



AZPHA DATA BRIEF:

**ARIZONA: THE ONLY STATE IN THE U.S.
WHERE COVID-19 HAS BEEN THE
LEADING CAUSE OF DEATH DURING THE
PANDEMIC**



AZPHA

Arizona Public Health Association

Allan N. Williams, MPH, PhD
Retired, Minnesota Department of Health (1984-2018)
Adjunct Assistant Professor, University of Minnesota School of Public Health

Will Humble, MPH
Executive Director, Arizona Public Health Association
Director, Arizona Department of Health Services (2009-2015)

Purpose:

- To determine whether COVID-19 is the leading cause of death in any other state besides Arizona.

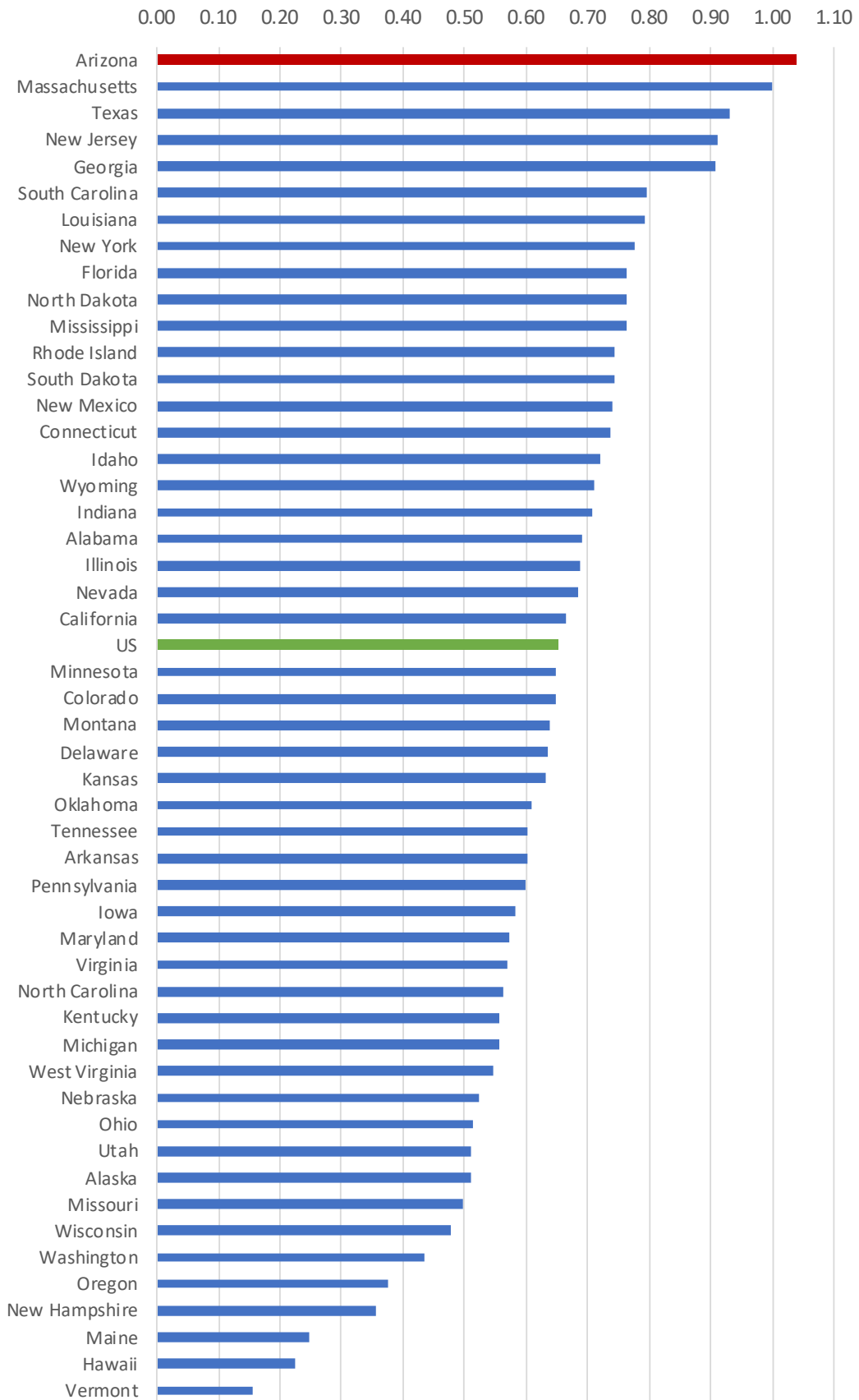
Methods.

- The [CDC Wonder](#) database was accessed to obtain the number of deaths and the crude death rates for the two leading causes of death in 2019 (heart disease and cancer) for each state and for the US.
- The [CDC COVID Data Tracker database](#) was accessed to obtain the number of COVID-19 deaths as of Oct. 29 and the [CDC Case Surveillance database](#) was accessed to obtain the date of the first death for each state.
- The annualized COVID-19 crude death rate and the average daily deaths from COVID-19 were calculated and compared to the 2019 heart disease and cancer rates for each state.
- Additional leading causes data were obtained from CDC Wonder for states with very low COVID-19 rates to determine where COVID-19 ranks as a cause of death.

Findings:

- The data and methodology show that Arizona is the ONLY state in the US where COVID-19 is the leading cause of death. Figure 1 shows the rate ratio for annualized crude COVID-19 death rates to heart disease death rates for all 50 states and the US, while Figure 2 shows the rate ratio of COVID-19 deaths to cancer deaths.
- There were five states in which COVID-19 was the *second* leading cause or virtually tied for second:
 - Georgia
 - Massachusetts
 - New Jersey
 - New York
 - Texas
- There were 40 states in which COVID-19 was the *third* leading cause of death.
- There were four states in which COVID-19 was lower than the third leading cause:
 - Alaska, 4th
 - Hawaii and Maine, 5th
 - Vermont, 7th
- COVID-19 is the third leading cause of death in the US overall.
- Heart disease was the leading cause of death in 2019 in 29 states and in the US, while cancer was the leading cause in 11 states.

**Figure 1. Ratio of Annualized Rates of COVID-10 Deaths per 100,000
(as of 10/29/21) to Heart Disease Death Rates in 2019**



**Figure 2. Ratio of Annualized Rates of COVID-19 Deaths per 100,000
(as of 10/29/21) to Cancer Rates in 2019**

