

**Dissertation**  
At  
**Akhil Systems Pvt. Ltd.**  
**New Delhi**

**To Understand End User Perception for  
using EMR**

by

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Enroll No.: PG/13/023

Under the guidance of  
Dr.Anandhi Ramachandran

Post Graduate Diploma in Hospital and Health Management  
2013-15



**International Institute of Health Management Research**  
**New Delhi**

(Completion of Dissertation from respective organization)

The certificate is awarded to

**Dr.Gaurav Kumar**

In recognition of having successfully completed his  
Internship in the department of

**IMPLEMENTATION**

And has successfully completed his Project on

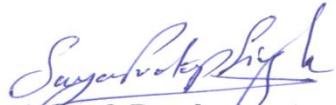
**“To Understand End User Perception for using EMR”**

**Date: 23-05-2015**

**Akhil Systems Pvt. Ltd.**

He comes across as a committed, sincere & diligent person who  
has a strong drive & zeal for learning

We wish him all the best for future endeavors



**Training & Development**



**Zonal Head-Human Resources**

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**Dissertation Organization** : Akhil Systems Pvt. Ltd. New Delhi

**Area of Dissertation** : Implementation

**Attendance** : Full

**Objectives achieved** : Learnt the Details of EMR Implementation.

**Deliverables** : Successfully Implement the EMR Module in a Multispeciality Hospital.

**Strengths** : Keen Learner  
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**Suggestions for Improvement** : Wishing him all the best for future.



Signature of the Officer-in-Charge/  
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Date : 23.05.2015

Place : New Delhi

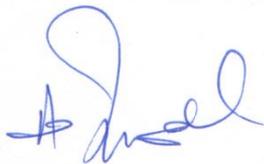
TO WHOMSOEVER IT MAY CONCERN

This is to certify that Dr.Gaurav Kumar student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from International Institute of Health Management Research, New Delhi has undergone internship training at Akhil Systems Pvt. Ltd. from 23/02/2015 to 23/05/2015.

The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.



Dr. A.K. Agarwal  
Dean, Academics and Student Affairs  
IIHMR, New Delhi



Dr. Anandhi Ramachandran  
Associate Professor  
IIHMR, New Delhi

## Certificate of Approval

The following dissertation titled **“To Understand End User Perception for using EMR”** at **“AKHIL SYSTEMS PRIVATE LIMITED”** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **“Post Graduate Diploma in Health and Hospital Management”** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

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Signature

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\_\_\_\_\_  
*Prof. Dr.*  
*Manoj Chaudhary*

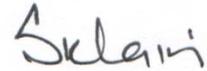
## Certificate from Dissertation Advisory Committee

This is to certify that Dr. Gaurav Kumar, a graduate student of the Post- Graduate Diploma in Health and Hospital Management has worked under our guidance and supervision. He is submitting this dissertation titled **“To Understand End User Perception for using EMR”** at **“AKHIL SYSTEMS PRIVATE LIMITED”** in partial fulfillment of the requirements for the award of the Post- Graduate Diploma in Health and Hospital Management.

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.



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IIHMR, New Delhi



Mr. Sanjay Jain,  
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Akhil Systems Pvt. Ltd.

INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH,  
NEW DELHI

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "TO UNDERSTAND END USER PERCEPTION FOR USING EMR" and submitted by Dr.GAURAV KUMAR (Enrollment No. – PG/13/023) under the supervision of Dr.ANANDHI RAMACHANDRAN (Associate Professor) for award of Postgraduate Diploma in Hospital and Health Management (PGDHM) of the Institute carried out during the period from 23/02/2015 to 23/05/2015 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

*Gaurav Kumar*  
23/05/2015  
Signature

## **ABSTRACT**

An EMR (Electronic Medical Record) is a digital version of a paper chart in a clinician's office. It contains the medical and treatment history of the patients. An EMR allows a clinician to track data over time, easily identify which patients are due for preventative screenings, check how patients are doing on certain parameters such as blood pressure readings or vaccines and monitor and improve overall quality of care within the practice. Familiarization and Training of primary users on the EMR should be both initial and on-going. Proper training is one of the key success factors for smooth transition to a paperless patient care system. Hands on training immediately prior to going live has been documented to be of great significance as the training is fresh in the minds of the users. Web Based HIS (Hospital Information System) of ASPL (Akhil Systems Pvt. Ltd.) is already running in multispecialty Hospital in Gurgaon. Now, it's going to Implementing EMR (Electronic Medical Record) Module to be used by Doctors in OPD in First Phase).

The general objective of this dissertation is to know the challenges faced while implementing the EMR Module in a multispecialty hospital and how to get rid of them.

The Expected issues that might be facing at the time of Implementing EMR are: Doctors don't have time even to see the demonstration of the EMR, Doctors may deny the use of EMR, Doctors may demand an assistant to enter the data, doctor's may said that it is a Time consuming Process which may be double the time of consultation, Doctors don't have computer system at their work place i.e. in the OPD etc.

It is a Descriptive Study. It also includes a questionnaire based cross sectional study. Sampling Technique used is Convenient Sampling and end users are Doctors and tools used are Pre-implementation training Survey via Questionnaire.

After change management doctors start using EMR with filling minimum required fields.

## **Acknowledgement**

I take this opportunity to express my profound gratitude and deep regards to my Mentor Dr.Anandhi Ramachandran for his exemplary guidance, monitoring and constant encouragement throughout Dissertation. The blessing, help and guidance given by him time to time shall carry me a long way in the journey of life on which I am about to embark.

I also take this opportunity to express a deep sense of gratitude to Mentor at Akhil Systems Pvt. Ltd. Mr.Sanjay Jain (Managing Director) and Dr. Vijay Sharma (COO) for his cordial support, valuable information and guidance, which helped me in completing this task through various stages.

I am obliged to other staff members of Akhil Systems Pvt. Ltd., for the valuable information provided by them in their respective fields. I am grateful for their cooperation during the period of my Dissertation.

Lastly, I thank almighty, my parents, brother, sisters and friends for their constant encouragement without which this assignment would not be possible.

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## ACRONYMS / ABBREVIATIONS

Sr. No.	Abbreviations	Full form
1	ACM	Access Control Management
2	ASPL	Akhil Systems Pvt. Ltd.
3	CAO	Chief Administrative Officer
4	CCHIT	Certification Commission for Healthcare Information Technology
5	CEO	Chief Executive Officer
6	COO	Chief Operational Officer
7	CPT	Current Procedural Terminology
8	EMR	Electronic Medical Records
9	EPM	Electronic Practice Management
10	HIE	Health Information Exchange
11	HIS	Hospital Information System
12	ICD	International Classification of Diseases
13	IMS	Information Management System
14	IPD	In Patient Department
15	JCI	Joint Commission International
16	LIS	Laboratory Information System
17	MRD	Medical Record Department
18	NABH	National Accreditation Board for Hospitals and Healthcare Providers
19	NABL	National Accreditation Board for Laboratories and Calibration
20	NIS	Nurse Information System

21	OPD	Out Patient Department
22	PACS	Picture Archiving Communication System
23	PIS	Physician Information System
24	RIS	Radiology Information System
25	ROS	Review of Systems
26	TAT	Turn Around Time
27	UAT	User Acceptance Test

## INTRODUCTION

I got the opportunity to do dissertation from Akhil Systems Pvt. Ltd.(ASPL), New Delhi. Akhil Systems Pvt. Ltd. (ASPL) is the leading provider of innovative health information systems and services that transform the administrative and clinical operations of healthcare organizations of all sizes. Award winning solutions easily simplify decision making, streamline surgical procedures, in addition to make certain compliance along with healthcare standards & practices; in the end saving effort and time to maximize value in addition to profits. ASPL is India's one of the pioneer Hospital Information System (HIS) companies with around 20 years of experience in the single domain of healthcare. Specialized in delivering management information systems for Hospitals, Medical Colleges, Clinics, Diagnostic Centres and Pharmacy Chains, ASPL have around 150+ projects running across pan India and worldwide.

Akhil Systems philosophy has been to empower the healthcare institutions with its solutions so that the medical specialist can provide best care to the Patient, streamline the processes for improved workflow and provide great analysis through MIS dashboards to know the growth of organization. As one of the pioneers in HIS industry, ASPL focus on developing the best possible solution which fits into your organization needs and become lifeline of the organization. ASPL like to predefine the implementation timeline as per client's vision and plan effectively to deliver the solution within or before the timeline. It provides full time implementation support to deliver the quality solution. A team of dedicated professional managing project from initiation till support phase and provide 24\*7 continuous supports for the product/processes to run for years together. We always want to engage us in a project by putting ourselves in client's shoes.

I worked as Clinical Consultant and a part of Implementation Team,

Give Training of EMR Module of HIS to Doctors, also giving training to newcomers to company, do regular UAT of EMR module, Lead the project of Implementation EMR Single Screen, Case Sheet, New Prescription and Past Clinical Notes in HIS of a Multispecialty Hospital, I also Prepare the User Manual of EMR and CSSD, and Prepare the PPT of EMR for Demonstration.

The main purpose of this training is to get exposure to the functioning of the organization which I get in these three months. This Dissertation adds the value to my life for the exposure it provides.

**Mission:**

To develop, innovate and provide robust Healthcare ERP solutions using latest technologies worldwide as per the client's vision with quick implementation and affordable cost.

**Vision:**

We intend to provide the best services to our clients and want to achieve worldwide excellence in Healthcare IT industry by providing our world-class Healthcare ERP solutions.

**USP's of Akhil Systems:**

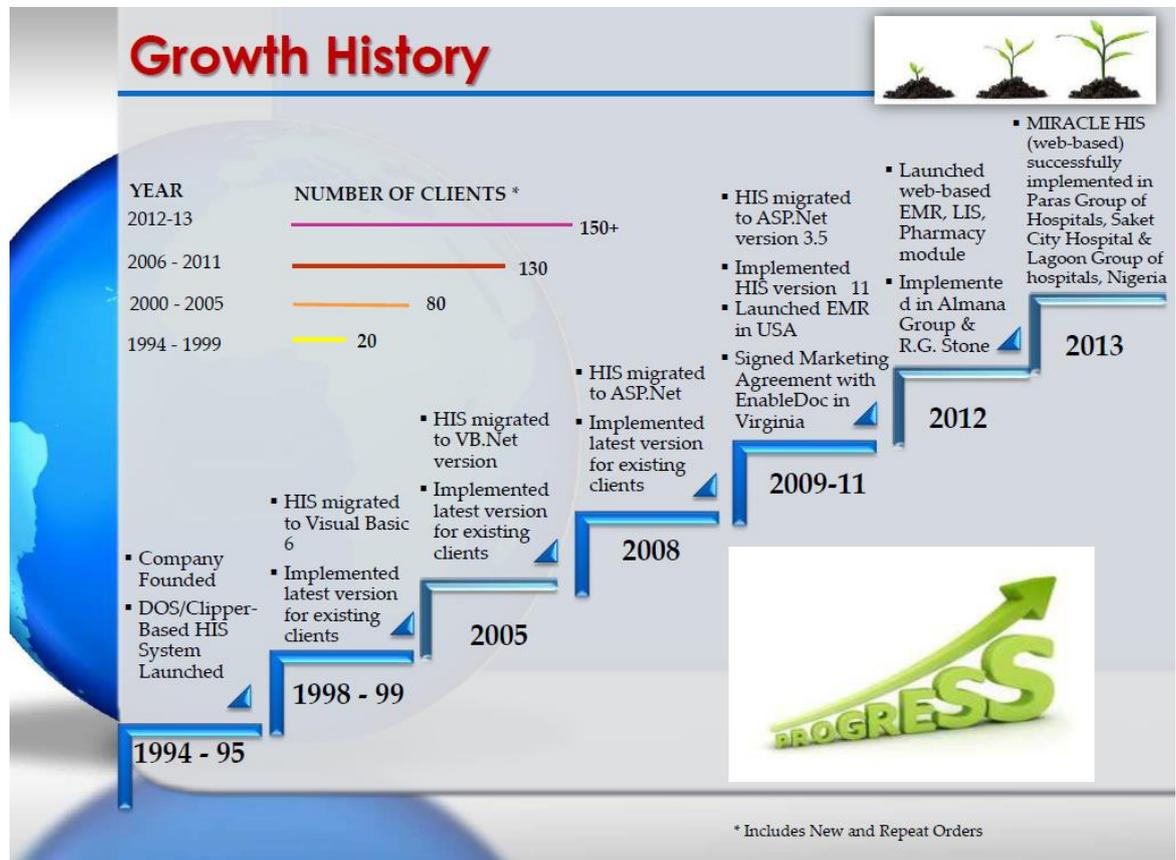
- Longest experience of HIS in India
- Single Domain Company – Healthcare
- Products have gone through a complete lifecycle – from a DOS based system to latest Cloud computing environment
- Better technology at a lower price
- Standard ready-to-use software solution for small hospitals
- Customization offered to medium or large size hospital
- Excellent post-sales support
- Confirms to both Indian and International standards NABH / NABL / JCI)

- Built in ICD / CPT / LONIC / SNOMED coding
- Built in comprehensive MIS reports using Microsoft BI Tools
- Complete Template based EMR – Self Configurable
- Dashboard's Available for Doctor's, Patient, LAB, Purchase, Administration etc.
- EMR confirms to US standards and certified by CCHIT & ARRA hosted on Cloud
- Cloud based HIS and EMR for Hospitals & Doctors in India
- Interface to Medical Equipments, Laboratory Analyzers and Large Display devices.
- Lowest TCO among Top Indian HIS companies

#### **Recent Achievements**

- Winner of “Best HIS and HIMS Provider of the Year -2013” by e-India Award
- Signed contract with DM Healthcare/Dr. Azad Moopen's Group for multiple hospitals in Middle-East & India and Implementation is going on
- EMR implementation in Lagoon Hospitals – A Group of 4 hospitals in Nigeria, Africa
- Fastest Implementation in less than 60 days in Saket City Hospital
- 90% of doctors using EMR in Apollo Hospitals, Dhaka, Bangladesh
- Successfully implemented Web-based HIS in Paras Group of Hospitals (4 Hospitals)
- Provided EMR to EnableDoc, USA
- Created history by Implementing HIS in B L Kapur Hospital in less than 30 days
- LIS/EMR Implementation in Almana Group of Hospitals, Saudi Arabia
- Best EMR Implementation in Renai Medicity, Cochin used by almost 30 doctors

## Growth History of ASPL with HIS:



## **Dissertation Overview:**

The Dissertation is conducted in a multispecialty hospital situated at Gurgaon where Miracle Hospital Information System of Akhil Systems Pvt Ltd is already running successfully but EMR module of HIS is not implemented yet. The dissertation report will focus on the change management of doctors while implementing EMR module.

## **Problem Statement:**

After successful implementation of Hospital Information System in the Multispecialty Hospital doctors are still using the old traditional method of Paper Prescription. All staff other than doctors is using the HIS meaningfully. To get rid of old traditional method of paper prescription hospital management team decided to implement EMR Module to be used by Doctor's. But it's still a challenge here to implement the EMR with a meaningful use in the busy schedule of doctor's. Doctor's are engaged with patients to give them best available treatment for their problems and every doctor deals with many patients daily. So, it's difficult for a doctor to switch directly to paper less prescription from old traditional method. As also doctors don't want to use that software initially because it will increase their workload. So, it will take time to make EMR implementation successful.

## **Objective's of the Study:**

The general objective of this dissertation is to know the challenges faced while implementing the EMR Module in a multispecialty hospital.

### **Specific Objectives are:**

- To know the awareness of EMR among Doctors
- To know the willingness of doctors regarding the use of EMR
- To know the doctors preference of prescription i.e. old traditional Paper prescription or Paperless EMR.
- To know the challenges facing while implementing EMR

### **Scope of the Project:**

- Provide a process for implementing change required by the system
- Manage the handling of gaps between institution processes and procedures and the baseline system being implemented
- Evaluate and prioritize all changes to the project implementation plan at the institutional level
- Manage and control scope change during the Implementation Project
- Ensure that the project is implemented on time and within the approved budget and scope
- Align efforts and institution resources to meet institutional needs.
- Encourage process and policy change before system modifications.
- This study would help the implementation team for their future implementation of EMR module in other hospitals.

## **Need of the study:**

Implementing EMR module and make them meaningfully use by doctors is itself a challenge for project manager. Change Management is an important part of project implementation to make it successful. A change management process defines the steps used to identify and make changes to a project. It includes the purpose of change management plan, change control procedures, roles and responsibilities for managing change. Therefore study will help us to know:

- How many doctors want to use the EMR?
- How many doctors deny using EMR?
- Why they deny?
- Do they have any requirement regarding it?
- Will they use the EMR if changes done according to them?

## **Expected Issues:**

Expected Issues while implementing the EMR are:

- Doctors don't have time even to see the demonstration of the EMR.
- Doctors may deny the use of EMR.
- Doctors may demand an assistant to enter the data.
- It's a Time consuming Process which may be double the time of consultation, when doctor's start using the EMR Module and enter the Medical data of patient.
- Doctors don't have computer system at their work place i.e. in the OPD

## **Data Sources:**

### **Primary data sources:**

- Structured Questionnaire
- Structured Interview
- Non Participant Observation

### **Secondary data sources:**

- Literature available for EMR
- EMR user manual
- Change management processes
- Books, websites etc

## **Review of Literature:**

- 1.) [http://www.healthit.gov/sites/default/files/tools/nlc\\_changemanagementprimer.pdf](http://www.healthit.gov/sites/default/files/tools/nlc_changemanagementprimer.pdf) visited on 10/05/2015.

Change in health care is moving at a rapid pace as practices strive to implement regulatory and policy requirements, such as ICD10; understand new models of care such as Patient-Centered Medical Homes (PCMHs); and continue their own quality improvement efforts. Many practices are doing all of this while implementing a certified electronic health record technology (CEHRT) to achieve Meaningful Use. This change is happening at a time when providers are still seeing patients and trying to maintain a healthy work life balance. These are clearly stressful times for providers and their staff, and adapting to change has become a way of life for their practices. Fortunately, change management is a well-developed field with significant evidence and leading practices on how to successfully navigate the change process. One of the leading thinkers in planning organizational change and providing practical strategies for navigating change is John Kotter.

Kotter believes that any change has both emotional and situational components, and he has proposed a multi-step change model. The model is organized into three phases to help leaders manage the challenges that are inherent in any change initiative (Campbell, 2008). Exhibit 1 illustrates how Kotter's three-phased approach can be used when planning a change from the current way of doing business and caring for patients to the vision you have for your future practice, one that optimizes the use of technology to provide safe, high-quality, and efficient patient care services while meeting regulatory requirements.

As illustrated, Kotter's Change Management Model points to the need to think of the change process as a journey for the entire organization. The journey will be smoother if everyone understands:

- Why they need to leave the Current State?
- Why the Future State is better for their patients and the practice?
- What changes in workflows will be necessary?
- What technologies and new skills will be required?
- How staff will learn those new skills and gain knowledge of how the technology fits into their everyday work life?

### **Three Phases of Kotter's Change:**

#### Phase 1: Creating a Climate for Change

- Create a Future State (vision)
- Identify a champion
- Establish a project plan

#### Phase 2: Engaging and Enabling the Organization

- Engage practice staff in all facets of system selection and practice redesign/transformation
- Conduct trainings
- Evaluate usability

#### Phase 3: Implementing and Sustaining the Changes

- Update system based on feedback
- Reward staff

2.) “Change Management Strategies for an Effective EMR Implementation” by Claire McCarthy, MA and Douglas Eastman, PhD – HIMSS

An EMR implementation is compared to a tornado in that it whips through an organization, turning life upside down and throwing users into a world filled with new ways of doing things and seeking ways to recapture some sense of balance and control. EMR technology disrupts the status quo, and along with the many opportunities it promises, it also brings a whirlwind of seemingly never-ending changes, which can have an entirely different effect on different people. While an implementation that is effectively managed even brings these challenges, a poor implementation can be disastrous and will cost the organization much more time, energy, and money to get things back on track.

Dorothy, the character from the movie *The Wizard of Oz*, held her composure pretty well through the tornado that ripped her from a calm, stable life on the farm and threw her into a foreign world. She was able to manage through the obstacles and challenges and stay the course as she followed the yellow brick road in search of the wizard. Some say this is similar to the experience users have, except for the part when Dorothy wakes up from her dream and finds herself back home as she remembers it!

EMR implementations don't have to be nightmarish for users, but there certainly will be obstacles and challenges along the way. The key is to help users through the road blocks and enable them to experience a positive journey. This process is always easier when people know what they are getting into, feel supported, and are prepared for what lies ahead, both good and bad. This is the role of change management.

It's important to understand why you should make an investment in the people side of the project—bringing in the best technology possible doesn't mean anything

unless users are comfortable and proficient in its use. The truth is just because you build it doesn't mean they will come.

3.) [http://www.bio-itworld.com/uploadedFiles/Bio-IT\\_World/Whitepaper\\_SmartForms/Forms/PDF/HP-Successful-EHR-Change-Management.pdf](http://www.bio-itworld.com/uploadedFiles/Bio-IT_World/Whitepaper_SmartForms/Forms/PDF/HP-Successful-EHR-Change-Management.pdf) visited on 10/05/2015

Implementing a new electronic health records (EHR) system is a big change for your practice. Successful management of that change involves thinking not only about the new technology, but also about your people. They have tremendous power to influence the success of your EHR rollout. To use that power to your advantage, you need to understand how the change will affect them, how best to engage them in the process and how to tap into their experience to design the best outcome. The more effectively you can do that, the faster your practice can start to realize the many benefits of electronic records.

Medical practices that manage the change to EHR successfully – which is to say, by taking into account not only the technology, but also the people involved – can realize many benefits. Making sure everyone is on board with the plan, the right team is in place and the team members understand their roles will go a long way toward minimizing any potential disruption that such a major IT implementation can bring. Once the new system is in place, successful change management can also help to ensure that people will start using the system productively as soon as possible. And the more quickly that happens, the closer the practice will be to seeing the operational, clinical and administrative benefits that are the ultimate promise of EHR. This paper is designed to help medical practices that are adopting EHR to manage the change, specifically by providing information about engaging people in the process, defining their roles and assigning clear responsibilities to them, all in the interest of a successful transition

Peruse the definitions of “change management” on the web, and you’ll quickly see the importance of people in the process of successfully managing change. While many definitions describe change management in terms of organizational change, they generally also include references to individual change. For example, according to one source, the Government Accounting Office defines change management in part as building consensus among people on change. The Change Management Learning Center describes it as “the process, tools and techniques to manage the people side of business change.” The Health Information and Management Systems Society (HIMSS) talks about EHR change management in particular as “the human side of electronic medical records implementations, the human focused work of engaging and preparing people to succeed in the new world of EMRs.” So while change management happens at the organization level, it’s not just about the organization as a whole; it’s about the individuals that make up the organization. It’s about people. One of the reasons people are such an important focus in change management is that they can strongly influence how successfully an organization changes. For example, just because you implement an EHR system does not guarantee that you will derive the maximum benefit from it. The people who are going to use it and be affected by it, from staff to patients, ultimately determine how successful the implementation will be. If, for example, office staff members refuse to use it, or don’t get the training they need to use it properly, the benefit will be minimal at best. This perhaps explains why the College of Healthcare Information Management Executives (CHIME) and the Health Research and Educational Trust (HRET) recently concluded that “training in advance of using a new EHR system and tangible support for the implementation in its first days and weeks of use are critical success factors for facilitating the deployment.” Establishing clear roles and well defined responsibilities is an important step to help ensure that people are prepared to deal with a planned change such as an EHR implementation. This imposes

valuable structure, sets appropriate expectations and makes change more manageable for people. And it will be critical to your practice's success in moving as efficiently as possible through the spectrum of typical responses to change, from resistance to acceptance.

## **Background of the Project Implementation:**

An EMR (Electronic Medical Record) is a digital version of a paper chart in a clinician's office. It contains the medical and treatment history of the patients. An EMR allows a clinician to track data over time, easily identify which patients are due for preventative screenings, check how patients are doing on certain parameters such as blood pressure readings or vaccines and monitor and improve overall quality of care within the practice.

An EMR is said to make the process of patient record-keeping easier, more accurate and comprehensive and more efficient. Doctors use specialized software, which allows them to enter information electronically and makes a patient's complete history available immediately. Physicians can use a desktop, laptop or electronic clipboard to navigate through patients' charts and record notes.

Familiarization and Training of primary users on the EMR should be both initial and on-going. Proper training is one of the key success factors for smooth transition to a paperless patient care system. Hands on training immediately prior to going live has been documented to be of great significance as the training is fresh in the minds of the users. Web Based HIS (Hospital Information System) of ASPL (Akhil Systems Pvt. Ltd.) is already running in multispecialty Hospital in Gurgaon. Now, it's going to Implementing EMR (Electronic Medical Record) Module to be used by Doctors in OPD in First Phase). I am Working as Clinical Consultant and playing leading role in implementing EMR. Firstly giving training on basic format of EMR and customize the product later according to the requirement of Doctors. I am involved in all the three phases Pre-implementation, Implementation and Post-implementation phase. After giving Pre-implementation training, must Go Live and support will be provided. Pre-Implementation training is must to make Success-full Implementation of EMR.

But Pre-implementation training is not the only factor that will lead to success of EMR Implementation. Another thing is user acceptance, for user acceptance there is need of change management because not every doctor will accept the EMR at the beginning. As there is a big change going to be implemented from traditional paper prescription to paper less prescription. So Change management will play the major role in the acceptance to use EMR module by the Doctor's.

## **Project Management Plan:**

Change management must be properly planned, without planning it will not give the expected results.

Plan is to:

- Give demonstration to doctors in their OPD.
- They just have to enter only four fields in the starting; these fields are Chief complaints, diagnosis, Prescription and Investigations.
- Initially demo given to those doctors only who had computer systems or laptops and internet connectivity is provided to them by the hospital and let them use the live application as early as possible to enter the patient data.
- Also Train doctors assistants those who have.

## **Activity Allocation:**

- To manage the change process while implementation of EMR
- To met with doctors at their work place
- To Demonstrate the EMR Module to Doctors – how to use it on daily basis in OPD while seeing patients and enter the data along with, and how to use it effectively
- Assist the doctors if they are facing any issue while using EMR
- Gather the points of requirement and enhancement in EMR from doctors.

**Methodology:**

It's a Descriptive Study. It also includes a questionnaire based cross sectional study.

**Plan:**

- Pre-implementation training survey
- Demonstration of the product
- Hands on training
- Post Training Evaluation
- Evaluation after 6 months

**Sampling Technique used** : Convenient Sampling

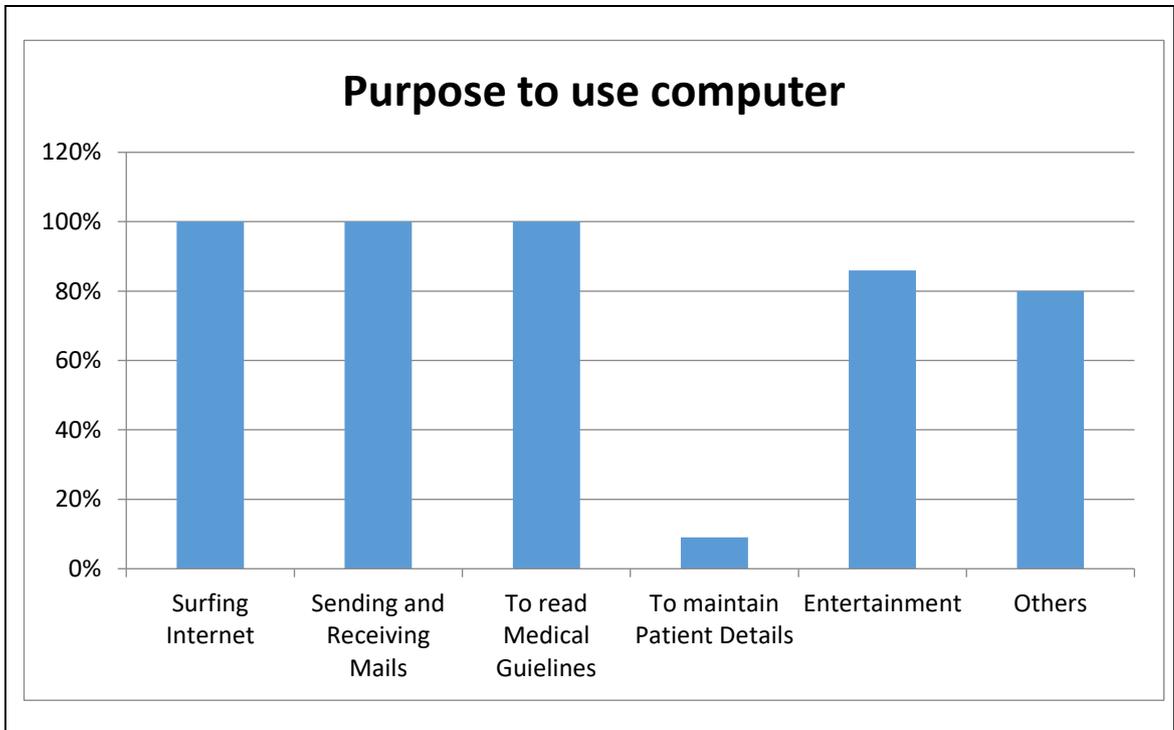
**User** : Doctors

**Tools** : Pre-training Survey via Questionnaire

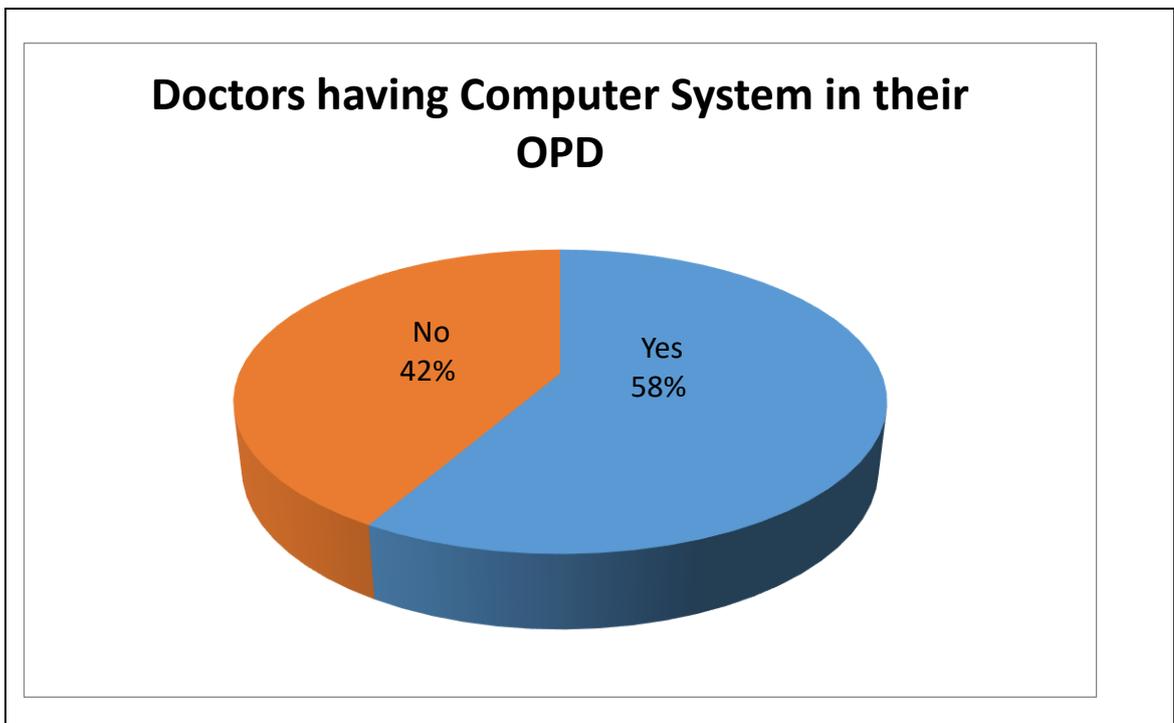


## Results:

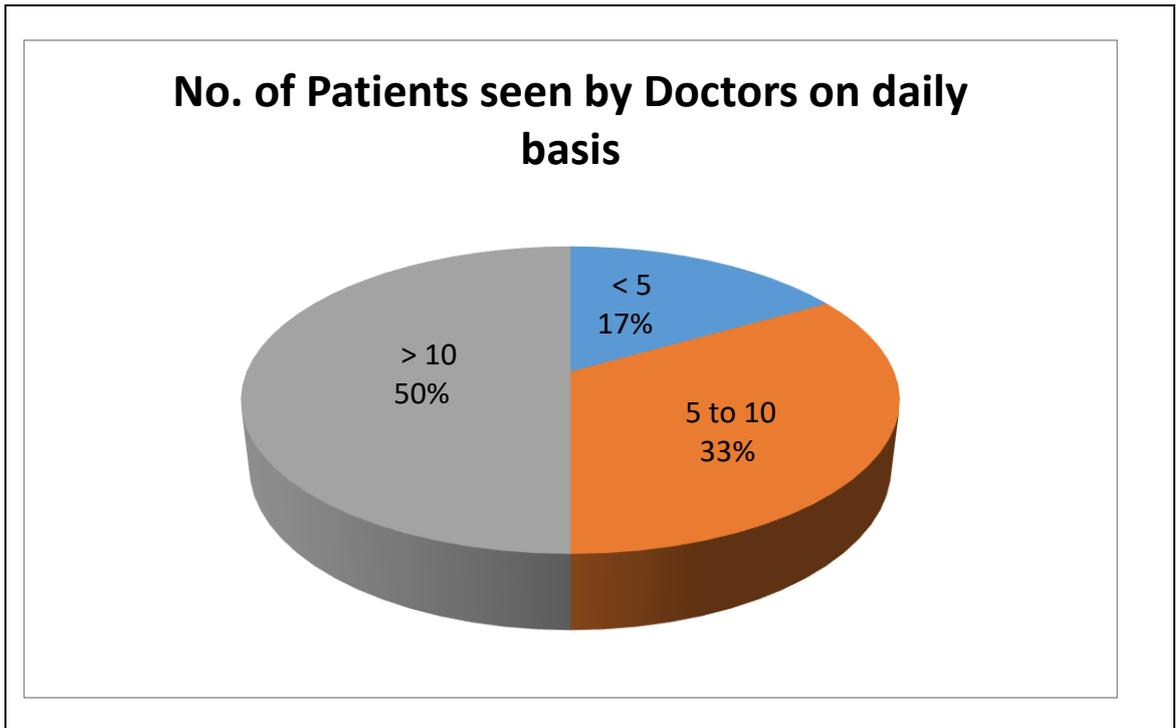
- ▶ Every doctor knows about how to use a Computer
- ▶ Doctor's Purpose to use Computer



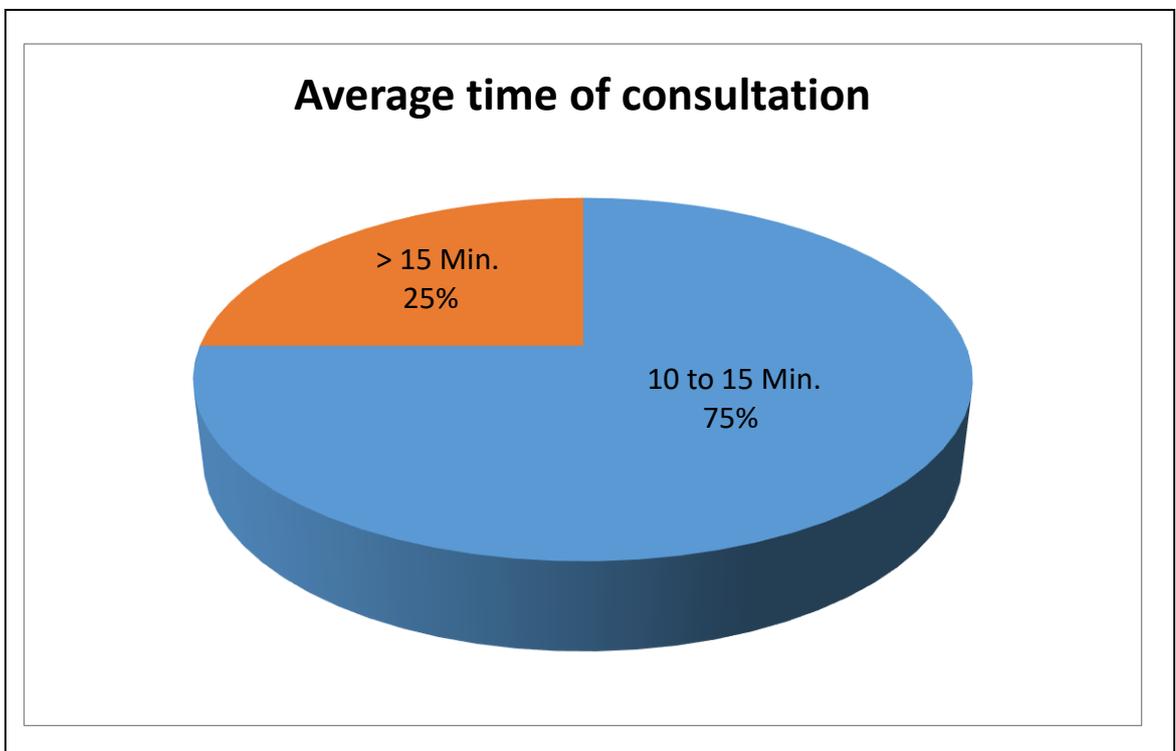
- ▶ **Doctors having Computer System in their OPD:**



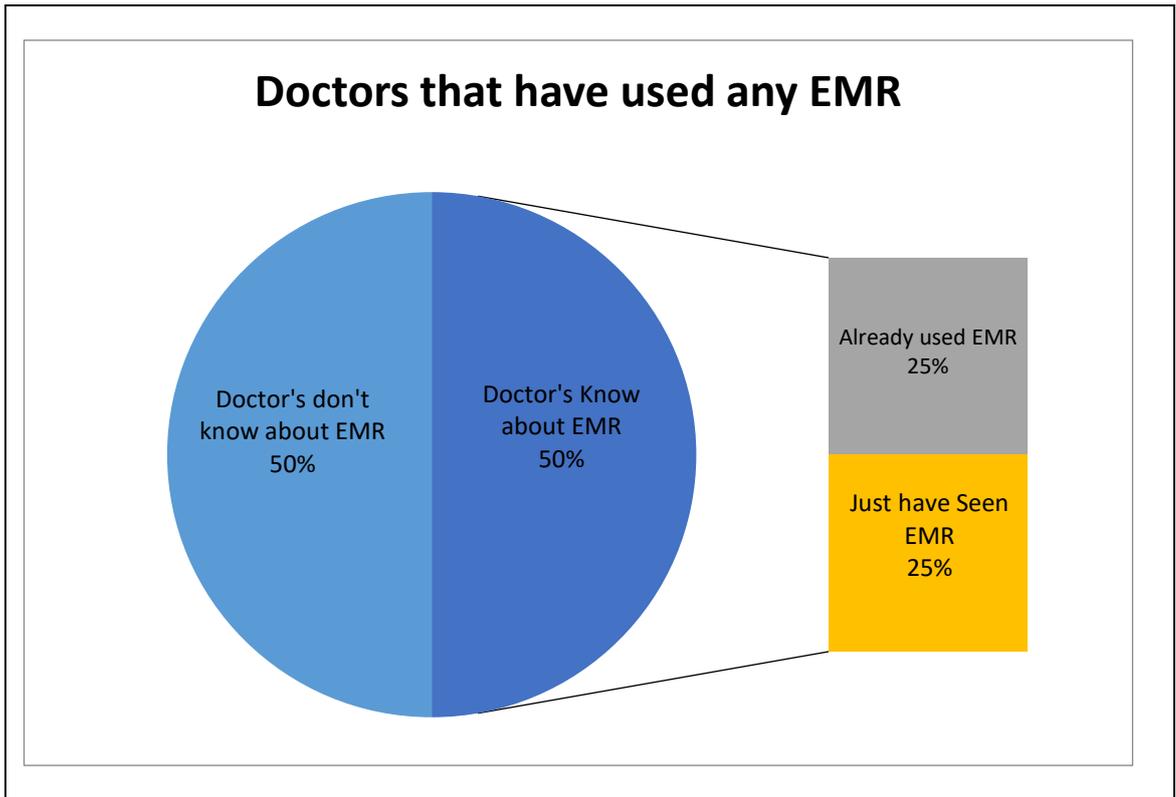
► **No. of Patients seen by Doctors on daily basis:**



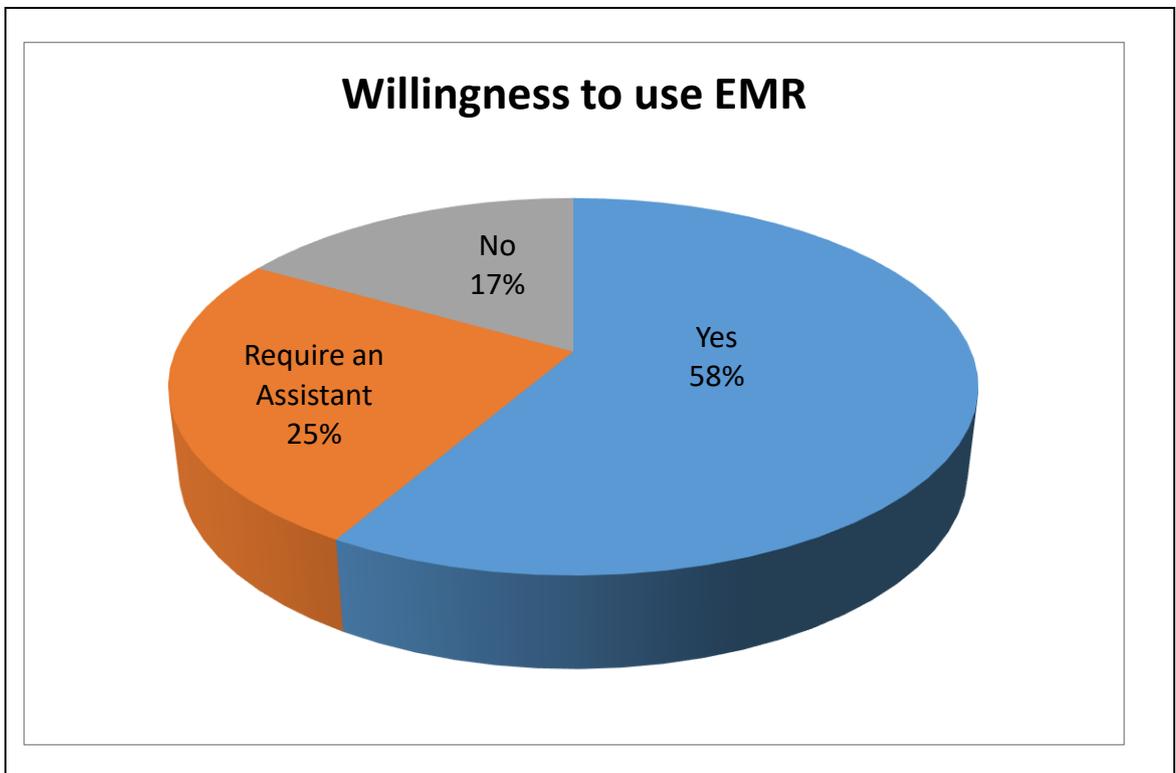
► **Average time of consultation:**



► **Doctor's Awareness about EMR:**



► **Doctors Willing to use EMR:**



## **Discussion:**

The Change Management plays an Important role in Implementing EMR module in the Multispecialty Hospital where Miracle HIS is already running successfully. This study is focused on changes that required while Implementing EMR. The Study majorly focuses on the major research questions which would be discussed in this part only:

### Research Question 1:

Does every doctor know how to use a computer?

As shown in results every doctor knows about the computer and uses it on daily basis for surfing internet, sending and receiving E-mails, to read Medical Guidelines, Entertainment and for making presentations etc. This will make easier to introduce the EMR to Doctor's that they will easily understand what to do and how to do in an easier and proper way.

### Research Question 2:

Does a doctor have little extra time to spend on entering the Medical data of patient in EMR?

Doctor's schedule is too much busy to give best available treatment to the patients. As shown in results 50% doctors have seen more than 10 patients on daily basis, 33% have seen 5 to 10 patients and 17% doctors have seen less than 5 patients in a day. On an average 75% doctors spend 10 to 15 Minutes with the patients for consultation and on the other hand 25% doctors spend more than 15 minutes it will exceed up to 30 to 45 minutes also. It is very hard to accept that new system with day 1 gets accepted as compared to the manual paper prescription. So this is going to create an

issue regarding time consumption in filling patient data in EMR. To get rid of it, it is decided to fill only minimum required fields by the doctors in EMR.

Research Question 3:

What is the awareness of EMR among Doctors?

Only 50% Doctors knows about the EMR and that doctors have also seen the EMR in some hospital but only 25% Doctors have used the EMR. Those who knows about EMR are willing to use EMR but those who don't know for those there is a challenge to make them use of EMR.

After demonstration 58% doctors are ready to use EMR while 25% doctors that are old aged demand for an assistant to feed the data in EMR and 17% Doctors directly denied entering the patient data in EMR.

Research Question 4:

If facilities provided to doctors and changes done according to them are they ready to use EMR Module?

Yes, most of the doctors agreed to use EMR module and make data entry of patient's medical record with filling minimum required fields. Some doctors are willing with the help of an assistant because they have heavy OPD patient load.

## “Pre-Implementation Questions for Doctor’s”

Doctor Name.....  
 Date.....  
 Specialty.....  
 OPD Timing.....

Sr. No	Question's	Answer	
		Yes	No
1	Do you know how to use a computer?		
2	For what purpose do you use computer a. Surfing Internet b. Sending and Receiving mails c. To read guidelines d. To maintain patient details e. Entertainment f. others _____		
3	Do you have computer at your work palace?		
4	If yes what type is it? ----- Lap top/ PC/ Tab work station		
5	Do you use computer for maintaining patient records?		
6	How many Patients do you see on daily Basis?		
7	On an average, how much time you are spending to consult one patient?		
8	Do you know what EMR is?		
9	Do you know the benefits of EMR?		
10	Have you seen any EMR?		
11	Have you used EMR?		
12	Do you know anyone who is using EMR?		
13	Do you think it's difficult for patients to maintain their health record		
14	Do you think it is difficult to maintain patient health record for long time by the hospital?		
15	Do you think EMR is helpful for maintaining patient health record?		
16	Do you think EMR is a waste of time?		
17	Are you willing to use EMR if it is made available for you to use?		