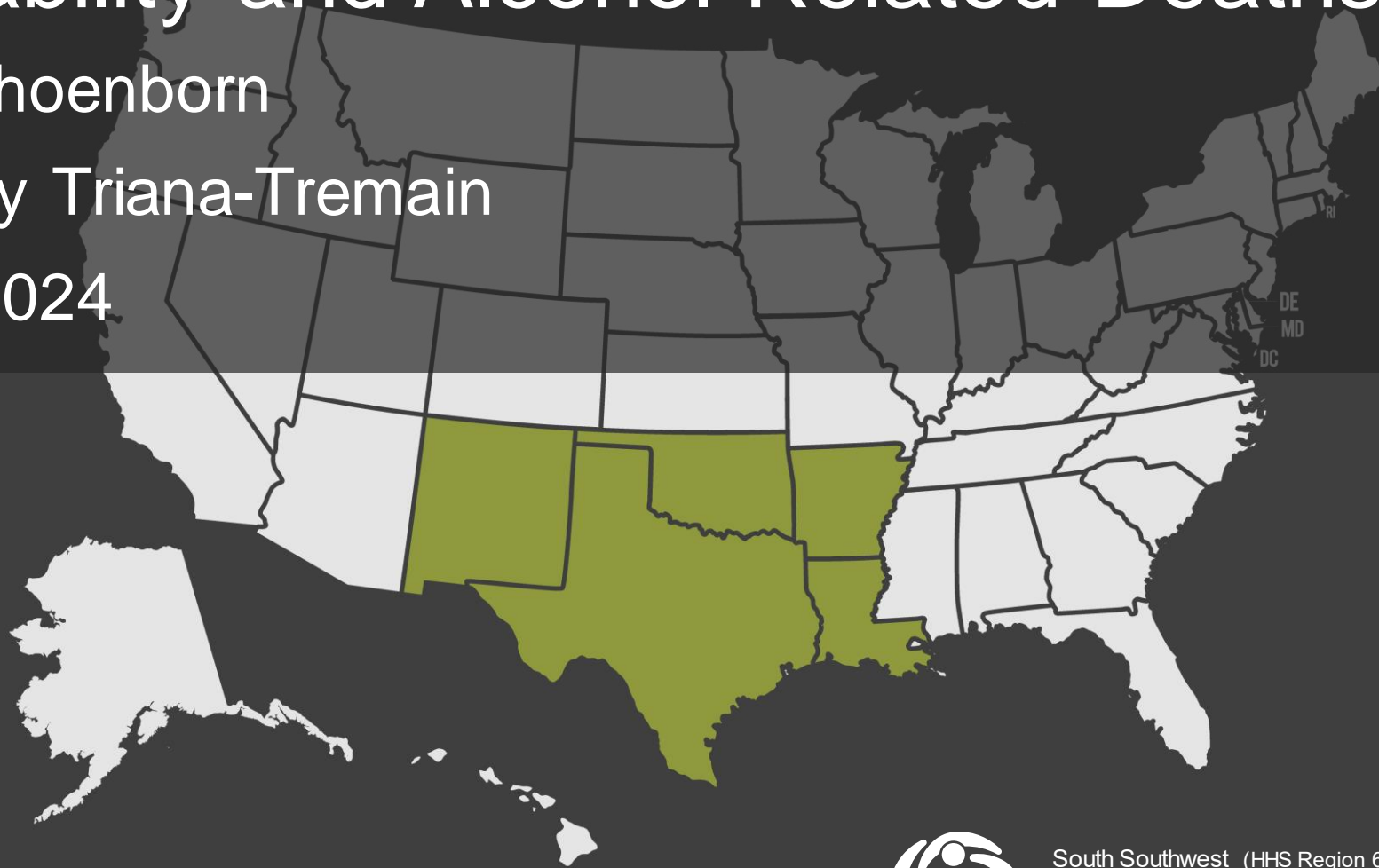


Charting Paths to Prevention: Mapping Social Vulnerability and Alcohol-Related Deaths

Nicole Schoenborn

Dr. Beverly Triana-Tremain

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At the time of this publication, Miriam E. Delphin-Rittmon, Ph.D, served as Assistant Secretary for Mental Health and Substance Use in the U.S. Department of Health and Human Services and the Administrator of the Substance Abuse and Mental Health Services Administration.

The opinions expressed herein are the view of PTTC Network and do not reflect the official position of the Department of Health and Human Services (DHHS), SAMHSA. No official support or endorsement of DHHS, SAMHSA, for the opinions described in this document is intended or should be inferred.

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Learning Objectives

- » Examine the association between the Social Vulnerability Index (SVI) and alcohol-related deaths (ARD) in the South Southwest region.
- » Identify one way the data can be applied to assist organizations with prevention planning.

Our Roadmap Today

- ✓ Introductions
- ✓ Mapping alcohol-related deaths and social vulnerability
- ✓ Methodology
- ✓ Findings
- ✓ Practical solutions for prevention professionals
- ✓ Q&A
- ✓ Evaluation



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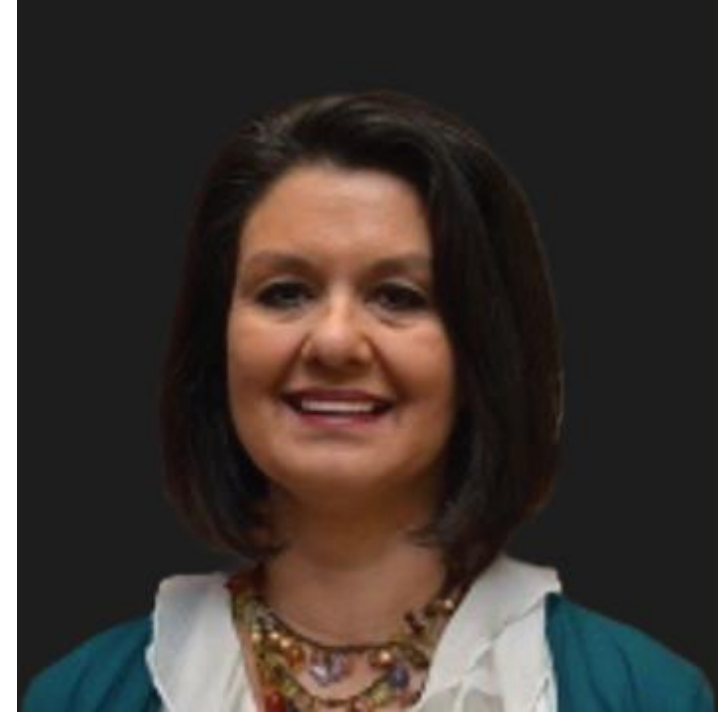
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Presenters



Nicole Schoenborn
Evaluator



Dr. Beverly Triana-Tremain
Epidemiologist



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Alcohol-related Deaths (ARD)

- Alcohol-related deaths (ARD) represent a significant public health concern globally, contributing to a substantial burden of morbidity and mortality (Park & Kim, 2020).
- Research increasingly suggests that alcohol-related deaths are related to social vulnerabilities and inequities (Karaye et al., 2023).

Social Vulnerability Index (SVI)

- SVI provides a framework for understanding communities using socioeconomic status, household composition, minority status, and housing and transportation access (CDC, 2024).
- SVI offers insights into the structural inequities and systemic barriers that shape communities' ability to withstand and recover from health crises.

Purpose of the Brief

- Explore the association and interplay between SVI and ARD in the South Southwest region
- Identify avenues for focused intervention and policy development
- Bring a deeper awareness of relationships (SVI, ARD, and Social Determinants of Health (SDOH))



SOCIAL VULNERABILITY VARIABLES

Below 150% Poverty
Unemployed
Housing Cost Burden
No High School Diploma
No Health Insurance

SOCIOECONOMIC STATUS



Multi-Unit Structures
Mobile Homes
Crowding
No Vehicle
Group Quarters

HOUSING TYPE & TRANSPORTATION



HOUSEHOLD CHARACTERISTICS



Aged 65 & Older
Aged 17 and Younger
Civilian with a Disability
Single-Parent Households
English Language Proficiency

RACE & ETHNIC STATUS



Hispanic or Latino (of any race); Black and African American, Not Hispanic or Latino; American Indian and Alaska Native, Not Hispanic or Latino; Asian, Not Hispanic or Latino; Native Hawaiian and Other Pacific Islander, Not Hispanic or Latino; Two or More Races, Not Hispanic or Latino; Other Races, Not Hispanic or Latino.

Note: Race/ethnic status characteristics are included in the SVI due to the health inequities experienced by groups (access to healthcare, etc.).

Methodology

- Crude Alcohol-Related Death (ARD) rates per 100,000
- International Classification of Disease and Death (ICD-10) Codes X45, X65, and Y15 for alcohol poisoning and all other alcohol-induced causes.
- Composite score for 16 SVI factors



Analysis Methods

- Missing, Unreliable, or Suppressed Counties
- Average of Quartiles for ARD and SVI Composite
- Maps for each state with counties using Tableau Public
- Correlation of ARD and SVI using Statistical Package for the Social Sciences (SPSS) (Kendall's Tau-b statistic)



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SVI Minimum and Maximum Values by Quartile

	Q1	Q2	Q3	Q4
Arkansas	10 - 11	12	13	14 - 16
Louisiana	11 - 12	13 - 14	15	16 - 17
New Mexico	13 - 15	16	17 - 18	19 - 21
Oklahoma	10 - 12	13	14	15 - 16
Texas	9 - 12	13 - 14	15 - 16	17 - 23

ARD Rates per 100,000 Minimum and Maximum Values by Quartile

	Q1	Q2	Q3	Q4
Arkansas	4 - 9	10 - 11	12 - 14	15 - 19
Louisiana	4 - 6	7 - 8	9 - 12	13 - 15
New Mexico	15 - 23	27-30	31 - 44	47 - 137
Oklahoma	7 - 12	13 - 14	15 - 19	20 - 28
Texas	3 - 8	9	10 - 11	12 - 22

Counties Represented in Analysis

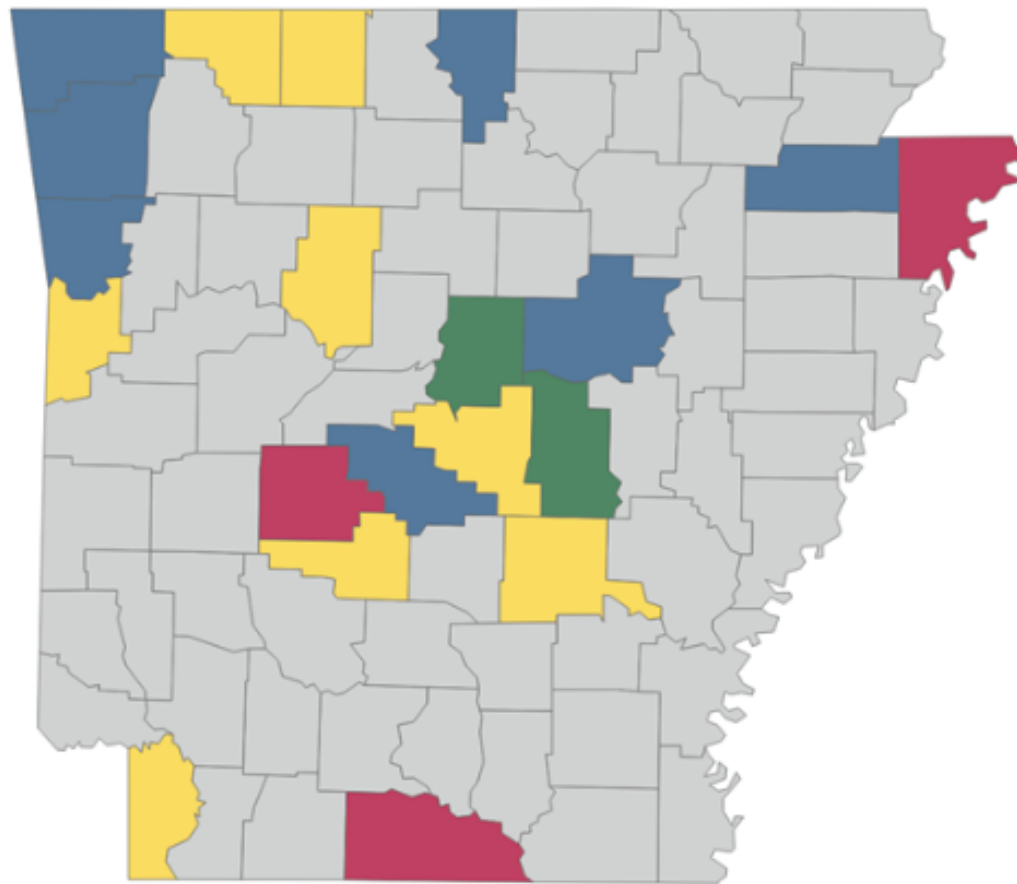
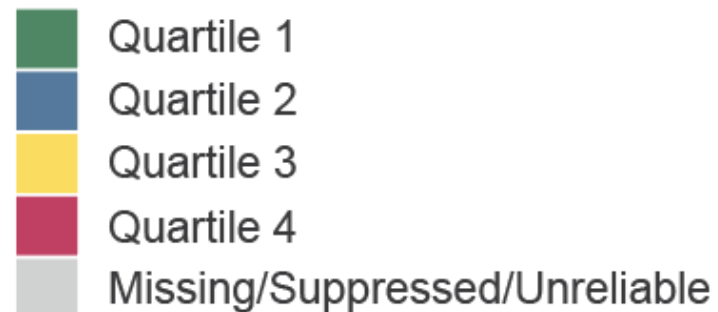
	# of Counties/ Parishes	Values Present	Data Unavailable
Arkansas	75	27%	73%
Louisiana	64	28%	72%
New Mexico	33	70%	30%
Oklahoma	77	49%	51%
Texas	253	32%	68%

ARKANSAS

Combined Social Vulnerability Index and Alcohol-Related Death Rate by County

**Quartile 4
Counties**
Garland
Mississippi
Union

Average Quartile for SVI and ARD



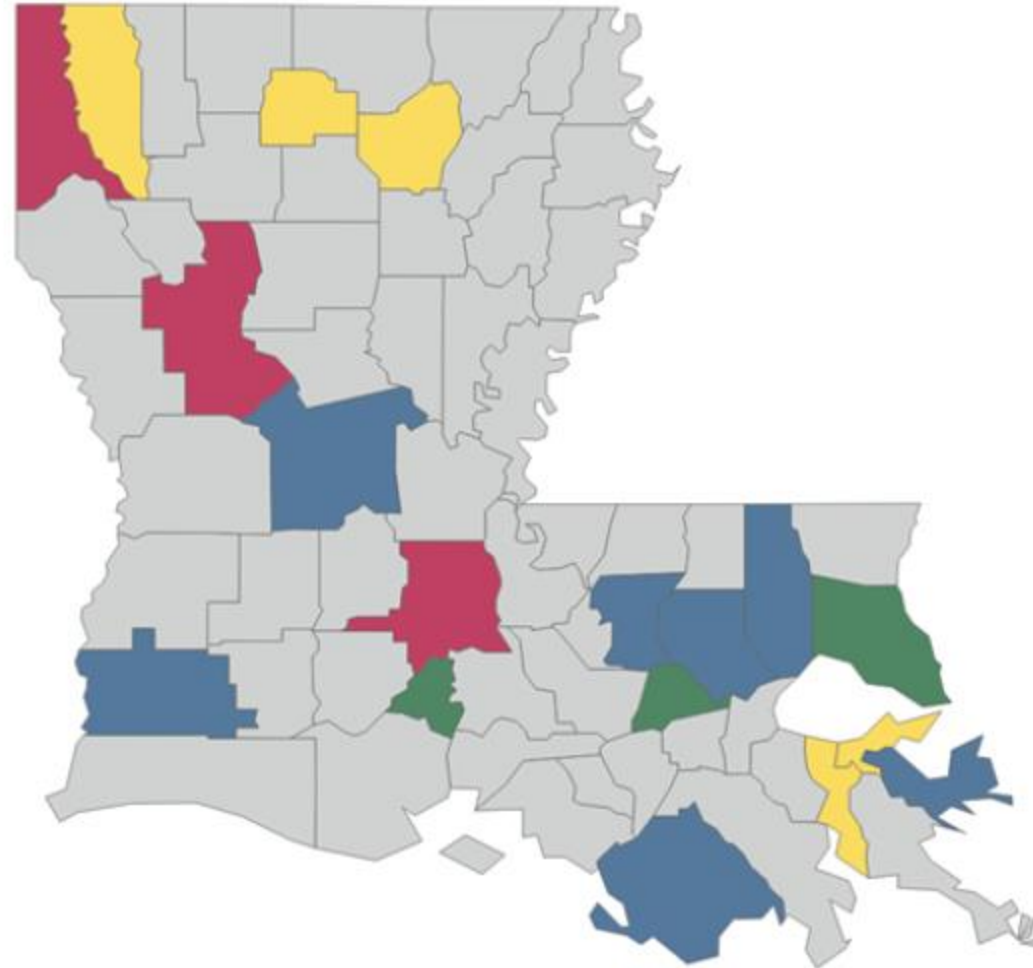
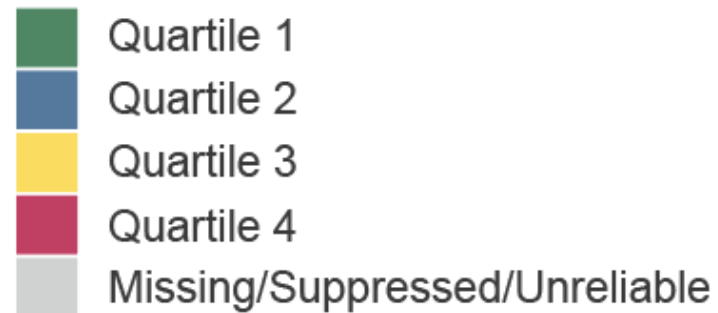
LOUISIANA

Combined Social Vulnerability Index and Alcohol-Related Death Rate by Parish

Quartile 4 Parishes

Caddo
Natchitoches
St. Landry

Average Quartile for SVI and ARD



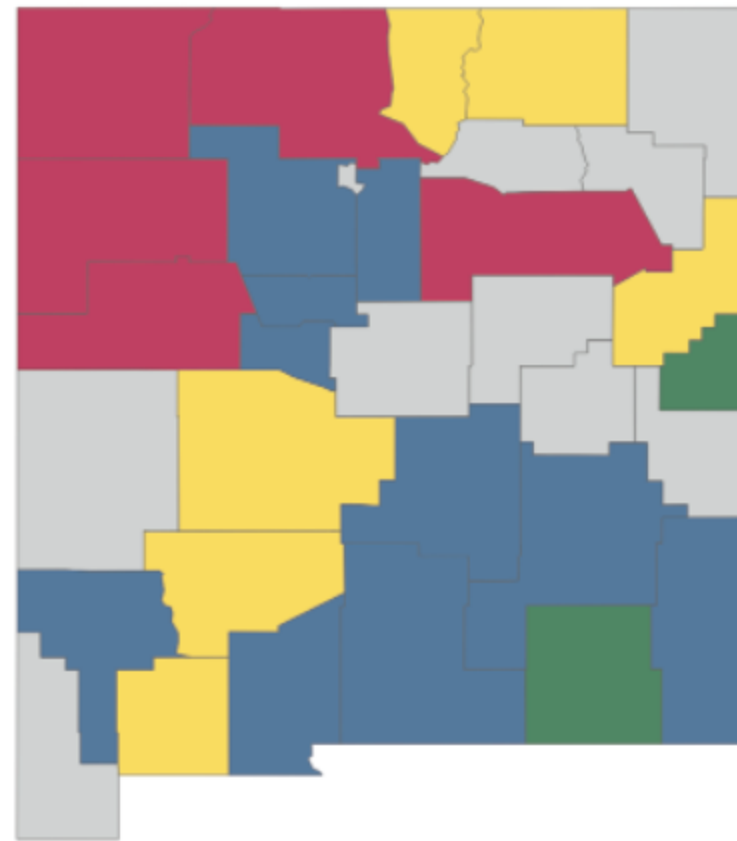
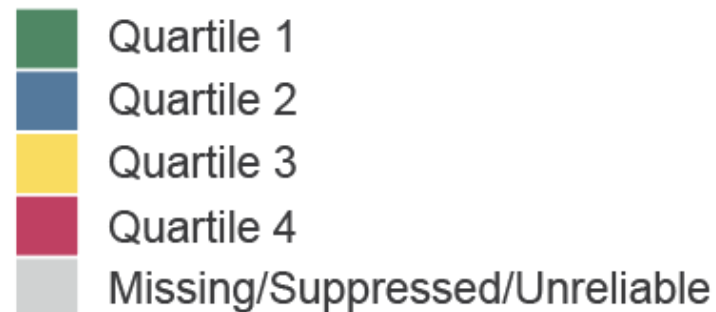
NEW MEXICO

Combined Social Vulnerability Index and Alcohol-Related Death Rate by County

Quartile 4 Counties

Cibola
McKinley
Rio Arriba
San Miguel
San Juan

Average Quartile for SVI and ARD



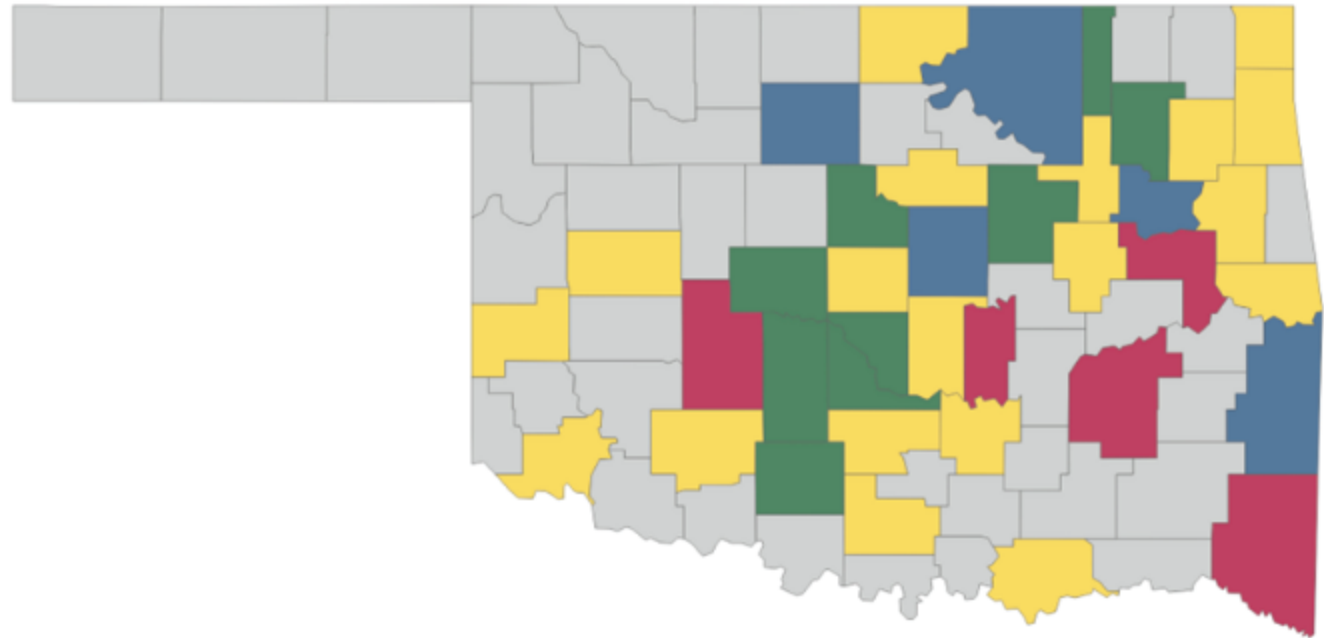
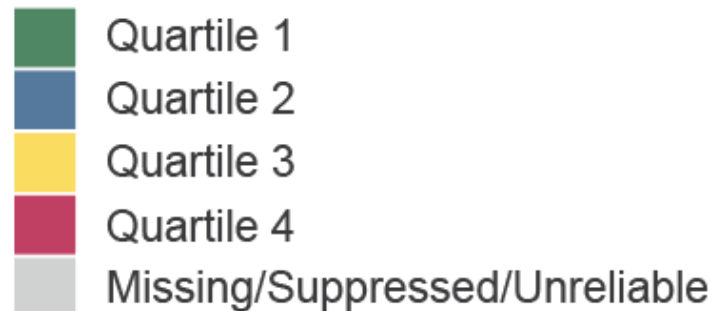
OKLAHOMA

Combined Social Vulnerability Index and Alcohol-Related Death Rate by County

Quartile 4 Counties

Caddo
McCurtain
Muskogee
Pittsburg
Seminole

Average Quartile for SVI and ARD



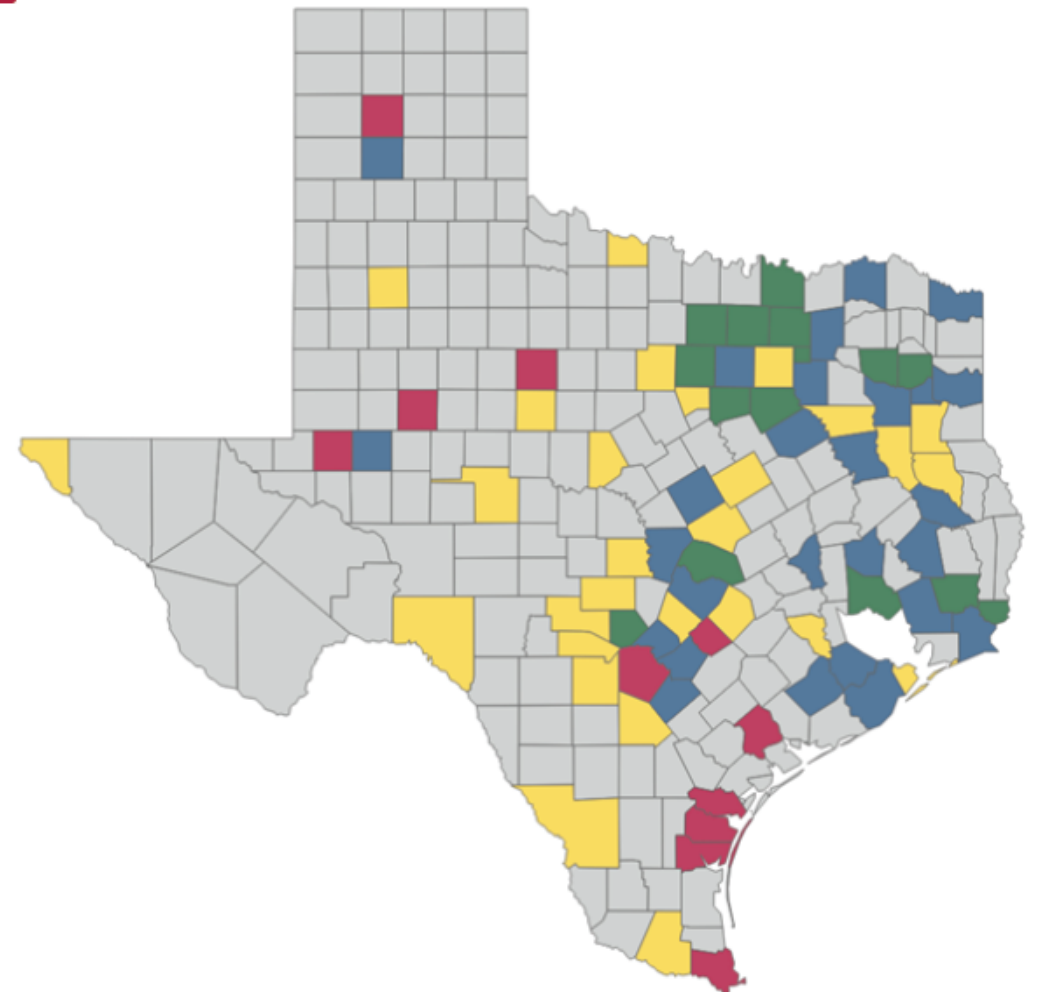
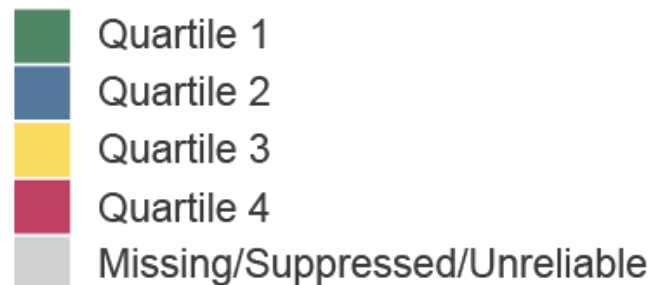
TEXAS

↑ Combined Social Vulnerability Index and Alcohol-Related Death Rate by County

Quartile 4 Counties

Bexar
Caldwell
Cameron
Ector
Howard
Jones
Kleberg
Potter
Nueces
San Patricio
Victoria

Average Quartile for SVI and ARD



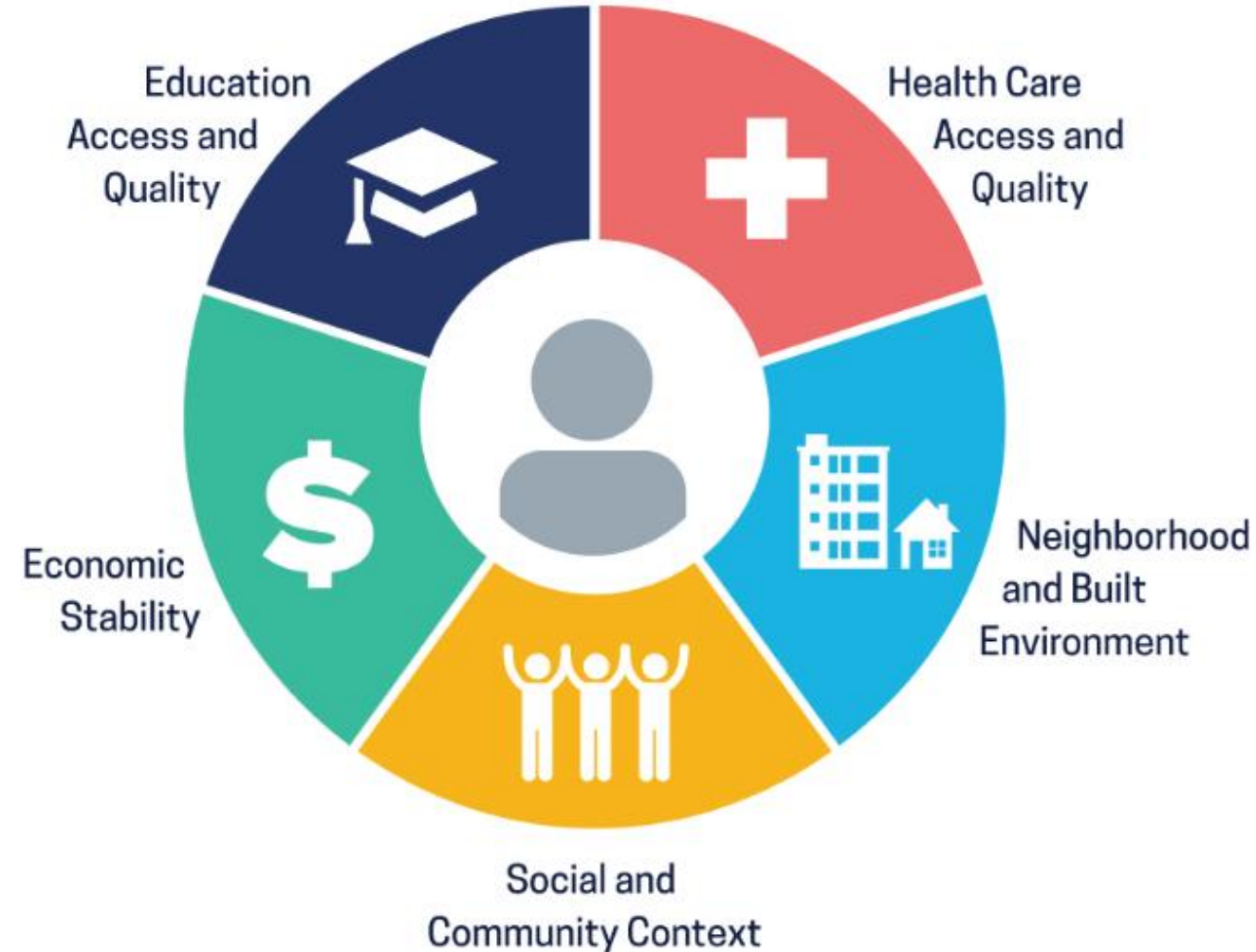
Findings and Limitations

- There is a statistically significant relationship or correlation between SVI and ARD ($p < .001$).
- The combined ARD/SVI value is an average of the individual quartiles for ARD and SVI, so it is possible that for any given county/parish the ARD and SVI are not perfectly aligned.
- Data unavailable by state ranged from 30% to 73%.

Additional Factors

- Understanding factors that influence low or high outcomes
- Using upstream strategies to address risk factors

Social Determinants of Health



Implications

- Identify data sources in your community for specific vulnerability factors.
- Ask about barriers to accessing services, such as transportation or childcare, and make appropriate referrals (Andermann & CLEAR Collaboration, 2016).
- Encourage clinicians to implement patient navigator programs (Andermann & CLEAR Collaboration, 2016).



Implications Continued

- Develop and sustain coalition work at the local level to advocate for policy change and implement strategies that mitigate the effects of social vulnerability factors on alcohol use.
- Partner across community groups to reduce the stigma and normalize seeking help for alcohol use related problems.
- Pay attention to intersectionality and involve a diverse population in adapting and/or tailoring evidence-based practices to reduce barriers to participation in prevention services.
- Build relationships with new partners that can increase community resources and readiness to support alcohol prevention strategies that address needs of vulnerable communities.

wrapping up



Let's hear from you!
What are your questions?



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For further questions, contact:

Nicole Schoenborn, Evaluator

South Southwest PTTC Region 6

nicoled@ou.edu

Connect with us @



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Resources

CDC WONDER

<https://wonder.cdc.gov/>

CDC/ATSDR Social Vulnerability Index

<https://www.atsdr.cdc.gov/placeandhealth/svi/index.html>



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