

Individuals and Organizations Completing Research in the IMEDS Lab  
Mark Weiner, MD; Assistant Dean for Informatics, Temple University School of Medicine

**Submitted by:** (Principal Investigator) Mark Weiner, MD; Assistant Dean for Informatics,  
Temple University School of Medicine

**Research Objectives and Aims:** This work will assess the data content and tools in the IMEDS Research Lab for use in a newly-developed educational curriculum designed to provide practical instruction on working with clinical data for research purposes. The curriculum would highlight the idiosyncrasies in clinical data and the impact of simplifying assumptions in the creation of an analytical data set on the interpretation of findings. Students will review findings of studies of IMEDS data that are congruent and discordant with each other and with RCTs and be able to reproduce and vary the cohort definitions and analytics methods to observe the impact on conclusions.

**Scope/Proposed Approach:** The work will explore the use of IMEDS data and lab to create a series of instructional programs as well as in-class and homework exercises that examine the differences in characteristics of patients with common diseases of interest (diabetes, asthma, COPD, Cardiovascular Disease, Cerebrovascular disease, CHF) across the source systems in the IMEDS Lab and look at different patterns of patient management across these data sources, and within data sources over time. Fundamentals of observational research methods will be taught and applied to the data to understand the association of baseline characteristics and patterns of therapy with downstream health utilization and important outcomes such as hospitalization, and secondary events

**Impact:** The impact of this work will create a set of training resources that can be adopted by other education programs with similar clinical data analysis goals. It may expand the user base interested in and qualified to apply IMEDS lab and its associated resources toward a wider set of problems involving adverse drug event detection and health services and quality issues more broadly.

**Experience and Access Request for:**

Mark Weiner, MD  
Assistant Dean for Informatics  
Temple University School of Medicine  
3509 N Broad Street  
9<sup>th</sup> Floor Boyer Pavilion  
(215) 797-3950  
[Mark.weiner@tuhs.temple.edu](mailto:Mark.weiner@tuhs.temple.edu)

**Timeline:** 12 months, 6/25/14-6/24/15