

## GIS Quick Tips

Presented by CDC's Division of Heart Disease and Stroke Prevention GIS Exchange

For more information visit the GIS Exchange website:

<https://www.cdc.gov/dhdsp/maps/gisx/index.html>

### Avoiding Personally Identifiable Information on a Map

To preserve individual confidentiality, use Geo-masking techniques such as aggregating points to the census tract or county level, or converting points to a surface density map.

### Aggregation Methods

- Aggregate (Spatial Analyst) for raster data
- Aggregate Points (Cartography)
- Aggregate Polygons (Cartography)
- Spatial Join (Joins and Relates)
- Collect Events (Spatial Statistics)

### Geomasking Methods

- Jittering

For more information on personally identifiable information and spatial data, read the following research article, viewable on Pubmed: Ensuring Confidentiality of Geo-coded Health Data: Assessing Geographic Masking Strategies for Individual-Level Data

Author: Paul A. Zandbergen

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4590956/>

