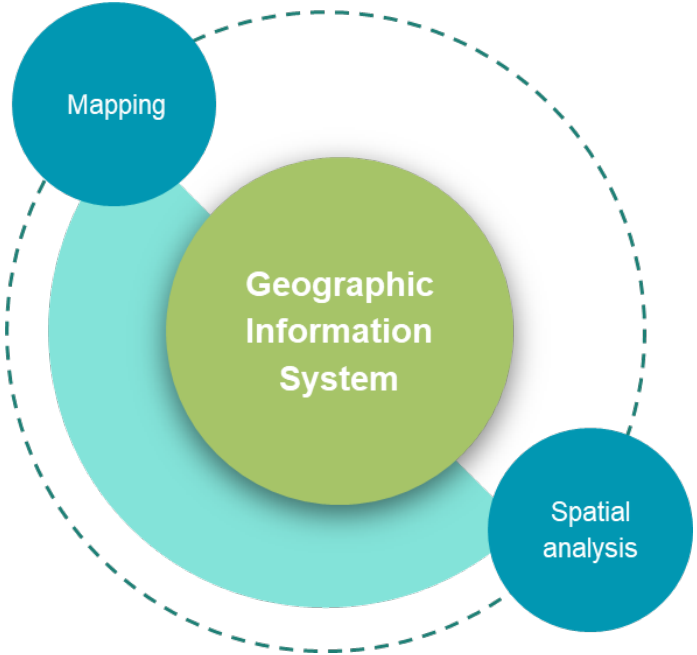
Geospatial Data can be used for mapping and for spatial analysis.

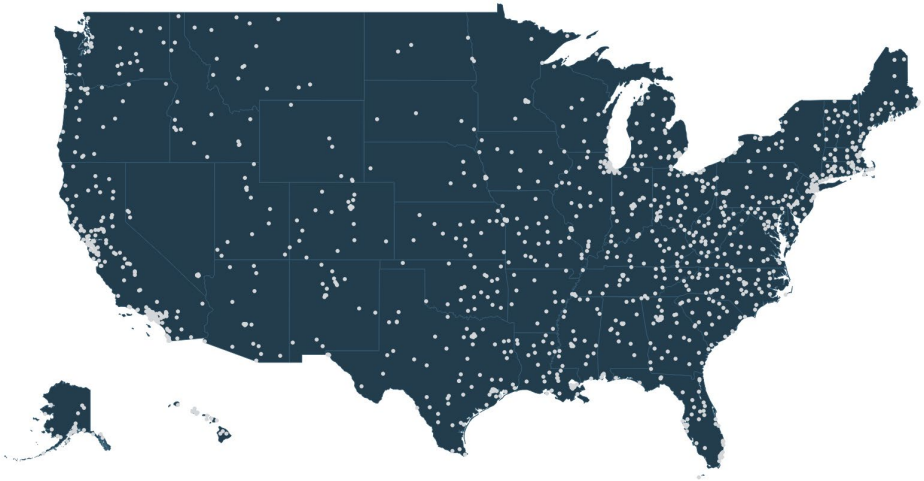


Spatial data
Data that is in some way referenced to locations on the earth.

Attribute data
Tabular data that can be generally defined as additional information about each of the spatial features.

1 Dot Density Maps show density differences in geographic distributions across a landscape.

What is the distribution of health centers in the US in 2019?

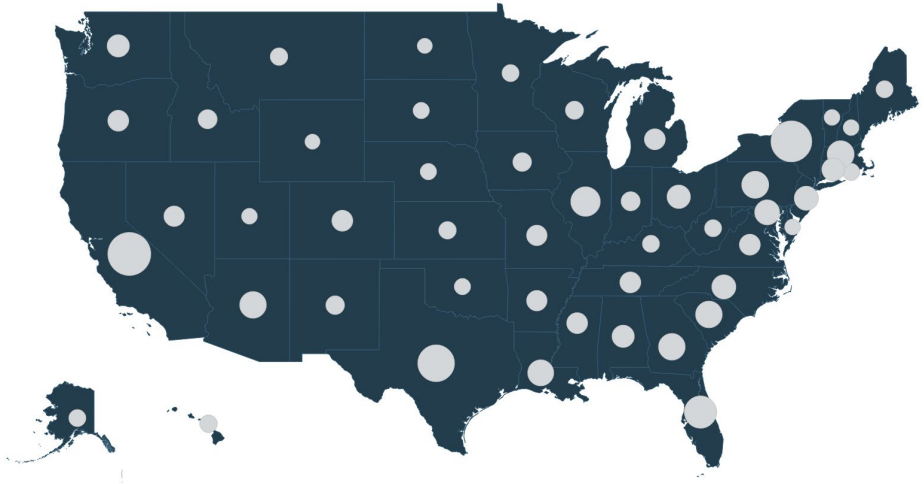


They are easy to understand and show us intuitively where features clump or cluster.

- Maps both simple counts and rates and ratios
- Works well in black and white
- Difficult to retrieve rates or numbers

2 Proportional Symbol Maps scale the size of symbols proportionally to the data value of a location.

How many HIV patients are diagnosed and treated at health centers in 2019?

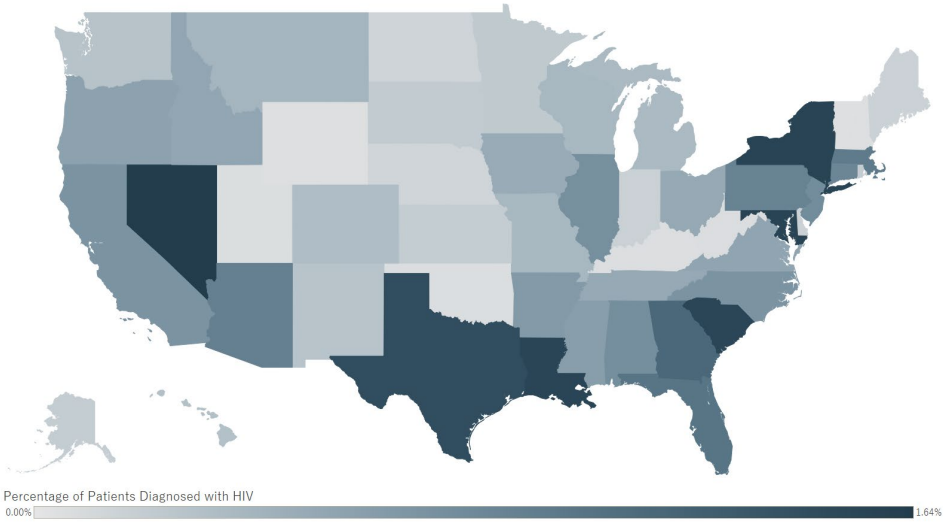


They highlight quantitative differences between mapped features or locations.

- Maps both simple counts and rates and ratios
- Can be an overlay on a choropleth map layer
- Symbol overlap or congestion

3 Unclassed Choropleth Maps represent uncategorized data for areas by variations in shading.

What is the pattern of HIV diagnoses rates in patients in 2019?

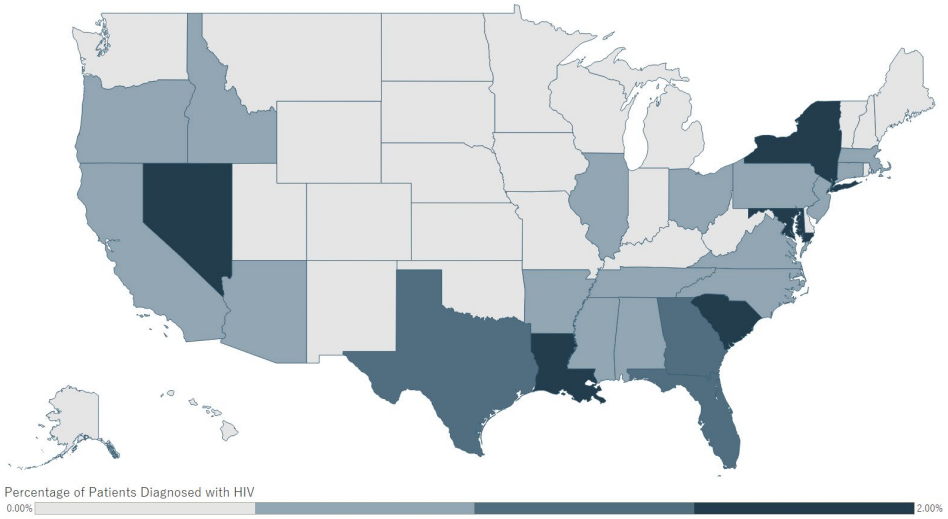


A less filtered view shows patterns and subtle differences between places.

- Maps only rates and ratios
- Visually appealing to audiences
- Variations are hard to discern

4 Classed Choropleth Maps represent classes of data for areas by variations in shading.

Which states have the highest rate of HIV diagnoses in patients in 2019?



Low and high values can be easily discerned when similar observations are grouped.

- Maps only rates and ratios
- Specific value ranges can be retrieved
- Appropriate classification can be challenging