

Alcohol Outlet Density and Public Health

Alcohol outlets are places where alcohol is sold, either to drink on the premises (on-sale outlets) or off the property (off-sale outlets). Alcohol outlet density indicates the number of physical locations where alcohol is sold per population or geographic area¹ such as a square mile, census tract, or city block. Alcohol outlet density is often regulated at the local level through zoning and business licensing.² State alcohol control agencies can also stipulate density levels. Numerous studies have shown that alcohol outlet density is significantly related to the level of alcohol harm that neighborhoods experience, particularly violence.

Outlet Density and Alcohol-Related Harm

- Increasing outlet density makes it easier for drinkers to obtain alcohol. High levels of outlet density also can influence how drinkers congregate, making them more aggressive or encouraging others to drink.¹
- When outlet density increases, alcohol consumption increases, and vice versa. A study examining 16 years' worth of data in Canada found that reducing off-premise density was significantly associated with a decrease in alcohol consumption.³
- An increase in alcohol outlet density is associated with increased levels of alcohol consumption among adolescents, increased levels of assault, and other harm such as homicide, child abuse and neglect, self-inflicted injury, and road traffic injuries.⁴
- Living in close proximity to alcohol outlets exposes community members to risks such as violent crimes.⁵ Alcohol outlet density is the single greatest predictor of violent crime in neighborhoods, greater than other social and economic factors.^{6, 7} One study found that reducing violent crime by 1% could be achieved by reducing alcohol outlet density by less than 1%.⁶
- Cirrhosis deaths, suicide, and assaults all increase when alcohol outlet density increases.¹
- A 10% increase in off-premise alcohol outlets per square mile has been found to account for a 5.8% increase in gonorrhea rates.⁸
- Suicide rates among boys between 15 and 19 years old have been shown to increase by up to 12% when outlet density increases.⁹
- Areas with more retail alcohol outlets have been found to have higher rates of child abuse. Areas with more bars have been found to have higher rates of child neglect.¹⁰
- In California, eliminating one bar per ZIP code would lead to 290 fewer serious assaults per year.¹¹
- In a study conducted between 2003 to 2008 for each of British Columbia's 89 local health areas, each additional private liquor store per 1,000 residents 15 years or older increased local alcohol-related mortality by 27.5%, e.g., a 20% increase in private store density increased local alcohol-related mortality by 3.25%.¹²

Outlet Density, Communities of Color, and Economic Development

- Higher alcohol outlet densities, and related higher rates of alcohol-related problems, are disproportionately concentrated in low-income racial or ethnic minority communities.¹³

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- Alcohol availability is significantly higher around residences of minority and low-income families. Within 0.1 mile, the average number of alcohol outlets surrounding White residences = 0.21; Black residences = 0.24; Asian/Pacific Islander residences = 0.33; Hispanic residences = 0.39.¹⁴
- Because neighborhoods with high crime rates are unattractive to other types of businesses, a downward spiral occurs where more alcohol retailers move in and the outlet density and related problems continue to increase.¹⁵

Outlet Density and Underage Drinking

- Adolescent binge drinking and driving after drinking have been significantly associated with the presence of alcohol retailers within half a mile of one's home.¹⁴
- Youth who live in neighborhoods with higher alcohol outlet densities have greater access to alcohol from direct purchase; underage acquaintances; "shoulder tapping" an adult stranger and asking him or her to buy alcohol on the minor's behalf; and from home and family members.¹⁶
- Alcohol retailers are more likely to sell alcohol to minors if other alcohol outlets are nearby.¹⁶
- Youth living in census tracts with the greatest off-site outlet density have an approximately 80% increased risk for attempting and successfully buying alcohol. They are also at a 220% increased risk of reporting frequent drinking.¹⁷
- Hispanic youth who live farther from alcohol retailers are less likely to drink. Decreasing the distance to retailers is significantly associated with an increase in alcohol consumption, even when controlling for social and environmental factors.¹⁸

Bottom Line: The following bodies have recommended alcohol outlet density control as an effective tool for minimizing alcohol-related harm: World Health Organization, European Union, United States Surgeon General's Workshop on Drunk Driving, and Centers for Disease Control and Prevention's Task Force on Community Preventive Services.^{5, 19, 20, 21} The scientific evidence is overwhelming: reducing the number of alcohol outlets is an effective tool to reduce alcohol-related harm.

References

1. 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. *American Journal of Preventive Medicine*. 2009;37:6:556-569.
2. Preventing Excessive Alcohol Use: Regulation of Alcohol Outlet Density. Atlanta, GA: Centers for Disease Control and Prevention, Community Guide Branch; 2007. Available at: <http://www.thecommunityguide.org/alcohol/outletdensity.html>. Accessed January 26, 2010.
3. Xie XE, Mann RE, Smart RG. The direct and indirect relationships between alcohol prevention measures and alcohol liver cirrhosis mortality. *Journal of Studies on Alcohol and Drugs* 2000;61(4):499-506.
4. World Health Organization. Global strategy to reduce the harmful use of alcohol. Geneva: WHO, 2010. Available at: http://www.who.int/entity/substance_abuse/msbalcstrategy.pdf. Accessed June 21, 2011.
5. Zhu L, Gorman DM, Horrel S. Alcohol density and violence: a geospatial analysis. *Alcohol Alcohol* 2004;39(4):369-375.
6. Speer PW, Gorman DM, Labouvie EW, et al. Violent crime and alcohol availability: Relationships in an urban community. *Journal of Public Health Policy* 1998;19(3):303-318.
7. Roncek DW & Maier PA. Bars, blocks and crimes revisited: Linking the theory of routine activities to the empiricism of "hot spots." *Criminology* 1991;29: 725-753.
8. Scribner R, Cohen D, Farley T. A geographic relation between alcohol availability and gonorrhea rates. *Sexually Transmitted Diseases*. 1998;25(10), 544-548.
9. Markowitz S, Chatterji P, Kaestner R. Estimating the impact of alcohol policies on youth suicides. *Journal of Mental Health Policy and Economics*. 2003;6(1):37-46

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10. Freisthler B, Midanik L, Gruenewald P. Alcohol outlets and child physical abuse and neglect: applying routine activities theory to the study of child maltreatment. *Journal of Studies on Alcohol*. 2004;65(5), 586-592.
11. Gruenewald PJ, Remer L. Changes in outlet densities affect violence rates. *Alcoholism: Clinical and Experimental Research*. 2006;30(7):1184-93
12. Stockwell T, Zhao J, Macdonald S, et al. Impact on alcohol-related mortality of a rapid rise in the density of private liquor outlets in British Columbia: a local area multi-level analysis. *Addiction*. 2011; 106 (4); 768-776.
13. Alaniz ML. Alcohol availability and targeted advertising in racial/ethnic minority communities. *Alcohol Health & Research World*. 1998;22(4): 286-289.
14. Truong K and Sturm R. Alcohol environments and disparities in exposure associated with adolescent drinking in California. *Am J Public Health*. 2009;99(2), 264-270.
15. Skogan, W. Disorder and decline: *Crime and the spiral of decay in American Neighborhoods*. Berkeley, CA: University of California Press, 1990.
16. Chen MJ, Gruenewald PJ, Remer LG. Does Alcohol Outlet Density Affect Youth Access to Alcohol? *Journal of Adolescent Health*. 2009;44:582-589.
17. Reboussin BA, Song EY, Wolfson M. The Impact of Alcohol Outlet Density on the Geographic Clustering of Underage Drinking Behaviors within Census Tracts. *Alcoholism: Clinical and Experimental Research*. 2011; 35 (8): 1-9.
18. West JH, Blumberg EJ, Kelley NJ, et al. Does Proximity to Retailers Influence Alcohol and Tobacco Use Among Latino Adolescents? *Journal of Immigrant Minority Health*. Published online 20 Nov. 2009. Accessed January 5, 2010.
19. The Task Force on Community Preventive Services. Recommendations for Reducing Excessive Alcohol Consumption and Alcohol-Related Harms by Limiting Alcohol Outlet Density. *American Journal of Preventive Medicine*. 2009; 37(6).
20. Babor TF, Caetano R, Casswell S, et al. *Alcohol: no ordinary commodity – research and public policy*. Oxford: Oxford University Press, 2010.
21. World Health Organization. *European Alcohol Action Plan, 2000-2005*. Copenhagen: WHO, 2000.