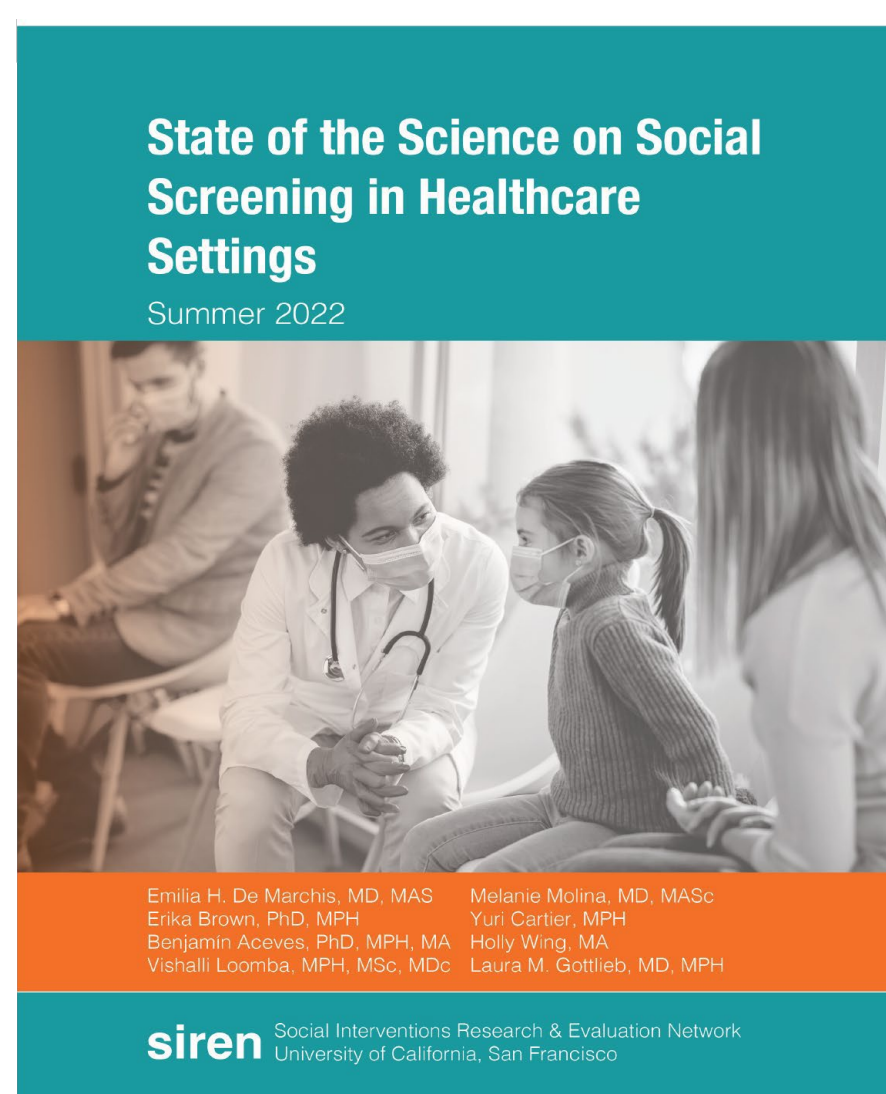


THE SOCIAL DETERMINANTS OF HEALTH (SDH) CORE

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



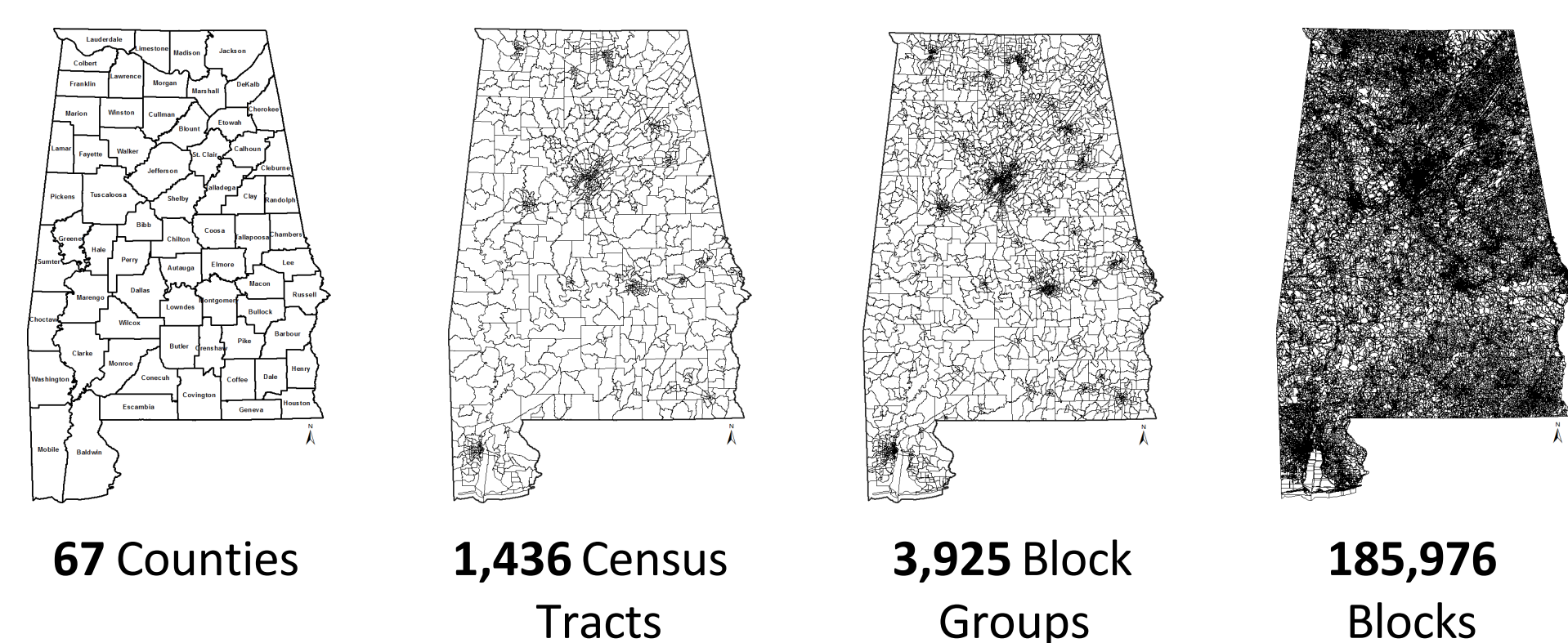
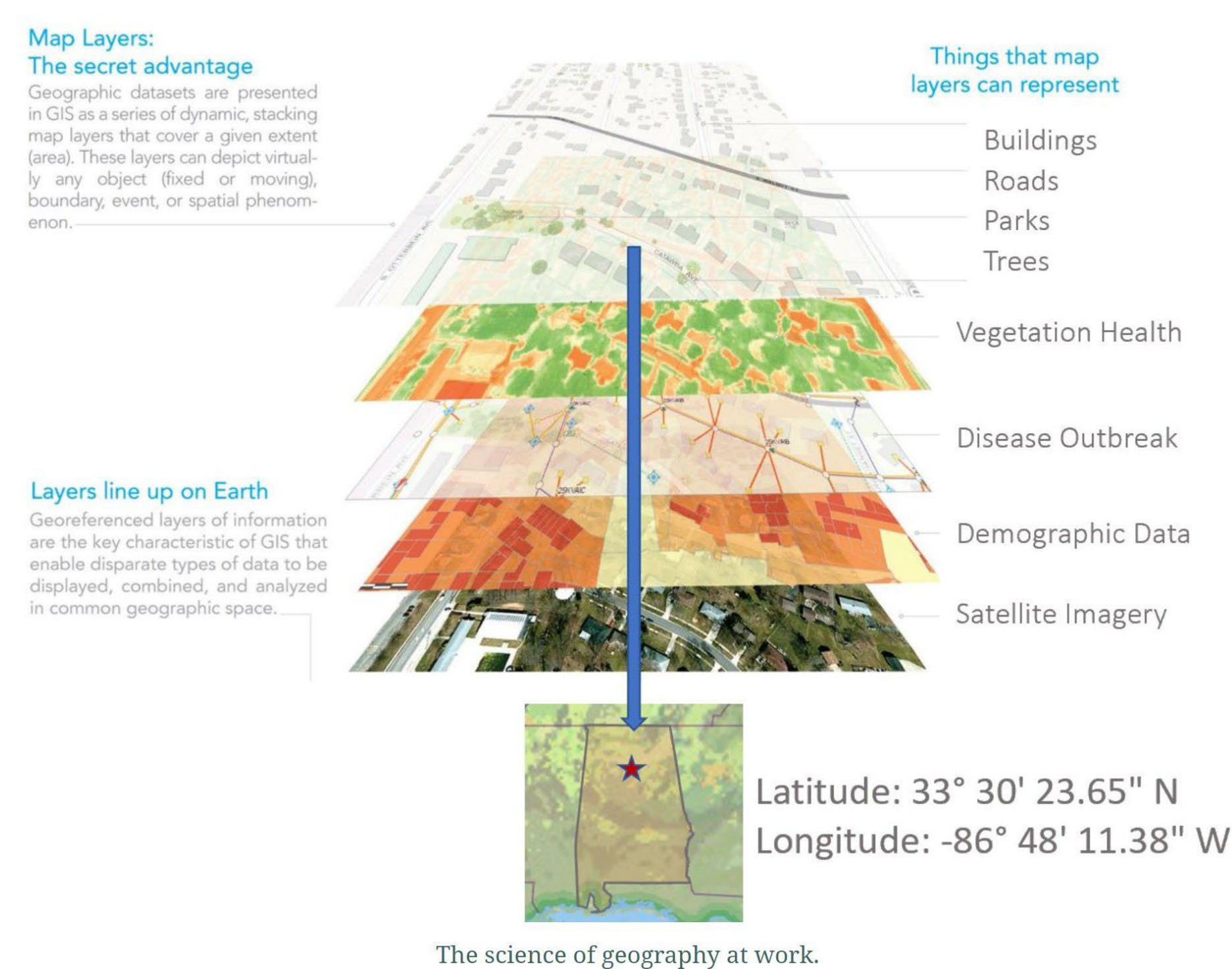
AREA-LEVEL SDH MEASURES

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

Overall Environmental Justice Rank		Social Vulnerability Index		Area Deprivation Index (ADI)	
Social Vulnerability	Racial/Ethnic Minority Status	Minority Status	Below 150% Poverty	1	% aged ≥25 y with <9 years of education
	Socioeconomic Status	Poverty	Unemployed	2	% aged ≥25 y with at least high school diploma
	Household Characteristics	No High School Diploma	Housing Cost Burden	3	% employed in white-collar occupations
Environmental Burden	Household Characteristics	Unemployment	No Health Insurance	4	Median family income, \$
	Housing Type	Housing Burdened Lower-income Households	Age 65 & Older	5	Income disparity
	Health Vulnerability	Lack of Health Insurance	Age 17 & Younger	6	Median home value, \$
Health Vulnerability	Air Pollution	Lack of Broadband Access	Chronic with a Disability	7	Median gross rent, \$
	Potentially Hazardous & Toxic Sites	Age 65 and Older	Single-Parent Households	8	Median monthly mortgage, \$
	Built Environment	Age 17 and Younger	English Language Proficiency	9	% owner-occupied housing units
Health Vulnerability	Transportation Infrastructure	Civilian with a Disability	Multi-Unit Structures	10	% unemployed
	Water Pollution	Speaks English "Less than Well"	Mobile Homes	11	% families below FPL
	Pre-existing Chronic Disease Burden	Group Quarters	Crowding	12	% below 150% of the FPL
Health Vulnerability	Health Vulnerability	Mobile Homes	No Vehicle	13	% single-parent households with children
	Health Vulnerability	Group Quarters	Group Quarters	14	% households without a motor vehicle
	Health Vulnerability	Group Quarters	Group Quarters	15	% households without a telephone
Health Vulnerability	Health Vulnerability	Group Quarters	Group Quarters	16	% housing units w/out complete plumbing
	Health Vulnerability	Group Quarters	Group Quarters	17	% households with >1 person per room
	Health Vulnerability	Group Quarters	Group Quarters	17	% households with >1 person per room

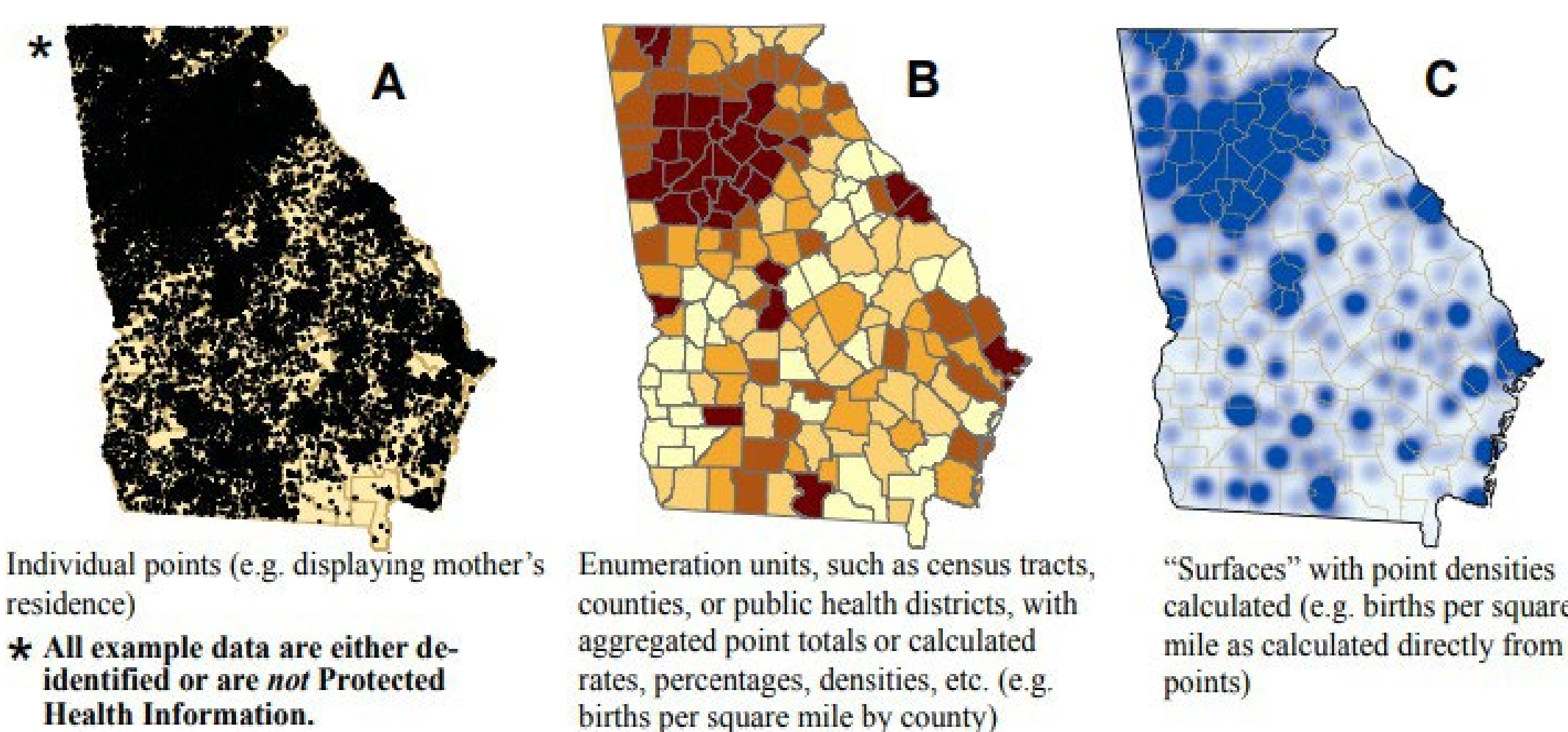
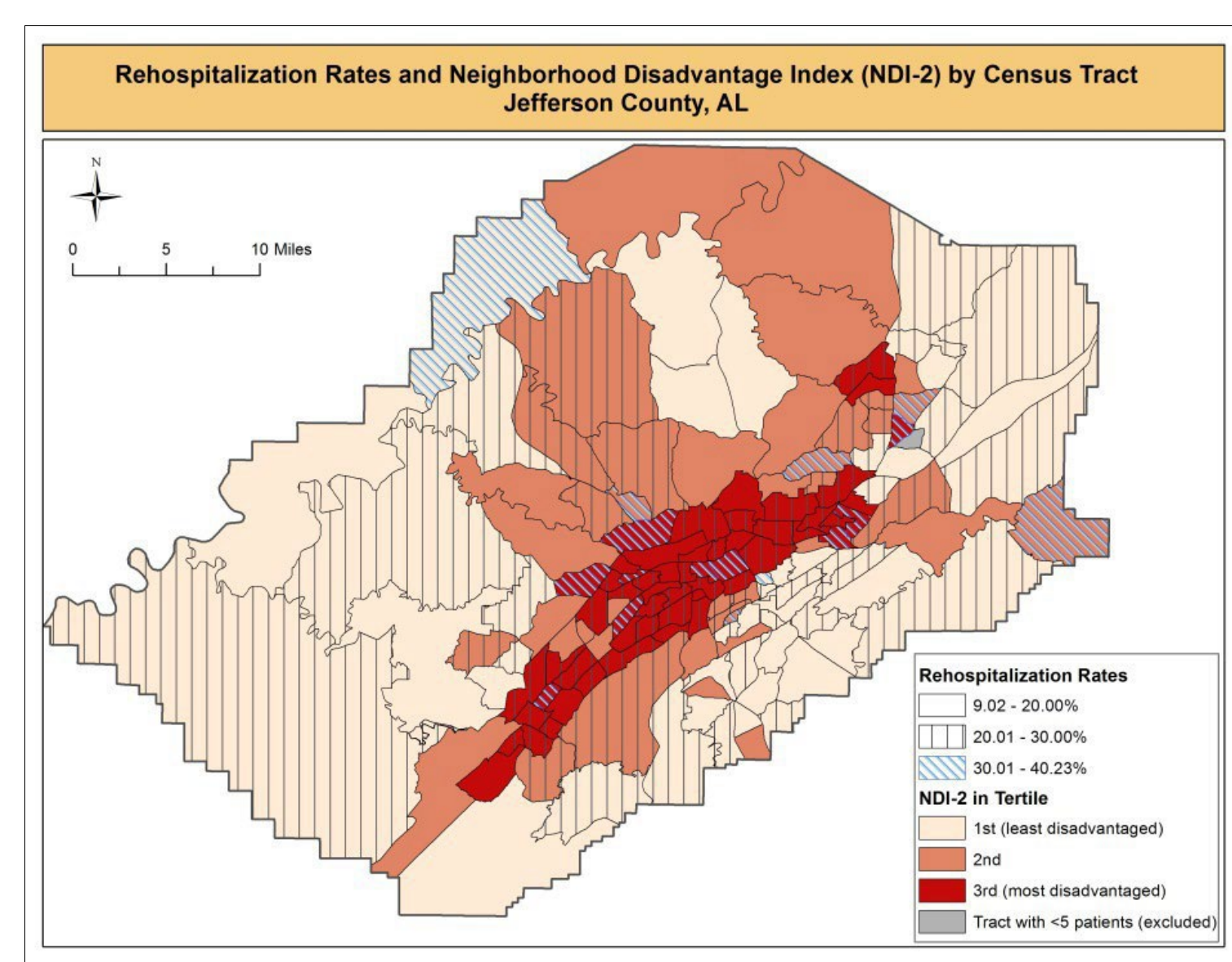


GEOCODING



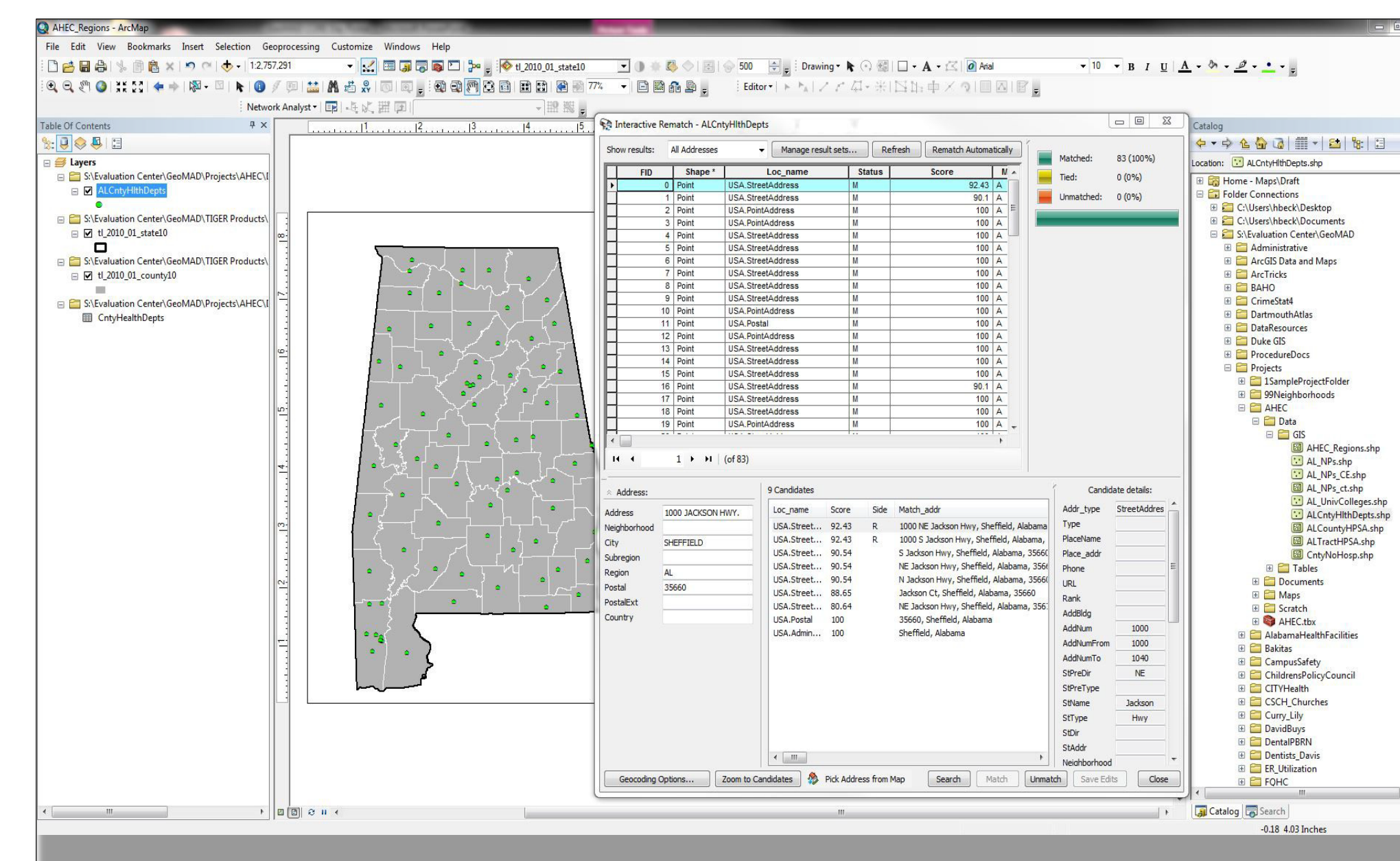
MAPPING

- Study area mapping
- Hot-spot analysis
- Driving distance
- Interactive mapping
- Mapping or publications
- Mapping for privacy



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, highly accurate

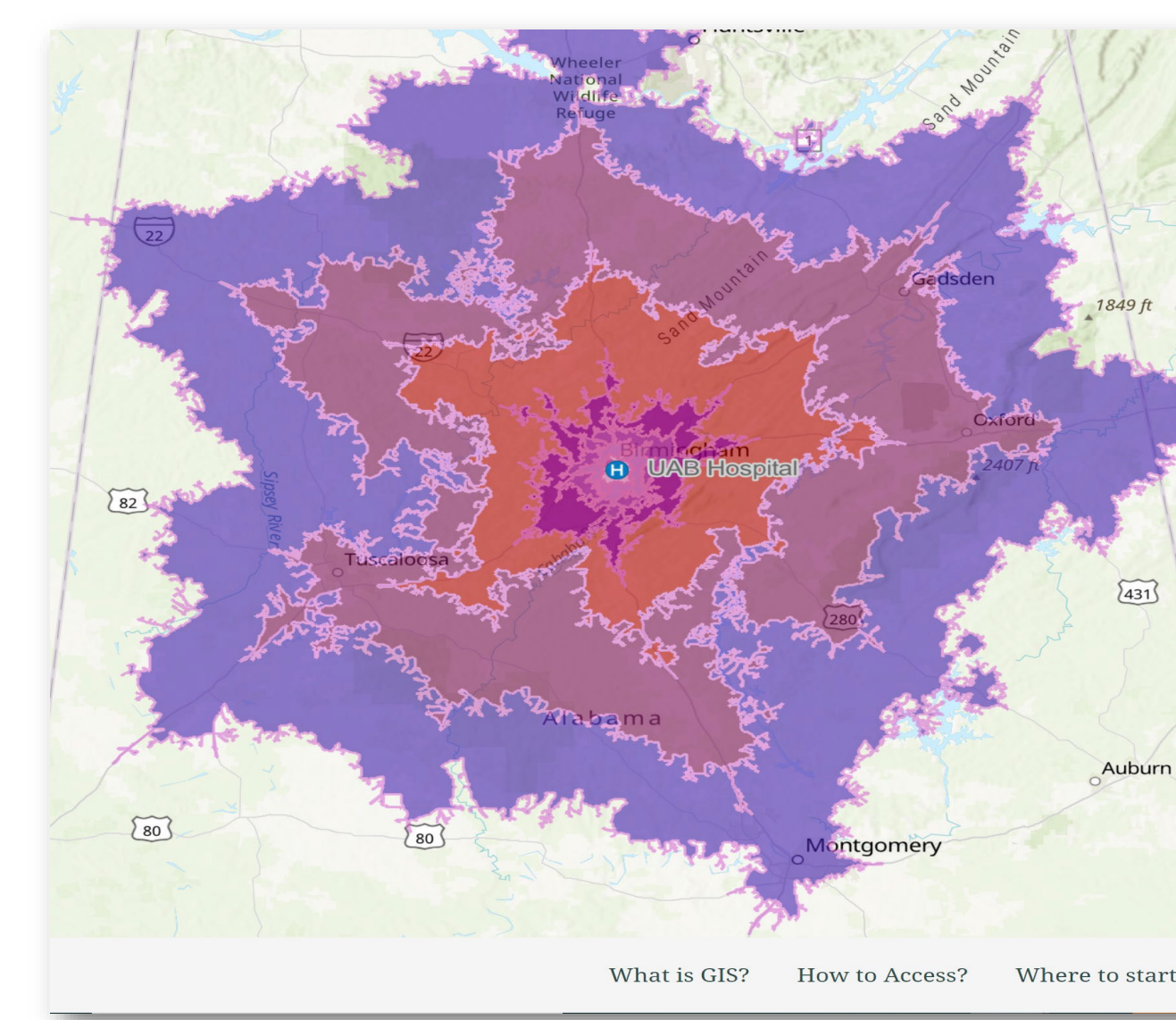


STATISTICAL ANALYSIS

- 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:
Tuesday, 8:00 am – 4:00 pm (BDB 863 & virtual)

USER BASE

- 95 investigators
- 5 schools, 44 departments/divisions
- 38 grant collaborations

EXAMPLES OF PROJECTS

- Brand Anding, MD:** Increased time to remission and higher risk of hospitalization in pediatric patients with IBD in socioeconomically vulnerable neighborhoods
- Smita Bhatia, MD:** Predicting key adverse outcomes in blood or marrow transplant survivors
- Ariel Carpenter, MD:** Risk of complicated pneumonia in children with higher deprivation and rurality
- Stephen Clarkson, MD:** Social vulnerability and hospitalizations for heart failure
- Rachael Cowan:** Association between neighborhood social vulnerability and melanoma stage at presentation
- Miranda Curtiss, MD:** Natural history of ABPA treated with biologics for uncontrolled severe persistent asthma
- Maria Danilla, 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
- Andrea Gillis, MD:** Identifying epigenetic mediators of racial disparities in pancreatic ductal adenocarcinoma
- 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

