Overview

Background
System Design
Use Cases
UI/UX Requirements
Demonstration
Future Steps
Background

Defining Pharmacogenomics

- Medications interacting with genetics
- What influences drug response?

Underserved populations

- Different predispositions to disease or adverse reactions
- A need for more personalized treatments
System Design

Cohort: African-Americans
Use Cases

- Improving Patient-Provider Communication
- Personalized Treatment and Clinical Decision Support (CDS)
- Facilitating Pharmacogenomic Research
UI/UX Requirements

Search Functions
- Filtering search results
- ICD-10 search assistance
- Medication lists

Data Presentation
- Improved results lists
- Chart generation
- Downloadable data
Demos
Future Steps

- EHR INTEGRATION
- PERSONALIZED TREATMENT
- DATA RETRIEVAL AUTOMATION
- IMPROVE END-USER FUNCTIONS
Lessons Learned

Pharmacogenomic information systems
Information retrieval and database design
Web application development
Questions?