



LHIF 9.0

Vaccine Trails - Optimizing the Supply Chain

EVENT SYNOPSIS

The 9th edition of LHIF was virtually hosted on 18th December 2020. The event was attended by more than 300 people and marked by government presence as well. The conference raised the important aspect of supply chain, need to make logistics smarter with automation and digitisation. Everyone in the conference was of the view that as the development of the vaccine is progressing, countries need to invest in infrastructure for distributing a vaccine globally on an equitable basis.



Sanjeev Malhotra, CEO, NASSCOM CoE

We have witnessed an acute intervention of digital technologies across the industry but healthcare is one industry where we need this intervention the most. In a country like India where the demand and supply between the healthcare providers and the people who need it is so huge that only futuristic digital technologies can make the much anticipated difference and the impact that our healthcare ecosystem is in dire need off. However, the good thing is huge ecosystem, a huge set of innovators, established companies and startups in the country who are doing a wonderful work in the area. What needs to be done at this moment is to find out ways to bring the innovations to actually weave and effectively apply in placed where the actual healthcare service is provided.



**Raghuram Janapareddy, Director, Healthcare & Lifesciences,
NASSCOM CoE-IoT & AI**

We had also witnessed a surge in collective research from the pharma and biotech companies, repurposed HealthTech innovations and a bit higher levels of digital adoption in healthcare, acceptance of new delivery models such as telehealth and remote health monitoring, accelerated policy decisions and shortened regulatory approval cycles, increased awareness and empathy towards clinical trials and public awareness about hygiene. But the Messiahs during this mishmash are clearly the scientific community and the pharma and biotech leaders who in a record time have brought out the vaccines and yet again raised the hopes for the mankind.



**Mr. Pramod Bhasin, Founder Genpact, Chairman Clix Capital and Past
Chairman & Member of NASSCOM Executive Council,**

Pramod Bhasin said that given the pace of development and enormous effort, we will hit over supply very soon; it will also require public-private participation and if orchestrated well can lead to wonderful result. The technology will play a role in providing the backbone in last mile delivery and make sure that it reaches the destinations in the fastest possible time.



Dr. Jitendra Sharma, Managing Director & CEO - AMTZ, Executive Director Kalam Institute of Health Technology

Vaccination has to be for everyone and it will have its own code, then why digital health mission and electronic record platform not be built on QR code of the vaccine itself. All warehousing and logistics have security provision using CCTVs, and why CCTV cameras not become thermal scanners as well. Why vaccination as an activity is important but the extent to which we can make it incrementally effective has not been explored.



Dr. Raj Shankar Ghosh, Senior Advisor-Vaccine Delivery, Bill & Melinda Gates Foundation

Threw light on 'Gearing up for the Vaccine Delivery - India and Global Perspective' and said, "India's biggest asset to run a successful Covid vaccine campaign is in the country's IEC: Innovation; Experience and Commitment. Innovations in technology and on ground, experience with large public health campaigns, and commitment of her frontline workers. India for last 20 years has developed an extraordinarily strong vaccine manufacturing industry; the second advantage is that India has experience of conducting large vaccination programmes; and the third advantage is the availability of in-house tech firms.



Sajan Khosla, Head of Real World Evidence - R&D Oncology at AstraZeneca

It is important to highlight the ever-growing connectivity of the data and how the data can be reutilized. We are working towards this 5th generation of technology where data could be easily available. The top things that are connecting data are becoming more complicated. Data is being generated in a fashion where it can re-used. We generated more data than we have generated in the history of times. So making sure that we can leverage this data is going to be important.

We have this complex situation where we have high volume, high variety, and high velocity of data and this is called Big Data. We try to use all the data and is accessible to all users and desired platforms; this is a misnomer as we try to unbox the data as much as possible. So we do not want to restrain people from accessing data or making sure that data is in situation it cannot be used.

There can be real world Big Data from for Electronic Health Record, hospital/insurance claims, observational studies, patient-generated information, or vaccination tracking. The evidence is the synthesis of the data into clinical evidence, which is a robust approach that we apply to data. These are observed in high-end scientific journals where we might be running observational studies, or pragmatic clinical trials. These real world evidence is what we generate the real world data.

Panel discussion on 'Nuances of Vaccine Supply Chain - The Strategy Forward'



Siva Padmanabhan, MD & Head of Global Technology Center, AstraZeneca

Largely we are ready for the vaccine as we have digital platform and many of the components are in place. We are ready from a forward path, if we have the vaccine how do we get it to all the recipients; it is about the feedback path that we have to work on. Many things will happen such as supply chain disruption, shortage of vaccine, and the pandemic itself how it progresses and how we target during that progress for most efficacy. We have to focus on the feedback loop and how do we quickly act on that loop. We have to make sure that we have an agile and command centre approach, how can we quickly take the feedback and make changes to the programme to get the best effectiveness.

What are the metrics and how are they successful, especially in terms of technology, talking about speed, proving immunity among community at a faster pace is not only important but getting the feedback from people and to work upon the same in a quick manner is also crucial.



Dr. Satish D Ravetkar, Executive Director, Serum Institute of India

We are ready for total vaccination of the country, and India has got robust immunization system. I do not foresee any problem. At Serum we have stocks lined up and waiting for the permission; if emergency usage permission is given then we can roll out vaccine very fast. We should start vaccination at the earliest to control the epidemic. In Covid-19 there are certain challenges that have affected us, one of which is population, we have to cover millions of people in short span of time, we have strong IT as well, demand forecasting is already complete and sourcing is also established. India supplies about 65% of the world's vaccine. We are very strong in term of vaccine. But right now what is needed is government getting into action, with supply chain management, IT and BT enabled structure, demand is forecasted, supply has already established. For eg, in SII we make around 1.6 billion dosage annually which is a huge capacity. We claim that every third child in the world is immunised with our vaccine. There are couple of vaccine manufacturing companies like Bharat Biotech, Biological E, Zydus Cadila, with the help of them, we can roll out the vaccine fast.



Gubba Kiran, CEO, Gubba Cold Storage

Not only pharma industry but complete end-to-end supply chain has to be done. India is not known for pharmaceutical preservation as we are still a developing country, we are known to preserve food. You cannot take chances with a vaccine that need -70 degree Celsius, India didn't think about it. One needs to be WHO GDP certified cold storage facility to handle pharmaceuticals. There are 10,000 cold storage facilities in India but not more than 5% are WHO GDP certified. Now in this whole arena, if we look at regulators, AstraZeneca is sending from SEZ manufacturing facility, we as cold storage have to be equipped to store that vaccine and then they go for exports. I think, in this situation, everyone needs to be proactive instead of just being active, everyone needs to take action at their level.



Adarsh Kumar, Co-Founder & CEO, TagBox

We seem to have a very good platform going with COVID. This scale of programme has never been taken anywhere in the world, we are lucky that we have had immunization programme and have supply chain figured out. By the time vaccine start rolling out it will be summer time here, while technology platforms exist to monitor storage temperature across entire supply chain we have to make sure that vaccines are transported in the appropriate manner. While everybody else is prepares to roll out authentic vaccine, there will be drug mafia to roll out counterfeit and so traceability of the vaccine is a big task. During the general immunisation of vaccine 30-40% of our vaccines have temperature exertions. Bulk distribution is going to be a key challenge during Indian summers.



Romon Louis, Chief Operating Officer Logistics, Balmer Lawrie & Co. Ltd

India is yet to gear up with cold chain logistics for vaccine, and it is going to be a challenge for the small places where there is no facility. We have temperature control warehouses. We are trying to come up with more facilities. We have state of the art facility with 3500-3800 pallets of capacity, we have also vehicles where we can give end to end solution to customers, picking up from one place and delivering it to wherever the customer wants. We are operating facility in AMTZ, like having a temperature control warehouse there as well, there we give end to end solution, we are into logistics and multi model logistics hub. We also have a very good facility in Vizag where we have rail facility, freight forwarding. We have diversified activities and are aiming to provide the vaccine to all people in sector.



Vishal Gandhi, Founder & CEO, BIORx Venture Advisors (Moderator)

Government of India has shared a strategic blueprint for the COVID-19 vaccine roll out but I still see that many gaps to be bridged from the seamless implementation of such a national effort which requires the robustness of Information Technology, Efficacy and Safety of Vaccine coupled with Last-Mile Delivery.

**Technology at Play for Vaccine Supply Chain
- A global perspective**

As the news of vaccines is trickling in, discussion around its distribution is gaining heat. The vaccine will be most sought-after one and thus will increase the probability of counterfeit and diverting for the first six to 12 months; here the Blockchain technology will come in handy as it will help in supply chain integrity at various checkpoints. Digital supply chains can play an important role in vaccine distribution by ensuring seamless flow of vials from manufacturer to point of care and assure the authenticity and safety of the vaccine to consumers. Block chain, mobility, cloud, edge computing and IoT few of the technologies that can be leveraged to make this possible.



Venugopal Kandimalla
SVP and Global Head,
Healthcare & Lifesciences
at TechMahindra



Amey Rajput
General Manager
Blockchain Business at
Tech Mahindra

The New Perspectives



SESSION 1:

Managing the Behavioural Aspects in Vaccination Programs by Anurag Vaish, Chief Behavioural Sciences and Design Officer, Finalmile Consulting

During this current pandemic, we need to be proactive as the challenge is daunting. Depending upon the behaviour of people in this pending, behaviour of people towards the vaccination can be classified in 4 broad categories. Intent action gap- When people build good intent towards massive campaigns the gap between intent and action are very long which is not noble in this crisis

Hesitancy among people of usage of vaccination, due to any rumours, or mishappening, people might be hesitant to use the vaccine

Access Gap - With large country and diversity, there can be mis-communication due to political views, rumours or self-appointed gatekeepers of society who might create mis-communication due to poor quality of information disseminated among people.

Adherence to protocol - Everyone has to follow a protocol during the usage of vaccination, might be due to overconfidence, risk has come down and people have started neglecting their health, and escalate the behaviour in a risky manner. People getting dosage at different levels, might create a challenge anticipating that vaccination is critical, behaviour of people could be main reason for awareness to be non-effective.



SESSION 2:

Making Logistics Smarter with Automation and Digitisation by Srikanth Maheswarappa, CEO / TRANSO (Ezyloads Logistics)

The need is for an application that provides automation and digitalization. When it comes to automation it is more than coverage would be for fulfillment process, getting the logistic network together on single unified platform. Then interoperability framework is important, tracking and rerouting, optimization, and intelligence & decision algorithm. When it comes to digitization part, then document digitization is important as lot of time and manpower effort goes in transfer of document, in COVID-19 situation it is important where human touch has to be avoided. Compliance digitization, e-payments, third party information exchange, and KPI based reporting are important to make logistics smarter.

The approach should be to have unified platform with process orchestration. It could be achieved through automated dispatch & delivery mechanism; then we need to drive digital transformation to get transparency and accuracy needed for logistics network. We need to measure the performance as well whether the KPI measurements have been met, how do we rate the system itself, intelligence and reporting has to be a part of the whole system of offerings of the platform. At the end of the day, the platform should be secure and scalable wherein it has to be SAAS-based offering for the various advantages that it provides.

We need to co-create the vaccine transportation. The concept revolves around high availability of vaccine and the requirement to vaccinate the majority of the population. The government requires an agile and intelligent solution so that the vaccine reaches its endpoint.

Start-up Showcase

TagBox Solutions: TagBox provides an easy-to-deploy, easier-to scale, industry-grade platform to create complete visibility of the supply chain --- Real-time sensing to monitor temperature, humidity, shock, light, energy & location. Predictive insights to identify excursion, theft or damage risk & help plan the supply chain better. AI driven actions to help resolve real-time or systemic supply chain problems.



ZedBlox: A last mile cold chain solution, for various healthcare and medical needs that is designed using innovative temperature control mechanisms, smart electronics and intelligent software, to be – easy to use, highly portable, predictable, reliable, self-learning, real-time data driven, self-diagnostics enabled & energy efficient.



Sensiwise: SensiWise is an IoT & Blockchain focused startup creating ready-to-deploy solutions for specialized supply-chains like Cold-chain. Their solution allows stakeholders to get a bird's eye view into Assets, Product condition and Operations at any stage of the product's Cold-chain journey, right from the time it is manufactured till it reaches the Customer. This could involve storage in Cold-rooms & freezers/chillers/coolers, multi-modal transportation and last-mile distribution of product to Consumers.



SensiWise

Statwig: WonDRx is a prescription digitizing firm that organizes handwritten Rx or receipts without forcing any change of behavior for any doctor. It is a futuristic and smart solution that also helps to digitize the services of other healthcare partners thereby successfully creating a world of connected healthcare.

STATWIG

WondRx: WonDRx is a prescription digitizing firm that organizes handwritten Rx or receipts without forcing any change of behavior for any doctor. It is a futuristic and smart solution that also helps to digitize the services of other healthcare partners thereby successfully creating a world of connected healthcare.



Tranzo: Our vision is to create an ecosystem to drive efficiency and value through our flagship platform TRANSO - An Intelligent Logistics Optimisation, and Automation Technology Platform for supply chain stakeholders to collaborate and efficiently move shipments while tracking and monitoring in near real-time.



WHAT THE MEDIA SAYS

ET HEALTHWORLD

'Industry Stakeholder orchestration is key for an effective vaccination program in the country like India'

- Experts at NASSCOM CoE's 'Vaccine Trials

IANSLive

India requires Rs 80,000 cr for vaccine distribution next year

- SII

NATIONAL HERALD

India requires Rs 80,000 cr for vaccine distribution next year

- SII

TIMES OF INDIA

India requires Rs 80,000 cr for vaccine distribution next year

- SII

ZEE NEWS

India requires Rs 80,000 cr for vaccine distribution next year

- SII

BUSINESS INSIDER

India requires Rs 80,000 cr for vaccine distribution next year

- SII



400+
Participants



6
Startup
Showcases



3
Key Govt. Officials



75+
Organizations

— Strategic Partners —



— Association Partners —



Government Partner:



Associate Partner:



Academic Partner:



STRATEGIC PARTNERS



CO-CREATE/INNOVATION PARTNERS



INFRASTRUCTURE PARTNERS



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