

A Peep into the Future of Healthcare



The all-pervasive medical technology has been aiding the Indian healthcare sector well, taking the industry to the next level in service delivery. However, some challenges still remain, and the stakeholders are earnestly pushing the agenda forward.

In recognition of the excellent work done by the major healthcare centres, Elets Technomedia Pvt Ltd organised the 4th Annual Healthcare Leader's Forum (HLF) on March 12, 2015, at Hotel Royal Plaza, New Delhi.

Here, we try to bring you the bird's eye view of the Indian Healthcare Industry from HLF 2015.

NB DHAL

Joint Secretary, Ministry of Health and Family Welfare,
Government of India



Some of the states like Gujarat and Tamilnadu are at an advanced stage of IT in various areas. We have so many national level systems like the Mother Child Tracking System (MCTS), the Health Management Information System (HMIS), the Integrated Digi Surveillance Programme (IDSP), etc.

One of the issues is of the privacy and confidentiality of the patients' health records. We are basically of the view that we need a special legislation in this regard. The National Knowledge Commission way back in 2007-08 spoke about establishment of National Health Information Authority.

BJP's manifesto talked about National e-Health Authority. It is to promote standardisation and ensure that the electronic record is actually made available. Further, we are emphasising an integrated health information system, and we will start with the public healthcare system. The five focus areas for this initiative would be Health Information System (electronic health record); National Optical Fibre Network; Government User's Network; National Information Infrastructure (NII); and UID (Unique ID). Basically, the user should be at the core of development. We will be really promoting open source and open standards to some extent.

NAVEEN JAIN

Mission Director, National Health Mission, Ministry of Health and Family Welfare, Government of Rajasthan



Sometimes, thinking like a common man gives an innovation. Rajasthan is the largest state now with 3.42 lakh sq km of area, with a population of seven crore residing in it. We are having over 17,000 institutions, including 14,000 sub centres with around 100 district hospitals and sub-regional hospitals. We are the State with very high Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR), but a bad Total Fertility Rate (TFR).

Expectations from e-governance in healthcare includes more use of IT by doctors and make their accounts on the National Health Mission expenditure.

Around 5-6 years back, the IT solutions was implemented by the Government of India. In government sector, development of software is only 10 percent. It takes care of only 10 percent of your problem. 80 percent, it is implementation strategy for how people will take and sustain it. The challenge is to fund the activities later on.

In last ten years, we saw various e-governance initiatives taken by various governments. Currently, we have implemented some of the initiatives. These include AshaSoft, HMIS, e-subalaxmi, SNA database/website and e-Aushadhi for free medicine amongst others.

We are also making a software called e-upkaran, and in our budget it has been announced that we will implement it. We have prepared the software and we are ready to share it with the Government of India too.

KAVITA SINGH

Director-Finance (National Health Mission), Ministry of Health and Family Welfare, Government of India



Today, the public, private and government sectors all work in convergence and come out with the model that with minimum resources we have, we go ahead with some results.

Burden of infant mortality rate and maternal mortality rate still exists. We have reduced it drastically, but it still exists. On the other side, when you see communicable diseases, they are still a burden on us. In addition to it, 56 to 60 percent deaths are caused due to these.

Even an approach that we look, whatever is the private sector or the government sector, we synchronise and go ahead or we look for all options. Even domestic budget and external aid component till March 2015 was ₹1500 crore. It has now come down to ₹400 crore. So, the support we were expecting from the international agencies is being stopped. It is a signal that we need to enhance our budget. Further, we are empowering states by shifting more budget to states as health is a state subject.



DR MADHU RAIKWAR

Director and Head, Central Bureau of Health Intelligence, Directorate General of Health Services, Ministry of Health and Family Welfare, Government of India

We are in a baby boom at the point of this time. But over a period when the expected age will be increasing, that time we will be having real trouble for the ageing population and we have to cater for their needs. In this area, the technology is going to play a big role when devising some kind of tool where they are more appropriate for the geriatric population. But then we have to look into the economic part of this also.

We have to prioritise the needs based on whether this is cost-effective method as compared to the basic health needs. India's expenditure on health is around 4.8 percent of total GDP and where government is spending only 1.6 percent. There is a huge rural population in India which is 69 percent. Only 31 percent stay in urban population and a major chunk of it is urban poor. So, we have to keep in mind all these factors and there are several issues like, accessibility, availability, affordability, which need to be addressed. Only then, we can talk about the latest technologies and the way they are going to be feasible in India also.

DR T SUNDARARAMAN

Executive Director, National Health Systems Resource Centre, New Delhi

We are looking back and forth on the exclusive development of the application of Information and Communication Technology (ICT) in the area of public healthcare.



In 2005-06, when National Rural Health Mission (NRHM) was starting, there were very few functional systems at that time. In 2008, we regularised our routine presentations so that from 600 districts, monthly district report to the delivery of services in public hospitals started coming. By 2007-08, we have gone to 5400 block hospitals and by 2011, we were close to dealing with 200,000 facility-based reports.

The expectations of information technology have greatly changed. Under the universal healthcare, and in the Government of India, there are many interesting moves towards international health assurance mission that is in the coming. That is a new draft called National Health Policy, which has a major section on Information and Communication Technologies and there are lot of expectations that the government has from the IT industry to be able to afford its growth and its delivery.



DEEPAK AGARWAL

Chairman, Computerisation, AIIMS, New Delhi

What are your best practices in keep AIIMS updated in terms of technology?

The best practice for me is to have an implementable plan. A lot of people try to

introduce big plans in terms of information and communication technology (ICT) but it fails to get implemented and the time and money goes out for waste so the basic plan we have is to think big what we can do practically in a high volume situation that occurs usually in AIIMS.

How do you keep your medical staff updated in terms of new ICT?

We in academic institutions such as AIIMS have lot of information portals and we have created a new group of nurses called 'Nursing Informatics'. The primary objective of the group is to keep the medical staffs, doctors updated about the

latest tools we implement in the institution regularly. They also inform the staff about the medical portals we introduce along with the implementation of the technology.

Do you think it is the right time for healthcare sector to implement the best IT tools?

Yes absolutely, it's the best time for implementation of the latest IT techniques in the healthcare sector. We are already in terms of IT implementation in our organisation. The best thing about current era is almost everybody in knowing about technology especially like Twitter, Facebook, WhatsApp, which keeps everyone ahead in

the current modern era.

Where do you see the healthcare sector in coming five years?

I am sure that there will be a revolution in the coming five years and if they continue to implement the technology in the same pace then by 2020, India will be forefront in the healthcare technology as good as the healthcare companies from the western countries are performing.

How was the healthcare leaders' forum organised by Elets technomedia?

The event was very good and brought very useful information from the different players on the market.

DR GIRDHAR J GYANI

Director General, Association of Healthcare Providers (India)

The universal health coverage has four characteristics availability, affordability, accessibility and acceptability. As far as availability and accessibility is concerned, India is doing very well now. However, the problem is affordability and accessibility. Acceptability is by the standards. If you want universal health coverage by the government, the fundamental is, the government must spend 50 percent or more money in the healthcare, which it is not doing today. But, thanks to the private sector which is coming in a big way that very soon we will be able to meet this universal health coverage. The World Bank Report which came last month says that 50 percent population of India is being covered under one or the other insurance because many state governments have launched their own insurance schemes.

**DR SHAKTI KUMAR GUPTA**

Medical Superintendent, All India Institute of Medical Sciences (AIIMS), New Delhi

Lots of changes are occurring as far as health delivery is concerned. There are certain essential healthcare services criteria. First and foremost is efficacy of the technology. Second is effectiveness, that how effective the technology is. Third is that how many people get access to the technology and how many can afford it. Apart from that, whatever technology we implement in the healthcare whether it is acceptable to our healthcare people who are providing services, the doctors and the patients.

In addition to it is the issue of cost-effectiveness and the social ethical impact. The safety and capability, and the result we want to achieve with that technology and the therapeutic impact this technology is going to have on the patients. In our hospital, doctors demand high technologies.

One thing we need to keep in mind is that we must balance the wishlist of the healthcare industry, the needlist of the professionals. Above all, the most important is the wantlist of the patients. We have to keep a balance among all these.

**GUNJAN KUMAR**

Chief Information Officer and Head- New Initiatives, Regency Healthcare

Almost 18 months back, we decided that we have to scale a big way. We came up with RenalCare Hospital ad exceeded 105 successful kidney transplants. Our role was to bring up three more



institutions. One was the rapid deployment model. We opened up this centre with 13 dialysis machines, a diagnostic centre and OPD clinic. This was the model we planned to deploy in 16 cities.

We are also setting up a cancer oncology centre with surgical oncology, radiation oncology, medical oncology, as a joint venture with HCG. Another is a multi-specialty secondary care hospital.

The approach for agile was to have a disconnect development from the existing ERP, speak to the users, develop a very legitimate solution as a pilot project and then venture into other areas. Further, we brought in a model wherein people will be giving feedback. So, the application throws the relevant information to the relevant stakeholders. The voice file also has an escalation matrix, it gets thrown to a couple of specific people. We have a proper feedback mechanism wherein we get back to the patients, speaking to them touching the base. We feel that yes, we have addressed and this is what we are doing completely on open source.



UK ANANTHAPADMANABHAN

Group President, Rainbow Hospitals, Hyderabad

In the year 1983, the government realised that it cannot pay for the entire healthcare. Thus, it allowed the corporate healthcare to enter and it was that time when Apollo Hospitals came in. Further, it was the first time the government allowed the financial institutions to fund the healthcare. An amount of Rs. 17 crore was given by ICICI and IDBI and the hospitals started coming in. After ten years, the second generation hospitals like Tamilnadu Hospital came in. They are also funded by the financial institutions like ICICI and IDBI.

Prior to 2010, 70 percent was handled by the government and 30 percent by the private healthcare. Later, the private hospitals started handling 60 percent of healthcare and 40 percent is handled by the government. The hospitals which were

multi specialty became specialty hospitals.

When such a thing happened, the governance also put lots of technology in place. The landscape of entire healthcare in India changed completely. Now, we are on a threshold of great revolution and transformation.

DR NEENA PAHUJA

Director General, ERNET India

We still have very few hospitals which have got recognised due to some of the problems faced by the healthcare industry. However, we all have heard about IT helping healthcare.

A report by BBC suggests that the death rate has actually gone down by 17 percent among emergency patients, which means 16000 deaths are preventable in a hospital. The number of footfall in AIIMS is very high. One of the systems implemented in AIIMS also has facilities of ensuring that medication energy can be tracked. Reduction in medical error is also there. It is reduced by half.

We always talked about not enough doctors in India. Now, we are talking about opening a large number of medical colleges. We have 1.4 doctors per 1000 population, which is rarely low. Further, patient to hospital bed ratio is 0.9 per 1000 in the country.

We have 1.4 doctors per 1000 population. Can technology help in increasing the ratio in the next 10 to 15 years? Can we electronically transfer the data of patient to a place where it can be analysed? We as a



team have to think of solutions to improve the situation.

Also, during pregnancy there are many women who are unable to reach the hospital for regular checkups. We have seen a system wherein people come to your house and take the blood samples. The concept of mobile X-rays, mobile ECGs is a part of diagnostics, which can actually send the data to cloud which can further be analysed over a period of time.

We cannot take the hospitals to the patients, but we can take some of the diagnostics to the patients who are unable to travel. Digital India, one of the initiatives started by the Prime Minister Narendra Modi is also a great help in the healthcare domain.

The world is changing, and

through a part of the Digital India Initiative, we are preparing ourselves to be ready for this new changing world.

Years ago, the e-commerce projects were being established. Some of them worked, some did not. However, today e-commerce is working so well and making money because now we are ready from the connectivity point of view.

We have Internet of Things (IoT), Internet of places. What we do not have is something which is one cloud of data of patients. If we have it, we will be able to create lots of drugs very easily. Some tools are there which say that this is the condition, then this should be the medication and the doctor can reconfirm. Artificial intelligence will come in, which will be able to create thousands of doctors.

There is a concept of three Cs: Connectivity, Collaboration and Cloud, which will be taken to medical facilities. Hospitals and healthcare trends are changing. We are also working on ERNET and the national policy of IoT. The data could go by bluetooth, and other protocols. But, if you combine these data coming from a body to sense to a hospital or a doctor or a portal or ambulance, this is how things will go.

D P SARASWAT

CEO, Sri Balaji
Action Medical
Institute & Action
Cancer Hospital,
Delhi



What are the challenges faced by healthcare sector, in terms of Information Technology?

The challenges we face are the rising cost day by day and over population because being in Delhi/NCR, people from other neighbouring states prefer coming to us for treatment. So giving the best technology for treatment to such large number of people is a big challenge for us. Along with this, the cost of technology is becoming so expensive that it has to be taken care of. We need to keep up a pace in the sector so the prices of the technology should be rationalised or should be cost effective. The services have to be affordable for people and accurate.

According to you, what more needs to be done in Healthcare in the coming five years?

The major challenges we have been discussing is accessibility. Can people afford the services offered and what they really need at that moment. So firstly the services of the healthcare sector needs to be made more affordable for the people. So that the person pay for their treatment according to their capacity and do not have to take from someone else.

Do you think technology will help in reducing treatment cost for the patients?

Yes, certainly. Lots of medication errors have been corrected in automation, identification, drug giving to the person so the human errors are eliminated. The patients can check their all information related to treatment, medicine given, treatment given and test done online so that they can get it authenticated from others also and it will help us indeed in increasing speed and accuracy as more and more work is done when it's paperless.

What has been latest technology tools implemented by Action Cancer Hospital?

We are introducing the next level of electronic health records to ease our team as well as patients to keep themselves updated about their details and data. This would also help in sharing the past records of the patients if asked in future.

KAPIL MEHROTRA

Head-Information
Technology- Artemis
Hospitals, Gurgaon



What has been the latest IT tool implemented by Artemis hospitals?

The best thing we have adopted in our organisation is cloud. Secondly the digitisation has been our second biggest achievement in terms of IT. Company was facing lot of problems in terms of storage of data and records. In order to get rid of the same problem, we have recently adopted a cloud and it has been great help for us. The reports have lot of images, so we have designed a system to take them down on cloud.

According to you, how has been the adopting of ICT in healthcare sector?

The adoption of IT in the healthcare has been remarkable so far. The first thing that has to be done is to create more awareness across the market. Selecting the toughest problem in your organisation and using IT tools to solve that issue can improve the IT scenario in the country. This is what we have done in Artemis Hospital.

How often you train your medical staff about ITC tools?

I do a program in Artemis called 'Know your IT' where all the medical staff from the Artemis hospital participate and learn every month about the IT tools. The main objective behind this program is to educate the staff about how these tools can make their work faster and more accurate.

What new technology would Artemis hospital roll out in 2015?

We would be bringing all our data on cloud storage. The main reason behind this step is to help the research team. They would easily get the data, facts and reports for better research in short period of time. A proper training program would be conducted for knowledge on how to get data from cloud storage. Data like how many were treated, how many operations happened in a month would be available there.

How would you rate the Union budget 2015?

I am really impressed with the budget 2015 as it has allotted sufficient budget to the healthcare sector. This budget is more focusing on telemedicine. Telemedicine is a program in which user can take the appointment online, instead of coming directly. They can share the reports with doctors with the help of telemedicine.

NARENDRA SAINI

Member, Delhi Medical Council, Delhi

What would you say about the adoption of IT in healthcare sector so far?

IT services are slowly coming up in India. IT services should be used as it is more controlled but at present it comes at a huge cost. Cost has been a important challenge in terms of its adoption. It is the most useful tool for data generation but it should be at standardised rates.

How would be the market scenario in 2020 for IT adoption?

The market's IT scenario would be quite progressive in the coming 5 years and if it becomes more affordable for the healthcare sector, It would really cover more of the market because it becomes very easy for people practicing in remote areas and he can easily expand his reach.

Do you think India has reached to a maximum time, where they need to adopt IT services?

Yes, completely, for the knowledge of the doctor, medical staff it is much necessary to learn about IT tools. IT plays an important part in reaching to the Tier II and Tier III cities. It covers all the aspects in healthcare sector.

How do you plan to train your staff about latest IT tools?

The only way to update people is by organising workshops and providing them those tools. In the workshop, they were providing all basic knowledge on how to use the IT tools for ease and accuracy. We also keep in mind that those tools are available in the infrastructure so that they keep learning more about that.

What would you say about Union budget 2015?

I was disappointed with the Union budget as we were expecting more in this budget. In the last budget around 39000 crores was allotted to the healthcare sector but this year it has been reduced by 6000



crores to around 33000 crores. How would reducing of budget help the population in getting proper medical treatments

Can technology play an important role for cost effective solutions?

The things become faster and easier with the help of IT. In diagnostics, the time frame for making of reports has reduced to a larger scale, which has also reduced the cost of manpower.

ARVIND SIVARAMAKRISHNAN

Chief Information Officer, Apollo Hospitals, Chennai

As Chief Information Officers, we are responsible to advise our organisations on the right use of ICTs in transforming healthcare, what is realistically possible. The easy enemy around it is the budget. But, what is technology that is actually used in organisations where we can transform healthcare for the right direction? How important is it to connect the patient and the provider, the provider and the patient? The patient wants to be connected to the provider, but many a times, it is the provider wanting to be connected to the patient.

How important is technology as we streamline patient experience? Since the doctor's experience is indeed valuable, clinical excellence is exactly why we go to a hospital. It is why we embark on the healthcare journey. No hospital is Disney land, and we are now transforming healthcare using technology in an industry that demands the highest level of services.



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Glimpses

