

Electronic Health Records Modern IT for Better Patient Outcomes



INTRODUCTION

Studies have shown that primary care physicians spend as less as 30-40 hours in direct patient care because of the heavy paperwork and admin duties which they need to perform. But things are changing here at a very rapid pace.

According to Gartner predictions, 40% of U.S. primary care visits will be virtual by 2018.¹

Healthcare technology and innovation are dramatically changing the way hospitals operate today and the way care is delivered to the patients. At the very first level, most of the hospitals have started to adopt Electronic Health Record (EHR) systems to enhance their productivity, reduce medical errors, and improve the patient care. Large healthcare organizations are spending millions of dollars to ensure smooth EHR implementations. While the benefits of EHR systems are fairly obvious, there are various aspects which go into the selection and optimal implementation of the right EHR system.

In this comprehensive guide by Alcor Solutions, you will -

- ▶ Know what is an EHR system and its key benefits
- ▶ Understand the key aspects to look at while selecting the EHR system
- ▶ Know more about the common challenges faced during EHR implementations
- ▶ Review some examples of successful EHR implementations and the derived ROI

Know the best practices to ensure that your EHR implementations are successful

WHAT IS AN EHR?

An Electronic Health Record (EHR) is nothing but the digital version of a patient's health information and paper chart. The information can include patient demographics, vital signs, past medical history, medical problems, diagnosis, medications, treatment plans, allergies, immunizations, laboratory test results, radiology images, progress notes and more such information about a patient's health.

EHRs are meant to be shared beyond the health organization that originally collects and compiles the information. The health records can be shared across multiple healthcare providers such as laboratories, pharmacies, nursing homes, emergency facilities, specialists, imaging facilities, and even schools and workplace clinics.

For authorized users, EHRs make it easy to access patient records instantly in real-time and securely. With EHRs, providers also can access evidence-based tools which help them in making better and more informed decisions about patient care.

KEY BENEFITS OF EHR

EHRs are transforming the way healthcare is delivered today. A few years ago, 90% of the doctors in the U.S. updated their patients' records by hand and stored them in color-coded files². Fast forward a few years, it is estimated that by the end of 2017, approximately 90% of office-based physicians nationwide will be using electronic health records (EHRs).³ The EHR adoption rate has grown from 40% in 2012 to 67% as of March 2017.

In today's digitally empowered healthcare enterprise, EHRs enable a more seamless flow of information which helps the health care provider in enhancing the way care is delivered to their patients and enhance the outcomes. Some of the key advantages of EHR systems are –

- ▶ As compared to paper records, data organization, interpretation, and access are easier with EHRs.
- ▶ EHRs help in providing critical data and accurate, up-to-date information about patients to health care providers at the right time, enabling them to take informed clinical decisions.
- ▶ EHRs help in better coordination of care between various providers in the overall healthcare ecosystem by securely sharing patient information across the providers.
- ▶ With EHR systems, the patient health information is more accurate and comprehensive irrespective of the point of care – this helps in bringing focus on the total health of the patient.
- ▶ EHRs help in improving the overall productivity and efficiency of the health providers and also help in reducing avoidable medical errors.

- ▶ Health care providers can reduce their overall operations cost for the health providers through reduced paperwork, better safety, reduced duplication, improved health, and better patient care.
- ▶ It is a known fact that patient participation is essential in the treatment and management of chronic diseases such as diabetes, asthma, cardiac diseases, and obesity. EHRs help in fostering patient participation by opening up quick and easy communication avenues between patients and doctors.
- ▶ With reliable and accurate access to patient's health information, providers can diagnose patient's problems sooner, improve the diagnosis, prevent medical errors, and improve the overall quality of care.

KEY ASPECTS TO 'LOOK FOR' IN AN EHR SYSTEM

A good EHR system helps healthcare practitioners navigate through their most difficult practice management issues. While there are thousands of EHR vendors, health providers should look for the following key aspects while selecting the most suitable EHR vendor:

Data Capture

Doctors are always hard pressed with time and they, therefore, need a system which can allow them to quickly document the patient information, diagnosis, and treatment. A good EHR system allows the doctors to maximize their time with patients by offering task-oriented tools.

Data Storage

Healthcare data is much more complex – it includes various formats which are very unique to the healthcare industry. The EHR system should be able to appropriately store the data and support real-time data interoperability.

Data Security

Ensuring security and confidentiality of health data is of supreme importance. While selecting the EHR system, the health care providers need to look for how and where the data is going to be stored – the latest trend is to store the data on cloud-based storage systems, which helps in enforcing strong security and privacy policies.





Communication Tools

Going beyond emails and chats, the EHR systems should allow a deeper level of a communication system which allows for smooth information to pass between various health care providers and also between doctors and their patients.



Flexible Workflows

Since every healthcare provider has specific workflows, the EHR system should be able to adapt to their process workflows and should be able to deliver true outcomes to the doctors in terms of efficiency, time-saving, reduced costs. For patients as well, the benefits should be obvious in terms of reduced wait times, better care, and improved outcomes.



Analytics

Having data is not enough unless it is translated into actionable insights. By analyzing the medical tests, diagnosis, lab reports, medications, allergies etc. of patients over a period of time, clinicians can identify patterns of results and tweak treatment and care accordingly. By using predictive analytics, doctors can use historical data to predict future trends – for example: they might be able to identify whether or not the patients will opt for a surgery, which patients have more chances of developing complications after a surgery, or what are the chances of an outbreak of an epidemic disease. However, for healthcare analytics to be effective, the EHR systems should be able to optimally capture all the data and be able to integrate seamlessly with transactional systems.



Mobility

Doctors and other caregivers are always on the move – on calls, doing their rounds, or treating their patients. Because of the very mobile nature of work involved, clinical teams need mobile access to patient records and need a high degree of collaboration – anytime, anywhere, on the device of their choice. It is, therefore, important that the EHR systems offer critical features such as convenient and anytime access to patient information, mobile communication across teams, solutions for e-prescriptions, easy data entry through mobile devices, and scheduling.

HOW HEALTHCARE ORGANIZATIONS HAVE BENEFITED FROM EHR—CASE STUDIES

Millions of hospitals and physician practices around the world have benefitted from successful implementation of EHR systems. Here are a 5 case studies:

Reliant Medical Group: The Group, earlier known as Fallon Clinic, began its EHR journey in 2001. In a period of 10 years, the group was able to increase patient safety and reduce clinical risk by reducing malpractice premiums by 5%, reduce the transcription costs by 75% by increasing the use of note-generator tools, and achieve 72% reduction of the medical record staff which was earlier needed for paper charts creation and filing.⁴

Dartmouth-Hitchcock: The Dartmouth-Hitchcock Medical Center, based in Lebanon, New Hampshire was amongst the early adopters of EHR systems. Through a strong care management program and effective use of technology, the center today has one of the lowest re-admission rates in the country. It is one of the only four hospitals in the state to avoid re-admission penalties from the Centers for Medicare and Medicaid Services.⁵

Health Net: This Indianapolis-based health system has been a user of an EHR system since 2009. Since its implementation of EHR system, the organization has been able to achieve a 230% return on investment and has been able to maintain quality care for patients across its diverse healthcare facilities.⁶

Susquehanna Health System: This institution in Williamsport, Pennsylvania, has integrated pre-operative analytic tools with its EHR systems to translate raw data into actionable insights. It has helped the institute reduce the average patient stay by 29 percent and reduce its 30 day re-admissions to below the national average.⁷

Boca Raton Regional Hospital: From facing a \$124 million loss in 2009 to having a net income of \$5.2 million in the fiscal year 2014, the Boca Raton Regional Hospital in Florida attributes its success to EHR implementation. With EHR, the hospital not only saved millions of dollars in cost and time of record processing but also reduced the claim denial rate from 40 percent to zero.⁸

COMMON CHALLENGES IN EHR IMPLEMENTATION

While the benefits of implementing a comprehensive EHR solution are quite obvious, EHR implementation is not a very easy task. Here are some of the potential challenges which the healthcare providers can face with their EHR implementations –

Familiarity and Adoption of Technology

The healthcare providers are indeed used to using advanced technology in their other areas of operations such as surgeries, X-rays etc. However, their knowledge, familiarity, and understanding of computer technology can vary by age and region. Some might be comfortable to paper records and might face issues in learning new technology. It is, however, important to get a buy-in from the clinicians and other such users of the technology.

Costs

EHR implementation costs are not limited to the purchase of technology. There are other associated costs such as implementation, customization, training, support, infrastructure and more. Inability to identify the total costs of implementation often acts as a barrier in adoption.

Workflows

Every healthcare organization has its own workflows and the EHR should be able to adapt to those workflows. Introducing completely new workflows will not only make the users ineffective, but it can defeat the whole purpose of the EHR system.

Privacy Concerns

Healthcare organizations are always concerned about the security and privacy of their patient data, and very rightly so. With EHR systems, since the data resides in electronic format, there are concerns about cyber-attacks, compliance issues, and loss of data due to natural disasters.

Usability

The purpose of the EHR systems is to make the users efficient and effective. Therefore, the systems need to offer extreme ease of use and should not leave the physicians and nurses frustrated with too many options, cluttered screens, and unclear navigation. It should not have a negative impact on the productivity of the users.





Best Practices to Ensure EHR Implementation Success

- 1 Set the Right Goals
- 2 Get Buy-in from the Stakeholders
- 3 Technology and Infrastructure
- 4 Custom Workflows
- 5 Post-Implementation Support
- 6 Experts' Help

Data Migration

Data migration from the existing system to a new EHR can be a time-consuming task. It is important to ensure that the patient data is migrated accurately without any issues. One of the ways to do this successfully is to prioritize the data migration – instead of migrating all the data in one go, do it in phases.

BEST PRACTICES TO ENSURE EHR IMPLEMENTATION SUCCESS

Here are some best practices for hospitals and healthcare providers to ensure that their EHR system implementation is successful.

Set the Right Goals

Before starting with the EHR implementation, it is important that the hospitals set realistic and definite goals which they want to achieve. The goals can be in the form of digitization of records, improvement in patient care, revenue increase, or any other. Only when the goals and objectives are clearly defined, the organizations can know if their implementation was a success or not.

Get Buy-in from the Stakeholders

EHR system implementation cannot be treated as an IT activity. It is crucial to get a clear buy-in from not only the management but also from the end users and other such stakeholders. Organizations need champions who can help the users reach a consensus. Since EHR implementation also involves other factors such as change management, training, and support, it is important to get all the stakeholders on the same page.

Technology and Infrastructure

The most expensive or the most popular EHR may not be necessarily right for you. You need to select the technology which is suitable for your needs. Adopting an incorrect technology which is non-scalable, non-user-friendly, and does not adapt to the latest technological advancements can be a recipe for disaster. It is also important to ensure that the technological infrastructure to support EHR such as wireless coverage, data storage, data backup etc. is also in place.

Custom Workflows

The EHRs come with standard workflows which may or may not be suitable for your requirements. It is important to ensure that the workflows for each department and the hospital can be appropriately adopted in the system so that clinicians are able to work faster and see increase in their productivity and efficiency.

Post-Implementation Support

It is critical to offer a complete post-implementation support to the users so that they don't feel neglected. The users need to have option to get their queries resolved in time and there should be training programs to help them get acquainted with the system. It is also important to keep enhancing the system by taking constant feedback from the users.

Experts' Help

Assistance from an expert or a team of experts who have experience in successfully implementing EHR systems can make a huge difference in the success or failure of the system. The ideal partner would be someone who understands the hospital workflows and also has deep understanding and knowledge of EHR systems.

ALCOR'S EXPERTISE IN EHR IMPLEMENTATIONS

Selecting the technology is just the first step towards the adoption of EHR systems. The systems need to be optimally implemented to suit the specific business needs of the hospitals. At Alcor, we have a team of experienced and expert healthcare consultants who can help you leverage the potential of EHRs to enhance patient care, improve productivity, and reduce administrative costs.

- ▶ We help healthcare organizations with end-to-end EHR implementation services. We help them identify and implement specific workflows based on the needs of the physicians and thereby improve the quality of patient care.
- ▶ With our deep understanding of state licensure laws, we create custom designs to support team-based care or task delegation by physicians and help in maximizing the productivity of every end-user.
- ▶ Facilitate automatic tracking of referrals, consultations, orders, and labs so that the physicians can follow the patient's progression throughout their care.
- ▶ Modularize and customize the standard EHR to best suit the physician's work flows and patient populations.
- ▶ Enhance the data capture options to make them extremely easy to use and reflective of the pertinent clinical information this helps in reducing the cognitive workload on physicians and helps them spend more time with their patients.
- ▶ Enrich the reporting engine to support medical decision-making with concise, context-sensitive, and real-time data.

- ▶ Develop tools for quick analysis of data for faster decision-making.
- ▶ Promote interoperability and data exchange by building a coherent longitudinal patient record that is built from various sources and can be accessed in real time.
- ▶ Help patients in better management of chronic illnesses by integrating EHR systems with patients' mobile technologies and tele-health technologies.

Improve the system safety and performance through regular feedback and implementation of new features.

CONCLUSION

The National Law Review states that in 2014, over 80% of US hospitals used some type of EHR.⁹ Of course, this percentage has increased significantly over the last couple of years. Healthcare organizations have realized the benefits of the right EHR systems and they understand that EHR systems can help them in transforming the overall healthcare experience. However, like all enterprise-wide systems, implementations of EHR systems is a complex affair and requires right processes, technology, and implementation expertise to be successful. Having said that, there are several success stories of successful EHR implementations where the healthcare institutions have realized tangible benefits through the systems. The key lies in the right implementation. It is always recommended to take help from experts who not only understand the hospital workflows but also the EHR systems to ensure that your EHR systems deliver on their promise.

ABOUT ALCOR SOLUTIONS

Alcor is a global cloud advisory and implementation services company serving Fortune 500, Government Agencies, and other leading organizations in multiple industry verticals across the Americas, Canada and India. Alcor is a ServiceNow® Gold Services Partner and also partners to Salesforce®, FireEye, Microsoft®, Dell, Bomgar, and BigPanda® amongst others. They advise leading businesses on cloud platforms, architecture, enterprise service management and integrating IT service delivery. They also provide business process consulting to capture, re-engineer and improve processes that can easily be automated to deliver real value. The Alcor consulting team has expertise in Business strategy, Cloud Technology and Organizational Change Management.

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Alcor is a technology implementation company focusing on Enterprise and Government technology needs in ITSM, systems integration, web development and mobility space. We provide a strategic ITSM implementation approach to our clients and focus on solving business problems by leveraging an integrated business process design and technology implementation capability.

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