

Using Geographic Information Systems (GIS) to Map Fear of Crime: Integrating Community Perceptions to Improve Health Equity in Cleveland

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Problem

The Eastside of Cleveland is decidedly known for its health disparities. The Eastside Greenway project is trying to connect the extensive system of parks, open spaces and natural areas in this area. Linking these systems could improve health, transportation, economics and ultimately health equity. However, concern about personal safety in outdoor public spaces is prevalent across the study area because of frequent crime and drug activity, high pedestrian accidents and degradation of the built environment.

Method

A Health Impact Assessment (HIA) was conducted during the on-going Eastside Greenway project in order to better understand these health disparities and potential ways to improve health equity through urban trail development. During the assessment, sketch maps were distributed as part of the survey and participants were asked to mark where they felt safe and not safe in outdoor spaces. They also provided brief explanations of why they marked a location so policy makers can understand the reasoning for these concerns.

Results

After surveys were conducted, participants' maps were brought into a Geographic Information System (GIS). This geospatial technology enabled analysis of the maps to identify hotspots of concern. In addition, content analysis was performed on their open-ended survey responses, along with a map of high frequency words that emerged from the analysis. This new insight supports the HIA in showing policy-makers and planners where the Eastside Greenway should be implemented to improve health equity in that area.

Keywords: fear of crime, Geographic Information Systems (GIS), Health Impact Assessment (HIA), health equity, Eastside Greenway, Cleveland