State-level Changes in Causes of Mortality Among Older Adults, 2019-2020

Aaron Clark, Sarah Milder, MPH, Kristin Shaw, MPH, and Rivers Laraque-Ho

Arundel Metrics, Incorporated, Saint Paul, MN

Background

The COVID-19 pandemic has disproportionately impacted older adults through COVID-19-attributed mortality and reduced access to health care. Reduced access to health care may have led to increased mortality from other causes.[1] This analysis examines state-level changes in the leading causes of death among older adults between 2019 and 2020.

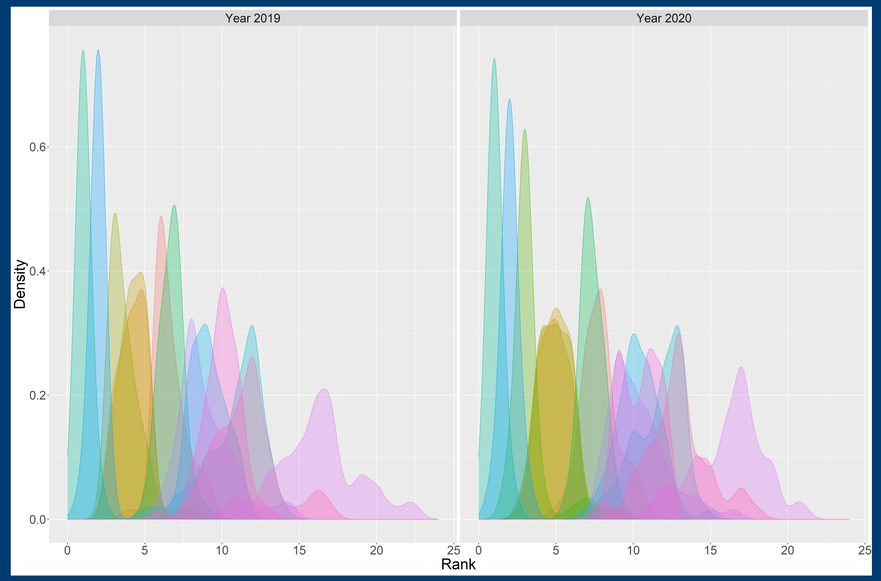
Methodology

State-level and D.C. mortality rates among adults ages 65 and older were calculated for 2019 and 2020 using the National Center for Health Statistics' 113 Selected Causes of Death Mortality File and American Community Survey population data. The average state-level percent change in mortality rates was calculated for causes which appeared in the top 10 causes of death per state. The mean and standard deviation (SD) of the percent changes were calculated.

Selected 113 Causes of Death

- Accidents (unintentional injuries) (V01-X59,Y85-Y86)
- Alzheimer's disease (G30)
- Cerebrovascular diseases (I60-I69)
- Chronic lower respiratory diseases (J40-J47)
- COVID-19
- Diabetes mellitus (E10-E14)
- Diseases of heart (I00-I09,I11,I13,I20-I51)
- Essential hypertension and hypertensive renal disease (I10,I12,I15)
- Influenza and pneumonia (J09-J18)
- Malignant neoplasms (C00-C97)
- Nephritis, nephrotic syndrome and nephrosis (N00-N07,N17-N19,N25-N27)
- Nutritional deficiencies (E40-E64)
- Parkinson's disease (G20-G21)
- Septicemia (A40-A41)

Results



Leading Cause of Death	2020 Rank (SD)	2019 Rank (SD)	% Change (SD)
Diseases of Heart	1.1 (0.3)	1.1 (0.2)	7.1% (4.3)
Malignant Neoplasms	2.0 (0.4)	1.9 (0.2)	5.0% (3.2)
COVID-19	3.3 (1.2)	NA	NA
Chronic Lower Respiratory Diseases	4.8 (0.9)	3.6 (0.8)	0.1% (7.3)
Alzheimer's Disease	5.0 (1.2)	4.3 (1.0)	13.9% (9.8)
Cerebrovascular Diseases	5.0 (0.9)	4.2 (0.8)	8.8% (6.8)
Diabetes Mellitus	7.3 (0.7)	6.7 (0.7)	18.6% (9.1)
Accidents (Unintentional Injuries)	7.9 (1.2)	6.6 (1.0)	7.5% (7.6)
Nephritis, Nephrotic Syndrome and Nephrosis	10.4 (1.9)	9.0 (1.8)	3.1% (10.4)
Influenza and Pneumonia	10.4 (1.4)	9.0 (1.3)	3.7% (14.6)
Parkinson's Disease	10.5 (1.2)	10.1 (1.1)	19.7% (11.9)
Essential Hypertension and Hypertensive Renal Disease	11.7 (1.5)	11 (1.7)	19.0% (15.9)
Septicemia	12.8 (2.1)	11.5 (2.2)	8.0% (16.8)
Nutritional Deficiencies	16.5 (3.1)	16.2 (2.7)	34.9% (36.5)

Results

The average state-level percent change was positive for all examined causes of death. This was led by an increase of 19.7% (SD 11.9%) for Parkinson's disease, 19.0% (SD 15.9%) for essential hypertension, 18.6% (SD 9.1%) for diabetes mellitus, and 13.9% (SD 9.8%) for Alzheimer's disease. Although the average state-level percent change was positive, many states had a negative percent change for chronic lower respiratory disease, influenza and pneumonia, nephritis, and septicemia.

Conclusions

The first year of the pandemic coincided with an average increase in the rates of all leading causes of death among those ages 65 and older across all states and Washington D.C. This may indicate that restricted access to health care resources increased the mortality of older adults.

For More Information

The full state-level dataset of the top 14 causes of death is available by scanning the QR code.

For more insights about the health of seniors, visit us at AmericasHealthRankings.org

1. French G, Hulse M, Nguyen D, et al. Impact of Hospital Strain on Excess Deaths During the COVID-19 Pandemic — United States, July 2020–July 2021. *MMWR Morb Mortal Wkly Rep* 2021;70:1613–1616. DOI: http://dx.doi.org/10.15585/mmwr.mm7046a5

Acknowledgments

We thank the advisory committee, who provided guidance in the development of the *America's Health Rankings® Senior Report* and the United Health Foundation for their continued support of this project.

Disclosure

Arundel Metrics receives funding from United Health Foundation to produce *America's Health Rankings*. Arundel Metrics (arundelmetrics.com) is a data-driven consulting firm specializing in public health measurement and index generation.