

## Development of Risk-Adjusted Outcome Measures in the EHR Environment

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**Summary:** One way to evaluate performance in health care is to examine health outcomes. Health outcome measures can indicate changes in health status. However, in order to accurately reflect the performance of a health care system or provider, outcome measures require risk adjustment for patient factors such as co-morbidities, severity of illness, and physiological status, to accurately compare performance across providers and over time.

The quality and usefulness of an outcome measure depends on the quality of its accompanying risk adjustment model. Widespread electronic health record (EHR) implementation promises to supply more and better data upon which to base outcome measures and construct risk adjustment models. Risk-adjusted outcome measures will be useful for quality improvement efforts, public reporting, pay-for-performance, oversight, and consumer decisionmaking.

For this project, the Joint Commission will hold an invitational conference to examine methodological issues related to the identification and development of outcome measures and their accompanying risk-adjustment models in the EHR environment. The conference will explore several questions, including: How can EHR data be used to develop risk models for existing mortality and readmission outcome measures? What new risk-adjusted outcome measures beyond mortality and readmission rates can be generated through EHR data? What are the challenges and barriers to using EHR data in the development of risk-adjusted outcome measures, and how can they be overcome?

This conference will be the first step in establishing valid risk-adjusted outcome measures developed using data from the EHR to better understand the effectiveness of health care services.

### Specific Aims:

- Identify ways that the EHR can be used to develop new risk-adjusted outcome measures across health care settings. **(Upcoming)**
- Identify ways that the EHR can be used to enhance current risk models that have been developed for existing outcomes measures. **(Upcoming)**
- Use the results of the conference to form the basis of a demonstration project during which risk-adjusted outcome measures will be developed and tested using EHR data. **(Upcoming)**
- Widely disseminate the knowledge and information gathered from the conference through a white paper. **(Upcoming)**

**2011 Activities:** Planning is underway for the conference, which will be held on March 13-14, 2012 at the Joint Commission Headquarters in Oakbrook Terrace, Illinois. The 16 invited participants have confirmed their attendance. All participants are experts in outcome measures, EHR, or risk adjustment. Dr. Paul Schyve, Senior Advisor for Healthcare Improvement, will moderate the meeting, which includes a series of five presentations on: 1) outcome measures; 2) EHR technology; 3) EHR standards; 4) EHR implementation; and 5) risk adjustment. These presentations are intended to provide background and context to the discussion and brainstorming sessions scheduled for the later part of the conference, and to inform the attendees' development of a conceptual framework for EHR outcome measures and risk adjustment in the hospital setting.

**Preliminary Impact and Findings:** This project has no findings to date.

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**Target Population:** General

**Strategic Goal:** Not Applicable

**Business Goal:** Synthesis and Dissemination

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