Panel on Information Technology in Healthcare: Opportunities and Challenges

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INTRODUCTION
Healthcare Information Technology (HIT) is fast gaining attention as a key enabler for improving quality of care and lowering costs in the healthcare industry. As a result, healthcare organizations continue to invest in healthcare information technology (HIT) such as electronic medical records, computerized, physician order entry (CPOE), clinical decision support systems and various hospital information systems [Monegain, 2009, Pizzi, 2007]. This has presented several opportunities and challenges for IT management in healthcare. In this report, we present a summary of the discussion at the MWAIS 2009 conference panel on Information Technology in Healthcare. The panel brought together different perspectives on HIT from the viewpoints of industry, academia, and government. The discussion evolved around three major themes including (1) health IT workforce, (2) managing health IT, and (3) research issues in health IT.

HEALTH IT WORKFORCE
Large investments in information technology continue to drive the demand for information technology workers in the healthcare industry. The panelist identified the following three high demand skill areas

1. Clinical and IT Skills: While most business process knowledge is portable across industries, the unique and complex nature of the healthcare industry requires places a high premium on IT professionals with a healthcare background and knowledge of clinical processes.

2. Project Management: Given that most healthcare organizations are in a implementation phase for HIT projects, there is a high demand for workers with project management skills.

3. Information security: The healthcare industry has to adhere to stringent regulations for safeguarding the privacy and security of patient information, as such, IT security and assurance is a key area of focus for healthcare organizations.

MANAGING HEALTH IT
Managing the information technology infrastructure in large healthcare organizations presents several opportunities and challenges. Key challenges identified in discussion are as follows:

1. Interoperability and Integration: The slow pace of standards development is a key inhibitor for the effective integration of disparate IT systems across the healthcare organization. The need for standards development extends to medical devices such as pumps and monitors that need to be integrated with hospital information systems to provide a seamless flow of information.

2. Security: Securing patient information is a key challenge in healthcare. As new interfaces and devices are added to the healthcare IT infrastructure, security policies and techniques need to be developed to ensure the security of the patient information.
(3) Best practices: While similar IT management challenges have been faced in other industry domains, there is a need to adapt the best practices developed in other business domains to the healthcare context.

RESEARCH ISSUES IN HEALTH IT

The panel identified the following research issues as necessary for addressing future challenges in healthcare IT:

1. A key research question is the need to evaluate the impact of health IT on patient care and analyze different models through which information technology can result in improved patient outcomes. Resolution of this question is necessary for continued and future investments in health IT.

2. A major emerging focus area in health IT is patient healthcare records and empowering patients to better manage their health. Different models for allowing patients access to their health records and its impact on patient involvement in the healthcare process and outcomes needs to be evaluated.

3. The usability of health information technology is another emerging area of focus. The usability of health information technology and its impact on clinician productivity needs to be evaluated.

REFERENCES
