

Study Identifies Link Between Violent Crime and Alcohol Outlet Density

By Allison Jacobs

Over the years, the prevention field has emphasized the importance of understanding the environmental and social settings in which violence takes places, including theories relating the number and location of alcohol outlets to violence. The occurrence of interpersonal violence increases in and nearby places with alcohol outlets, specifically bars and liquor stores. These incidences of violence near alcohol outlets transpire for many possible reasons, including they are mainly located in areas with less protection and provide opportunities for social interactions leading to violence.

However, these alcohol establishment effects may relate to other crime-related characteristics of the establishments' surrounding environment, such as illegal drug activity. This leaves the question – Are the alcohol outlet effects due to the outlets themselves or the characteristics of their location? A recent study investigates the relationship between violent crimes and alcohol outlets as both creators and attractors of violence by evaluating how adjacent area features relate to violent crime in a specific target area.

What did they do?

Dr. Robert Lipton and his fellow colleagues at the University of Michigan, Massachusetts Institute of Technology, Rutgers University, and Harvard University led a cross-sectional study of the relationship between violent crime and alcohol outlets types and densities in Boston, Massachusetts. Their investigation included drug arrest data and unbiased, census-based measures of neighborhood social disorder (poverty, affluence, residential stability, age structure, family disruption, and racial composition). For the data, the researchers utilized three different sources:

- Boston Police Department data from 2006 on homicides and aggravated assault incidents, drug arrests, and 911 citizen emergency calls for services

- US Census data from 2000 on population estimates and
- Massachusetts Alcohol Beverage Control Commission data from 2009 on alcohol outlets.

In the study, the 544 census block groups of Boston functioned as the researchers' units of analysis. To determine the outcome of interest of the number of violent crimes occurring in each census block, the researchers utilized spatial modeling at the block group level and then mapped violent crimes, alcohol outlets, and drug markets.

What did they find?

In Boston, the overall average number of violent crimes per 1000 population was 11.45, but at the block group level, the crime rate varies from 0 to 99. The researchers found block groups with the highest of crime compared to all other groups were significantly poorer (e.g. lower incomes, more unemployed, less education) with increased numbers of alcohol outlets and higher drug arrests rates for both possession and trafficking.

According to the study, alcohol outlets and drug possession and trafficking arrests are predictive of violent crime. However, these relationships all differ with violent crime having a positive relationship with the presence of off-premise liquor establishments, on-premise liquor establishments selling any type of alcohol, and drug possession arrests. In contrast, violent crime and the presence of on-premise establishments selling only beer and drug distribution displays a negative association. Additionally, neighboring block groups indicated a positive relationship between on-premise liquor establishments selling all types of alcohol and violent crime.

What Coalitions Can Do

- ✓ **Collect local data.** The process of understanding a community's relationship between alcohol outlet density and violence begins with the collection of quantitative and qualitative data from a variety sources. These data collection efforts need to include measurement of alcohol outlet density in the local community. Since state and local health departments house experts in epidemiology, coalitions should seek out their assistance in the development of measurement tools for assessing alcohol outlet density. Geographic Information System (GIS) mapping allows researchers to visualize data to reveal relationships, patterns, and trends. With GIS mapping, coalitions can tell the visual story of how alcohol outlet density is spatially connected to individual and community problems, such as violence and drug possession and trafficking. In addition, coalitions should collect qualitative data to help tell and deepen the story about the effects of alcohol outlet density on their community, such as violence. Coalitions can collect qualitative data through structured interviews and listening sessions from residents who live near alcohol outlets, law enforcement officials who respond to problems occurring at or nearby alcohol establishments, neighboring businesses that experience vandalism and property damage, and emergency medical service staff who respond to alcohol-related injuries.
- ✓ **Identify local conditions.** Coalitions need to use their community assessment data and GIS maps to identify the local conditions of their alcohol outlet density problems in their community. Since the problem of alcohol outlet density will be different for every community, coalitions need to ask the question "but why here?" to better identify and address how excessive alcohol outlet density manifests itself in the community. For example, the data might reveal a community with numerous alcohol outlets located in close proximity to one another poses risk on alcohol consumption and harms by creating high levels of alcohol-induced violence and public intoxication.
- ✓ **Recommend local controls to regulate outlet density.** If assessment data and problem analysis confirm that increased violence is due to excessive amounts of alcohol outlets in your community, coalitions should work with public officials to limit the amount of outlets in the future. Regulating the number and location of alcohol outlets can be done through the use of regulatory authority (e.g., licensing and zoning) to slowly reduce the quantity and proximity of outlets. See CADCA's *Strategizer 55 - Regulating Alcohol Outlet Density: An Action Guide* for more information.

To review the original source, please refer to:

Lipton, R., Yang, X., Braga, A.A., Goldstick, J., Newton, M., & Rura, M. (2013). The geography of violence, alcohol outlets, and drug arrests in Boston. *American Journal of Public Health*, 103, 657-664.