

Alcohol Social Districts In North Carolina: Evaluation Plans, Feasibility & Recommendations

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Evaluation of Alcohol Social Districts

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Executive Summary

NC state law allowed local governments to designate “social districts” (hereinafter: alcohol social districts”) in Summer 2021. Alcohol social districts, if established by a locality, permit loosened alcohol regulation (for instance, open container laws that would otherwise disallow walking).

This policy change to the alcohol environment happens within the larger, more holistic alcohol and public health context in NC. **Excessive alcohol consumption** in particular is already a serious public problem in NC. Excessive alcohol consumption has a steep human cost: over 6,000 NC residents die from alcohol-related causes each year, including injuries like poisoning, motor vehicle crashes, suicide, homicide, and fall injuries and chronic diseases like alcohol use disorder and liver diseases. Alcohol was involved in 1 in 4 fatal crashes in NC (2021). Each year over 100,000 years of potential life are lost to NC residents by these alcohol-related premature deaths. Children are uniquely at risk: half of all NC high school drinkers reported binge drinking in the last 30 days. These human costs also cost the NC economy: excessive alcohol consumption costs NC an estimated 10 billion dollars a year in healthcare, criminal justice, lost productivity, and motor vehicle crash costs.

There is little in the scientific literature about the effects of alcohol social districts specifically. However, there is strong scientific consensus about (1) the negative public health effects of **excessive alcohol consumption** and (2) numerous **policies and environmental dynamics** that contribute to increases or decreases in excessive alcohol consumption.

Alcohol social districts may indirectly make excessive alcohol consumption easier through multiple pathways. The increased and required signage and popular press coverage may further normalize drinking culture for adults and youth. Indirect but concrete changes may include pressures to expanded days or hours of sale, both associated with increased excessive alcohol consumption. While many local resolutions promise increased enforcement, such increased enforcement may create a net effect of stretching enforcement thin, leading to decreased enforcement overall and or increasing disparities in exposure to policing in already over-policed neighborhoods.

Claims of purported benefits by those promoting alcohol social districts include increased revenue and a welcoming culture for tourism. Any future increased revenue (currently unknown and largely undocumented) must be weighed against the known, massive, socialized cost of excessive alcohol consumption. Cultural changes that promote tourism and socializing must likewise be weighed against the known harms of normalizing frequent alcohol consumption and increased exposure to advertising.

Evaluation Feasibility

Statewide causal evaluation of alcohol social districts would have major limitations and may be infeasible.

These challenges include:

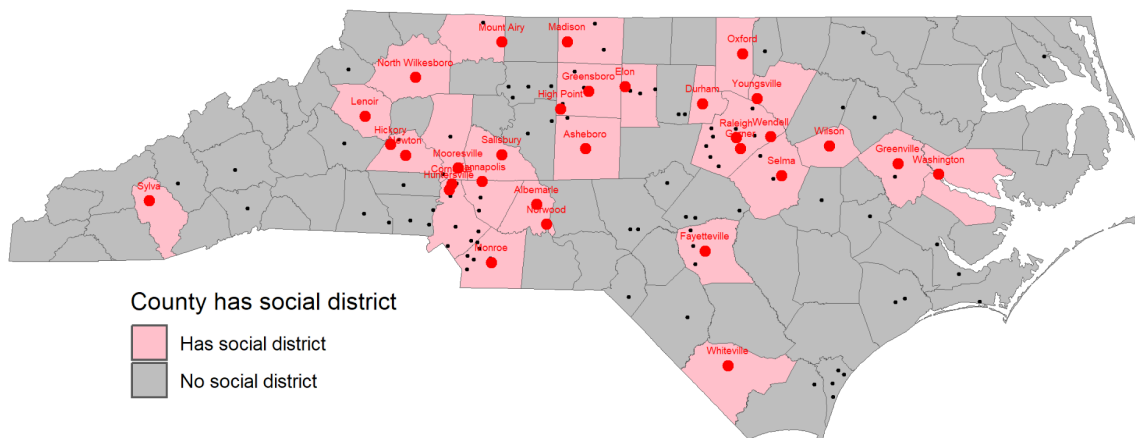
- **Small spatial scale**
- **Time implementations variability**
- **Implementation variability**
- **Confounding & Power**

The infeasibility of statewide evaluation does not mean that alcohol social districts are of public health benefit or even neutral, just that their possible harms may be difficult to disentangle from the harms and costs of other policies in practice.

Recommendations

The major limitations to feasibility do not mean there are no viable options for local and state response. We suggest four recommendations for local communities, researchers, and the state government and its partners (details provided in the evaluation body).

- 1) **Local response: investigate, document, and act.**
- 2) **Research and describe current practices.**
- 3) **Maintain and Improve State Surveillance.**
- 4) **Develop and release a statewide action plan.**



Alcohol Social Districts as of Feb 2023. Analysis by co-author Mike Dolan Fliss.

Introduction

In July of 2021, Governor Roy Cooper signed HB211 into effect allowing local governments to pass ordinances to create social districts within their town/city limits. State law defines a social district as “a defined area in which a person may consume alcoholic beverages sold by a permittee”. According to HB211, counties may adopt ordinances designating one or more social districts. Social districts may be indoor or outdoor, and may include private property, multi-tenant establishments¹, public streets, crosswalks, and/or parking areas. The management of the social district can be assigned to either a government agency or a private entity such as a developer.

As of January 2023, 32 social districts have either been created or approved across North Carolina in cities as large as Raleigh and Durham to towns as small as Sylva and Washington. Once a local government has approved the ordinance for a social district, they must submit an application to the ABC Board for approval. In order to be approved, the social district must meet several criteria including clearly defined boundaries with signage including days and times of social district as well as telephone numbers for local law enforcement and Alcohol Law Enforcement (ALE). The city or county must also establish and approve management and maintenance plans. In addition to the submission of a map of the district, city or county governments must also submit uniform signs designating whether a business is an ABC permittee (sells), a participating business (allows beverages inside), or a non-participating business.

While in the social district, beverages should be served in a container (no more than 16 oz) with the social district emblem, name of the ABC permittee, and the phrase “Drink Responsibly. Be 21”, and the time and date of purchase. Beverages must be consumed within the boundaries of the district, if a consumer leaves the boundaries they must empty their container before doing so. Consumers may not enter another establishment that sells alcohol with a beverage purchased at a different location. Outside alcohol may not be brought within the district. Social districts do not impact limits on the number of beverages purchased at one time by one person as previously established by NC alcohol laws. Local governments have the power to decide whether the social district will continue to operate during special events held in the same area.

National Examples of Social Districts

While the term “social district” is novel, the concept has existed in other parts of the country for some time. For example, “Common Consumption Areas” (CCA) were approved in Denver, Colorado in June of 2021. Similarly to NC, there is a lengthy procedure and application in order to establish a CCA. Applicants first must be designated as an entertainment district with council approval and a clearly defined boundary. Unlike social districts, CCAs must pay a \$250

¹ Multi-tenant establishments are buildings with multiple businesses that sell goods or services within a common area.

application fee as well as a \$250 annual fee. North Carolina currently does not charge any fees for the establishment or maintenance of social districts.

Since 2017, Huntsville, Alabama has established five Arts & Entertainment (A&E) districts throughout the city. In these areas, patrons may take their alcoholic beverages outside of the establishment they purchased them from in clearly marked cups. These districts have similar regulations to NC social districts 1) boundaries must be clearly marked, 2) patrons may not take alcoholic beverages from one licensed establishment into another licensed establishment, 3) patrons may not bring outside alcohol into the district, and 4) businesses may elect to allow patrons with beverages into their establishment. The key difference is a lack of standardized signs for participating businesses to display as well as a difference in the size of the districts. The smallest A&E district is 12 acres while the largest is 158 acres². (City of Huntsville, 2022)

Ohio has two pieces of legislation similar to social districts, designated outdoor refreshment areas (DORA)³ and stadium event based districts. In 2015, Ohio allowed for the creation of up to six DORAs in a municipal corporation or township. As of March 2023, 121 DORAs have been created in Ohio. Notably, municipalities have complete decision-making over boundaries, hours and days of operation, management and maintenance, and number of personnel needed to ensure public safety. The only requirement of DORAs is that beverages be served in non-glass containers. Stadium event based districts are temporary DORAs that are activated up to 3 hours before a special event until midnight.

Much like North Carolina, Michigan passed a law during the COVID-19 pandemic allowing for the creation of social districts. Advocates of the law cited decreases in restaurant sales as a motivator for the creation of social districts in hopes that these districts will bring more foot traffic and thus more economic development to downtown areas. Over 90 jurisdictions in Michigan have elected to create social districts. As with others of its kind, these districts must have clearly marked boundaries and beverage containers (no more than 16 ounces), each with the unique logo created by and for the district.

Local Practice

As of January 2023, at least 32 social districts have been identified across the state. Districts have been established in towns of all populations and geographies, from small college towns such as Sylva to metropolitan areas such as Raleigh and Durham.

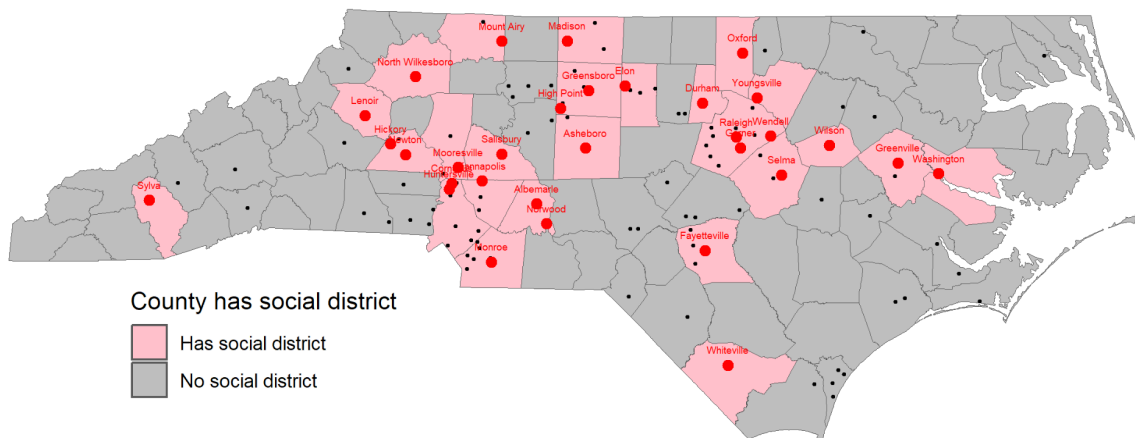
Aside from location, social districts vary widely in nearly all areas of measurement including size, scope, hours of operation, and number of participating businesses. Hours of operation range from 19 hours per week to 110 hours per week. The majority of social districts operate during school hours (approximately 7am-3pm) and many operate 7 days per week.

² <https://maps.huntsvilleal.gov/entertainmentdistricts/>

³

<https://com.ohio.gov/divisions-and-programs/liquor-control/local-government-resources/designated-outdoor-refreshment-areas-dora>

There are three levels of participation for businesses operating within the social district. Businesses may designate themselves as permittees, participants, or non-participants. Depending on the option chosen, businesses receive the appropriate window sign or sticker to indicate their involvement. While permittees are solely businesses that have received an ABC permit to sell alcohol, participants are defined as businesses that do not sell alcohol but will allow patrons to enter the premises with a beverage. An important note in this aspect is that consumers may not enter another permittee business with a beverage purchased elsewhere in the social district. There are concerns that by allowing consumers to take their beverages into participating non-alcohol vendors, there will be an increase in alcohol exposure and normalization which has been cited as a risk factor for alcohol-related harms.



Alcohol Social Districts as of Feb 2023. Analysis by co-author Mike Dolan Fliss.

Benefits, Concerns, and Social Districts

Benefits

The overarching selling point for social districts is the potential for increased traffic for local businesses and restaurants. Especially in the wake of the COVID-19 pandemic when local businesses have reported major losses in sales, local business councils are eager to implement policies that may have any positive impact. In the case of Tarboro, a town with a population just over 10,000 located in Eastern NC, a list of benefits was compiled and presented to town council members who were deciding whether to create a social district. The list consisted of the following:

1. *Increased tourism⁴*
2. *A Social District offers a broad social and cultural experience for residents and visitors*
3. *Opportunity for increased tourism as a ‘Destination Downtown’*
4. *Opportunity for businesses and nonprofits to hold events, such as Art Walk, festivals, crawls and many others*
5. *Opportunity for increased dollars spent in stores and eateries as people stay longer to shop, dine and enjoy Tarboro*

⁴ Tarboro Town Council Minutes 12-12-22 “Downtown Tarboro Social District Information”

6. *Opportunity for existing AND new bars, non-bars and restaurants to increase revenue streams by serving 'to-go' drinks*
7. *Opportunity to encourage business growth with new businesses seeking to participate in this economic opportunity*

Other proponents have claimed that social districts will increase walkability, provide a sense of community, and encourage ability for local programming, and in doing so, social districts will reduce crime rates. Many advocates cite a desired “work, live, play” environment and argue that social districts will support these efforts.

These claims can be broken down into 3 overarching beliefs: 1) social districts will change socialization and financial behaviors among tourists and residents, 2) social districts will encourage new business growth and 3) social districts will establish an area as a ‘destination’.

These beliefs operate under the assumption that a social district will fundamentally change the landscape and perception of an area. These also assume that people will be motivated by easier access to alcohol. There is little evidence to suggest that increasing access to alcohol will change socialization behaviors. Based on available evidence, it is more likely that social districts will impact alcohol-related behaviors more than socialization behaviors.

Concerns

Although there are many proponents of social districts, local environmental groups and alcohol prevention coalitions have voiced concerns about the impact on alcohol culture, alcohol-related harms, and the potential for pollution. As previously mentioned, increasing access to alcohol is directly correlated with increases in alcohol-related harms such as drinking and driving, assault, and chronic conditions related to alcohol consumption (See [Evidence](#)). The New Bern Social District webpage lists common concerns about social districts:

1. *Drinking-related issues, such as underage consumption, public drunkenness, drunk driving, and general irresponsible behavior.*
2. *People illegally bringing or consuming alcohol that hasn't been purchased in the social district.*
3. *Litter or waste increase.*
4. *Conflicting events within the social district boundaries.*

Similar concerns have been brought up by community partners interested in reducing alcohol related harms, especially among youth. These organizations are concerned about the potential for irresponsible alcohol sales (serving an intoxicated individual, failure to check IDs, etc) as well as a shift in the cultural normalization of alcohol.

While many advocates promote the potential revenue generating effects of social districts, this revenue should be compared with the potential for increased costs from alcohol-related harms. In 2010, the Center for Disease Control (CDC) reported the cost of excessive alcohol use as \$249 billion nationwide and over \$7 billion in North Carolina alone (Centers for Disease Control, 2022). The breakdown of these costs include losses in workplace productivity, healthcare costs, law enforcement and criminal justice expenses, and losses from

motor vehicle accidents (Centers for Disease Control, 2022). Increased revenue from social districts would have to outweigh any increased costs of excessive alcohol use related to social districts in order to be considered a true profit.

Another cause for concern is the potential for increased alcohol outlet density. Alcohol outlet density refers to the number of establishments selling alcohol in a given area. Prior research has demonstrated that higher alcohol outlet density is related to increases in alcohol consumption, hospital admissions, and violent crime (Fone et al., 2016). This is especially concerning for social districts in high proximity to historically Black, Indigenous, and People of Color (BIPOC) communities and neighborhoods, off-premise outlets such as convenience stores or gas stations are often denser in BIPOC communities. This high density and the alcohol-related harms that accompany it are much more consequential to the populations living nearby, not necessarily those who travel to the districts and leave. Therefore, it is important to evaluate how social districts may influence neighborhood equity dynamics. In a social district, it is possible that increased alcohol outlet density would increase the density of exposure to other alcohol-related risk factors such as advertising and promotion, and normalization of alcohol through observation of other consumers. At this point, it is unclear if social districts will impact alcohol outlet density. It is important to understand the potential impacts of increasing alcohol outlet density and its role in evaluating the impacts of social districts.

Considering the evidence gap in how social districts will impact populations, many of these concerns are extrapolations from existing evidence. For example, if social districts were to increase hours or days of sale of alcohol, prior research has suggested that this change is associated with greater access and greater risk of alcohol related harms. However, at this time, there is no evidence to suggest that social districts will or will not cause an increase in hours or days of sale. This is where the implementation of a comprehensive evaluation plan becomes crucial to understanding the true impacts of social districts.

Evidence

Social districts are a novel concept in the landscape of alcohol use and research. There is no existing research on the specific impacts a social district can have on alcohol consumption, alcohol-related harms, or, potentially, the surrounding neighborhoods and community. However, there is plenty of research detailing specific risk factors associated with greater alcohol use and greater harms. It is currently unclear how the development of social districts across North Carolina will impact public health. Some of the key questions to be examined include potential risk factors, protective factors, short-term outcomes, and long-term population impacts. By understanding current evidence of risks related to alcohol use, an evaluation plan can be developed to assess the impacts of social districts over time.

Four P's of Alcohol

Alcohol use assessments by public health agencies are often framed through marketing-place, product, promotion, and price (Greisen et al., 2019). The following sections provide context and justification for evaluation of alcohol spaces through this framework.

Place

Place refers to the environmental context of alcohol sales such as alcohol outlet density and hours/days of operation of outlets. Alcohol outlet density refers to the number of outlets selling alcohol in a defined area; more outlets equals a higher overall density. Higher alcohol outlet density has been associated with higher rates of underage drinking (Chen et al., 2009) and violent crime (Trangenstein et al., 2018). More specifically, high outlet densities were found to be associated with increased rates of assault, self-reported injuries, motor-vehicle accidents, pedestrian-vehicle collisions, incidents of domestic violence, and child abuse (Fone et al., 2016). Hours of operation can also impact rates of alcohol related harms. Increasing hours of operation by at least 2 hours was associated with an increase in consumption and motor-vehicle collisions as well as a shift in timing of motor-vehicle collisions corresponding to the closing time of the outlet (CPSTF, 2022).

Product

The type of alcohol product can also have an impact on consumption. One assessment of preferred type of alcohol and health outcomes found that individuals who preferred beer or hard liquor were more likely to be binge-type drinkers (Niemelä et al., 2022). Another study across 17 countries by Davies et al. found that individuals who drank in bars, pubs, or clubs were more likely to become more drunk than they wanted to be (identified as “the tipping point”). Davies et al. also found that beer, lager, and/or cider drinkers consumed more beverages overall to reach “desired” stages of intoxication (2021).

Promotion

Alcohol advertisements have become a familiar part of the American landscape and can be found in every medium from television to billboards to pop-up ads on social media platforms like Snapchat and Tiktok. Promotion of alcohol is more than just an annoying commercial however, Trangenstein et al. found that alcohol outlets in Baltimore, Maryland with street facing alcohol promotions had 15% more violent crimes per square mile (2020). This same association was not apparent for street facing tobacco advertisements (Trangenstein et al., 2020). It should be noted that some populations are more vulnerable to alcohol advertising than others. Individuals with positive alcohol expectancies, sensation seeking traits, and alcohol dependence have been identified as being particularly sensitive to alcohol advertisements, especially when the advertisement contains a cue to drink (Noel et al., 2019).

Price

One of the major contributing factors to alcohol consumption is the price per unit. Research has shown that when the price per unit of alcohol is increased, there is an associated decrease in consumption, especially among youth (CPSTF, 2022). Increased prices have also been associated with fewer motor vehicle collisions and fatalities, less alcohol-impaired driving, reduced mortality from liver cirrhosis, and reduced all-cause mortality (CPSTF, 2022). There is also evidence to suggest that increased price effected measures of violence, reduced transmission of sexually transmitted diseases, and impacted alcohol dependence (CPSTF, 2022).

Excessive Alcohol Consumption

Most of the concerns about how social districts will impact populations comes back to the impacts of excessive alcohol consumption. Excessive consumption has been associated with a number of poor health outcomes including cancer, liver cirrhosis and cardiovascular disease, as well as acute health outcomes such as injuries, fatalities, and poor pregnancy outcomes (CDC, 2022). By definition, excessive alcohol consumption includes “binge drinking, heavy drinking, and any drinking by pregnant people or people younger than 21” (CDC, 2022). Binge drinking can be defined as five or more drinks in one sitting for men or four or more drinks in one sitting for women (CDC, 2022). Heavy drinking is defined by the number of drinks per week, 15 or more for men and eight or more for women (CDC, 2022). Binge drinking is not exclusive to individuals with alcohol addiction or dependency (Esser et al., 2014). If social districts contribute to excessive alcohol consumption, this would be a known harm supported by evidence.

Evaluation Metrics

Introduction to Metrics

Metrics help assess the impact of policy changes like the institution of alcohol social districts.

A **metric** is often made up of **counts** of certain events that may be impacted by a policy change, such as alcohol-related car crashes, assessed and compared pre- and post-policy change. In order to account for differences between locations, counts (as **numerators**) are often combined with **denominators** (the bottom of a fraction) to produce **rates**, such as the number of alcohol-related car crashes per square mile, per vehicle mile traveled (VMT), or per resident population. These rates can then be more readily compare, both between different locations with different baseline populations at risk (e.g. drivers, driving quantity, or population sizes) and also between pre- and post-policy periods when baseline risks change (such as changes in total driving amounts before, during, and after the COVID-19 pandemic).

Metrics may vary in their **scalability** and **specificity**. Scalability includes their availability by geographic size (e.g. city blocks, cities, zip codes, census tracts, counties), as well as time span (week, month, year), time lag (when data comes available), and historical availability.

Specificity includes availability by demographic groups like age, race-ethnicity, or gender as well as metrics by on vs. off premises consumption locations.

Some metrics may be difficult to collect, if not impossible, and some easier or already collected and made publically available. Metric collection difficulty includes the time and money to collect new metrics, data governance limitations, analysis complexities, and whether data is made public or only privately available.

Drawing metrics from both claims and research

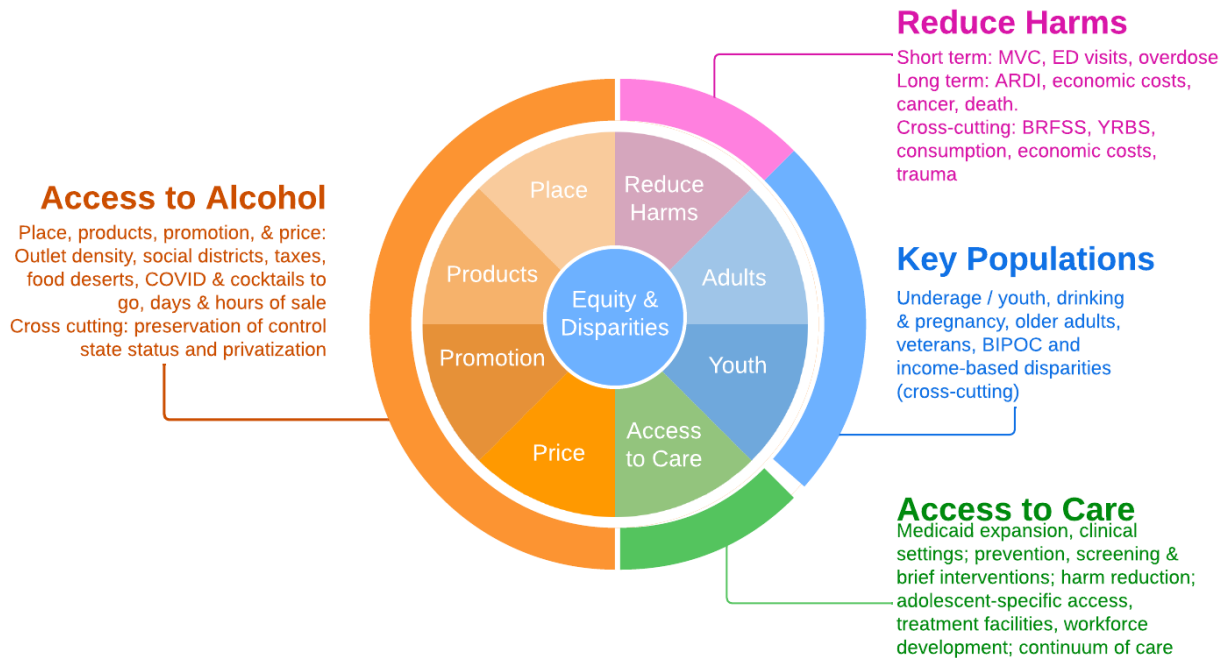
Metrics for evaluating alcohol social districts can be drawn from two broad categories.

First, both **proponents and critics** of social districts may make claims about the impact of alcohol social districts. These claims may or may not be evidence based. The impacts may not be limited to public health benefits and harms, but include economic claims at the more macro (city budgets) and micro (business income) levels and more amorphous claims like “a sense of welcoming visitors downtown.”

Second, regardless of how proponents and critics frame alcohol social districts, there is a great **body of evidence** on the impact of many alcohol policy and practice changes on human outcomes. Alcohol social district associated changes in price, promotions and advertisements, places alcohol is sold, and products sold, or changes to aspects like hours or days of sale or increased outlet density, may lead to increased excessive alcohol consumption. Increased excessive alcohol consumption is associated with numerous and measurable negative health outcomes.

Topics

Alcohol action, data, and policy spaces can be divided into focus areas, even though these foci overlap and interrelate. Metrics may be drawn from these focus areas.



Above: Alcohol social district metrics may be drawn from causes (e.g. 4Ps), effects, prevention strategies, and key populations. Demographic groups (such as by race, ethnicity, age, language, gender identity, and sexual orientation) may have disparate experiences and impacts across all these categories.

Place

Place metrics include measures of size, proximity, and outlet operations within alcohol social districts. These may include:

- # of participant businesses
- Hours of operation
- Proximity to high schools/colleges
- Number / rate of alcohol outlets / density
- Useful data: outlet density, GIS-based proximity, hours (store surveys/google data)
- Disparate exposure to BIPOC communities or other special populations

Data sources: NC ABC outlet and license data, NC ABC / local government announcements on participating businesses and spaces, local knowledge of businesses operating, local and online tools reporting business hours.

Products

Products include the drink types, sizes, and outlet types within a district. Metrics may include:

- Cheapest alcoholic drink
- Teen- and child-targeting alcohol-like toys, candy, drinks
- Non-drink alcohol products, like alco-pops
- Outlet types (on premise, off premise)

Data source: In-store surveys, standardized survey instruments

Promotion

Promotion metrics include advertising efforts, increased exposure to alcohol messaging, and norm setting narratives, including social and cultural changes. Metrics may include:

- Number of people with cups (including crossing into other businesses, etc.)
- Environmental scans (related to section in compliance)
- Narratives about downtown (press, surveys), indirect measures of social / cultural engagement (traffic, etc.).
- Positive AND negative narratives. Implied priorities in narratives (revenue over harms).
- Surveying experiences (residents and tourists)
- Increase in number of events (town calendars)
- Walkability scores
- Web / page visits
- Measures of support, including community support, neighborhood support, local government, & business support

Data source: Newspaper articles, direct observation of social districts, local polls & interviews, local event data, webmasters tracking visit data, google trends & search data..

Price

Price includes cost of drinks, as well as (in this alcohol social district context) economic impacts on businesses and local costs. Metrics include:

- Business reporting changes in revenue
- Attendance of special events (increasing/decreasing)
- Local cost (of public health consequences) for comparison

Data source: Business owner surveys, NC DOR revenue; ARDI calculations for costs, local enforcement costs

Injury

Injury related harms include alcohol-related and caused incidents like car crashes, alcohol-related overdoses leading to emergency department (ED) visits and ambulance / EMS calls. Metrics include:

- Alcohol-related traffic collisions
- 911 & EMS calls
- Crime

Data Sources: BRFSS, YRBS, ED data, IPV, VDRS, crime incidence, store surveys/employee surveys, BRFSS, YRBS (riding in a car with an adult who has been drinking), crime data

Compliance & Enforcement

- ALE presence
- Responsible beverage service training
- ID checks
- Responsible advertising (no boards on the street)
- Crime

Data Sources: NC Crash/FARS, Crime data, UCR crime, ALE compliance checks, PUDI, environmental scans

Key Populations / Access to Care - WIP

- Datasources with demographic variables (e.g. race, ethnicity, age, language, disability, sexual orientation, gender identity) and lived experiences (people experiencing homelessness, substance use addictions, etc.)
- Community story-telling and organizations

Data Sources: Datasources vary widely in the availability of specific demographic and lived experience data.

Feasibility

Numerous aspects of alcohol social districts create challenges to statewide evaluation.

- **Small spatial scale:** The small spatial size of alcohol social districts (e.g., perhaps a few city blocks, smaller) create challenges for evaluation. Such spatial scale requires specifically geocoded (e.g. latitude / longitude) public health event data, not commonly and consistently available across the many content areas that might be impacted by social districts and not always available statewide for consistent evaluation.
- **Time implementations variability:** While NC passed statewide legislation allowances at single points in time, individual local governments passed their own ordinances to

implement alcohol social districts at different times. This creates challenges in comparison to and combination with peer localities in pooled causal models testing the impact of interventions.

- **Implementation variability:** The implementations vary widely across localities in meaningful specifics, such as hours of operation, the number and percent of participating businesses, and the size of the alcohol social district.
- **Confounding & Power:** Measuring the effect of alcohol social districts - either statewide or for specific localities, requires testing causal hypotheses against counterfactuals, e.g. (a) what if the state hadn't allowed / implemented alcohol social districts or (b) what if this / these localities hadn't implemented their own alcohol social districts. Dramatic changes in exposure, availability, and consumption of alcohol associated with the COVID-19 pandemic create a complex environment to measure the specific impact of alcohol social districts against. Detecting the marginal effect of alcohol social districts must be measured against: the large-scale impacts of overall excessive alcohol consumption and its trend during this time; other changes to the alcohol environment, including novel products and alcohol delivery laws; and consumption changes. Studies must be powered to disentangle the effect of alcohol social districts against other changes.

For these reasons, **statewide evaluation of alcohol social districts - including their potential harms - may be infeasible**. This does not mean that alcohol social districts are of public health benefit or even neutral, just that their possible harms may be difficult to disentangle from the harms and costs of other policies.

Conducting underpowered or highly confounded evaluations can be worse than not performing evaluation at all. Studies unable to uncover statistically significant public health effects can be misinterpreted as to suggest that policies therefore have positive or neutral public health effects.

Recommendations

The major limitations to feasibility do not mean there are no viable options for local and state response. Informal evaluations can have great value even in the absence of quantitative epidemiologic studies of policy effects on health outcomes. Below are four recommendations for response for local communities, researchers, and state government and its partners.

1) **Local response: investigate, document, and act.**

While locals may be challenged if pursuing formal causal evaluation of local social district policies, informal evaluation and response is still very possible and of value.

Claims of increased revenue to local businesses can be tested, even if anecdotally, by approaching local businesses. Interviews and story-telling can be powerful tools to shape and change established alcohol outlet districts in the future. Locals should consider what local frameworks are most effective and collect knowledge and narratives accordingly, such as engaging youth, measuring the impact on businesses or tourism, the effects on those seeking treatment, or changes to enforcement, policing, and crime. In the absence of data, local stories and organizing can still have public health benefit. Locals engaging with social districts must balance their focus on the immediate, specific calls to action around alcohol social districts with a forest-from-the-trees approach that acknowledges the overall costs of excessive alcohol consumption locally and the many local environment dynamics (outlet density, price of alcohol, accessibility of treatment, etc.) that help them tell a holistic and evidence-based story locally.

2) Research & describe current practices.

There is currently a significant evidence gap in alcohol research concerning social districts. In order to build an evidence base, even non-causal, descriptive studies can be of benefit. Researchers can build and share maps of social districts, cross-sectional analyses, and descriptive statistics of key variables (like number of businesses, spatial area, hours of sale) to increase the general knowledge of social districts. These baseline norms can be useful to others even in the absence of causal tests. Should teams aim to measure causal impacts, statistical tools like controlled interrupted time series (CITS) or synthetic control may be of use, but again, researchers should consider whether their studies are powered to find any effect and take limitations and feasibility challenges into account.

3) Maintain and improve state surveillance.

While the formal evaluation of the marginal effect of alcohol social districts may be difficult, state government and researchers can and should track and consolidate numerous alcohol-related indicators to understand and identify changes in the alcohol environment, excessive consumption dynamics, and alcohol-relevant policies. Dozens of indicators are needed for a holistic understanding of alcohol's impact on public health, including measurements of the 4Ps (price, promotions, place, and products), outlet density, and alcohol related outcomes from many public health databases (car crashes, deaths, morbidity, emergency departments, police, etc.) . States often vary in the availability of these indicators: some may be able to calculate alcohol outlet density more easily, but have little to no information on alcohol-related revenues and taxes (as a proxy for local consumption). NC should develop an assessment of alcohol-related data availability; create sustainable, routinized methods to track and share that data; and work to improve / collect data not yet routinely available, including the time lags and spatial scale availability of that data. This enables a more nimble, ready response to public health emergencies (like COVID-19) and policy changes alike.

4) **Develop and release a statewide action plan.**

NC has numerous statewide action plans, such as for overdose and child health. Given the oversized impact of excessive alcohol consumption, and the evidence-based knowledge of policy methods to reduce excessive alcohol consumption and save lives, NC should develop and release a statewide action plan for excessive alcohol consumption. The data inventory / improvement plan can be part of that action plan, but it should also consider the feasibility of, and suggestions for the staged pursuit of, policies which promote public health, reduce excessive alcohol consumption, and curb the significant costs to NC and its residents. Statewide emphasis should be on large and feasible public policy levers that most benefit resident health; overall statewide and universally available local alcohol indicators are well suited to tracking changes due to these larger policy options.

Table 1. Timing of Evaluation for Creation of an Alcohol Social District

Evaluation	Proposal of an Alcohol Social District or Prior to District Enactment	After Enactment
Size and Proximity	Assess baseline number of on-premise/off-premise alcohol outlets. Assess baseline factors such as: hours of operation, proximity to schools, colleges, or universities.	Continue to monitor the number of on-premise/off-premise alcohol outlets and note any changes in hours of operation. Note any potential expansions of the district.
Social and Cultural Changes	Conduct environmental scans and observe foot traffic in the proposed social district prior to development. Establish a baseline average number of “special events” occurring in the proposed social district.	Continue environmental scans and observe foot traffic in the social district and compare to the baseline. Partner with local environmental groups to monitor changes in littering. Note publications about social districts in media, positive or negative.
Economic Changes	Identify available data sources or potential business surveys	Collect business data from local businesses, local governments, or make requests of statewide partners (like Department of Revenue)
Harms	Identify available data sources such as Youth Risk Behavior Survey, Behavioral Risk Factor Survey, EMS/Emergency Room data, etc, and plan potential analyses	Monitor available data for trends or changes in potentially alcohol-related harms.
Public Support	Assess support (proximal neighborhoods, businesses, general community attitude, etc.)	Assess support (proximal neighborhoods, businesses, general community attitude, etc.)
Compliance	Conduct baseline evaluation of compliance (ID checks, responsible beverage service). Assess public safety presence (Alcohol Law Enforcement, Police, Security Guards, etc).	Continued assessment of compliance and public safety presence to be compared with baseline. This could be considered long-term compliance with responsible beverage service.

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