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



LHIF 7.0 REPORT

DIGITAL TRANSFORMATION IN HEALTHCARE & LIFESCIENCES

The Gujarat Perspective



GSB
Indian Drug Manufacturers' Association
(IDMA - GSB)



Ministry of Electronics
& Information Technology
Government of India



સત્યમેવ જયતે
Government of Gujarat



FROM THE EDITOR'S DESK



Through relentless efforts and sustained stakeholder interactions, NASSCOM's LHIF - Lifesciences & Healthcare Innovation Forum has nurtured an ecosystem of industry leaders and healthcare & lifesciences advocates, passionate about creating a difference in healthcare today by leveraging the best of emerging technologies. With evangelists across India, LHIF took place in Gujarat - a vibrant and fast-growing community of thinkers, leaders, keen business minds & innovators. This initiative was a lucrative opportunity for all these stakeholders to converge, identify collaborative opportunities in healthcare and drive innovation in Gujarat.

The rapid adoption of emerging digital technologies by this sector has proven to be one of the key factors behind the success of affordable digital healthcare. With the theme of "Enabling Digital Transformation of Healthcare & Lifesciences – The Gujarat Perspective" #LHIF brought together senior decision-makers from Govt, Hospitals, Pharma Companies, Medical Device Companies, Startups/Innovators, Academia and other relevant stakeholders from the ecosystem to discuss innovation and adoption of technologies in healthcare. It was a privilege to host such luminaries at this Summit, where industry members interacted to brainstorm the way to build an adaptive and collaborative healthcare & lifesciences ecosystem.

20+ speakers, 200+ participants, 10+ startups... and a host of new ideas & zeal to accelerate innovation in healthcare. This was LHIF 7 in a nutshell. Some impactful use cases & multi-pronged strategies for a cohesive ecosystem were discussed through panel discussions and interactive Q&A with startups. A key component that sets LHIF apart is the industry roundtable held at every event. This time as well, we hosted industry leaders to discuss the digitisation of the state's robust pharma industry, and the evolved role of the state govt in enabling better access to public & private healthcare using technology. We are thankful to our Industry & Association partners i.e. TIE Ahmedabad, FICCI Gujarat Chapter, IDMA for their active support and collaboration.

These sustained efforts to build one of the most comprehensive & collaborative ecosystems is also part of a larger goal – the NASSCOM Healthcare Initiative – outlining three pillars – Design, Discover & Scale.

We're now gearing up for our next major event in New Delhi on April 8, 2020 so more on this one-of-a-kind healthcare initiative in our next newsletter.

Hope you enjoy reading this report on LHIF 7.0!

- Raghuram Janapareddy

*Director, Lifesciences & Healthcare
NASSCOM CoE IoT*



EVENT SYNOPSIS

The 7th edition of LHIF was hosted at the Courtyard by Marriott, Ahmedabad, marking its maiden presence in the industrial state of Gujarat. The event was attended by more than 200 people, and marked by government presence as well – where the goal was to nurture a digitally empowered life-sciences & healthcare ecosystem



(L-R) Raghuram Janapareddy, Director – Lifesciences & Healthcare, NASSCOM CoE IoT & AI, Sunil Parekh, Co-Chairman, FICCI Gujarat State Council, Sachin Gusia, Managing Director, Gujarat Informatics Ltd, Jaiprakash Shivahare, Commissioner of Health, Govt of Gujarat; Sachin Gusia, Managing Director, Samir Desai, President – Biologics, Zydus Cadila and Amit Saluja, Centre Head - Gandhinagar CoE, NASSCOM during the seventh edition of LHIF in Ahmedabad on 21st January 2020.

KEY NOTES



Raghuram Janapareddy

Director, Healthcare & Lifesciences
NASSCOM CoE-IoT & AI

Raghuram Janapareddy, Director, Healthcare & Lifesciences, NASSCOM CoE-IoT & AI, began the session with a brief introduction on how LHIF as an event has grown rapidly in a short span of two years, and the inaugural event in Gujarat marks the maturity of the healthcare ecosystem diversifying into innovation in pharma & manufacturing. He also spoke of the forum's ability to bring together the industry to develop a digital healthcare model of the future, and hope to take it to India's major cities & towns, providing the most advanced healthcare options to everyone.

Sachin Gusia IRS, Managing Director, Gujarat Informatics Ltd, DST – Govt of Gujarat, said it was crucial now to focus on new startups that were breaking new ground in healthcare. Technologies like IoT, AI, AR/VR & machine learning continue to be at the core of innovation in healthcare. He also stressed on the need for technical upskilling and promote entrepreneurial skills at early development stages, citing that the Gujarat government has launched multiple policy initiatives to foster entrepreneurship & innovation in educational institutions.



Sachin Gusia IRS

Managing Director, Gujarat
Informatics Ltd, DST – Govt of Gujarat

Through events like LHIF, we want companies to collaborate on product development, to nurture startups & foster strategic industry relationships to build an active & robust ecosystem.



Samir Desai

President
Biologics, ZydusCadila

Samir Desai, President – Biologics, ZydusCadila, stated how Artificial Intelligence is democratizing acumen today across industries, and the largest changes in pharma are intended to always empower the patient. He spoke about how IBM's Watson was changing the reliance on a clinician's experience, and how AI has matured to the extent that it can help identify genetic mutations, making treatment protocols more focused. Diagnosis is now moving from lab to device, becoming more non-invasive, quick, patient-controlled, cost effective, mobile & easy to comprehend – technology has played a huge role in democratising patient data. With India ranking high in skewed doctor-patient ratios, technology interventions could be the most reliable way to ensure the continuum of care across all spectrums. Curated health records, EMR/EHR, multiple apps to monitor health parameters have all changed doctor-patient interactions for the better.

End of the day, a doctor will always have the foremost ability to identify casualties and make judgment calls. But, technology can help accelerating the steps that lead up to time spent with a doctor for his counsel and guidance, making the doctor-patient interaction richer.

KEY NOTES



Sunil Parekh
Co-Chair
FICCI Gujarat State Council

Sunil Parekh, Co-Chair, FICCI Gujarat State Council, who is a veteran in Gujarat's business community, spoke of the symbolic coming together of entities like FICCI, NASSCOM, government & enterprises on a single platform to deliver a value-driven experience in healthcare. He emphasized on pilot projects in Industry 4.0 and the need for skilling programmes for the youth in Gujarat. This would enable them to innovate based on industry requirements and rank higher in India as a tech hub.

“ There is a paradigm shift happening in healthcare today. Today, technology companies are getting into the healthcare business aggressively, and the time is ripe for AI adoption. I don't think AI will replace doctors, but doctors without the knowledge of AI will perish. The industry needs to come together to enable step-wise adoption of AI. ”

Jaiprakash Shivahare, Commissioner of Health, Govt of Gujarat said that the business community has to be technology-agnostic to move ahead of the curve, explore value, innovate & deliver quality products and solutions. He also stressed that all these changes would be possible with a push from the government, and alterations in processes. He also explained about various government programs improving the healthcare delivery for the public.



Jaiprakash Shivahare
Commissioner of Health
Govt of Gujarat

“ We want to provide equal opportunity to startups, enable them to enter the market and explore more opportunities for synergy between public & private entities. ”

PANEL DISCUSSION: 1

DIGITAL TRANSFORMATION IN THE PREVENTION & CONTROL OF NON COMMUNICABLE DISEASES IN INDIA



(L-R) Deepak Arora, Director – Market Access & Commercial Excellence, AstraZeneca (Moderator), Dr. Larisa Ramirez, Medical Director – International CVRM, AstraZeneca UK, Garima Kumar, Product Specialist, UE Lifesciences, Dr. Banshi Saboo, Chairman, Diabetes Care & Hormone Clinic, Amit Saluja, Center Head, NASSCOM Center of Excellence IoT & AI, Gandhinagar.



Deepak Arora

Director – Market Access & Commercial Excellence, AstraZeneca

Deepak Arora: Disruptive technologies are changing Indian healthcare delivery models. If you look at the government, it spends 5% of its total budget on health. 70% of healthcare needs are covered by private players with increased cost of hospitalization rising from 83% to 263% in a decade. 86% of rural, and 82% of urban Indian patients don't have state-funded insurance. Now, disruption is being seen across the healthcare sector – patients are now the consumer; hospitals are supported by AI & ML technologies; insurance providers play a crucial role and technology helps manage the huge numbers of patient records; and government agencies/regulatory bodies are getting more involved with the real demands of the healthcare ecosystem using technology. And finally, disruptive technologies have resulted in less invasive diagnostics, patient-facing mobile apps, digital platform integration, surgical robotic tools, remote monitoring, AI & smaller implants. Specifically, in India, m-health, telemedicine & remote diagnosis are disrupting the Indian healthcare industry prominently. Already, implemented use cases of tech like AI & ML can be seen in remote patient monitoring, smart ambulances & care delivery models.

PANEL DISCUSSION: 1

Dr. Larisa Ramirez: There is a tremendous increase in healthcare data today. Many companies are exploring the use of AI in clinical trials. There is a lot of value to derive from this data, and aggregation strategies are required. Unlike many leading nations, India is leading the way in the judicious yet constructive use of data for the benefit of the industry. It is one of the first and only nations to have submitted data for clinical studies pertaining to NCDs. However, with healthcare protocols constantly changing, physicians are finding the need to super specialize getting stronger. In India, physicians, especially GPs, can thrive being generalists and thus cater to more patients, given the skewed doctor-patient ratio. However, it is very important for them to specialize and improve their outcomes in those chosen areas. Education is crucial in this aspect, and this awareness can enhance the quality of innovation in specialty areas.



Dr. Larisa Ramirez
Medical Director
International CVRM, AstraZeneca UK



Dr. Banshi Saboo
Chairman, Diabetes Care &
Hormone Clinic

Dr. Saboo: Doctors in India are genuinely pressed for time. In some cases, they consult nearly 40-60 patients in an hour or two hours. Obviously, they don't have a lot of time to spend on each patient, and this is where technology can ease the workload for doctors. EMR/EHR systems should be made available across all healthcare centres, especially in rural areas. With healthcare data available, efforts should now be made to integrate this data for effective treatment, communication & follow ups.

Garima Kumar: One of the most critical issues plaguing rural healthcare is limited means of screening and preventive healthcare methods. For this, it is important to have evangelists apart from doctors, who can explain to patients in simple terms, the need for early screening. Many patients refrain from screening themselves for the fear of the outcome and the aftermath. This can lead to loss of valuable time in ensuring they get the right kind of treatment. Public health professionals especially need to focus on awareness generation.



Garima Kumar
Product Specialist
UELifesciences

SUCCESS STORIES

Digital Transformation in Pharma Industry



Dr. Seema Nair
Senior Solution Designer
Lifesciences, L & T Infotech

Dr. Seema Nair, Senior Solution Designer – Lifesciences, L & T Infotech, While L&T Infotech (LTI) is a leader in manufacturing, its expertise in developing a collaborative & platform-driven approach to healthcare has been gaining popularity. LTI has partnered with Agility Pharma to establish an Innovation Hub in California. The focus of this hub is on lifesciences, biotech, pharma, medical devices and healthcare, with the aim of bridging the gap between fundamental research & commercialization, fostering collaboration among diverse sectors, lowering R&D costs for member companies and train the next generation of technology competence. A Digital Command Center functions as a fully integrated business suite allowing technical monitoring of health, monitoring efficacy of business processes and UX monitoring. Other features include a connected smart lab to optimize processes in lab operations, healthcare asset management, digital workspaces and more. These measures led to a marked improvement of OEE, reduction in costs pertaining to support services and faster resolution of incidents. One of the success stories included e-commerce integration with IoT to enhance customer experience with easy monitoring; and image processing & analysis for automated diagnosis of skin cancer using dermoscopic images.

STARTUP SUCCESS STORIES

Genetic Mapping For Disease Prediction/Detection

Pooja Ramachandran, VP – Genetic Counselling, Mapmygenome, Mapmygenome is a leading Indian personal genomics company that leverages state-of-the-art DNA sequencing and SNP Genotyping technologies coupled with latest research to provide personalised health solutions. Key offerings include GenomePatri, MyFitGene, MedicaMap, SmartSport, MyNutriGene, SugarGene & GenomePatri Heritage. The company has partnered with several research centres and labs like Imperial College London, Diabetes Foundation of India; sports and fitness centres like Malaysian Football Association & Modern Teaching Aids in Australia; and hospitals including SRL Diagnostics, Dr. Lal's PathLabs & Metropolis Lab



Pooja Ramachandran
VP – Genetic Counselling
Mapmygenome

Niramai - Non-Invasive & No-Touch Breast Cancer Detection Solution



Himanshu Madhu
Tech Lead
Niramai Health Analytix

Himanshu Madhu, Tech Lead, Niramai Health Analytix, Niramai's solution is privacy-aware and assists with early detection of breast cancer using thermography. Powered by ML, more than 25000 screenings have been conducted, and the product is India DCGI/CDSO approved, with installations in hospitals & diagnostic centres.

Non-Invasive Internal Bleeding detection

Bani Sodhi, Innovation Analyst, Bioscan Research, Bioscan Research's product line include Cerebo - a brain hemorrhage detector (available commercially) and Ventro - to detect intraventricular hemorrhage for preterm babies (under development). Other potential applications include joint bleed detection, abdominal bleed detection, cerebral perfusion during cardiac surgeries, acute lung injury and DVT.



Bani Sodhi
Innovation Analyst
Bioscan Research



Arun Agarwal
Founder & CEO
Janitri Innovations

Labour Room Point of Care Device

Arun Agarwal, Founder & CEO, Janitri Innovations, Janitri Innovations has two major products - Daksh and Keyar. Daksh is an intelligent labour monitoring tool, while Keyar is an FHR and uterine contraction monitoring device. These devices are affordable, wearable, easy to use, provide timely alerts, central monitoring & automated partographs. They are being used in 8 states, in over 115 hospitals and 26000+ women monitored during labour & delivery.

Predictive Maintenance using IoT

Dhananjay Pagere, Key Account Manager, Ecolobrium Energy, Ecolobrium Energy enables enterprises to prevent unscheduled downtime and optimises maintenance & energy costs. In the pharma industry, they work with INTAS, Zydus and Pfizer.



Dhananjay Pagere
Key Account Manager
Ecolobrium Energy

PANEL DISCUSSION: 2



(L-R) Raghuram Janapareddy, Director - Lifesciences & Healthcare, NASSCOM (Moderator) , Shanay Shah, Director, Shalby Hospitals
Dr. Chinmay Shah & Arvind Sivaramakrishnan, CIO, Apollo Hospitals , Vijan Trivedi, CEO, Shubh Aarogyam



Shanay Shah
Director
Shalby Hospitals

Shanay Shah: One of the biggest concerns in healthcare is rising costs, especially elective procedures. Developing package deals to curb costs is an effective way to optimize healthcare, and this can be done using technology.

Arvind Sivaramakrishnan: As a corporate healthcare entity, there are ways to standardize healthcare but this comes with challenges. The market has to be serviced based on the needs, and constant monitoring of protocols lays stress on sustainable adoption strategies. It's about maintaining a fine balance, keeping patient care at the centre.



Arvind Sivaramakrishnan
CIO, Apollo Hospitals

Vijan Trivedi: The biggest hurdle to adoption is skilled manpower. While we have a lot of healthcare data available, we have not yet reached that stage where we can capitalize it, and harness it for its true potential. It's a niche area of specialization, requiring a lot of technical expertise and muscle to elevate its power. It doesn't always percolate to the grassroots where a lot of data exists and is waiting to be utilized.



Arvind Sivaramakrishnan
CIO, Apollo Hospitals

Dr. Chinmay Shah, Govt Medical College, Bhavnagar, There is a need for collaborations between government hospitals and those facilitating existing market opportunities to implement proven technologies at the Government hospitals.



Govt Medical College
Bhavnagar

ROUNDTABLE



India's healthcare is governed by a complex mix of stakeholders including the Ministry of Health and Family Welfare, Urban Local Bodies, and respective state governments. That healthcare is a state subject that is very lightly highly regulated.

Multiple healthcare service facilities are currently under utilised because either the centers fail to adopt a patient centric approach or they are ill-equipped, which requires immediate rectification. The need for convergence and integration amongst Anganwadi workers and Swasthya Sevikas will play a vital role delivering the services required.

Administrative boundaries and community structures, including innovative models of mobile health units would lead to effective and timely referrals and follow-ups. Streamlining technology in the working of public health sector plays a crucial role.

How to integrate different actors within healthcare service provision is a major concern. Combining health and social care, with specific focus on urban and rural needs is important as characteristics of public health services cannot be reduced to just medical health services. Effective monitoring, surveillance and accountability can only be held up through a more direct, streamlined flow of governance that promotes social audits and strengthens the roles of NGOs and communities.

The industry roundtable was attended by:

- Sunil Parekh, Co-Chairman, FICCI Gujarat State Council
- Deepak Arora, Director Market Access & Commercial Excellence, AstraZeneca
- Shanay Shah, Director, Shalby Hospitals
- Piyalee Chattopadhyay TiE Ahmedabad
- Arvind Sivaramakrishnan CIO, Apollo Hospital
- Jagdish Patil L&T Infotech
- Dr. Kamlesh Patel, MD, CEO NIDHI TBI - IIPHG
- Prof. Shariff Ahmadullah AIIMS, New Delhi
- Raghuram Janapareddy Director of Lifesciences & Healthcare, NASSCOM COE
- Amit Saluja, Centre Head Gandhinagar CoE, NASSCOM

Team #LHIF



For queries, please write to LHIF@nasscom.in

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8TH APRIL, 2020

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