

WHAT IS GeoMAD?

The Geospatial Mapping, Analysis, and Data (GeoMAD) Unit is a service unit developed by the UAB Center for the Study of Community Health.

GeoMAD has a core staff of Geographic Information Systems (GIS) professionals that specializes in geospatial data management, spatial analysis, cartography, and data visualization.

Recent work has included, but is not limited to, the following topics:

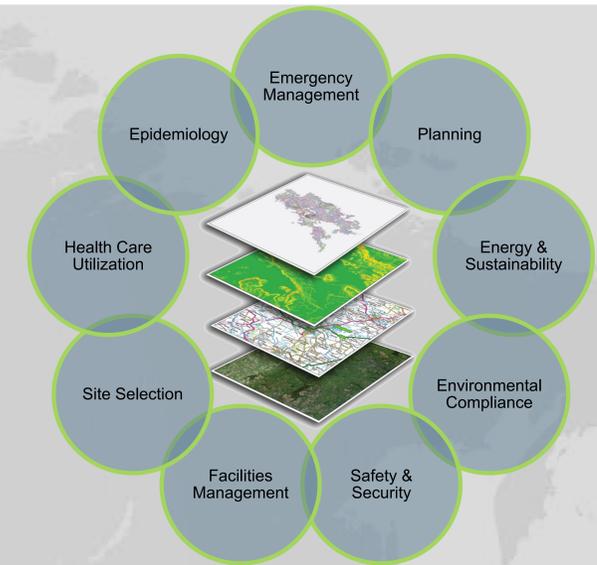
- Epidemiology
- Environmental health
- Crime incidence and perceptions of safety
- Health disparities
- Built environment, walkability, and obesity

WHAT IS GIS?

GIS is a data management system that allows us to store, visualize, analyze, and interpret any data that has a geographic attribute.

GeoMAD uses ESRI's ArcGIS 10.2, a widely used GIS software that requires both intermediate and expert level training to operate. However, there are many other software options that support workflows utilizing GIS technology (i.e., Maptitude, Google Maps, Open Street Maps, etc.).

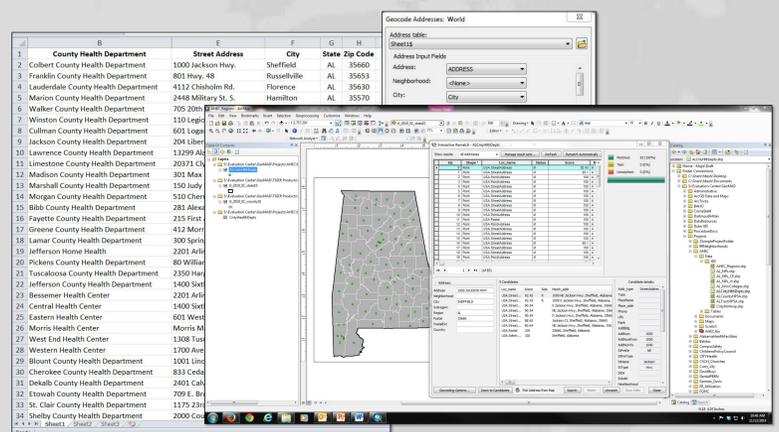
The utility of GIS across a variety of industries is becoming increasingly apparent as the technology becomes more accessible and user-friendly. However, there are many applications and complex analytical techniques that GIS professionals (like the members of GeoMAD) can help you apply to your work.



SERVICES

-  Geocoding
-  Geographic Data Collection
-  Online Interactive Mapping
-  Hot Spot Analysis
-  Cartographic Data Visualization

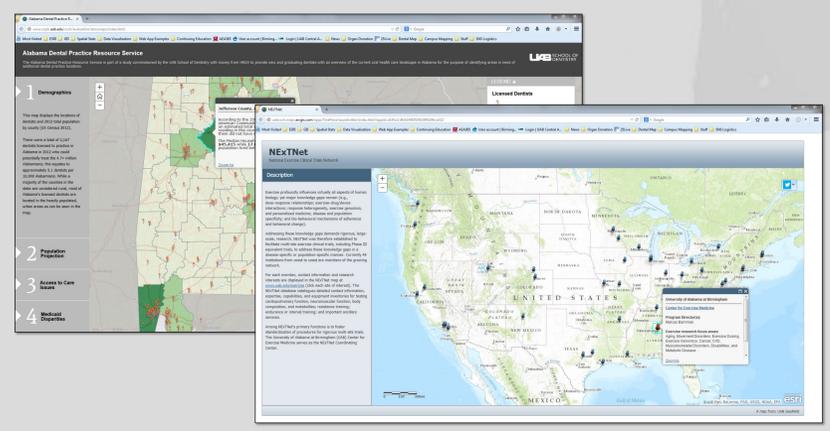
 Geocoding is the process of assigning longitude and latitude coordinates to a street address, which enables data to be displayed on a map. This essential procedure transforms data into a useable GIS format.



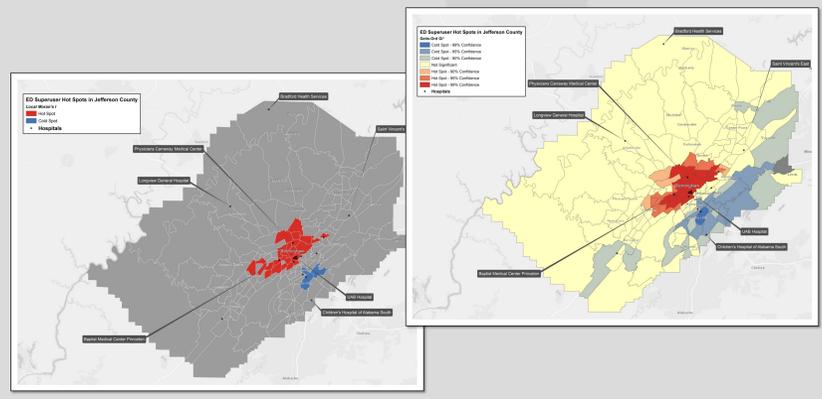
 A core component of GeoMAD's mission is to collect, manage, and display data from multiple sources (i.e., census, government agencies, police, schools, businesses, public health organizations, etc.). This data is provided in a variety of formats and converted to a useable GIS format (i.e., shapefiles, coverages, rasters, etc.).

DATA TYPES		EXAMPLES
	Points	Schools
	Lines	Roads
	Polygons	Jurisdictional Boundaries
	Images/Rasters	Elevation

 One of the services we offer is online, interactive map development. GeoMAD can create custom map applications that can help you tell your story and disseminate it to a larger audience.



 GIS is more than just maps! There are a variety of ways to analyze data within a geographical context, and GeoMAD can help you bring your research to an exciting new level. For example, GeoMAD team members can use their expertise in spatial analysis to help you identify statistically significant clusters within your data through a process known as "Hot Spot Analysis."



 Collecting and analyzing data is half the battle. As cartographers and evaluation experts, we are students of effective data visualization and are continually learning new ways to visually display data and presenting your results in the most informative format.

