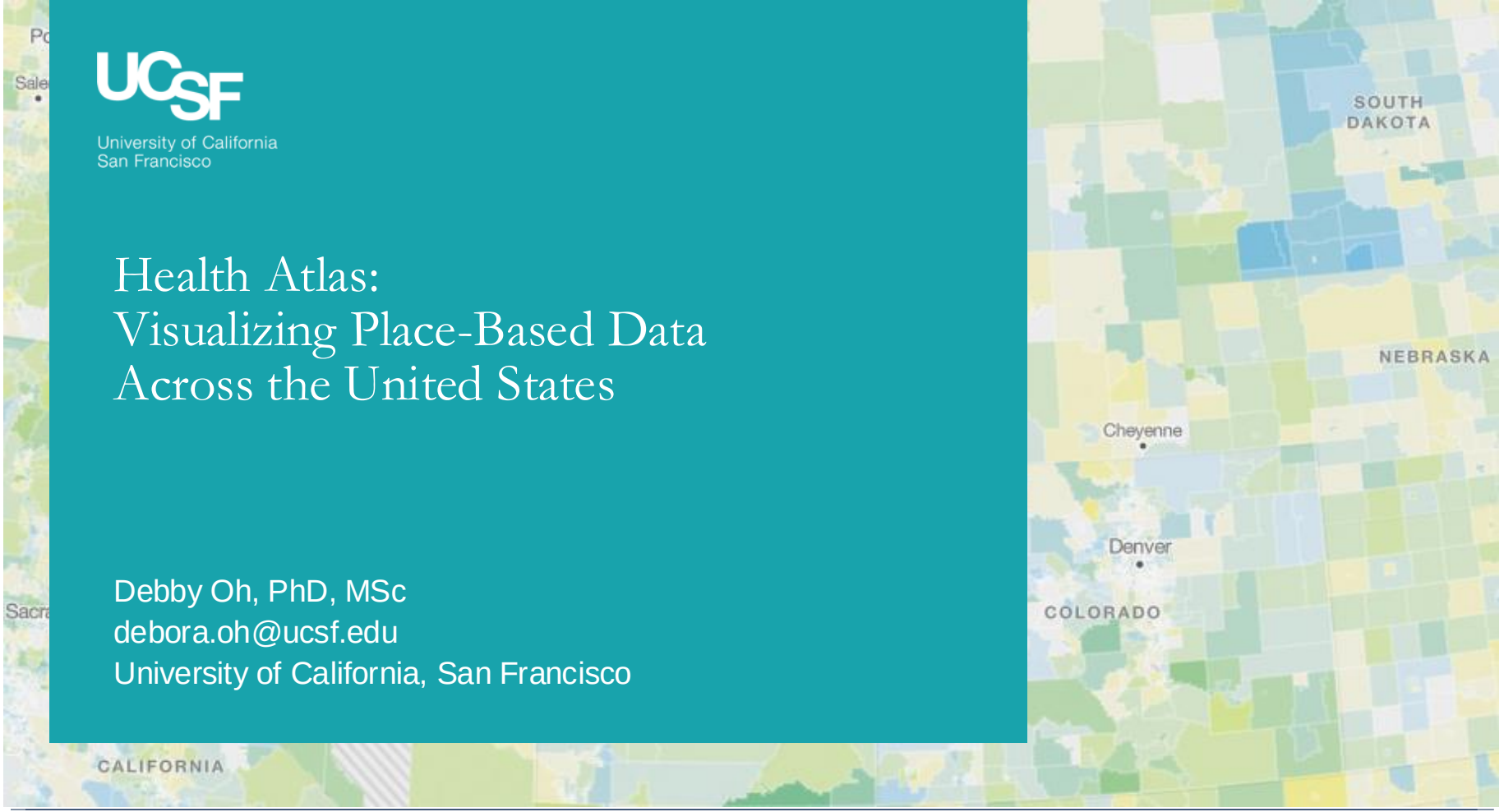

University of California
San Francisco

Health Atlas: Visualizing Place-Based Data Across the United States

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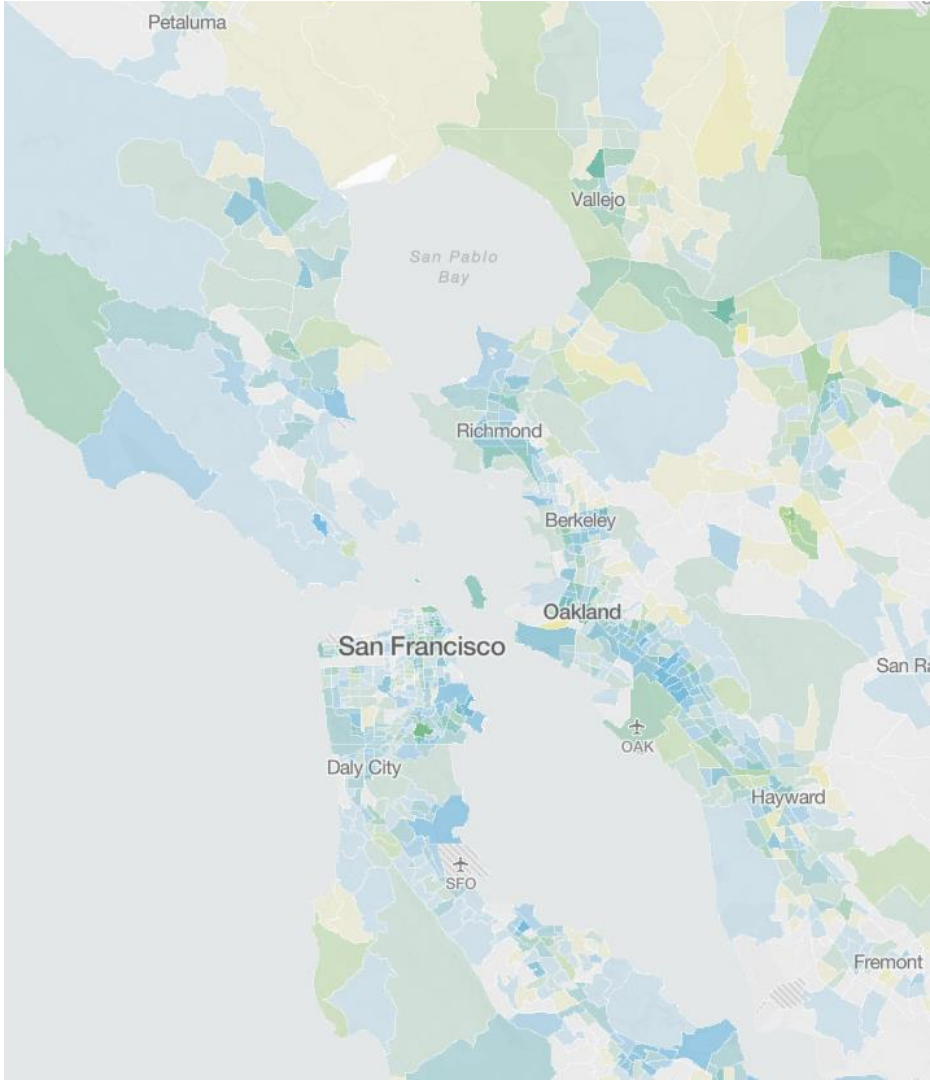
University of California, San Francisco

healthatlas.ucsf.edu

When it comes to health, place matters.

Where we live, including the physical and social environments that surround us, influences health in both positive and negative ways.



UCSF HEALTH ATLAS

Health Atlas features:

- Interactive map of over 120 variables
- Census tract, ZIP code, congressional districts, county, CBSA, PUMA, and state level maps
- 2010 Census and 2020 Census geographies
- Comparing two variables
- Visualizing data distributions
- Custom area selection
- Data export
- Detailed data descriptions

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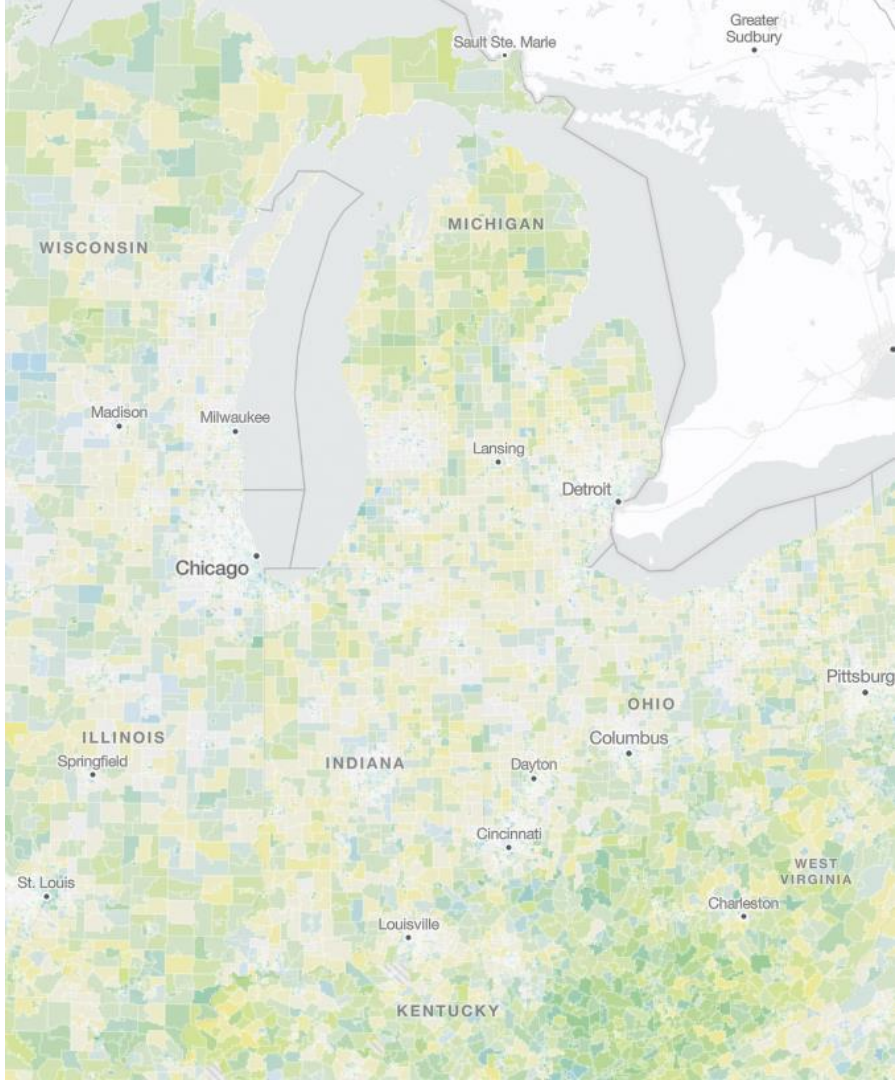

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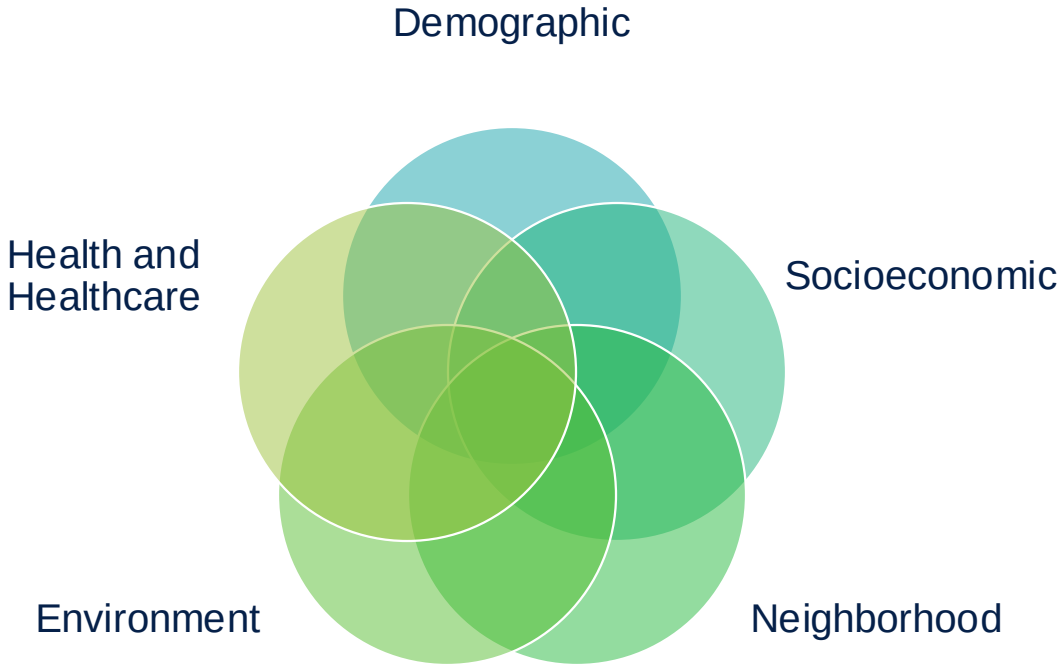

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Data Sources

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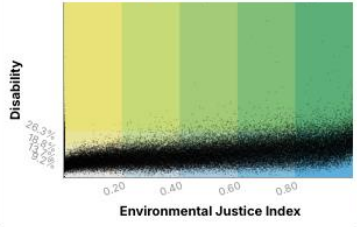
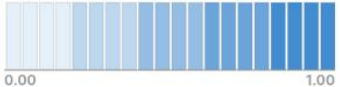
1. **American Community Survey**
2. **CDC PLACES**
3. **EPA Environmental Justice Screen**
4. Health Equity Action Network
5. UC Center for Climate and Health Equity
6. CDC National Vital Statistics System
7. CDC Social Vulnerability Index
8. Childhood Opportunity Index
9. California Healthy Places Index
10. California Neighborhoods Data System
11. National Neighborhood Data Archive (NaNDA)
12. USDA Economic Research Service
13. US Environmental Protection Agency
14. CDC/ATSDR Environmental Justice Index
15. HUD Comprehensive Housing Affordability Strategy Data
16. Eviction Lab
17. Feeding America Map the Meal Gap
18. University of Michigan, Institute for Social Research
19. NCI Division of Cancer Control and Population Sciences
20. USDA Economic Research Service
21. UC Berkeley Labor Center

National

2010 | Census Tracts

View data as a scatterplot summary





Environmental Justice Index

Ranking from 0 to 1, with 1 corresponding to higher environmental burdens and social/health vulnerability

CDC/ATSDR Environmental Justice Index, 2014-2018

Climate

Disability AVG **12.7%**

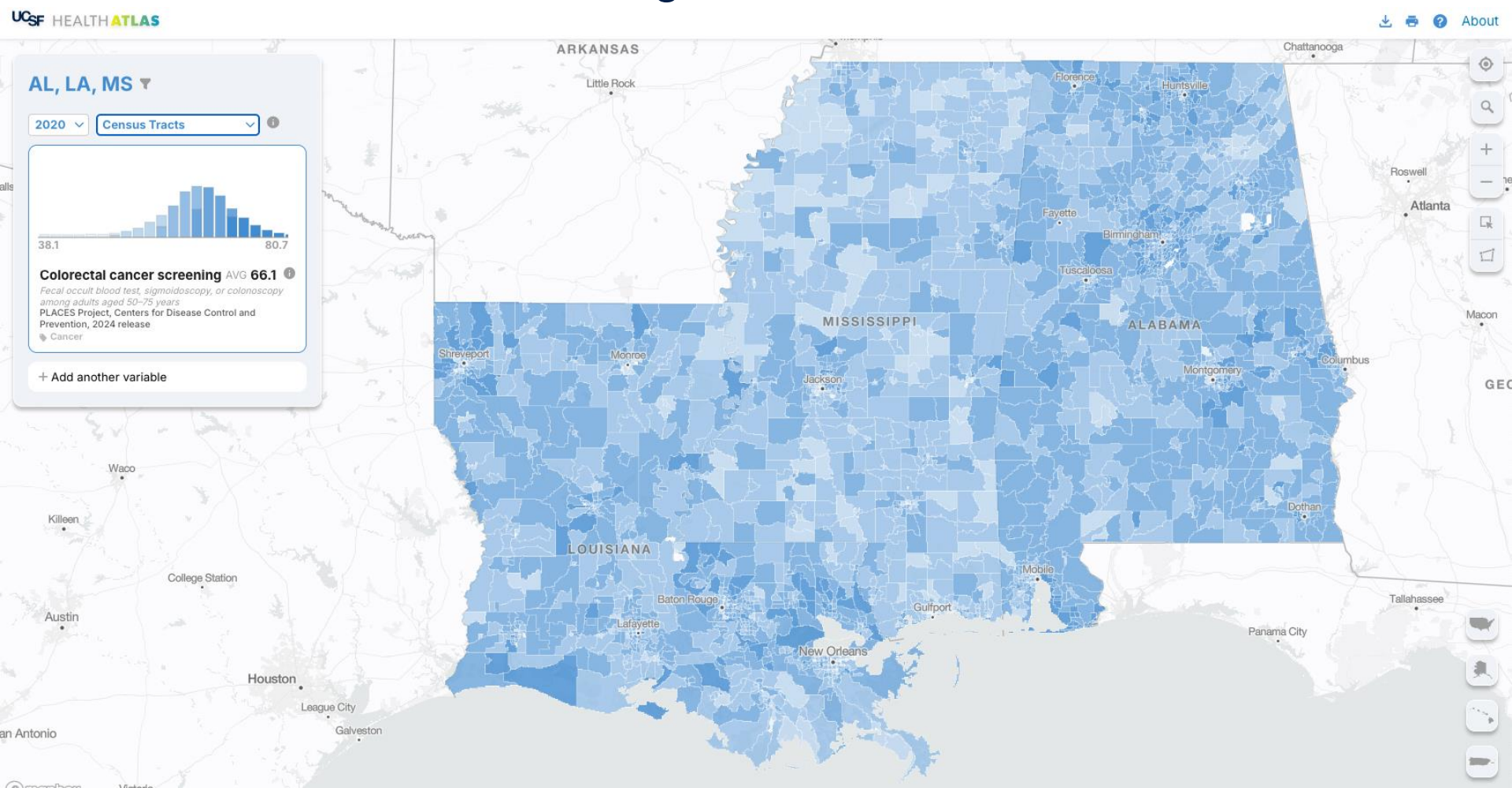
Percent of total population with a disability

American Community Survey 5-Year Estimates, 2015-2019

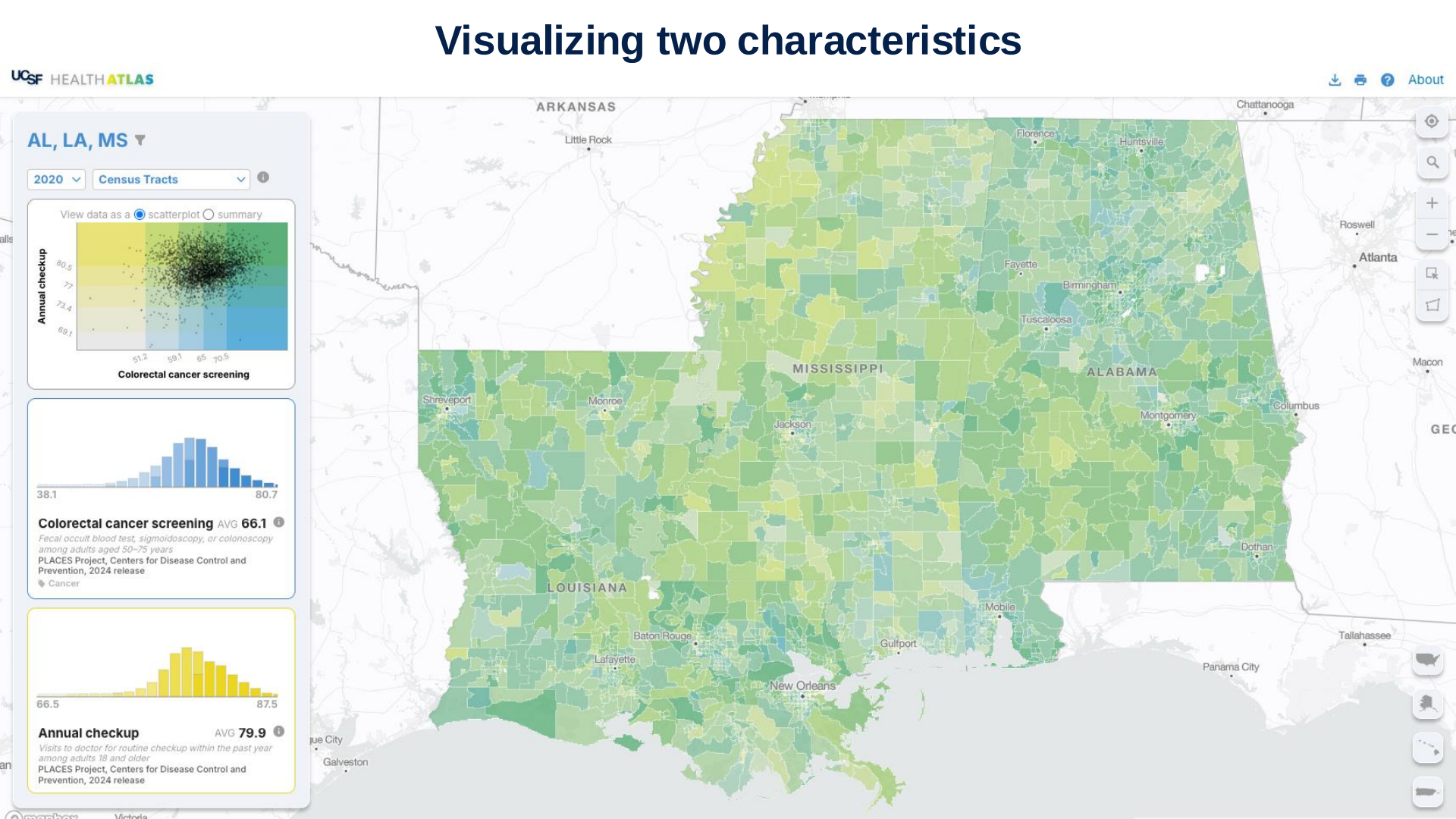
mapbox

Stamen Design | © Mapbox © OpenStreetMap **Improve this map**

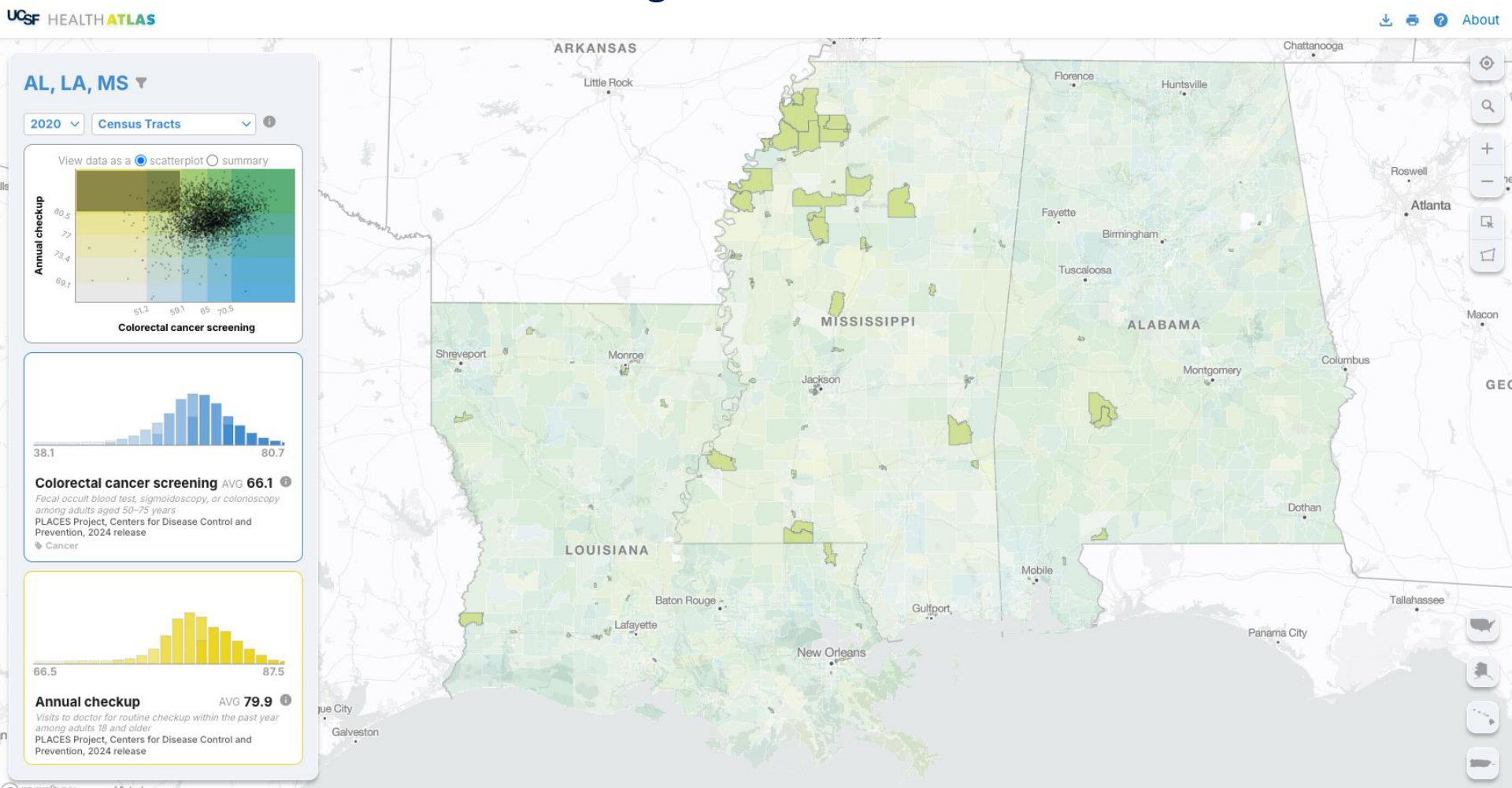
Visualizing one characteristic



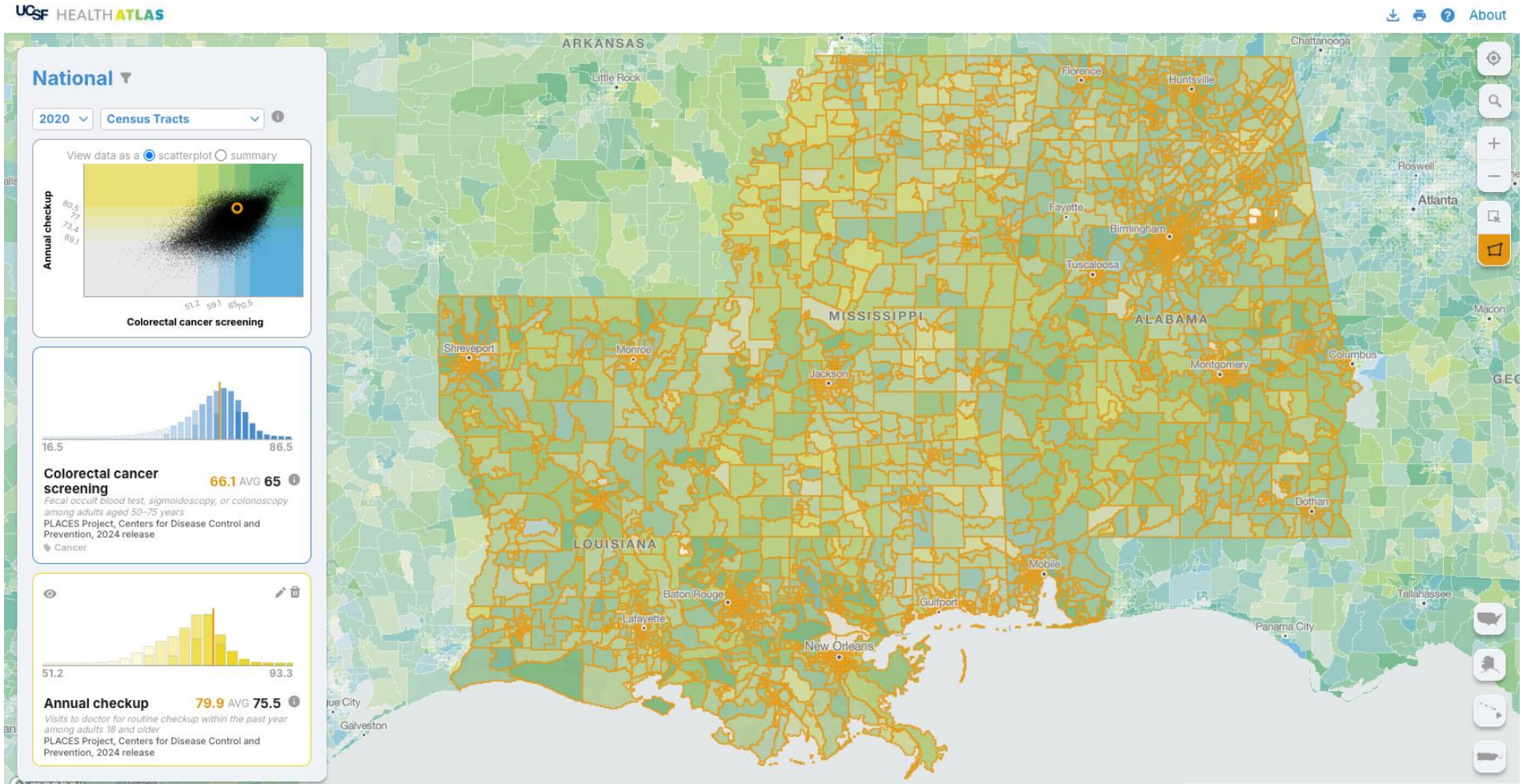
Visualizing two characteristics



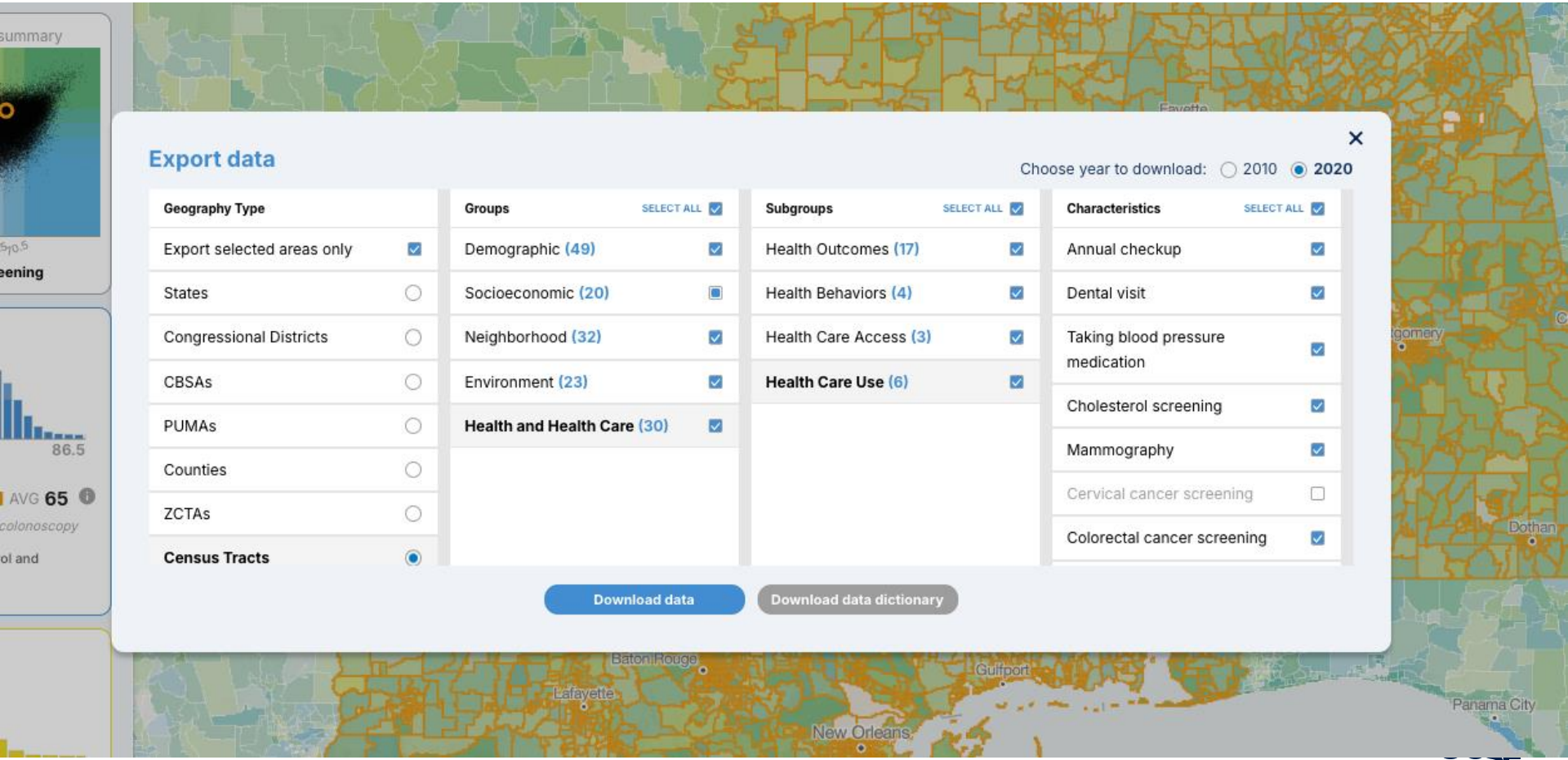
Visualizing two characteristics



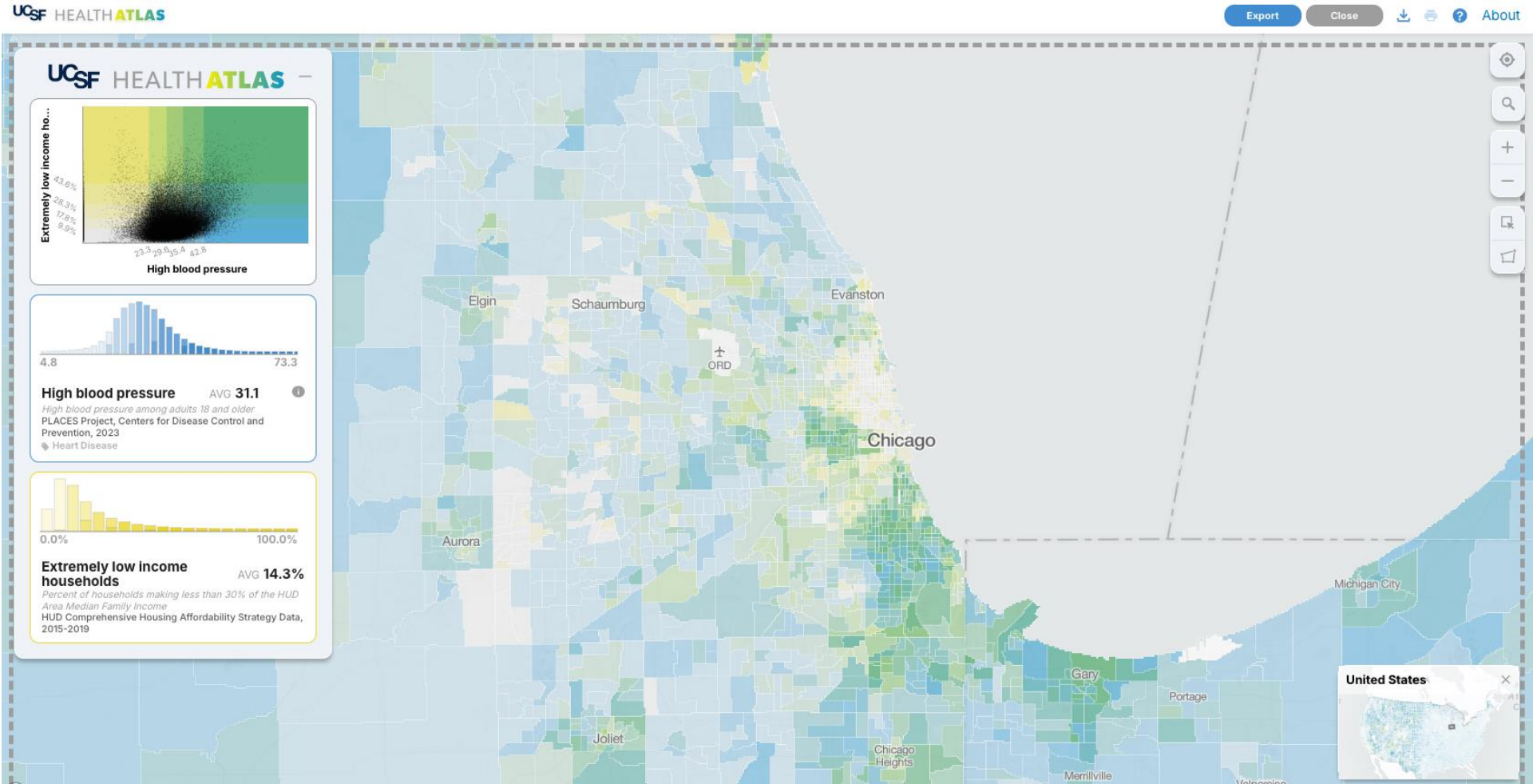
Select an area



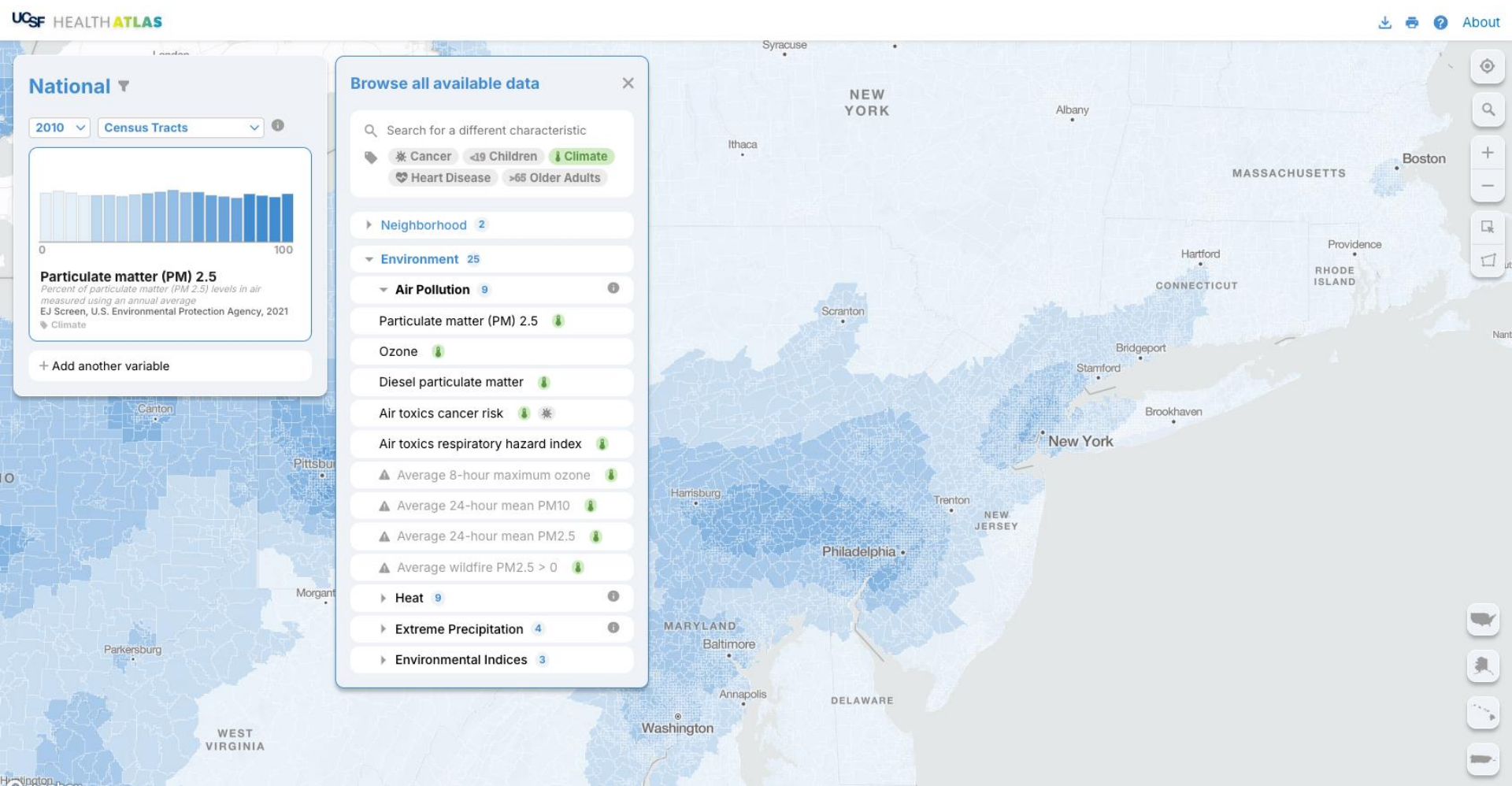
Exporting data



Exporting maps



Tags


UCSF HEALTHATLAS
About
National
2010
Census Tracts
0
100
Particulate matter (PM) 2.5
Percent of particulate matter (PM 2.5) levels in air measured using an annual average
EJ Screen, U.S. Environmental Protection Agency, 2021
Climate
+ Add another variable
Browse all available data
Search for a different characteristic
Cancer
<19 Children
Climate
Heart Disease
>65 Older Adults
Neighborhood 2
Environment 25
Air Pollution 9
Particulate matter (PM) 2.5
Ozone
Diesel particulate matter
Air toxics cancer risk
Air toxics respiratory hazard index
Average 8-hour maximum ozone
Average 24-hour mean PM10
Average 24-hour mean PM2.5
Average wildfire PM2.5 > 0
Heat 9
Extreme Precipitation 4
Environmental Indices 3
Syracuse
NEW YORK
Albany
Ithaca
Boston
MASSACHUSETTS
Providence
Hartford
RHODE ISLAND
CONNECTICUT
Scranton
Bridgeport
Stamford
Brookhaven
New York
Harrisburg
Trenton
NEW JERSEY
Philadelphia
Canton
Morgant
Parkersburg
MARYLAND
Baltimore
Annapolis
DELAWARE
Washington
WEST VIRGINIA

Demographic Data

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Age

- % Under 5 years old
- % Under 18 years old
- % 18-39 years old
- % 40-64 years old
- % 18-64 years old
- % Over 65 years old

Sex

- % Female
- % Male

Race and Ethnicity

- **% Asian American**
- **% Asian American (Non-Hispanic)**
- **% American Indian or Alaska Native**
- **% Black**
- **% Black (Non-Hispanic)**
- **% Hispanic or Latino**
- **% Native Hawaiian or Other Pacific Islander**
- **% White (Non-Hispanic)**
- **% Multiracial**
- **% Middle Eastern or North African**
- **% Central American**
- **% South American**
- **% East Asian**
- **% South Asian**
- **% Southeast Asian**
- **% Central Asian**
- % Asian Indian
- % Chinese
- % Colombian
- % Cuban
- % Dominican
- % English
- % Filipino
- % French
- % German
- % Guatemalan
- % Haitian
- % Honduran
- % Irish
- % Italian
- % Jamaican
- % Japanese
- % Korean
- % Mexican
- % Norwegian
- % Polish
- % Puerto Rican
- % Salvadorian
- % Scottish
- % Spanish or Spaniard
- % Vietnamese

Socioeconomic Data

UCSF HEALTH ATLAS

Socioeconomic Indices

- Neighborhood Deprivation Index
- Yost neighborhood socioeconomic status
- Social Vulnerability Index
- Childhood Opportunity Index
- Neighborhood socioeconomic status
- Healthy Places Index

Poverty and Income

- Poverty among all individuals
- Poverty among individuals under 18
- Poverty among individuals over 65
- Poverty among all families
- Poverty among all families with children under 5
- Median income
- Extremely low-income households
- Persistent poverty
- SNAP benefits
- Worker earning low wages by place of residence
- Workers earning low wages by place of work

Income Inequality

- Gini Index of Income Inequaltiy
- Gender pay gap

Employment

- Unemployed

Education

- Less than high school
- Some college or more
- Bachelors or higher
- Preschool enrollment

Digital Access

- Households with no computer
- Households with no broadband internet

Neighborhood Data

- Total population

Households

- Households with children under 18
- Single Adult Households
- Seniors living alone

Language and Ethnic Enclaves

- Foreign born
- Limited English proficiency
- Speak language other than English at home
- East and Southeast Asian and Pacific Islander language speakers
- Spanish speakers
- Asian or Pacific Islander ethnic enclaves
- Hispanic ethnic enclaves

Housing

- Vacant housing units
- Owner occupied housing units
- Renter occupied housing units
- Overcrowding
- Severe mortgage burden
- Severe rent burden
- Severe rent burden among ELI households
- Median Rent
- Median home value
- Eviction filing rate
- Eviction rate

Neighborhood Data

UCSF HEALTH ATLAS

Built Environment

- Parks (green space)
- Food access
- Unhealthy retail food environment
- Lead paint
- Superfund proximity
- Risk management plan facility proximity
- Hazardous waste proximity
- Underground storage tanks
- Wastewater discharge

Segregation

- ICE income + race: NH White/Black
- ICE income + race: NH White/Hispanic
- ICE income + race: NH White/Asian
- Lex/Is: NH Asian/NH White
- Lex/Is: NH Black/NH White
- Lex/Is: Hispanic/NH White
- Location Quotient: Asian or Pacific Islander Alone
- Location Quotient: Black or African American Alone
- Location Quotient: Hispanic Alone
- Location Quotient: White Alone

Structural Racism

- Historical redlining

Rurality

- Rural/Urban
- People living in rural areas

Transit

- Public transit stops per capita
- Public transit stops per square mile
- Traffic proximity and volume
- No automobile access
- Street connectivity
- Limited transit access

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Environment

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Air Pollution

- PM 2.5
- Ozone
- Diesel particulate matter
- Air toxics cancer risk
- Air toxics respiratory hazard index
- Toxic releases to air
- Average 8-hour maximum ozone
- Average 24-hour mean PM10
- Average 24-hour mean PM2.5
- Average wildfire PM2.5 > 0

Heat

- Average maximum temperature
- Maximum maximum temperature
- Number of days that exceeded the 95th percentile for maximum temperature
- Number of days below the 5th percentile for maximum temperature
- Average minimum temperature
- Maximum minimum temperature
- Number of days that exceeded the 95th percentile for minimum temperature
- Number of days below the 5th percentile for minimum temperature
- Average heat index

Extreme Precipitation

- Average precipitation
- Maximum precipitation
- Number of days that exceeded the 95th percentile for precipitation
- Number of days that exceeded the 99th percentile for precipitation

Environmental Indices

- Environmental Justice Index
- Environmental Justice Burden
- Environmental Justice Index Social-Environmental
- Environmental Quality Index

Health and Healthcare Data

UCSF HEALTH ATLAS

Health Outcomes

- Disability
- Arthritis
- All cancers excluding skin
- Depression
- Poor self-rated health
- All teeth lost
- High blood pressure
- Asthma
- Coronary heart disease
- COPD
- Diabetes
- High cholesterol
- Chronic kidney disease
- Poor mental health
- Obesity
- Poor physical health
- Stroke
- Life expectancy at birth
- Seniors with disabilities

Health Care Access

- Uninsured
- Uninsured among under 19
- Enrolled in Medicaid

Healthcare Use

- Annual checkup
- Dental visit
- Taking BP medication
- Cholesterol screening
- Mammography
- Cervical cancer screening
- Colorectal cancer screening
- Preventive care (men)
- Preventive care (women)

Health Behaviors

- Binge drinking
- Current smoking
- Physical inactivity
- Sleep more than 7 hours

pophealth@ucsf.edu

- The project was initiated by UCSF Population Health and Health Equity and led by the Population Health Data Initiative. The UCSF development team includes Debby Oh, Kathryn Kemper, and Mindy Hebert-DeRouen.
- The website was developed together with Stamen Design and content was developed with expertise from the UCSF Department of Epidemiology and Biostatistics, UCSF DREAM Lab, and Plain Language Health.
- Initial project funding was provided by the UCSF School of Medicine Dean's Office under the leadership of Kirsten Bibbins-Domingo. Additional funding was provided by the UCSF Population Health Data Initiative, Health Equity Action Network (U24MD017250), UCSF EaRTH Center (P30ES030284), UC Center for Climate, Health and Equity, Temple University Center for Asian Health (R01 MD017521), and Smiles of Hope (R56DE032675).

Population Health and Health Equity UCSF · Stamen · DREAM LAB · UCSF Department of Epidemiology & Biostatistics

HEALTH EQUITY ACTION NETWORK · UCSF EaRTH Center Environmental Research and Translation for Health

UNIVERSITY OF CALIFORNIA Center for Climate, Health and Equity · Temple University Lewis Katz School of Medicine | Center for Asian Health