The Problem we are working towards solving:

Current State of the Health System in the US:

The United States health care system is the most expensive in the world, studies consistently show that the U.S. underperforms relative to other countries on most dimensions of performance, including: Quality of Care, Coordination of Care, Access, and Efficiency.

Although the Affordable Care Act ("Obama Care") is increasing the number of Americans with access to Health Services, the U.S. still falls short to most industrialized countries when it comes to universal health insurance.

In a study of 11 industrialized nations done by the Commonwealth Fund Organization, the U.S. ranked last on indicators of efficiency, equity, and outcomes.

Source: The Common Wealth Fund

Reduce Health Costs and Improve Health Quality

What is needed…?

1. Generic Drugs can lower Health Care Costs

    "Generic drugs were responsible for $254 billion in health system savings in 2014, bringing the total savings over the last 10 years to $1.68 trillion"

    GPhA (Generic Pharmaceutical Association)

2. Request for Proposals

    University of Central Arkansas - Prescription Drug Management & Pharmacy Services

    County of Los Angeles - Pharmacy Benefits Management Services

3. Real-time access to Health Information is crucial to Health Quality

    "Baycol recalled on August 2001 due to rhabdomyolysis (breakdown of muscle fibers that results in myoglobin being released into the bloodstream) which led to kidney failure; 52 deaths (31 in the US) worldwide; 385 nonfatal cases with most requiring hospitalization; 12 of the deaths were related to taking this drug in combination with gemfibrozil (Lopid)"

    FDA

    Prescription Drugs Org

4. The need for Surveillance and Alert of vaccine-preventable diseases.

Unicef

Team Eastbound's Original Proposal (High-Level) for Solution:

Develop an EMR web-based application that leverages from the Fast Healthcare Interoperability Resources (FHIR) Alert API to integrate a Population Health Management System into the same EMR application. The idea is to provide a Dashboard that combines EMR patient information and an Alert Panel that provides population health alerts related to the PCP's patients, the PCP would have the ability to drill down into a specific health alerts to get a list of his patients that are, or could be impacted by the disease.

Alerts could be based on evidence-based clinical care based certain age-ranges for example. The Dashboard should be a Single Pane of Glass that renders the linkage between the population health alerts and the PCPs patients, this through the use of highly effective Data Visualization, possibly using the D3 API.