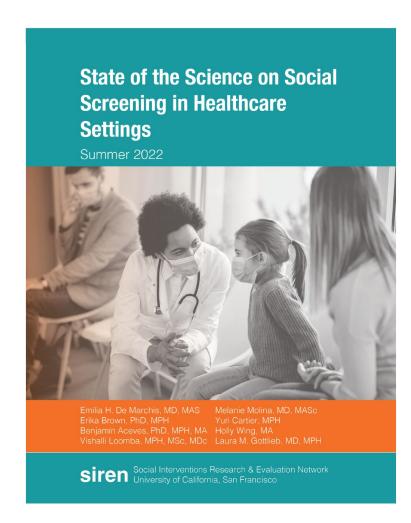
THE SOCIAL DETERMINANTS OF HEALH (SDH) CORE



CONSULTATIONS

INDIVIDUAL-LEVEL SDH MEASURES

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



MPhenX Toolkit

UAB 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 Justice, Structural Racism, etc.

Environmental Justice Index

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

Social Vulnerability Index

	Socioeconomic	Below 150% Poverty
		Unemployed
		Housing Cost Burden
=	Status	No High School Diploma
		No Health Insurance
<u></u>	Household Characteristics	Aged 65 & Older
<u></u>		Aged 17 & Younger
2		Civilian with a Disability
		Single-Parent Households
7		English Language Proficiency
Overall Vulnerability	Racial & Ethnic Minority Status	Hispanic or Latino (of any race) Black or African American, Not Hispanic or Latino Asian, Not Hispanic or Latino American Indian or Alaska Native, Not Hispanic or Latino Native Hawaiian or Pacific Islander, Not Hispanic or Latino Two or More Races, Not Hispanic or Latino Other Races, Not Hispanic or Latino
Ó		Multi-Unit Structures
	Housing Type 9	Mobile Homes
	Housing Type &	Crowding
	Transportation	No Vehicle
		Group Quarters

Area Deprivation Index (ADI) 1 % aged ≥25 y with <9 years of education 2 % aged ≥25 y with at least high school diploma 3 % employed in white-collar occupations 4 Median family income, \$ 5 Income disparity 6 Median home value, \$ 7 Median gross rent, \$ 8 Median monthly mortgage, \$		Transportation	Crowding No Vehicle Group Quarters		
 % aged ≥25 y with at least high school diploma % employed in white-collar occupations Median family income, \$ Income disparity Median home value, \$ Median gross rent, \$ Median monthly mortgage, \$ 		Area Deprivat			
 % employed in white-collar occupations Median family income, \$ Income disparity Median home value, \$ Median gross rent, \$ Median monthly mortgage, \$ 	1 '				
 Median family income, \$ Income disparity Median home value, \$ Median gross rent, \$ Median monthly mortgage, \$ 	2	% aged ≥25 y with at least high school diploma			
 5 Income disparity 6 Median home value, \$ 7 Median gross rent, \$ 8 Median monthly mortgage, \$ 	3	% employed in white-collar occupations			
6 Median home value, \$ 7 Median gross rent, \$ 8 Median monthly mortgage, \$	4	Median family income, \$			
7 Median gross rent, \$8 Median monthly mortgage, \$	5	Income disparity			
8 Median monthly mortgage, \$	6	Median home value, \$			
	7	Median gross rent, \$			
0 0/	8	Median monthly mortgage, \$			
9 % owner-occupied housing units	9				
10 % unemployed	10				
11 % families below FPL	11				
12 % below 150% of the FPL	12				
13 % single-parent households with children	13				
14 % households without a motor vehicle	14				
15 % households without a telephone	15				
16 % housing units w/out complete plumbing	16				

7 % households with >1 person per room

MPhenX Toolkit





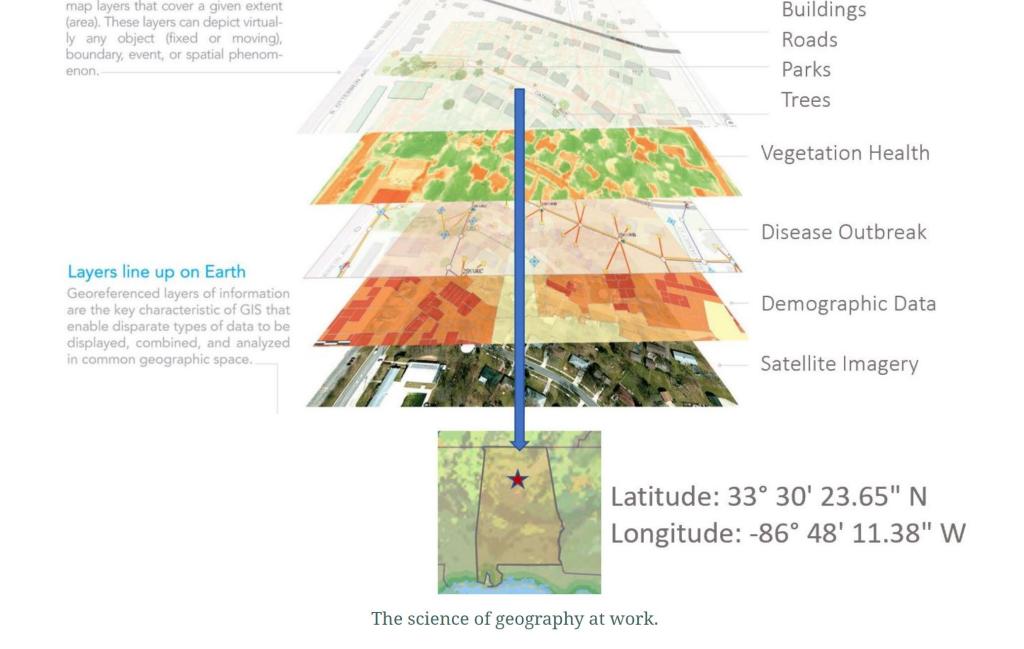




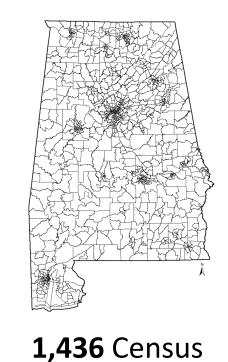


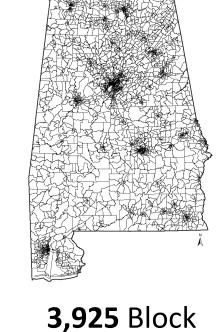


GEOCODING









Groups

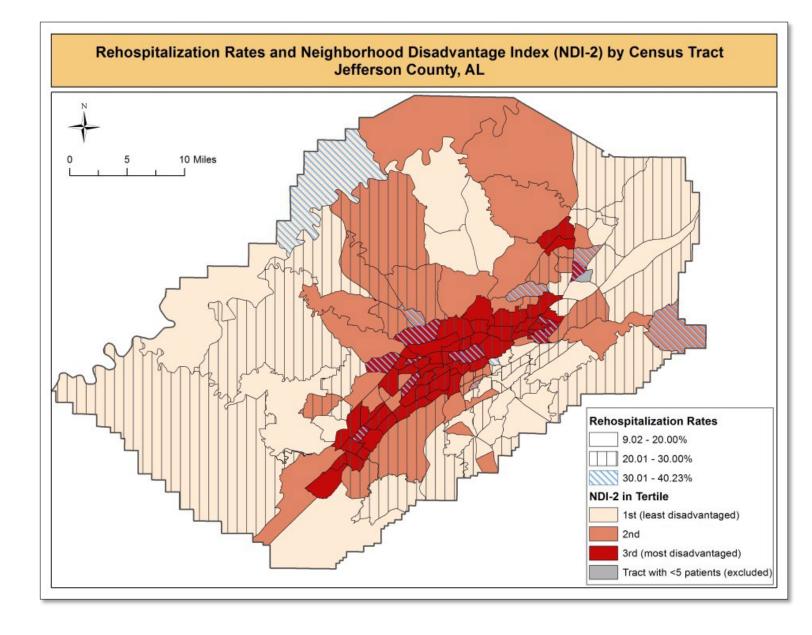


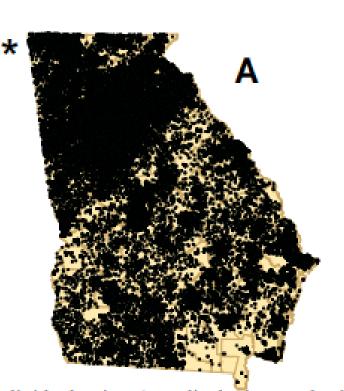
Things that map ayers can represent

185,976 **Blocks**

MAPPING

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

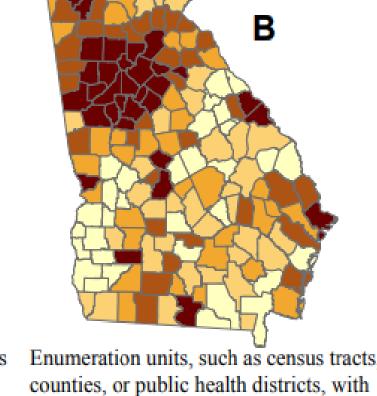




* All example data are either de-

Health Information.

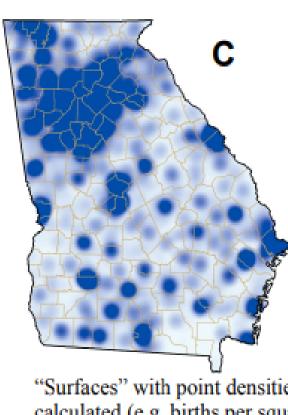
identified or are not Protected



aggregated point totals or calculated

rates, percentages, densities, etc. (e.g.

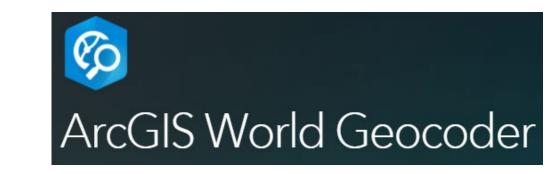
births per square mile by county)



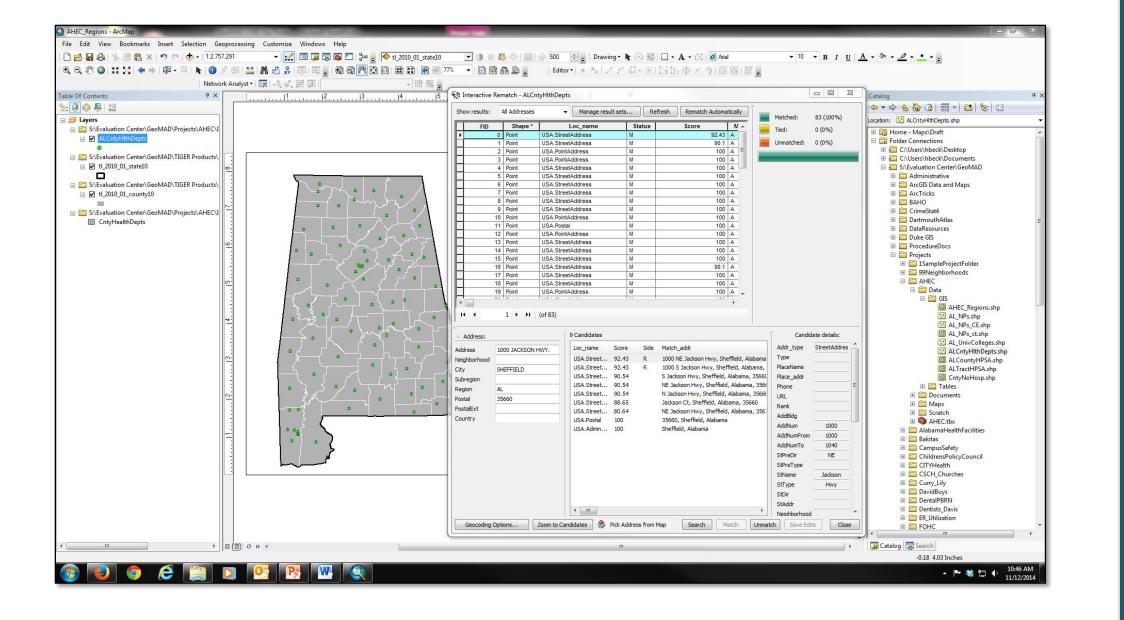
"Surfaces" with point densities calculated (e.g. births per square mile as calculated directly from

DATA INTEGRATION

- Obtain geolocation based on address
- Using GIS software, assign a geo-identifier (FIPS code) to each address
- Download SDH data for FIPS codes
- Link SDH data to patient data



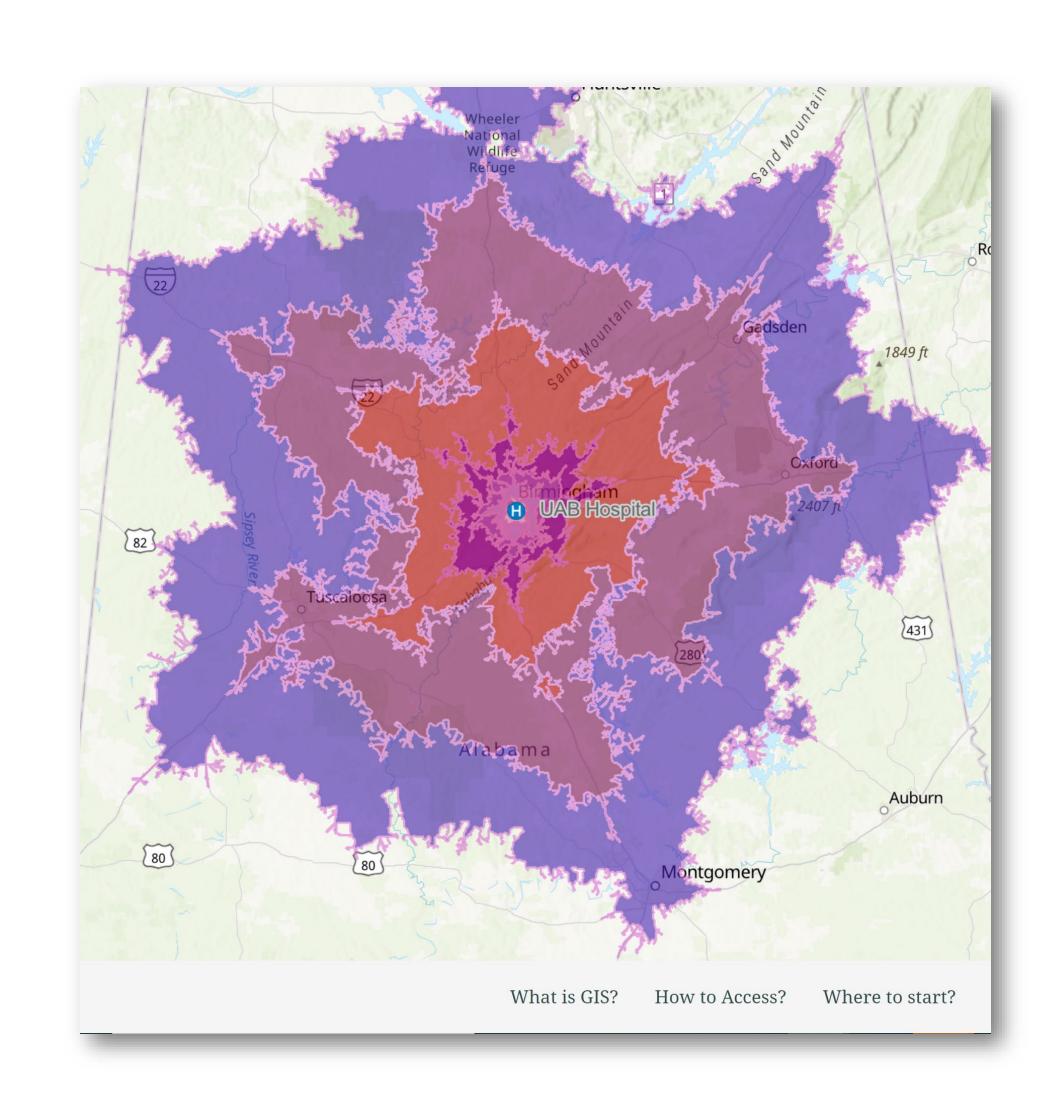
- HIPAA compliant
- Highly accurate



RESOURCES

Geospatial Research and Information Domain (GRID)

- License: Free Site License for Esri ArcGIS
- Access: ArcPro, ArcGIS Online, other Esri desktop, mobile, and cloud-based technology
- Training: Online learning modules



STATISTICAL ANALYSIS

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

SERVICE REQUEST

WEBSITE:

www.uab.edu/medicine/mherc/research/ research-cores/social-determinants-health-core

CONTACT: SDHCore@uabmc.edu

DROP-IN CLINICS:

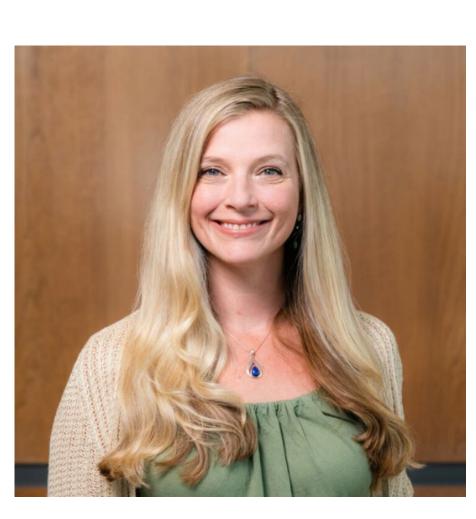
BDB 826

Monday, 10 am-12pm; Friday, 9:30-11am

CORE TEAM



Gabriela Oates, PhD Director



Elizabeth Baker, PhD Co-Director



Ariann Nassel, MA Geospatial Scientist



Lucia Juarez, PhD Data Analyst