EHAC

Sixth Quarterly Meeting

(Friday December 6, 2019 to Saturday December 7, 2019)

Meeting Notes

Venue: Aravind Eye Hospital, Chennai

ARAVIND
EYE CARE SYSTEM

Compiled by

Vedha Ponappan, Prakash Satyavageeswaran & Devendra Tayade

Participating Organizations & Individuals

Organization	Participants	Short forms used in notes
Aravind Eye Care Systems (AECS)	Mr. Thulasiraj Ravilla Dr. Haripriya	Thulsi Dr. Haripriya
DHAN Foundation	Mr. M.P. Vasimalai Mr. R. Rajapandian	Vasi Raja
Ekam Foundation	Ms. Shobana Dr. A. Bhavani Shri	Shobana Bhavani
Equitable Healthcare Access Consortium	Ms. Arnaz Dalal	Arnaz
Fernandez Hospital	Dr. Evita Fernandez Dr. Tejaswini Basavarj	Evita Tejaswini
Indian Institute of Management - Udaipur	Prof. Prakash Satyavageeswaran Prof. Vedha Ponnappan	Prakash Vedha
Indian Institute of Management - Indore	Prof. Omkar Desai Palsule (Omkar)	Omkar
Indian School of Business (ISB)	Prof. D.V.R. Seshadri Dr. Devendra Tayade	DVR Devendra
L V Prasad Eye Institute (LVPEI)	Dr. G. Chandra Sekhar Ms. Anshu Bhargava	Dr. GC Anshu
PEOPLE TREE Hospitals	Dr. Chandrasekar C. Dr. Abhishek Hariharan Kandluri Dr. Sandeep D'Souza	Dr. C Abhishek Sandeep
SAKSHAM	Dr. Santosh Kumar Kraleti Mr. Kasinadh Lakkaraju Manivasagan Ramamurthy Bhavi Raghavendra Rao Mr Govindrajan	Santosh Kasinadh Manivasagan Raghavendra Govindrajan
Sant Singaji Institute of Science and Management (SSISM)	Mr. Pranjal Dubey Mr. Prashant Sharma Ankit Jain	Pranjal Prashant Ankit

SMILES International Institute of Colo-Proctology	Dr. Parameshwara C.M.	Paramesh
Individual Members		
Sarara Inc.	Ms. Vidhya Srinivasan	Vidhya
UNICEF	Dr. Sanjeev Upadhyaya	Sanjeev
Vikram Hospital	Dr. Rajesh B. Iyer	Rajesh
Volunteer Eye Care **(LVPEI, Aravind Eye Care System, SEVA Foundation)**	Mr. D. Nagarajan	Nagarajan
Observers		
Brave Citizens	Dr. Lakshmikant Galla	Lakshmikant
AMPH Student at ISB	Dr. Neha Deshpande	Neha
Cloudnine Fertility	Dr. Sathya Bala	Sathya
Collective Good Foundation	Dr. Pooja Sanghvi	Pooja
Doctoral Student @ISB Hyd.	Mr. Rajesh Gaurav	Rajesh
Global Village Care	Mr. Martin Steret	Martin
InfocusRx	G. Vishwanand	Vishwanand
Lake View Learning & Development Center	Vasanthi Ranganathan	Vasanthi
Play2Learn	Mr. Kartic Vaidyanathan	Kartic
The Billion Press	Mr. Jagdish Rattanani	Jagdish
The Voluntary Health Services	Dr. A. Vijayraman	Vijayraman
UNICEF	Dr. Meena Som	Meena
VisionSpring	Mr. Anshu Taneja	Anshu

Guest Speakers		
Aravind Eye Hospital	Dr. Aravind Srinivasan	Dr. Aravind
Aurolab	Mr. R.D. Sriram	Sriram
Cloudphysician	Dr. Dhruv Joshi Dr. Dileep Raman	Dhruv Dileep
Enzia Ventures - Mumbai	Ms. Karuna Jain	Karuna
Google India	Mr. Dushyantsinh Jadeja	Dushyant
iKure	Mr. Rahul Chatterjee	Rahul
IIT Madras	Prof. Sujatha Srinivasan	Sujatha
Karma Healthcare	Mr. Jagdeep Gambhir	Jagdeep
Manipal CDC Ventures	Mr. Ramoji Tejomurtula	Ramoji
Prozela Healthcare	Mr. Manoj Gopalakrishna	Manoj
Vidal Healthcare Services	Mr. Srivathsan Aparajithan	Srivathsan

Day 1: 6th December 2019

Welcome Note

Arnaz welcomed the participants and invited DVR to set the context and introduce the participants.

Context Setting & Introduction Session

DVR thanked Dr. Aravind, Dr. Haripriya, and the Aravind team for hosting the EHAC meeting at the oasis that Aravind Eye Hospital is. DVR shared the vision and purpose of the EHAC and elaborated on the evolution of the consortium over the five earlier quarterly meetings. He then discussed organization typology based on social and business orientation to point at where our members should be located, balancing between purpose and sustainability. DVR also introduced the participants.

Govt Perspective on Healthcare

Enabling Healthcare Transformation in India- (Manoj Gopalakrishna)

Manoj talked about the context of the 21st Century – the shift in pretty much all sectors, except healthcare. It is an industry which is at the verge of disruption. One important factor that is pushing this shift is the increasing burden of chronic diseases (from acute care). Our current business models are still focused on acute care. Singapore and Thailand seem to be good examples of managing comprehensive healthcare in under 5% of GDP spend. We need to look at their systems.

The WHO talks about Care Coordinated delivery networks, Digital Health Penetration, Predictive Analytics and Health Management, and Intelligent Health Monitoring as the 4 pillars of a health system in a country. In India we still score low on most of these factors. The growth of healthcare market in India is driven by increased access to secondary and tertiary care, expansion of hospital infrastructure, changing disease burden. There is scope for significant disruption by entrepreneurs. We are also moving from a self-funded health system to an insurance funded model. This includes Ayushman Bharat, the Group Health insurance, and retail insurance. Manoj opined that the health insurance industry is going to go the way of telecom industry – losing money till the Government steps in. This happens because the insurance industry in India is not involved in population health management. There needs to be more focus on this and integrated care management.

Manoj pointed to the emerging role of government as a catalyst in healthcare expansion. There is an enhanced fiscal capacity of govt. There is a focus on universal health care model, built on the role of primary healthcare. Health and Wellness Centres are key. The government's vision is also shifting – from relevant goals to specific objectives. There is also focus on increase in

service utilization of public facilities. Government is also providing greater flexibility for fund utilization.

There is accelerated investment by private capital. 21% of investment is in digital health models. This will get more disruptions into the system.

Manoj talked about the need to look at the healthcare value chain and create value across the chain. Manoj shared learning from his entrepreneurial journey – LifeSrping Hospitals. MerryGold Hospitals. Healthcare business is a hyper-local business and we need to be sensitive of the same. He shared his experience with Odon, where corporate partnerships help to scale up rapidly. With the HCL Healthcare, the learning was the GP led care under a single roof was not really preferred by people. Biosense is an example of the difficulty of healthcare entrepreneurship.

He suggested that EHAC can help build an ecosystem of value chain actors, clinical and market validation, interface with healthcare incubators, work with government, and create a framework for private sector engagement.

Panel discussion: Role of Public and Private (for profit and non-profit players) in Healthcare

(Vasi, Evita, Sanjeev & Prakash)

Vasi spoke about the need to contextualize the healthcare system based on demand-side needs. He talked about the need for the three streams viz. demand, supply and delivery streams to come together. The delivery system is currently not rooted and needs to be rooted in demand. He felt that there needs to be a set of enablers in the system i.e. regulators, academicians, NGOs. He felt that EHAC can play a big role in bringing all the above streams together by acting as an enabling stream. There exist lots of gaps, typically related to costs, in the current healthcare delivery. There is also a need to collaborate with community collectives.

We need to have a sustainable healthcare model. Vasi pointed out to the need to involve the community into the equation in a participatory role. Another point that Vasi pointed out is about the pricing of health services. There is lots of exploitation of people in healthcare and education – this needs to be corrected/regulated. The financial mix – loans vs. donations vs. community funding for the hospitals needs to be thought through, and a creative solution must be found. There is a need for inclusion in healthcare provision and behaviour change communication.

Sanjeev spoke about his experience with healthcare delivery at the national, state, and district level. At the national level, NITI Aayog and the Ministry of health and family welfare are important bodies. The government is open for partnership with NGOs, but are reluctant to work with for-profit companies. Only some notable NGOs get a chance to work with the government.

At the state level, engagement with private companies varies from state to state. The PPPs are not working in the true spirit of providing service, for instance, in Andhra Pradesh. Many times, private companies are at a loss when governments or policies are changed. At the district and sub-district level, there is no openness in the public system. The private players also find it challenging to get money from the government for the services provided. Not for profit organizations see their role in social mobilization, promotive care, and BCC. Prakash summarized that while at national level there is more openness from the government, at the state or district level, there is a lack of openness to working with private players.

Evita spoke about her reluctance to interact with government bodies in her initial years. But as they became a referral hospital, they reached out to other institutions and AP government. They worked with three sets of community through the government. She shared some lessons: that they need to keep aside private money to run operations for at least two years (to not depend on govt for funding). She pointed out that private firms have a moral responsibility to collaborate with the government and contribute to improving healthcare in their area. Prakash asked about her experience in changing the organization structure (to a trust). Evita answered that that was not a difficult decision since they were always running it as a trust, with no money taken away from the operations of the hospital. But it made a difference to the people in the hospital as they thought they were responsible.

Vasi pointed out that the process should always be open to change. That is possible if the organization has an open culture. An important question is about the viability and sustainability of an institution. Who gets empowered in the entire process?

Roja pointed out the need to look at it from a healthcare seeker's point of view. She cited an example where dialysis patient does not take care of individual health and come back again and again seeking care due to this negligence. How do we make people take responsibility for their own health when the financing is done by government? Options that were discussed were to educate people about health. Vasi pointed out the possibility of creating a community based fund that can be then used for healthcare needs.

Manoj spoke about "Population Health Management" as an intervention that is needed to manage the increase in chronic health conditions.

Anshu raised a question about how can private or NGO organizations that are start-ups/ in early stage, overcome the redtapism and corruption in government to help the community? Vasi answered Anshu that there is no single solution to the redtapism. He added that when anyone plans to start a healthcare facility, they must ensure, in his experience, about 5,000 families who can pay Rs. 200. The income generated (Rs 10 lakhs in this instance) will be sufficient to start primary healthcare hospitals. In addition to this with some promotional donations from donors (and lead time of 6 years) the facility can sustain on its own. The licenses, processes, and permissions etc. may take more than three years for setting up a secondary care hospital. Patience is the only solution to work with the government. Working with the community is more important.

Dream Vs Reality - Healthcare Entrepreneurs and their journey - wins & challenges, project financing, viability.

Cloudphysician Healthcare (Dr. Dhruv Joshi and Dr. Dileep Raman)

Dhruv started the session with a reference to the iron triangle of healthcare, where any improvement among one of quality, cost or access results in negative impacts on the other two. The issue seems to be that healthcare model still seems to be in the past. Healthcare has been slow to embrace technology. This is ripe for disruption. This could lead to breaking of the iron triangle. He then explained the model for Cloudphysician, a hub a spoke model for ICU care. He also spoke about the peer reviewed publications that have come out of their work.

Karma Healthcare (Jagdeep Gambhir)

Jagdeep explained Karma Healthcare's e-Doctor solution. The clinic is a nurse facilitated one with telemedicine facility. The doctors are on consulting basis for certain number of contracted hours. Contrary to popular notions that telemedicine does not work, Karma has completed 1.25 lakhs + paid consultations. He highlighted the fact that Karma is a technology enabled organization rather than a technology organization. The challenge is to solve the quality problem. Building in QA systems is not easy as the customer is often neither appreciative nor willing to pay for it. The model is hybrid with a mix of curative (for profit) and preventive (non-profit). Thus, the financing is a mix of equity, philanthropic seed fund and grants for outreach. He also spoke about the challenges faced in terms of expectations from venture capitalists and separately from donors.

R2D2 (Prof. Sujatha Srinivasan)

Sujatha spoke about the need for affordable prosthetics that are of good quality. TTK Centre for R2D2 was set up in 2015 with R&D Facilities, connect with industry, connect with user base, and folding in human resources. The center is now in the process of putting together a startup that takes the prototypes to market. The key challenges come from the fact that the users have low purchasing power as they suffer loss of independence and earning potential. The market is predominantly donation driven, which makes quantity more important than quality. Given that most users get the devices free and thus do not demand. She talked about the GRID model as the solutions – Grants, Research, Industry, and Dissemination. Sujatha talked about the example of standing wheelchair. Further challenges include lack of margins for the channel partners, the budget allocation tensions between marketing versus awareness creation (need for clinical evaluation), tension between quality versus affordability, and starting from scratch involves issue of volumes, and investor pressures.

Panel Discussion on Healthcare Entrepreneurship

(Dhruv, Dileep, Jagdeep, Sujatha, Dr. C & Omkar)

Responding to the question of challenges faced in running their enterprise, Dhruv acknowledged that a lot of innovation is happening in healthcare and some will happen in future but digitization at all levels will be required make these innovations mainstream. He felt that incentivization like west will act as a strong push towards digitization. Dileep added that patients have accepted technology and it is now physicians turn to shed reluctance and adopt technology with open arms. One thing that is there to stay and cannot be replaced by technology is human connection/ communication. Sujatha mentioned that translating needs into demand will be a key challenge for her. She underlined that push for 'Make in India' is fine but environment for manufacturing in India is lousy. Jagdeep highlighted his struggle to connect his primary healthcare centres with Secondary and Tertiary healthcare centres. He believed that establishing these connections will improve health seeking behaviour among public. Dr C reflected back on his journey and said that his team had lot of good intentions but no money. He accepted that being doctor, lack of knowledge in managing financial aspects of the organization and positions are a big challenge for him. Omkar, Dr C and Jagdeep alluded to the fact that making profits has been unnecessarily demonized. They were of the view that making money is not bad but how you make it one has to be watchful of. Sujatha opined that having people with right mindset on board is important. Answering to Omkar's questions on where should one begin, Dileep opined that to start anything one has to be a quasi-expert in that area.

Financing for the Missing Middle- (Srivathsan Aparajithan)

Srivathsan got the participants to indulge in an exercise on balance. He then started the session talking about the total size of the Indian healthcare market – US$100 billion. Govern spends about 22%, OOPE is 63%, insurance is about 8.5%. Among the participants, about 18% to 30% of the invoicing in the hospital is through insurance. About 600 million Indians do not have insurance cover. He alluded to the ESI network as being a provider subscription model and covers all costs of treatment. This is similar to the Kaiser model. However, the rest of the insurers provide limited cover. Under the current structure base insurance policy is expensive. If one is ready to pay deductibles, the premium falls significantly.

Is growth necessary? At what cost?

Aravind Growth Journey (Dr. Aravind)

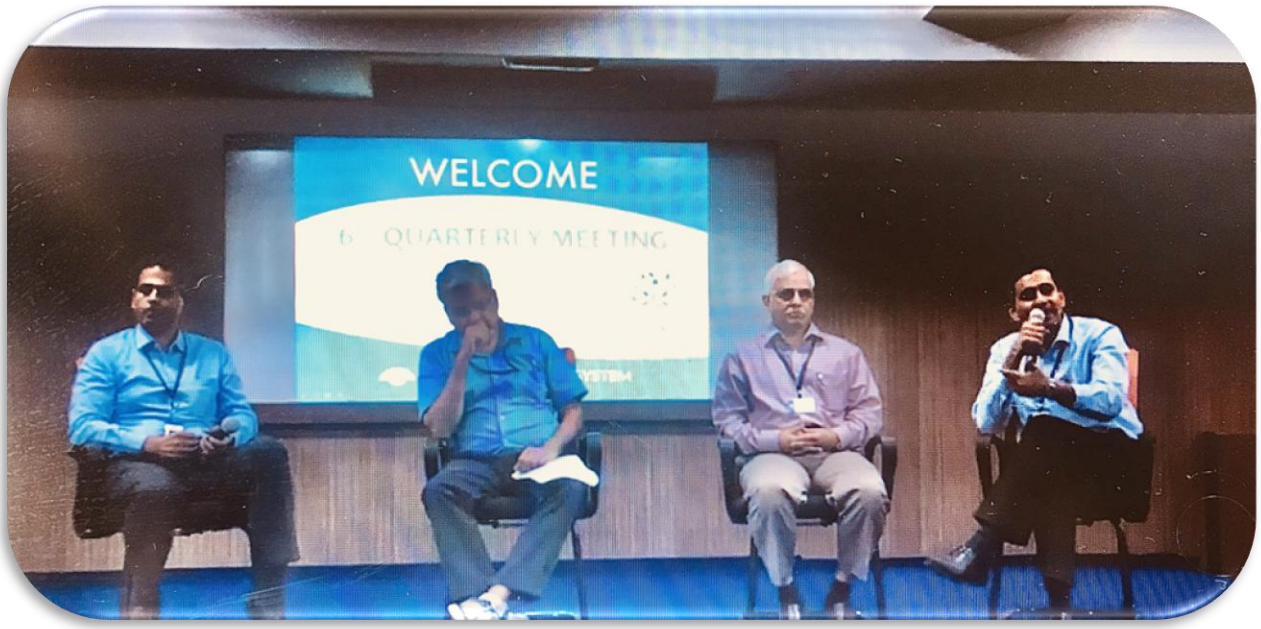
Aravind decided to enter Chennai, though not an underserved geography, due to it's potential as the number of cataract surgeries are not commensurate with the population. The decision was to provide the same care with the same ethos as what is provided in Madurai. This includes the same pricing as any of the Aravind hospitals, the surgical packages are about 40% cheaper than the Chennai market. The attraction is $88 for a cataract care at Aravind compared to $3,450 in the USA. The outcomes are superior compared to the UK or Europe. The five pillars that Aravind is built on – purpose driven, leverage ultra-high volume, optimized processes and workforce productivity, affordable consumables, and enabling digitalization.

iKure – Growth & Equitable Healthcare (Rahul Chatterjee)

Rahul shared the iKure model, stating that the organization is a social venture. iKure also has a proprietary population health management software platform that it licenses to healthcare providers in emerging markets. The current functioning of 8 clinics is running well. The reason to grow is that there is an opportunity to reach out to 10 crore underserved population in India. The planned growth is to reach 190 clinics in 3 to 4 year time horizon. iKure needs to be profitable to remain sustainable. Growth is necessary for economies of scale, diversification, customer retention, cross-subsidy, ROI, R&D, and talent management. Rahul stated that the growth plan is through greater penetration in existing markets, extending to new geographies, technology, de-medicalization, M&A, and strategic partnerships. Key challenges are in funding, HR, strategy, and leadership team. Technology is a key driver to growth and provide equitable and affordable healthcare.

Panel Discussion on Need for Growth

(Dr. Aravind, Rahul, Dr. GC & DVR)



While initiating the discussion, DVR shared an anecdote and emphasised that weather you are a lion or a gazelle, you have to get up and run as that's needed for survival. Similarly, organizations have to grow. Grappling with question of how LVPEI approached growth, Dr GC responded that for LVPEI, growth was always to fulfil organizational purpose. He added that

being profitable is not bad but one has to be ethical. Objective of human life is not to be breathing but you need to breathe to do something meaningful. Same is the case with profits. It's like breathing and meant to fulfil larger purpose.

Pointing towards iKure's growth plan, Nagarajan asked Rahul about his organization's plan to retain and recruit people as people are key to organizational success. Rahul said that till now they have recruited people on the technical skills but going ahead they will have to find a way to recruit and retain people aligned with the organization values.

DVR added that mergers and acquisitions becomes complex as they are marriage of two different cultures and one has to be careful about it while exploring it as an option for growth. Another point to note is that growth depends on founder's ambitions. Dr Aravind added that being a trust hospital, they have a statutory obligation to grow as they cannot withhold the money for more than five years and have to pump it back for organizational growth.

Dr C asked Dr Aravind about Aravind's plans for growth comprise only from the accruals and not from loans? Dr Aravind shared that while setting up Aravind Dr V, Founder of Aravind, had ventured into raising funds but faced difficulties and hence, not relying on any external funding became part of organization's DNA. So Aravind started, opened few hospitals, consolidated and then again opened few hospitals. By doing so Aravind ensured that it did not have to rely on external funding.

Vishwanand asked Dr Aravind and Dr GC, if they ever thought of going global. Dr Aravind responded in the affirmative and added that they started a hospital recently in Abuja but in collaboration with local partners. In absence of partners it would be difficult to establish local networks, manage relationships with local government, culture, etc. It takes a lot of energy. Dr GC agreed with Dr Aravind and said that LVPEI also has started a hospital in Liberia but that was on request of the President.

Evita was surprised that Aravind waited for 14 years to start their hospital in Chennai. Dr Aravind responded to her by saying that during these years there was also a transition in leadership at Aravind and they had to consolidate and prepare for growth during that phase (that included building people).

Dr GC concluded that one need not grow on their own, they can also grow by helping others. Aravind and LVPEI also help other hospitals in building their capacity. In this way, they both have grown, as for them growth meant fulfilling the organizational purpose, which is not about increasing their own foot print but eliminating the problem of blindness.

Technology in Healthcare – Translating Health Research into Clinical Products (Dushyantsinh Jadeja)

Dushyant shared his experiences and learning from working with Google health. Research using AI at Google health have resulted in publications. It is only recently that Google has started working seriously on converting the research into a product. He shared the process of research into a product with publications at each stage. The AI product typically is seen as a Class 2 medical device and undergoes FDA approval. He provided multiple use cases with Aravind.

Billion Press – Potential for Collaboration (Jagdish Rattanani)

Jagdish presented his idea on collaboration on newswire, podcasts, and testing. An annual conference can fund the activities. The need to do this is primarily to take the conversation beyond the limited membership of the EHAC group.

Wrap up for Day 1

Pranjal summarized the highlights of the day's session in the wrap up.

Day 2: 7th December 2019

Barriers to provision of equitable healthcare – A perspective

Aurolab – growing as an equitable medical supply and pharma company in a commercial market (R.D. Sriram)

Sriram started his presentation with a discussion on how Aurolab enables equitable care. It was born out of Aravind's need to use the intraocular lens (IOL) in eye surgeries. Dr V was convinced that lenses provided good quality of vision and also felt guilty that at Aravind they were not able to provide lenses to poor patients as they were expensive (about Rs. 2,500 to Rs. 7,500 per lens), and was one-third of the total surgery cost. Due to the high price, it was also difficult for the doctors to practice and get trained in using lenses. In early 1990, there was a question of whether IOL surgery was even needed for third world countries. In order to provide quality care to everyone, Aravind started Aurolab as a non-profit trust in 1992.

Aurolab was started with only ten members with a capacity to produce 150 lenses/day. At that time, they fixed the prices at $10, whereas the market price was $100. Today, they make many more products such as suture, needles, pharmaceuticals, different types of equipment, and blades. Today Aurolab makes around 12,000 lenses per day and has share of about 10% of the global volume i.e. every 10th lens implanted in the world today is an Aurolab lens.

Sriram discussed the various ranges of IOL that they manufacture today. He talked about the innovation aspects at Aravind, where they learn from other's experiences to improve lens design, (Truedge Lens design). Even patients who can't afford the expensive lenses can benefit from the usage of innovatively designed IOL. Such initiatives enable Aravind to provide equitable care.

After much debate, Aurolab also entered into pharmaceutical division. One of the drugs that is designed specifically for the Indian market, where penetration of the fridge is low at household level, is Latanoprost. This drug is reformulated to stay stable in Indian room temperature, allowing poor patients to make use of this drug for Glaucoma.

There was a time when 80% of the sutures manufactured were used for only 20% of the privileged group of patients due to their high cost. Hence, with the help of Seva Foundation, Aurolab started a distributor network in African countries and made sutures available to patients who could pay little at low costs. Sutures used in Opthalmology by Aurolab are now

widely available for care at one-third of the price. Aurolabs also makes equipment for treating diabetic retinopathy. They made a new product called Green Laser Photocoagulator that makes the cost of laser surgery more affordable. The auto refractometer is another device that helps in treating refractive errors – but these are available only in select urban areas. Aurolab in collaboration with MIT Boston, designed a hand held auto-refractor which solves the problem of access by virtue of its portable design and eliminating need for an optometrist to do the refraction as a trained technician could also do refraction using this device. This product ensures more equitable care among patients and is now available in the Indian market. He also highlighted that the State Governments of Telangana and Tamil Nadu has shown great interest in handheld auto-refractors and bought this product for their healthcare facilities.

Sriram pointed to the high quality of its production units. They also make premium products to stay relevant, innovate, grow, and sustain. He mentioned that Aurolab is caught in the middle with its low cost manufacturer image, with some high-end products at a higher level. Other challenges include push from hospitals to put in a higher MRP (so they can make profits), non-transparency in dealing with the government, and the mindset that imported products are expensive. Many hospitals promote imported tagged lenses for surgery.

DVR questioned about the challenges in the market for premium products. Sriram highlighted that they have proof of Indian premium lenses, especially Aurolab's, being high quality but still Indians were unwilling to pay for Indian premium lenses. DVR also raised the question of whether the government reverses the direction in their experience in working with AP government for green laser product. Sriram mentioned that they are yet to face any such challenges.

Panel Discussion –Barriers to provision of equitable healthcare: A perspective

(Sriram, Thulsi, Rajesh & Jagdish)

Rajesh asked the question of whether Aurolab has tried working with other verticals. Sriram gave the answer in affirmative and mentioned the instance where they attempted to work with other specialities. He mentioned that, on request, Aurolab developed sutures for coronary surgeries and paediatric surgeries. They were able to bring down the cost. However, he pointed out the challenges, specifically in marketing the new products.

Jagdish questioned about the top five barriers Aurolab face in their operations. Thulsi mentioned that the biggest challenge was the mindset with which they defined the market boundaries. Typically, the manufacturing companies defined the market boundary as it exists now. What they need to do is to look at a larger unserved potential market which needs to be the mindset of everyone in the institution. Most manufacturers in the healthcare were riding on the advice of the medical professionals. However, this needs to change to looking at patients as the focus.

Rajesh questioned Sriram on the problem of being "stuck in the middle." Sriram mentioned that mandate of the organization is to service people at the bottom of the pyramid. But to be relevant to the industry, they also need to make profits so that they could be sustainable, , and innovate to serve the needs of the people at the bottom of the pyramid. Thulsi added that there is another important dimension to this problem i.e. inability to communicate about your product.

DVR asked whether the culture is acting as golden handcuffs preventing Aravind/Aurolab from fighting/ taking the steps to market themselves? Sriram shared a piece of Aravind's history when during the initial setup of Aurolab Dr. V has said 'no' to marketing as he believed that marketing is not needed, as long as the products were of good quality and were delivered on time.

Neha, an ophthalmologist, pointed out that they are not able to get Aurolab's product, especially the eye drops, on time. It usually took four to five days to get supplies). She added that everyone appreciated the quality of Aurolab products but they were not easily available. Sriram said that the specified products are available in specific geography only (e.g. Vit C drops). But lenses are distributed widely. Neha pointed out that the distribution of the Aurolab products should be better, as it doesn't reach a wider distribution channel. Thulsi pointed out that the lead time in distribution in India may not be as bad as other countries such as Africa, where the lead time is around one year. Sriram pointed out that some drugs need 21 months of shelf life since the distribution time in some countries such as Africa is a big problem. Rajesh pointed out that the possibility of opening an online channel as an option.

Vasi mentioned that cross-subsidization is part of Aravind's DNA, but differentiated marketing will be needed to improve the growth for the Aurolab products. Rajesh suggested that Aurolab should do "marketing" to promote their products, and they should only avoid a particular type of marketing that is unethical. Thulsi pointed out that while differentiation is easily possible in Aravind since they deliver services, it is difficult in Aurolab which is into manufacturing

products. Cross subsidization is currently happening across products. Thulsi mentioned that Aravind's DNA is about “how” we do.

DVR pointed out that Aravind may be acting with a practitioner’s ego – where they want to stand true to the original value system - but this may not be in alignment with social needs. Sriram replied that they still consider social needs and try to deliver them through the original value system.

Omkar pointed out that while Aurolab has good quality products, what is the effect of their strategy on the competitors’ pricing and product strategy? And what is the effect of competition in the internal consumption of Aravind vs. in external market. Sriram said that Aravind only uses 10% of their products, and the remaining products are sold outside and even within Aravind, some products are bought from outside/other companies. Among the products sold by Aurolab, 80% of the products account for only 23% of the revenue share.

Dr. C also questioned about marketing practices of Aurolab. Sriram spoke about the unethical practices which they do not engage in, for example, pushing up the MRP on drugs or IOL. However, other marketing activities such as disseminating product information, etc. are similar to other providers.

Jagdish asked whether having an NGO tag had any impact on their company sales. Sriram spoke about the episode where they took European quality certifications to differentiate themselves in the market and still maintained cost. Competitors took three to four years to get the certification.

Ways of financing (Debt, Equity, patient capital) and their limitations- Manipal CDC Ventures (Ramoji Tejomurtula)

Ramoji shared his opinions on the different ways of financing for healthcare firms. He opined that regardless of whether the money comes in as debt, equity, or borrowings, it should be treated as a “loan" that needs to be repaid. This mindset, where you treat every money that comes in as debt, brings in seriousness to the business owner and makes him think of repayment. Each of the various sources has a different interest rate, but necessarily needs to be repaid.

He pointed out that any borrowing should be of the right size (amount) and at a moderate level. The thumb rule for the amount to be invested is that it should generate 1X revenue by year three. For example, an investment of 100 crores, by year three should generate a 1X return. The investments should be judiciously allocated to different components: e.g., land, building, equipment, etc. Business loss is a definite outcome in the initial period, and the initial-losses should be pre-planned. One should plan to use their initial capital and outside equity for covering the initial losses. Working capital also needs to be planned. Today financiers are open to healthcare investments. The choice of instrument/sources is finally the entrepreneur's choice – based on one's own risk appetite.

The longevity of the instrument is not always straightforward. Sometimes, the demand from equity investors may be higher/ sooner than that of the debt investor.

There arose a question of whether the financiers are hijacking the healthcare sector? Ramoji answered that many new practitioners and hospitals wouldn't have come up without the backing of the financiers. However, if we take money from the investment community, we should realize that they do expect reasonable results. The expectations of the financing community for returns on the healthcare industry are low compared to their investments in other areas.

Ramoji suggested that entrepreneurs should have at least 80% of the initial amount to be comfortable to start and to have substantial share post dilution due to capital expansion. In terms of the split, it is good to secure 50% financing in the form of equity, 30% in the form of debt and the remaining 20% can be through working capital financing.

Equitable access also requires access to financing, and profits. As more and more companies come into the industry, equitable access becomes important.

Rahul asked if it wasn't usual to plan for the pre-losses as part of the business plan and why the businesses still have to go through financially stressful periods. Ramoji replied every five years, every business has a bad period, and every ten years, every business have the worst period. Typically, no one plans or projects for it. We do need to project for it and factor it in in the business plan. Typically, the entrepreneurs are positive and think that all will go as per plan and they'll not have to bear losses. Ramoji gave an example of how, instead of using the initial capital for 200-bed hospital, one can build a 150-bed hospital and keep the remaining for initial working capital and losses.

DVR spoke about (1) the propensity of the entrepreneur to over-indulge once they start operations. How does a VC put a break on it? (2) How should entrepreneurs balance between profit maximization and equitable healthcare – doing good vs. doing well? Ramoji answered the second question first: Profit is a required outcome for any investment and it can come by cutting costs. Another area to be focussed which is not done well in Indian is Asset utilization. Once this is done, it'll bring down cost per bed. Bringing up the volume will improve healthcare access. More efforts are needed to increase asset utilization. For the question on splurging,

Ramoji said there are both instances – where some people splurge on unnecessary things as well as other entrepreneurs who do not spend even on the necessary elements for the business. It also depends on the investors – while some push entrepreneurs to increase growth – others do not.

Dr C raised his fear of foreign investors controlling Indian healthcare provision akin to new age colonialization. Ramoji said that it's all about the source of money. The amount available in India is not sufficient to fund Indian healthcare. The Indian capitals are currently going to the manufacturing sector. Ramoji added that the money does not have color (black or white or green) – and the typical healthcare financers are Indians. The promoters typically do not lose control (except for a few cases where the promoter splurged). This is an outcome of globalization. A couple of decades later this may not matter. If we can get sufficient capital for Indian healthcare that improves Indian health, he wouldn't worry about the source of capital. DVR pointed out that much of the cash coming maybe Indian owned and parked internationally. Ramoji pointed out that this component is minimal. The sources of money from Private Equity funds are treasury reserves of some countries or HNIs – which is spread out among multiple sources - and therefore not a source of worry. He felt it is a "return game" and not a "control game".

Raja pointed out to disruption in culture at CARE Hospital when the management team changed after being bought over by PE firm. She suggested that even the philosophy of the lender should be analysed before borrowing. Ramoji agreed and suggested that before taking investment, the borrower should pay more attention to the philosophy of the lender. He said that we should look at bad examples to avoid them, but use the multiple good examples to guide us. When promoters have aspirations to provide good healthcare, if they have the option to take funds to provide it, promoters can take it – The offer is sometimes tempting, and the promoter should make a call.

GC pointed out that if the promoter builds capacity beyond the needs, then it forces the business to use unethical practices to earn profits. Ramoji pointed out that investment should be in the right amount, sufficient for the majority needs in a given place. It should not go beyond.

Roja suggested that the availability of public financing (for instance, through Ayushman Bharat) has led to unnecessary surgeries. This is a case of supply leading to increased demand. Ramoji pointed that this may not be the case with healthcare. The government policy like Arogyashree came in as a votebank policy – and has evolved so much over the years. It takes time for policies to get settled. These policies came up as government's initiatives (electoral gamble by government) and with time will have some checks in places. They have by and large been good policies, and if they are bad, they will get killed automatically. Ramoji opined that if healthcare can reach small and rural towns, it will bring in larger and more significant benefits.

Lakshmikanth asked when new institutions should opt for equity financing. Ramoji said that the timing is typically not in your hands, and depends on several aspects such as cash in hand, businesses generated, EBITA needs, and how much one wants to dilute his share.

Enzia Ventures and Ex Acumen Fund (Karuna Jain)

Karuna started by saying that equitable access, a lofty goal, requires multiple players to cooperate and act together, including government, providers, and customers. She went on to define the patient capital simply by saying that it's capital with conscience. She added that the sources of capital itself have a small, but important role to play in this – as they have a say in risk and strategy adopted by the healthcare institutions.

Every investor is trying to balance the risk vs. the return trade-off. As an enterprise, the promoter can decide where to place themselves. Equity gives a longer timeframe and allow higher growth strategies, but will require rights to be given up. Promoters should factor in that the investors may sometimes want to cut losses and exit.

Debt allows the promoters to have financing without giving out rights. Today new forms for debts are available. But any investment needs to be repaid.

In Karuna's opinion, the meaning of patient capital depends on who you are talking to - VCs vs. NGO who are providing patient capital. It involves muted returns and longer-term horizons. However, the philosophy of patient capital may not gel well between the promoters and investor.

She gave the example of Acumen fund providing funds to Lifespring Hospitals, to set up five hospitals (2 in rural region of erstwhile Andhra Pradesh and 3 in Hyderabad city). After two years, while the rural ones failed, the urban ones thrived since Lifespring had prior experience working in Hyderabad. Sometimes, the scale of operation needs to be high enough to sustain overhead costs. Lifespring took more debt to set up four more hospitals as a cluster. It worked well (due to economies of scale). However, when they set up another cluster again, the question of location came up. Since healthcare is a hyper-local game, Lifespring had to analyse the location. Lifespring also had social impact goals. They wanted to handle the issue of increasing safe maternal care and antenatal care/ANCs. They raised grants (instead of equity) to support this project.

Every organization goes through multiple stages - setting up stage, growth, and stability – iteratively. While the goals of the health systems are access, affordability, and quality, what institutions aim at are scale, profits and outcomes. Organizations can meet these challenges through investing in efficiency, technology, and empowerment. Reimagining the healthcare challenges can help in designing innovative solutions.

DVR asked about the current status of Lifespring. Karuna mentioned that Lifespring did not grow beyond 12 centers. It was a choice by the investors. It's one of the few healthcare providers who serve BoP and still make profits. Lifespring has been able to generate trust and provide what is required by the customers.

Dr C asked karuna about the factors she would consider as VC when deciding on providing funds. Karuna talked about scalability as an important factor. The business should be able to grow so that VC can finally exit, albeit after a longer time horizon. So growth is an important factor. Other factors include the dynamics of the promoters, the market that they operate in, the paying capacity of the market, margins that are currently charged. For instance, Arogyashree allows providers to scale up since it provides access to a larger number of people.

Jagdeep raised the question of what are the alternate possible payment mechanisms other than insurance that can help in scaling. Karuna pointed out the challenge in depending on government funds – as the working capital cycles are shorter for an organization, while the reimbursement from the government may take longer. There should be certainty with long term "payers" (such as government). Patients have limited ability and willingness to pay for primary healthcare. We need to bring the patients to the platform. Some approaches to financing may be to use holistic platforms (like online pharma stores those who have integrated online consulting in their apps), use the data from the customer (sold to pharma company), etc.

Devendra asked about the hand-holding aspect of helping investors when patient capital is offered. Karuna answered that not all impact investors hand-hold the providers. Only a few like Acumen fund do that which is a separate offering in form of Acumen Fellowship.

EHAC Focus Areas - Arnaz Dalal

Arnaz spoke about the four areas that EHAC has been focusing on.

#1 Primary healthcare

The first one is the initiative between IIMU and BHS to set up primary healthcare at Salumber. This is a long term project, and they already had a round of consultation. The second one is the initiative between LVPEI and Dhan- pilots are going on for preventive care. The third one is the initiative between Fernandez and BHS, which will be to set up a maternal care hospital, as a referral hospital for BHS.

#2 Quality care with empathy and ethics

No activity currently happening

#3 Reaching out to medical students

Three sessions with medical students, the last one at Cobolt Skies' 2019. EHAC did a session on career guidance. Mostly first and second-year students attended the session. This segment had to be handled differently.

The second initiative is the fellowship program by BHS. Out of 49 physicians, 29 were eligible and 2 will be selected. The selected fellows will serve in the Udaipur area.

#4 Educational courses

Some work on free online educational courses and self-certifying courses are in the works. Arnaz discussed other activities that are currently on the cards.

Ramoji suggested the possibility of creating an app that can bring together the medical college students. This can be used to share important papers, educate them with "financing" or "human" aspects, and have a continuous engagement. In the age of technology, connect and reach is better through app instead of using a one-off workshop / connect with the students.

Dr C brought out the need to reach to students at an early stage hence, he suggested that the1st and 2nd year medical students may be better than 3rd or 4th year students for our purpose.

Santosh asked why can't we invite a set of medical students to visit primary healthcare centers and rural areas? Like an immersion program. Jagdish mentioned that unless credits are tied to such programs, students may not be interested.

Viswanand spoke about the course he already has that he can offer. But the medical colleges weren't interested in paying. Having a fee associated with the course helps in engaging students.

Devendra proposed a newsletter to propagate the kind of values that one would expect to see percolate in the healthcare system in the coming years. For instance, empathy, trust, equity, respect, responsibility, and innovation are the kind of values that can be propagated through this newsletter. He requested the organizations to enlist the email addresses of the doctors who may be interested.

DVR spoke about adding another focus area to EHAC. It is about the opportunity to get mentoring on entrepreneurship from stalwarts in the field.

New Pilots:

1. Brahmakumari hospital in Mt. Abu is a secondary care hospital. They currently miss a primary care component. Roja suggested the possibility of integration with primary care hospitals, where her hospital can act as a referral hospital. Rahul (iKure) and Roja spoke about the possibility of setting up primary healthcare clinics (under iKure) and to explore integration between iKure clinics and Brahmakumari hospital as a referral.

2. Saksham will work with Dr Sujata of IIT Chennai. Sujata expressed issues of raising funds and distribution of the wheelchairs. Saksham will help her with manufacturing and distribution.

3. Thulsi spoke about a general hospital near Gandhigram, which is an old hospital that needs resurrection. Dr Evita will be working with Aravind to get the right set of people to revive the hospital. Thulsi also spoke about the model they have developed to backward integrate from secondary to primary – which can help the new initiative #1.

4. Dr Roja brought up the following proposals:
    a. She spoke about the possibility of working with CloudPhysician to provide support to her ICU unit.
    b. Dr Roja spoke about the challenge of having lots of head injuries. They want to start neuro center for surgery – create a project proposal for buying a MRI scan. IIM Udaipur will help her with this proposal.
    c. Research project collaboration with IIMU to understand whether AB is making people negligent and non-caring about taking care of their health.
    d. Discussion with Dr Aravind to collaborate to make use of Roja's hospital human resources when they are typically idle (in the months of winter).

5. Vasanthi, representing Rotary club, suggested the possibility of working with IITM professor Dr Sujata, to engage entrepreneurs to help with the disability care devices. She also suggested the possibility of working with Dr Evita for engaging/training homemakers.

Vote of Thanks

Dr GC thanked Aravind and organizing team for the arrangements and hospitality. He also thanked all the participants for participating in the right spirit. After summarizing the learnings from the day, Dr GC announced that the next meeting will be held at IIM Indore in the month of March 2020.