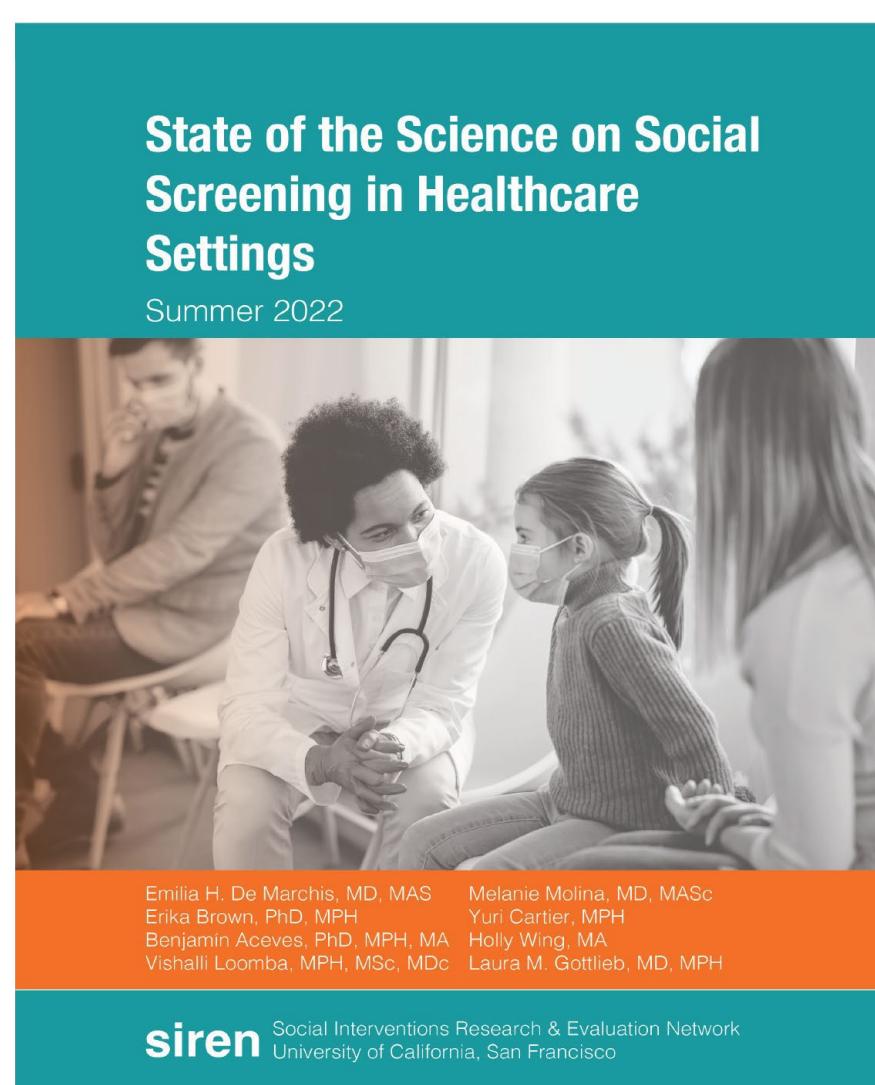


SOCIAL DETERMINANTS OF HEALTH (SDH) RESEARCH CORE

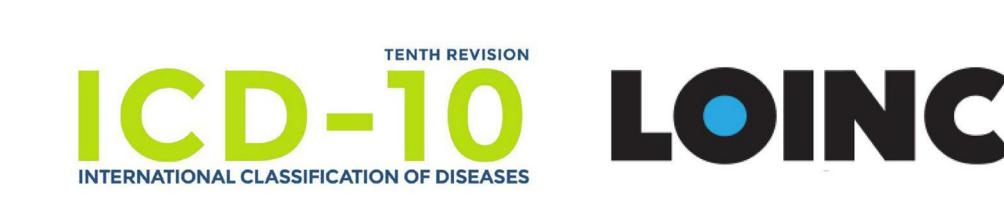
CONSULTATIONS

INDIVIDUAL-LEVEL SDH MEASURES

Income, Wealth, Employment, Education, Occupation, Food insecurity, Housing insecurity, Financial insecurity, Living conditions, Social support, Internet access, Family structure, Discrimination, Health literacy and numeracy, etc.



UAB SDH Toolkit



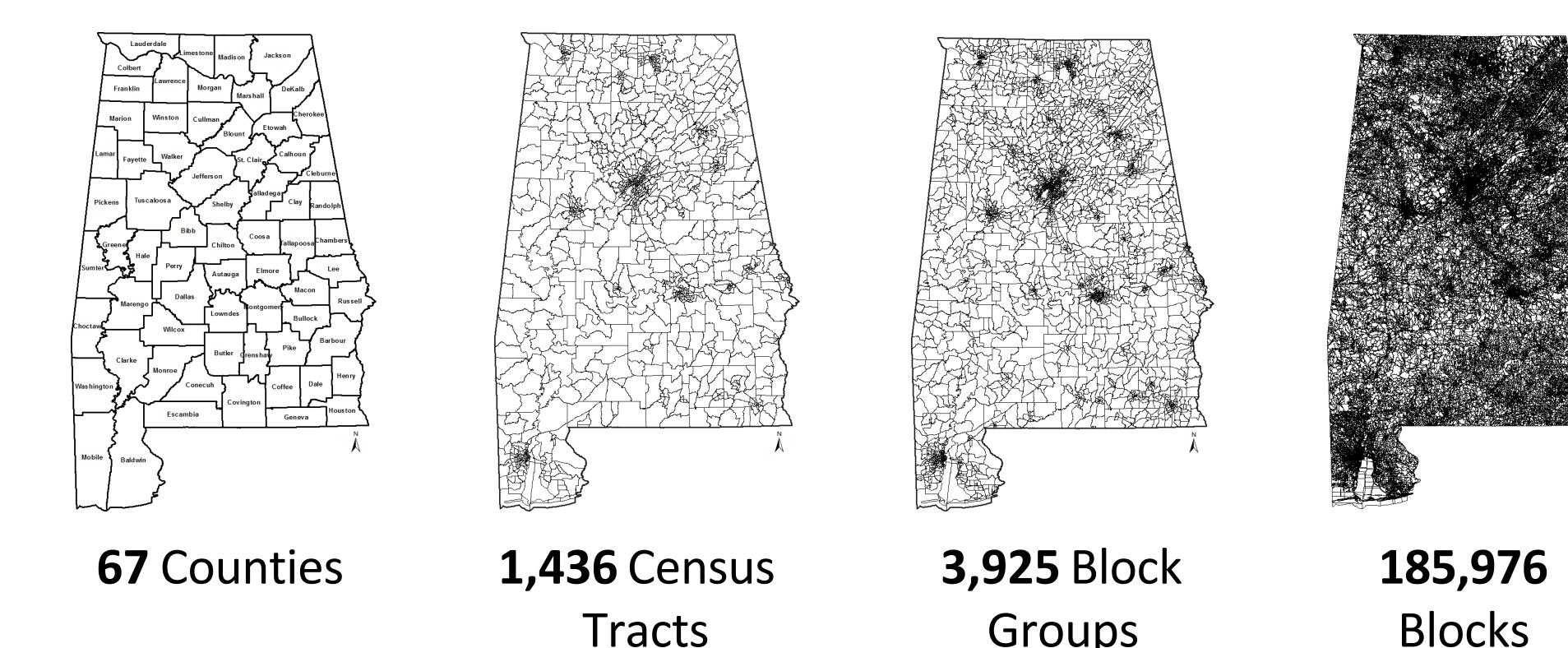
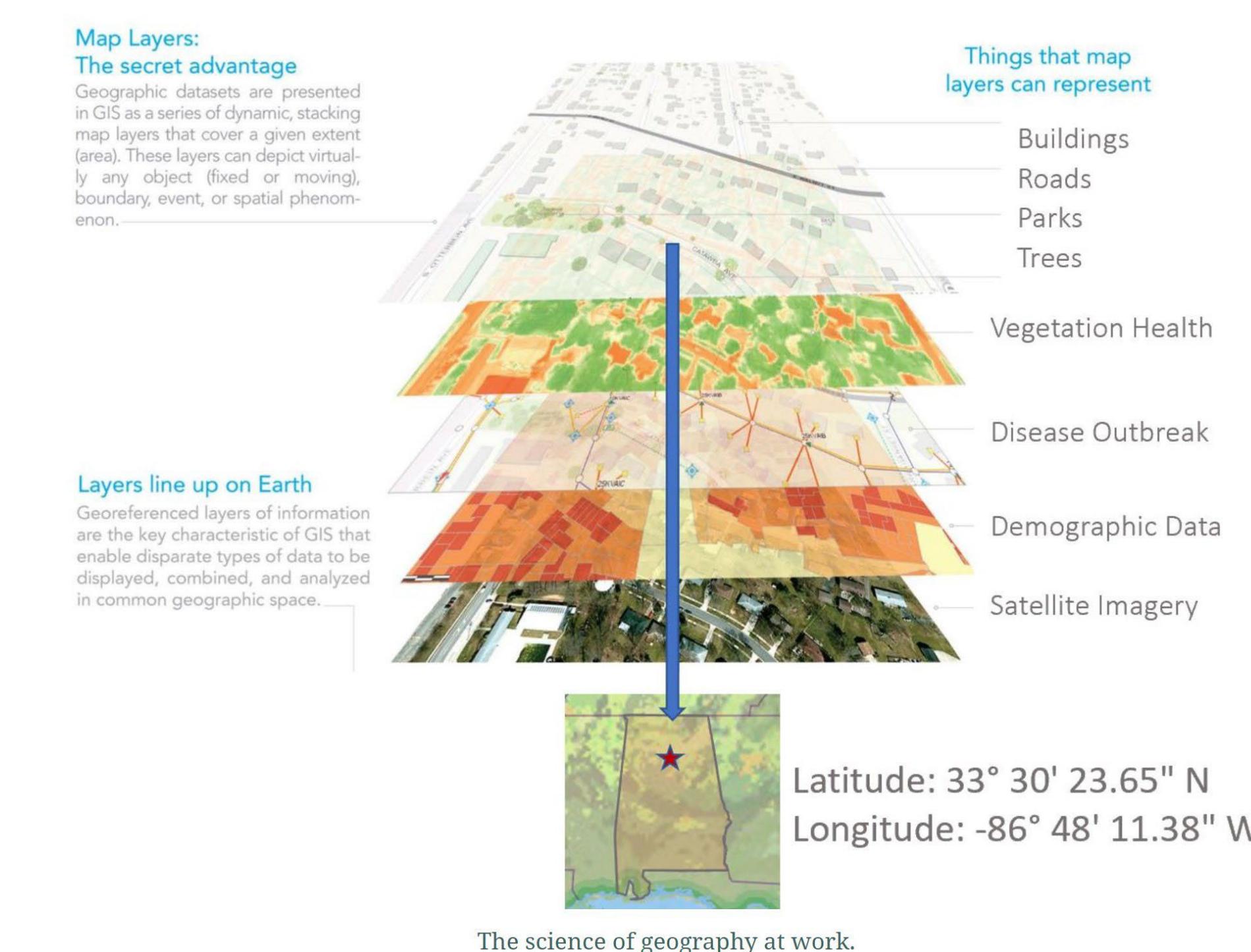
AREA-LEVEL SDH MEASURES

Area Deprivation Index, Social Vulnerability Index, Environmental Justice Index, Crime Risk Index, Walkability Index, Child Opportunity Index, Food Access, Rurality, Residential Segregation, Climate Vulnerability, Structural Racism, etc.

Environmental Justice Index		Overall Environmental Justice Rank
Racial / Ethnic Minority Status	Minority Status	
Poverty		
No High School Diploma		
Unemployment		
Housing Tenure		
Housing Burdened Lower-Income Households		
Lack of Health Insurance		
Lack of Broadband Access		
Age 65 and Older		
Age 17 and Younger		
Civilian with a Disability		
Speaks English "Less than Well"		
Group Quarters		
Mobile Homes		
Ozone		
PM2.5		
Diesel Particulate Matter		
Air Toxics Cancer Risk		
National Priority List Sites		
Toxic Release Inventory Sites		
Treatment, Storage, and Disposal Sites		
Risk Management Plan Sites		
Coal Mines		
Lead Mines		
Recreational Parks		
Houses Built Pre-1980		
Walkability		
High-Volume Roads		
Railways		
Airports		
Impaired Surface Water		
Asthma*		
Cancer*		
High Blood Pressure*		
Diabetes*		
Poor Mental Health*		
Health Vulnerability	Pre-existing Chronic Disease Burden	

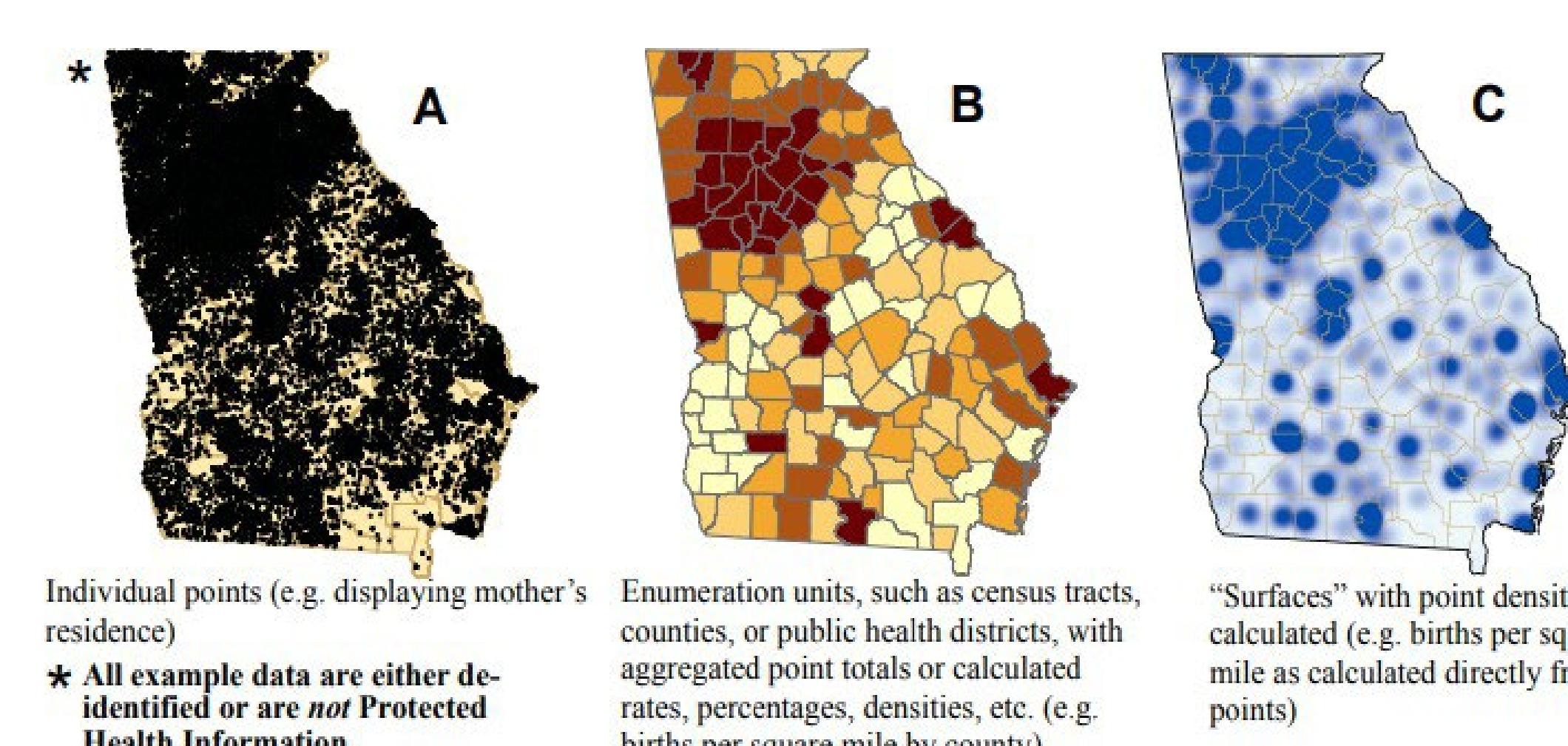
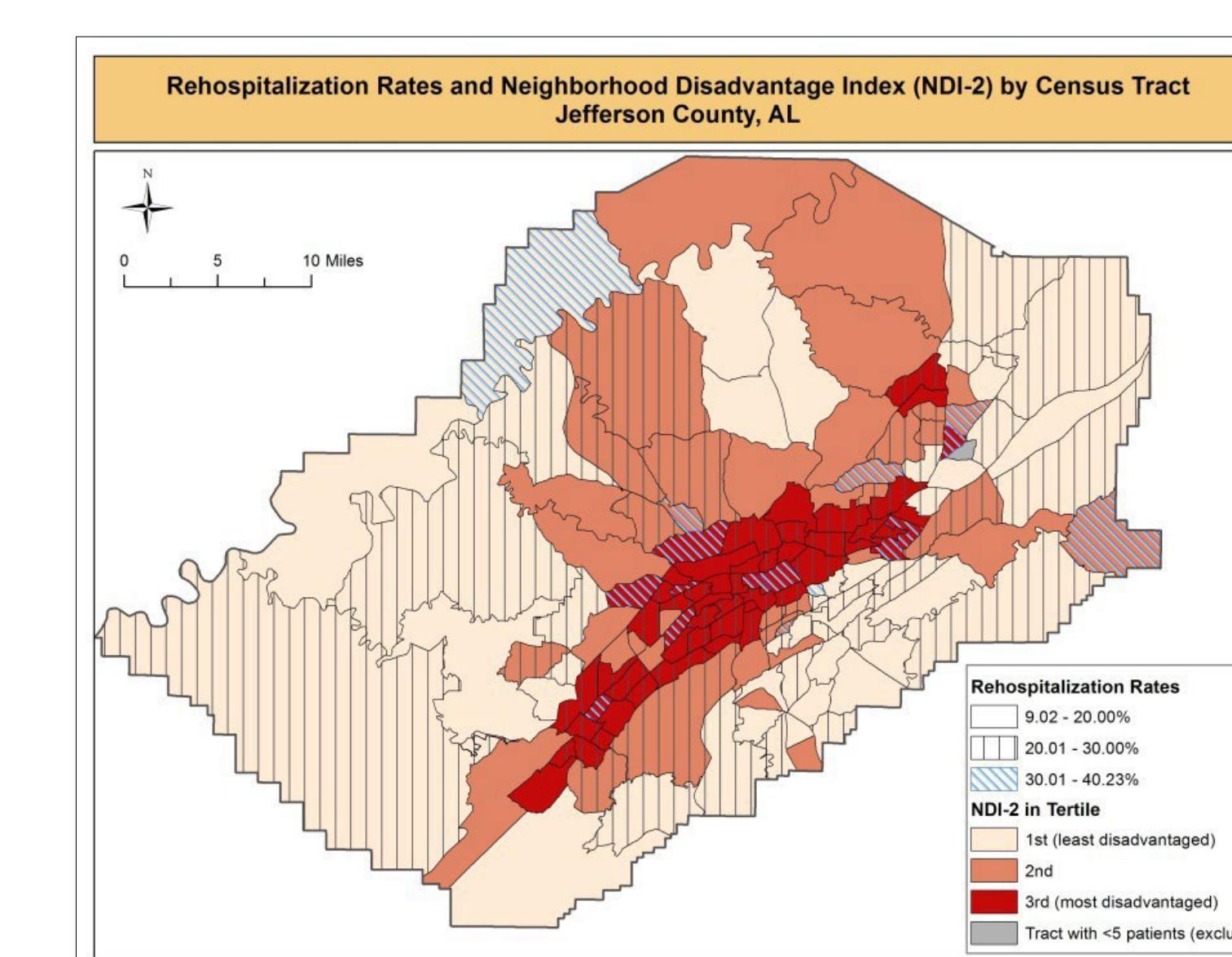


GEOCODING



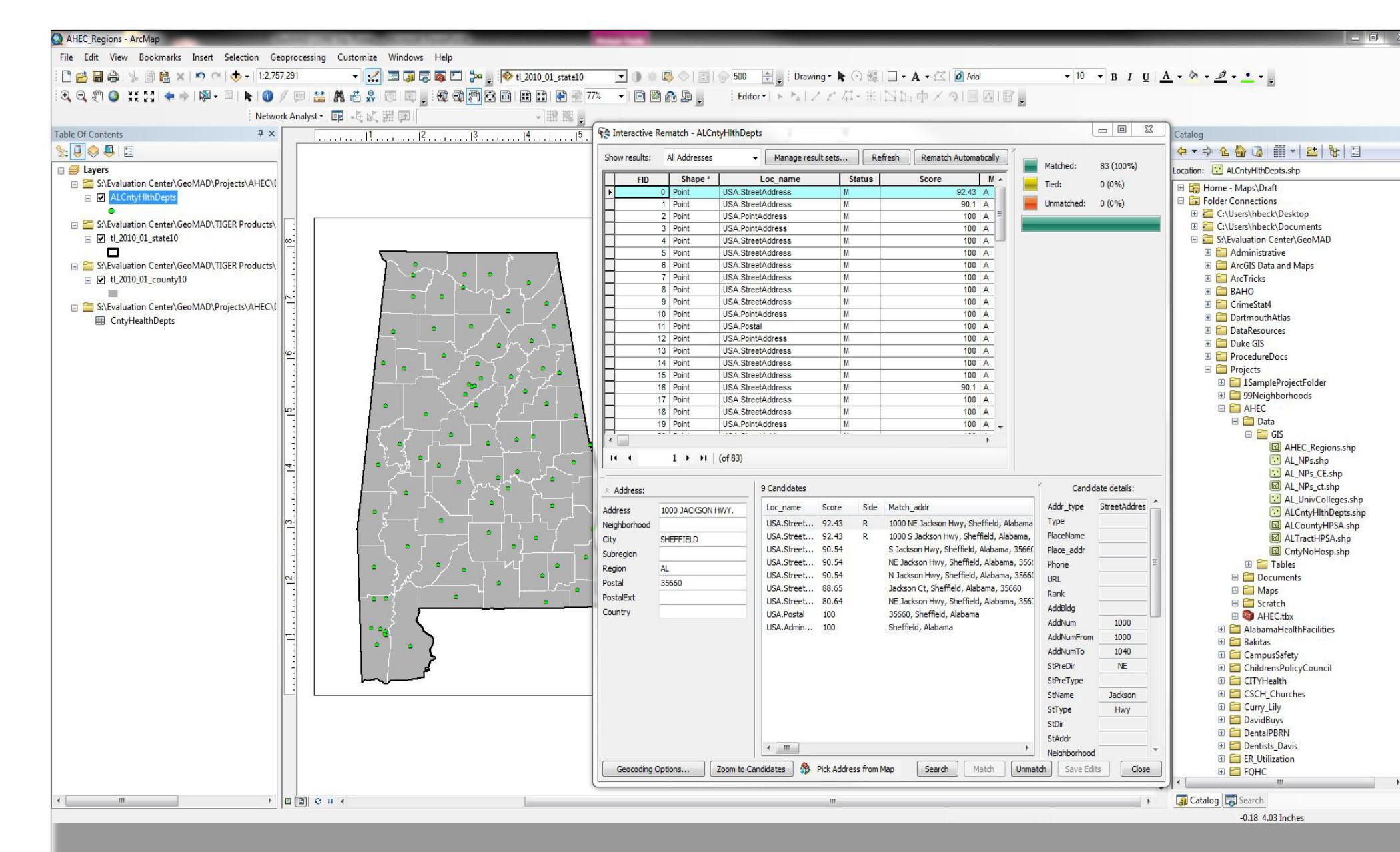
MAPPING

- Study area mapping
- Hot-spot analysis
- Driving distance
- Interactive mapping
- Mapping for study eligibility



DATA INTEGRATION

- Obtain geo-location based on residential address
- Using GIS software and StreetMap Premium, assign geo-identifiers (FIPS codes) to addresses
- Download SDH data for FIPS codes, link to patient data
- HIPAA compliant, accurate, minimal missingness

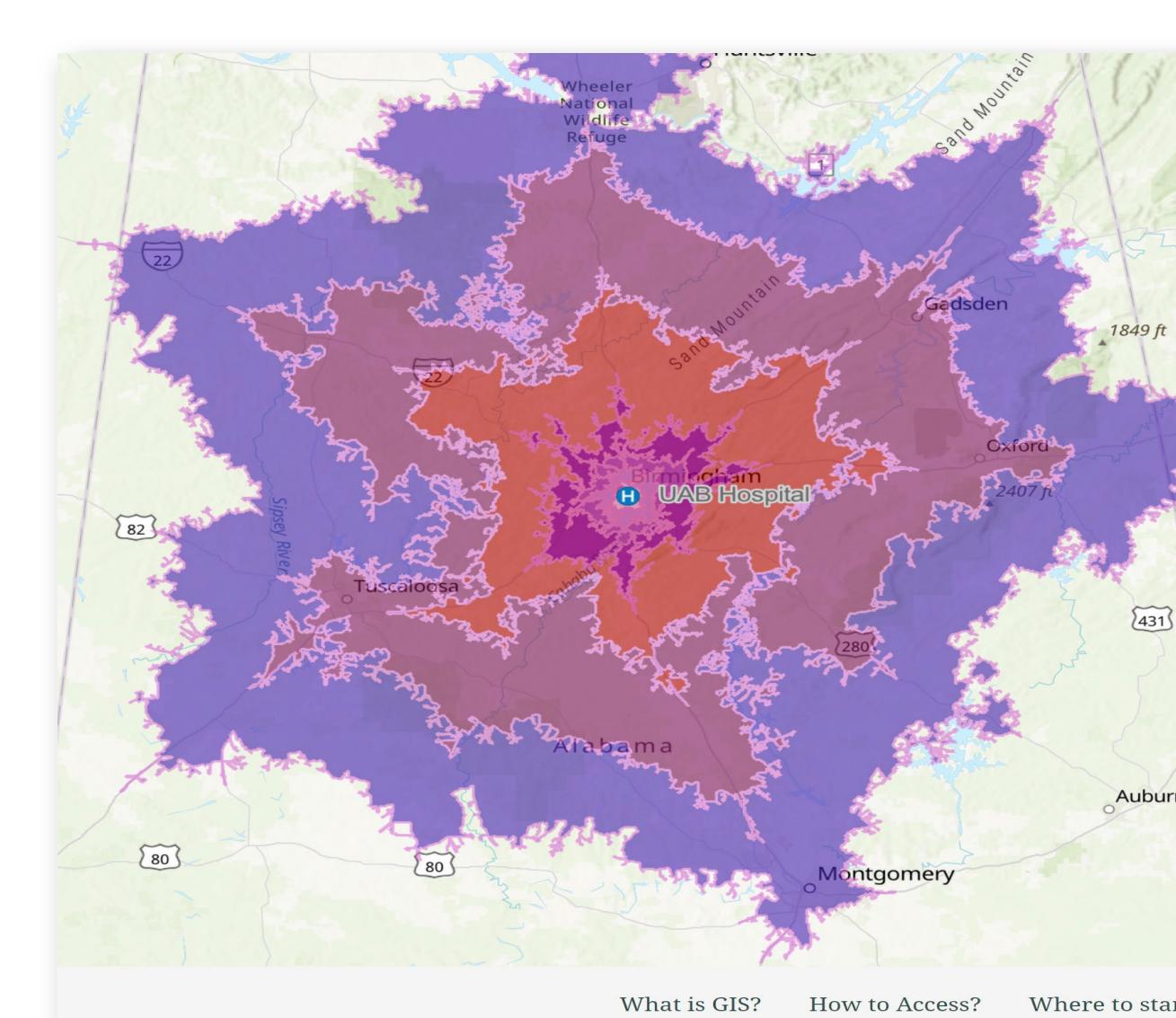


STATISTICAL ANALYSIS

- Statistical analysis and model development
- Generalized linear mixed models
- Generalized estimating equations
- Robust standard errors with regression

RESOURCES

- **SDH Core Toolkit**
 - Overview of 90+ SDH variables
 - Modules with validated instruments, primary documents, and cross-references to other SDH
- **Geospatial Research & Information Domain (GRID)**
 - License: Campus-wide Esri ArcGIS license
 - Access: ArcPro, ArcGIS Online, other Esri products, GIS Computer with StreetMap Premium
 - Training: Online learning modules



SERVICE REQUEST

WEBSITE:



CONTACT: SDHCore@uabmc.edu

DROP-IN CLINIC consultation:
Friday, 9:30 – 11 am (virtual)

DROP-IN CLINIC geocoding:
By appointment, 8:00 am – 4:00 pm (BDB 850N)

USER BASE

- 112 investigators
- 6 schools, 51 departments/divisions
- 51 grant collaborations

EXAMPLES OF PROJECTS

- **Ritu Aneja, PhD:** Distinct tumor-promoting multicellular niches and immuno-suppressive mechanisms in Black and White patients with TNBC
- **Smita Bhatia, MD:** Predicting key adverse outcomes in blood or marrow transplant survivors
- **Elizabeth Brown, PhD:** Role of disadvantage, mutographs and T Cell immunity on MGUS in African Americans
- **Stephen Clarkson, MD:** Social vulnerability and hospitalizations for heart failure
- **Miranda Curtiss, MD:** Natural history of ABPA treated with biologics for uncontrolled severe persistent asthma
- **Maria Danila, MD:** Gout care follow-up after an emergency department visit for gout
- **Brad Fancher, MD:** Residential green space and hospital admissions in allergic vs non-allergic asthma patients
- **Mackenzie Fowler, PhD:** Association between food access and frailty among older adults with GI cancer
- **Jeffrey Lebansburger, MD:** Association of area deprivation with chronic kidney disease in pediatric sickle cell anemia
- **Javier Neyra, MD:** Neighborhood social determinants of health and acute kidney injury during hospitalization
- **Aman Wadhwa, MD:** Individual- and area-level socioeconomic disadvantage and risk of death due to chronic health conditions among autologous blood or marrow transplantation survivors for lymphoma

CORE TEAM

