



# **U.S. Chronic Disease Indicators**

## **Overview, Gender Gap, and State Comparison**

Project 1, Data Analysis by  
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# Introduction

**This analysis draws on the U.S. Chronic Disease Indicators (CDI), a standardized dataset developed by the CDC's Division of Population Health in collaboration with the Council of State and Territorial Epidemiologists and the National Association of Chronic Disease Directors. The CDI provides consistent definitions and reporting for 115 health indicators, enabling uniform collection and comparison of chronic disease data across states and territories.**

# Analysis Objectives

- **Chronic Disease Mortality – Underlying Cause (U.S.)**  
Examine national-level mortality patterns to identify the leading causes of death from chronic diseases.
- **Gender Gap in Chronic Disease Mortality (U.S.)**  
Compare mortality rates between males and females to highlight disparities and potential gender-related health priorities.
- **State Comparison in Chronic Disease Mortality (U.S.)**  
Analyze how mortality rates vary across states to uncover geographic disparities and inform targeted public health interventions.

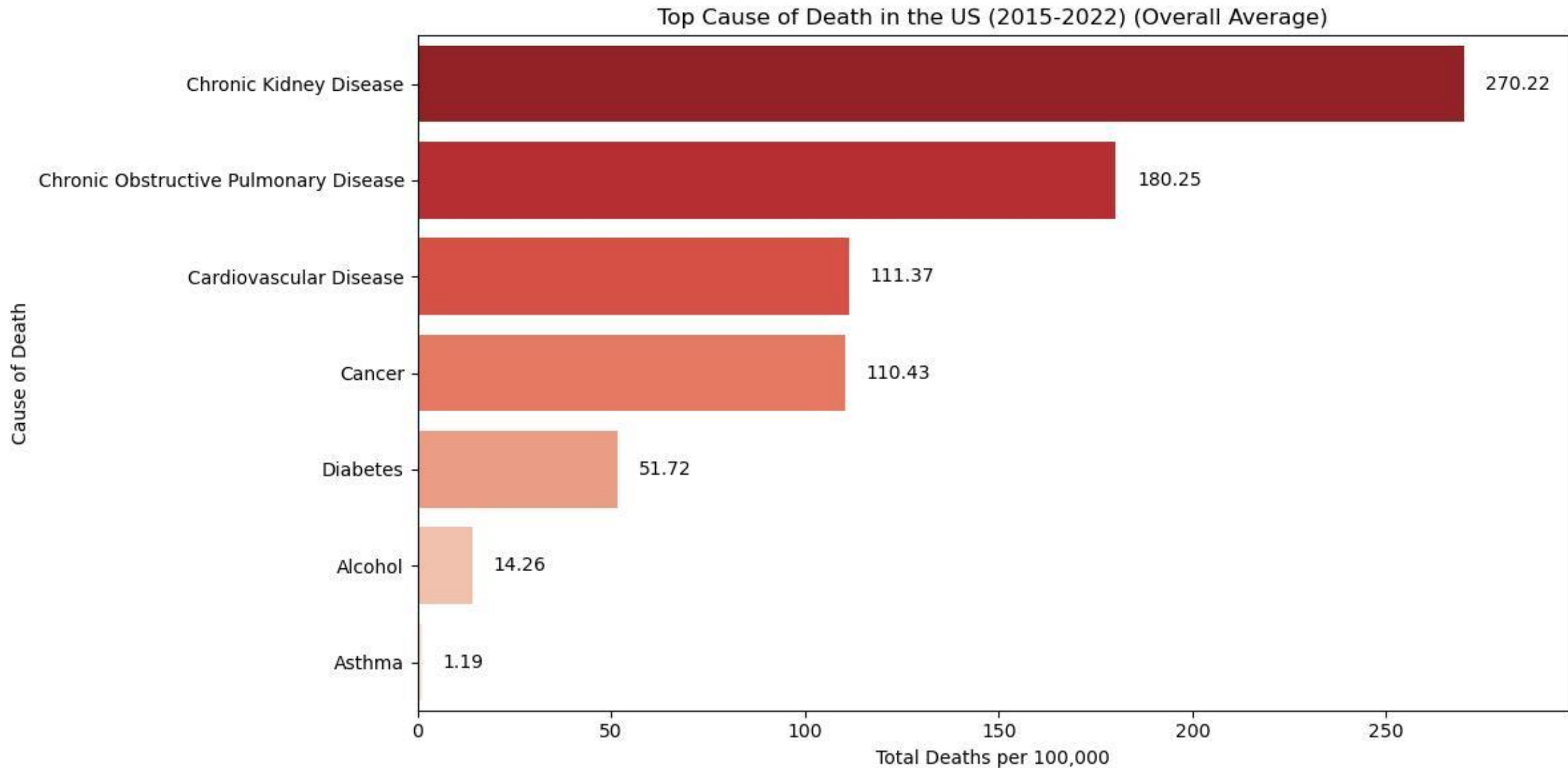
# Data Description

- Source: U.S. **Chronic Disease Indicators (CDI)**
- Number of rows: **309,215**
- Number of columns: **34**
- Total missing values (NaN): **3,953,604**
- Completely empty columns: **10**
- Time coverage: **multiple-years span between (2015-2022)**
- Geographic coverage: **All U.S. states and territories**

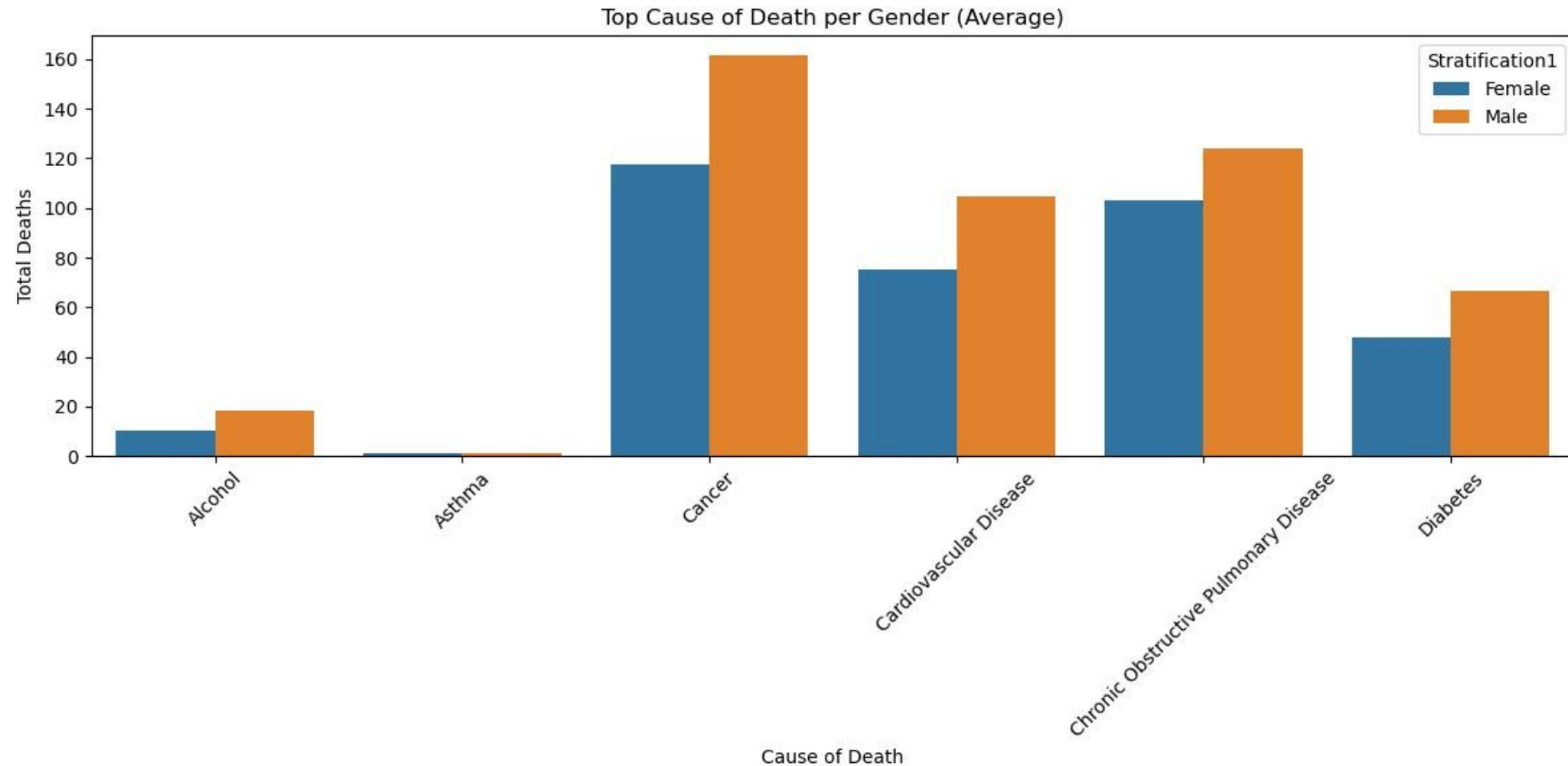
# Data Problems

- **Nan Values**
- **Variations in Question values**
- **Variations in population groups**
- **Mixed indicator types**
- **Multiple measurement units in (DataValueUnit)**
- **Mixed locations (individual states vs. overall U.S.)**

# Q1 - What is the top cause of mortality in the U.S. ?

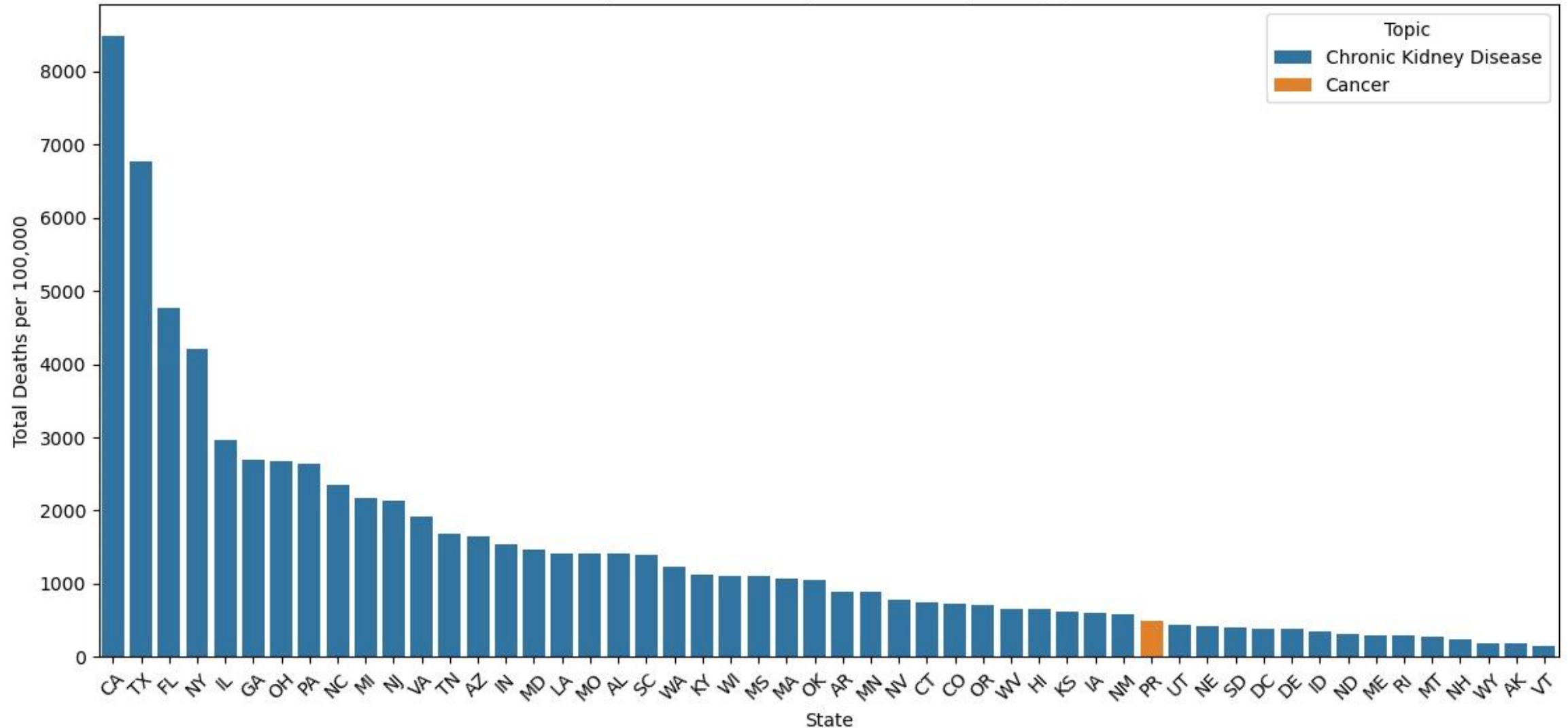


## Q2 - What is the average gender gap in chronic disease mortality?



# Q3 - What is the average state-level chronic disease mortality?

Top Cause of Death per U.S. State (Average)





# Key Findings

- The top cause of mortality in US is Chronic Kidney Diseases.
- Males have more percentage of mortality in almost all chronic disease.
- The top cause of mortality in all US states is Chronic Kidney Diseases except in once state (PR).