

SEMINAR SERIES

**Department of Quantitative Analysis and Operations Management
University of Cincinnati**

Quality Management Techniques and Hospital Core Process Improvement*

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In the past decade major efforts have been undertaken to reduce deaths from preventable medical errors, based on a groundbreaking report titled *To Err is Human*, was published by the Institute of Medicine (IOM) in 1998, with estimates that within the U.S. as many as a million people a year were injured and 98,000 people a year died as a result of preventable medical errors. The U.S. Center for Medicare and Medicaid Services has sponsored a wide range of initiatives, with a primary one being the collection of data on the provision of proper care for four common and serious health conditions: heart attacks, heart failure, pneumonia and surgical infections. U.S. hospitals now collect and the CMS publishes quarterly data which allows patients and other interested parties to compare hospital performance on these measures, specifically the percentage of patients that receive each measure.

We present a study that combines two data sources. First, we collect primary data from a survey of quality improvement directors and chief nursing officers at 271 hospitals. This data is combined with the publicly available CMS core process measure data. We examine 8 operational and managerial initiatives: including the use of quality practices, the focus on objective data analysis, the role of senior leadership and the effect of efforts to develop an error culture that focuses on identifying and making systematic improvements to prevent errors. The results indicate a strong relationship between efforts to promote and improve quality and the objective CMS core process measures. The data presented is cross-sectional so it cannot prove a causal relationship, but this relationship does lay a foundation for examining longitudinal data which can be built on over time as the CMS publishes a time stream of data.

Bio: Ken Boyer is a Dean's Distinguished Professor of operations management at the Fisher College of Business, Ohio State University. Dr. Boyer is co-Editor in Chief of the *Journal of Operations Management*. Dr. Boyer's research interests focus on the strategic management of operations, electronic commerce and the effective use of advanced manufacturing technologies. He co-wrote the book, *Extending the Supply Chain: How Cutting-Edge Companies Bridge the Critical Last Mile into Customers' Homes*, American Management Association, 2005.

*Joint work with John Gardner (Ohio State University) and Sharon Schweikhart (Ohio State University)

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