

USING PHARMACOGENOMICS FOR TREATING CARDIOVASCULAR PATIENT

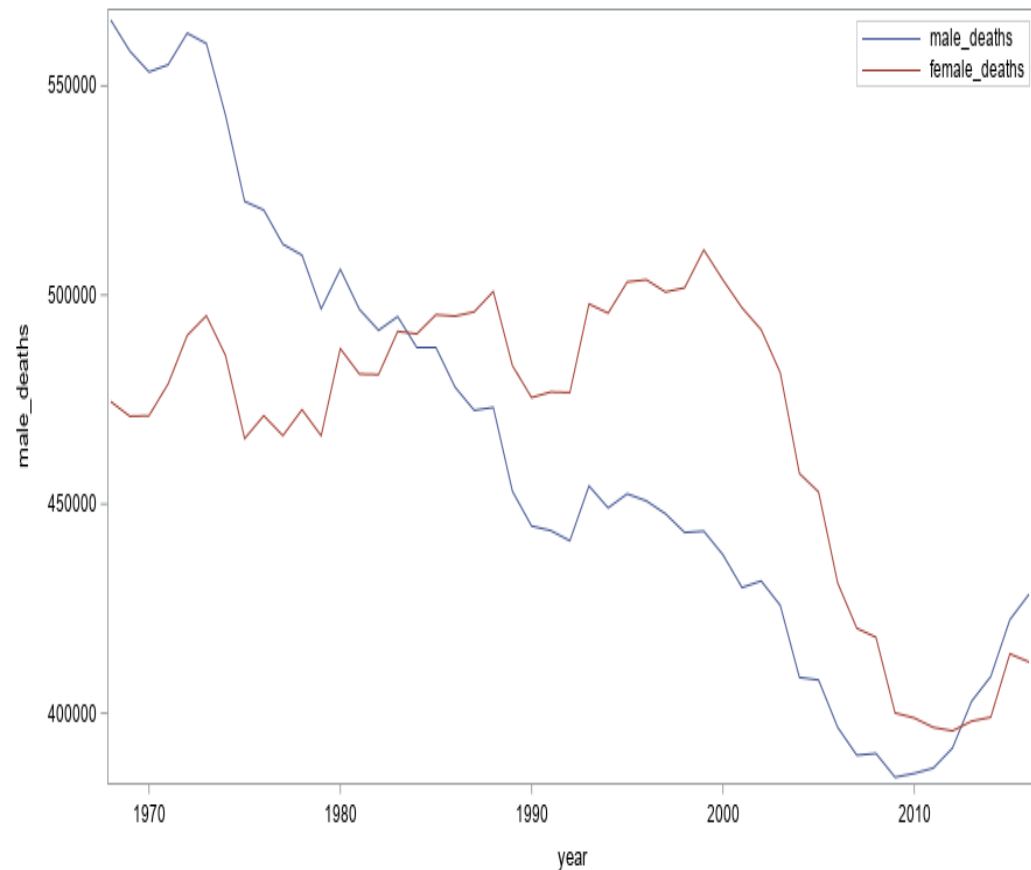
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INTRODUCTION

- This project is focused on harnessing the power of pharmacogenomics to enhance the treatment of cardiovascular diseases.
- Pharmacogenomics is the study of how an individual's genetic makeup influences their response to drugs.
- In the context of cardiovascular diseases, it offers the potential to:
 - Optimize treatment by tailoring medications to each patient's genetic profile.
 - Reduce adverse reactions and improve drug efficacy.
 - Revolutionize the field of personalized healthcare, benefiting millions of patients.



Cardiovascular Disease Mortality Trends For U.S. Males and Females (1968-2016)

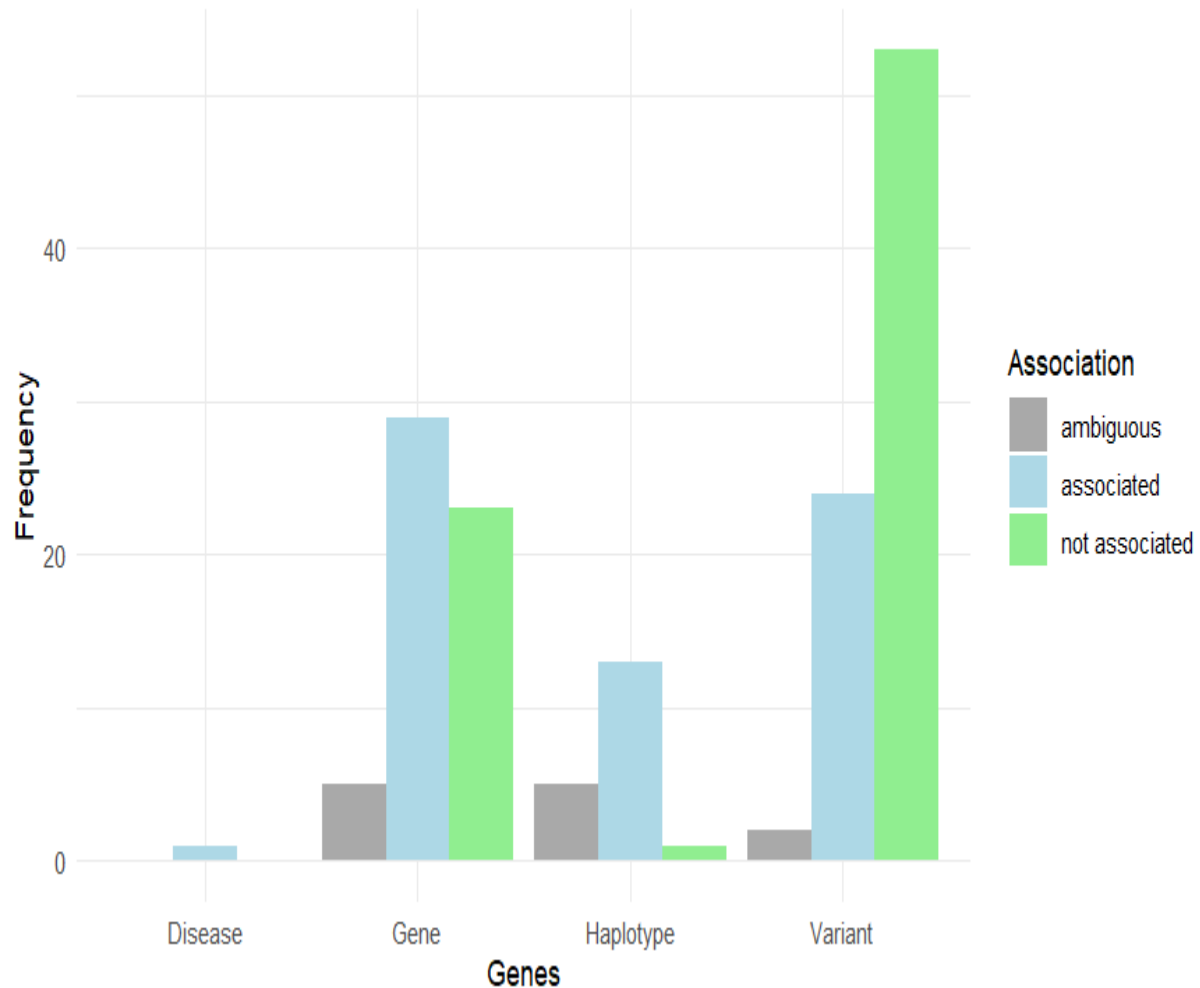


Data source: <https://wonder.cdc.gov/mortSQL.html>

OBJECTIVES

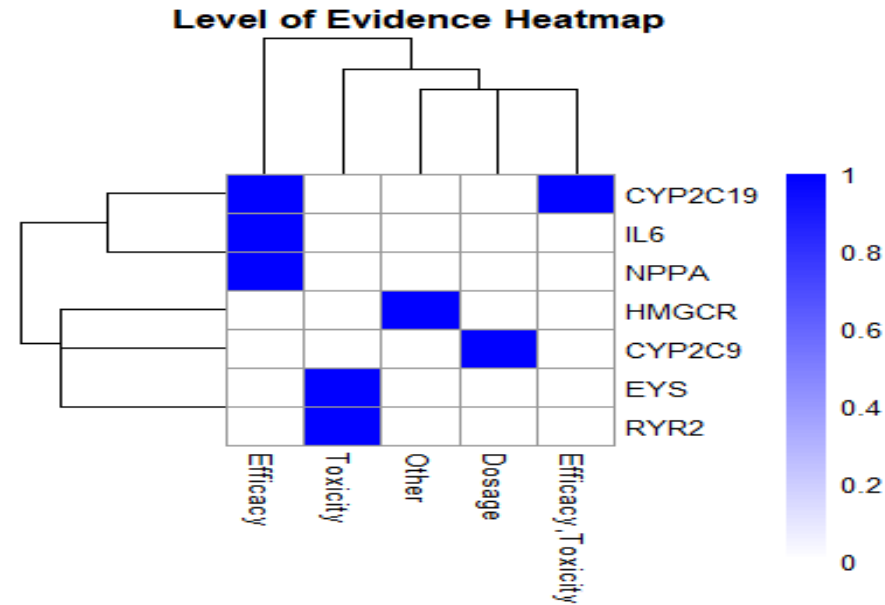
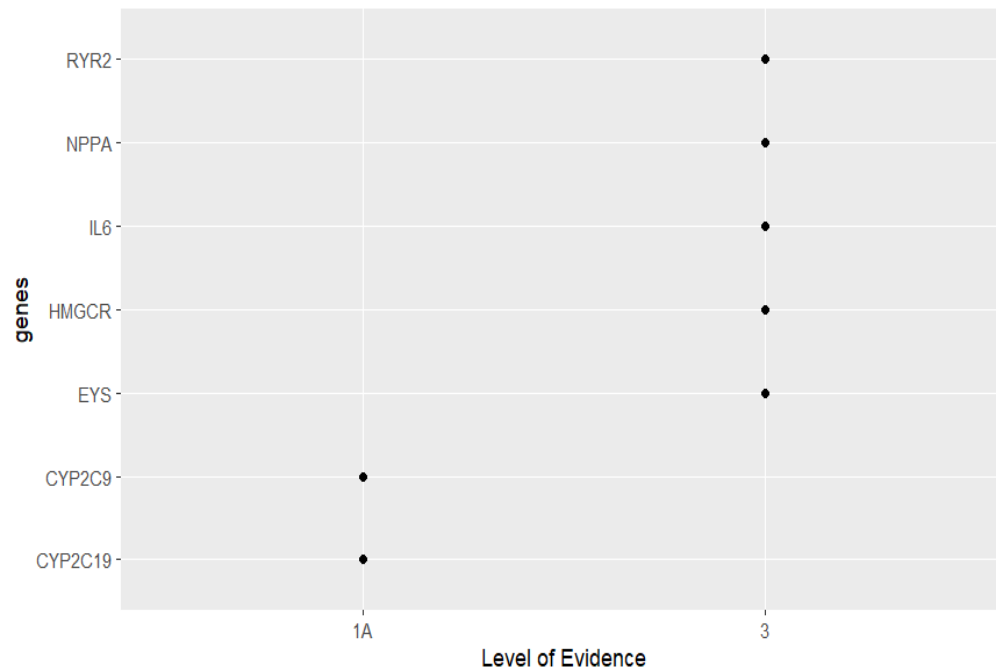
- Identifying genetic variations that impact drug metabolism and response in cardiovascular patients.
- Developing personalized treatment
- Enhancing treatment efficacy and patient safety.

Relationship between Entity1_type and Association

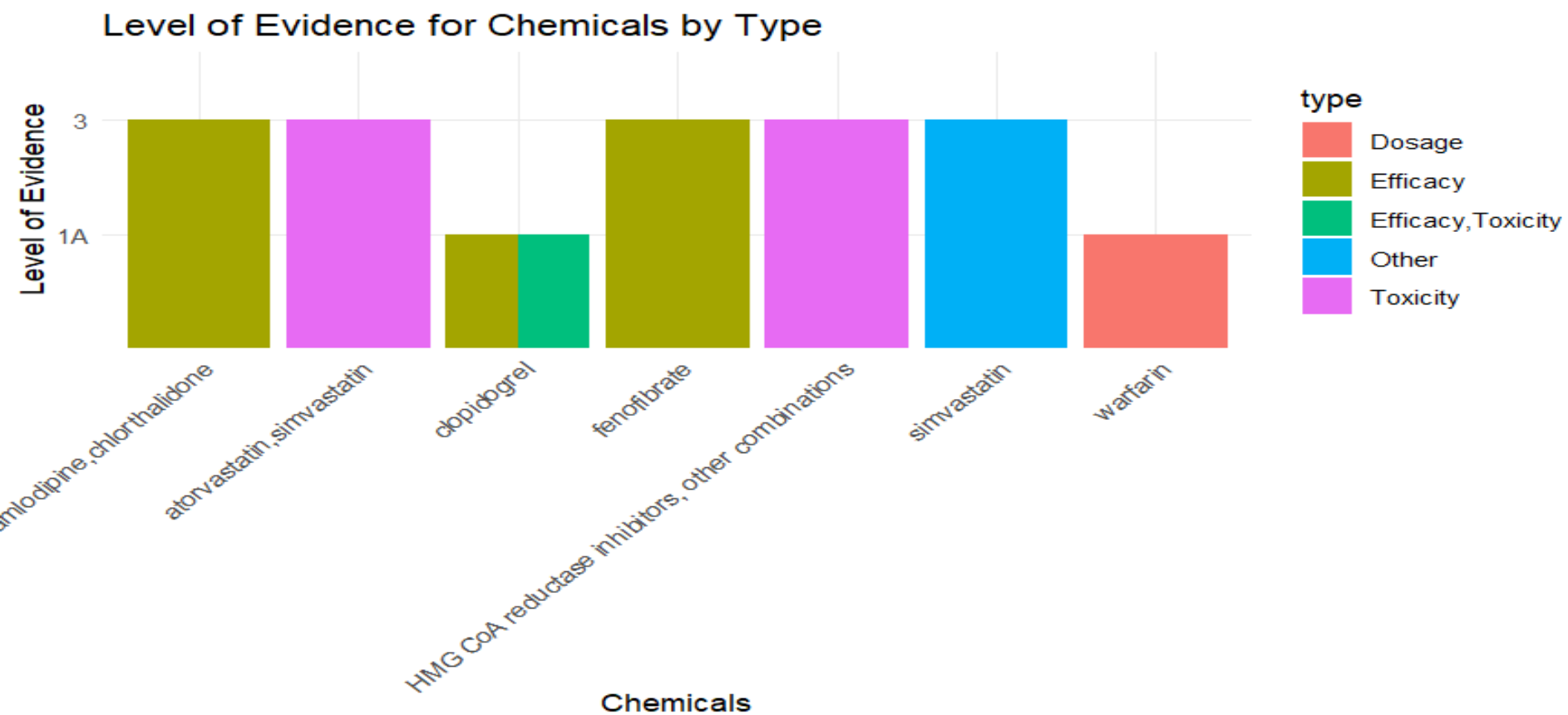


By visually representing the Entities and Association relationships, we gain insights into the data's structure and can identify genes that are significantly associated with cardiovascular diseases.

Scatter Plot of Level of Evidence vs. genes



Both Scatter and heatmap visualization of the level of evidence provides a clear overview of the relationships between genes and chemicals. It is a crucial step in identifying potential target genes for personalized treatment recommendations in the context of cardiovascular disease.

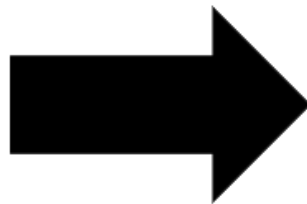


The primary reason for creating this chart is to visualize the relationship between different variables in the dataset. In this case, we want to visualize how the "Level of Evidence" for "Chemicals" varies across different "Types."

PREDICTIVE MODELLING

Training

Extract patterns from data



Evaluating

Use patterns to predict results



TIME FOR Q/A

THANKYOU