

# Chapter 17

## Technology Integration and Graduate Health Management Education: A Review of Competency Models and Application to Electronic Medical Records

**Grace Reynolds**

*California State University, USA*

**Brenda Freshman**

*California State University, USA*

### **ABSTRACT**

*The Commission on the Accreditation of Management Health Education (CAHME) is the accrediting body for graduate programs in Health Care Administration (HCA) in the U.S. CAHME accredited programs must adopt one of several competency models as the foundation for their HCA curriculum. This article looks at problems and opportunities associated with the implementation of EMRs in health care. We then use force field analysis to illustrate how graduate competency models can work in training graduate healthcare administration students to address technology challenges. Integrating both cognitive and affective domains into graduate curricula has proven to be challenging, however, competency areas such as leadership, professionalism, business skills, communication and relationship management, and knowledge of the health care environment are directly relevant to management challenges faced by administrators in implementing EMRs.*

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## **INTRODUCTION**

Expansion of health information technology, including adoption of Electronic Medical Records (EMRs) is currently an important policy topic within the larger arena of health care reform. Changes in the health care environment concerning the adoption of electronic medical records (EMRs) are being facilitated by the Obama administration's stated support for a national adoption of EMRs. This is also being facilitated by expanded federal funding in the form of grants to states and local health jurisdictions, as well as managed care and private provider networks (Behkami, Dorr, & Morrice, 2010).

Adoption of EMRs across a nationally diverse group of hospitals, outpatient health care delivery sites, and physician practices faces huge challenges including EMR software that is largely proprietary, a lack of consensus on exactly what constitutes an EMR, and what differentiates full functionality from partial functionality when assessing health information technology. While the new high level of executive branch support and federal funding for the adoption of EMRs across the provider spectrum will provide needed resources for health information technology, financial resources alone are not sufficient to ensure broad-based adoption across all health care settings. EMRs have the potential to improve administrative efficiency and quality of health care but lack of financial resources has not been the only barrier to widespread adoption. Other barriers include work slowdown, lack of support from software companies, security and privacy issues (Valdes, Kibbe, & Tolleson, 2004) and an initial drop in productivity during implementation while clinicians and staff learn how to use the EMR systems; this reduction in productivity has been estimated to range from 15% to 30% (Palacio, Harrison, & Garets, 2010).

This chapter describes the application of competency models to curriculum design of graduate education programs for health care administrators, looking specifically at domains and competen-

cies related to EMR implementation. Health care administrators must interact with clinicians who provide direct care to patients while also adopting, embracing, learning and mastering new technology related to their own administrative positions. Adoption of EMRs must complement clinical practice or organizations will reap only limited benefits from the new technology. Health care administrators must understand EMR adoption and implementation not only from the administrative but also the clinical point of view. The Commission on the Accreditation of Management Health Education (CAHME) is the accrediting body for graduate programs in Health Care Administration (HCA) in the U.S. CAHME does not advocate a single model for HCA education. CAHME publishes competencies that graduate students are expected to have acquired by the time they finish their graduate education and CAHME accredited programs must adopt one of several competency models as the foundation for their HCA curricula. These competency models vary in their approach to the integration of health care technology into the graduate curriculum. Once a competency model is identified the next challenge becomes implementing the model and documenting success. This chapter presents a curriculum design process that can assist programs in defining competencies, learning objectives and assessment methods related to adopting and adapting to EMR. The results of the process described can provide a foundation for program development and evaluation as well as providing support for an accreditation self-study and direction for a continual quality improvement initiative.

## **BACKGROUND**

### **Electronic Medical Records (EMRs)**

Medical errors are the eighth leading cause of death in the United States. As Crane and Crane (2006, 2008) point out, the use of information

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