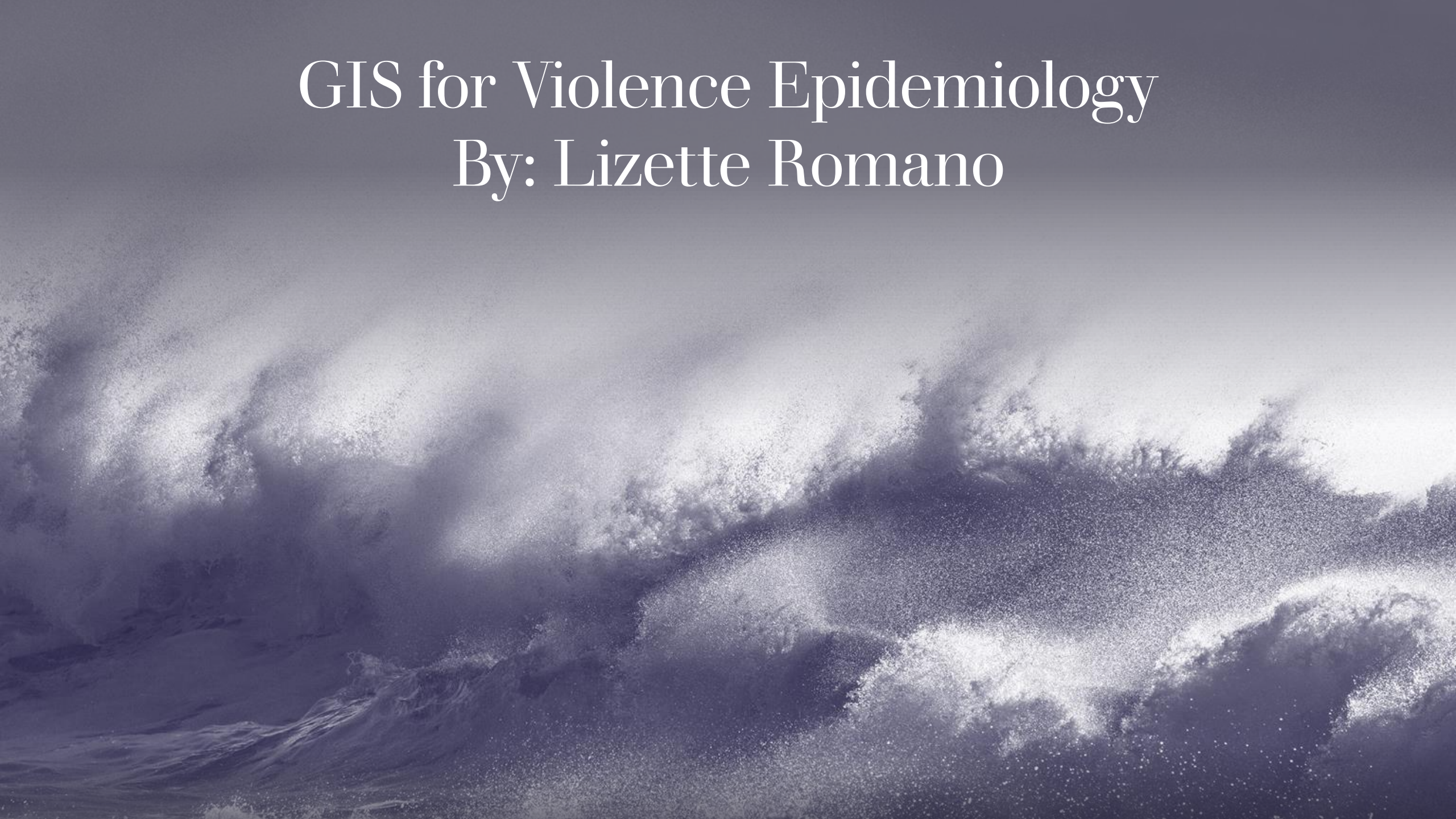


GIS for Violence Epidemiology

By: Lizette Romano



Overview

1. Summary of article & GIS used
2. Live website
3. Conclusion
4. Q&A

Summary

WALKER ET AL., 2014

**A GIS-based spatiotemporal analysis
of violent trauma hotspots in
Vancouver, Canada: identification,
contextualisation and intervention**

Blake Byron Walker,¹ Nadine Schuurman,¹ S Morad Hameed^{2,3}

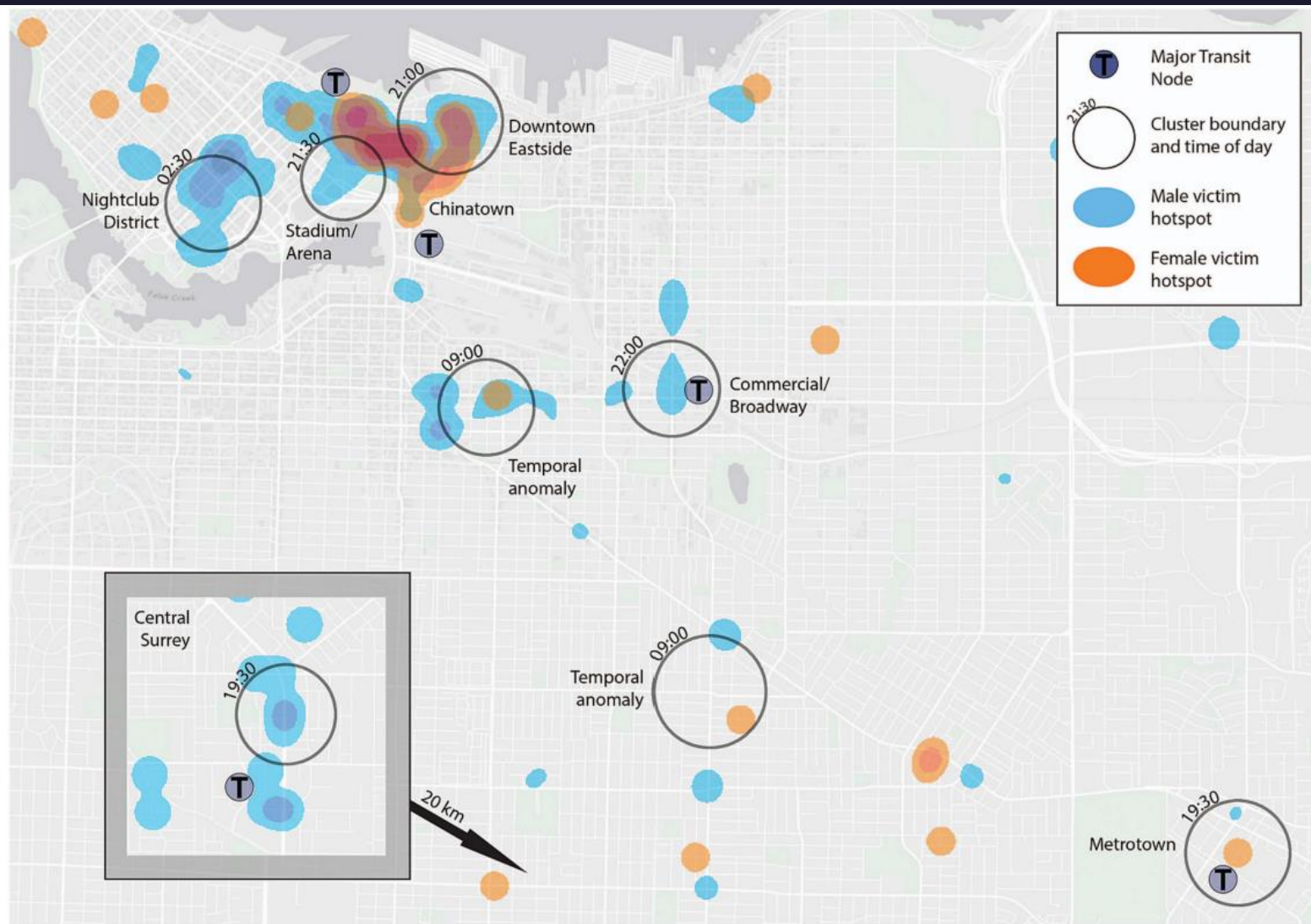


Figure 4 Injury hotspots by subcategory. Note that the Downtown Eastside is an injury hotspot regardless of the breakdown of victims. However, male victims of violent injury are spread along other corridors (eg, Commercial Drive) as are night-time injuries. Note also the clustering of cases in the Downtown Eastside, a neighbourhood in the top quintile of socioeconomic deprivation.

A GIS-based spatiotemporal analysis of violent trauma hotspots in Vancouver, Canada: identification, contextualisation and intervention. Walker et al., 2014

Summary

LASECKI ET AL., 2017

Geospatial mapping can be used to identify geographic areas and social factors associated with intentional injury as targets for prevention efforts distinct to a given community

CH Lasecki, FC Mujica, PhD, S Stutsman, MS, AY Williams, MD, L Ding, MD, JD Simmons, MD, and SB Brevard, MD, *Mobile, Alabama*

Geospatial mapping can be used to identify geographic areas and social factors associated with intentional injury as targets for prevention efforts distinct to a given community, Lasecki et al., 2017

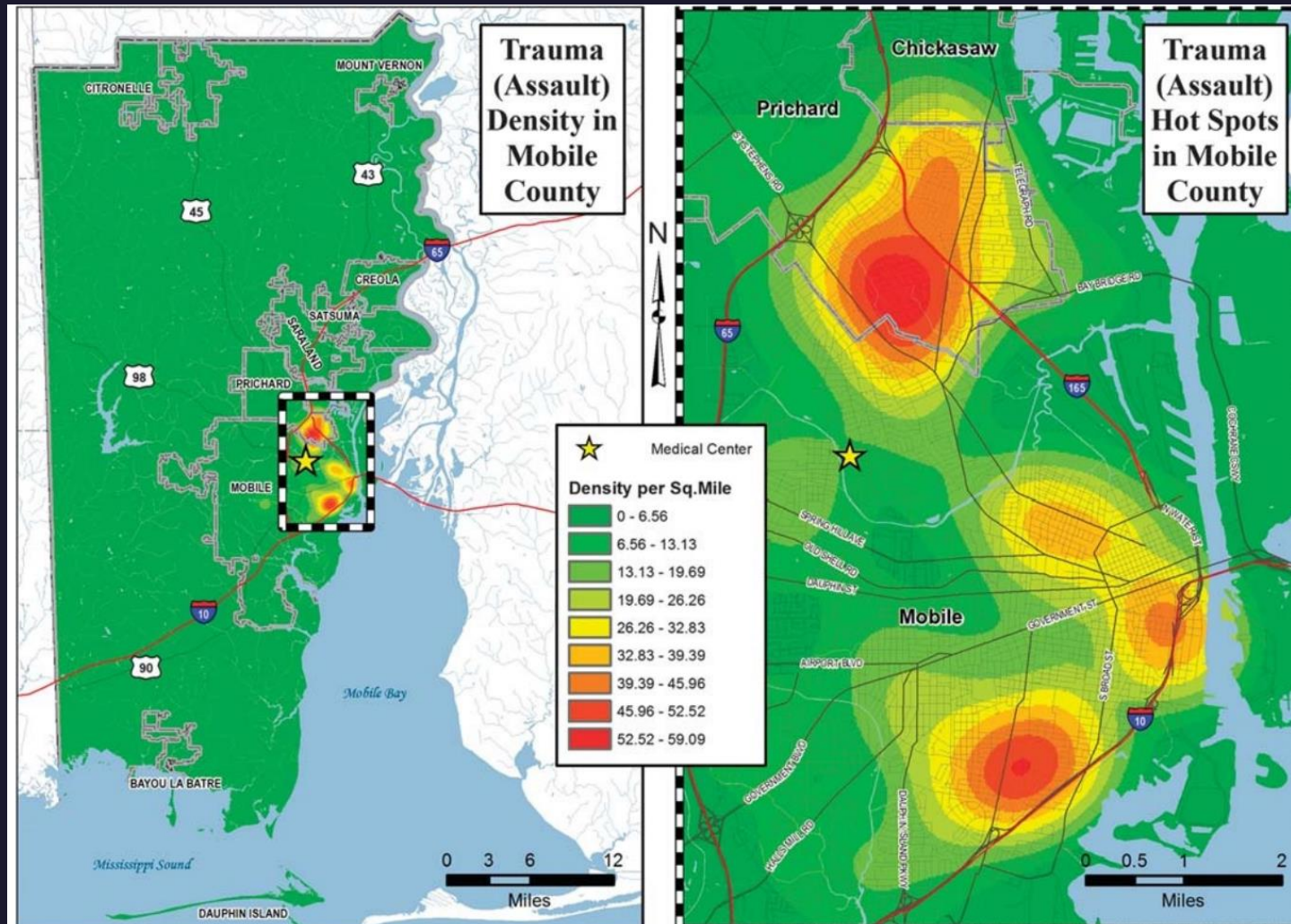


Figure 1. Kernel density analysis of intentional injury incident locations in Mobile County for victims treated at USAMC from 2005 to 2015 ($n = 1,009$) ($p < 0.01$) (Moran's $I = 0.0318$).

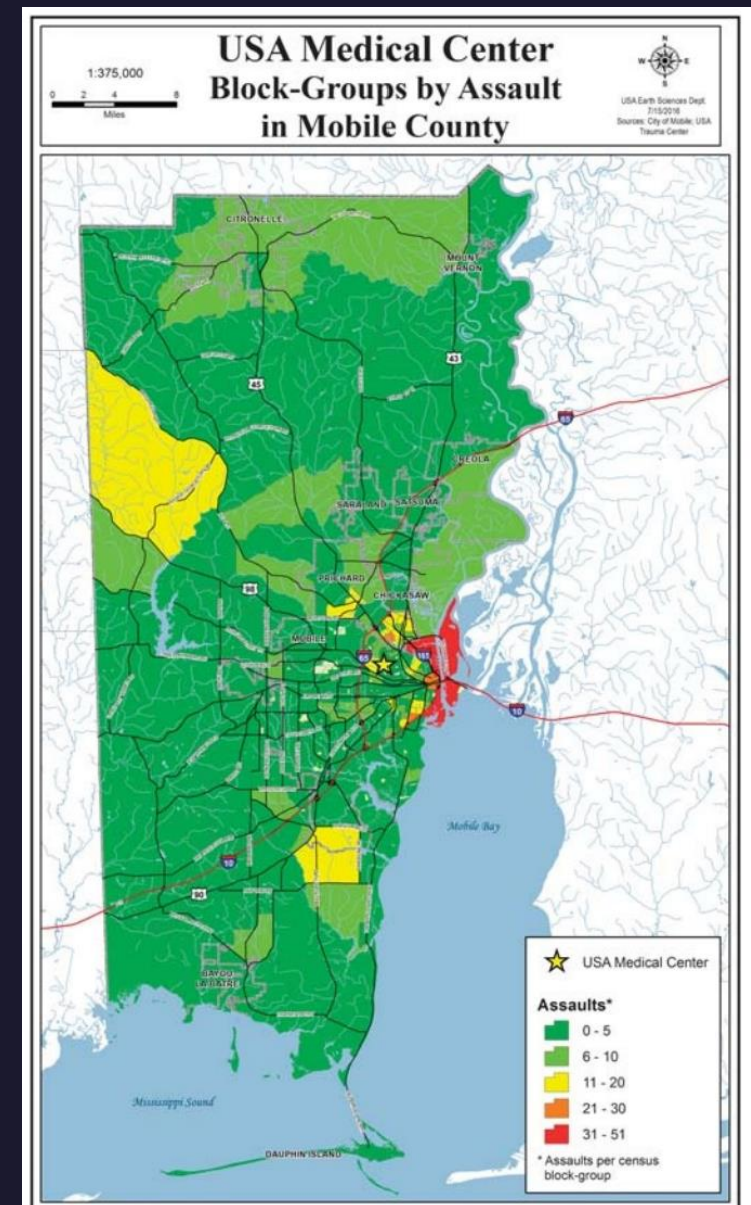



Figure 2. Intentional injury incident locations in Mobile County for victims treated at USAMC organized into census block groups ($n = 1,009$).

Summary

LARDIER ET AL., 2021

**A Spatial Analysis of Alcohol Outlet Density Type, Abandoned Properties,
and Police Calls on Aggravated Assault Rates in a Northeastern U.S. City**

David T. Lardier^{a,b} , Ijeoma Opara^{c,d}, Yan Lin^e, Emily Roach^{a,f}, Andriana Herrera^g, Pauline Garcia-Reid^h
and Robert J. Reid^h

Spatial Analysis of
Alcohol Outlet
Density Type,
Abandoned
Properties, and Police
Calls on Aggravated
Assault Rates in a
Northeastern U.S.
City
Lardier et al., 2021

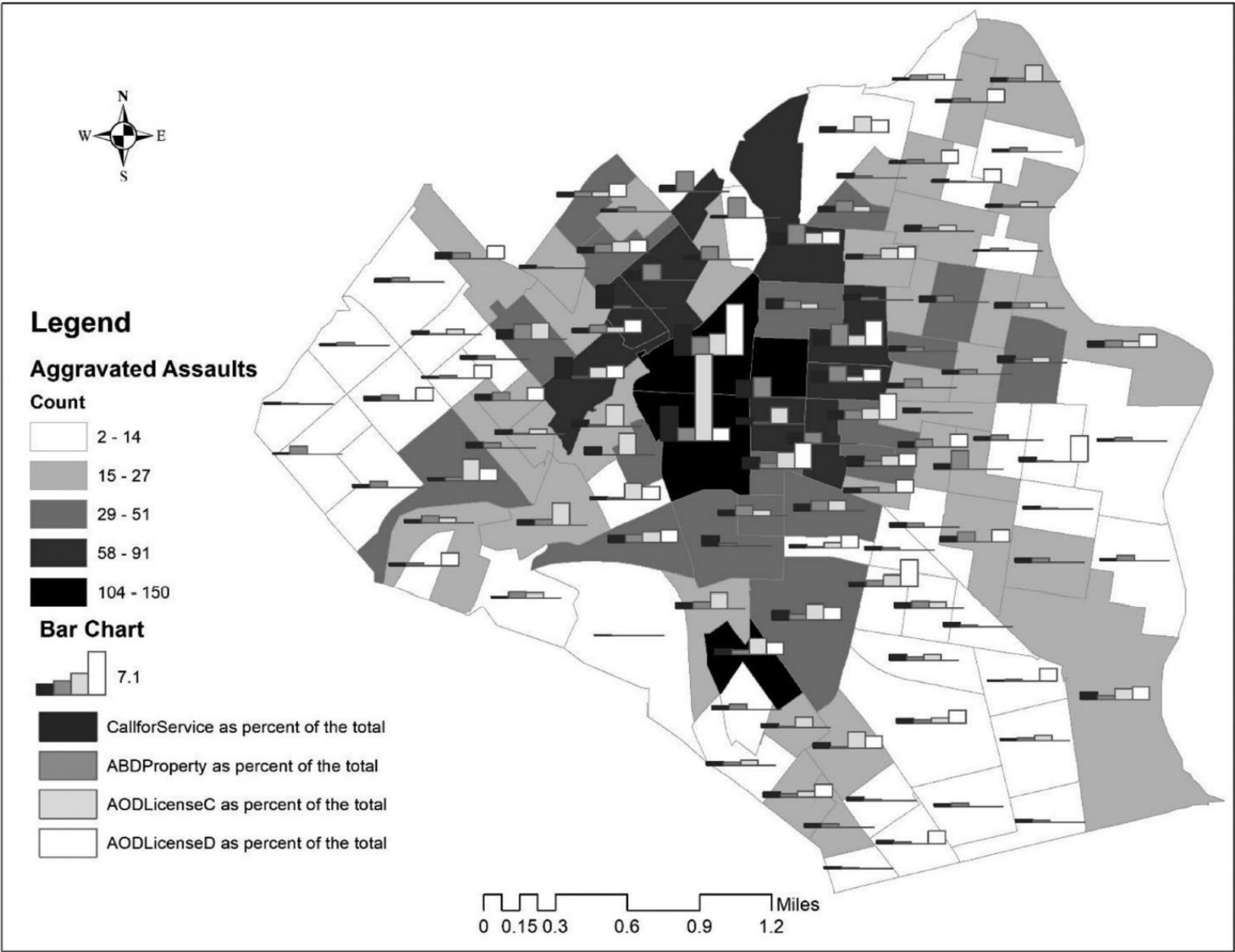


Figure 1. Counts of alcohol license C and license D outlet density, abandoned/vacant properties, and police calls to service on aggravated assaults. *Note.* Callforservice=Police call for service; ABDProperty=Abandoned property; AODLicenseC=Alcohol outlet density license C; AODLicenseD=Alcohol outlet density license D.

Baltimore Police Department Crime Map

<https://arcgisportal.baltimorepolice.org/publiccrimemap/>



Strengths



Baltimore Police Department Crime Map

Click to Select Dates (365 Days)

Last 365 Days

Crime Type (Select Multiple):

Homicide

Council Districts:

All

Legislative Districts:

All

Police Districts:

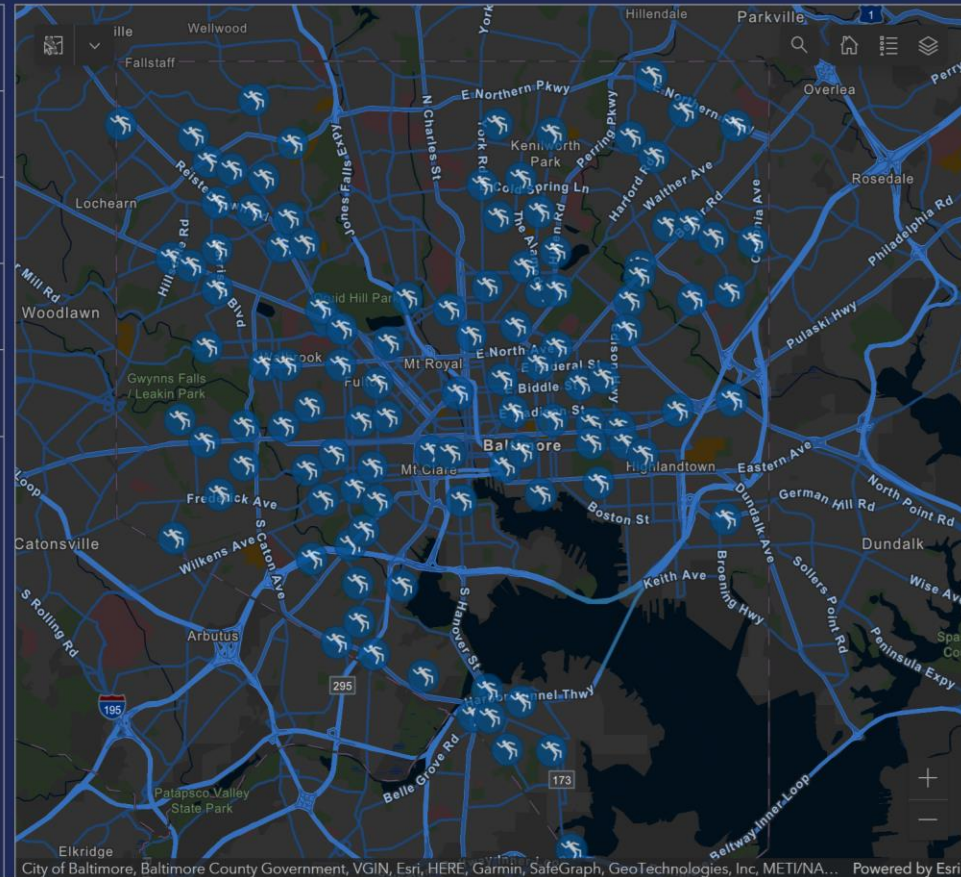
All

Neighborhoods:

All

To download crime data, please click this link:

[Open Baltimore](#)



Total Crimes

318

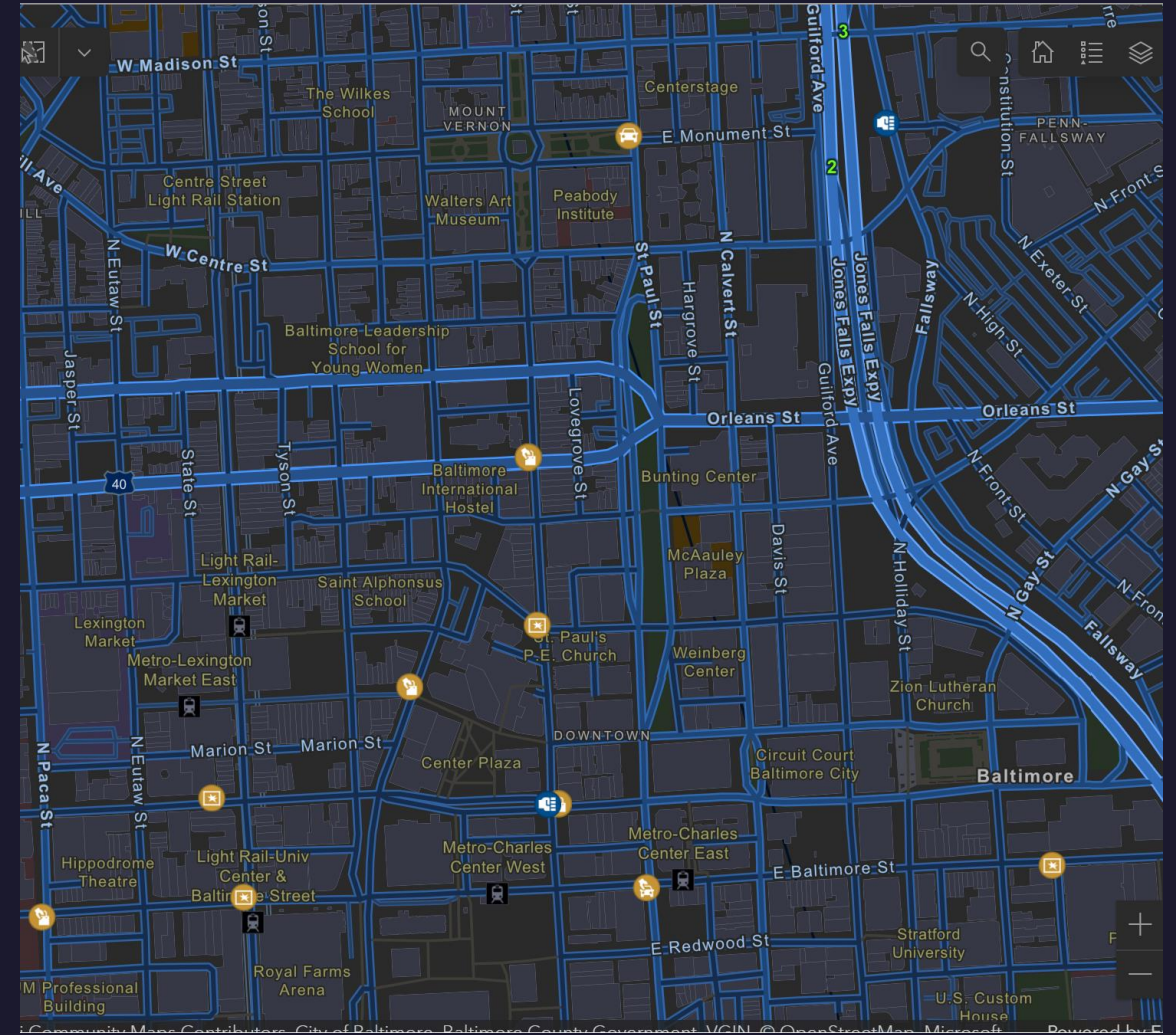
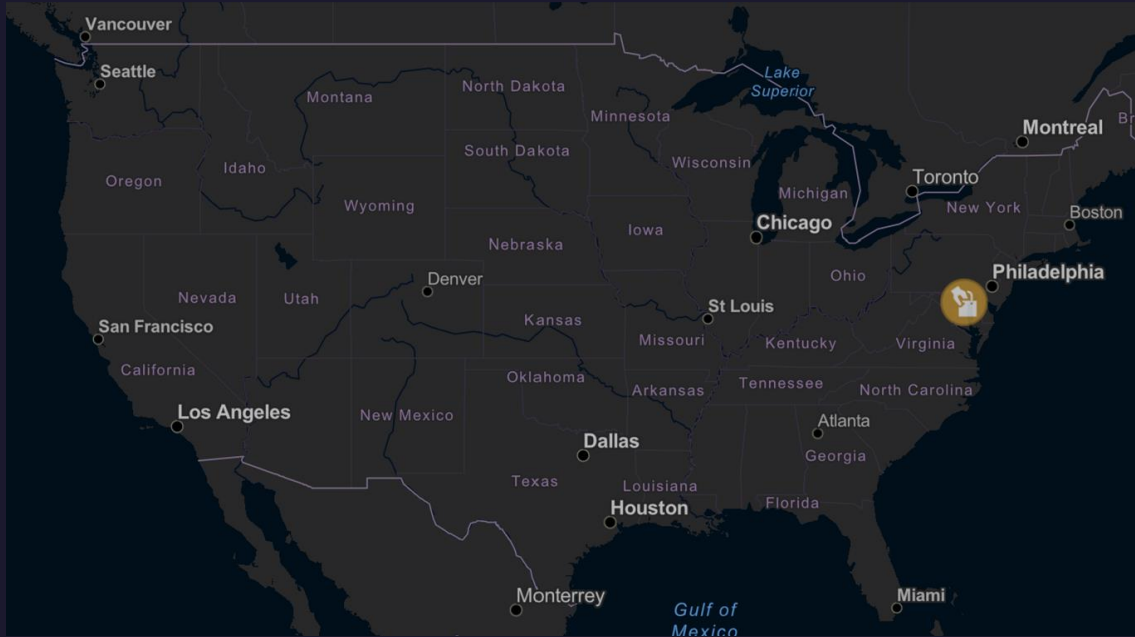
Homicide

300

350

Violent Crime

Limitations



The background is a dark, textured surface with a complex pattern of thin, white, wavy lines that flow across the frame. These lines are interspersed with numerous small, bright white dots and larger, fainter circular bokeh-like shapes, creating a sense of depth and movement, similar to a starry night sky or a microscopic view of a fluid.

Takeaways

Questions?