

## Electronic Health Records in Research

In recent years, the United States has invested billions of dollars and other resources through the Health Information Technology for Economic and Clinical Health (HITECH) act to rapidly increase electronic health record (EHR) adoption nationwide. Implementation of EHRs has been reported to improve patient safety and reduce healthcare costs by providing better access to information, clinical decision support, and more reliable communication. As a result, more than 80% of hospitals have implemented at least a basic EHR. These increasing implementations facilitate the capture of large amounts of clinical data within and across healthcare institutions, and these data can be transformed into knowledge through big data analysis and research. However, some challenges exist with EHRs both in clinical practice and in research. This seminar will address some of the sociotechnical challenges of EHR design, development, implementation, use, and evaluation, as well as the informatics challenges of multi-institutional research made possible through EHRs.