

# COVID 19 mortality risk analysis

File created on:  
9/6/2021 6:53:36  
PM

What are the risk factors of dying from infections related to severe acute respiratory syndrome of coronavirus 2 (SARS-CoV-2), COVID-19?

Is it race/ethnicity?

Geographic location?

Could it be  
a combination  
of factors?



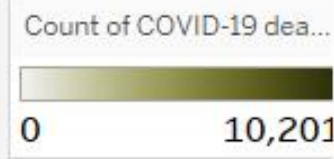
COVID-19 mortality by race/Hispanic Origin



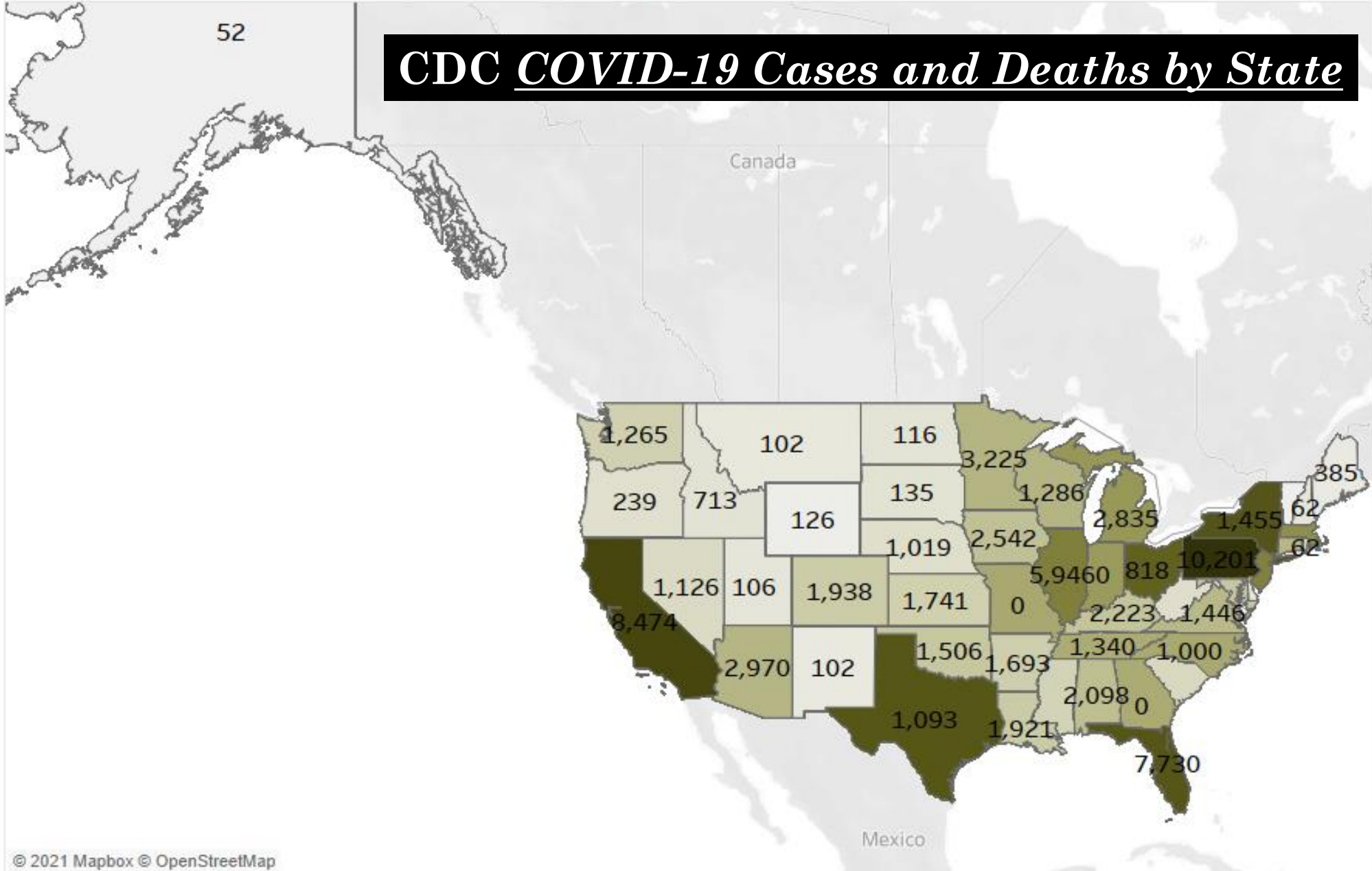
To Rank the Risk Causes  
using  
***CDC COVID-19 Cases and Deaths by State Data***

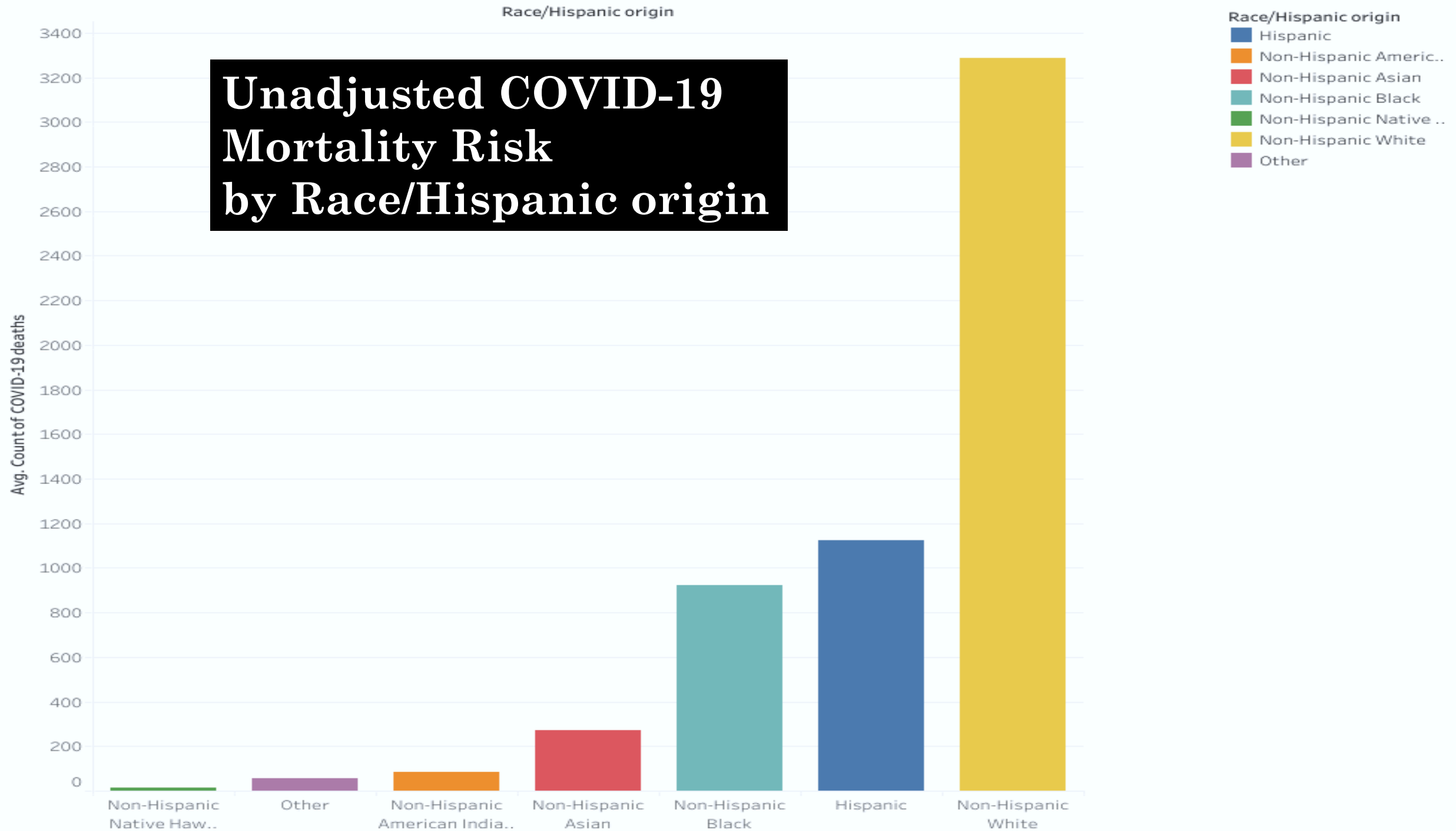
**Data Source:**

<https://data.cdc.gov/NCHS/Distribution-of-COVID-19-Deaths-and-Populations-by/jwta-jxbg/data>



***CDC COVID-19 Cases and Deaths by State***





Race/Hispanic origin

Race/Hispanic origin

- Non-Hispanic American Indian or ..
- Hispanic
- Non-Hispanic Black
- Non-Hispanic White
- Non-Hispanic Native Hawaiian or ..
- Non-Hispanic Asian
- Other

# Adjusted COVID-19 Mortality Risk by Race/Hispanic origin

COVID-19 Mortality per Ethnic Population

800  
700  
600  
500  
400  
300  
200  
100  
0

> 1K nulls

Non-Hispanic Am..

Hispanic

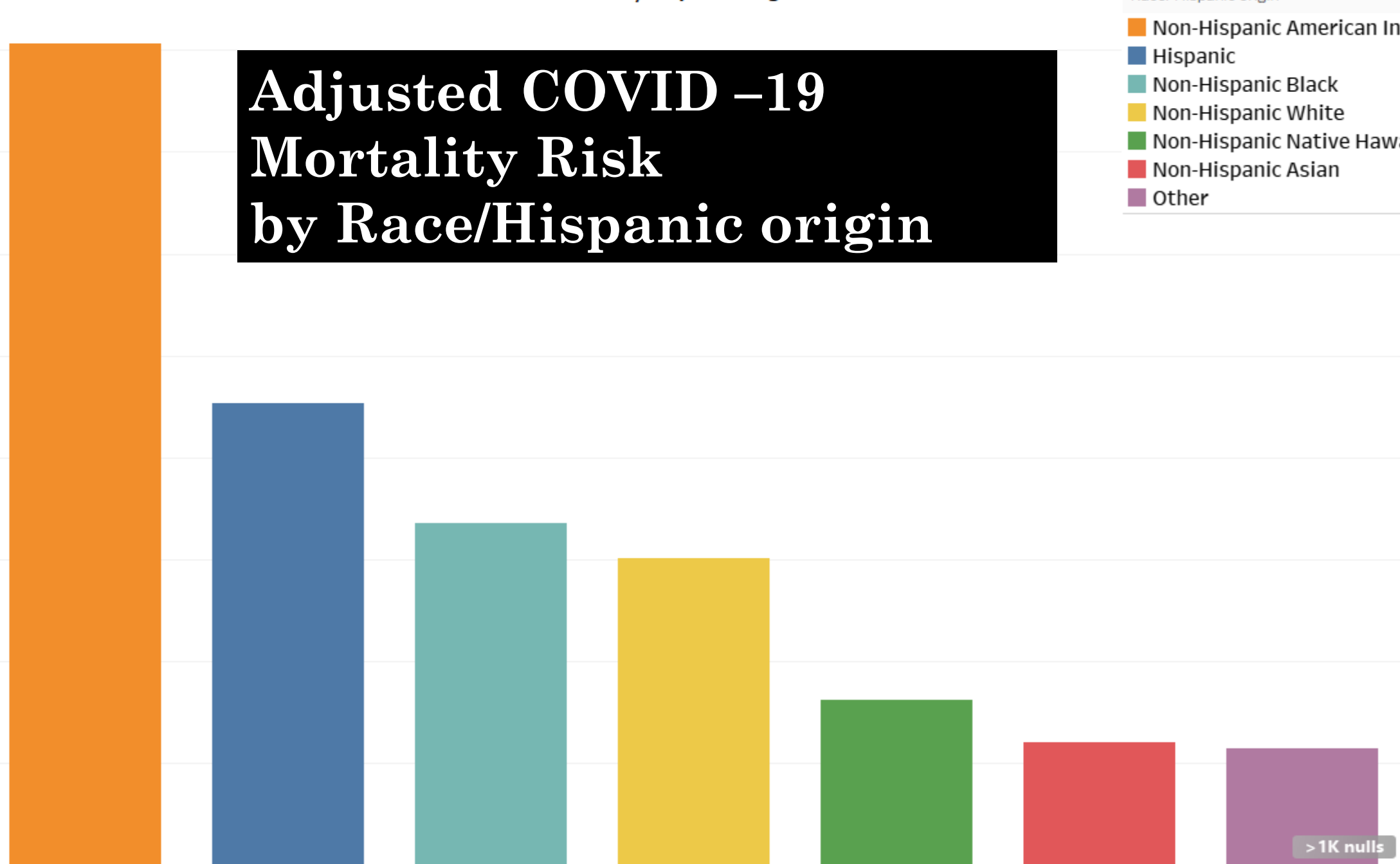
Non-Hispanic Black

Non-Hispanic Whi..

Non-Hispanic Nati..

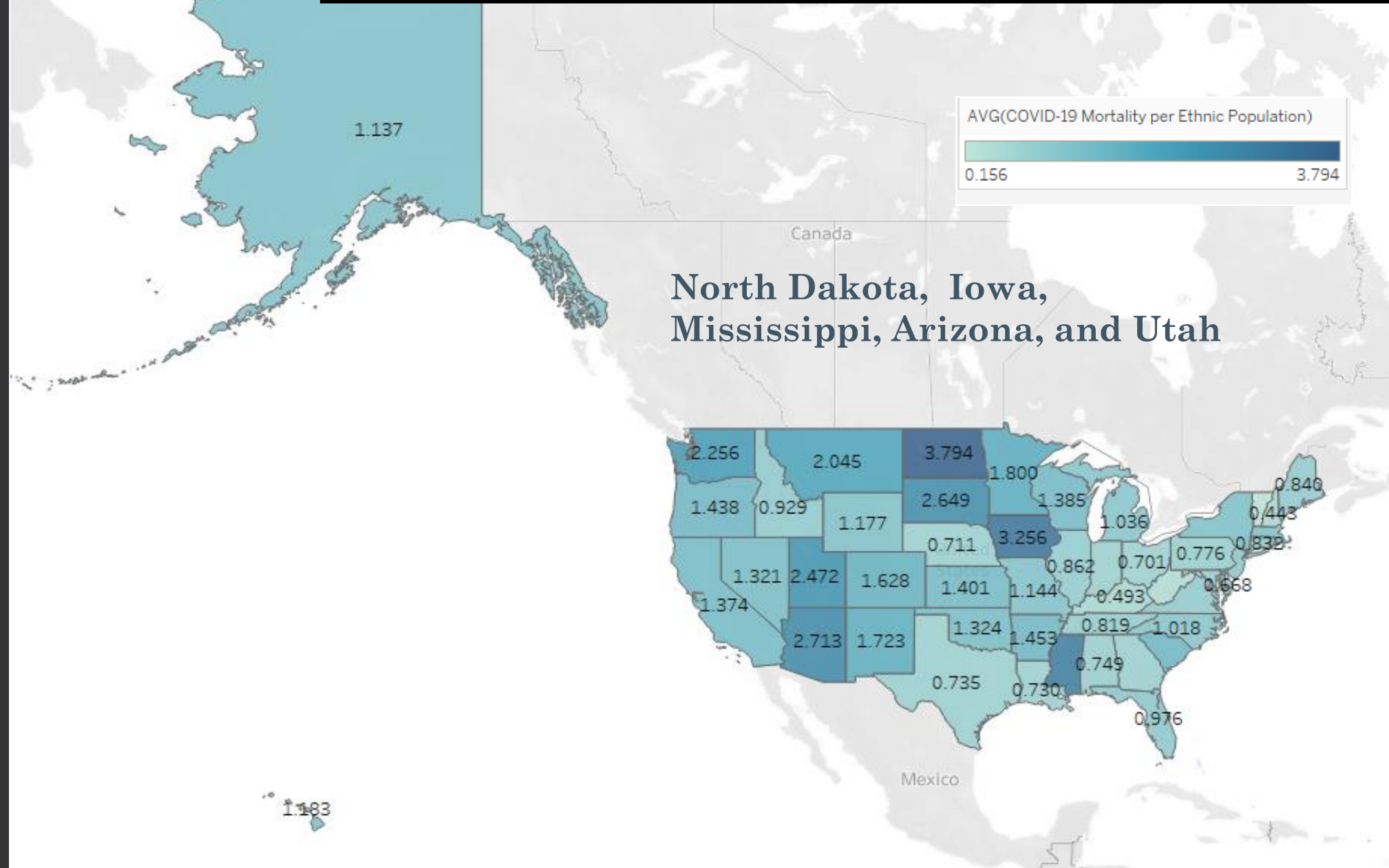
Non-Hispanic Asian

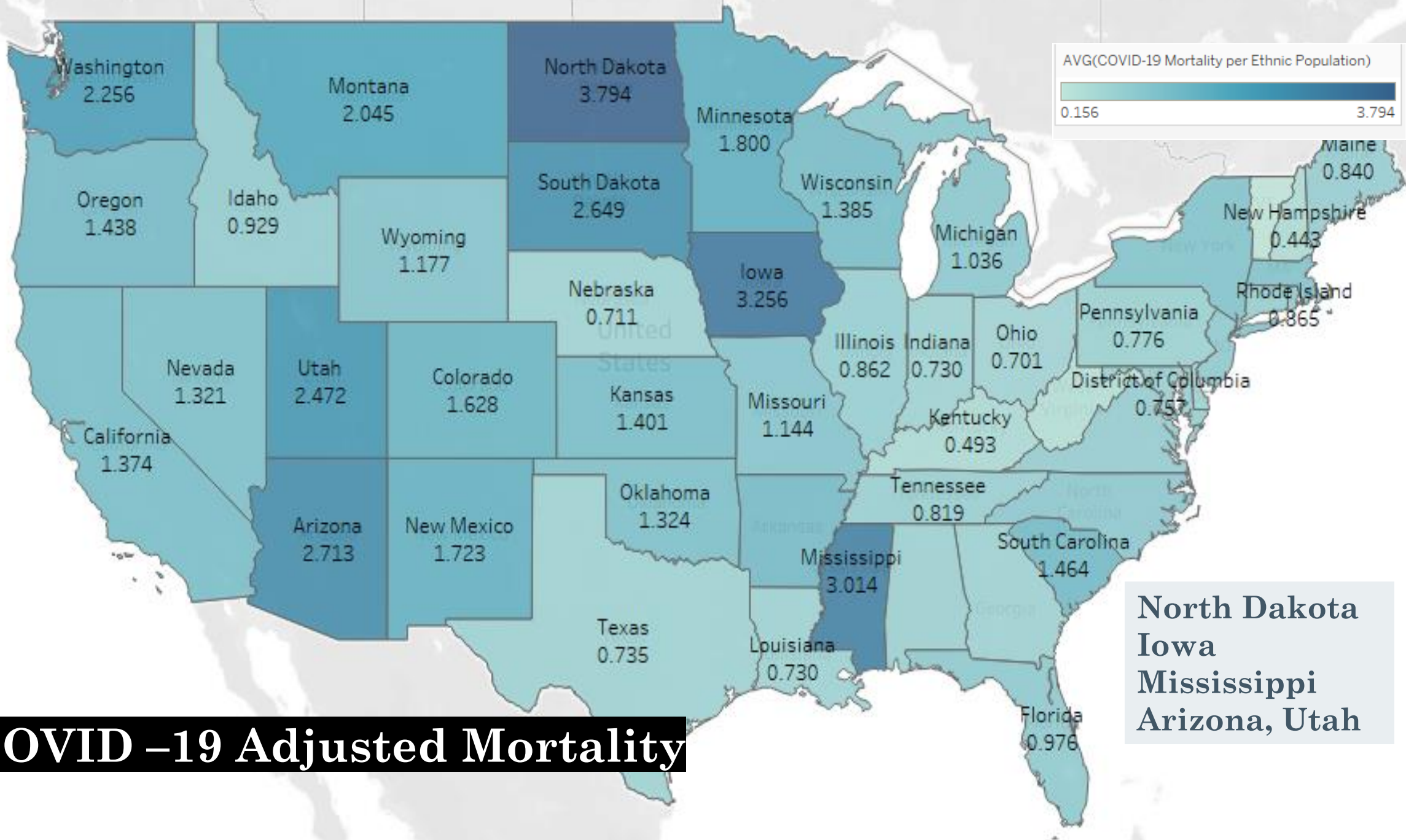
Other





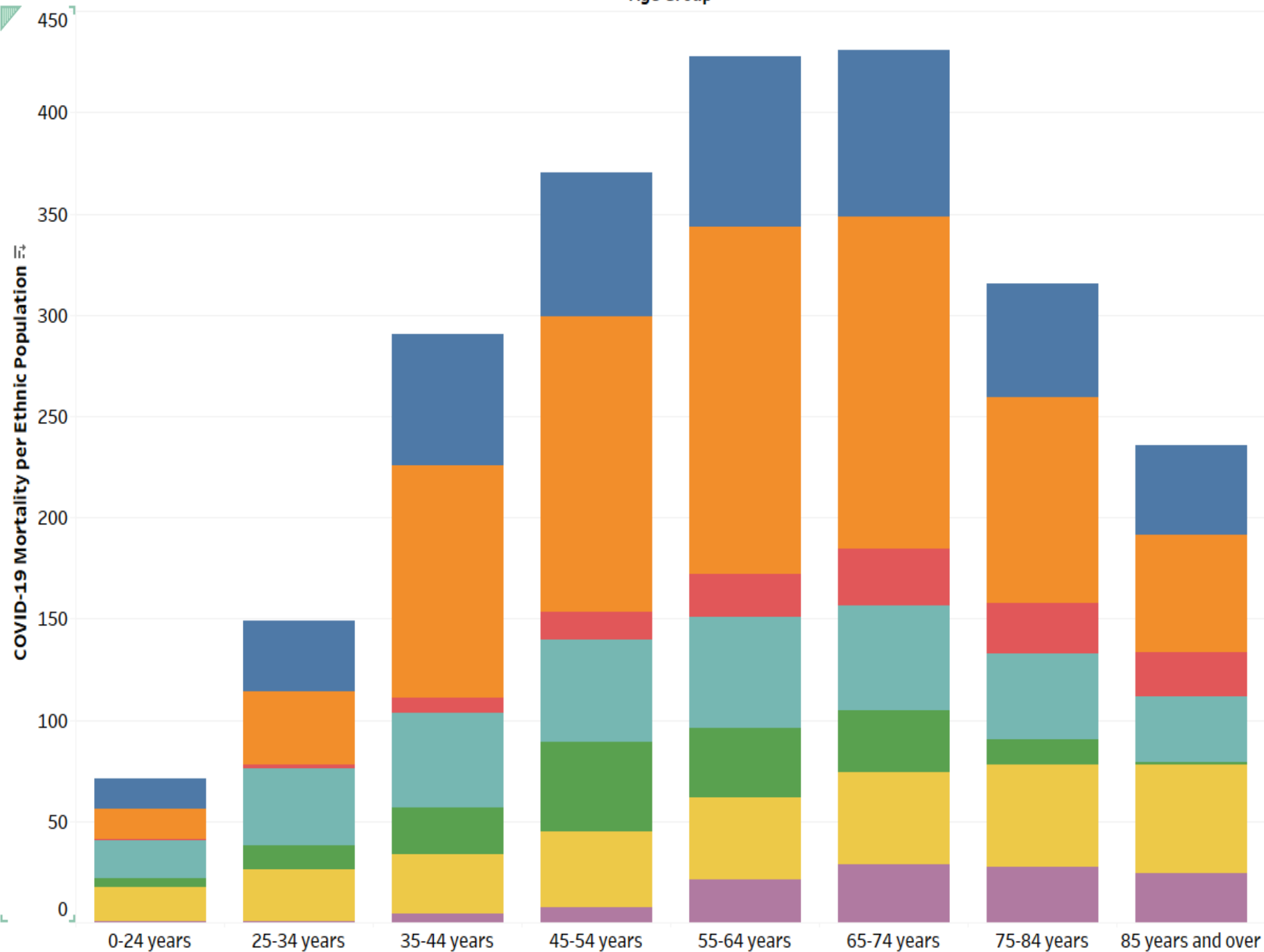
# COVID -19 Adjusted Mortality







Age Group



# COVID-19 Adjusted Mortality by Age and Race/Hispanic origin

Race/Hispanic origin

- Hispanic
- Non-Hispanic American Indian or ..
- Non-Hispanic Asian
- Non-Hispanic Black
- Non-Hispanic Native Hawaiian or ..
- Non-Hispanic White
- Other

# Assumption

- Previous incidence reflects future risk
- COVID-19 strain is not a significant distribution factor



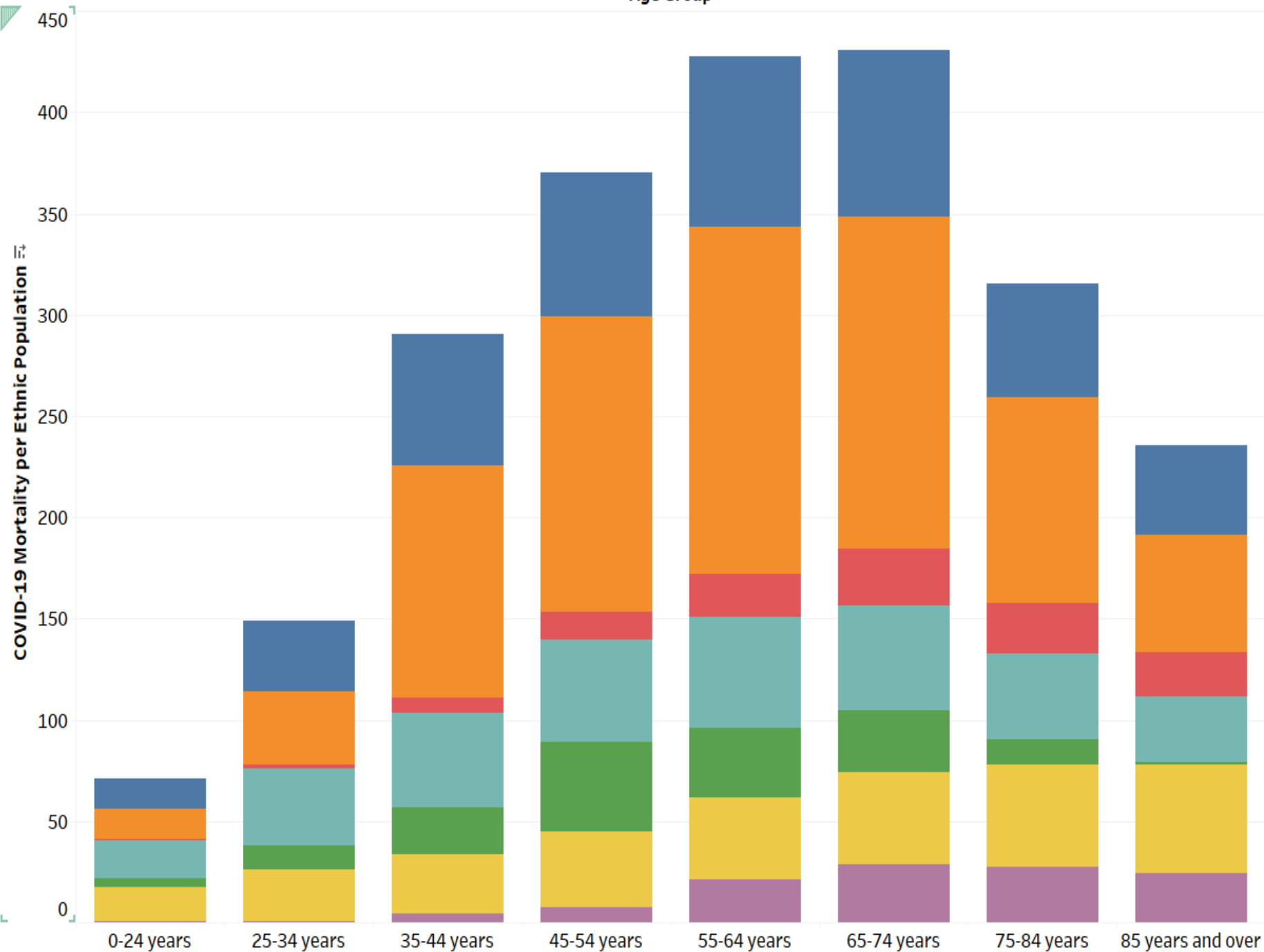
Age - Ethnicity Scatterplot



# CONCLUSION

- The risk is the highest among the non-Hispanic American Indian and Alaska Native (AIAN) population
- By age, the risk increases every 10 years of age until the age of 74 y.o.
- The risk is the highest among 45-74 y.o.
  - AIAN
  - Hispanic

Age Group



# Race/Hispanic Origin and Age and the risk of dying from COVID-19 associated infection

Race/Hispanic origin

- Hispanic
- Non-Hispanic American Indian or ..
- Non-Hispanic Asian
- Non-Hispanic Black
- Non-Hispanic Native Hawaiian or ..
- Non-Hispanic White
- Other



COVID-19 mortality by race/Hispanic Origin



## Questions for future research

Rural areas?

Reduced access to medical centers?

A combination of factors?

**Data Source:**

CDC. Distribution of COVID-19 Deaths and Populations, by Jurisdiction, Age, and Race and Hispanic Origin. Retrieved 9/1/2021

<https://data.cdc.gov/NCHS/Distribution-of-COVID-19-Deaths-and-Populations-by/jwta-jxbg>  
<https://data.cdc.gov/NCHS/Provisional-COVID-19-Deaths-Distribution-of-Deaths/pj7m-y5uh>