

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>

Spatial Joins

Executing a spatial join can be accomplished two ways, and the choice of which method to use depends on how you want the join performed and what output you want as a result.

Method 1: Use the 'Join by spatial location' option by right clicking the layer in the Table of Contents and choosing 'join'.

- **Pros:** You can choose what type of attribute summary statistics you want in the output.
- **Cons:** You cannot control the method that is used to join the data.

The image illustrates the process of performing a spatial join in ArcGIS. It shows the 'Layers' panel on the left with a context menu open over the 'HD Hospitalizations' layer. The 'Joins and Relates' option is selected, and the 'Join...' option is highlighted. A tooltip explains: 'Join data to this layer or standalone table based on a common attribute, spatial location or existing relationship class.' On the right, the 'Join Data' dialog box is open. It shows 'Join data from another layer based on spatial location' selected. The 'Join to' layer is 'Counties Excluded - Insufficient Data'. The 'How do you want the attributes to be summarized?' section has 'Average' selected. The output file path is 'C:\Users\lhr7\Desktop\Join_Output.shp'.



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Method 2: Use the 'Spatial Join' tool in the Analysis toolbox.

- **Pros:** This method allows you to dictate the method that ArcMap uses to join the layers together.
- **Cons:** There is no option for specifying summary statistics in the output.

