Ever wondered how neighborhoods affect health?
How residential segregation affects health or social and economic well-being?
Whether the social and physical ecology of an area impacts asthma? Cholera? Autism?
Whether environmental hazards are disproportionately located in poor areas?
If the physical and built environment affect obesity or food security?
And what is spatial demography?

This seminar surveys current topics in health and population research with a focus on spatial statistical methods such as spatial regression, geographically weighted regression, multilevel modeling and cluster analysis. Throughout the seminar we will review the broad field of spatial data analysis and the range of issues that arise when analyzing georeferenced data. We will read and discuss selections from the current literature and critique how spatial data and statistical methods are being integrated into population and health research.

By the end of this course, students will be able to: a) critique spatial analytic methods in selected papers, b) present arguments about appropriate research methods for a given research problem, c) recognize the complexities inherent in using spatial data and choose appropriate methods for data analysis, and d) implement spatial statistical methods using simple population or health datasets.

Prerequisite: A statistics class that covered multivariate regression analysis techniques.