

MAPPING ALCOHOL OUTLET DENSITY AND OUTLET TRADING TIMES IN TWO SOUTH AFRICAN COMMUNITIES: A COMMUNITY CENTRED APPROACH

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Harm due to alcohol use is a leading threat to public health globally, and a key barrier to the achievement of Sustainable Development Goal 3.5 ("Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol")(1). Increasingly alcohol use is recognised as a salient risk factor for Gender-Based Violence, especially intimate partner violence. In South Africa, 31% of the population drink and among these drinkers, almost 60% drink heavily (1). The World Health Organisation's Global Strategy to Reduce Harmful Use of Alcohol recommends examining alcohol availability (alcohol outlet density, and outlet trading times) as a driver of alcohol use and its related harms. This brief presents findings from the co-led SAMRC¹-SAAPA² study which aimed to test the feasibility of a participatory mapping approach, working with selected community members in two identified communities to map alcohol availability (alcohol outlet density, and outlet trading times), and to investigate the associations between alcohol availability and gender-based violence (IPV and NPSV). The brief is intended for a wide audience, including people working in public health, those working in local and national alcohol policy; policymakers, researchers; civil society groups; and community groups. It is based on a larger study report which can be found here

KEY MESSAGES

1. An increase in alcohol availability (alcohol outlet density and trading times) results in increased alcohol consumption and alcohol related harms.
2. Reducing availability is a WHO recommended strategy for reducing harm due to alcohol use.
3. Communities play an integral role in collecting evidence on alcohol acquisition, retail, consumption and related harms.
4. Alcohol outlets are densely distributed within residential areas, and this increases the probability of consumption and risk of alcohol related harm.
5. South African communities house many unlicensed outlets, which operate outside of the regulated system.
6. Alcohol outlet density and long trading times add to the already high availability of alcohol, especially in residential areas in communities.
7. Increased alcohol availability is linked to youth drinking, child abuse and neglect, gender-based violence and crime in selected communities.

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Background

Harm due to alcohol use is strongly associated with the availability, accessibility and affordability of alcohol in communities. The World Health Organisation (WHO) recommends that public health efforts must seek to reduce the availability of alcohol in order to reduce consumption and alcohol-related harm(1). This study focused on alcohol availability by examining alcohol outlet densities (AOD) - defined as a high concentration of alcohol outlets in a small area and outlet trading times (OTT), in two South African communities.

In South Africa, the issue of alcohol availability is particularly pressing, where the proliferation of alcohol outlets results from a range of phenomena, including the socio-political history of South Africa, which resulted in spatial planning that was separatist, forcing the majority of the population into townships with limited or no social spaces; the “dop³” system which paid farm workers in alcohol in exchange for employment, the rise of migrant work in mines, and the availability of cheap alcohol (mainly wine) to workers to promote job retention(2). In addition, interference from the alcohol industry in alcohol policy-making, aggressive marketing, and overt expansionist strategies to penetrate the African market combine with South Africa’s socio-political history to result in the mushrooming of alcohol outlets and increased alcohol availability, particularly in local communities. The government’s economic policy which promotes Broad- Based Black Economic Empowerment (B-BBEE) and job creation through the alcohol industry also contributes to the acceptance of alcohol trade, including through unlicensed trading in communities.(3) In addition, the high number of unlicensed outlets often means that alcohol is bought and sold outside of the regulated trading times. A rise in the numbers and density of alcohol outlets and increased availability through longer outlet trading times is associated with a range of negative consequences, including; violent crime (4, 5); gender-based violence(6); alcohol -related injuries (7) motor vehicle accidents and fatalities(8) among others. Increasingly the role of alcohol use, particularly excessive alcohol use has featured as a salient risk factor for gender-based violence.

With this in mind, this study undertook a mixed methods approach to assess the feasibility of a Community-centred approach for mapping Alcohol Outlet Density and Outlet Trading Times in two selected communities in South Africa, and examining their association with gender based violence and selected crimes.

What did we do?

- Verified alcohol outlet density and outlet trading times of alcohol outlets against local data using a participatory mapping tool; and administrative data

- (business registers, government gazettes and, public domain repositories) in the two selected communities;
- Mapped the GPS coordinates (latitude and longitude) of licensed and unlicensed on and off- premise alcohol outlets in the two selected communities;
- Documented a range of information (e.g. licensing, outlet trading times of licensed and unlicensed on- and off- premises on- and off- premises alcohol outlets against alcohol regulations (stipulated trading times per region);
- Described the prevalence of GBV (physical and sexual IPV) and (non-partner sexual violence) based on police statistics reported in Ga-Rankuwa and selected crimes in Thembalethu;
- Described the association between alcohol outlet density, outlet trading times, and police statistics on (physical and sexual IPV) and (non-partner sexual violence) and on selected crimes; and
- Spoke to local community members, and representatives on the role of alcohol in the community, including perceptions of its availability, prevalence and alcohol-related problems.

Methodology

How did we do the study?

We conducted this mixed-method study by including different but complementary research methods including: 1.) desktop research to identify known sources of data for licensed alcohol outlets in the two study sites 2.) desktop research to identify and verify the Global Positioning System (GPS) point data of alcohol outlets; 3.) Geo-location and mapping of licensed and unlicensed alcohol outlets in both study sites; 4.) Key informant Interviews (KIIs) with community representatives, and Focus Group Discussions (FGDs) with community-based service providers and leaders in the study sites; 5.) Secondary analysis of police data on Gender-Based Violence in Ga-Rankuwa and selected crime statistics in Thembalethu from police precincts.

Where did we do the study?

This study took place in two settings in South Africa, Ga-Rankuwa, Tshwane, Gauteng, and Thembalethu, George Municipality, Western Cape. These sites were chosen because they are large peri-urban areas with populations ranging from approximately 90,945 people in Ga-Rankuwa to more than 43,103 people in Thembalethu(9), and housing ranging from informal settlements to free-standing homes. Both sites are highly affected by alcohol abuse, crime, and other social harms, making them important sites for interventions. In the case of Thembalethu, the Western Cape government identified it as a high priority area for intervention, and this also informed our selection of the site.

3 An illegal practice where farm workers are given alcohol as a benefit of employment.

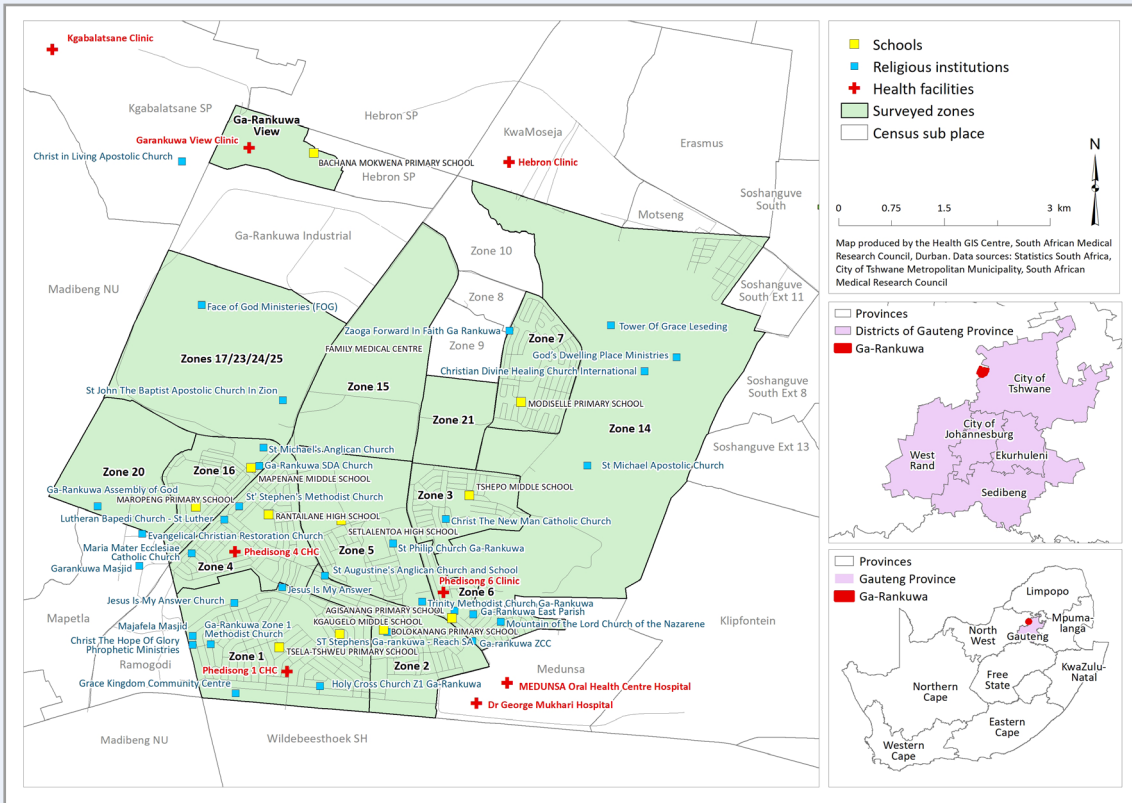


Figure 1: Contextual map of Ga-Rankuwa, City of Tshwane Metropolitan Municipality

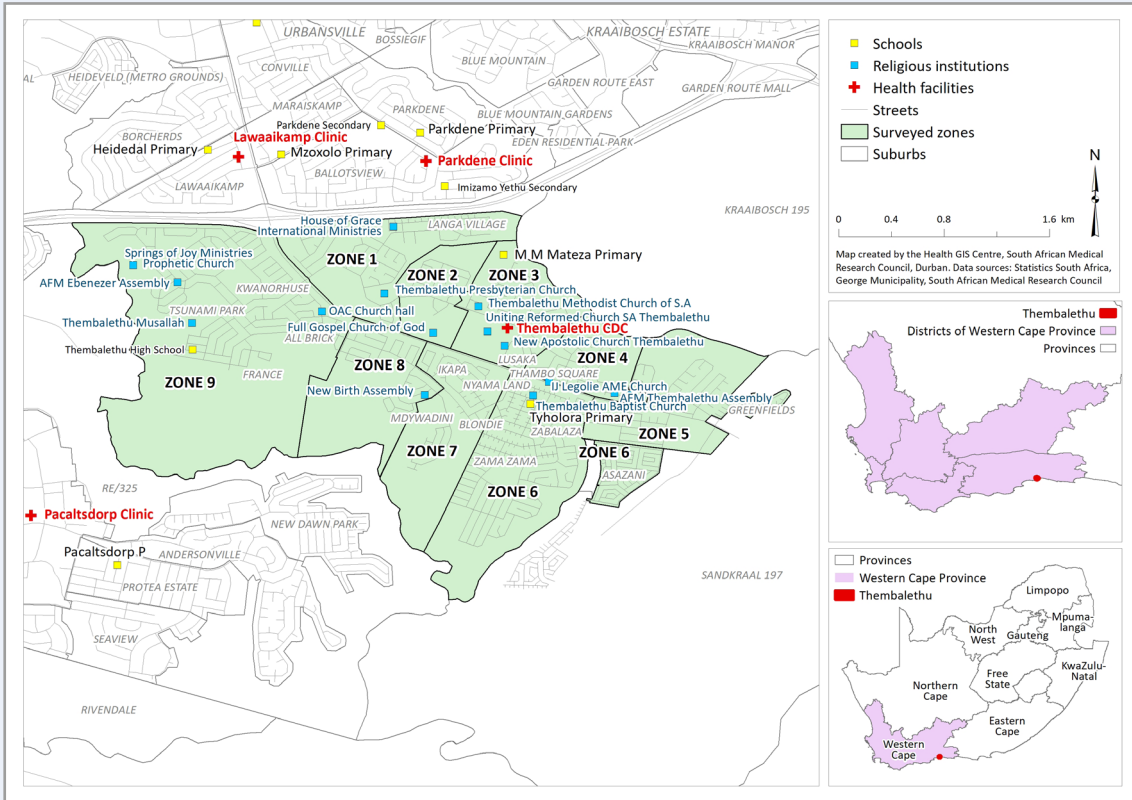


Figure 2: Contextual map of Thembalethu, George Municipality

What did we measure?

Identification and verification of alcohol outlets

To identify alcohol outlet licensing information in the two study sites, we searched the National Liquor Authority (NLA) national register for Thembalethu and the police database register for Ga-Rankuwa for all outlets that were awarded liquor licenses in the areas under study.

Geo-location and mapping of licensed and unlicensed alcohol outlets

We worked with locally identified community-based non-governmental organisations (NGOs) in Ga-Rankuwa and Thembalethu, to identify and train community-based fieldworkers to map all alcohol outlets in selected zones in the community. The mapping was conducted using Android-based mobile devices, with REDCap software. The fieldworkers collected data on the zone type, number, the count of on- and off-premise alcohol outlets, days and hours of alcohol sale, trading times, and the GPS coordinates (latitude and longitude) of each outlet, based on their intimate knowledge of the community.

“So out of all the drugs in the world that you can choose alcohol is the worst..... dagga is, you know, is demonised, but alcohol is alright and that is the wrong way to think about it, you know, as alcohol is the majority of a problem.” (FGD participant, male, faith sector)

Key Informant Interviews

We identified key informants who represented the local liquor authority, health services, police, community civic organisations, gender-based violence response services, representatives of the local municipality, and non-profit organisations (NPOs) and community members through the local NGO partners. We then spoke to them about alcohol use in the community, alcohol's harm to others, alcohol's role in GBV, alcohol supply and key informants views on the role of communities in alcohol regulation.

“...every weekend there is people that present to the hospital for alcohol-related issues and especially in the middle of the month and end of the month and then when there is some bash.....then there is some massive spike in violence (KII, female, CBO sector)

Focus Group Discussions

We held Focus Group Discussions with members of the community, service providers and leaders in both sites and discussed community- level perceptions of alcohol availability, licensed and unlicensed alcohol outlets ; problems arising from alcohol use; views on the specific relationship between alcohol availability and GBV, and the communities role in alcohol regulation.

“... he (22 years) is drunk, she (15 years) is drunk... he assaulted her several times, that one day I had to call the police to come... .. he was sitting on her, beating her head against the road... she withdrew the case”. (KII, male, official)

Analysis of Police statistics

We analysed data on Gender-Based Violence in Ga-Rankuwa and selected crime statistics in Thembalethu from police precincts in relation to alcohol outlet density.

What did we find out?

a. Number of alcohol outlets

Across 18 of 22 zones in Ga-Rankuwa and all 9 zones in Thembalethu, we found a total of 383 alcohol outlets: 178 in Ga-Rankuwa and 205 in Thembalethu. Most of the outlets were found in residential areas in both sites, 165 (92.7%) in Ga-Rankuwa and 197 (96%) in Thembalethu respectively.

“...you send a 9-year-old to go buy you a beer. The tavern owner won't even say, you are a child, and we are not going to sell to you.” (KII, female, CBO representative)

b. Types of outlets

The majority of outlets across both sites were shebeens, (43% in Ga-Rankuwa and 67% in Thembalethu), followed by taverns, (36% in Ga-Rankuwa and 23% in Thembalethu). Ten percent of outlets in Ga-Rankuwa were bottle stores/pubs; 2% in Thembalethu. Take away/informal outlets constituted 2% in Ga-Rankuwa, and 4% in Thembalethu respectively. The remaining 9% in Ga-Rankuwa and 3% in Thembalethu consisted of “other” types of alcohol outlets outside of the four main categories. Most outlets were on-premise outlets

(i.e. alcohol could be consumed there), but a large percentage of outlets operated as on-premise and off-premise outlets (i.e. alcohol, could be consumed there and purchased and consumed elsewhere offsite).

c. *Types of alcohol sold in outlets*

Beer was the most widely sold alcoholic beverage in both sites, followed by ciders and wine in Ga-Rankuwa, and wine and ciders in Thembalethu. Other alcoholic types sold included; spirits, homebrews, and cocktails.

"...children are neglected and sexually assaulted, physically abuse... it usually is related to substance abuse, alcohol abuse..." (KII, male, faith sector)

d. *Alcohol Outlet Trading Times*

The outlets that we surveyed had long trading times and most outlets opened 7 days a week; (87%) in Ga-Rankuwa and 94% in Thembalethu respectively. It is worth noting that the majority of shebeens nationally are largely unlicensed and do not operate within scheduled times or by-laws. Therefore, shebeens largely operate in contravention of standard operating times. The average operating times were between 14 and 15 hours per day in Ga-Rankuwa and Thembalethu respectively. However, there were reports that many outlets open 24 hours a day, mainly those such as shebeens or Smoko's or smokololos' that operate outside of the regulated alcohol market.

e. *Licensing of outlets*

The licensing status of the alcohol outlets differed by study site. In Ga-Rankuwa, 20% of surveyed outlets were licensed, 55% were unlicensed and the licensing status of the remaining 25% were unknown while in Thembalethu, 19% of surveyed outlets were licenced, 76% were unlicensed and remaining 5% were unknown. In cases where licensing status was unknown, it is widely recognised that these may be unlicensed, which highlights that there is a sizeable proportion of outlets who are already in contravention of regulations, by virtue of not displaying their licencing information.

"...they woke me up and said a woman left a 6-month-old child outside the tavern. I had to wake up and attend to them, the child was left outside the tavern and the mother was inside, drinking and she didn't care." (KII, female, CBO representative)

f. *Alcohol Outlet density*

The alcohol outlet density data (mean outlets per 1000 population) showing different densities between Ga-Rankuwa and Thembalethu in the zones surveyed. See Table 1. In Ga-Rankuwa, the mean outlets (both licensed and unlicensed) per 1000 population is 1.3/1000 persons, in Thembalethu the mean outlets per 1000 population was 3.87. However, there are notable differences in alcohol outlet density across zones 4, 5, 14, 21, 17/23/24/25 in Ga-Rankuwa, all of which have higher AOD per 1000/persons than do other zones that have been surveyed, the highest being 1.9 per/1000 persons.

"... they are attacked while they are walking home from a licensed place... outlets which operate well beyond their operating hours according to their license..." (KII, female, official)

In Thembalethu, where there is a higher overall alcohol outlet density per/1000 persons compared to Ga-Rankuwa, we also see differences in alcohol outlet density across zones. Specifically, zones 6, 8 and 4 have alcohol outlet densities >5 per 1000 person, followed by zone 1 at 4.86 per/1000 persons. See also Figure 3 and 4



Alcohol outlet densities for each zone in Ga-Rankuwa and Thembalethu, by licensing status

Zone	AOD Density Per Area km2	AOD Per 1000 people	Licensed AOD per 1000	Unlicensed AOD per 1000	Unlicensed/ unsure AOD per 1000
GA-RANKUWA					
Ga-Rankuwa Zone 20	0.47	0.13	0.00	0.13	0.13
Ga-Rankuwa Zone 16	5.88	0.79	0.59	0.10	0.20
Ga-Rankuwa Zone 7	6.29	0.84	0.25	0	0.59
Ga-Rankuwa Zone 3	4.35	0.84	0.28	0.14	0.56
Ga-Rankuwa View	11.01	0.92	0.15	0.77	0.77
Ga-Rankuwa Zone 6	7.78	0.93	0.00	0.66	0.93
Ga-Rankuwa Zone 1	5.32	1.01	0.35	0.15	0.66
Ga-Rankuwa Zone 2	5.13	1.01	0.20	0.41	0.81
Ga-Rankuwa Zone 5	2.86	1.64	0.21	1.23	1.44
Ga-Rankuwa Zone 4	9.76	1.72	0.43	0.69	1.29
Ga-Rankuwa Zone 21	9.01	1.77	0.00	1.59	1.77
Ga-Rankuwa Zone 14	1.41	1.78	0.00	1.78	1.78
Ga-Rankuwa Zones 17/23/24/25	7.91	1.90	0.18	1.36	1.72
Overall (mean& 95%CI)	5.9(4-7.9)	1.2(0.9-1.5)	0.2(0.1-0.3)	0.7(0.3-1.1)	1(0.6-1.3)
THEMBALETHU					
Thembalethu Zone 3	8.04	0.91	0.00	0.91	0.91
Thembalethu Zone 9	13.75	2.05	0.40	1.32	1.65
Thembalethu Zone 5	24.23	2.58	0.64	1.77	1.93
Thembalethu Zone 2	16.58	2.59	0.52	2.07	2.07
Thembalethu Zone 7	23.92	2.66	0.53	1.95	2.13
Thembalethu Zone 1	18.79	4.86	0.81	4.05	4.05
Thembalethu Zone 6	60.90	5.03	0.37	4.51	4.66
Thembalethu Zone 8	46.92	5.65	1.61	4.03	4.03
Thembalethu Zone 4	83.89	8.51	3.27	4.58	5.24
Overall (mean& 95%CI)	33(13.4-53)	3.9(2.1-5.7)	0.9(0.1-1.7)	2.8(1.7-3.9)	3(1.8-4.1)

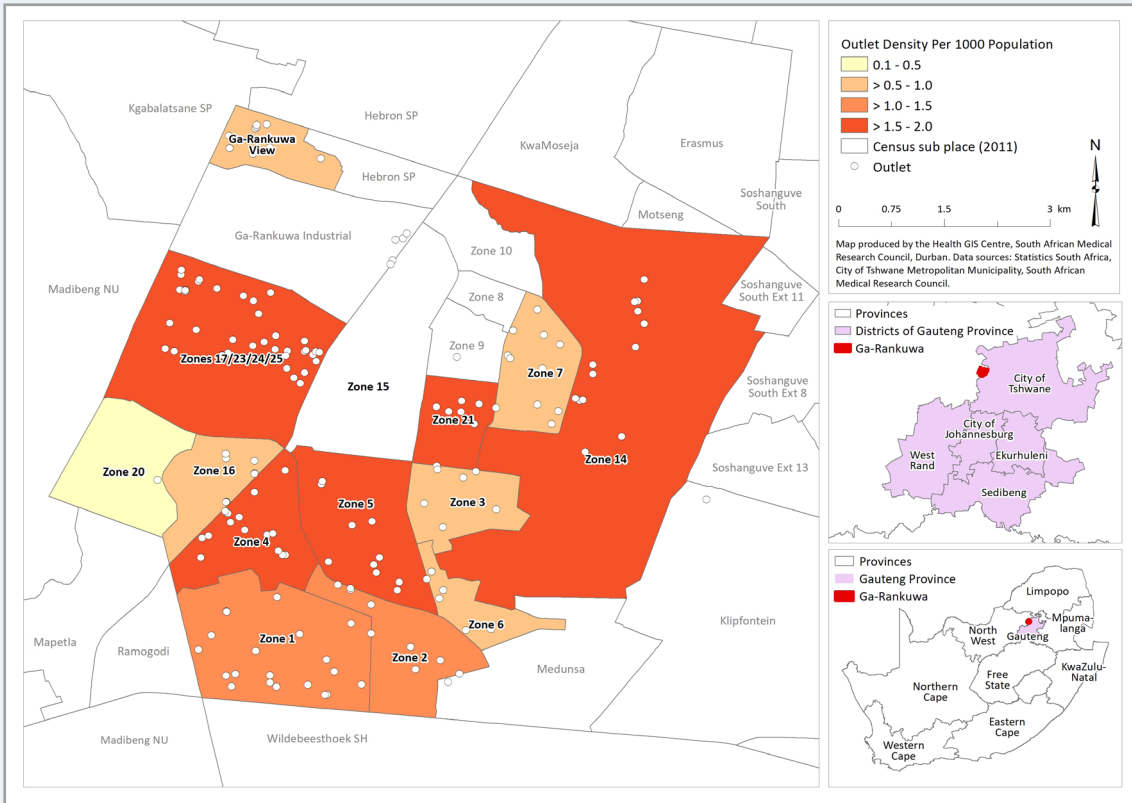


Figure 3: Map of Alcohol density per 1000 population, Ga-Rankuwa, City of Tshwane Metropolitan Municipality

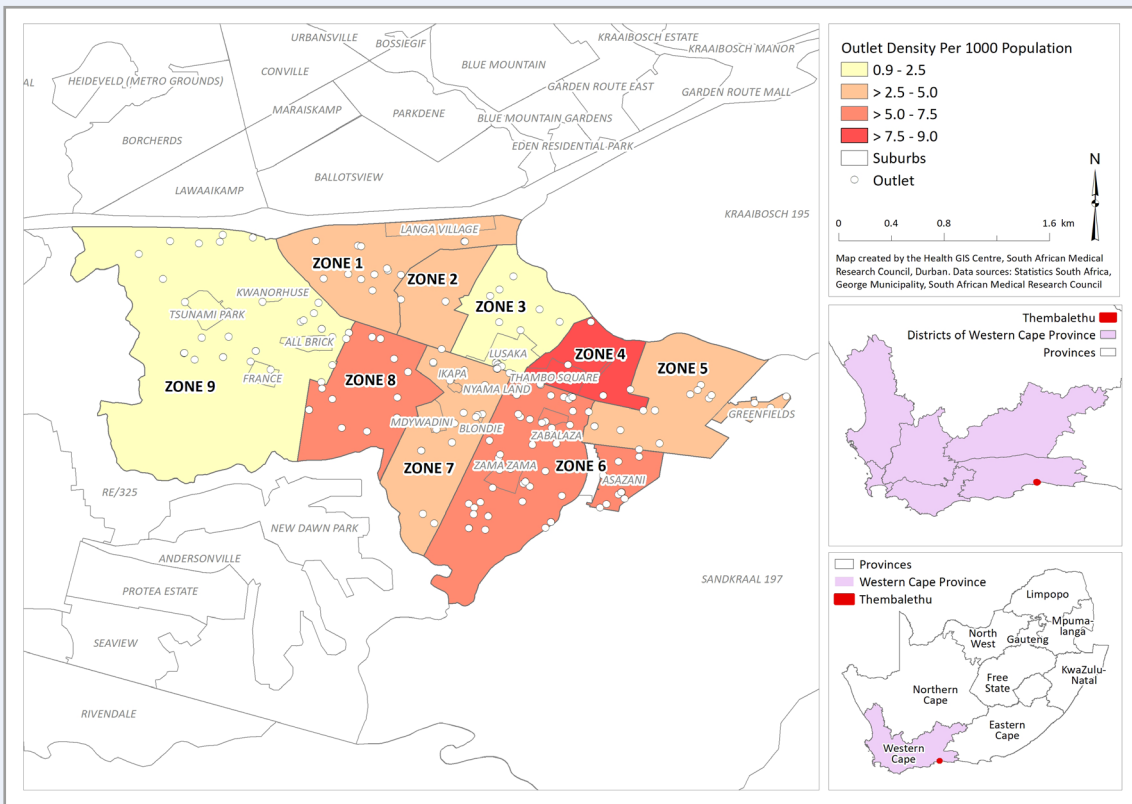


Figure 3: Map of showing alcohol density per 1000 population, Thembalethu, George Municipality

Implications

1. Despite South Africa (SA) government having alcohol control measures, alcohol outlets are densely distributed, particularly within residential areas, and many operate without licenses and outside of the regulated times.
2. Many participatory methods (community-centred mapping, KII's etc.) can be usefully combined with both quantitative and geo-spatial methods of data collection to address issues of interest to communities and scientists alike.
3. Local community knowledge is invaluable in providing insights into the organisation, structure and peculiarities of communities, and the acquisition and trade and consumption environment of alcohol
4. Alcohol availability at local level must be better regulated and enforced to see a reduction in alcohol consumption and related harms.
5. Liquor authorities should increase efforts to gain community input in the process of awarding liquor licences.

Recommendations

1. Local communities must be meaningfully and intentionally included in research and this co-created evidence should be used to inform alcohol regulation and decision-making.
2. Support the ongoing development of key skill sets amongst community members acting or working as fieldworkers for community-based organisations, including data collection, data verification, community liaison and geographically based data collection.
3. Strengthen alcohol policy to include density as a criteria for licensing decisions, increased regulation and enforcement with regards to licensing and trading times.
4. Increase investment in research on the association between alcohol availability (outlet density and trading times), gender based violence and other harms.
5. Donors must significantly increase funding for research on the availability of alcohol and its link to gender-based violence, in particular, and crime and interpersonal violence more generally, taking into account the growing recognition and evidence of this relationship.

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