Abstract:
Patient safety is one of the foremost problems in US healthcare, affecting hundreds of thousands of patients and costing tens of billions of dollars every year. Advanced electronic medical records (EMRs) are widely expected to improve patient safety, but the evidence of advanced EMRs’ impact on patient safety is inconclusive. A key challenge to evaluating EMRs’ impact on safety has been the lack of reliable and comprehensive data. We overcome this challenge by constructing a panel of Pennsylvania hospitals over 2005-2012 using data from several sources. In particular, we source confidential patient safety data from the Pennsylvania Patient Safety Authority (PSA). Since mid-2004, Pennsylvania state law has mandated that hospitals report a broad range of patient safety events to the PSA. Using a differences-in-differences identification strategy, we find that advanced EMRs lead to a 27 percent decline in patient safety events. This overall decline is driven by declines in several important subcategories — 30 percent decline in events due to medication errors and 25 percent decline in events due to complications. Our results hold against a number of robustness checks, including, but not limited to, falsification test with non-clinical IT and falsification test with a subcategory of events that is not expected to benefit from advanced EMRs. Overall, we provide evidence to policy makers, hospital administrators, and other stakeholders that hospitals' adoption of advanced EMRs improves patient safety.