

## Chapter 58

# Physician Interaction with EHR: The Importance of Stakeholder Identification and Change Management

**Cherie Noteboom**  
Dakota State University, USA

### ABSTRACT

*Research Medical Center is a regional medical center that meets the needs of residents of a rural area in the Midwest. It is part of a large healthcare system. The primary care hospital implemented the Electronic Health Record (EHR). The endeavor to implement Health IT applications including Computerized Physician Order Entry (CPOE), EHRs, nursing documentation, and paperless charts, adverse drug reaction alerts, and more were introduced with the corporate initiative. The core applications were clinical and revenue cycle systems, including CPOE. The planning, implementation, and training was developed by the parent operating company and efforts to engage the local physicians were minimal. There were over 300 physicians involved. The physicians were primarily not hospital employees. They had the ability to choose to adopt the EHR and adapt their social, work, and technology practices, or to avoid usage. Follow up research indicated the change management and support efforts were not successful for the physician stakeholder.*

### ORGANIZATION BACKGROUND

Living the traditions, visions and values of health-care, Research Medical Center is a regional medical center that meets the needs of residents in a rural area of the Midwest. Research Medical Center partners with other community healthcare providers to sponsor a regional cancer center, paramedic services, hospice services, a freestanding surgery center and a variety of other health services.

Research Medical Center has earned more national recognition for quality patient outcomes than any other hospital in the region. The medical center has earned multiple honors for its leadership and excellence in several clinical areas including cardiac care, orthopedic services, vascular surgery, stroke care, and cancer care. The organization is home to the only Level II Trauma Center in the area, and provides a vital, lifesaving link to rural areas via Air Care, the hospital's helicopter ambulance service.

DOI: 10.4018/978-1-4666-6339-8.ch058

Research Medical Center is a member of a large healthcare system. The parent company's vision is to be a leader in improving health care delivery with technology initiatives. They became an industry leader, embracing leading-edge technology and implemented an Electronic Health Record (EHR). The record is supported by Cerner, and the hospital went live with several Cerner modules to support patient care, including FirstNet, INet, physician computerized order entry. The EHR goal was to reduce errors, streamline documentation, improve clinical quality, and create a more efficient process. The planning and implementation was created from with a centralized, corporate perspective. To provide consistency and achieve the goals of integrated systems, the implementations for all parent company hospitals were achieved with the same goals, objectives, and project plan.

## **SETTING THE STAGE**

Research has shown that the healthcare industry is plagued by rapidly increasing costs, poor quality of service, lack of integration of patient care, and lack of information access to EHR. According to the Institute of Medicine (IOM, 2001), medical errors are a major problem that decreases the quality and increases the costs of the U.S. healthcare system. Medical errors result in 98,000 deaths a year and many more injuries, and as a result, patient safety has become a top priority in U.S. healthcare.

The use of Information Technology (IT) has the potential to help healthcare organizations improve quality of service while reducing costs. The Institute of Medicine (IOM, 2001) reported that the U.S. healthcare system is "fundamentally broken" and called on the federal government to make a major investment in information technology in order to achieve the changes, such as the "commitment to technology to manage the knowledge bases and process of care" (p. 178), needed to repair the broken healthcare system.

During the past 25 years, many medical records have been converted from a handwritten record format to an EHR format, and studies have indicated that EHR is complicated and requires a serious, sustained commitment to human resources, process re-engineering, technology, and funding. The healthcare system has been slow to take advantage of EHR and realize the benefits of computerization (McDonald, 1997): that is, improved access to and records of patient data, enhanced ability to make better and more-timely decisions, and improved quality and reduced errors.

It is commonly assumed that U.S. healthcare services organizations are approximately 10 years behind the Information Systems (IS) curve when compared to organizations from other industries of comparable size and complexity. According to IOM (2001), "healthcare delivery has been relatively untouched by the revolution in information technology that has been transforming nearly every other aspect of society" (p. 15). This inability to take full advantage of computerization is unfortunate because EHR has the potential to improve patient care and patient safety. In 2007, however, the American Hospital Association reported that only 11% of hospitals had fully implemented EHR, and these hospitals were likely to be large, urban, and/or teaching hospitals. Vishwanath and Scamurra (2007) reported less than 10% of physicians in different practices and settings in the US use EHR, whereas more than half of the physicians in countries like Sweden, Netherlands and Australia have adopted EHR. Blumenthal (2009) cites only 1.5% of US hospitals have comprehensive EHR systems. A similar 2009 study by the American Hospital Association shows less than 2% of hospitals use comprehensive EHR and about 8% use a basic EHR in at least one care unit. According to a study published in the *New England Journal of Medicine*, United States patients get appropriate medical care only 55 percent of the time. Greater use of EHRs could improve care by tracking patients' medical history and providing electronic reminders about needed test and treatments.

11 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/physician-interaction-with-ehr/116266](http://www.igi-global.com/chapter/physician-interaction-with-ehr/116266)

## Related Content

---

### Sensorized Garments Developed for Remote Postural and Motor Rehabilitation

Giovanni Saggio, Valentina Sabato and Roberto Mugavero (2015). *Healthcare Administration: Concepts, Methodologies, Tools, and Applications* (pp. 511-536).

[www.irma-international.org/chapter/sensorized-garments-developed-for-remote-postural-and-motor-rehabilitation/116232](http://www.irma-international.org/chapter/sensorized-garments-developed-for-remote-postural-and-motor-rehabilitation/116232)

### The Good, the Bad, and the Ugly: Don't Blame COVID-19 for Health System Inefficiencies

Oscar Bernardes, Vanessa Amorim and Berto Usman (2021). *Management and Marketing for Improved Competitiveness and Performance in the Healthcare Sector* (pp. 115-139).

[www.irma-international.org/chapter/the-good-the-bad-and-the-ugly/285804](http://www.irma-international.org/chapter/the-good-the-bad-and-the-ugly/285804)

### Aligning the Perioperative Process to Hospital Strategy

Jim Ryan, Barbara Doster, Sandra Daily and Carmen C. Lewis (2018). *Handbook of Research on Emerging Perspectives on Healthcare Information Systems and Informatics* (pp. 33-57).

[www.irma-international.org/chapter/aligning-the-perioperative-process-to-hospital-strategy/205119](http://www.irma-international.org/chapter/aligning-the-perioperative-process-to-hospital-strategy/205119)

### Colour Theory in Healthcare Corporate Identity

Inês Veiga Pereira, José Duarte Santos and Inês Nunes de Carvalho (2021). *Management and Marketing for Improved Competitiveness and Performance in the Healthcare Sector* (pp. 168-187).

[www.irma-international.org/chapter/colour-theory-in-healthcare-corporate-identity/285806](http://www.irma-international.org/chapter/colour-theory-in-healthcare-corporate-identity/285806)

### An Operating Theater Planning Decision Support System

Carlos Gomes, Fabrício Sperandio, Arnon Peles, José Borges, António Carvalho Brito and Bernardo Almada-Lobo (2015). *Healthcare Administration: Concepts, Methodologies, Tools, and Applications* (pp. 868-885).

[www.irma-international.org/chapter/an-operating-theater-planning-decision-support-system/116252](http://www.irma-international.org/chapter/an-operating-theater-planning-decision-support-system/116252)