

Decreasing Risk Factors & Improving Access to Ischemic Stroke Care in Oklahoma AI/AN Communities Lindsey Smith¹, Darla McCloskey, Ph.D., M.P.H, B.S.N.²

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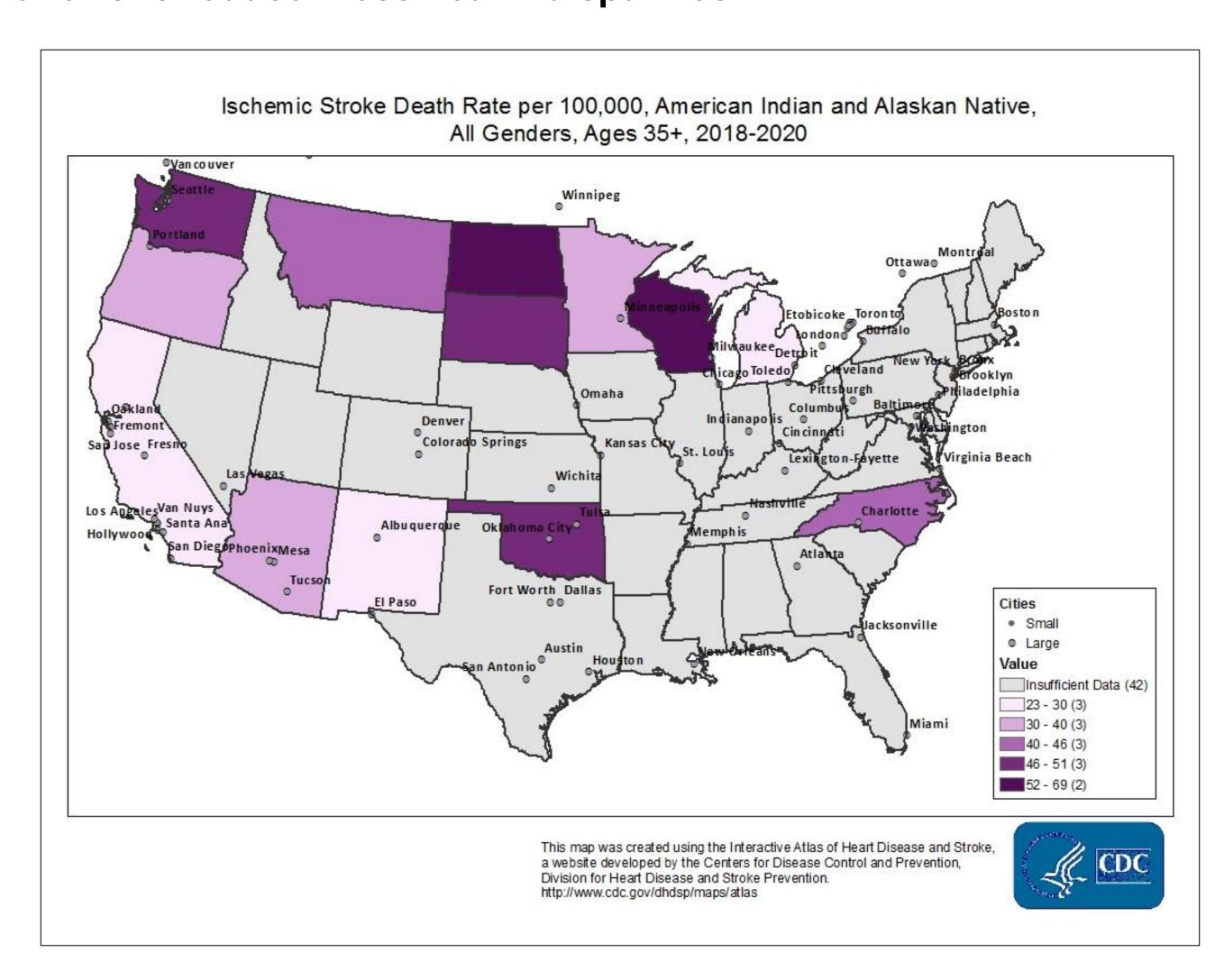
¹Southern Plains Tribal Health Board, Tribal Health Experiential Student Internship Seminar Program ²Indian Health Service, Tribal Health Experiential Student Internship Seminar Program

Abstract

Columbia University | University of Michigan | Southern Plains Tribal Health Board

Morehouse College | University of Pittsburgh | Kennedy Krieger Institute | UCLA

Each year in the U.S., almost 800,000 people have a stroke, with 87% of all strokes being ischemic strokes. Between 2018-2020, the ischemic stroke death rate of American Indian/Alaska Natives (Al/AN) aged 35+ in Oklahoma was relatively high compared to many other states. Oddly, the Al/AN community has conflicting patterns in stroke risk factor and mortality data: they supposedly have low stroke mortality, but the disparities they face in stroke risk factor prevalence are among the worst in the nation. This is due to Al/AN stroke mortality data coming from death certificates, which is heavily subjected to racial misclassification, and both old and new studies still racially misclassify AI/AN persons as White. However, studies accounting for racial misclassification have found stroke death rates and stroke risk factor prevalence to be higher for AI/AN persons than Whites, and the stroke mortality rates for Al/AN persons were highest in Alaska and Oklahoma. Thus, this poster seeks to explain the high prevalence of ischemic stroke risk factors (e.g. diabetes, obesity, high blood pressure) and mortality among Oklahoma AI/AN communities and to propose efforts to reduce these health disparities.

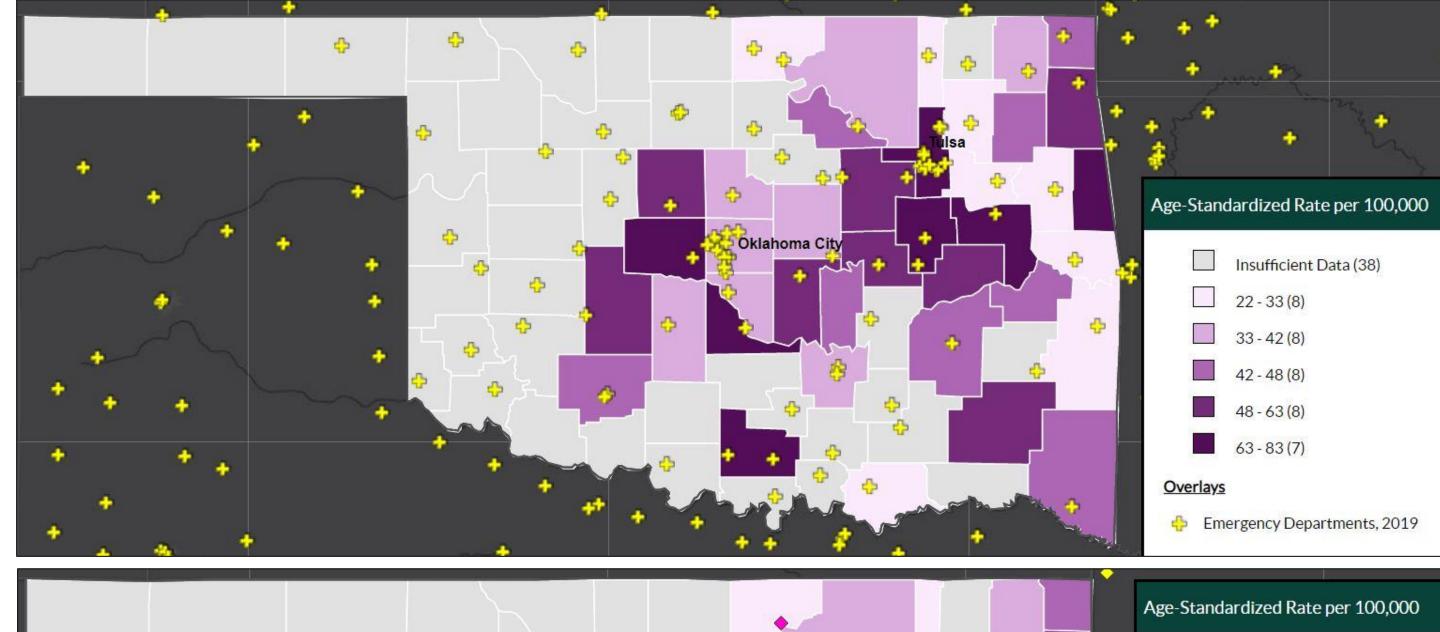


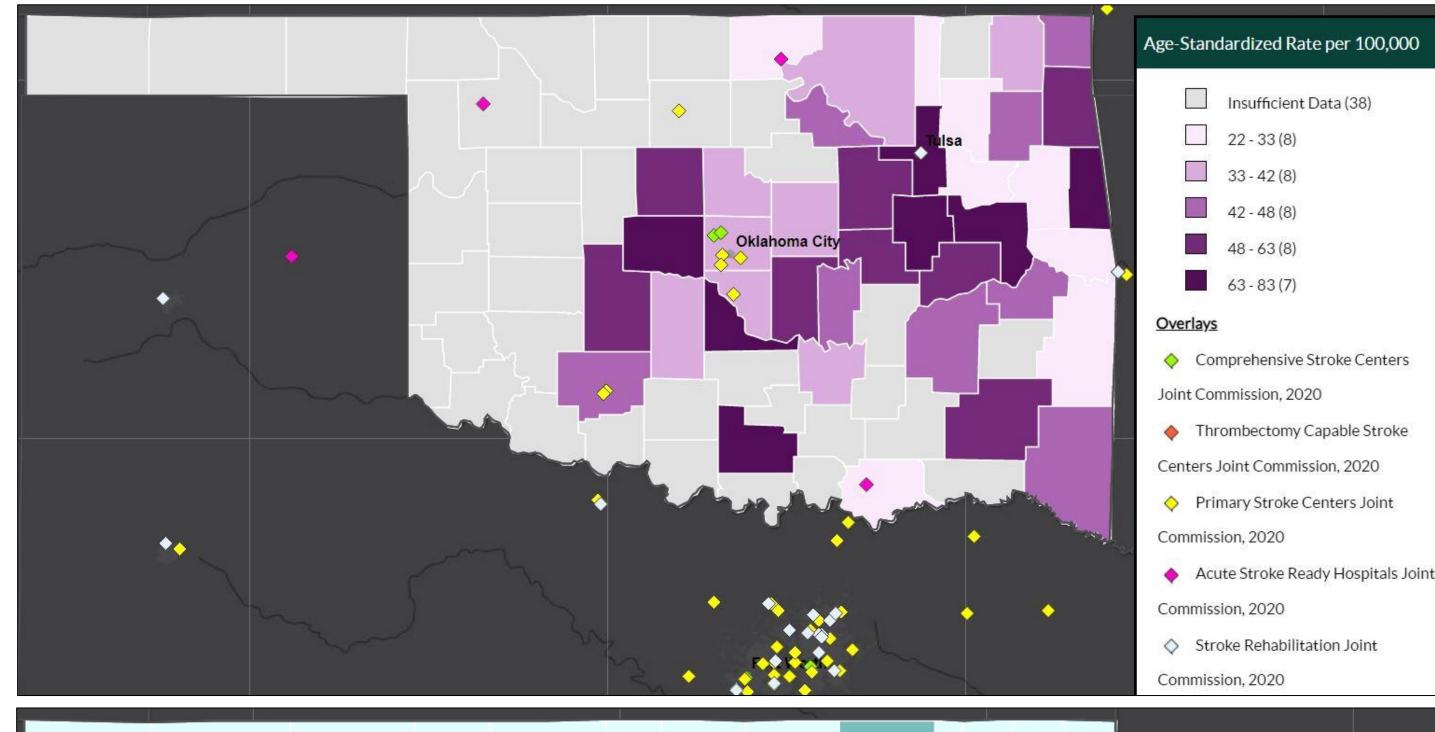
Population & Community Impact

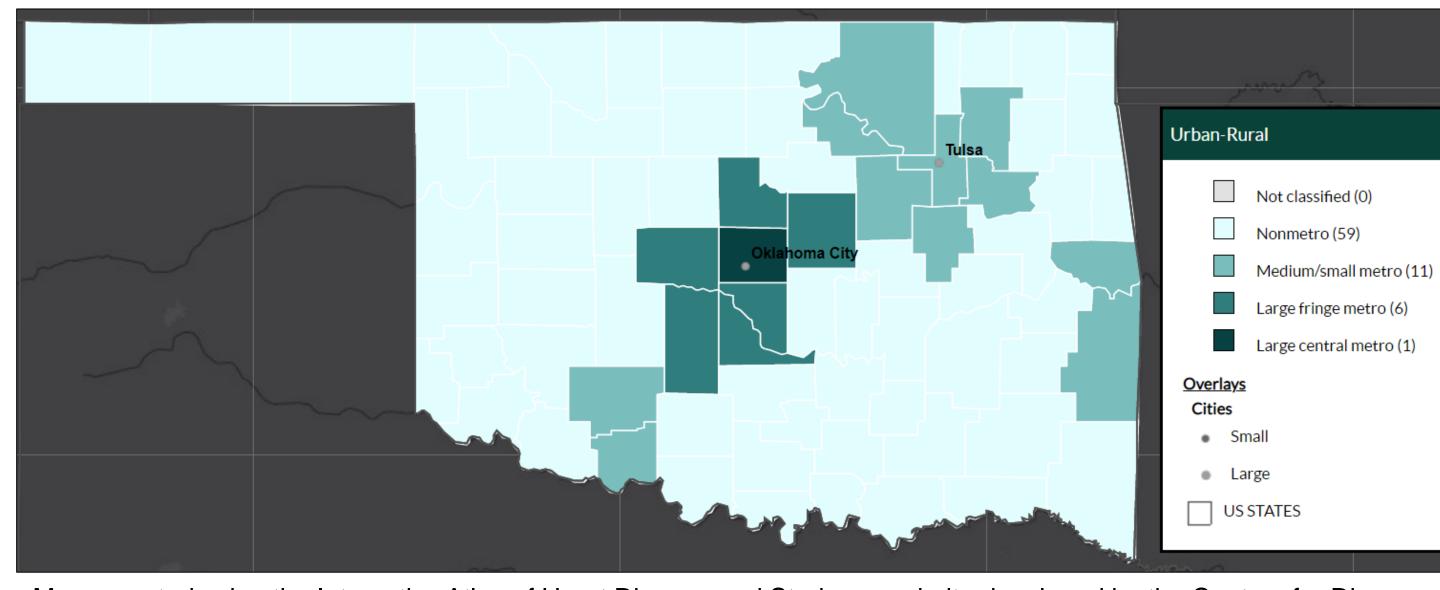
- **Population**: American Indian/Alaska Natives in rural (nonmetro, small/medium metro) Oklahoma
- Impact: The ischemic stroke death rate of American Indian/Alaska Natives in the U.S. is relatively high in Oklahoma. However, Oklahoma AI/AN have no statistically significant records of hospitalization due to ischemic stroke when compared with other races, indicating a lack of access to stroke care. Additionally stroke risk factors such as diabetes and high blood pressure are more common in American Indian/Alaska Natives compared to other races. This leads to an increase in stroke mortality as well as disability due to the lack of prevention, early medical intervention during a stroke, and rehabilitation post-stroke.

Al/AN have less access to stroke care resources

- Ischemic stroke mortality rates from 2018-2020 within the AI/AN population ages 35+ in Oklahoma
- Majority of tribal jurisdiction areas are classified as nonmetro or medium/small metro and do not have a certified stroke center in their respective counties

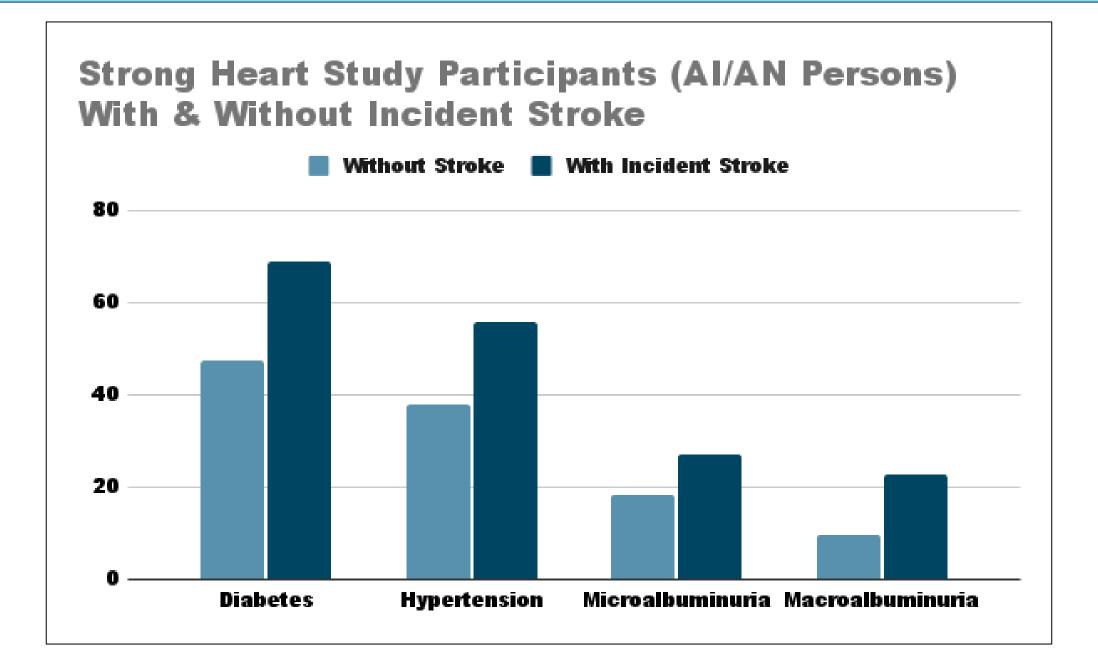






Maps created using the Interactive Atlas of Heart Disease and Stroke, a website developed by the Centers for Disease Control and Prevention. https://nccd.cdc.gov/dhdspatlas/

High prevalence of stroke risk factors among Al/AN



Achieving Health Equity

- Minimize & ultimately eliminate racial misclassification in Al/AN morality data → increased funding & resources
- Implement interventions to reduce stroke risk factors (e.g. putting grocery stores within walking distance in rural areas to promote healthy eating and to combat diabetes & obesity)
- Increase awareness of stroke symptoms by hanging up flyers in rural areas as opposed to digital-only PSAs
- Implementing telemedicine to improve emergent stroke services in rural areas
- Increase representation among health care providers to decrease implicit bias and increase patient trust
- Increase & improve access to clinics in rural areas capable of providing stroke care by expanding the public transportation system in Oklahoma to encompass nonmetro and small metro areas

Community-based solutions

- "Tradition not Addiction" Program in the Cheyenne & Arapaho tribes → using culture as prevention
- Partnerships between governmental agencies/academic institutions, and Oklahoma tribes & nations
- Oneida nation stroke study in partnership with University of Wisconsin → addresses risk factors of stroke in the Oneida nation community
- Community campaigns to decrease stroke risk factors through promoting healthy living (e.g. "Just Move It" nationwide campaign)

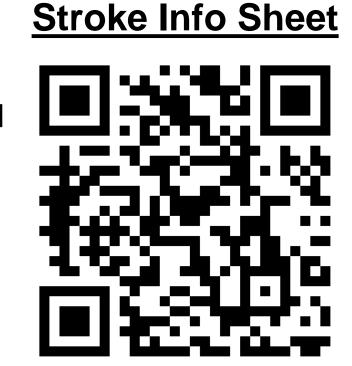
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