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The Use of GIS Mapping in Targeted Health Surveillance Efforts for Illicit Drug Use in Detroit, Michigan

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Using GIS mapping, a cluster study of the locations of deaths due to the use of illicit drugs, specifically; heroin, cocaine, and fentanyl, in Detroit has been conducted. This mapping shows the spatial relationship of Detroit neighborhoods using temporal and location change maps where incidences of death from illicit drug use has occurred and is meant to demonstrate where targeted police, drug interdiction, and health surveillance efforts could offer the most impact.

This presentation outlines the use of a geographic information system (GIS) in implementing the model and producing maps and statistics to assess the outcome of this model. GIS illustrates the structure of drug use, how it is spatially organized, shows the spatial relationship of the locations where incidences have occurred due to the use and/or abuse of illicit drugs, and assesses the model using temporal and location change maps and statistics.



Using GIS Mapping to Illustrate the Correlation Between Drug Use and Homicides in Wayne County - 2008

Gerry Polverento, B.S. & Carl Schmidt, M.D., M.P.H.

Using geographic information system (GIS) mapping, a cluster study of the locations of deaths due to the use of heroin or cocaine and incidences of homicides in Wayne County has been conducted. This mapping illustrates the structure of heroin and cocaine deaths as well as homicides in Wayne County and shows the spatial relationship of the locations where incidences of death have occurred. This poster attempts to show the correlation between areas of cocaine and heroin use and incidences of homicides and illustrates where targeted police, drug interdiction, and health surveillance efforts could offer the most impact.

All incidences depicted are from 2008.

