



# Washington State Liquor and Cannabis Board

## Research Brief Alcohol Outlet Density

August 2024

### LCB Research Program

The research program at the Washington State Liquor and Cannabis Board (LCB) is a non-partisan, transparent resource focused on public safety and health outcomes related to the products, policy, and regulation of alcohol, cannabis, tobacco, and vapor products. This brief was created by the LCB Research Program based on peer-reviewed literature and government-reported data.

### Purpose

The purpose of this document is to provide a summary of the research literature on alcohol outlet density and public health and safety outcomes. This brief is based on a review of existing evidence including scientific literature, government reports, policies, and other credible information sources.

This document does not represent an official position of LCB.

### Contact

For more information about the Research Program and its work, please visit: [lcb.wa.gov/research\\_program](http://lcb.wa.gov/research_program).

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### Acknowledgements

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## Definitions

The term “outlet” refers to any commercial business that sells and serves alcohol.<sup>1</sup> The term “outlet density” refers to the concentration of outlets selling a regulated substance (e.g., alcohol) within a certain population or geographic area.<sup>2-3</sup>

## Cross-Sectional Studies Are Consistent

A robust body of global research measuring outcomes at single points in time show consistent associations between higher alcohol outlet density and greater rates of:

- Alcohol use for both adults and youth;<sup>5-9</sup>
- Burglary, violence, and assault;<sup>9-14</sup>
- Alcohol-related complaints (e.g., about sale of alcohol to a minor or drinking in an unlicensed establishment);<sup>15</sup>
- Impaired driving incidents and alcohol-related hospital admissions;<sup>4,14,16</sup>
- Health problems (e.g., liver problems, sexually transmitted infections);<sup>17</sup> and
- Favorable beliefs surrounding alcohol.<sup>18</sup>

These findings align with a popular Availability Theory, which speculates that greater access and exposure to alcohol leads to greater alcohol consumption and alcohol-related consequences.<sup>19</sup>

## Longitudinal Studies Are Somewhat Mixed

Despite clear evidence that increased outlet density is linked to a range of public health and safety concerns, literature is less consistent in determining a *causal* relationship.<sup>7,11,20-25</sup>

This is because research tracking outcomes related to outlet density across time have somewhat mixed results. There is research showing longitudinal associations between outlet density and increased alcohol use disorder in a Swedish sample of adults,<sup>7</sup> as well as increased underage youth consumption in a sample of Australian students.<sup>24</sup> However, in the U.S., two studies found no longitudinal associations between changes in alcohol outlet density and heavy alcohol use (although there were slight increases in overall use).<sup>22-23</sup> Another study of over 1,000 California adolescents found that, although there were higher initial drinking rates in areas with high outlet density, increased drinking and excessive use was more rapid in areas with lower alcohol outlet densities.<sup>26</sup> These diverse findings highlight the nuanced and complex relationship between outlet density and health/safety outcomes.

## Potential Factors Influencing Outcomes

There are several reasons why outcomes related to outlet density may be mixed:

*Individual Characteristics:* Certain subgroups are disproportionately impacted by outlet density. One study found that depressive symptoms predicted alcohol consumption and drinking consequences over and above outlet density.<sup>25</sup> Another study found that higher income was associated with more frequent drinking and problems, regardless of alcohol outlet density.<sup>21</sup> Among adolescents, having friends with a car was a key factor driving the relationship between outlet density and excessive drinking.<sup>26</sup> Other individual

characteristics that play a role in the relationship between outlet density and public safety/harm include mental and physical health status, personal or family history with alcohol use disorder, and gender identity.<sup>21,25,33</sup>

*Neighborhood Characteristics:* Overall, there is increased alcohol outlet density in low-income areas with a majority of residents being ethnic-racial minorities.<sup>32</sup> Two studies found that off-premise alcohol outlet density and crime were directly influenced by [history of redlining](#).<sup>27-28</sup> Neighborhoods with lower economic investment or more vacant properties may also be at higher risk for harm.<sup>27</sup> Other neighborhood characteristics such as lower average neighborhood income, greater prevalence of food scarcity, or inadequate access to healthy foods may be particularly vulnerable to increased outlet density.<sup>2</sup>

*Outlet Characteristics:* The type of alcohol outlet may also have differential health and safety risks. For example, outlets with higher average nightly sales (e.g., clubs with admission costs) may be associated with greater risk for violence relative to outlets with lower nightly sales, perhaps because of increased consumption and intoxication rates.<sup>29</sup> On-premise (consume on site) versus off-premise (buy and consume elsewhere) outlet density may influence how adults use alcohol as well as how youth may access alcohol.<sup>21,26</sup> Outlets that sell less expensive versus more expensive alcohol may also be associated with various safety or health outcomes.<sup>32</sup>

*Research Study Measurement:* Outlet density in research has been measured

in different ways. As one of many examples, alcohol availability (number of outlets) and alcohol accessibility (proximity to outlets) are two different constructs that are related to overall outlet density and subsequent outcomes.<sup>27</sup> These differences in measurement have provided a muddled understanding of a process that is already nuanced and complex.<sup>1,27,30-31</sup> Notably, calls for more unified approaches to measure outlet density have been specified by the Center for Disease Control (CDC) and other researchers.<sup>27,30</sup> Future longitudinal research using standardized approaches will help track the impacts of outlet density over time, as well as determine the best regulatory approaches to reduce harms.

### **Regulation of Alcohol Outlet Density**

Regulating alcohol outlet density may be effective in reducing excessive drinking and related outcomes. Governments typically regulate alcohol outlet density through licensing and/or zoning; licensing is more common. Licensing directly regulates alcohol outlet density through setting parameters for issuing licenses including:

- *Population-based:* limit the number of outlets per population in a geographic area;
- *Quota-based:* limit the total number or percentage of outlets in a geographic area;
- *Distance-based:* limit the distance between alcohol outlets; or
- *Discretion-based:* limit licenses based on regulator considerations of density factors not based on specific parameters.<sup>34</sup>

There is wide variation in state government regulation of alcohol outlet

density through licensing. As of 2022, 33 states control alcohol outlet density through licensing laws including 25 states with population-based limits, 11 with quota-based limits, eight with distance-based limits, and six with discretion-based licensing requirements. Some states have more than one type of parameter.<sup>34</sup>

Another approach to regulating alcohol outlet density aims to reduce youth exposure to and use of alcohol through distance limitations applied to new alcohol outlets near universities, colleges, and primary and secondary schools. The distance requirements vary greatly, from 100 feet to 1.5 miles. As of 2018, 31 states had distance restrictions for alcohol outlets near primary and secondary schools, and 12 states had distance restrictions for outlets near colleges and universities.<sup>35</sup>

### Washington State Regulations

According to [RCW 66.24.420](#), Washington currently has alcohol outlet density restrictions based on 1) population and 2) discretion that applies to on-premises retailer licensing:

- *Population-based:* Total number of on-premises licenses is limited to less than one license per 1,200 of population in the state (for spirits drinks only, not beer/wine); or
- *Discretion-based:* If in the opinion of the LCB, licenses already granted for a particular locality are deemed “adequate for the reasonable needs of the community.”

According to [RCW 66.24.010](#), Washington has a distance limitation that applies to any new on-premises or off-premises liquor licenses; if a new license proposal is a location within 500

feet of the premises of any tax-supported, public primary or secondary school, schools may object to the proposal and it may not be granted. Washington does not currently have distance limitations for liquor licenses near colleges and universities.

### Summary and Future Directions

There is consistent evidence of the links between outlet density, greater alcohol consumption, and related harms. Many agencies and groups have called for placing restrictions on alcohol outlet density. There are several publicly available resources with helpful information, such as:

- [Centers for Disease Control and Prevention: Alcohol Outlet Density Measurement Tools](#)
- [Change Lab Solutions: Local Authority to Regulate the Density of Alcohol Outlets FAQ](#)
- [The Colorado Department of Public Health & Environment: Alcohol Outlet Density](#)

Although there are well-established links between outlet density and public health and safety outcomes, these relationships are multi-faceted and complex. More rigorous and longitudinal research is needed to determine which individual, neighborhood, and outlet characteristics create the highest risks of harm. The impacts of reducing alcohol outlet density would not be a one-size fits all approach.<sup>20</sup> Individuals who are at risk for negative consequences of alcohol use are particularly vulnerable regardless of alcohol outlet density.<sup>21,25,35</sup>

Collaborative efforts are essential among regulators, licensees, prevention professionals, and community members

to better address highest risk factors.  
For researchers, it is important to use a unified approach to increase the ability to track and understand outcomes.

## Suggested Citation

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<https://lcb.wa.gov/research/briefs>

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