Research to Policy to Practice and back to Research

AP18 Annual Conference 2018

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As required by the Alcohol Policy 18 Conference, We have signed a disclosure statement and note the following conflict(s) of interest:

No conflicts of interest to report.

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Filling the Gap: Empirical Support for Zoning to Regulate Alcohol Density, Promote Behavioral Health and Reduce Violence
# Alcohol Outlet Density, Proximity and Violence

<table>
<thead>
<tr>
<th>Citation</th>
<th>Study quality</th>
<th>Alcohol Outlet Proximity/Density</th>
<th>Off-Premise Alcohol Outlet Proximity/Density</th>
<th>Associated Impact of Alcohol Outlets on Violent Crime</th>
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<tbody>
<tr>
<td>Branas et al (2009)</td>
<td>Good</td>
<td>√</td>
<td>√</td>
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<tr>
<td>Franklin et al (2010)</td>
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<tr>
<td>Grubesik et al (2011)</td>
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<td>Gyimah-Brempong (2006)</td>
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<td>Reid et al (2003)</td>
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<td>Yu et al (2009)</td>
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<tr>
<td>Jennings et al (2014)</td>
<td>*</td>
<td>√</td>
<td>√</td>
<td>↑</td>
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</table>

*Not part of the systematic review
Why is Zoning Needed? Where are the Inequities?

- 13% of Baltimore City School children live within walking (i.e., a quarter mile) distance of a grocery store
- 54% live within walking distance of a liquor store
Baltimore: A Tale of Two Cities

Upton/Druid Heights

Avg. Life Expectancy
63 vs. 83

Median Income
$13,400 vs. $90,500

Unemployment Rate
17.5% vs. 3.4%

Living in Poverty
50% vs. 0%

Roland Park

Source: Baltimore City Health Department, 2011
Reducing Alcohol-Related Harms: An Example from Baltimore

• Zoning rewrite Health Impact Assessment key finding: reducing alcohol outlet density is the single most impactful step to take for improving health through the rewrite

• The new zoning code has the potential to
   Significantly reduce outlet density (10-20%)
   Decrease violent crime (~100 acts of violence/year)
   Increase neighborhood safety
   Increase opportunities for healthy living
Zoning as a Public Health Alcohol Regulatory Tool

• Regulate density
  – Saturation/oversaturation
  – Concentration/clustering

• Regulate spacing and placement
  – Proximity to places where people live and play
  – Proximity to schools

• Regulate licensing via zoning
  – Ensure licenses match the outlets business model to ensure compliance with zoning
The 3 Components of Transform Baltimore

1. **Right spacing** → Space out stores, i.e., no new store can locate within 300 feet of an existing store

2. **Right licensing** → Definitions that govern bar/taverns with take away privileges actually be honored. Specifically, 50% of sales are from on premise consumption (e.g., food and alcohol) and 50% of floor space is devoted to on premise consumption (35-84 of ~420)

3. **Right sizing, right placement** → Amortization of ~100 licenses that were made non-conforming in 1971 because they are located in residentially zoned communities
Reducing Alcohol-Related Harms: An Example from Baltimore

Achieving a Healthy Zoning Policy in Baltimore: Results of a Health Impact Assessment of the TransForm Baltimore Zoning Code Rewrite

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Amelia Greiner, MS, PhD
Caroline M. Fichtenberg, MS, PhD
Beth J. Feingold, MPH, MSc, PhD
Jonathan M. Ellen, MD
Jacky M. Jennings, PhD, MPH

ABSTRACT

Objectives. The social determinants of health (SDH) include factors apart from genes and biology that affect population health. Zoning is an urban planning tool that influences neighborhood built environments. We describe the methods and results of a health impact assessment (HIA) of a rezoning effort in Baltimore, Maryland, called TransForm Baltimore. We highlight findings specific to physical activity, violent crime, and obesity.

Methods. We conducted a multistage HIA of TransForm Baltimore using HIA practice guidelines. Key informant interviews identified focus areas for the quantitative assessment. A literature review and a zoning code analysis evaluated potential impacts on neighborhood factors including physical activity, violent crime, and obesity. We estimated potential impacts in high- and low-poverty neighborhoods. The findings resulted in recommendations to improve the health-promoting potential of TransForm Baltimore.

Results. Mixed-use and transit-oriented development were key goals of TransForm Baltimore. Health impacts identified in the health impact assessment included walkability, safety, and health equity.
Baltimore's New Zoning Code

The Department of Planning would like to thank the Mayor and City Council for completing their review of City Council Bill #12-0152. On December 5, 2016, the City Council passed and the Mayor signed into law a new zoning code for the City of Baltimore. This code will replace the 1971 Zoning Code. It is intended to simplify and streamline development review, provide an easy to understand set of rules, while creating a more modern code that fosters growth and development while maintaining neighborhood character.
Back to Research
The Inequitable Distribution in Alcohol Outlets in Baltimore

• Non-conforming alcohol outlets are inequitably distributed in predominantly African American communities
  – Communities with non-conforming outlets have a statistically significantly higher percentage of African Americans compared to communities without non-conforming outlets [78.3% vs 60.3% (p<0.5); note: Baltimore City is 62.9% African American]
  – 63.8% of non-conforming outlets are located in census tracts with greater than 90% African American population, as compared to 36.1% of the conforming outlets being located in census tracts with greater than 90% African American population (p<0.01)
The Inequitable Distribution in Alcohol Outlets in Baltimore

• Non-conforming outlets are inequitably distributed in lower income communities
  – Among the non-conforming outlets, 41.3% of them are in census tracts with an annual median household income below $30K, compared to conforming outlets where only 28.4% of them are in census tracts with an annual median household income less than $30K (p<0.01; note: median household income in Baltimore City is $42,241).
Where will these stores go?
Future Directions

• Implementation and enforcement!!!!
• Complimentary legislation to address problem retailers
• Public health surveillance of relocation
• National studies of the implementation and impact of structural interventions, policies and enforcement
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Assistant Professor, Department of Epidemiology and Biostatistics
Michigan State University College of Human Medicine
Maryland’s 2011 Alcohol Sales Tax Reduced Alcohol Sales, Study Suggests

INCREASE IN STATE’S ALCOHOL SALES TAX APPEARS TO HAVE LED TO DECREASE IN SALES OF SPIRITS, BEER AND WINE

Maryland’s 2011 increase in the alcohol sales tax appeared to have affected liquor in the state, suggesting reduced alcohol use, research indicates.

Specifically, sales of spirits (commonly referred to as wine) were 2.5 percent lower, and wine sales were 2.5 percent lower, reflecting a decrease in alcohol consumption.

<table>
<thead>
<tr>
<th>Year</th>
<th>Gonorrhea</th>
<th>Syphilis</th>
<th>Chlamydia</th>
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<tbody>
<tr>
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<tr>
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<tr>
<td>2008</td>
<td>6,666</td>
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<tr>
<td>2009</td>
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<tr>
<td>2010</td>
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<td>2011</td>
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<td>1,278</td>
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<td>2012</td>
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<td>2014</td>
<td>6,108</td>
<td>1,475</td>
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Source: Centers for Disease Control,
Impact of Alcohol Tax Increase on MD College Students’ Alcohol-Related Outcomes

• Interventions that work on the general adult population may not be as effective with young adult/college-aged population.

• Did raising alcohol taxes in Maryland result in less alcohol problems among college students?
## Negative Binomial Regression Analysis of Tax, Time and College Characteristics on Alcohol-Related Disciplinary Actions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Fully adjusted</th>
<th>Fully adjusted; excluding price</th>
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<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$p$</td>
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<tr>
<td>Time, measured annually 2006-2013</td>
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<td>.022</td>
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<tr>
<td>Tax, pre- versus post- 2011 tax implementation</td>
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<td>Interaction between time and tax</td>
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<tr>
<td>Annual Tuition Price</td>
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<td>&lt;$20,000</td>
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<tr>
<td>=$20,000</td>
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</table>
Alcohol Related Disciplinary Actions on MD College Campuses

Tax increase from 6% to 9%
• After alcohol taxes were increased in Maryland, we detected significantly fewer alcohol problems at schools with lower tuition.

Implications
• May be that monitoring and reporting at high-resourced schools are confounding the effect.
• May be that students’ financial resources are moderating the effect.
• Cleary data are useful.
• Especially true as we begin to tease apart the impacts of alcohol policy on interactions between alcohol use and alcohol policy with other co-occurring use epidemics (e.g. opioids, marijuana, and prescription stimulants).