Retail Pharmacy Inventory and Demand Management

**Motivation / Background**

Sponsor has 13.4% of SKUs and 6.2% of sales at risk of stockout.

Manage suppliers pushed discounts to optimize profitability

**Key Question / Hypothesis**

• How do we:
  • Optimize replenishment policies?
  • Quantify inventory record inaccuracies?

**Relevant Literature**

• Reymann P. J. (1995). Pharmaceutical Inventory Forecasting at the Wright-Patterson Medical Center

**Initial Results**

Top 10 SKUs Sales

**Methodology**

**Literature Review**
- Case Studies
- Scientific Literature
- Identify Gaps

**Process Mapping**
- Supply Chain Network
- Replenishment Process
- Procurement Process

**Data Collection**
- POS Data
- Purchase Data
- Stock Transfer Data

**Data Analysis**
- Descriptive Demand
- Inventory and Replenishment

**Quantitative Models**
- 5 Store Analysis
- Top 21 Supplier
- Top and Fast Moving SKUs

**Expected Contribution**

• Inventory record inaccuracies and coping methods.
• Optimize inventory management to reduce stock-out likelihood
• Inventory policies to optimize inventory levels.

January 2019 Poster Session