

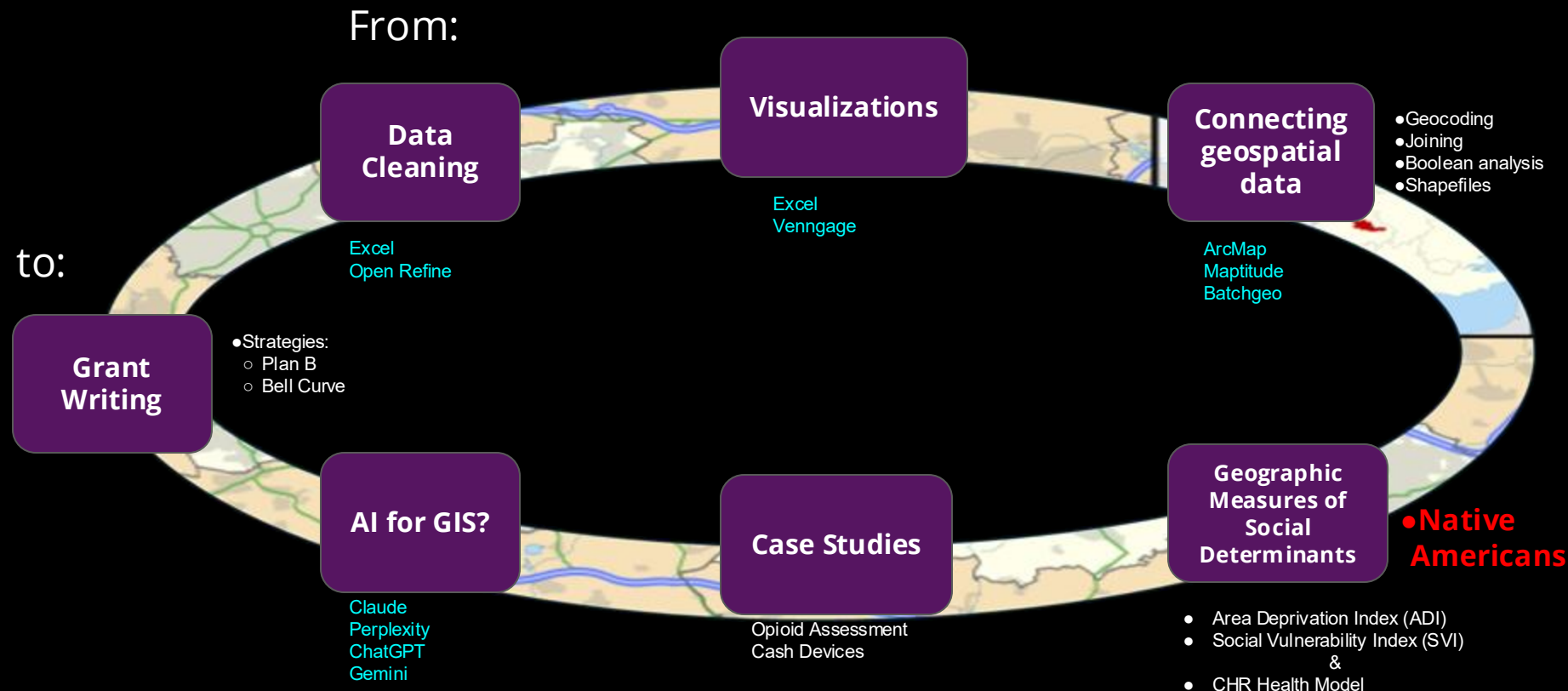
# GIS: Case Studies for Winning Grants, Changing Lives & Empowering Communities

Juan-Paulo Ramírez, PhD

GIS and Human Dimensions, LLC  
[www.gishumandimensions.com](http://www.gishumandimensions.com)

November 21, 2025

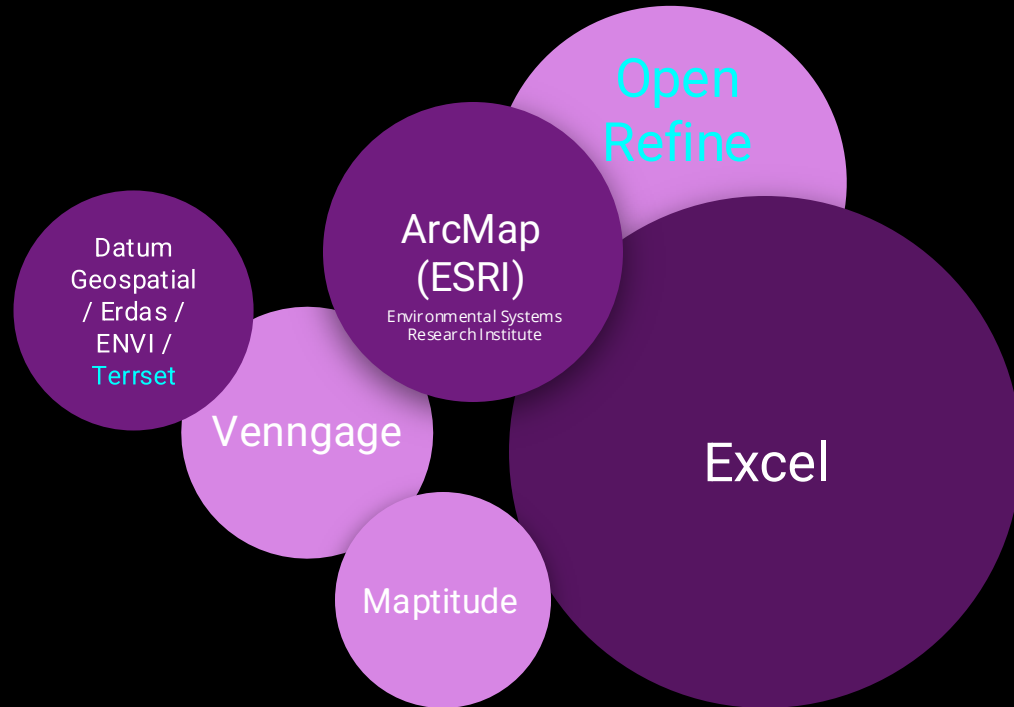
# GIS Journey: From Data Cleaning to Winning Grants



# Practical Applications of GIS

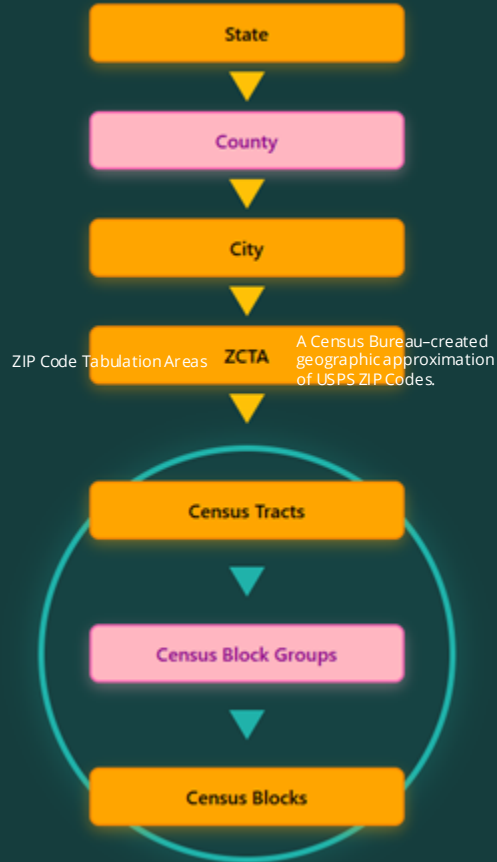


# Data Cleaning, GIS, & Visualization Software



# Geographic Units

## Geographic Hierarchy

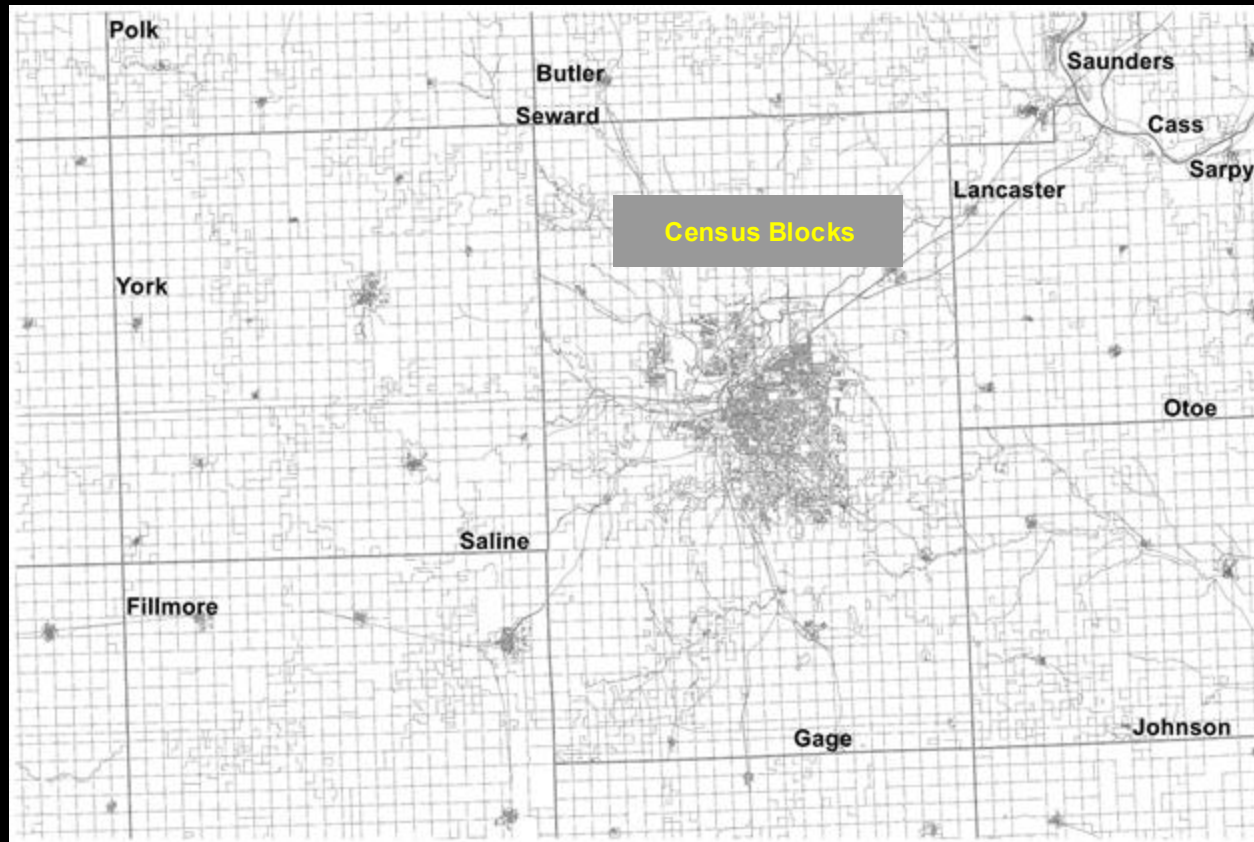


Statistical unit designed to represent neighborhoods (typically 1,200–8,000 people - average ~4,000 people). Used widely for health disparities, SDOH, and equity analysis.

A cluster of Census Blocks within a Census Tract (typically 600–3,000 people). Offers more granularity than Tracts and is commonly used in deprivation indexes like ADI.

The smallest Census unit. Many Blocks are the size of a city block; rural Blocks can be much larger. All Blocks nest within Block Groups and Tracts.

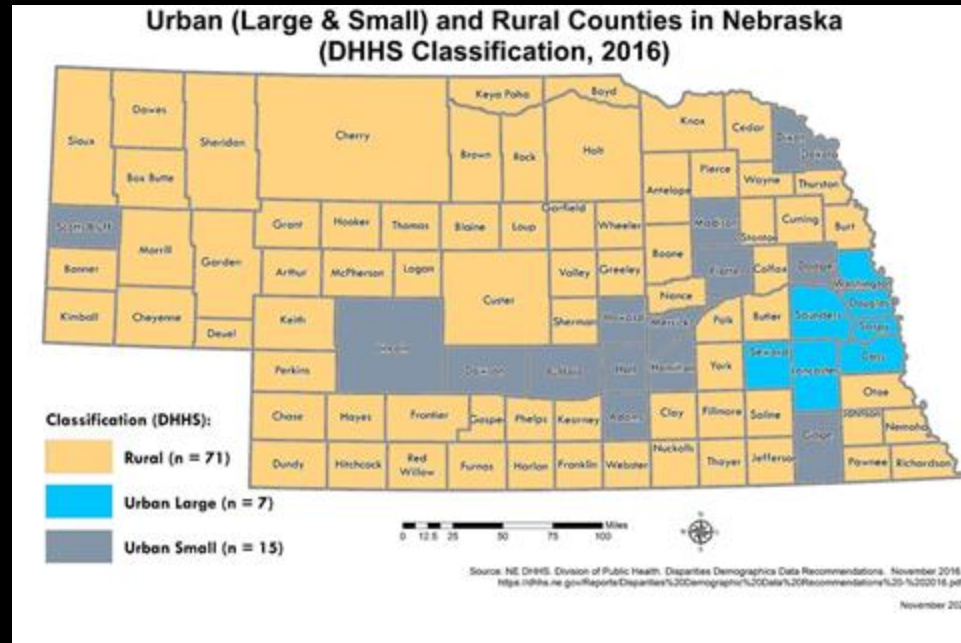
# Geographic Units



# “Urban and Rural”

For the 2020 Census, the Census Bureau classified as **urban** all territory, population, and housing units located within densely developed Urban Areas of at least 2,500 people.

**Rural** consists of all territory, population, and housing units located outside Urban Areas.



# Shapefiles (\*.shp) for GIS Analysis

## What is a Shapefile?

A shapefile is a geospatial vector data format developed by ESRI for storing the location, shape, and attributes of geographic features.

## File Components

- **.shp** — Feature geometry
- **.shx** — Shape index
- **.dbf** — Attribute data
- **.prj** — Projection info

## Key Advantage

Widely compatible with all GIS platforms, making it the standard for spatial data sharing



# Data Sources

## Behavioral Health Indicators

- ❑ **CDC PLACES**
- ❑ County Health Rankings
- ❑ NE DHHS dashboards
- ❑ Community Action Partnerships

## Geographic Measures of Social Determinants

- ❑ Area Deprivation Index - ADI (U. of Wisconsin)
- ❑ Social Vulnerability Index - SVI (CDC)

## Healthcare Access Designation

- ❑ Medically Underserved Areas - MUA (HRSA)

## Socioeconomic Indicators

- ❑ US Census Bureau
- ❑ County Health Rankings
- ❑ NE DHHS dashboards
- ❑ Community Action Partnerships

## GIS Data Sources

- ❑ **Nebraska Open Data**
- ❑ [TIGER/Line Shapefiles](#) (\*)

(\*) Join geographic features with database is necessary



## PLACES: Local Data for Better Health

Q SEARCH

About PLACES: Local Data for Better Health

Methodology

FAQs

Online Data Tools

Measure Definitions

Communication Resources

Publications and Resources

Current Release Notes

VIEW ALL >



### About PLACES: Local Data for Better Health

Learn how CDC's PLACES data can help improve your health efforts.

Learn More >

### Interactive PLACES Map

Use the original PLACES map to customize your own map that displays PLACES data.



### Data Portal

Use this Portal to search and download PLACES datasets from current and prior data releases.



### Comparison Report

Use this tool to compare PLACES measures for up to 3 counties or places.

Measure	Unit	Year	Value
Obesity	%	2014	28.1
Obesity	%	2015	28.1
Obesity	%	2016	28.1
Obesity	%	2017	28.1
Obesity	%	2018	28.1
Obesity	%	2019	28.1
Obesity	%	2020	28.1

# Nebraska Open Data

Nebraskamap.gov

The screenshot displays the Nebraska Open Data portal interface. On the left, a sidebar contains the following elements:

- Census Blocks 2020**: The main dataset title.
- Authoritative**: A green badge indicating the data's reliability.
- Private Member**: A user profile icon and name.
- Summary**: A text block explaining the data's purpose and history.
- Download Options**: A section with five download buttons: CSV, Shapefile, GeoJSON, KML, and File Geodatabase. Each button has a download icon and the word "Download".
- Data source**: A link to the original data source.

The main map area shows a blue-toned map of Nebraska with white lines representing census block boundaries. A label "NAME: Block 1125" is visible on the map. In the top left corner of the map, a box indicates "Records: 119,103". The top right corner features a search bar and a "Sign In" button. The bottom of the map area contains a small copyright notice.

NEBRASKA

Showing rows: 25 of 119,103

Close Table

Private Member

State of Nebraska

Summary

To show county boundaries and to be used with other census projects. In order for others to use the information in the Census TIGER database in a geographic information system (GIS) or for other geographic applications, the Census Bureau releases to the public extracts of the database in the form of TIGER/Line files. Various versions of the TIGER/Line files have been released on an irregular schedule since 1990; previous versions include the 1990 Census TIGER/Line files, the

Read More

View Full Details

Download

Details

Dataset

Feature Layer

May 18, 2025 at 2:35:42 PM CDT

Info Updated

May 18, 2025 at 7:35:42 PM CDT

Data Updated

July 25, 2024 at 10:46:04 PM CDT

I want to use this

sale	Total_Population_18YrsAndOver	OneRace_Population_18YrsAndOver	White_Alone_18YrsAndOver	Black_AfricanAmerican_Alone_18YrsAndOver	AmericanIndian_AlaskaNative_Alone_18YrsAndOver
2	2	2	2	0	0
37	36	36	36	0	0
9	9	9	9	0	0
10	10	10	10	0	0
9	9	9	9	0	0
9	9	9	9	0	0
9	9	9	9	0	0
6	6	6	6	0	0
1	1	1	1	0	0
0	0	0	0	0	0
1	1	1	1	0	0
3	3	3	3	0	0
9	9	9	9	0	0
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2	2	2	2	0	0
0	0	0	0	0	0
0	0	0	0	0	0

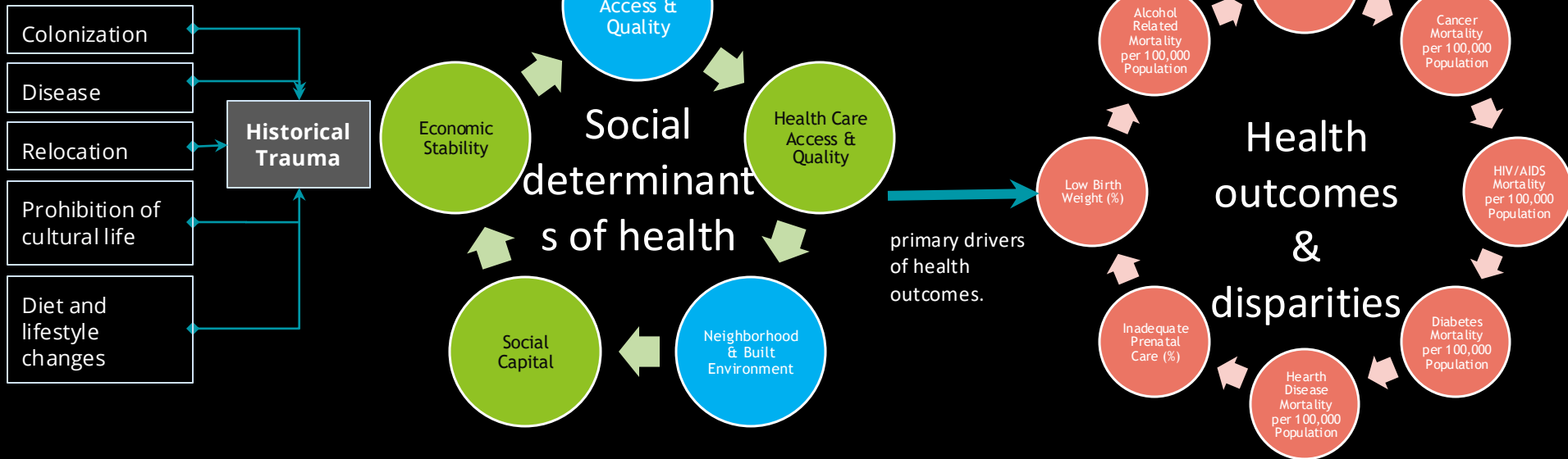
The screenshot shows the Nebraska Open Data portal. At the top, there is a blue header with the Nebraska state logo on the left, the word "NEBRASKA" in large white letters, and navigation links for "Home", "GIS Council", and "Resources" on the right. A search icon and a "Sign In" link are also present. Below the header, a user profile section indicates the user is a "Census Blocks 2020 Private Member". The main content area is titled "You may be interested in" and displays four recommended items in a grid. Each item includes an icon, a title, a link, the provider, and a brief description.

Application	Application	Dataset	Dataset
<a href="#">School District Lookup</a>	<a href="#">School District Map</a>	<a href="#">County Boundaries Census</a>	<a href="#">Census Block Group 2020</a>
Nebraska Department of Education	State of Nebraska	Nebraska Office of the Chief Information Officer	State of Nebraska
School District Lookup		In order for others to use the information in the Census MAF/TIGER database in a...	To show county boundaries and to be used with other census projects. In order for othe...

# Social Determinants of Health (SDOH) & Health Disparities

SDOH are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect their health outcomes and quality of life.

## American Indians / Alaska Natives



These non-medical factors are estimated to account for 30-55% of health outcomes, which is why addressing them is crucial for improving population health and reducing health disparities.

Adapted from:  
Carron, R. (2020). Health disparities in American Indians/Alaska Natives: Implications for nurse practitioners. *The Nurse Practitioner*, 45(6), 26-32.

# Geographic Measures of Social Determinants: Area Deprivation Index

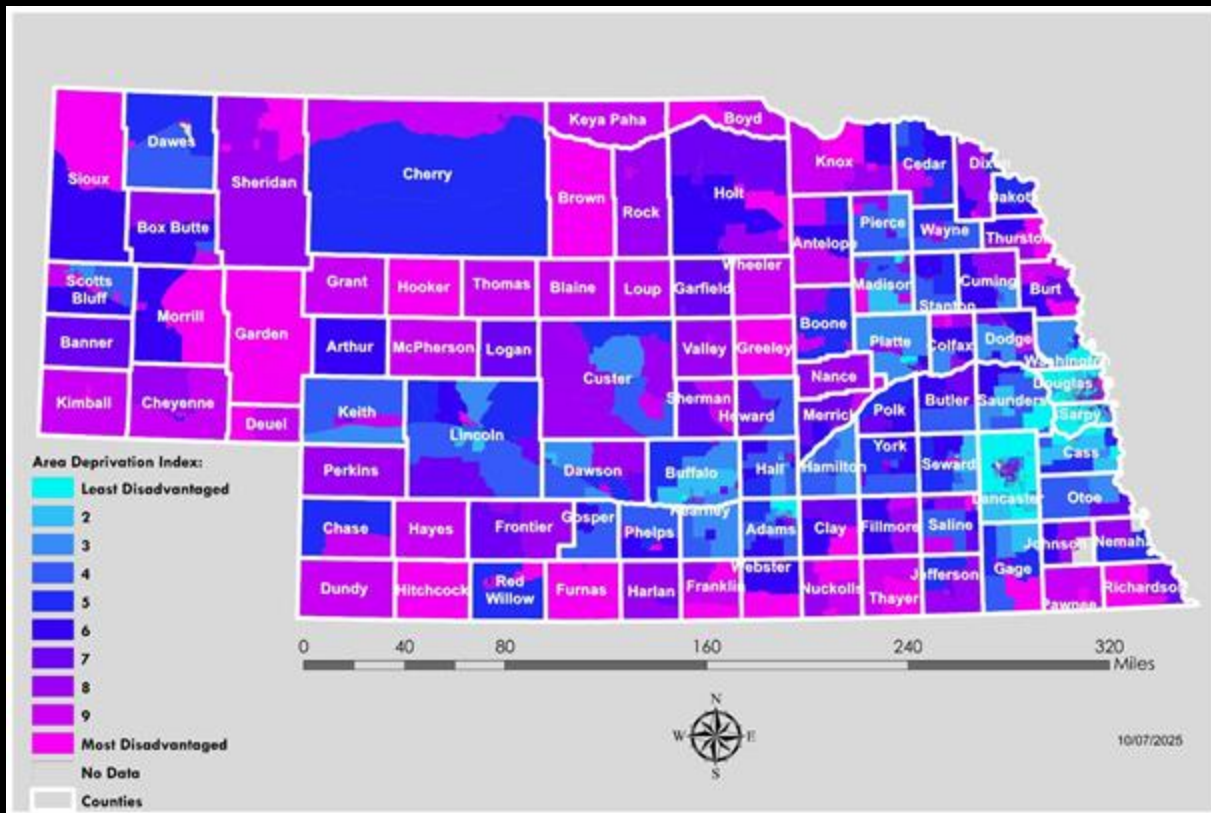
## Area Deprivation Index (ADI)

- ▶ **Purpose:** Measures neighborhood socioeconomic disadvantage
- ▶ **Geography:** Census block groups
- ▶ **Variables:** 17 indicators
- ▶ **Domains:** Income, Education, Employment, Housing

**National Ranking:** 1-100 percentiles (1=least disadvantaged, 100=most disadvantaged)

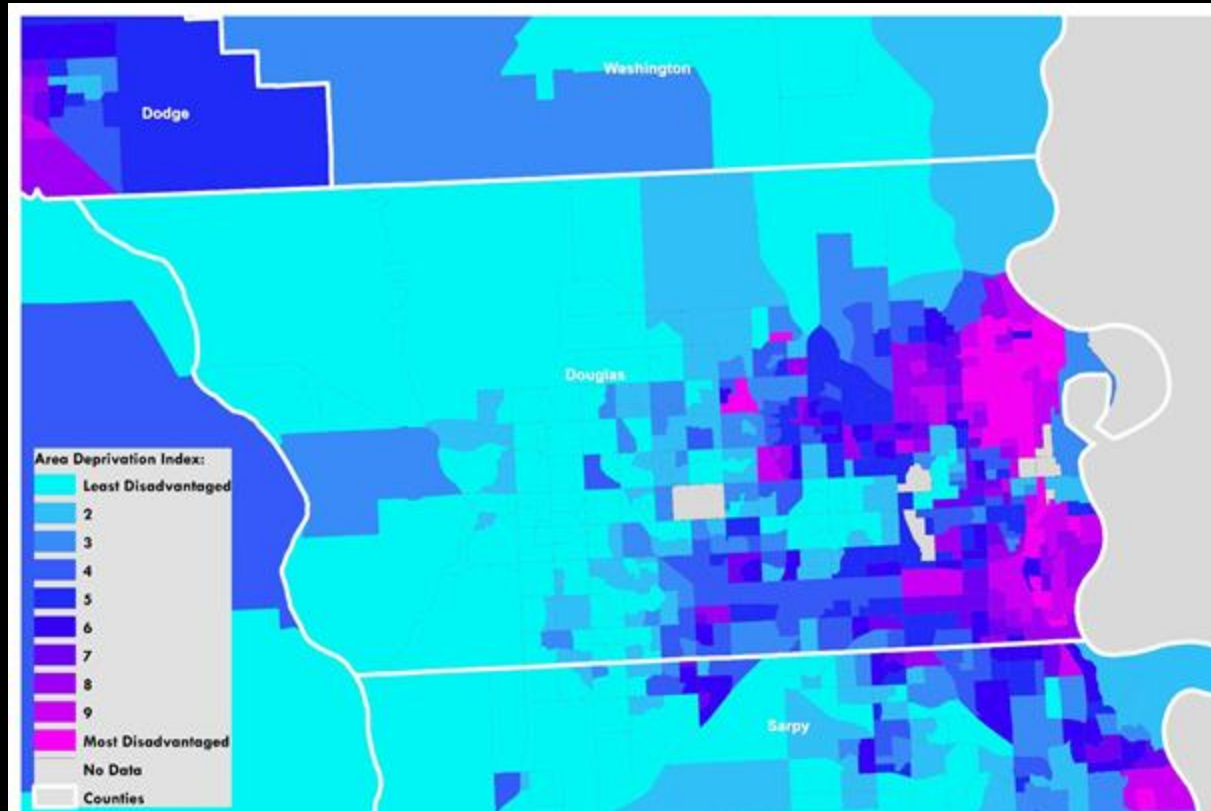
**State Ranking:** 1-10 deciles (1=least disadvantaged, 10=most disadvantaged)

# Area Deprivation Index (Nebraska)

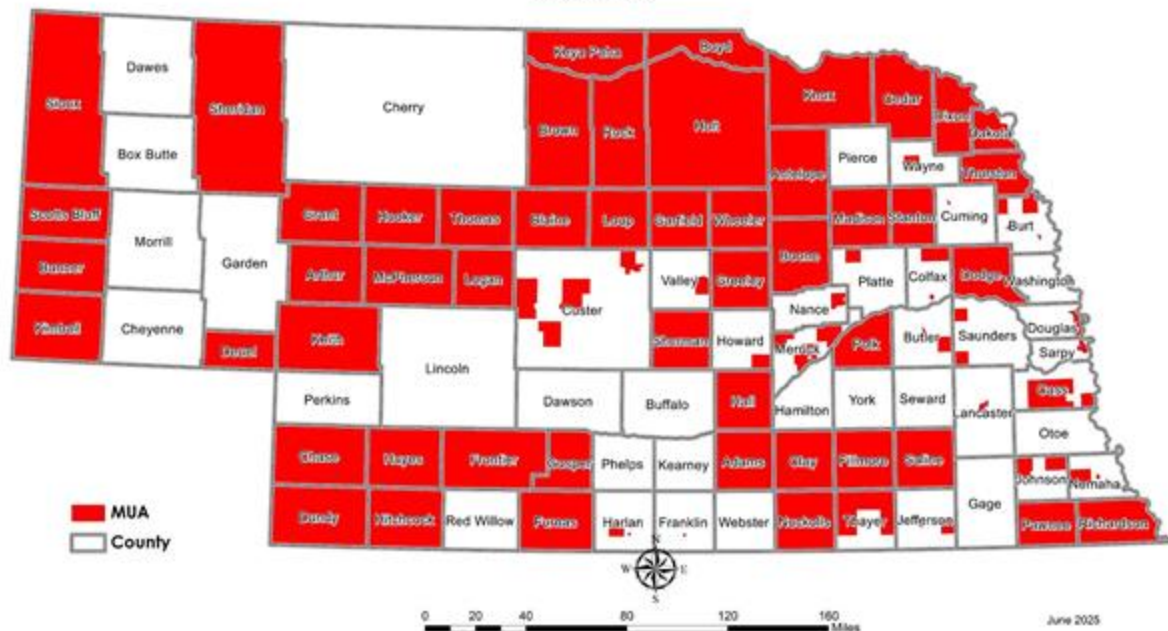
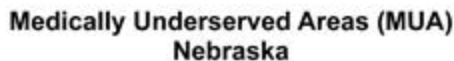




# Area Deprivation Index (Douglas County)



# Medically Underserved Areas (MUA)



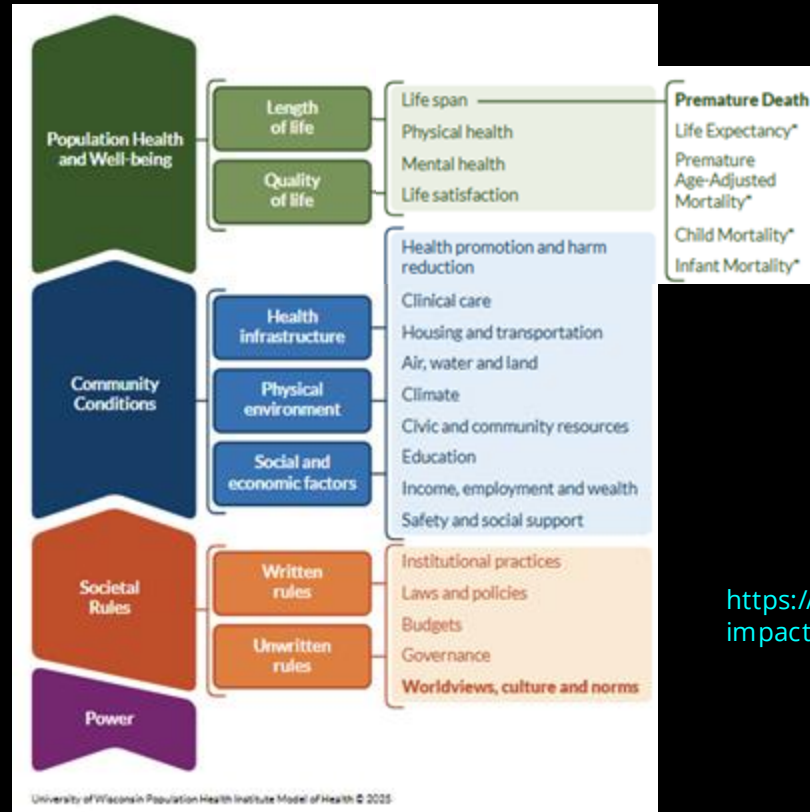
A Medically Underserved Area (MUA) is a geographic area designated by the federal Health Resources and Services Administration (HRSA) that has a shortage of primary care health services.

MUA designations are important because they help direct federal resources and programs to areas with the greatest need.

<https://data.hrsa.gov/data/download?data=SHORT#>



# The University of Wisconsin Population Health Institute Model of Health

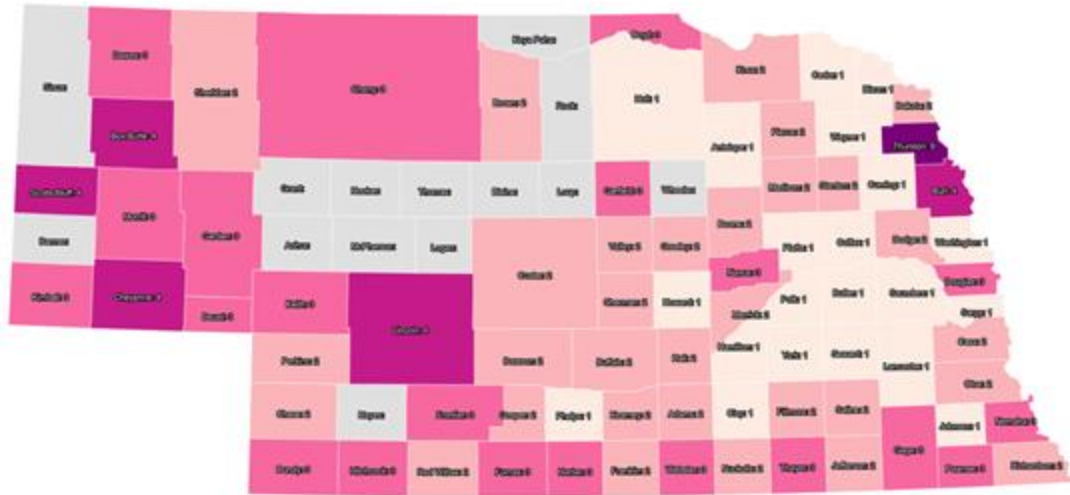


<https://www.countyhealthrankings.org/what-impacts-health/model-of-health>

# Population Health and Well-being

## County Health Rankings Health Model

### Population Health and Well-being



Group 1 (healthiest) to Group 10 (least healthy)

Health Group

< 1   2 - 2   3 - 3   4 - 4   > 8

**Health Groups** are data-driven categories (1-10) that group U.S. counties with similar overall health outcomes. Group 1 represents the healthiest counties nationally, while Group 10 represents counties with the poorest health outcomes.



# Accessing Geographic Data During a Government Shutdown

The screenshot displays the US Census Bureau's data portal interface. The search bar at the top contains the text "nebraska american indian". The left sidebar shows filters for "2 Filters" (Nebraska, American Indian Initial grouping) and a list of "Geographies" (Nation, State, County, etc.) and "Topics" (Business and Economy, Education, etc.). The main content area shows a list of results for "B01003 | TOTAL POPULATION". A red box highlights the "Download" button in the top right corner of the results area. A dropdown menu is open from the "Download" button, showing options: "Cite", "Share", "Print", "API", "Chart", and "Map".

United States Census Bureau

nebraska american indian

Advanced Search

2 Filters

Nebraska

American Indian Initial grouping

Clear search

Search for a filter

Geographies

Nation

State

County

County Subdivision

Place

ZIP Code Tabulation Area

Metropolitan/Micropolitan Statistical Area

Census Tract

Block

Block Group

All Geographies

Topics

Business and Economy

Education

Employment

Families and Living Arrangements

Government

Health

Housing

Income and Poverty

616 Results

View: 10 | 25 | 50

Download Table Data

American Community Survey

B01001 | SEX BY AGE

View All 6 Products

American Community Survey

B01002 | MEDIAN AGE BY SEX

View All 6 Products

American Community Survey

B01003 | TOTAL POPULATION

View All 6 Products

American Community Survey

B05001 | NATIVITY AND CITIZENSHIP STATUS IN THE UNITED STATES

View All 6 Products

American Community Survey

B05002 | PLACE OF BIRTH BY NATIVITY AND CITIZENSHIP STATUS

View All 6 Products

American Community Survey

B05003 | SEX BY AGE BY NATIVITY AND CITIZENSHIP STATUS

View All 6 Products

American Community Survey

B05005 | PERIOD OF ENTRY BY NATIVITY AND CITIZENSHIP STATUS IN THE UNITED STATES

View All 6 Products

American Community Survey

B05006 | PLACE OF BIRTH FOR THE FOREIGN-BORN POPULATION IN THE UNITED STATES

View All 6 Products

Missing data for your geographies? Try switching to ACS 5-year estimates instead. [Learn More.](#)

Download

Cite

Share

Print

API

Chart

Map

<https://data.census.gov/table/ACSDT5YA/AN2021.B01003?q=nebraska+american+indian>

# University of Wisconsin

The screenshot shows the 'County Health Rankings & Roadmaps' website for Nebraska in 2025. The header includes the site logo and navigation links: 'What Impacts Health', 'Health Data', 'Strategies and Solutions', 'Findings and Insights', and 'About Us'. A search bar is located on the right. Below the header, a breadcrumb trail reads 'Home > Health Data > Nebraska'. A 'Print' button is visible in the top right. The main content area features a 'STATE' section for 'Nebraska' with a year selector set to '2025'. A red box highlights the 'Download Nebraska dataset' link. Below this is the 'Data by County' section, which includes a list of topics to explore: 'Population Health and Well-being', 'Social and economic factors', 'Some College', 'High School Completion', 'High School Graduation\*', 'Reading Scores\*', 'Math Scores\*', and 'School Segregation\*'. A map of Nebraska is partially visible at the bottom left. On the right side of the page, there is a search bar with the text 'Search by county, state or ZIP code' and a 'Go' button. Below the search bar, there are tabs for 'State' and 'National', with 'State' currently selected.

County Health Rankings & Roadmaps

What Impacts Health ▾ Health Data ▾ Strategies and Solutions ▾ Findings and Insights ▾ About Us ▾

Home > Health Data > Nebraska

Print

STATE

Nebraska 2025 ▾

Download Nebraska dataset

Data by County

Select a topic below to explore:

Population Health and Well-being

Population health and well-being is the responsibility of everyone. Health is both quality of life and the ability to live a long, healthy life. Physical, mental, spiritual and social factors all contribute to health.

Social and economic factors

Some College

High School Completion

High School Graduation\*

Reading Scores\*

Math Scores\*

School Segregation\*

Search by county, state or ZIP code

Search Go


State National

<https://www.countyhealthrankings.org/health-data/nebraska?year=2025>


# University of Wisconsin

Neighborhood Atlas®

Home • Mapping **Download Data** Videos ADI Use Map Log In



Center for  
Health Disparities Research  
UNIVERSITY OF WISCONSIN  
SCHOOL OF MEDICINE AND PUBLIC HEALTH



## About the Neighborhood Atlas® and Area Deprivation Index (ADI)

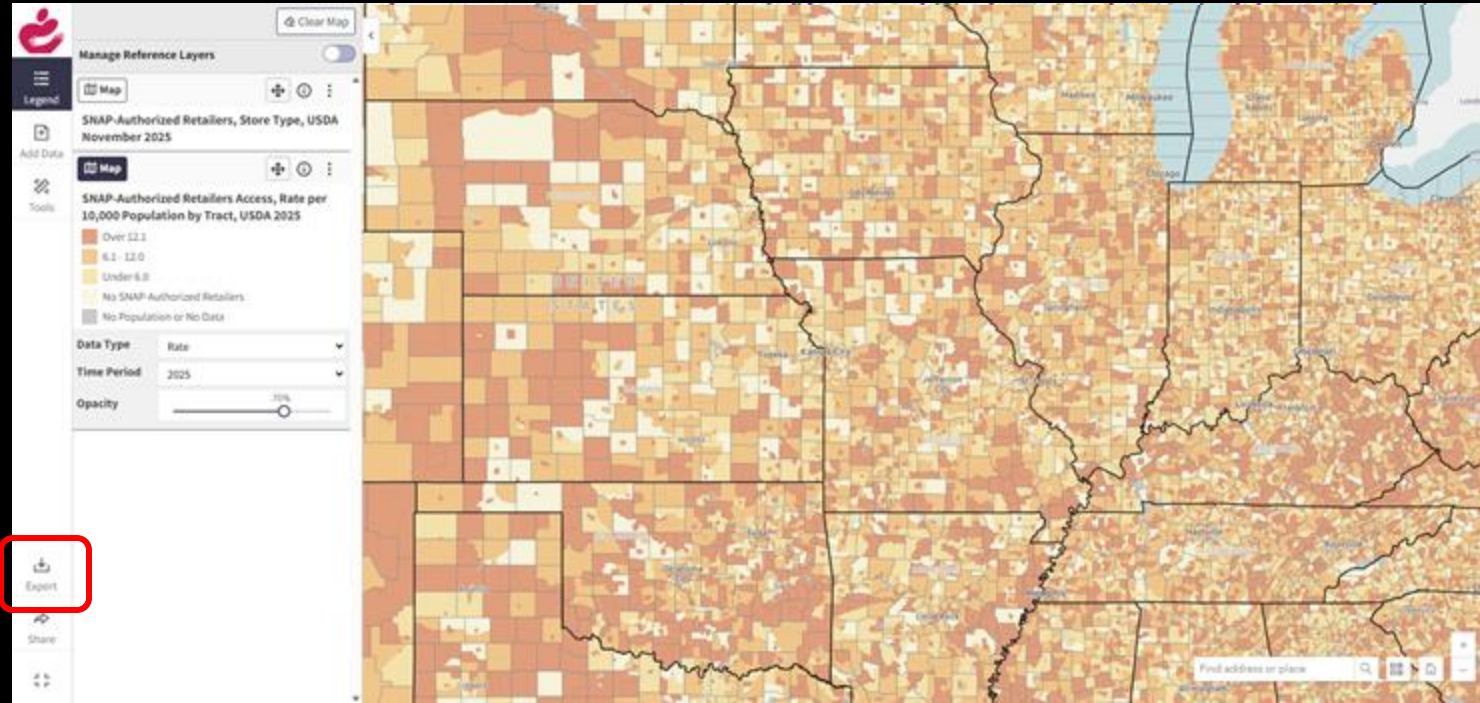
*In short: The Neighborhood Atlas hosts the Area Deprivation Index (ADI), a scientifically validated measure of the adverse social exposome (i.e., neighborhood disadvantage) that can be used to evaluate and improve factors that impact health across populations.*

Health is the summation of genes + environment. To forward health and disease prevention, environmental factors must be considered alongside, and in combination with, traditional biological considerations. These environmental factors have been termed the "exposome" and include the physical, chemical and social influences that impact human biology. Just as everyone's genome is different, everyone's life-course exposome differs as well. Exposome science holds promise for unlocking disease mechanisms, developing new interventions, and preventing disease. The Area Deprivation Index (ADI) is a validated, rigorous, widely used measure of the social exposome.

<https://www.neighborhoodatlas.medicine.wisc.edu/>



# Community Action Partnership (CAP)



<https://cap.engagementnetwork.org/>



# Data Cleaning Using



```
=TRIM(CLEAN(SUBSTITUTE(A1,CHAR(160)," ")))
```

This is particularly useful when you're working with data imported from external sources or copied from websites, where hidden characters can cause issues with sorting, filtering, or matching data.

# Data Cleaning Using Open Refine



## Making Maps Using Excel and Venngage



# Geocoding: Connecting Addresses to Maps



# Geocoding Using Google Sheets & Batchgeo



Google Sheets

Region 5 - Dashboard

<https://docs.google.com/spreadsheets/d/1CPqt5SlRdqqkwV9W2yWWKLTpiH49DdEypZmqhDr3cp0/edit?usp=sharing>



# Geocoding Using the U.S. Census Bureau

An official website of the United States government

United States<sup>®</sup>  
**Census**  
Bureau

Census Geocoder Find Locations Find Geographies Detailed Information and FAQs Contact Us

Find Address Location

One Line Address:  
1026 O Street Geneva Fillmore NE 68361

Benchmark:  
Public\_AR\_Current

One Line Address Processing  
Stateside Parsed Address Processing  
Puerto Rico Parsed Address Processing  
Batch Address Processing  
Geographic Coordinates

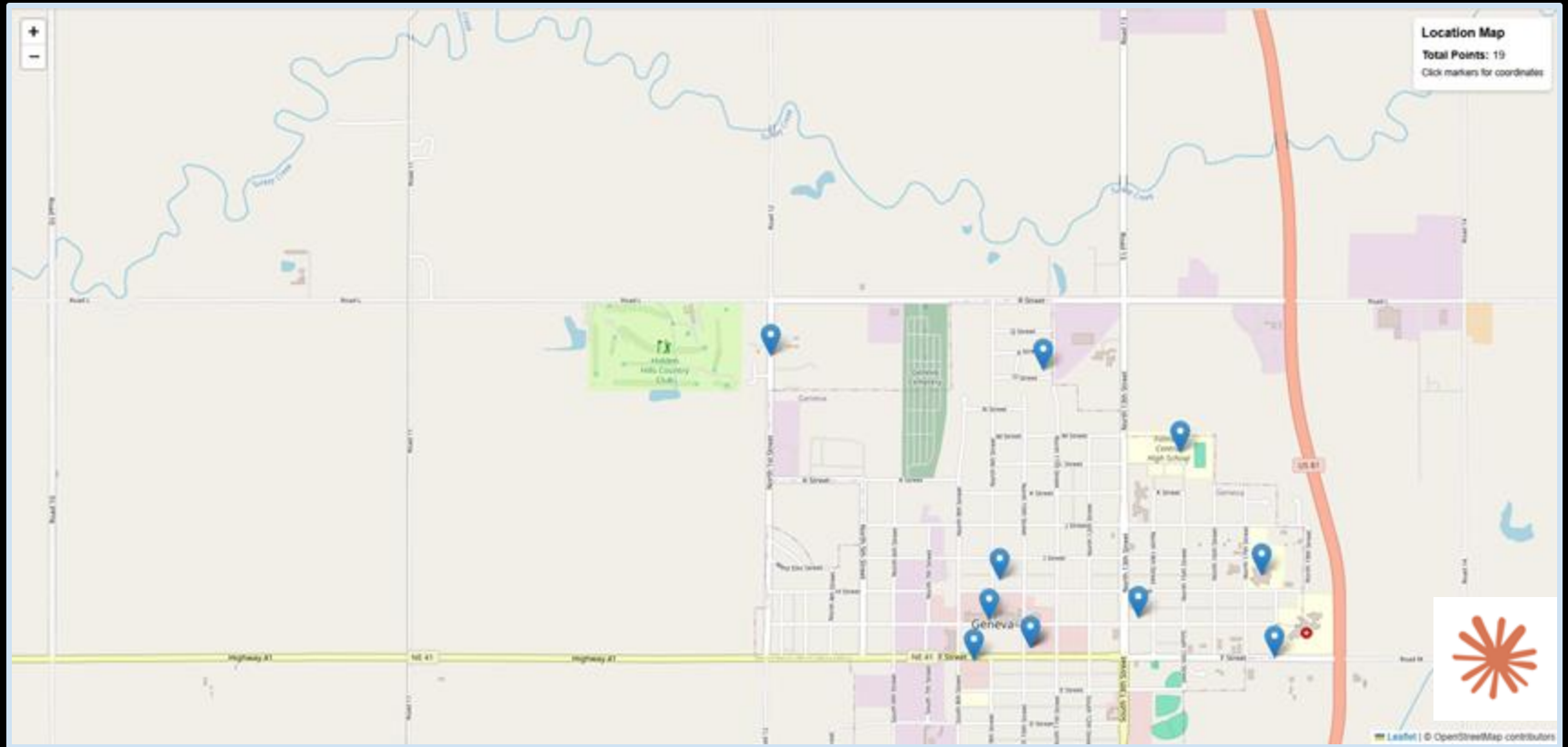
**Input:**  
**One Line Address:** 1026 O Street Geneva Fillmore NE 68361  
**Benchmark:** Public\_AR\_Current (4)

---

**Matched Address:** 1026 O ST, GENEVA, NE, 68361  
**Interpolated Longitude (X) Coordinates:** -97.600652031698  
**Interpolated Latitude (Y) Coordinates:** 40.535704909345  
**Tigerline ID:** 636294721  
**Tigerline ID Side:** R

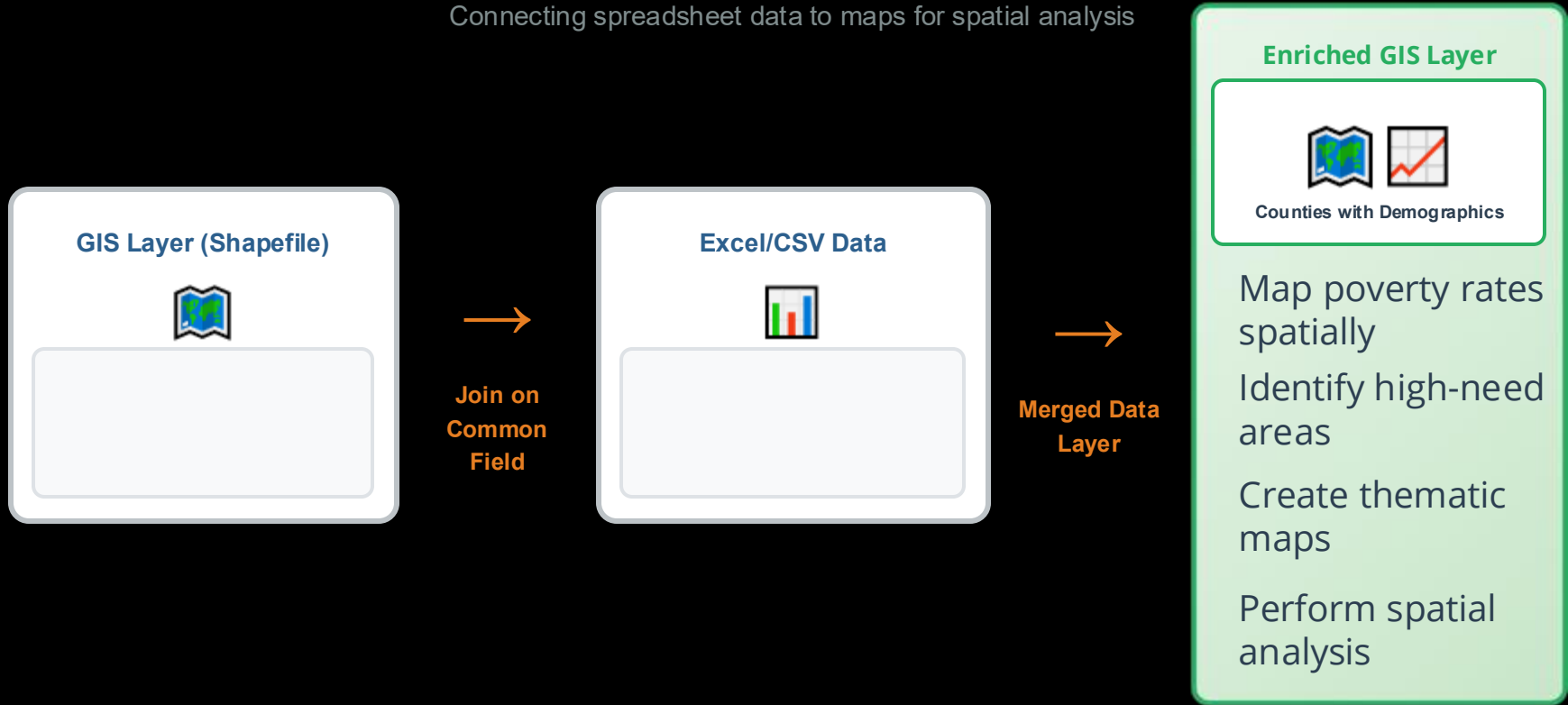
<https://geocoding.geo.census.gov/geocoder/>

# Geocoding Using Claude: html



# Joining Tabular Data to GIS Features

Connecting spreadsheet data to maps for spatial analysis



**Key Requirement:** Both tables must have a common field (County\_ID) with matching values

# Spatial Analysis in GIS: Geoprocessing Tools

ArcGIS tools for combining geographic layers



## INTERSECT

*Boolean AND*

Finds areas where layers overlap. Only keeps features common to ALL input layers.



## UNION

*Boolean OR*

Combines all features from ALL layers. Preserves overlapping and non-overlapping areas.

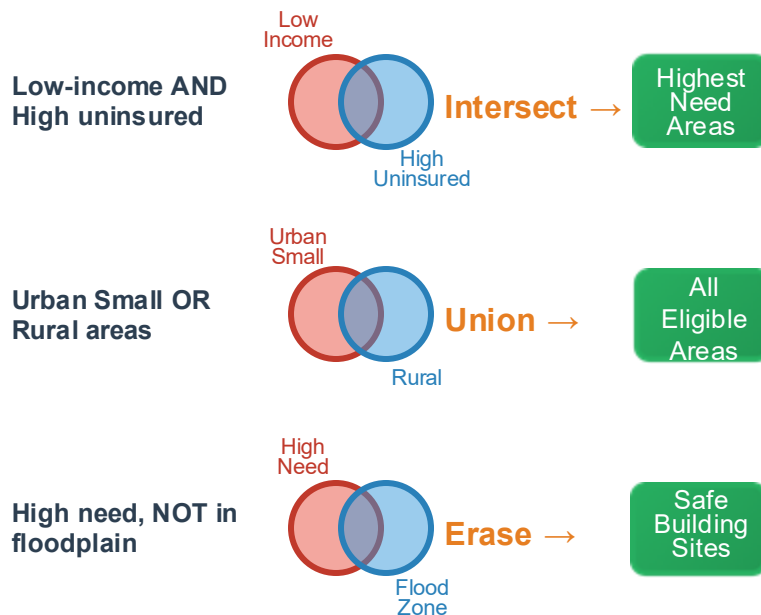


## ERASE

*Boolean NOT*

Removes areas from one layer that overlap with another. Excludes unwanted features.

## Example: Optimal Healthcare Clinic Sites





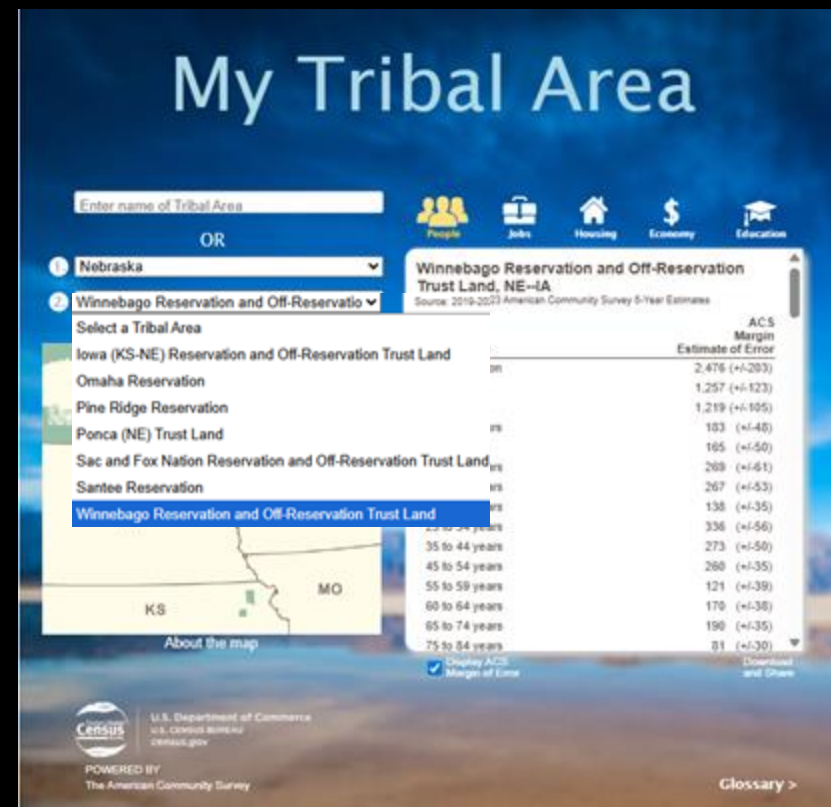
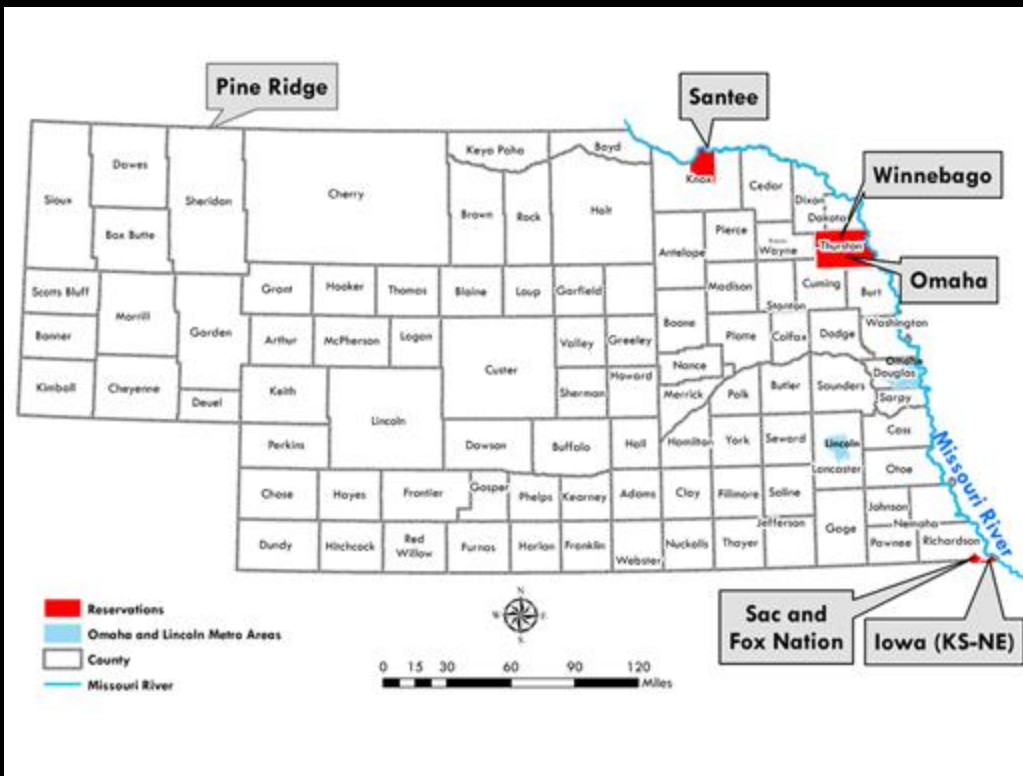
# Area Deprivation Index (Lancaster County)



## Key Findings:

- **25%** of the total population lives in areas with ADI 7+ (high deprivation)
- When broken down by race/ethnicity:
  - **22%** of White Alone population lives in ADI 7+ areas
  - **36%** of Minority population lives in ADI 7+ areas
- Minority populations are disproportionately concentrated in high-deprivation areas - they're **1.6 times more likely** to live in ADI 7+ neighborhoods compared to White Alone populations.



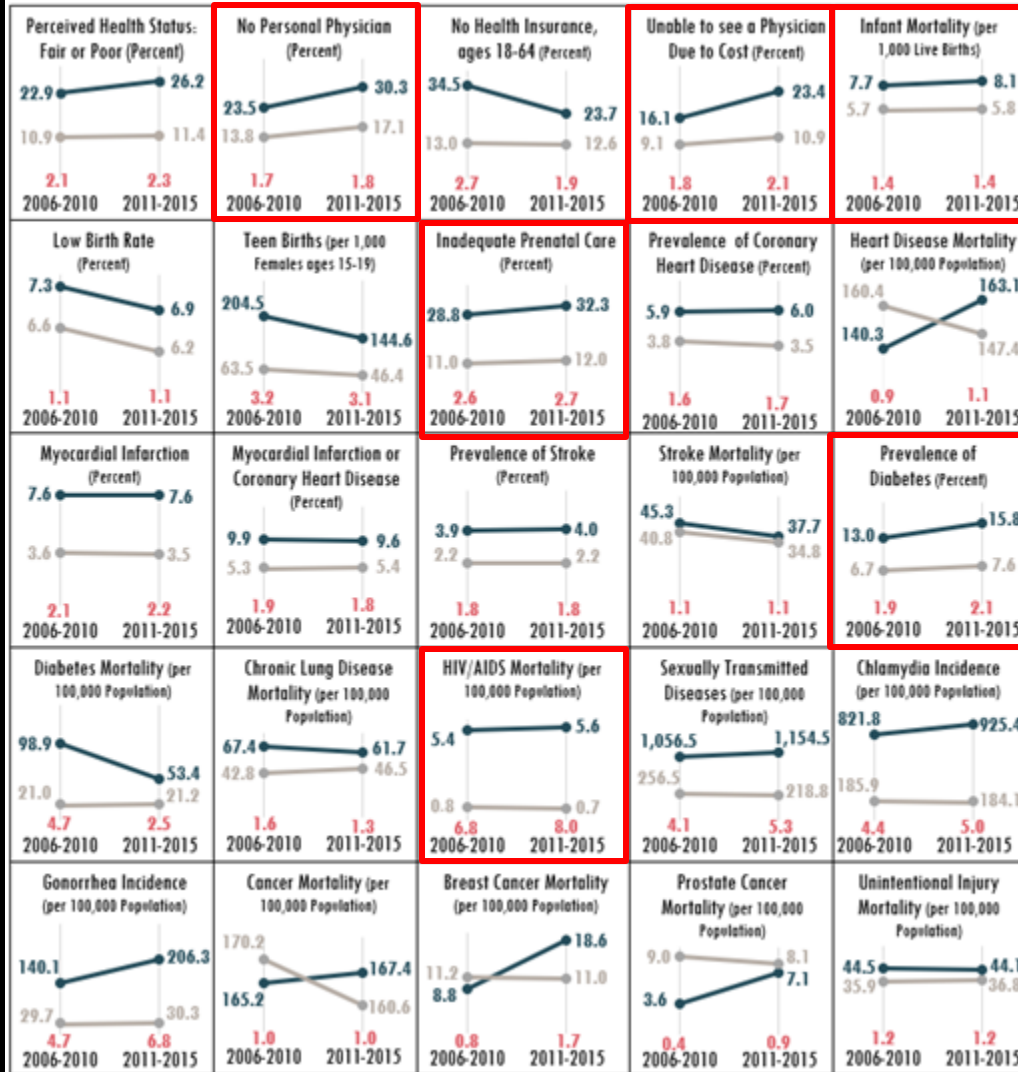


<https://www.census.gov/tribal/?st=31&aianihh=4625>

# Health disparities between Native Americans and Whites in Nebraska

## Legend

- Native American
- White
- Native American Ratio to White



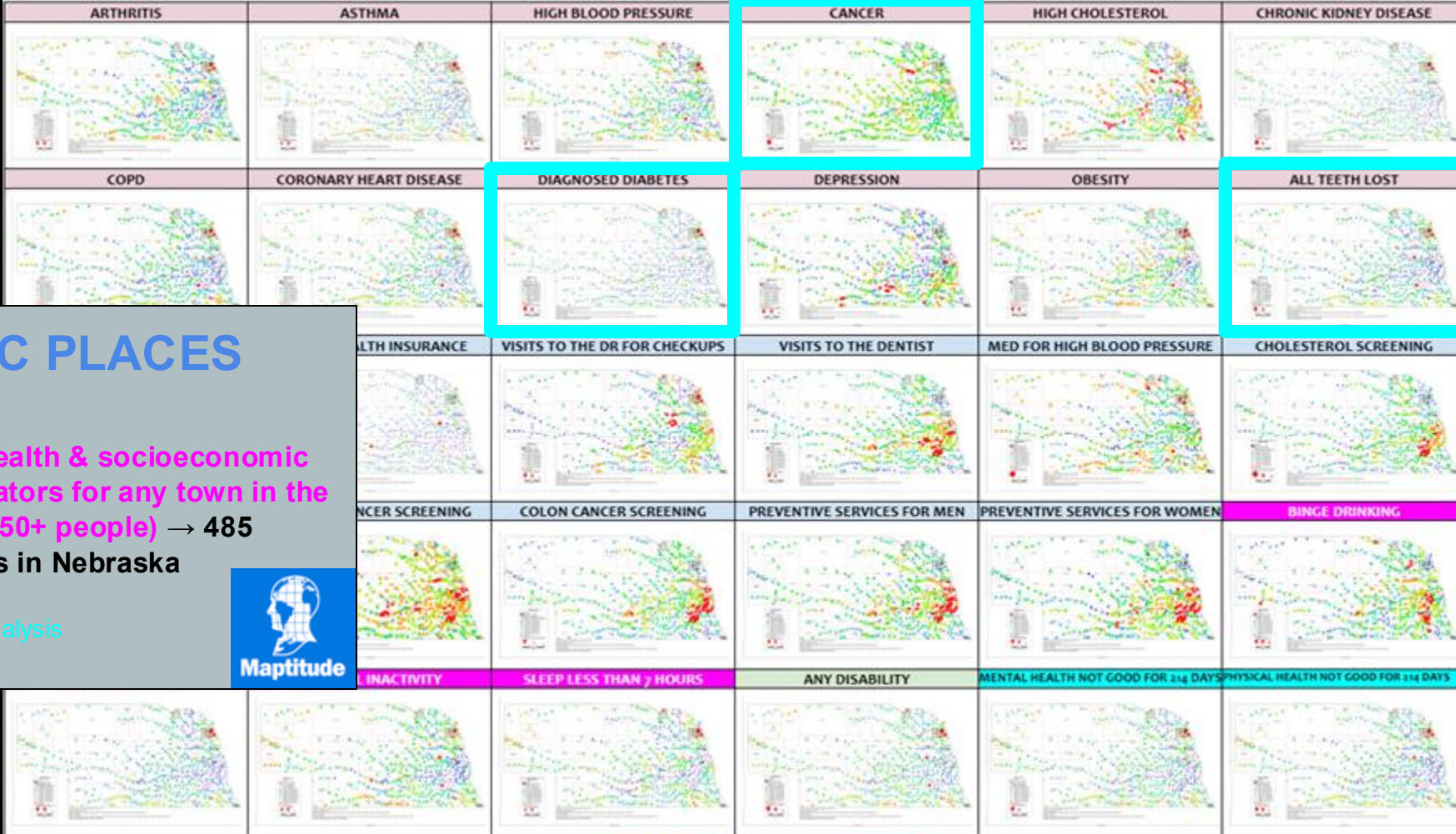
- No Personal Physician
- Infant Mortality Rate
- Inadequate Prenatal Care
- Prevalence of Diabetes
- HIV/AIDS Mortality Rate
- Unable to see a Physician due to Cost



# CDC PLACES

(40 health & socioeconomic indicators for any town in the US > 50+ people) → 485 towns in Nebraska

GIS analysis

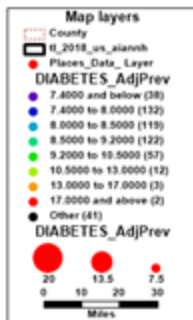


PLACES includes 36 measures for chronic disease-related health outcomes (13), prevention measures (9), health risk behaviors (6), disability (7), and health status (3). Data sources used to generate these model-based estimates are Behavioral Risk Factor Surveillance System (BRFSS) 2011 or 2020 data, Census Bureau 2010 population estimates, and American Community Survey (ACS) 2015–2019 estimates. The 2023 release uses 2021 BRFSS data for 29 measures and 2020 BRFSS data for 7 measures (all teeth lost, dental visits, mammograms, cervical cancer screening, colorectal cancer screening, core preventive services among older adults, and sleeping less than 7 hours) that the survey collects data on every other year. Data released on July 2023.

# CDC PLACES

## Diabetes

### GIS analysis



PLACES: Place Data (GIS-Friendly Format), 2023

Updated August 25, 2023

<https://chronicdata.cdc.gov/500-Cities-Places/PLACES-Place-Data-GIS-Friendly-Format-2023-release/vgc8-lyc4>

Data Provided by:

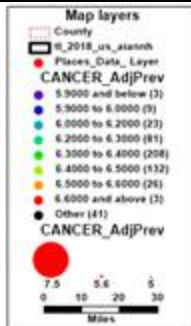
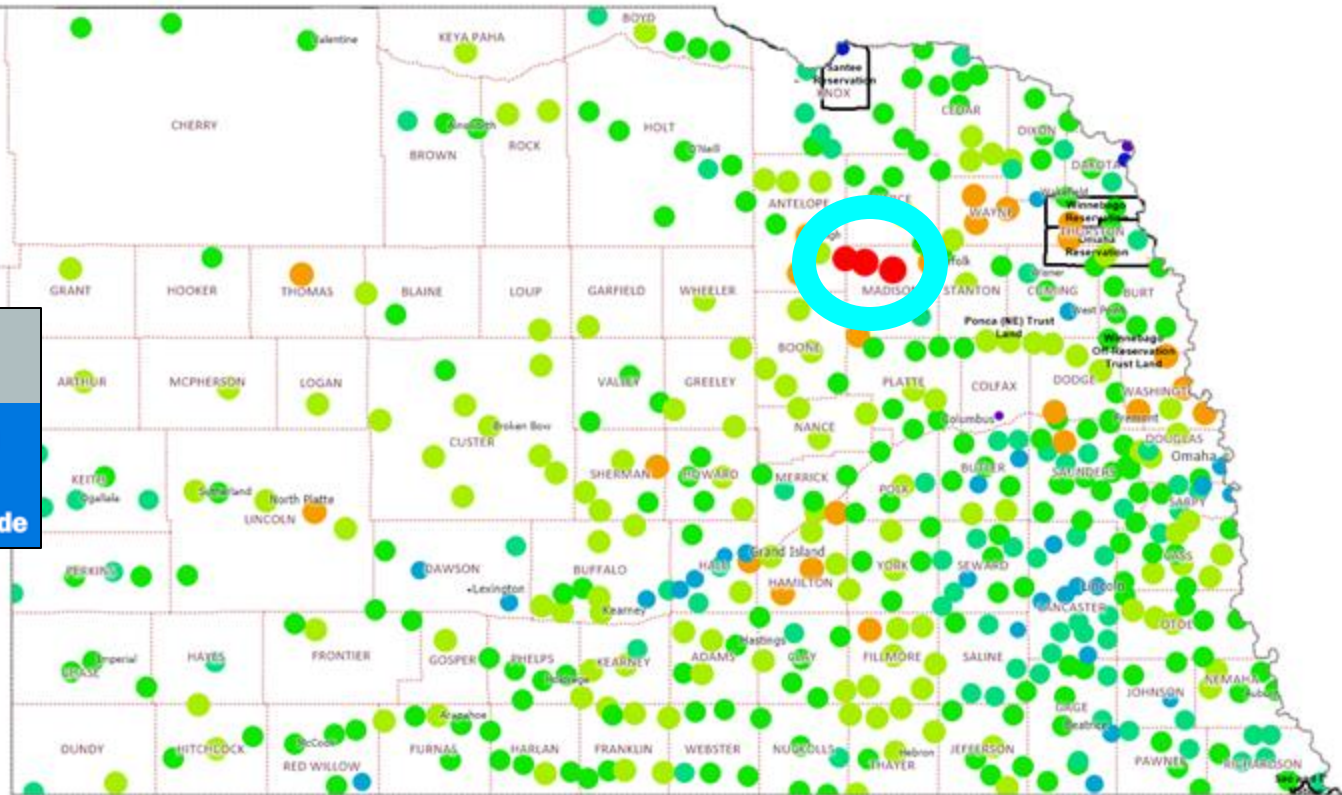
Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health

Glossary/Methodology <http://www.cdc.gov/places/>

# CDC PLACES

Cancer

GIS analysis



PLACES: Place Data (GIS Friendly Format), 2023

Updated August 25, 2023

<https://chronicdata.cdc.gov/500-Cities-Places/PLACES-Place-Data-GIS-Friendly-Format-2023-release/vgc8-lyc4>

Data Provided by:

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health

Glossary/Methodology <http://www.cdc.gov/places/>



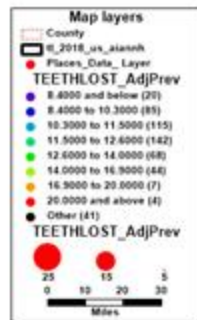
# CDC PLACES

All Teeth Lost

GIS analysis



Mapitude



PLACES: Place Data (GIS Friendly Format), 2023

Updated August 25, 2023

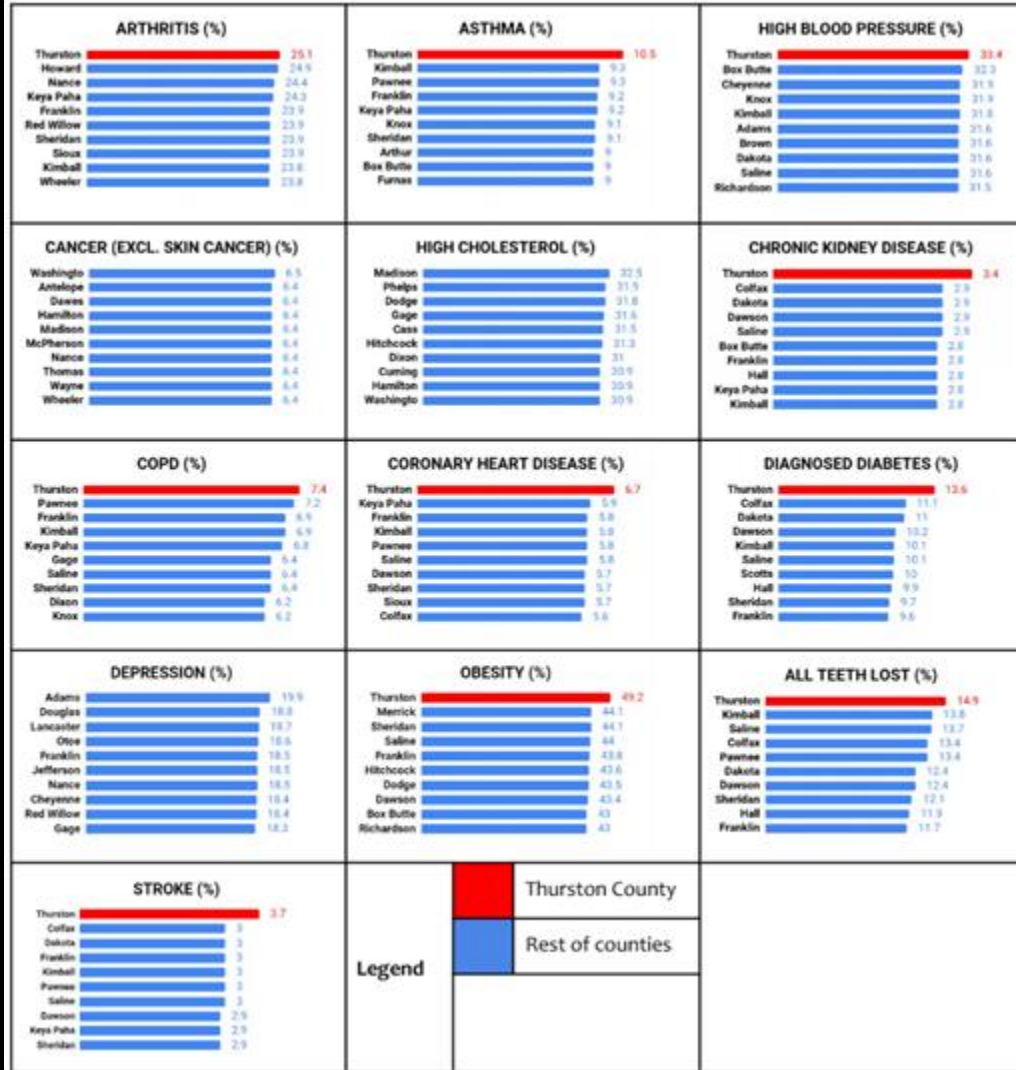
<https://chronicdata.cdc.gov/500-Cities-Places/PLACES-Place-Data-GIS-Friendly-Format-2023-release/vgc8-4yc4>

Data Provided by:

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Division of Population Health

Glossary/Methodology <http://www.cdc.gov/places/>

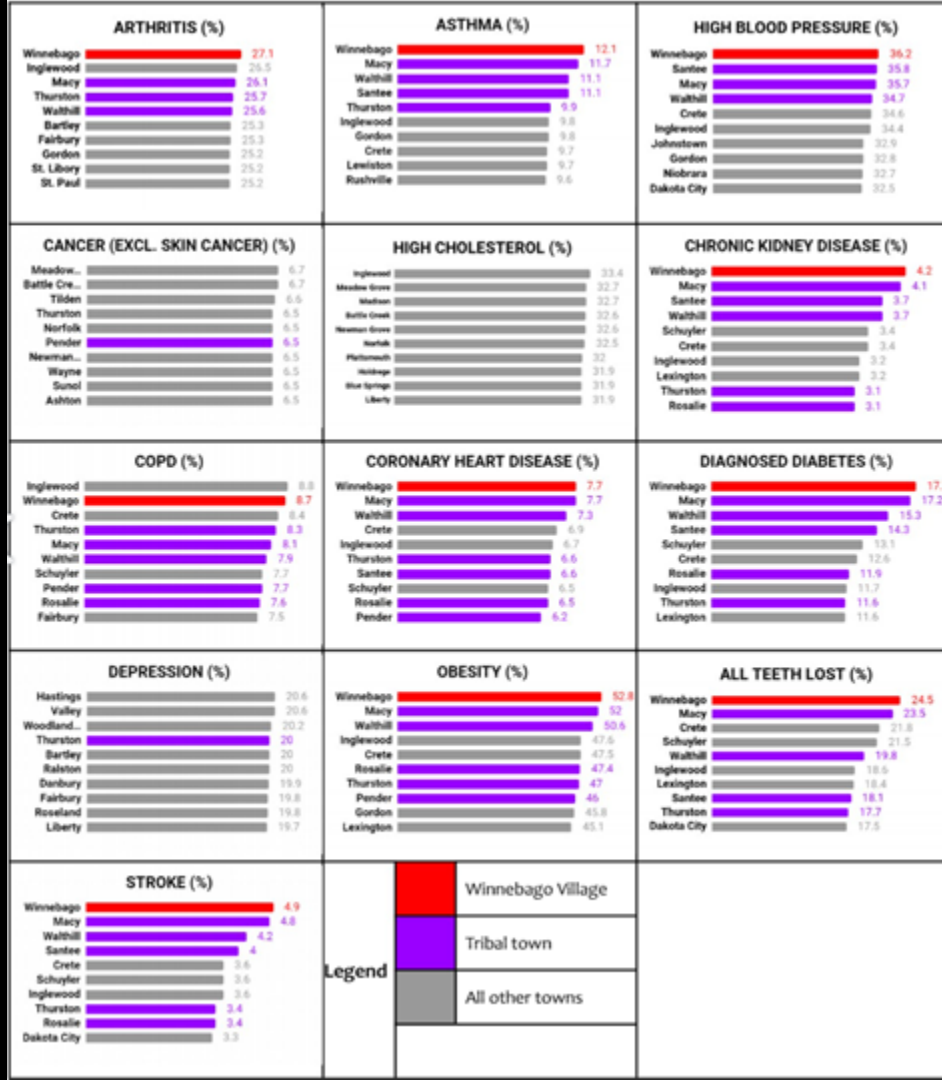
# Top 10 ranked counties (n = 93) by health outcomes (%)



From the 13 health outcomes reported by CDC PLACES, **Thurston County** ranked with the highest prevalence for 10 of them: Arthritis, Asthma, high blood pressure, chronic kidney disease, chronic obstructive pulmonary disease (COPD), coronary heart disease, diabetes, obesity, all teeth lost, and stroke.



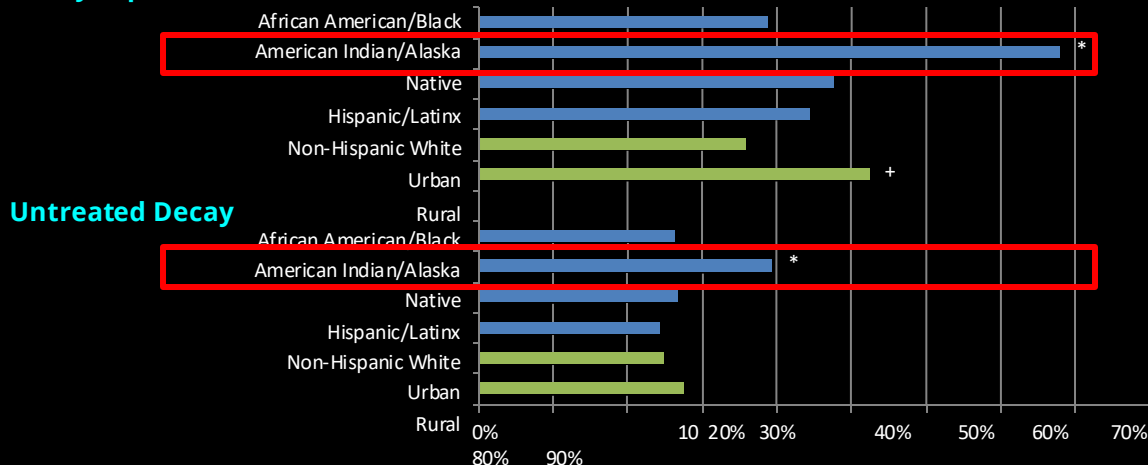
**Top 10 ranked cities (n = 485) by health outcomes (%)**



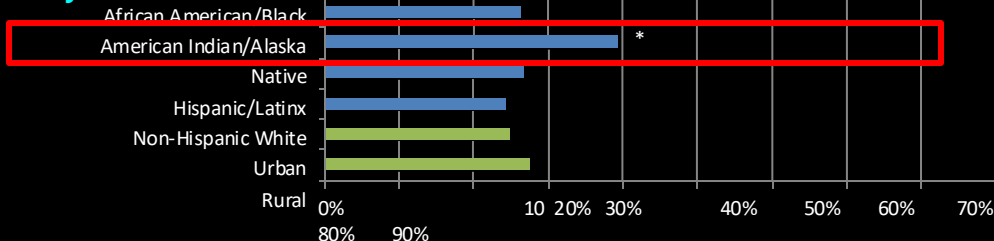
Out of the 10 health outcomes where Thurston County had the highest prevalence, **Winnebago Village**, situated on the Winnebago Reservation in Thurston County, was ranked at the top for nine of these outcomes (arthritis, asthma, high blood pressure, chronic kidney disease, coronary heart disease, diabetes, obesity, all teeth lost, and stroke).

# Prevalence of decay experience and untreated tooth decay among Nebraska's Head Start Children by race/ethnicity and geographic location, 2022-2023

## Decay experience



## Untreated Decay

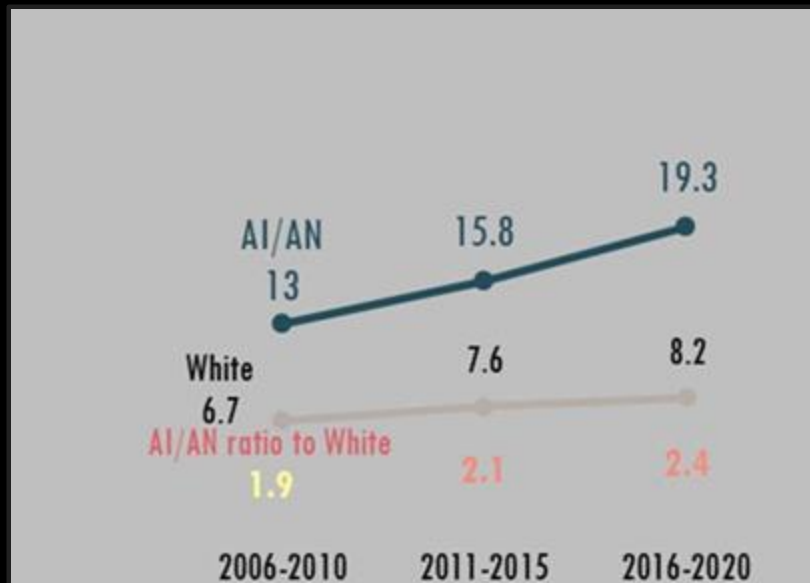


\*Substantially higher than non-Hispanic Whites, + substantially higher than urban

Data source: Nebraska Oral Health Survey which was conducted during the 2021-2022 and 2022-2023 school years (March 2022 to January 2023).

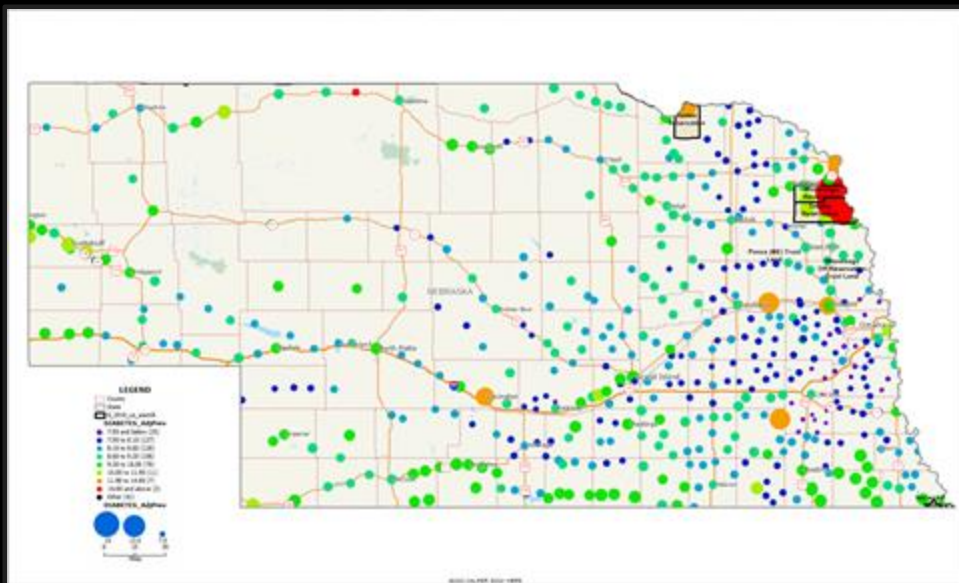
# Diabetes

## Nebraska Native Americans



Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health, NE DHHS. BRFSS 2016-2020: <https://atlas.dhhs.ne.gov/Atlas/BRFSS>. Ever told they h

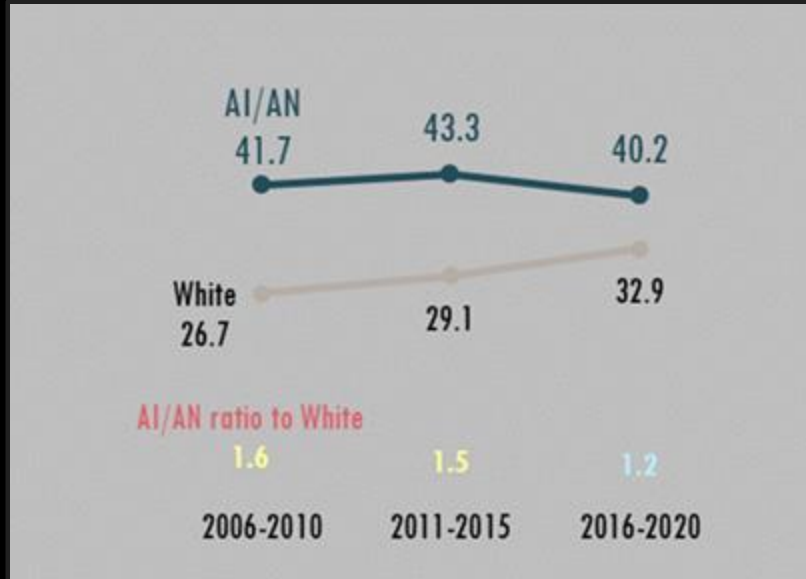
## Diabetes by town/city in Nebraska (9.7%) age-adjusted (2016-2020)



Source: CDC, PLACES: Place Data (GIS Friendly Format), 2021. Retrieved from: <https://chronicdata.cdc.gov/500-Cities-Places/PLACES-Place-Data-GIS-Friendly-Format-2021-release/vg68-lyc4>  
Diagnosed Diabetes Among Adults Aged ≥18 Years

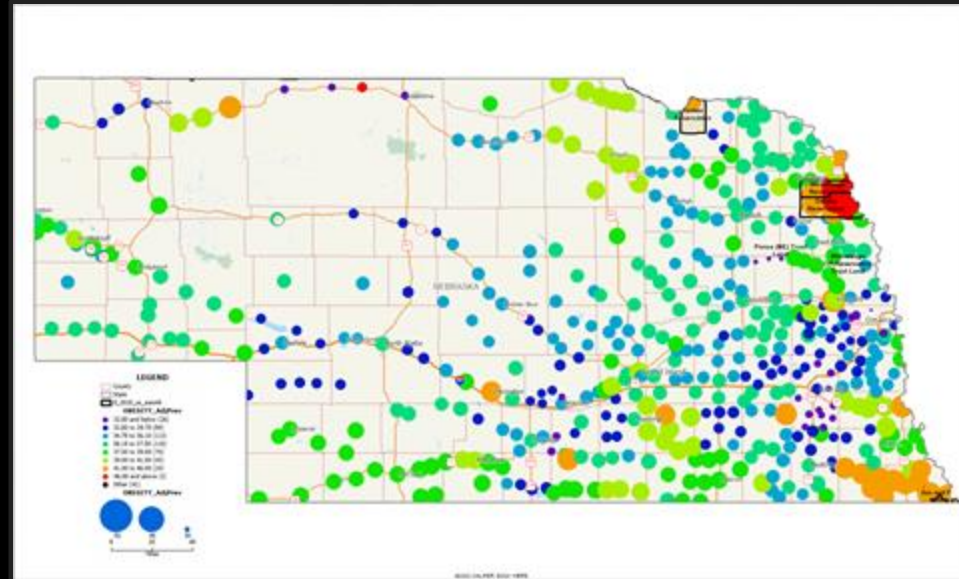
# Obesity

## Nebraska Native Americans



Source: BRFSS 2006-2010 and 2011-2015; Nebraska Health Disparities Report (2020). Division of Public Health, NEDHHS. BRFSS 2016-2020: <https://atlas.dhhs.ne.gov/Atlas/BRFSS>. Ever told they have diabetes (excl)

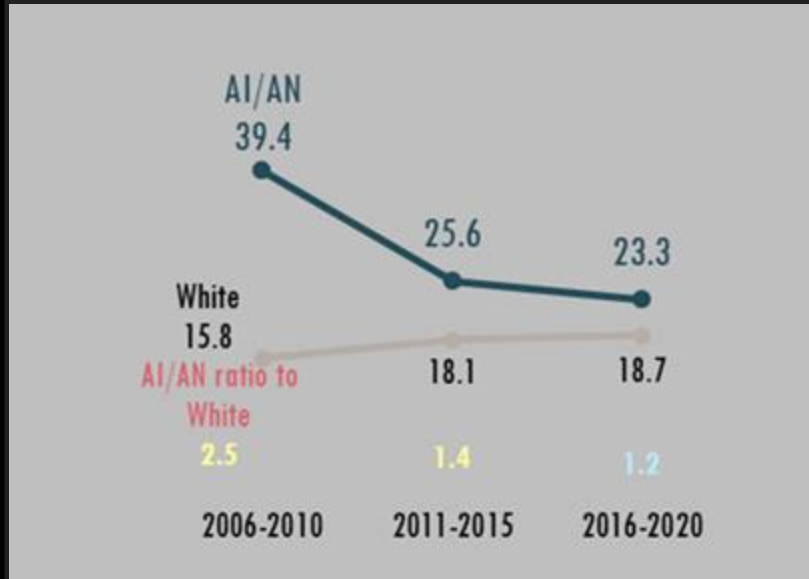
## Obesity by town/city in Nebraska (33.4%) age-adjusted (2016-2020)



Source: CDC. PLACES: Place Data (GIS Friendly Format), 2021. Retrieved from: <https://chronicdata.cdc.gov/500-Cities-Places/PLACES-Place-Data-GIS-Friendly-Format-2021-release/vgc8-lyc4>  
Obesity Among Adults Aged ≥18 Years

# Depression

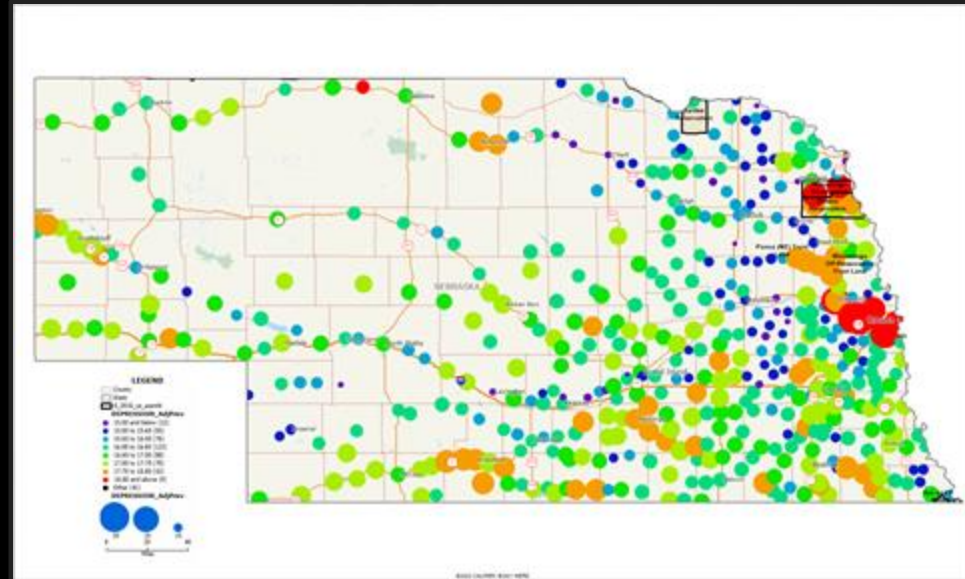
## Nebraska Native Americans



Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020), Division of Public Health, NE DHHS. BRFSS 2016-2020: <https://atlas-dhhs.ne.gov/Atlas/BRFSS>. Ever told they have depression, Adults 18 and older, by Race/Ethnicity, Age-Adjusted.

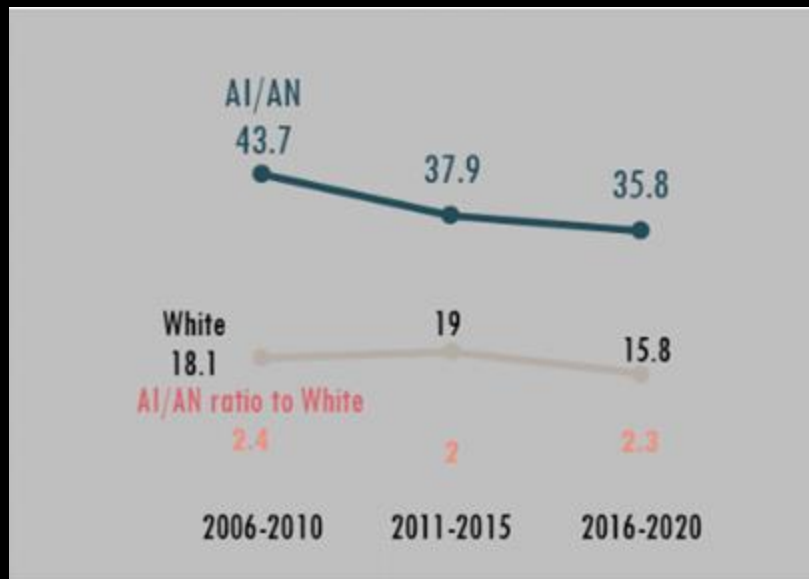
## Depression by town/city in Nebraska (17.5%)

age-adjusted (2016-2020)



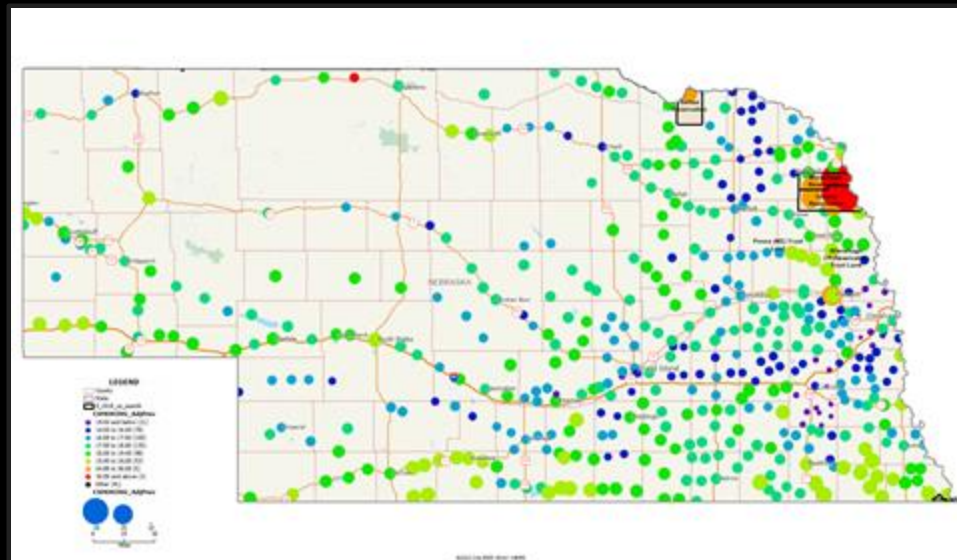
# Current Cigarette Smoking

## Nebraska Native Americans



Source: BRFSS 2006-2010 and 2011-2015: Nebraska Health Disparities Report (2020). Division of Public Health. NE DHHS. BRFSS 2016-2020: <https://atlas-dhhs.ne.gov/Atlas/BRFSS>. Current cigarette smoking, Adults 18 and older, by Race/Ethnicity, Age-Adjusted.

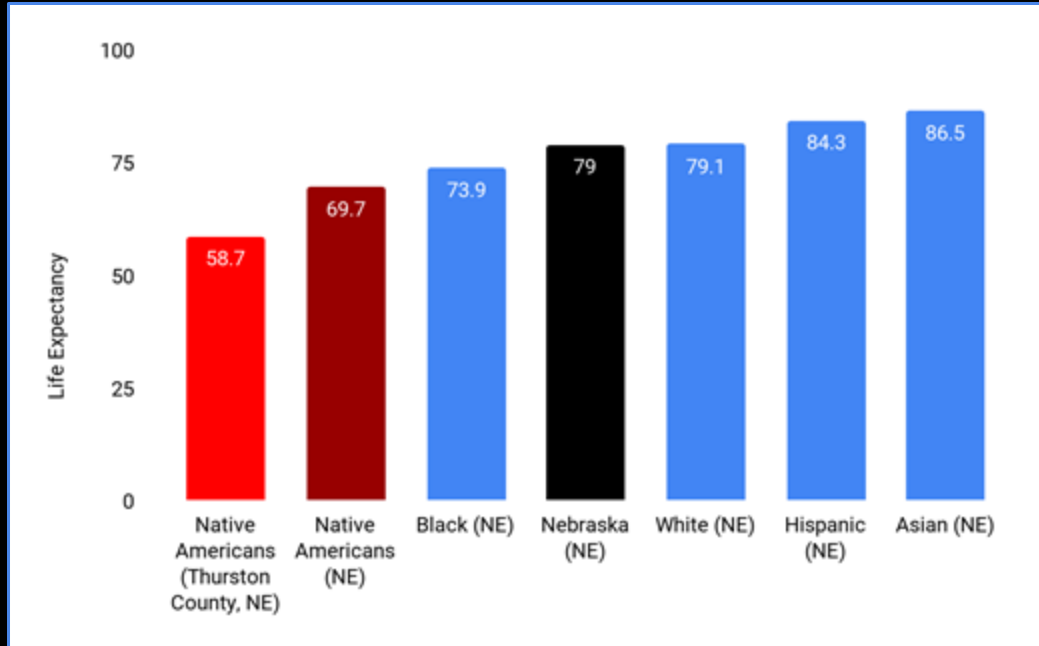
## Current Cigarette Smoking by town/city in Nebraska (15.4%) age-adjusted (2016-2020)



CDC. PLACES: Place Data (GIS Friendly Format). 2021. Retrieved from: <https://chronicdata.cdc.gov/500-Cities-Places/PLACES-Place-Data-GIS-Friendly-Format-2021-release/vgc8-lyc4> Current Smoking Among Adults Aged ≥18 Years

# Life Expectancy

Native Americans (statewide) have a lower life expectancy compared to the state average and other racial groups, except when specifically looking at Thurston County, where the difference is even more pronounced.



Overall, life expectancy in countries and territories with publicly funded health care is higher, and for each social determinant, longer life expectancy continues to be associated with publicly funded health care.

This suggests that addressing social determinants of health can help improve life expectancy and reduce health disparities.

Galvani-Townsend, S., Martinez, I., & Pandey, A. (2022). Is life expectancy higher in countries and territories with publicly funded health care? Global analysis of health care access and the social determinants of health. *Journal of Global Health*, 12.



# Severe Housing Problems in Nebraska

Percentage of households with at least 1 of 4 housing problems: overcrowded, high housing costs, lack of kitchen facilities, or lack of plumbing facilities.

**27.1% of AI/AN experience severe housing problems.**

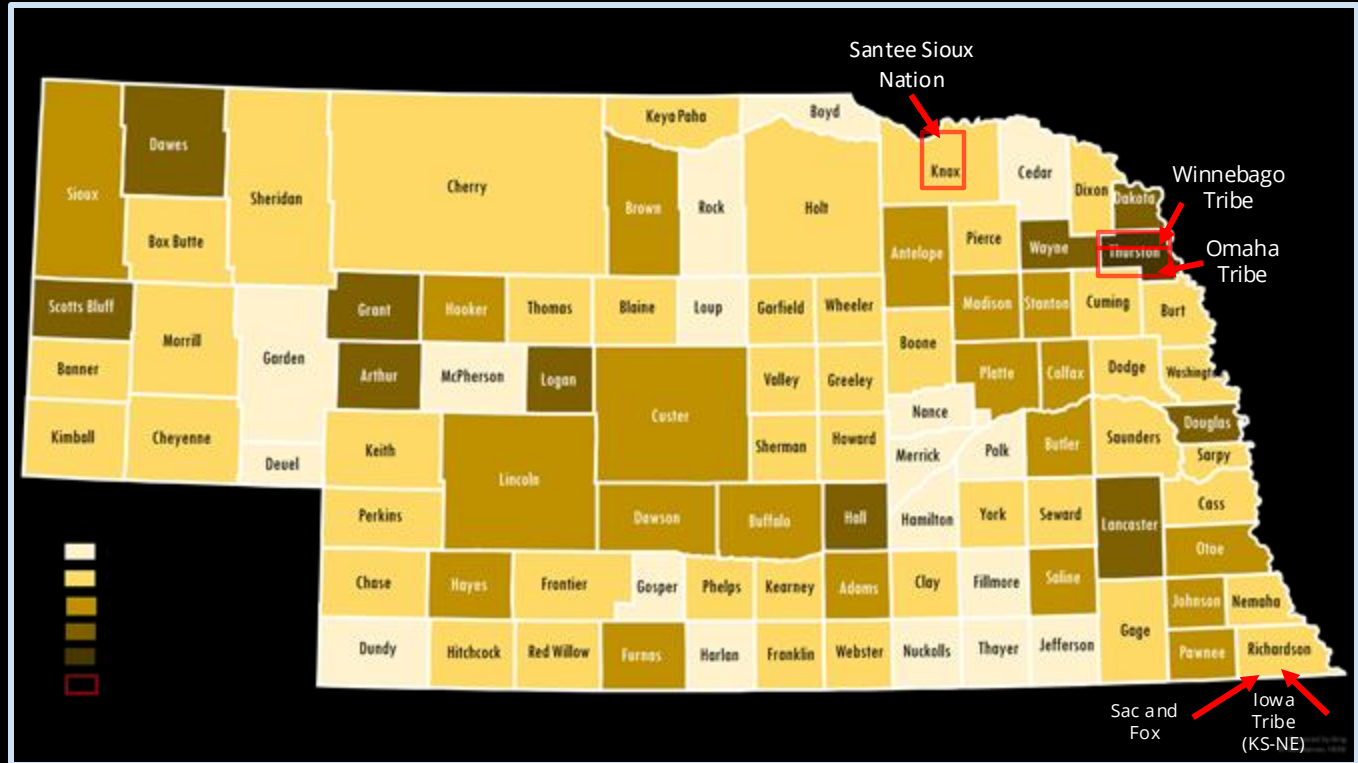
**Thurston County** has the highest percentage of housing problems in the State of Nebraska (**18.5%**) compared to 12.2% for the whole State.

## Tribal Villages:

**Santee:** 17.4%

**Winnebago:** 20.0%

**Macy:** 44.2%



Source: U.S. Department of Housing and Urban Development (HUD). Comprehensive Housing Affordability Strategy (CHAS) 2016-2020 data. Retrieved from <https://www.huduser.gov/PORTAL/datasets/cp.html#year2006-2020>







Kimball

Cheyenne

Keith

Custer

Sherman

Howard

Merrick

Polk

Butler

Saunders

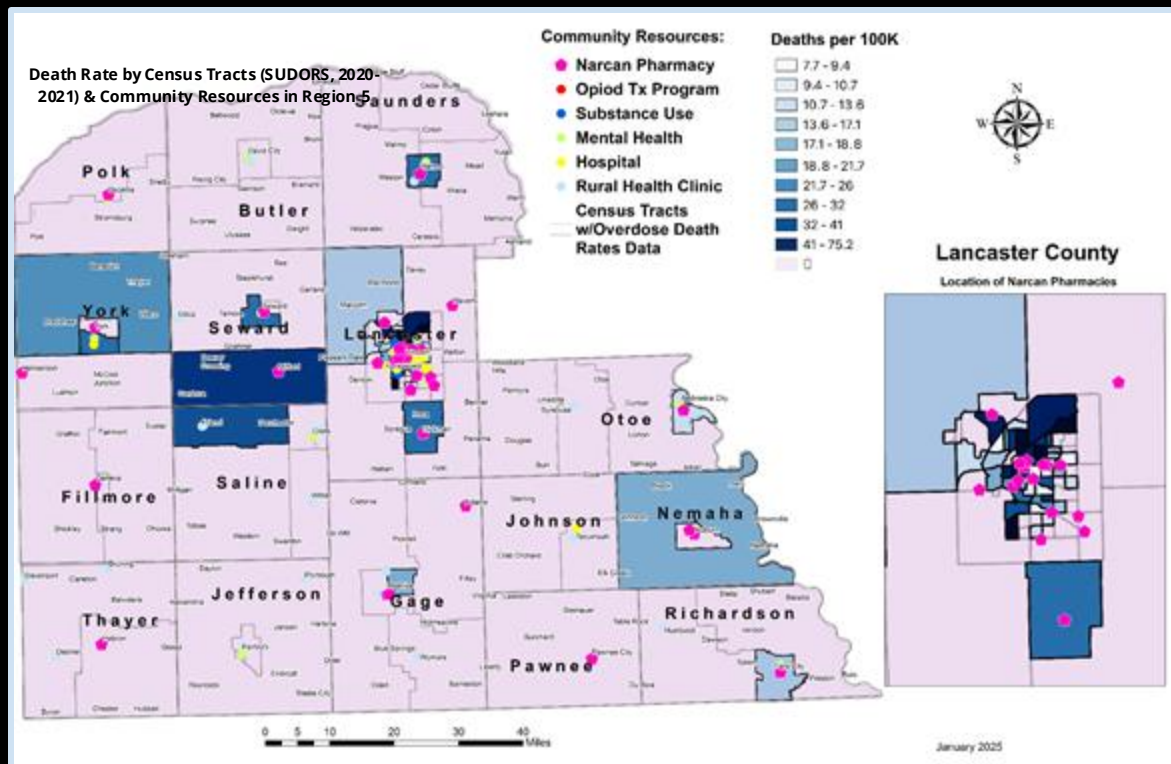
Douglas

Saroy

# Case Studies

Opioid Assessment  
Cash Devices

# Unintentional and Undetermined Intent Drug Overdose Deaths & Community Resources- Region 5

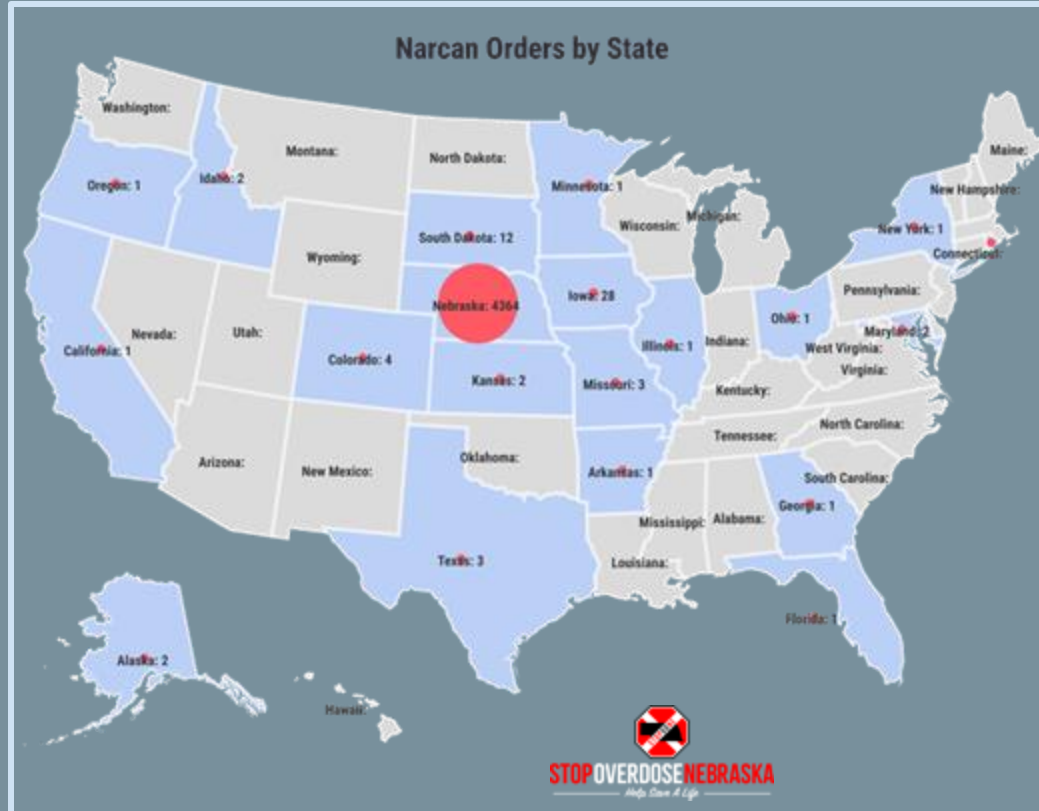


- 20% of people live 5 miles or more from a Narcan pharmacy in Region 5.
- 102,679 people living in census tracts with reported drug overdose death rates do not have access to a Narcan pharmacy in their jurisdictions.
- 38.8% of respondents in Region V reported knowing where to get Narcan (NASIS, 2024).



Data source: [CDC State Unintentional Drug Overdose Reporting System \(SUDORS\) - 2020 & 2021. Unintentional and Undetermined Intent Drug Overdose Deaths in Nebraska - Behavioral Health Region 5.](#)

# Narcan Orders: Location by State

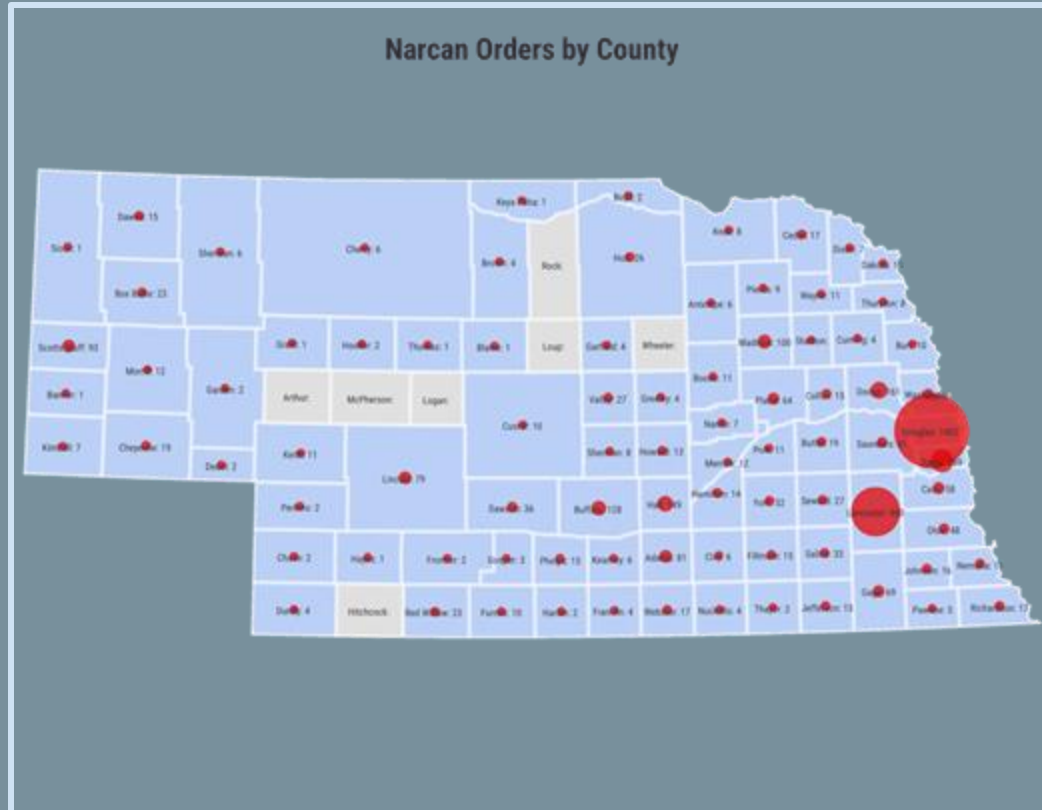


4,442 total  
Narcan orders  
from 21 states

4,364 (98%)  
total Narcan  
orders from  
Nebraska



# Narcan Orders: Location by Counties in Nebraska



Narcotics orders  
received from  
86 counties

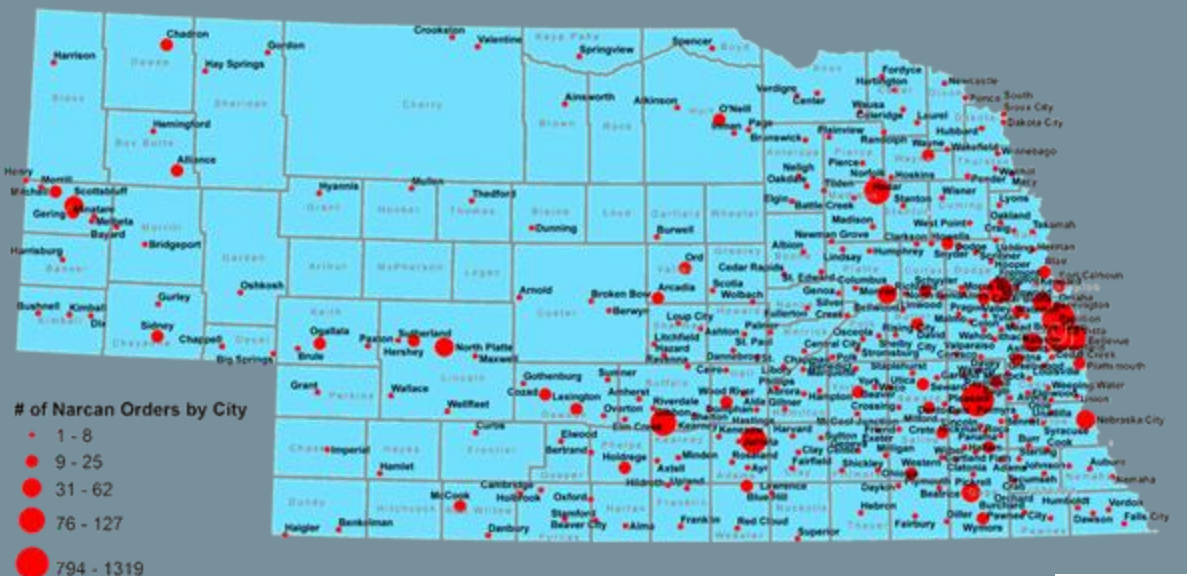
Douglas ( $n = 1,402$ ), and Lancaster ( $n = 860$ ) counties, represent 52% of total Narcan orders



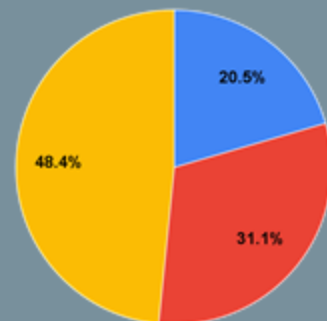
# Narcan Orders: Location by Cities in Nebraska

Narcan orders received from 299 towns across Nebraska

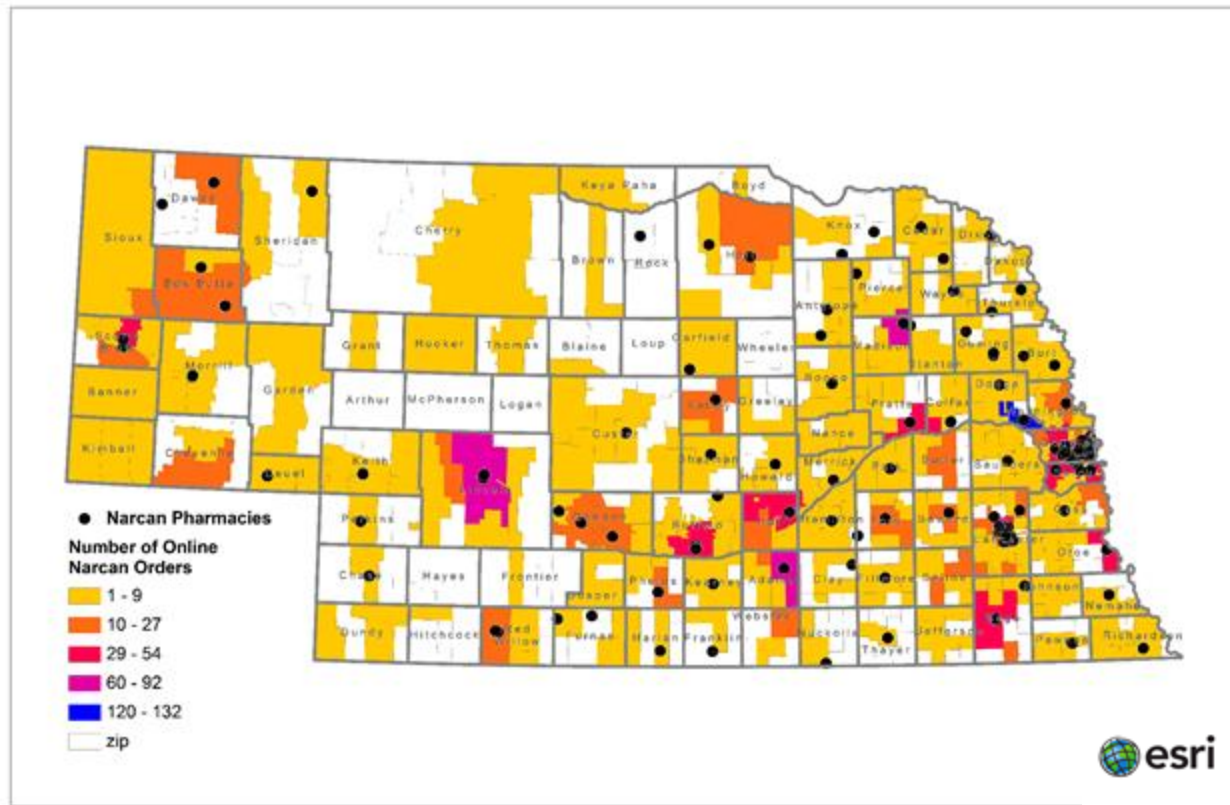
One out of five Narcan orders came from rural communities (<2,500 people)



● Rural ● Urban Cluster ● Urbanized Area



# Nebraska Online Narcan Orders by Zip Code & Narcan Pharmacies



In Nebraska, 348 zip codes out of 577 reported online Narcan orders.

65% of zip codes with online Narcan orders did not have a Narcan pharmacy on them.

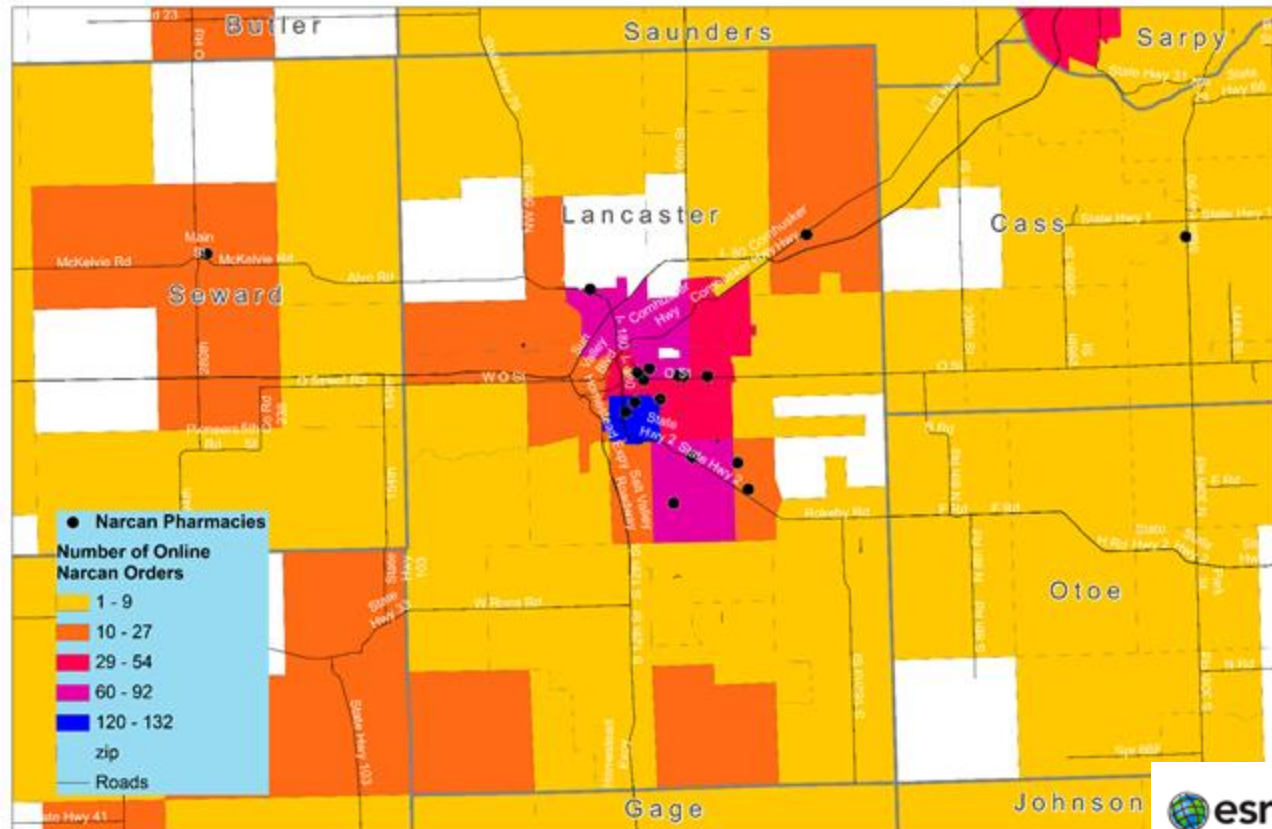
Total number of Narcan pharmacies in Nebraska: 145

Data source: <https://stopodne.com/see-all-narcan-pharmacies/>





# Lancaster Co: Online Narcan Orders by Zip Code & Narcan Pharmacies

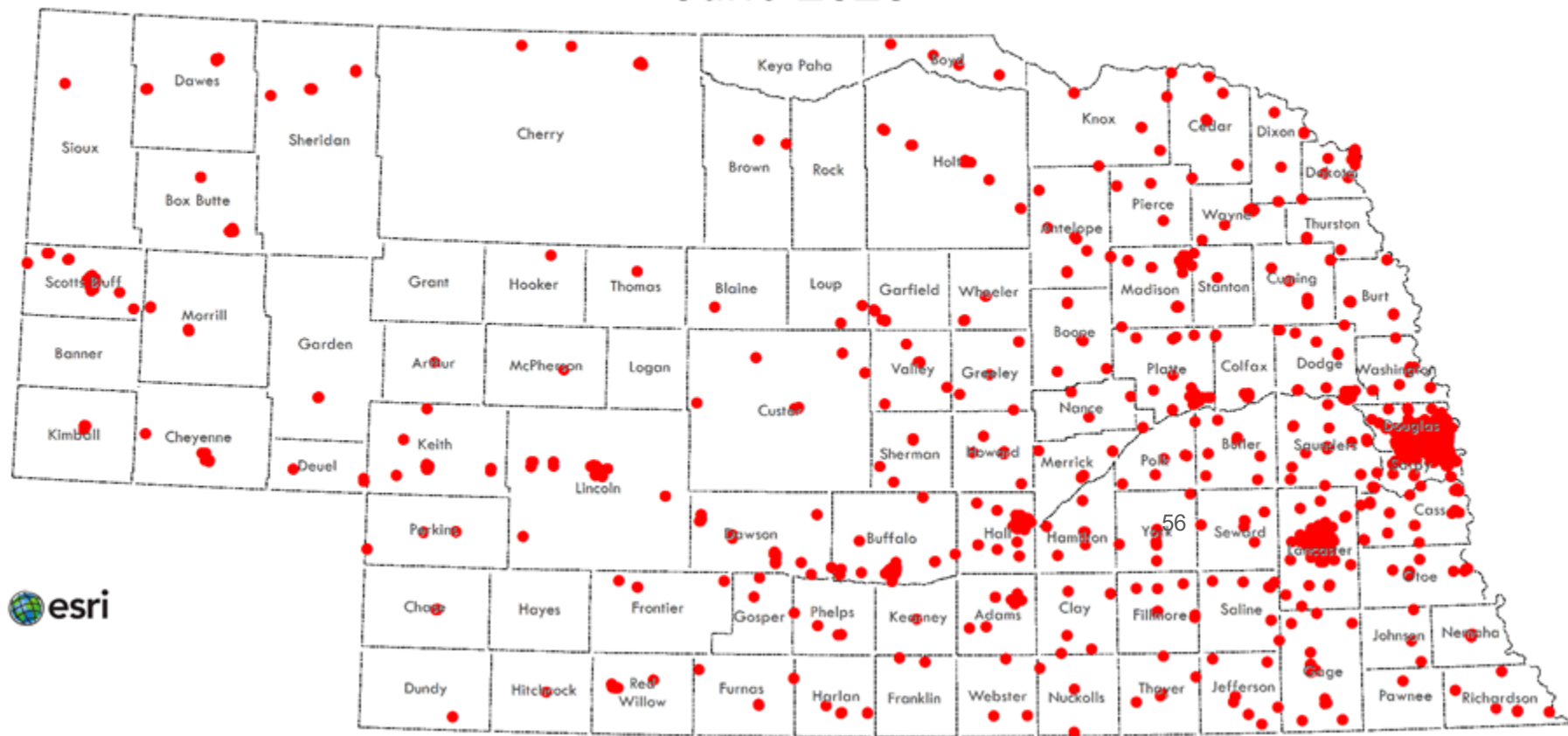


In Lancaster County, 27 out of 31 zip codes reported online Narcan orders.

In total, 300 (35%) of online Narcan orders out of 860 in Lancaster County came from zip codes without Narcan pharmacies.

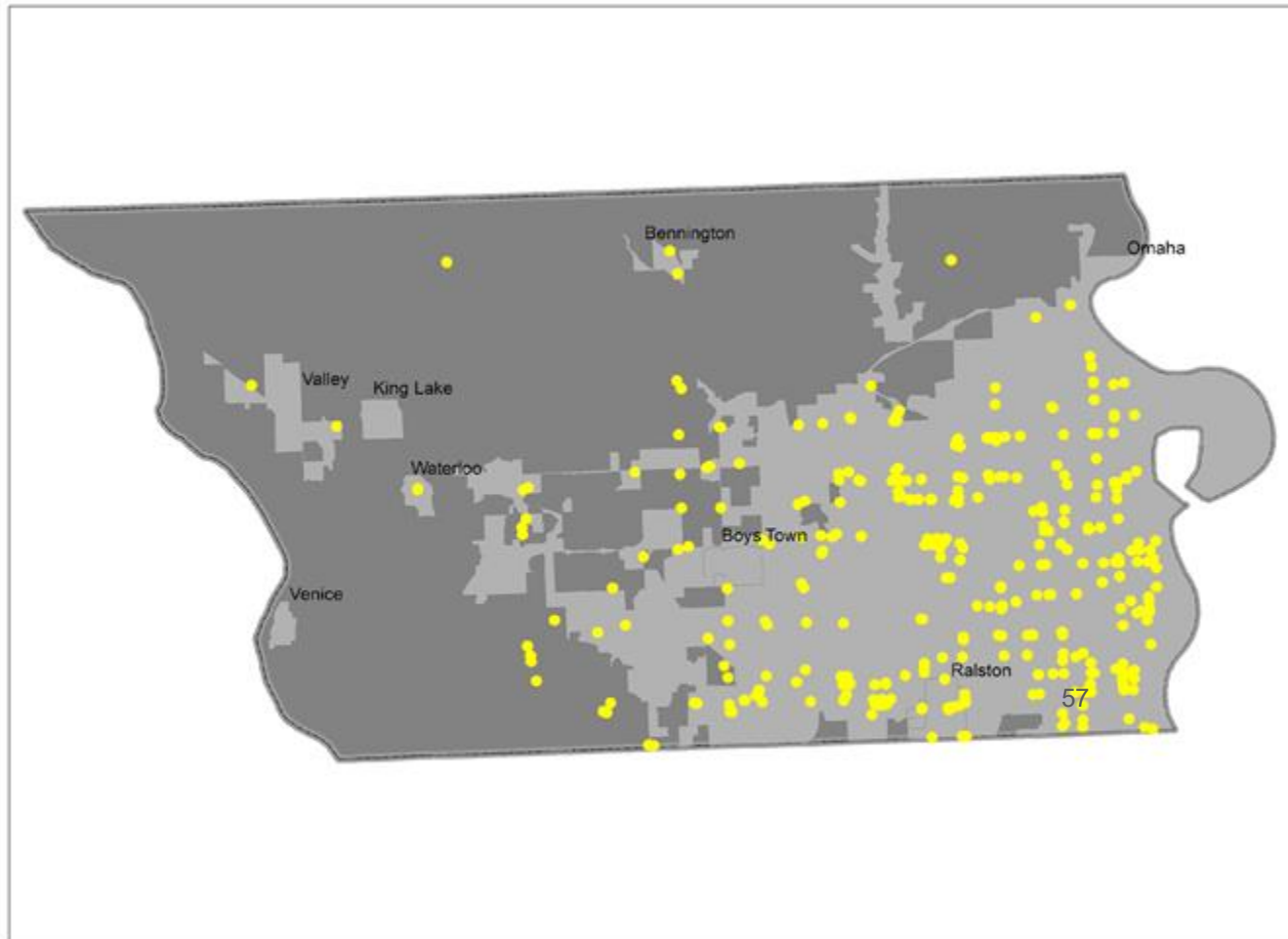
# Location of Cash Devices

## June 2025

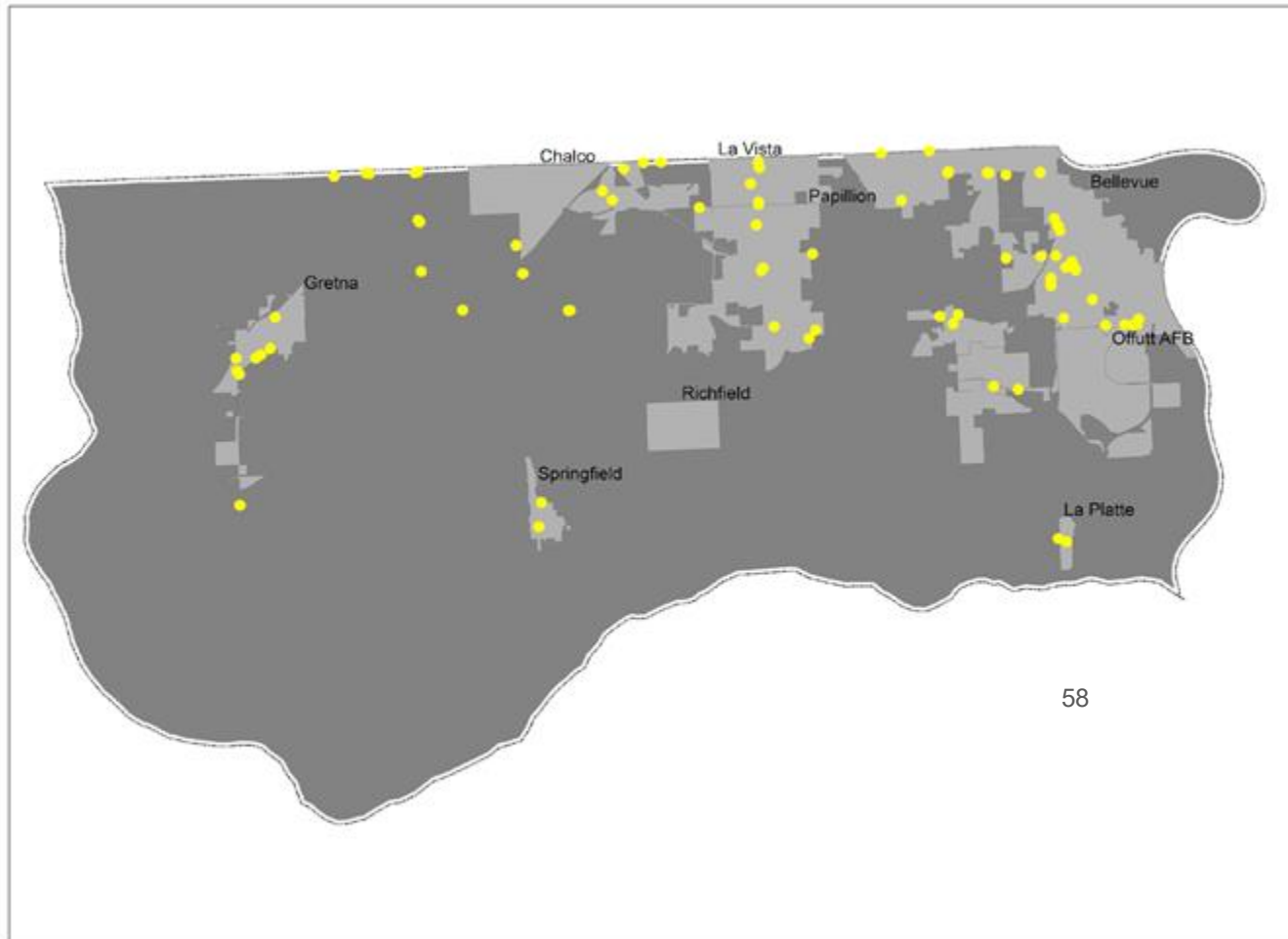




## Douglas County: 372 Locations with 1,319 Cash Devices

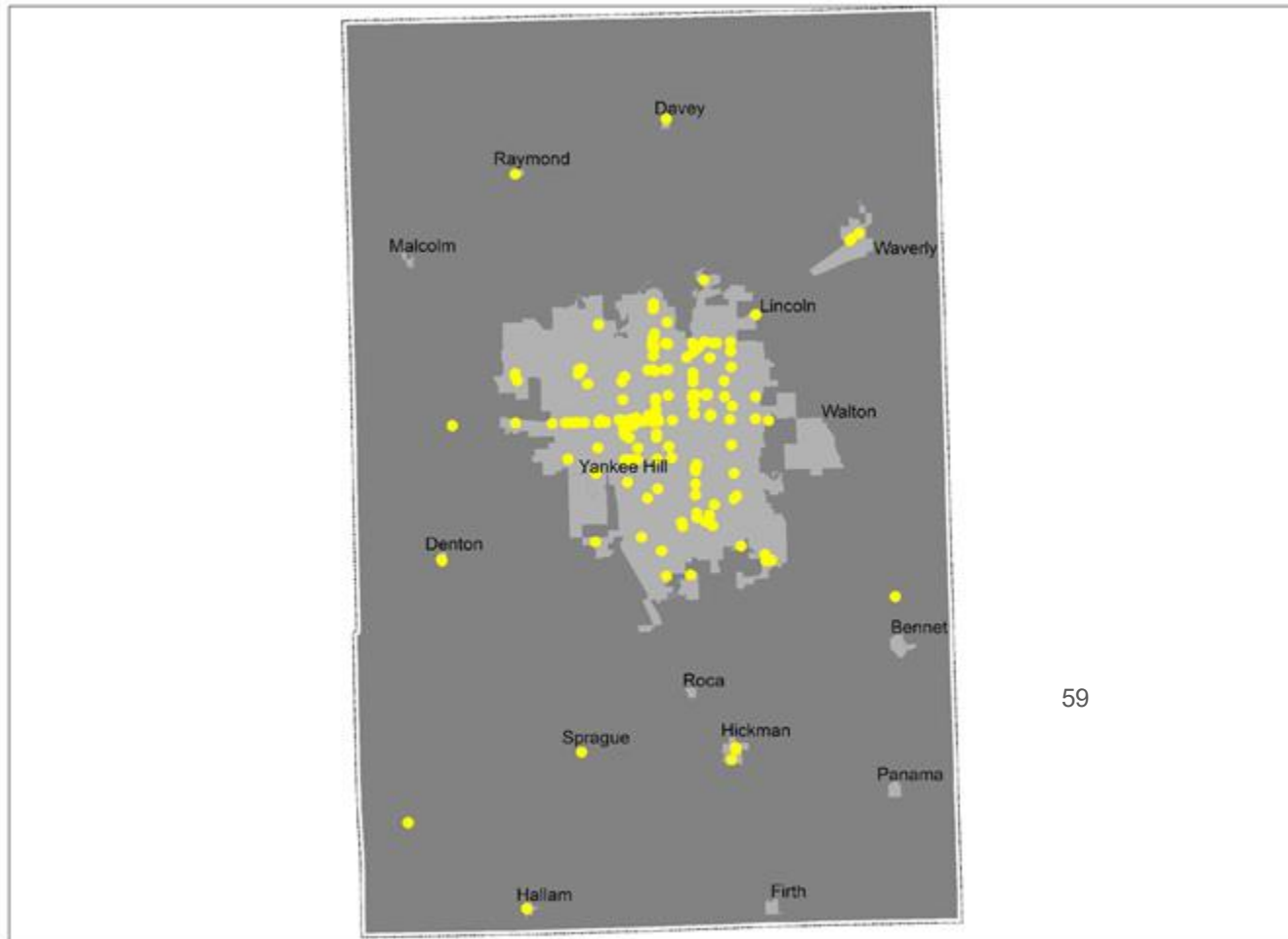


## Sarpy County: 73 Locations with 263 Cash Devices



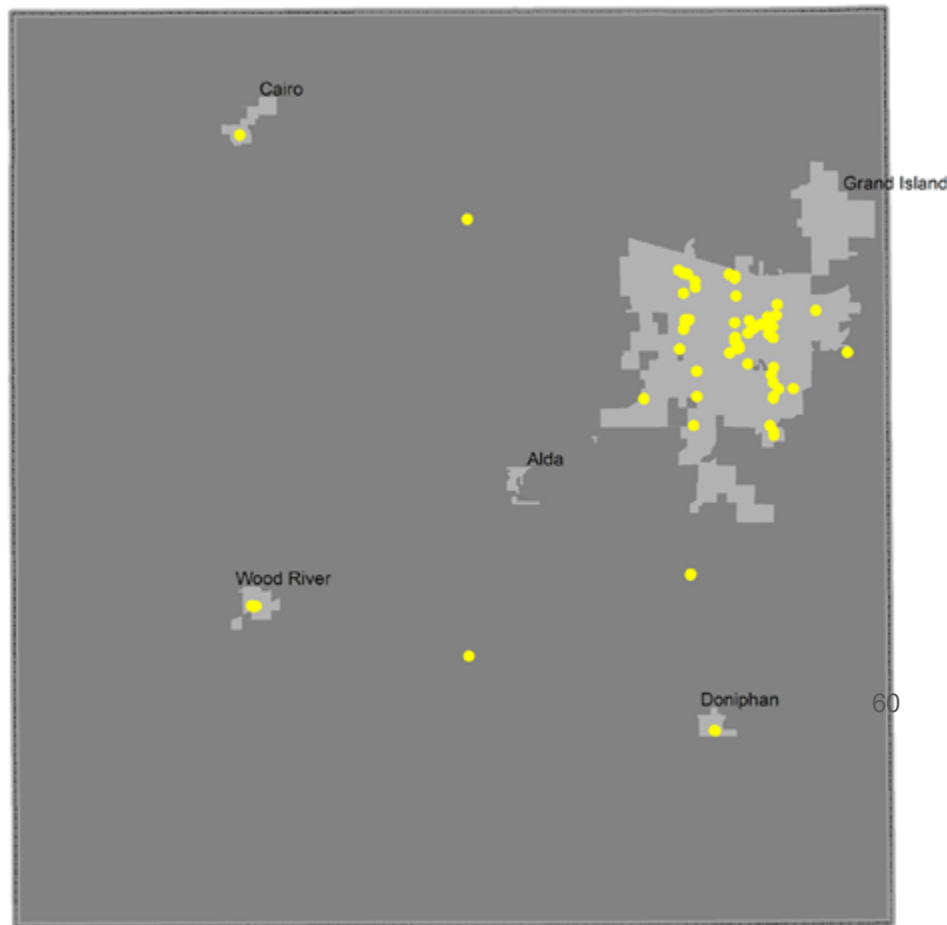
58

## Lancaster County: 194 Locations with 807 Cash Devices



59

## Hall County: 72 Locations with 276 Cash Devices





### Number of Unduplicated MACD by Location and by Area Deprivation Index (ADI)

ADI Category	ADI Rank	Number of Unduplicated MACD Locations by ADI	Percent of Unduplicated MACD Locations by ADI
	No Data	21	1%
Least Disadvantaged	1	78	5%
	2	77	5%
	3	111	7%
	4	157	10%
	5	133	8%
	6	186	12%
	7	170	11%
	8	232	14%
	9	206	13%
Most Disadvantaged	10	244	15%
	Grand Total	1,615	100%

### Number of MACDs by Area Deprivation Index (ADI)

ADI Category	ADI Rank	Number of MACDs by ADI	Percent of MACDs by ADI
	No Data	63	1%
Least Disadvantaged	1	277	5%
	2	259	5%
	3	407	7%
	4	617	11%
	5	496	9%
	6	637	11%
	7	585	10%
	8	770	14%
	9	741	13%
Most Disadvantaged	10	815	14%
	Grand Total	5,667	100%

# Win Grant Change Lives Empower Communities

# Core Principles of Grant Writing

## Four Key Considerations

1. Multi-Year Duration: Funding must run at least 3–5 years
2. Substantial Scale: Projects should have multimillion-dollar budgets
3. Sustained Commitment: Agencies must have a long, reliable history of funding similar programs
4. Return on Investment: Address ROI in the grant application when possible

Have a [great editor](#)!

## The 'No Plan B' Principle

- Do not create backup plans during the main grant effort
- Backup plans weaken commitment and reduce motivation
- Reduced motivation leads to weaker proposals

Shin, J., & Milkman, K. L. (2016). How backup plans can harm goal pursuit: The unexpected downside of being prepared for failure. *Organizational Behavior and Human Decision Processes*, 135, 1-9.

## Grant Writing (non-profit organizations)

**33 grants totaling \$40,4M** between 2010-2025, with an estimated success rate of **60%**.

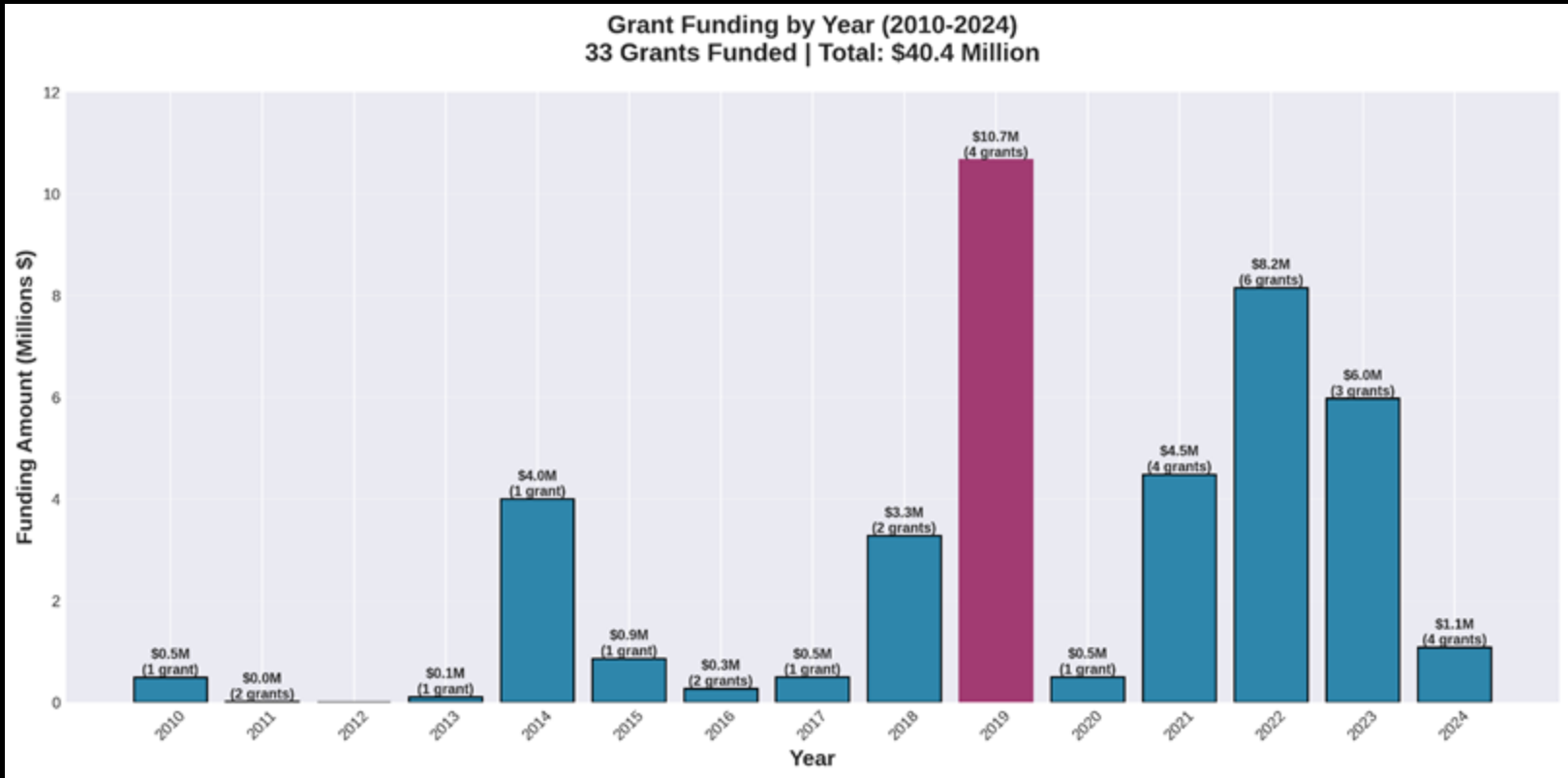
**Nebraska-based organizations: 32 grants.**

**Tribal Nations/Communities:** 22 grants totaling \$31.8M.



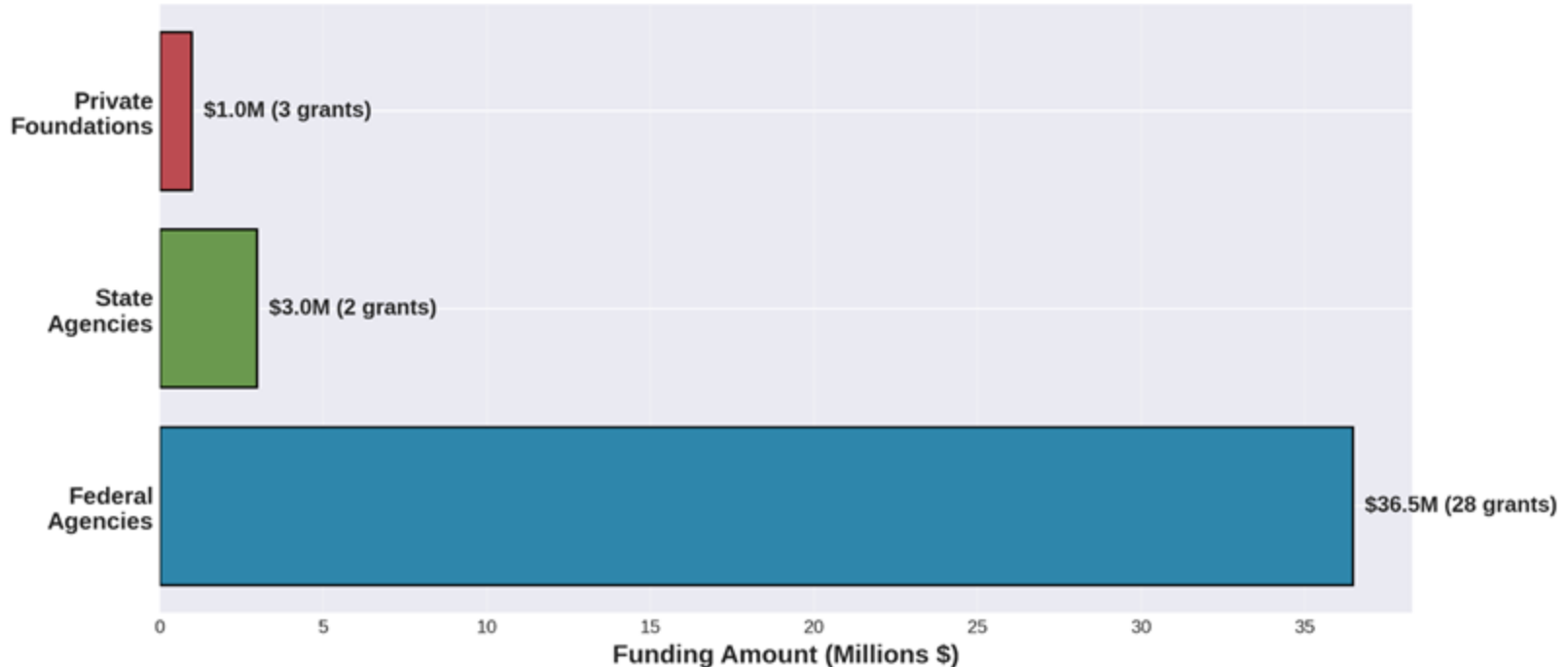


# Grant Writing



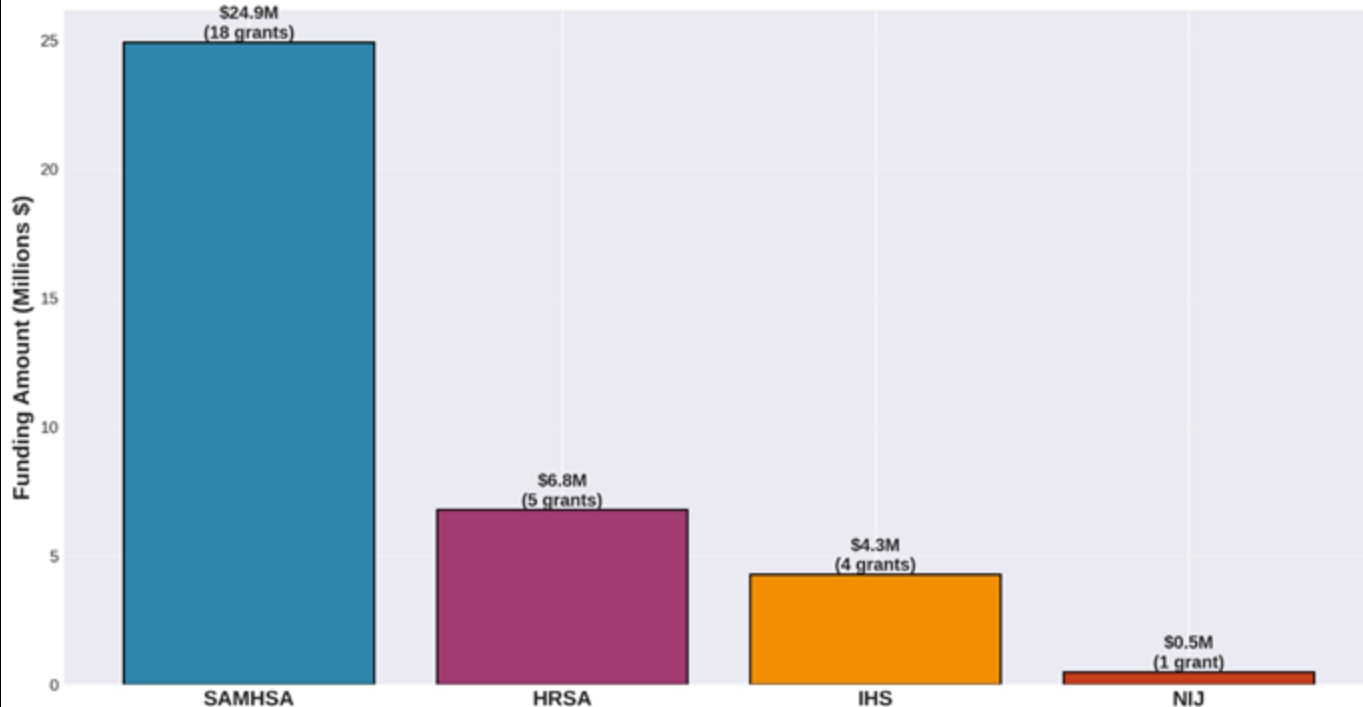
# Grant Writing

Funding Distribution by Source Type (2010-2024)  
33 Grants Funded | Total: \$40.4 Million



# Grant Writing

Federal Agency Funding Breakdown (2010-2024)  
28 Federal Grants | Total: \$36.5 Million



Agency	Full Name	Department
SAMHSA	Substance Abuse and Mental Health Services Administration	U.S. Department of Health and Human Services (HHS)
HRSA	Health Resources and Services Administration	U.S. Department of Health and Human Services (HHS)
IHS	Indian Health Service	U.S. Department of Health and Human Services (HHS)
NIJ	National Institute of Justice	U.S. Department of Justice (DOJ)