Electronic Medical Records at Jersey Shore Hospital's Physician Practice Offices

Overview
Jersey Shore Hospital's Physician Practice office was facing two problems: 1) Information flow and 2) Patient Flow. Having to deal with paper forms created a hassle and wasted storage and time unnecessarily. In addition, the layout of the office was constraining the amount of patients seen per day. The group proceeded to create EMRs in order to perform time studies that will aid the simulation’s scenarios.

Objectives
The primary objective of this study is:

- To leverage the power of commercial-off-the-shelf (COTS) software suites, such as Microsoft Office to reduce the time involved in entering and maintaining EMRs.
- To modify certain elements within the layout to assist the support personnel’s workflow.
- Transition to electronic communications to better support and aid JSH in consistent and accurate billing practices.

Approach
- Visited the sponsor to gather the following data:
  - Amount of time spent filling out the different forms
  - Amount of time spent in the waiting room
  - Amount of time spent with the nurse and doctors at the examination rooms
  - Inter-arrival times of the patients
  - Historic data from the office regarding amount of patients per month, budget, etc.

- Used Microsoft Access to create a database and replicate the forms electronically
- Simulated an Electronic Medical Records (EMR)
- Used Arena software to simulate the current system
- Performed time studies to make necessary changes to the current system
- Executed another simulation with the results of the time studies
- Compared the results of the different simulations
- Analysed results and recommended most profitable change

Outcomes
- Keep staffing intact as well as increase their tasks
- Buy All-in-one printer to reduce walking times
- Implement EMR and add a 5th examination room
- The sponsor will save $238,000.00 per year as a result of this project