Policy Brief

Health in All Policies: Evaluating the Use of Alcohol Outlet Zoning Policy to Improve Health, Safety, and Economic Conditions in Urban Neighborhoods

2017 Applied Research Seed Grant Award

Background

On December 5, 2016, the Baltimore City Council approved a comprehensive new city-wide zoning code ordinance, known as *TransForm Baltimore*. The new zoning code included three provisions addressing the location, distribution, and density of alcohol outlets. Baltimore City has 1,300 alcohol outlets, more than double the 630 outlets allowed by Maryland state law based on its population.[1] Baltimore City also has one of the highest rates of violent crime among American cities.[2] Living in neighborhoods with higher alcohol outlet density and living in closer proximity to alcohol outlets have been associated with increased risk of exposure to neighborhood violence and alcohol related harms. The zoning provisions impacting alcohol outlets are as follows:

1. Alcohol outlets in residential zones were required to relocate or change the nature of their business by June 5, 2019
2. Taverns that function as both on- and off-premise outlets need to demonstrate substantial floor space and sales devoted to onsite consumption
3. New liquor stores are not allowed to open within 300 feet of existing liquor stores

The goal of these provisions is to reduce overconcentration of alcohol outlets in the interest of promoting economic development, quality of life and public health. They were informed by a health impact assessment (HIA) conducted by researchers at Johns Hopkins Schools of Medicine and Public Health in partnership between the Baltimore City Planning Department and Johns Hopkins researchers. The HIA recommended addressing the alcohol outlets density and location through zoning could decrease violent crime, improve health equity, and help disadvantaged neighborhoods become a better place to live. It found that in comparable neighborhoods in Baltimore, every additional alcohol outlet was associated with a 2.2% increase in the number of violent crimes.

Because *TransForm Baltimore* requires that non-conforming liquor stores in residential neighborhoods close, relocate, or stop selling alcohol and convert to an approved use by June 5, 2019; its passage resulted in mandated closure of 76 liquor stores or 3.3% of liquor stores in Baltimore City. This approach to addressing liquor store closures is innovative as it is distinct from the traditional approach to regulating liquor stores, which relies on liquor licensing laws to remove problem stores. Public health impacts of *TransForm Baltimore* have focused on its potential to produce reductions in neighborhood violence.

Our team's work funded by the 2017 21CC Applied Research Seed Grant sought to assess potential impacts of the zoning code changes on both neighborhood violence and economic conditions as part of a framework for ongoing evaluation of policy implementation and long-term impacts on health equity.

Our Work
We studied the potential impact of the new zoning code provisions through three methods:

1. Engaging community stakeholders and attending public hearings to better understand the local community's reaction to the new zoning law and examine challenges to implementation, potential for unintended consequences, and companion strategies to optimize its public health and economic impacts.
2. Engaging public policy and metropolitan housing and economic development experts to compile a list of candidate metrics that should be tracked over time to better understand the impact of the new zoning policy.
3. Conducting a quantitative assessment of the neighborhoods with affected liquor stores and their surrounding areas to predict the impact of the closures on crime using a random trend fixed effects panel model and using propensity score matching to identify comparable neighborhoods that can be tracked over time to assess the impact of the new policy.

Alcohol Outlets, Crime, and Health Outcomes
Living in a neighborhood with a high density of liquor stores is associated with negative health impacts and higher rates of violent crime.[1, 3-5] This association holds independent of other factors including the prevalence of weapons and illicit drugs.[6, 7] In Baltimore, low-income, predominantly African American neighborhoods disproportionally suffer the negative consequences of the overconcentration of liquor stores as compared to wealthier, predominantly white neighborhoods. Another study in Baltimore found that every 10% increase in access to any kind of alcohol store is associated with a 4.2% increase in violent crime. The effect of alcohol stores that function as both taverns and liquor stores was found to be greater than that of taverns alone.[8] The overconcentration of liquor outlets affects low income neighborhoods disproportionally. Holding all control variables at their mean, a 1% increase in liquor availability results in a 0.908% increase in total crime for low income neighborhoods and a 0.295% increase in total crime for high income neighborhoods.[9]

Our quantitative analysis (in press) found that the affected stores were largely concentrated in poor, black neighborhoods with high vacancy rates.[10] We also looked at liquor store closures in comparable neighborhoods and found that for every liquor store closing, violent crimes decline by 1.4%, or 0.19 crimes per year on the block group of the closing, on average. For every liquor store opening, violent crimes increase by 1.1% per year, or 0.15 crimes, on average for the block group of the opening. Additionally, spatial random trend fixed effects results showed that these reductions were not accompanied by increases in crime on contiguous block groups, indicating that displacement did not occur.
These results suggest that the liquor store provisions of the Baltimore zoning code could reduce crime and improve population health, at least in the short run.

Store Closures
The 76 alcohol outlets ordered to close or relocate by the new zoning ordinance were concentrated in neighborhoods with higher rates of violent crime, higher poverty and unemployment, and higher rates of rent burden and vacancy. Residents in these neighborhoods are on average more likely to be African American, more likely to be under the age of 18, and more likely to have lower levels of education as compared to residents of non-affected neighborhoods. Affected alcohol outlets also tend to be located in West and East Baltimore, which is also where poverty is concentrated and where vacancy rates are the highest.
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neighborhoods. The impact of the new policy on reducing crime will be better understood once all the stores have closed and new crime data is available for Baltimore City.

Products and Accomplishments resulting from 21CC Applied Research Seed Grants

Manuscripts

1. Stacy, Christina, Brady Meixell, Jacob Lowy, and Rachel Thornton. "Using Land Policy to Improve Population Health." Forthcoming, Journal of Urban Health
2. Christina Plerhoples Stacy, Joseph Schilling, Ruth Gourevitch, Jacob Lowy, Brady Meixell & Rachel L. J. Thornton (2019) Bridging the Housing and Health Policy Divide: Lessons in Community Development From Memphis and Baltimore, Housing Policy Debate, 29:3, 403-420, DOI: 10.1080/10511482.2018.1539858
3. Lowy J; Singh A; Stacy C; Meixell B; Feinberg L; Matson PA; Thornton, RLJ. Zoning and Population Health: Community and Stakeholder Perspectives. *Journal of Health Care for the Poor and Underserved*, Pending Review.

Presentations

1. Presentation to the Baltimore City Department of Planning by Christina Stacy, Rachel Thornton, and Pamela Matson on 8/26/2019. (The results presented in these slides were prelimarinly results and differ slightly from the ones presented in this policy brief)

Other Research Funding Resulting from 21CC Seed Grant Investment

Developing and Pilot Testing a Systems Dynamics Model of the Impact of Alcohol Outlet Zoning Policy to Improve Health, Safety, and Economic Conditions in Baltimore City Neighborhoods. PI: Thornton RLJ/Matson P/Siddiqui S. We used participatory model building methodology to develop and pilot test a systems simulation and optimization model of the consequences of implementing the liquor store provision of Baltimore City's new zoning code (ratified December 2016) on affected neighborhoods with a focus on health, violent crime, and economic conditions. *(Funding source: Bloomberg American Health Initiative, Award period: 1/1/2018-6/30/2018)*.

Other Policy Impacts

Provided research findings, presentations, and background information to the Baltimore City Department of Law attorney assigned to litigate the appeals of the notices of violation issued by the Department of Housing and Community Development for those Class A Liquor stores that were mandated to be terminated in their currentlocation under the new zoning code, but who were fighting the mandatory termination date set forth in the new code (June 2020). This contact was facilitated by a member of the code enforcement team in the Department of Housing and Community Development, and both attended the summary presentations delivered in August 2019 at the Baltimore Planning Department Staff meeting. In particular, the Department of Law and Department of Housing and Community Development staff were interested in incorporating research findings related to health outcomes associated with the new code into the foundational background materials presented to the course as part of what they thought could become drawn out litigation with multiple appeals that could slow or even halt enforcement of the closure of many of the 76 liquor stores terminated under the new code.

References

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5. Campbell CA, Hahn Ra, Elder R, et al. The Effectiveness of Limiting Alcohol Outlet Density As a Means of Reducing Excessive Alcohol Consumption and Alcohol-Related Harms. A6-$32&%(!"#$%&'(")(>$-B-%.3B-(C-7323%-7(2009;37(556-569.
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10. Stacy CM, Brady; Lowy, Jacob; Thornton, Rachel. Using Land Policy to Improve Population Health. Forthcoming.

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