



Data Analysis and Visualization

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Dataset: U.S Chronic Disease Indicators

Source: <https://catalog.data.gov/dataset/u-s-chronic-disease-indicators>

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Publisher: Centers for Disease Control and Prevention (CDC)

Why of interest:

- By observing chronic diseases and indicators it can lead to data-driven resource allocation and development of solutions. Such as, encouraging earlier screenings, which would allow patients to get treated earlier and reduce mortality rates for those diseases.
- Compare geographic results to determine which areas need the most intervention.

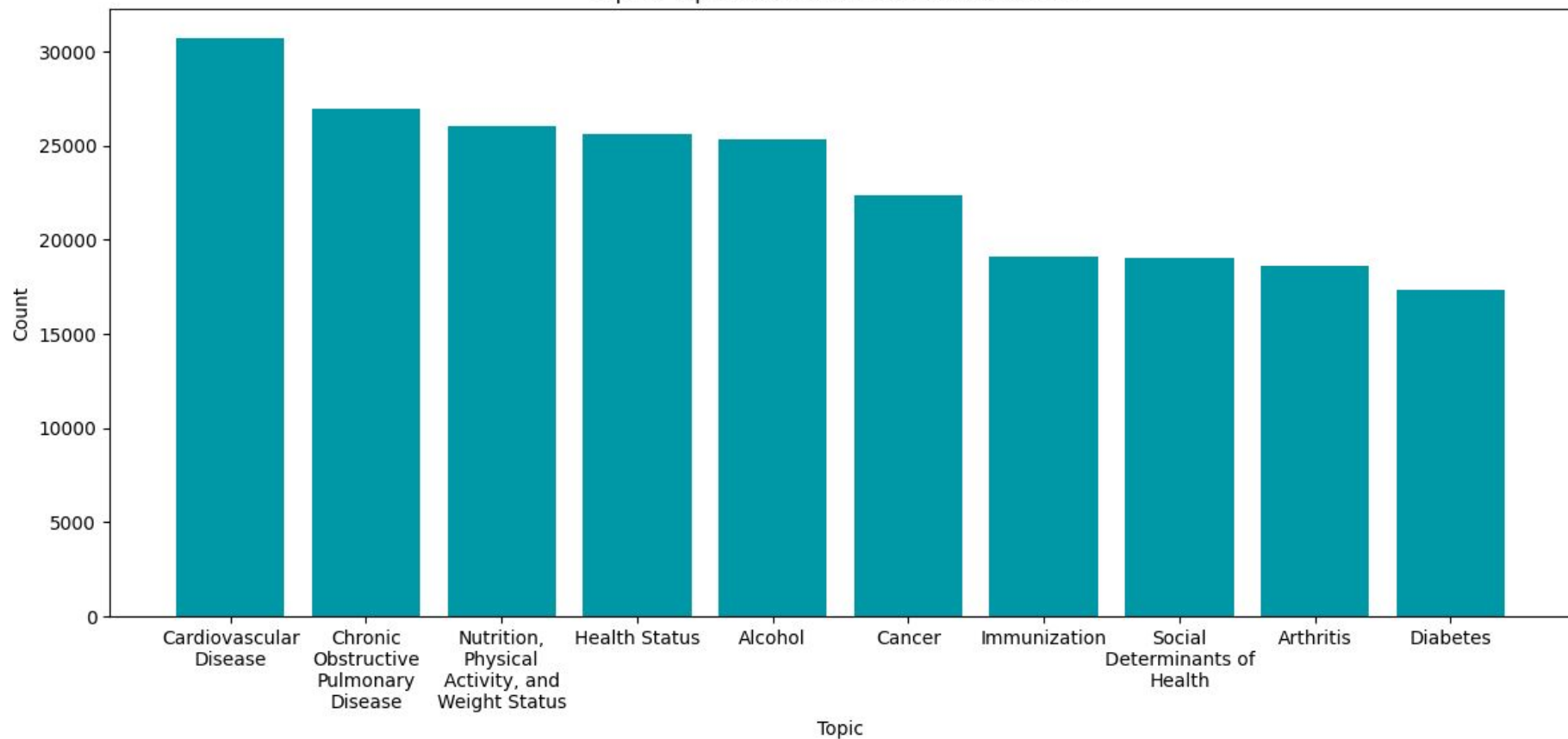
Angle 1 - 10 Most Common Chronic Disease Topics in Data Set

Why its meaningful

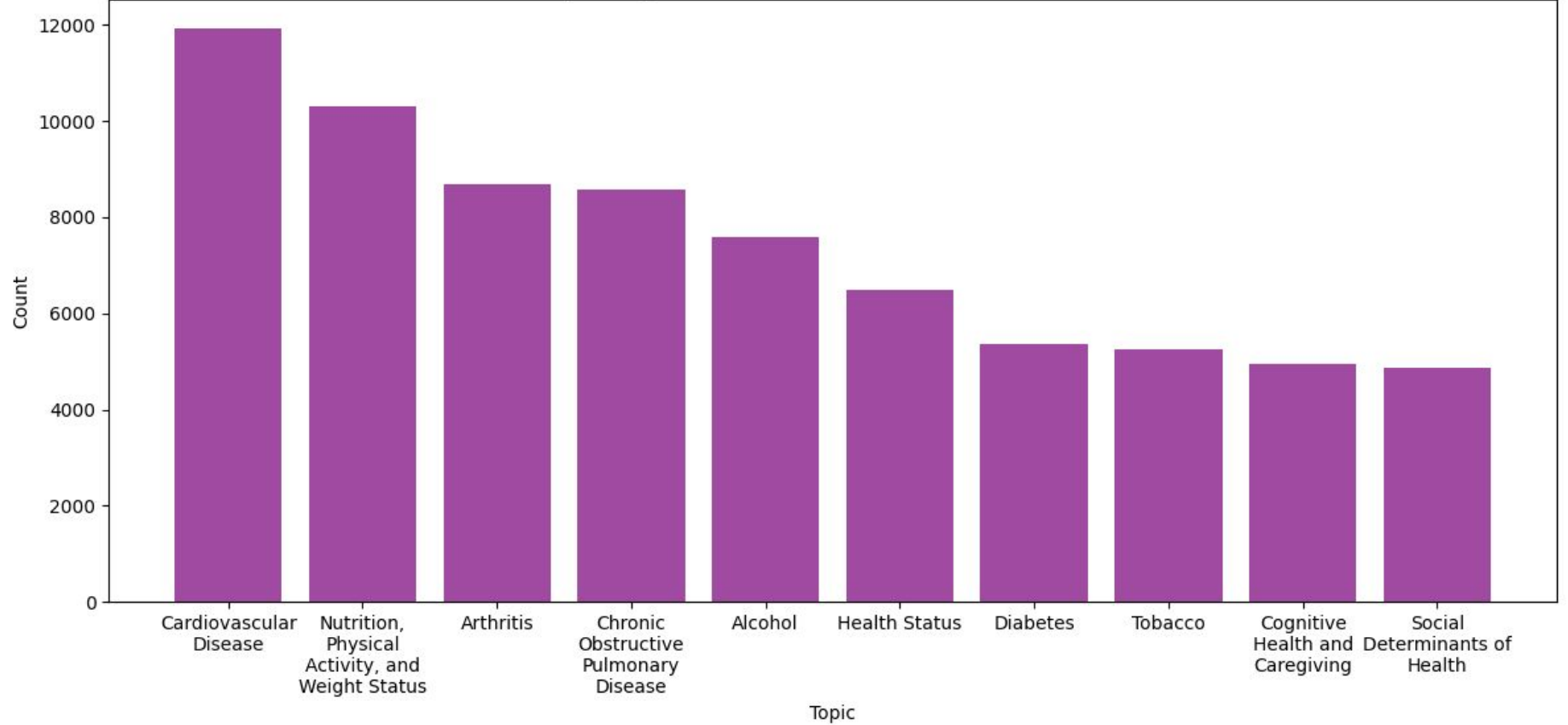
Helps identify which chronic diseases are receiving the most focus. Can then analyze the difference between years.

1. Cardiovascular Disease
2. Chronic Obstructive Pulmonary Disease
3. Nutrition, Physical Activity, and Weight Status
4. Health Status
5. Alcohol
6. Cancer
7. Immunization
8. Social Determinants of Health
9. Arthritis
10. Diabetes

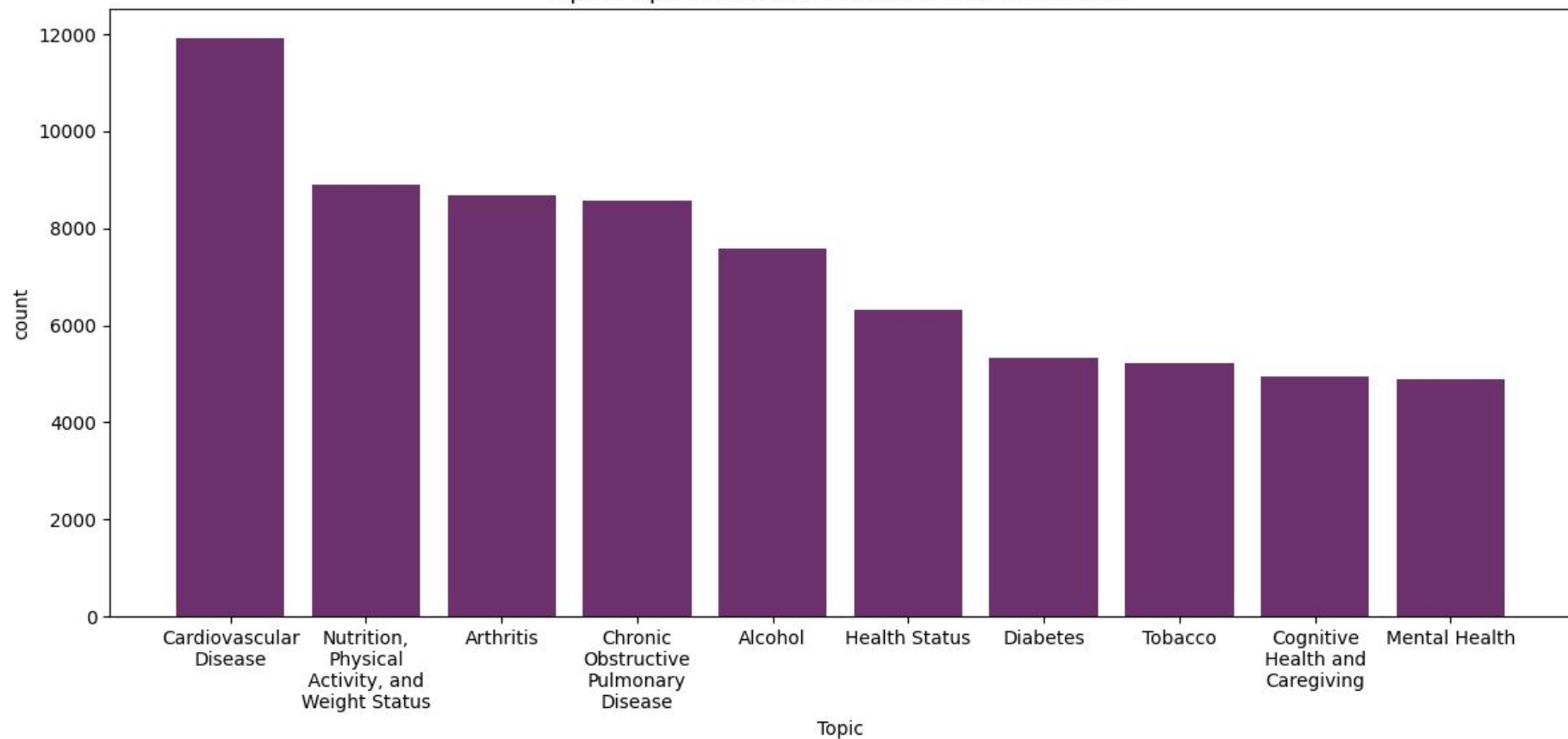
Top 10 Topics in U.S Chronic Disease Dataset



Top 10 Topics in U.S Chronic Disease Dataset in 2019



Top 10 Topics in U.S Chronic Disease Dataset in 2021



Angle 2 - Which 5 States have the highest Indicator Values Based on Cardiovascular Disease?

Why its meaningful

By comparing the states values for the same indicator, large disparities and trends can be observed.

From there targeted intervention can be taken if the disparity is large.

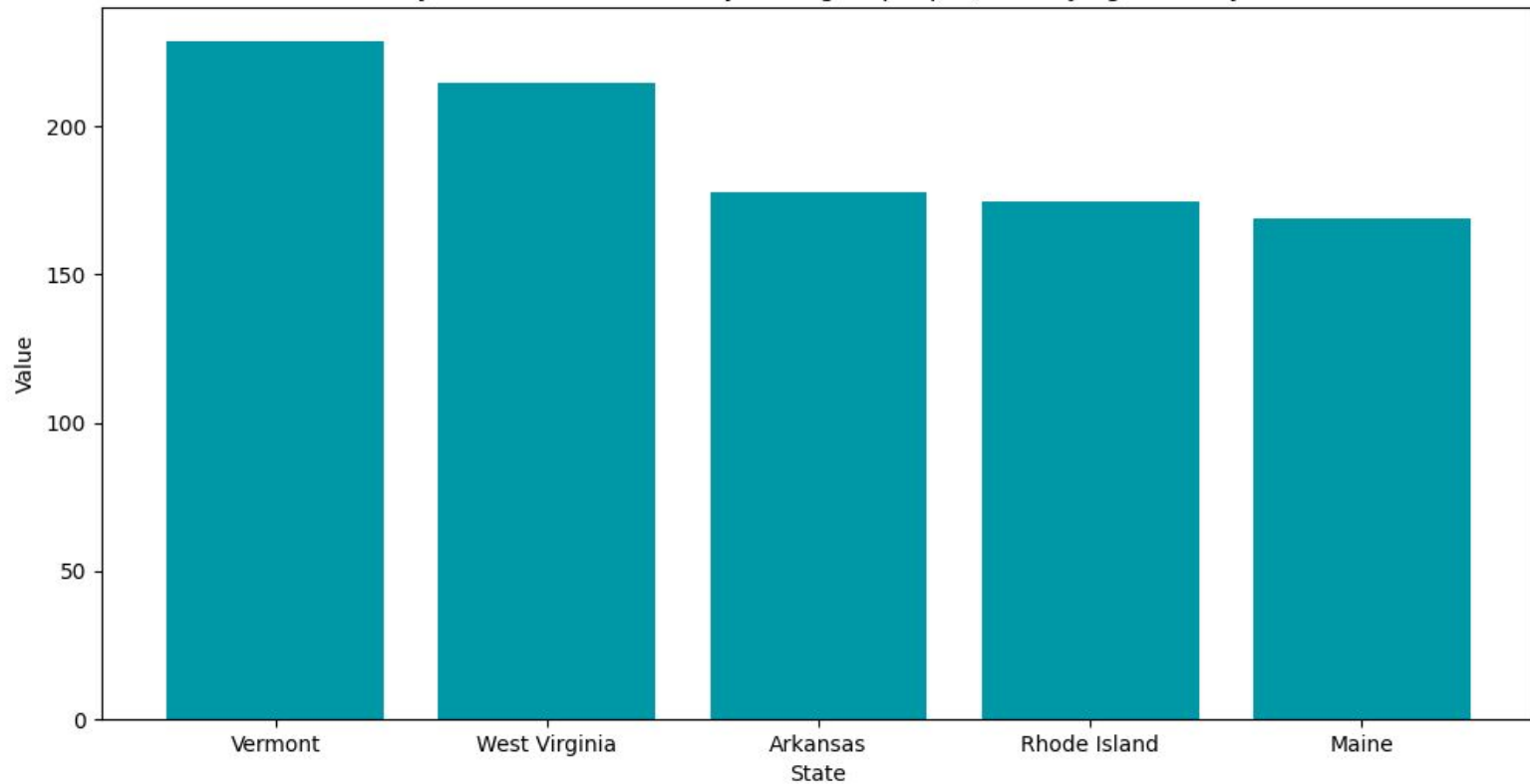
- Informing public
- Allocating resources
- Research into cause

Coronary Heart Disease Mortality Among All People

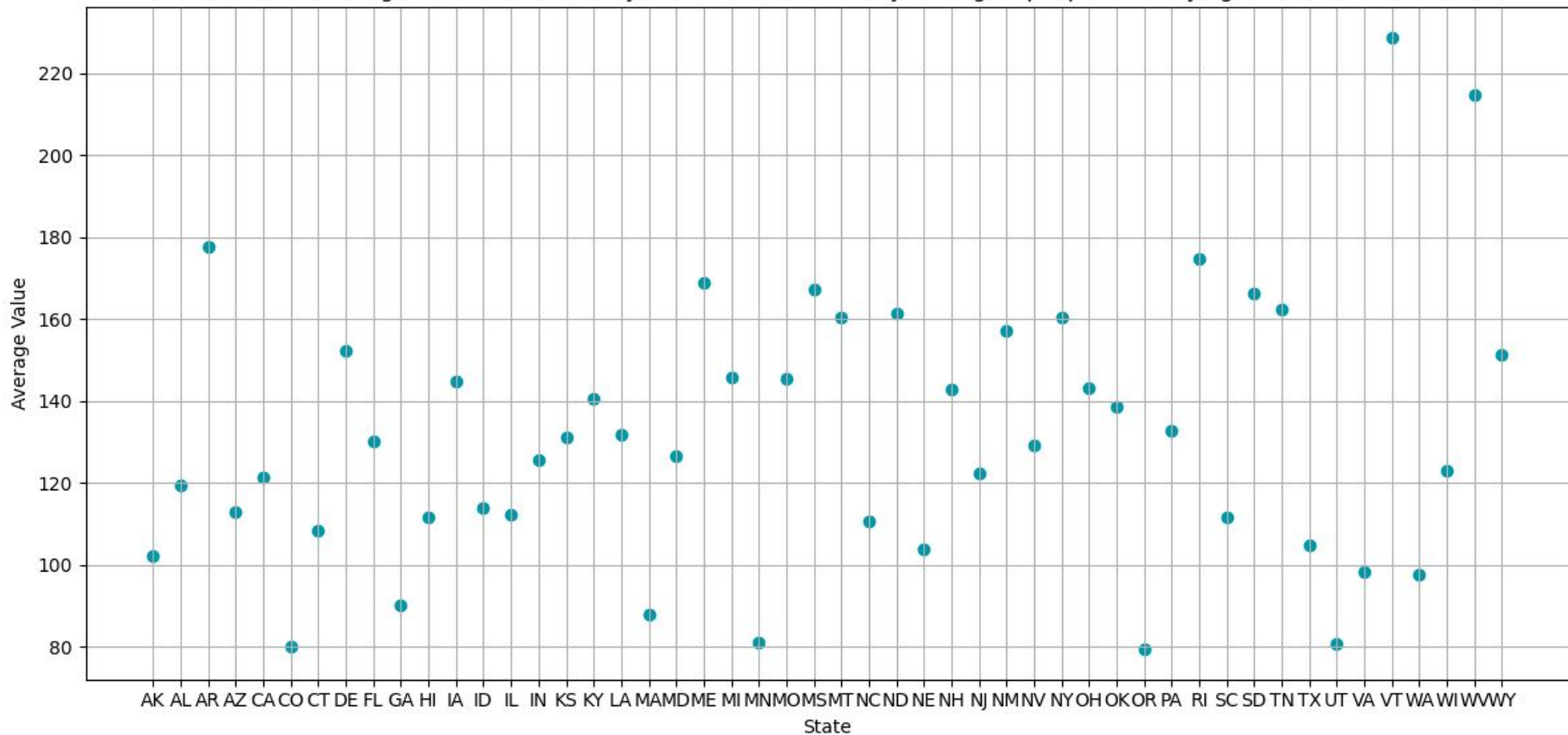
1. Vermont - 228.62
2. West Virginia - 214.59
3. Arkansas - 177.55
4. Rhode Island - 174.63
5. Maine - 168.87

Using crude rate

Coronary heart disease mortality among all people, underlying cause by State



Distribution of Average Values for 'Coronary heart disease mortality among all people, underlying cause' Across All States



Angle 3 - Difference of Values Between Years for 5 States with High Mortality and Low Mortality

Coronary Heart Disease

Why its meaningful

Reveals trends on progress over years. Can be used to determine if certain changes had impact.

- Ex: new programs

States with decreased values can be observed to see what is working and be adopted by other states.

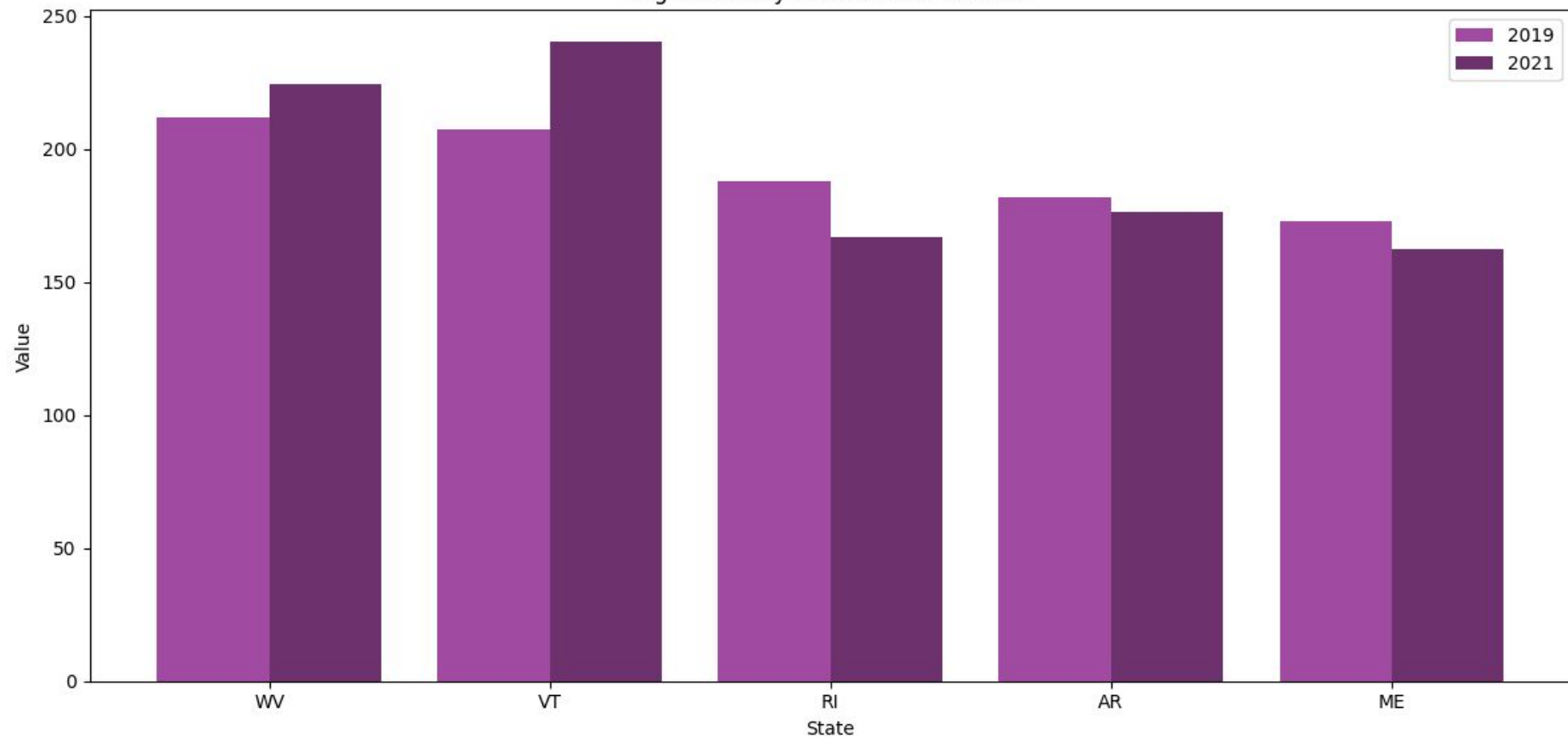
Change in Value High Mortality

- West Virginia: 12.86
- Vermont: 32.85
- Rhode Island: -20.88
- Arkansa: -5.51
- Maine: -10.94

Change in Value Low Mortality

- Oregon: 7.33
- Colorado: 4.46
- Utah: -2.55
- Minnesota: 1.24
- Massachusetts: 5.50

High Mortality States: 2019 vs 2021



Low Mortality States: 2019 vs 2021

