

## Chapter XVIII

# The Impact of Certification on Healthcare Information Technology Use

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### Abstract

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*This study examines the effects of certifications such as JCAHO on healthcare information technology (HIT) usage in healthcare organizations and user satisfaction with such usage. Using survey data collected from healthcare administrators in a nation-wide sample of 347 hospitals and long-term care facilities, we provide evidence that certifications do indeed enhance HIT usage and user satisfaction, at least within specialized user groups such as healthcare administrators. We further demonstrate that this increase in HIT usage due to certifications increases with facility size and is more prominent for larger hospitals than for smaller long-term care facilities, though the same cannot be said of user satisfaction. Our study suggests that certifications can be used as a valuable tool for motivating HIT usage, while also drawing attention to an under-examined area of HIT research.*

## Introduction

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As the cost of healthcare has soared in the United States, rising to \$2 trillion or 16% of GDP in 2005 (CMS, 2007), the role and use of healthcare information technology (HIT) has come into increased focus. HIT, in this context, refers to a wide range of clinical systems such as electronic medical records (EMR), computerized physician order entry (CPOE), and pharmacy information systems, and administrative systems such as patient billing systems, budgeting systems, and scheduling systems, that are expected to streamline healthcare delivery to patients, improve healthcare quality, and reduce delivery costs. In the report presented to the U.S. Congress by the Medicare Payment Advisory Commission (2004), HIT was identified as having the potential to significantly improve the quality, safety, and efficiency of healthcare. A similar report by the National Health Leadership Council (2005) identified HIT as the critical foundation for promoting health system reform, generating productivity and performance improvement, and producing significant cost reduction in healthcare expenditures.

As healthcare organizations face increasing pressure to invest in HIT, many healthcare managers are struggling to find ways to motivate physicians, nurses, and administrators to use the implemented HIT. Clearly, technology deployment is futile if users do not use the technology, use it inappropriately, or find ways to circumvent its usage. For instance, in 2003, doctors at the prestigious Cedars-Sinai Medical Center at Los Angeles rebelled against their newly installed CPOE system, complaining that the system was too great a distraction from their medical duties, forcing the withdrawal of a system that was already online in two-thirds of the 870-bed hospital (Freudenheim, 2004). The Leapfrog Group (an advisory group associated with the National Academy of Sciences) estimated that, of the nation's 300 non-governmental hospitals (6% of all hospitals in the U.S.) that have implemented comprehensive HIT systems, only 40 of these systems (less than 1%) are routinely used by of doctors for ordering prescriptions and laboratory tests (Freudenheim, 2004).

One practice that is expected to motivate HIT use among hospital administrators similar to professional certification (Chow, 2001) is agency certification (Pawlson & O'Kane, 2002; Dodd, 2004; Watcher, 2004). Professional certification of an individual is an implication that s/he is qualified in that profession attained by specific training, experience and knowledge and maintains such status periodical evaluation. Similarly, an institution certified by an accrediting agency would focus on its internal activities and enhance its processes in order to be in compliance with the standards that have been established by that agency. Thus, many hospitals nationwide seek certification from the Joint Commission of Accreditation of Healthcare Organizations (JCAHO) to demonstrate their commitment to quality in healthcare delivery which requires receiving a passing score on standards that is set forth. Receiving JCAHO accreditation also meets eligibility requirements for participation in the government's Medicare and Medicaid programs (Associated Press, 2004). A sig-

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