vote of Thanks</i> Dr Harsh Mahajan, Co-Chair, FICCI Health Services Committee & Founder & Chief Radiologist, Mahajan Imaging Centre</p>	
<p><i>On Dais</i> Mr Dilip Chenoy, Secretary General, FICCI Mr Bart Janssens, MD and Senior Partner, The Boston Consulting Group Inc</p>	
<p><i>Session Moderator-</i> Ms Shobha Mishra Ghosh, Assistant Secretary General, FICCI</p>	
Structural and Design Changes in Healthcare Facilities	Nuances of Diagnostics for COVID-19
<p><u>Convenor & Moderator-</u> Dr Y P Bhatia, Managing Director, Astron Hospital & Healthcare Consultants <u>Chair-</u> Dr Shakti Gupta, Professor & Medical Superintendent, AIIMS <u>Panelists-</u></p> <ul style="list-style-type: none"> ▪ Dr Ashutosh Raghuvanshi, MD & CEO, Fortis Healthcare ▪ Prof Chandrashekhar R, Chairman IGBC Healthcare Rating and Former Chief Architect, MoHFW, Gol ▪ Mr Ashish Rakheja, Managing Partner, AEON Integrated Building Design ▪ Dr Sanjeev K Singh, Medical Superintendent at Amrita Institute of Medical Sciences ▪ Col Saroj Patnaik, Associate Professor, Department of Hospital Administration AFMC 	<p><u>Chair & Moderator:</u> Dr Harsh Mahajan, Co-Chair, FICCI Health Services Committee & Founder & Chief Radiologist, Mahajan Imaging <u>Panelists-</u></p> <ul style="list-style-type: none"> ▪ Dr G S K Velu Chairman & Managing Director, Trivitron Healthcare ▪ Dr Om Manchanda, MD, Dr Lal PathLabs ▪ Dr Navin Dang, Microbiologist & Director, Dr Dang’s Lab Pvt. Ltd ▪ Dr Vivek Nangia, Principal Director & Head, Institute of Respiratory, Critical Care and Sleep Medicine, Max Hospital ▪ Dr Anurag Agarwal, Director, CSIR-Institute of Genomics and Integrative Biology
Fight with COVID-19: Kyrgyz State Medical Academy (KSMA), Kyrgyzstan	
<p>Dr Jarkynai Nazarova, Volunteer, Kyrgyz State Medical Academy (KSMA), Kyrgyzstan</p>	
HR Practices- Changing Models	Therapies for COVID-19: Current therapies and their effectiveness?
<p><u>Convenor & Moderator -</u> Mr Gautam Khanna, Co-Chair, FICCI Healthservices Committee and CEO, P D Hinduja Hospital <u>Speakers -</u></p> <ul style="list-style-type: none"> ▪ Dr Sudarshan Ballal, Chairman, Manipal Hospitals 	<p><u>Chair & Moderator:</u> Dr G C Khilnani, Chairman, PSRI Institute of Pulmonary, Critical care and Sleep Medicine. Formerly Professor and Head, Dept of Pulmonary, Critical care and Sleep Medicine AIIMS, New Delhi <u>Presentations-</u></p>

<ul style="list-style-type: none"> ▪ Mr S V Kiran, Sr Vice President & Head- HR, Apollo Hospitals ▪ Ms Angela Ryan, Group Chief Human Resources Officer, IHH Healthcare ▪ Mr Paul William Martin, Corporate HR Strategy Business Partner, Abu Dhabi Health Services Company- SEHA ▪ Dr Neil Sequeira, VP- Human Resources and Administration, Kokilaben Dhirubhai Ambani Hospital 	<ul style="list-style-type: none"> ▪ <i>Drug Therapy for Mild disease-</i> Dr D J Christopher, Prof and Head, Dept of Pulmonary Medicine, CMC, Vellore ▪ <i>Drug Therapy for moderate and severe disease-</i> Dr Raja Dhar, Director, Department of Pulmonology, Fortis Hospital Kolkata ▪ Dr Ankur Puri, Pulmonary & Critical Care Specialist, University of Pittsburgh Medical Centre (UPMC) <p><u>Panelists-</u></p> <ul style="list-style-type: none"> ▪ Dr T S Kler, Chairman, PSRI Institute of Cardiac Sciences ▪ Dr S K Chhabra, HOD, Pulmonary, Sleep and Critical Care Medicine, Primus superspeciality hospital, New Delhi ▪ Dr Anjan Trikha, Professor, Dept of Anaesthesia, Critical Care and Sleep Medicine, AIIMS, New Delhi ▪ Dr D J Christopher, Prof and Head, Dept of Pulmonary Medicine, CMC, Vellore ▪ Dr Raja Dhar, Director, Department of Pulmonology, Fortis Hospital Kolkata
---	--

MedTech Bootcamp

Panel Discussion- ‘Bridging the Gap: Innovation to Commercialization through Partnerships’
Moderator- **Mr Sashi Kumar**, Co-Chair, FICCI Medical Devices Committee; Managing Director, Phoenix Medical Systems

Panelists:

- **Dr Manish Diwan**, Head – Strategic Partnership & Entrepreneurship Development, BIRAC
- **Dr Jitendra Sharma**, MD & CEO, Andhra Med Tech Zone
- **Mr Ravindranath R**, Sr. DGM, Medical Electronics Division, Bharat Electronics (BEL)
- **Prof. Praveen Nahar**, Director, National Institute of Design, Ahmedabad
- **Mr Nitin Sisodia**, Founder and CEO, Sohum Innovation Lab
- **Mr Satyaki Banerjee**, CEO – Medical Imaging, Trivitron Healthcare
- **Ms Padmaja Ruparel**, Co-Founder, Indian Angel Network
- **Ms Tulika Puri Katyul**, Founder, Center for Design & Innovation and Vice Chairperson I IVS-School of Design
- **Mr Vinod G Pillai**, VP, Sourcing, HLL Lifecare

Pitch / Presentations by Innovators
Moderator – **Mr Shyam Vasudev Rao**, Co-Chair, FICCI Medical Devices Committee; Founder & Director, Forus Health & Renalyx health systems

Realizing Atmanirbhar Bharat through Make in India	Non-COVID treatment: Changing protocols
<p><u>Chair-</u> Mr Navdeep Rinwa, Joint Secretary, Department for Pharmaceuticals, Government of India</p> <p><u>Moderator-</u> Mr Madan R Krishnan, VP-MD India Subcontinent (South Asia) Medtronic</p> <p><u>Panelists -</u></p> <ul style="list-style-type: none"> ▪ Dr Jitender Sharma, Managing Director, AMTZ ▪ Mr Sandeep Makkar, Managing Director, Johnson & Johnson Medical India ▪ Mr Amit Mohan, COO, LCS, LCS Digital & Inside Sales (South Asia), GE Healthcare ▪ Ms Tanaz Buhariwalla, Director- India, IDA Ireland, Government of Ireland’s Investment Promotion Agency ▪ Mr Mohamad Ismail Abu Bakar, Executive Director (Manufacturing Development) Malaysian Investment Development Authority 	<p><u>Chair & Moderator:</u> Dr N Subramanian, Co-Chair, FICCI Health Services Committee and Director, Medical Services & Sr. Consultant- Urology, Indraprastha Apollo Hospitals</p> <p><u>Speakers-</u></p> <ul style="list-style-type: none"> ▪ Dr Mario Musella, Professor of Surgery, University of Naples, Italy, Department of Advanced Biomedical Sciences; Former President, International MGB OAGB Club for Bariatric Surgery ▪ Mr Pala Rajesh, Sr. Vice President, Royal College of Surgeons of Edinburgh ▪ Dr Arun Prasad, Senior Bariatric and Robotic Surgeon, Indraprastha Apollo Hospitals ▪ Dr Ramen Goel, Bariatric and Weight Loss surgeon, Hinduja Health Care, Mumbai; President of IAGES; (Society of Indian Laparoscopic Surgeons)

Science of Ayurveda	Cyber Security in Healthcare
----------------------------	-------------------------------------

<p><u>Convenor & Moderator</u>- Mr Arvind Varchaswi, Co-Chair, FICCI AYUSH Committee and Managing Director, Sri Sri Tattva</p> <p><u>Panelists</u> -</p> <ul style="list-style-type: none"> ▪ Mr Anurag Sharma, Member of Parliament; JMD, Baidyanath and Chair- FICCI AYUSH Committee ▪ Prof Tanuja Manoj Nesari, Director, All India Institute of Ayurveda (AIIA), Ministry of AYUSH, GoI ▪ Vd (Dr) K S Dhiman, Director General, Central Council for Research in Ayurvedic Sciences (CCRAS) ▪ Dr Geetha Krishnan, India Representative- AYUSH, WHO ▪ Mr Pradeep Multani, Co-Chair FICCI AYUSH Committee, Chairman, Multani Pharmaceuticals ▪ Dr Arati Verma, Sr Vice President - Medical Quality, Max Healthcare 	<p><u>Speakers</u> -</p> <ul style="list-style-type: none"> ▪ Mr Munjal Shroff, Advisor, Cyberwis Pte. Ltd. ▪ Mr Sunil Bangalore, President & CEO, CyQureX Systems ▪ Mr Samir Aksekar, Director - Cyberwis Pte. Ltd.
<p>Keynote Address- 'Macro-Economic Impact of COVID on World & India'</p>	
<p>Prof Arvind Panagariya, Professor of Economics and the Jagdish Bhagwati Professor of Indian Political Economy, Columbia University</p>	
<p><i>In conversation with</i> Dr Alok Roy, Chair, FICCI Health Services Committee and Chairman, Medica Group of Hospitals</p>	
<p>Digital Revolution - Going Viral!</p>	
<p><u>Convenor & Moderator</u>- Dr Vidur Mahajan, Head- R&D, CARING and Associate Director, Mahajan Imaging</p>	
<p><u>Speakers</u> -</p> <ul style="list-style-type: none"> ▪ Dr Scott Atlas, Special Advisor to the President of the United States; Member, White House Coronavirus Task Force; Robert Wesson Senior Fellow, Hoover Institution, Stanford University, USA ▪ Dr Indu Bhushan, CEO, AB-PMJAY and the National Health Authority (NHA), GoI ▪ Mr Kieran Murphy, President & CEO, GE Healthcare ▪ Dr Jan Herzhoff, President- Global Health Markets, Elsevier ▪ Dr Sangita Reddy, President-FICCI & Joint MD, Apollo Hospitals ▪ Mr Bart Janssens, MD and Senior Partner, The Boston Consulting Group Inc 	
<p>Best Practices for Management of COVID</p>	<p>2020 (Year of the Nurse)– Before and Beyond</p>
<p><u>Convenor & Moderator</u>- Dr Suneela Garg, National President Elect- IAPSM, Director Professor HAG, Ex Head (CM) Sub Dean, MAMC & Head Community Medicine, FMS</p> <p><u>Panelists</u> –</p> <ul style="list-style-type: none"> ▪ Dr Randeep Guleria, Director, AIIMS-Delhi ▪ Dr Roderico H. Ofrin, WHO Representative to India ▪ Dr Mahesh Verma, Head- COVID-19 Advisory Body to Delhi Government and Vice-Chancellor of Guru Gobind Singh Indraprastha University ▪ Mr Kiran Dighavkar, Assistant Municipal Commissioner- G North, BMC, Maharashtra; Lead on Dharavi Model ▪ Dr Sagar Galwankar, CEO, INDUSEM and Associate Professor, Florida State University College of Medicine ▪ Dr Tim Hawkins, MD, Commercial Clinical Solutions- EMEALAAP, Elsevier 	<p><u>Chair & Moderator</u>- Dr N Subramanian, Co-Chair, FICCI Health Services Committee and Director, Medical Services & Sr. Consultant- Urology, Indraprastha Apollo Hospitals</p> <p><u>Panelists</u>-</p> <ul style="list-style-type: none"> ▪ Capt Sandhya S Pandey, Corporate Chief of Nursing – Pan Fortis, Fortis Healthcare ▪ Capt Usha Banerjee, Group Director, Nursing, Apollo Hospitals Group ▪ Ms Ajitha PS, COO, Avitis Institute of Medical Sciences ▪ Ms Thankam Gomez, Founder & CEO, Cygnia Healthcare; President, Association of Nurse Executives (India)
<p>Home Healthcare- the changing paradigm</p>	<p>Vaccines for COVID 19: Have we reached the finishing line?</p>
<p><u>Convenor & Moderator</u> - Dr Gaurav Thukral, EVP & COO, HealthCare atHOME</p> <p><u>Panelists</u> –</p>	<p><u>Chair</u>- Dr YK Gupta, Professor and Head, Department of Pharmacology, AIIMS</p>

<ul style="list-style-type: none"> ▪ Dr Atul Mohan Kochhar, CEO, NABH ▪ Mr Mayank Bathwal, CEO, Aditya Birla Health Insurance ▪ Mr Pavan Morchela, Managing Director, BD India ▪ Prof Rishabh Prasad, Professor of Digital Medicine and Chairman, Willows Healthcare, UK 	<p>Convenor & Moderator: Dr Ajay Sharma, Head-Government Affairs, AstraZeneca Pharma India</p> <p>Speakers-</p> <ul style="list-style-type: none"> ▪ Dr Arun Wadhwa, Consultant Paediatrician; Visiting Consultant Rainbow Children's Hospital ▪ Dr Aviral Roy, Consultant, Critical Care, Medica Super Specialty Hospital ▪ Dr Madhur Gupta, Technical Officer- Pharmaceuticals, WHO Country Office for India ▪ Dr Murtaza Khorakiwala, Managing Director, Wockhardt ▪ Mr Sharad Goswami, Senior Director- Public Affairs, Pfizer India
--	--

Learnings for the Future

<p>Convenor - Dr Harsh Mahajan, Co-Chair, FICCI Health Services Committee; Founder & Chief Radiologist, Mahajan Imaging</p> <p>Session Introduction- Dr Alok Roy, Chair, FICCI Health Services Committee and Chairman, Medica Group of Hospitals</p> <p>Moderator- Dr Narottam Puri, Advisor, FICCI Health Services Committee; Former Chairman- NABH; Advisor-Medical Operations, Fortis Healthcare Ltd.</p> <p>Panelists -</p> <ul style="list-style-type: none"> ▪ Dr V K Paul, Member (Health), NITI Aayog, Gol ▪ Mr Rajesh Bhushan, Secretary, MoHFW, Gol ▪ Mr Sukumar Ranganathan, Editor, Hindustan Times ▪ Dr Preetha Reddy, Vice Chairperson, Apollo Hospitals ▪ Dr Harsh Mahajan, Co-Chair, FICCI Health Services Committee & Founder & Chief Radiologist, Mahajan Imaging

Valedictory Session 'How the World will prepare for Post-COVID'

Keynote Address- Prof Richard C Horton FRCP FMedSci, Editor-in-Chief, The Lancet
Dr Sangita Reddy , President-FICCI & Joint MD, Apollo Hospitals Group
Dr Alok Roy , Chair, FICCI Health Services Committee and Chairman, Medica Group of Hospitals
Dr Narottam Puri , Advisor, FICCI Health Services Committee; Former Chairman- NABH; Advisor-Medical Operations, Fortis Healthcare Ltd.
Vote of Thanks by Mr Dilip Chenoy , Secretary General, FICCI
Session Moderated by Ms Shobha Mishra Ghosh , Assistant Secretary General, FICCI

YouTube links for FICCI HEAL 2020

Day 1- 29 September 2020

- Hall 1:** <https://www.youtube.com/watch?v=ahooUAs6AaU>
- Hall 2:** https://www.youtube.com/watch?v=aY7S9Ro_AqU
- Hall 3:** <https://www.youtube.com/watch?v=LgophF9iriU>

Day 2- 30 September 2020

- Hall 1:** <https://www.youtube.com/watch?v=wd69oaXq3kQ>
- Hall 2:** <https://www.youtube.com/watch?v=UfYc4UkPakc>
- Hall 3:** https://www.youtube.com/watch?v=RTlxI8qFR_Q

Day 3- 1 October 2020

- Hall 1:** https://www.youtube.com/watch?v=l_rrNFNFf1w
- Hall 2:** <https://www.youtube.com/watch?v=-KkGq8emcKg>

Organising Committee- FICCI HEAL 2020

Chair- Dr Harsh Mahajan, Co-Chair, FICCI Healthservices Committee & Founder & Chief Radiologist, Mahajan Imaging

Members-

- **Dr Alok Roy**, Chair, FICCI Health Services Committee and Chairman, Medica Group of Hospitals
- **Mr Gautam Khanna**, Co-Chair, FICCI Healthservices Committee and CEO, P D Hinduja Hospital
- **Dr N Subramanian**, Co-Chair, FICCI Health Services Committee and Director, Medical Services & Sr. Consultant- Urology, Indraprastha Apollo Hospitals
- **Dr Narottam Puri**, Advisor, FICCI Health Services Committee; Former Chairman- NABH; Advisor- Medical Operations, Fortis Healthcare Ltd.
- **(Hony) Brig Dr Arvind Lal**, Advisor, FICCI Health Services Committee and Executive Chairman, Dr Lal PathLabs
- **Dr Arati Verma**, Sr Vice President - Medical Quality, Max Healthcare
- **Dr Y P Bhatia**, Managing Director, Astron Hospital & Healthcare Consultants Pvt Ltd
- **Dr Ravi Gaur**, Director & Chairman- Medical Strategy & Advisory Board, Oncquest Laboratories
- **Mr Shankar Kaul**, MD- India & South East Asia, Elsevier
- **Ms Shobha Mishra Ghosh**, Assistant Secretary General, FICCI

We acknowledge the contribution of other FICCI Teams for the success of FICCI HEAL 2020:

- Mr Praveen Kumar Mittal, Senior Director, FICCI
 - Ms Mallika Marwah, Senior Assistant Director, FICCI
 - Ms Swati Aggarwal, Consultant- Lifesciences, FICCI
 - Mr Harsh Vardhan, Senior Assistant Director- Health Insurance, FICCI
 - Ms Aparna Sharma, Assistant Director- AYUSH and MVT, FICCI
 - FICCI Web Initiatives
 - FICCI IT Team
 - FICCI Media Team
- and all others who have supported the conference



About FICCI

Federation of Indian Chambers of Commerce and Industry

Established in 1927, FICCI is the largest and oldest apex business organisation in India. Its history is closely interwoven with India's struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies.

A non-government, not-for-profit organisation, FICCI is the voice of India's business and industry. From influencing policy to encouraging debate, engaging with policy makers and civil society, FICCI articulates the views and concerns of industry. It serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, reaching out to over 2,50,000 companies.

FICCI provides a platform for networking and consensus building within and across sectors and is the first port of call for Indian industry, policy makers and the international business community.

FICCI Health Services Team

Ms Shobha Mishra Ghosh

Assistant Secretary General
E: shobha.mishra@ficci.com

Ms Shilpa Sharma

Consultant- Health Services
E: shilpa.sharma@ficci.com

Ms Sarita Chandra

Joint Director- Health Services
E: sarita.chandra@ficci.com

Dr Prachi Pal

Senior Assistant Director- Health Services
E: prachi.pal@ficci.com

Mr Kapil Chadha

Research Associate
E: kapil.chadha@ficci.com

Address:

FICCI, Federation House, Tansen Marg, New Delhi-110001

W: www.ficci.in; www.ficci-heal.com

E: healthservices@ficci.com