

V. SRINIVAS

## **DIGITALIZING AIIMS: TRANSFORMATION OF A NATIONAL HEALTH INSTITUTION**

Raj Kumari Amrit Kaur had founded All India Institute of Medical Sciences (AIIMS) as the apex medical sciences university of India where the brightest doctors would pursue the trinity of goals of patient care, medical education and medical research. As the AIIMS brand got established and its fame spread far and wide, it attracted patients from all over India – 35 lakh OPD patients in 2014-15. With an average of 10,000 OPD patients a day, 62 departments, 3,100 doctors and 6,000 nurses, AIIMS represents India's behemoth in tertiary care hospitals. While the Institute comprising of highly driven professionals works with clockwork precision, the overwhelming patient loads have proved impossibly challenging for a manual system and required significant systemic changes in terms of improved digital practices and process re-engineering, as millions of India's population seek medical care at the nation's apex medical sciences university. Although AIIMS accorded the highest priority to every patient and patients were the gods of the Institute, the patient journeys were time-consuming, exhausting affairs.

### **THE BACKDROP**

In December 2014, my first week as Deputy Director (Administration) in AIIMS, I accompanied the Medical Superintendent Dr. D.K. Sharma, on a visit of the Raj Kumari Amrit Kaur (RAK) OPD. I saw huge crowds at the entrance of the OPD at 9:00 am. Besides, there were massive crowds at each of the eight registration counters. The stairs were full of people and it was with great



difficulty that we reached the fourth floor of the building where the ENT OPD was situated in a porta cabin space. Outside the 12 consultation rooms there were hundreds of patients/attendants. There was a second round registration of patients. Spaces on each of the floors of the OPD had multiple registration counters, blood collection counters and several minor operation theatres. There was hustle and bustle at every inch of the OPD.

Barely a day earlier, Rishi Dev Kapur, IAS (1966 batch) had visited the ENT OPD and waited almost four hours to reach the clinician's consultation chamber. His daughter Pooja, a Joint Secretary in the Ministry of External Affairs shared with me her father's harrowing experience:

He left home at 7:30 am on empty stomach, waited for three hours in lines for registration at AIIMS. He hoped to see a clinician at 10 am, but when he reached the ENT OPD he was told to return at 2 pm for the afternoon consultation/tests. He stood in lines all day. There was no clarity on the appointment time, consultation room, consulting clinician. He was pick-pocketed while standing in lines at ENT OPD located in the porta cabin and his credit card was stolen. The security personnel had difficulty in maintaining order in the lines and constant jostling was witnessed.

Pooja Kapur's feedback brought forth the immense challenges for simplification of AIIMS' OPD procedures. She was not the only one who faced the challenges of a poorly functional OPD system. The situation was chaotic and desperately in need of simplification.

I also found my office was full of requests for patient appointments and registration. A single request for appointment necessitated 10-15 phone calls for coordination. Systemic inefficiency had engulfed my valuable and productive work time. Almost all my office staff was busy accompanying patients to the registration counters. Nobody was available in the morning hours in my office. I noticed that not only was my office receiving a huge number of requests, the office of OSD to President, the Director's office, the Senior Financial Advisor's office and every other office was receiving patient appointment requests which overwhelmed all other work. At the same time, clinician's timings were being crowded out by overwhelming patient loads.

Following my visit to RAK OPD, I sent a note to the Medical Superintendent seeking his consideration on (a) whether it was possible to close down all secondary registration counters on each of the RAK OPD floors? (b) whether it was possible to close down the multiplicity of blood collection counters on each of the floors and operate merely through the Central Blood Collection Centre? (c) whether each of the patients could be accompanied by only one attendant? and (d) whether a faster system of registration by



simplification of the processes was possible? I also requested a meeting with the concerned heads of departments in whose OPDs process simplification was an urgent felt need.

The Medical Superintendent, Dr. D.K. Sharma, a man with decade-long experience and high reputation, convened the meeting with the heads of departments, a few days later. Consensus could not be reached on the roadmap forward. I received a three-page note from the hospital administration on the discussions, which said that while there was overwhelming support that process simplification was necessary, the modalities of process simplification would need to be worked out. A second meeting was convened a few days later in which I participated and reiterated my view that process simplification was absolutely necessary. Besides the individual requests being received in many of the administrative offices needed to be streamlined into a systemic approach lest it derails the entire functional efficiency of administrative offices. Once again consensus eluded us. There was no consensus for closing down the tedious process of second-round registration at the department level. Besides, no consensus could be reached on closing down multiple blood collection points. The only area where consensus was reached was in creating an additional waiting space for patients in the third floor of RAK OPD. This was built on priority by the Engineering Division. The creation of additional waiting areas was an important component of the AIIMS OPD Transformation Project.

The AIIMS had an e-Hospital project under implementation for many years. The Computer Faculty made an introductory presentation to me on the project in December 2014. Raghu Kumar, the Senior Programmer in the AIIMS and Sudhir Kumar, Technical Director, NIC jointly presented the concept and implementation progress of the project. The project was all but dead and nothing was moving forward. Barely 2-3 modules of the total 10 modules were implemented in five years. There was no institutional coordination between NIC and AIIMS to take the initiative forward. I was informed that software is designed by the Tripura team of NIC and implemented in AIIMS. There was neither any institutional memory of the stages of implementation or the roadmap forward. It was, therefore, essential to create institutional coordination structures and mechanisms to enable a patient friendly environment.

Dr. Deepak Agarwal, a neurosurgeon and the chief of the Computer Facility met me in evening after the introductory briefing meeting with the staff of Computer Facility. He mentioned that he had not met the Deputy Director (Administration) for seven months, before I had joined. The coordination breakdown was total. The post of Deputy Director (Administration), which was to function as the interface between the ministries of Government of India and AIIMS, had virtually collapsed in this project. The AIIMS was dealing directly with the NIC with and neither the Ministry of Health and Family Welfare or the



Department of Information Technology being in the loop. Interaction at the programmer level was not yielding any results. Clearly higher level interventions at the level of Health Secretary and DITY Secretary were necessary.

I discussed the need for process simplification with Director, AIIMS, Prof. M.C. Misra. He gave me the background of the work done on Digital AIIMS. As soon as he took up the post of Director, AIIMS on 11 October 2013, the leadership of the Computer Facility was revamped and Dr. Deepak Agarwal was given charge of the Computer Facility. Further, the concept of Nursing Informatics Specialists (NIS) was brought to AIIMS from the experience at JPNATC digitization where Prof. Misra, Dr. Deepak and Ms. Metilda Robin had worked closely. This was the first time that the NIS concept was introduced at the main hospital. Prof. Misra expressed disappointment with the slow progress of the e-Hospital project and said he would support any administrative initiative in this regard. It was a promise he kept, conceiving the whole digitization process and devoting enormous man-hours to its successful implementation. Often he stood against severe resistance from patients, senior faculty, nurses and resident doctors who were reluctant for introducing changes. The Director, AIIMS displayed leadership from the front.

The Health Secretary Bhanu Pratap Sharma, IAS (1981 batch) was a strong votary of the digitization of hospitals and the e-Hospital project. When I discussed the project with him, I was promised all support for timely implementation. A lot of credit for providing bureaucratic leadership goes to Bhanu Pratap Sharma for his constant interactions, encouragement and coordination in the successful implementation of Digital AIIMS project in the period February 2015 to July 2016.

### AIIMS-UIDAI COLLABORATION

The Director General, Unique Identification Authority of India (UIDAI), Vijay Madan, IAS (1981 batch) visited AIIMS in January 2015 to meet a patient who was admitted in the Cardio-Neuro (CN) Sciences Centre. As we walked through milling crowds to the CN Centre from the Teaching Block, I mentioned to the Director General, UIDAI that AIIMS was coping with huge patient loads and process simplification was urgently necessary. He felt that linkages between Aadhar numbers and the Unique Health Identification (UHID) numbers issued by AIIMS could be considered.

After some time I wrote to Vijay Madan requesting a meeting with him to explore the contours of collaboration between AIIMS and UIDAI in the patient registration process. He called me a few days later to the UIDAI headquarters. In the sprawling UIDAI committee room, I and Dr. Deepak Agarwal presented seven slides, largely depicting the patient loads at AIIMS. Vijay Madan was



extremely positive in assuring institutional collaboration between UIDAI and AIIMS. The UIDAI deputed two senior software professionals for linking Aadhar numbers with the UHID numbers. A senior IAS officer, Dr. Shreeranjana (1985 batch), Deputy Director General in UIDAI, was asked to oversee the coordination.

A second meeting was convened at the level of Vijay Madan a fortnight later. Tripta Sharma, Programmer in the Computer Facility, AIIMS, and Sudhir Kumar, Technical Director, NIC deployed at AIIMS accompanied me to UIDAI. The possible modalities of Aadhar seeding on patient registration were discussed and received broad approval by the senior officers of UIDAI.

### AIIMS-DEITY COLLABORATION: THE ORIGINS OF ONLINE REGISTRATION

Ram Sewak Sharma, IAS (1978 batch), Secretary, DeITY visited AIIMS in February 2015. I sought his time during this visit to brief him about the slow progress of the AIIMS e-Hospital project. A man of immense energy and commitment, Ram Sewak Sharma convened a meeting with the senior officers of the DeITY, the NIC, UIDAI and AIIMS next morning at 8 am. Tapan Ray, IAS (1982 batch), Additional Secretary, DeITY, Dr. Ajay Kumar (1984), Joint Secretary, DeITY and DG, NIC, Rajesh Gera, Deputy Director General, NIC and Dr. Shreeranjana, IAS (1985 batch) attended the meeting along with Director, AIIMS, myself, Dr. Deepak Agarwal, Tripta Sharma and Metilda Robin. It was in this meeting that the first steps for designing the online registration system were conceptualized.

The meeting with Ram Sewak Sharma was followed by a functional level meeting in the Computer Facility of AIIMS with the Tripura NIC team. That was my first video conference with Chayan Kanti Das, the Senior Technical Director, NIC, Neel Kamal Dey Purakayastha, Technical Director, NIC, Rajesh Gera, Sunil Bhushan, Senior Technical Director, NIC in the Ministry of Health and Family Welfare, Dr. Shreeranjana, Dr. Deepak Agarwal and I discussed the operational modalities. There were sharp exchanges on the functional roles between NIC and UIDAI. Thankfully, we could resolve the issues and reach a consensus.

It was agreed that the patient seeking an appointment at AIIMS could log into the AIIMS OPD Appointment System (ors.gov.in) and submit a request for an appointment online using his/her Aadhar number. The verification of the demographic details of the patient would be based on a one-time password being transmitted to the mobile phone number of the patient registered in the Aadhar data-base. The UHID number gave an individual digital identity to every patient visiting AIIMS. The patient could use the UHID number for his entire life time



and every consultation visit was documented by the system. Chayan Kanti Dar and Neelkamal Dey Purakayastha agreed to design the software by the end of April 2015. AIIMS was asked to coordinate with the Paygov for ensuring that an online payment system is inbuilt into the software. This was a task followed up by the Computer Faculty.

The AIIMS sought meetings at the level of Health Secretary and Health Minister to outline the road map for the online registration system. Discussions focused on the quantum of online appointments that would be issued per day and how many walk-ins would be accepted. It was decided that AIIMS would introduce a cap of 15 per cent online registrations for OPD appointments. Another issue that was considered was whether the OPD charges for online registration should be higher than the walk-in appointments.

The Union Health Minister J.P. Nadda said:

Patient-friendly hospitals were a felt need and AIIMS should provide leadership to hospital process simplification. The software is quite simple, forward-looking and could be opted widely. The AIIMS attracts a large number of poor and illiterate patients and the objective should be to have an inclusive digital platform where all stakeholders could benefit. Although, AIIMS had proposed the introduction of a higher charge for online appointments as compared to walk-ins, the OPD consultation charges should not be touched at this stage.

Following these deliberations, the AIIMS was given the responsibility of ensuring timely completion of the project so that it could be considered for launch during the 'Digital India Week'.

In pursuance of our discussions in Nirman Bhavan, Secretary, DieTY, Ram Sewak Sharma chaired three more follow-up meetings in Electronics Niketan in the run-up to the launch of online registration system. The features of the web-page were discussed in minute details. We worked really hard to adhere to the rigid time lines. It was agreed that AIIMS would conduct a trial run of the software in the OPD counters from May 2015 end to ensure that operational logistics are streamlined.

The e-Hospital online registration software was operationalized in 10 OPD counters of RAK OPD in May 2015. Two weeks later Rajesh Gera and Sunil Bhushan visited my office to present the findings. The initial results were encouraging. AIIMS was receiving the proposed 15 per cent online registration patients. We visited the RAK OPD almost on a daily basis to ensure operationalization of the registration counters. There were no operational glitches in the software. We operationalized 10 counters in June 2015. Health Secretary, B.P. Sharma visited the RAK OPD at 8.30 am in June 2015, he was



quite satisfied that the online registration system could be taken up as part of Digital India Week launches.

The AIIMS had generated sufficient situational positivity and momentum for the successful launch of the online registration system. Nearly a dozen meetings were held at the Secretary level in Electronics Niketan and Nirman Bhavan. There were also meetings at the level of Health Minister and DeITY Minister. The PMO was fully briefed on the online registration. There was all-round support for the project. On 4 July 2015, the Prime Minister launched the ors.gov.in portal for online registration under the e-Hospital Project.

A week after the launch, AIIMS was mandated to conduct on-boarding workshop for all the Central Government hospitals on the online registration system. Health Secretary, B.P. Sharma chaired the on-boarding workshop, along with Director, AIIMS Prof M.C. Misra and the DeITY officials. Each one of us who had worked on the project was warmly congratulated for its successful launch.

### AIIMS-TCS COLLABORATION

AIIMS-TCS collaboration commenced in April 2015. The Union Health Minister, J.P. Nadda convened a meeting in his parliament office which was attended by the MOS(IC) Power Piyush Goyal, TCS CEO N. Chandrasekaran and TCS Senior Vice President Girish Krishna Murthy. Director, AIIMS Prof. M.C. Misra and Joint Secretary, Medical Education Ali Raza Rizvi also joined the deliberations. The MOS(IC) Power Piyush Goyal discussed the hospital processes at AIIMS. He said he had spoken to TCS CEO N. Chandrasekaran when he was on foreign travel waking him up at a midnight hour seeking his assistance for a CSR project in AIIMS and he had kindly offered to help. Prof. Misra had spoken to MOS (IC) Power a few months earlier in this regard. He observed: "NIC is not delivering as per the mandate given to it, and digitization was limited to OPD registration. There is reluctance to expedite the complete implementation of the processes."

TCS CEO N. Chandrasekaran remarked:

Mr. Piyush Goyalji spoke to me a few days ago about streamlining the AIIMS OPD and a possible CSR project with TCS. We are ready to take up the challenge of promoting a patient friendly hospital. Our core strength lies as a software company. We have studied the AIIMS for a few days and are in the midst of formulating our strategy

It was decided that the modalities of AIIMS-TCS CSR project would be worked out in the coming days. All attempts should be made to develop collaboration for simplifying the patient journey. It was decided that AIIMS



would collaborate with TCS in the coming months under a CSR project the details of which would be worked out.

TCS brought an ambitious scale of operations to AIIMS. TCS brought in management graduates and software professionals – four of them stood out – H.S. Shenoy, Srihari, Shashi Kant Dixit and Colonel Sanjay Kapoor. Assisting them were a large number of young professionals who stood out by their dedication. The focus was on changes in management practices. The TCS teams met almost on a daily basis to firm up the systemic changes that they sought to incorporate.

By the end of May 2015, we could identify a road map for collaboration under a CSR project that comprised the following: AIIMS OPD transformation including deployment of manpower and equipment, implementation of ERP solutions in AIIMS and development of Electronic Medical Records. The phase I of the AIIMS-TCS MOU was presented to Health Minister and MOS (IC) Power.

The TCS film on the state of affairs in AIIMS OPD reflected the realistic side of AIIMS. I saw the film and said, "The film presents a very negative side of AIIMS, and needs moderation. It can't look this bad." The film showed people who were lost, looking for help to reach the destination, the absence of signage, making the patient journey complicated, crowding at every point – blood collection centres, registration counters, elevator lobbies, stairs – a state of chaos all over the OPD areas. The TCS model was very innovative and interesting.

Both the Health Minister and the MOS (IC) Power were willing to support the proposal presented by Girish Krishna Moorthy. The proposal envisaged the creation of a patient registration centre, waiting hall, creation of additional patient waiting spaces, and patient care coordinators. AIIMS was to provide the security personnel and data entry operators for the enlarged registration counters. It was a manpower-intensive model as with all health systems projects. The TCS model was to be explained to all the stakeholders in the AIIMS value chain through a series of orientation meetings. These meetings were organized in the early morning hours at 7.30 am so that all stakeholders would attend to OPD from 9 am. The Director and I attended almost all the meetings. In-house discussions were encouraged so that process changes could be best identified for introduction. Girish Krishna Moorthy showed tremendous enthusiasm for the collaboration and worked in mission mode. He stationed himself in Delhi and brought a committed work ethic marked by 7.30 am meetings and 100-hour work-weeks. The AIIMS-TCS MOU was duly approved by the Governing Body of AIIMS. Girish Krishna Moorthy and I signed the MOU in the presence of Prof. Misra in May 2015. This was a major step forward for AIIMS bringing in a



major corporate giant with highly professional work ethic in to our system driven by immense empathy for the well-being of the poorest of the poor patients.

The TCS brought in simple changes into the management practices of AIIMS. The approach was to facilitate faster registration, to manage crowds by creating larger patient waiting areas, introduction of thousand signages, introduction of screening at the entry point, introduction of patient care coordinators at the registration/consultation areas and the rather unique exit OPD counters for all follow-up patients. To simplify the registration system, the Patient Registration Centre was constructed. When the site for the Patient Registration Centre was demarcated, the chief of the RP Centre for Ophthalmic Sciences felt that the front portion of the RP Centre was going to be crowded out and, hence, opposed the construction. He was convinced subsequently that the structure would be a temporary structure that would be dismantled once the new OPD block is established.

The Patient Registration Centre increased the number of registration counter from 10 to 50. Signages were introduced across AIIMS indicating the locations of various departments, laboratories and blood collection centres. Since the waiting spaces were quite limited, additional patient waiting spaces were established by construction of an air-conditioned waiting hall. AIIMS had an existing waiting hall, where squatters were present, which was forcibly evacuated. The patient waiting hall for pediatric patients contained a lot of Walt Disney posters to make the experience a memorable one. An innovative feature, which was introduced by the Computer Facility, was the EXIT OPD Counter where patients could seek their next appointments and dates for the various tests that were necessary. TCS streamlined the process by extending the exit counters.

The Department of Hospital Administration was a key player in the AIIMS OPD Transformation Project. A young Assistant Professor, Dr. Angel Rajan Singh, along with his team of Senior Residents Dr Sheetal Singh was drafted to coordinate with the TCS for AIIMS OPD Transformation Project. The pilot phase was to cover the Department of Pediatrics and Department of Medicine. The AIIMS-TCS collaboration for the OPD Transformation Project was completed by December 2015. On the first day of the implementation of the new system, there was complete chaos. Patients were advised to be accompanied by one attendant and also to move from Registration Centre to waiting halls. Some of us were physically manhandled. Security personnel were in short supply to enforce the envisaged systems. The crowds outnumbered us 3:1. Standing amidst the screaming crowds, I decided we relax the condition of patients in waiting halls till additional security personnel were inducted into the system. Clinicians in the consultation rooms found themselves waiting for patients to reach the consultation rooms as they were still in the waiting halls or in the screening counter. The evening meeting to review the day's events witnessed huge



resistance to change. Prof. Misra laid great emphasis on gradualism to bring about change if we were to take the initiative forward.

### THE FIRST DIGITAL REVOLUTION IN HEALTH CARE

On 25 December 2015 the Union Health Minister J.P. Nadda and then MOS(IC) Power Piyush Goyal jointly inaugurated the state-of-the-art Patient Registration Centre and the waiting halls, launching the AIIMS Transformation Project on India's Good Governance Day. It was a dazzling function. Dr. A. K. Deorari and Dr. Rita Sood spoke about the significant quality improvement that they had witnessed in the Departments of Pediatrics and Medicine. Several patients also presented favourable responses.

Piyush Goyal observed:

On Good Governance Day - minimum governance and ease of business is for the benefit of the common man of India, it is for the poorest of the poor. Be it the doctor, the security personnel, the nursing personnel, each one has a role. The transformation that has commenced in AIIMS, is part of a long journey, and we rededicate ourselves to system improvements. Soon prescriptions would be done through an I-Pad, and medical records would be fully digitized.

The Union Health Minister J.P. Nadda remarked:

The scale of involvement of the stakeholders in the transformation process was immense. It is a huge success story. I wanted to understand the benefits to the end person in the entire process. N. Chandrasekaran and Girish Krishnamoorthy were always there to explain the details to me. I made four visits to AIIMS to convince myself of the benefits of the change. The acceptability by AIIMS of the changes proposed by TCS was an immense challenge, and involving everybody was a huge task. I would personally congratulate Prof. M.C. Misra, Mr. Srinivas, Mr. Agarwal, Mr. Krishnamoorthy and Mr. Shenoy for this success story. We would be replicating this success story in a number of hospitals.

As part of the transformation project, OPD patients and attendants were ushered into the state-of-the-art Patient Registration Centre with 50 registration counters, each one equipped with a computer terminal with e-Hospital software. New cadres of officials were inducted in AIIMS. There were nursing informatics specialists, patient care coordinators and data entry operators. Kiosks had been set up at many places and the dash boards depicted the patient journey. They did not have to waste time in long early morning lines waiting to see the clinicians. The patient care coordinators guided them to the pediatrics OPD within no time. The Nursing Informatics Specialists gave them a plastic UHID card for future



references. Their patient journey had a stop at a waiting hall which had Walt Disney pictures.

Nursing Informatics Specialists were deployed to oversee the work of data entry operators. The registration time was a mere 40 seconds for all new appointments with UHID numbers generated from the online registration system. Fast track queues had been created where the patients who had already registered themselves under the online registration system could get their OPD cards and move quickly to the patient waiting areas. The entire approach was one of empathy and efficiency. Successful operationalization of the Patient Registration Centre meant that the waiting time had come down by nearly six hours per patient. The 3 am serpentine lines were no longer there. They had disappeared and were replaced by a more orderly queue system that commenced at 8 am and reached the OPD consultation rooms by 9 am.

Patients were passed through a screening system which was introduced in the consultation areas. The clinicians would commence work at 9 am. Patients would reach the clinician's rooms in an orderly manner. The most innovative feature of the AIIMS transformation model was the introduction of EXITOPD Counter. Advanced laboratory tests, radio diagnosis, virology and pathology tests as also follow-up appointments – all could be scheduled from the EXITOPD Counters. Patients thus had a systematized experience from the point of entry to the point of exit.

### **AIIMS: INDIA'S FIRST FULLY DIGITAL PUBLIC HOSPITAL**

The Union Health Secretary, B. P. Sharma laid down the road map for implementation of the AIIMS e-Hospital project soon after the launch of the AIIMS OPD Transformation Project. He wanted all the modules to be completed in a period of one year, i.e., by December 2016. From January to July 2016, Secretary DeiTY, Aruna Sharma met AIIMS teams a number of times. AIIMS coordinated with DeiTY on a weekly basis. Additional Secretary DeiTY, Dr. Ajay Kumar would visit AIIMS regularly for stakeholder meetings in Dr. Ramalingaswamy Boardroom. The modules that were considered for early implementation were the RIS-PACS (Radiology Information System and Picture Archiving and Communications Systems), the laundry module, the dietary module, the blood bank, establishment of kiosks with net banking facilities and billing modules. The interlinking of laboratories along with in-patient data was also taken up.

The AIIMS procured the RIS-PACS for Department of Radiology at a cost Rs. 5.2 crore. The NIC, Tripura team was available on video conferencing for each of these meetings. The stakeholders attending the meetings involved dieticians, hospital administrators, radiology faculty, blood bank faculty,



financial advisors and software programmers. By June 2016, each of the modules envisaged for computerization under the e-Hospital Project was completed.

The billing module was pursued with a lot of vigor. Former Health Secretary, P.K. Hota admitted to AIIMS found it extremely tedious to get discharged on a Sunday when only the cash counter was operational. He recommended that priority should not only be given to OPD registration but also to the discharge of in-patients. We took P.K. Hota's advice and ensured that the billing module was successfully completed as part of the e-Hospital Project. The entire task that the Health Secretary B.P. Sharma had laid out for AIIMS was completed nearly six months ahead of schedule. It was possible due to the unstinting support received from Secretary DeITY, Aruna Sharma and Additional Secretary, Dr. Ajay Kumar in addition to senior NIC officials, Rajesh Gera, Arun Rampal and Sudhir.

The Cabinet Secretary was the chief guest at the symposium to mark the occasion of AIIMS reaching the milestone of India's First Fully Digital Public Hospital. It was a landmark event.

### **EXPANSION OF THE AIIMS OPD TRANSFORMATION PROJECT**

The AIIMS-TCS collaboration progressed at a rapid rate. After the 25 December 2015 launch of the AIIMS Transformation Project, efforts were initiated to cover all the fifth floors of the RAK OPD and all departments. The efforts were led by the Department of Hospital Administration. Dr. D.K. Sharma and Dr. Angel Rajan Singh would convene meetings for every floor. The process changes that were envisaged in December 2014 became a reality. In a period of six months following the launch of the AIIMS OPD Transformation Project, the project had spread to each of the five floors of the RAK OPD. The ENT department witnessed remarkable change. It had shifted to the newly renovated OPD space and had done away with the secondary registration. The linking of all laboratories and blood banks also meant that multiple blood collection points could be eliminated. After nearly two years of relentless efforts, we had created a sustainable, replicable and functional model which represented a markable success story in India's apex tertiary care Institution.

### **THE PM'S INDEPENDENCE DAY ADDRESS, 2016**

Prime Minister, Shri Narendra Modi, in his Independence Day address from the ramparts of the Red Fort on 15 August 2016, commended the Digital AIIMS Project and recommended it for pan-India replication. Many state governments and the Central government hospitals sought to replicate the Digital AIIMS Project. The Ministry of Health and Family Welfare set up an oversight committee under the chairmanship of the Health Minister and a Health Care Transformation



Cell in AIIMS under the chairmanship of Director, AIIMS to oversee the Prime Minister's vision of pan-India replication. The AIIMS has pioneered India's journey for patient-friendly hospitals. AIIMS received a number of awards and high recognition for the Digital AIIMS Project. The Ministry of DeITY felicitated AIIMS for successful implementation of the Digital AIIMS which had the highest footfalls of Digital India projects. The Department of Administrative Reforms listed Digital AIIMS as amongst the best innovations for the period 2015-17 and included it in the select list of projects in their publication innovations released on National Civil Services Day, April 21, 2017.

**Table 1**  
**IMPACT OF DIGITAL AIIMS PROJECT**

Month and Year	No of Patients Attending AIIMS OPD
July 2015	212125 – AIIMS Online Registration System launched by Prime Minister as part of Digital India
August 2015	209793
September 2015	181561
October 2015	180025
November 2015	152850
December 2015	164680 – AIIMS OPD Transformation Scheme introduced two departments of AIIMS
January 2016	227804
February 2016	256347
March 2016	278639
April 2016	270695
May 2016	302233
June 2016	220012
July 2016	207897 – AIIMS becomes India's first fully digital public hospital
August 2016	319347
September 2016	317887
October 2016	258639
November 2016	285841
December 2016	312935
January 2017	301134
February 2017	304505
March 2017	304358

Source: <http://ors.gov.in/copp/ehospitalDate.jsp>



The Digital AIIMS Project has ensured that AIIMS clinicians can attend to nearly double the number of patients with same consultation spaces following process streamlining. The patient journey is now hassle-free and the clinician's time is available to consulting more patients.