

# Using a Container-Based Approach for Mapping Alcohol Outlets in Urban Slums: Results from the TOPOWA Study in Kampala, Uganda.

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TOPOWA project

DON'T GIVE UP

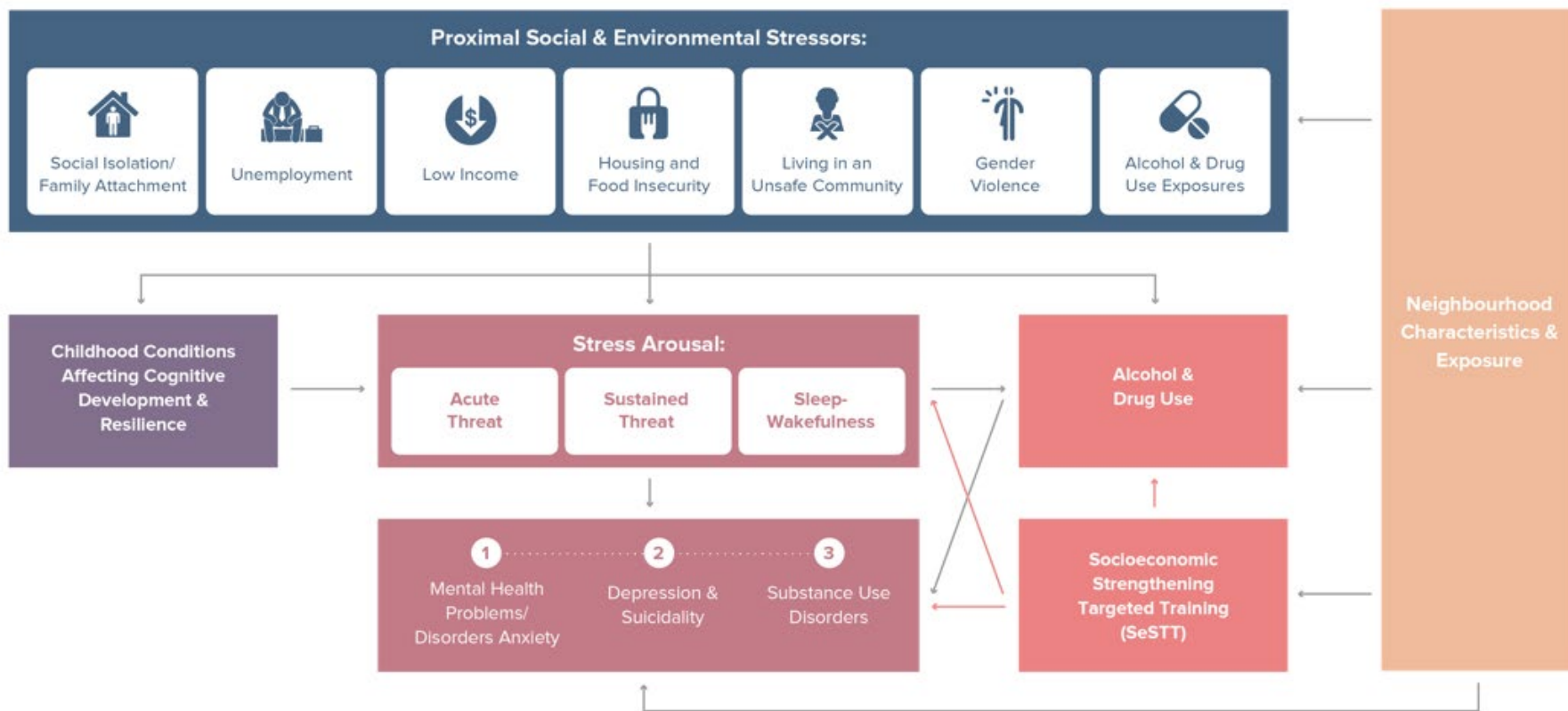


# A 5-Year, Mixed Methods Project with a Key Basic Goal:

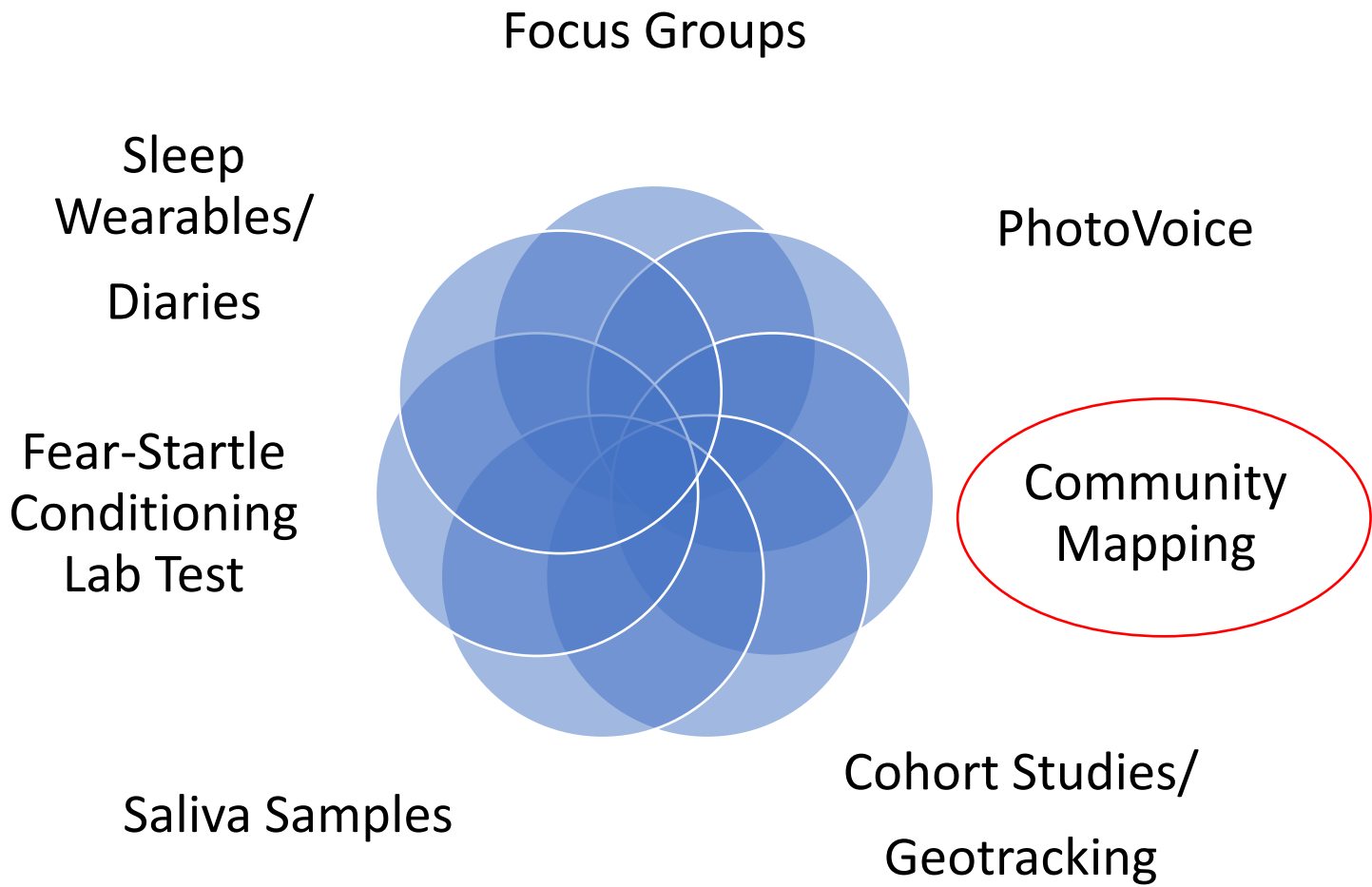
To examine if vocational training, entrepreneurship skills and empowerment (psychosocial support) leads to better mental health outcomes among women living in the slums.



# Conceptual Model of SDoMH with Emphasis on Stress Arousal and SeSTT



# TOPOWA Study Components



# Identifying Urban Stressors through the Lens of Young Women

Our research, embedded in the social determinants of mental health framework, is part of the TOPOWA project, a 5-year long research study funded by the NIH.

TOPOWA means to not give up in Luganda, a local language spoken in Uganda. The project has three study sites in urban Kampala: Banda, Bwaise and Makindye

We have engaged with women, ages 18 to 24 years of age, to identify the salient urban stressors through:

PhotoVoice Project,

Focus Groups, and

Our Youth Advisory Board

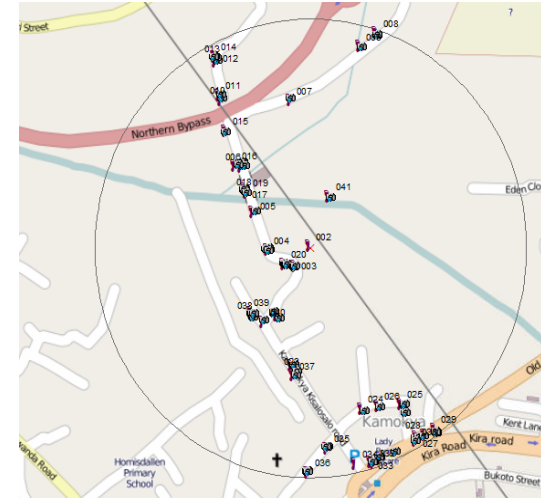
Overall, 14 urban stressors were identified; **alcohol outlets was a specific stressor.**

# Conceptual Question

There are several methods outlining how to map alcohol outlets, usually with the specific purpose of assessing alcohol outlet density.

We could not find any studies that had sought out to map alcohol outlets in **low resource settings (slums)**.

*Is it possible to map alcohol selling outlets including retail shops, bars or “Malwa joints” selling homemade or unrecorded alcohol in urban slums?*





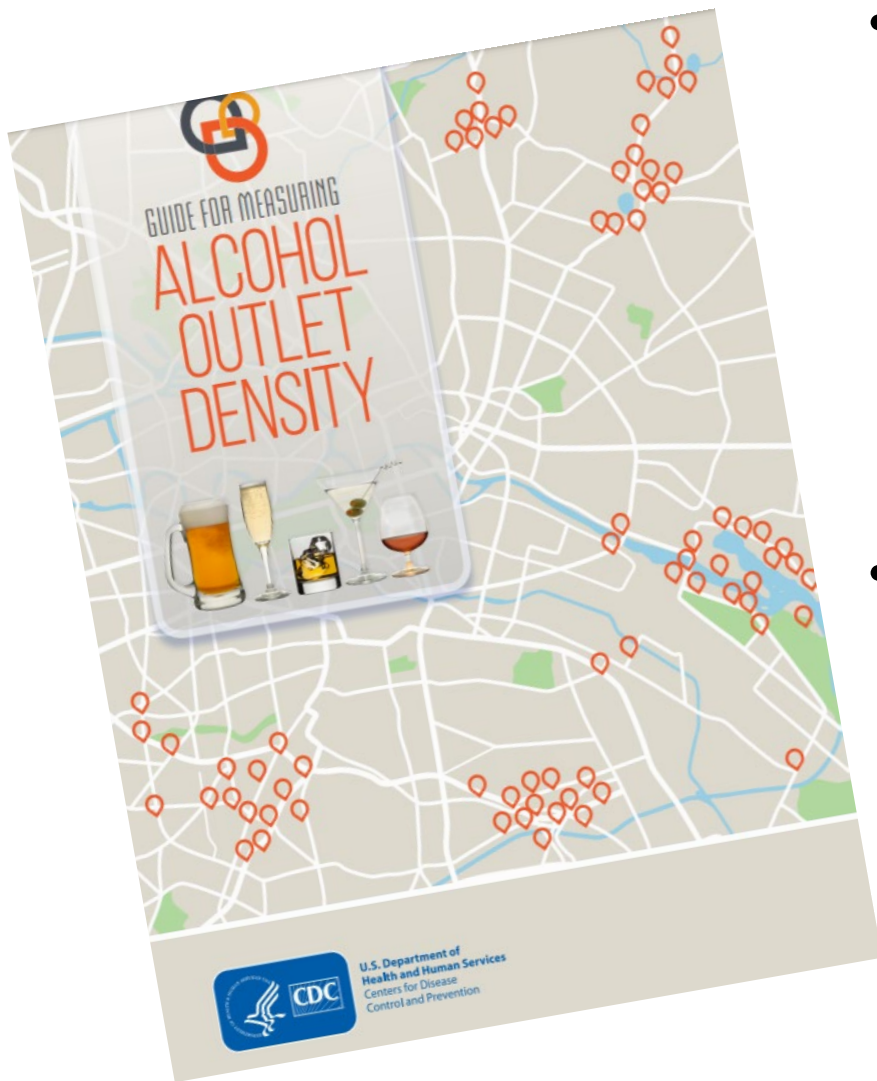
# A Malwa Joint Visit in 2010







# Measuring Density: Barriers to Progress



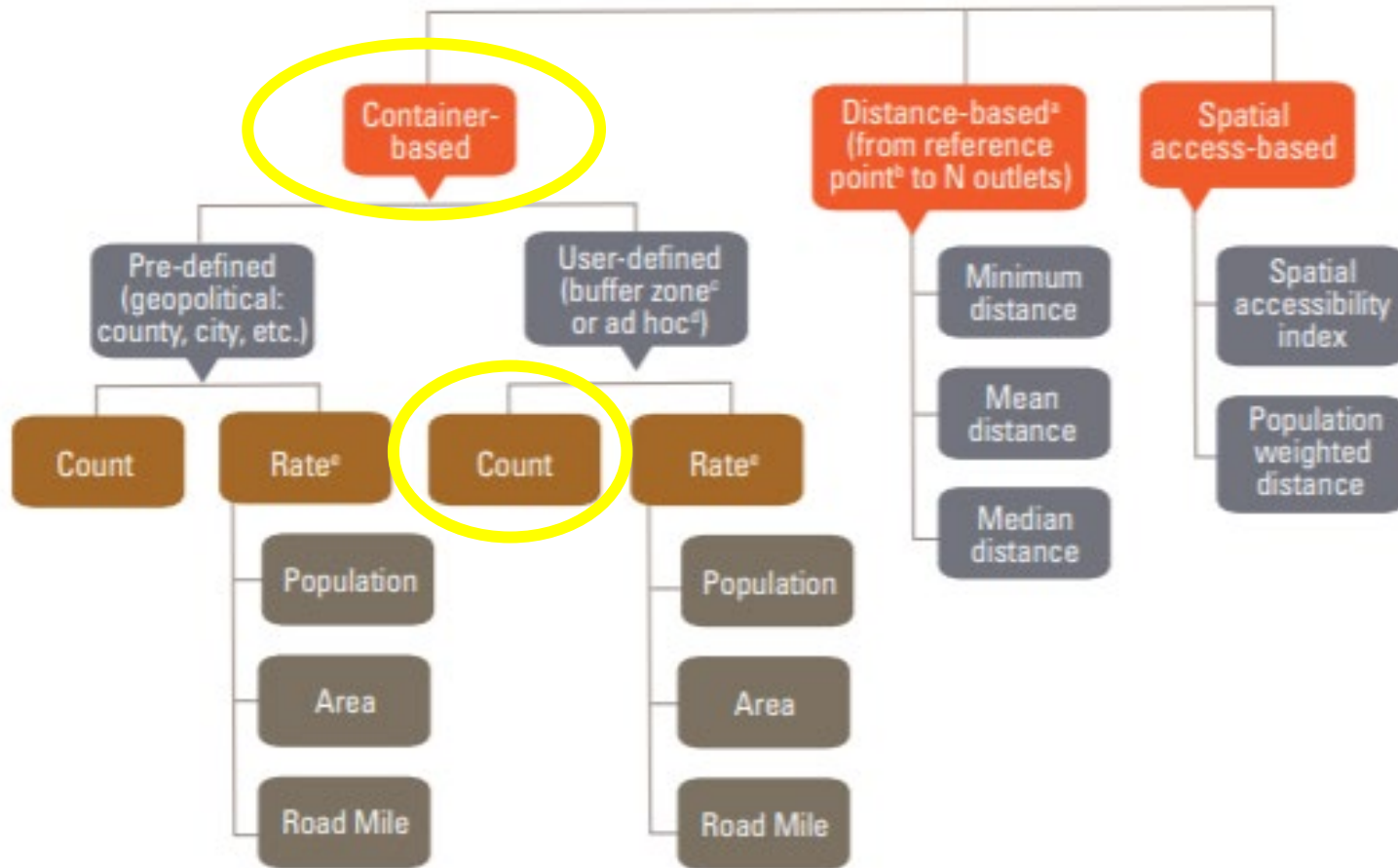
- Complex strategies
  - Need for sophisticated tools, population counts, maps etc
  - Difficult to communicate findings
  - Difficult to compare results across settings
- Limited research and findings in resource poor settings

*The inability of measuring alcohol outlet and marketing density is a significant barrier to implementing effective alcohol policies in low-income countries. In particular in dense urban areas/ slums*

Available: <https://www.cdc.gov/alcohol/pdfs/CDC-Guide-for-Measuring-Alcohol-Outlet-Density.pdf>

# Usual Strategies for Measuring Density

Figure 1. Options for Measuring Alcohol Outlet Density



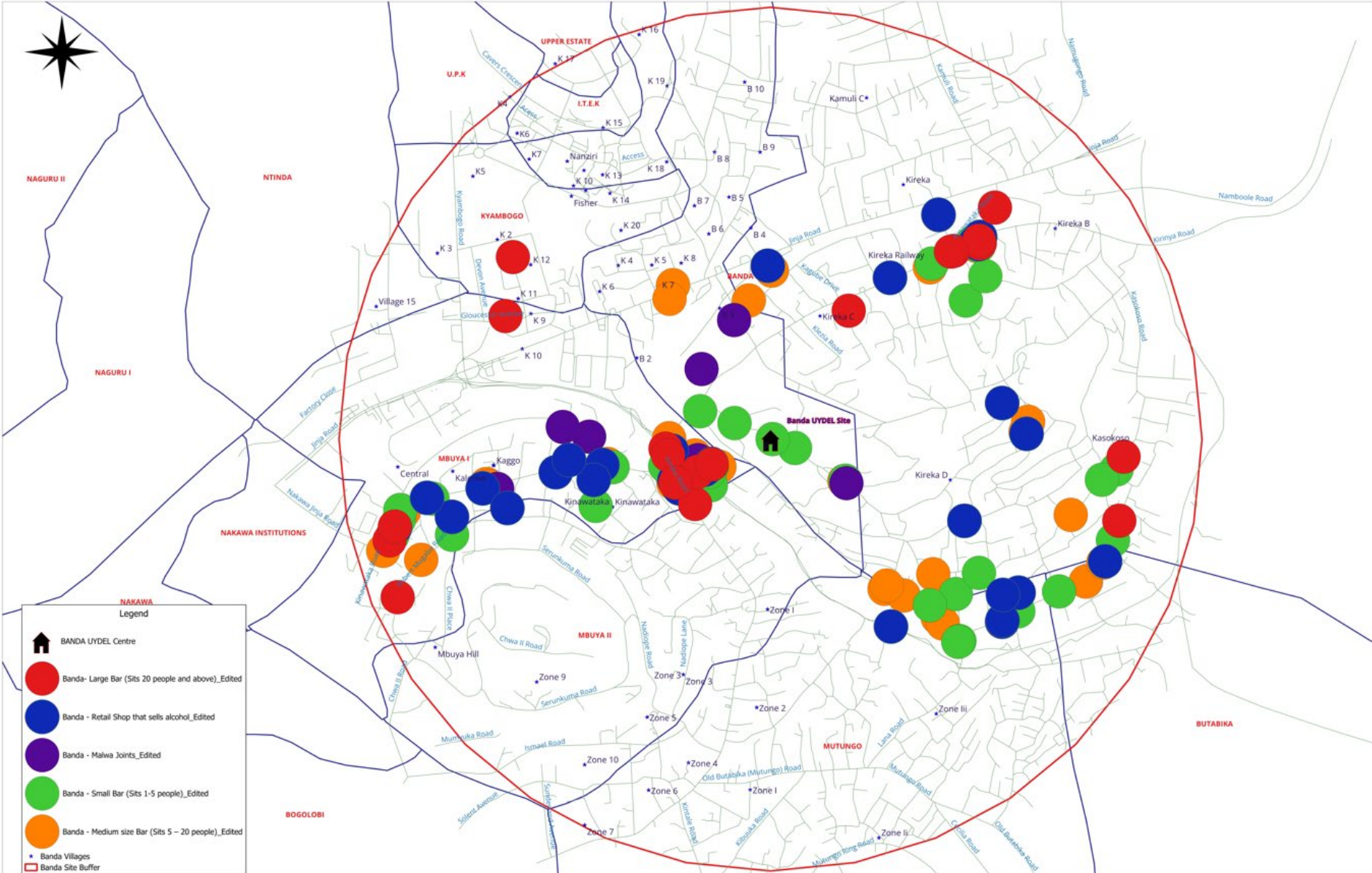
## Methods

- The community mapping, across 26 parishes, was conducted in December of 2022, using a **2,000-meter circle radius** of 3 Uganda Youth Development Centers in:
  - Banda,
  - Bwaise, and
  - Makindye
- Using GPS coordinates of each of the centers the buffer zone was created using google earth to determine the enumeration area.
- The data was collected by **15 enumerators** using GPS enabled Samsung Mobile phones over a period of 10 days.
- Once the indicators for data collection had been selected, a short data collection tool was coded and built onto the ODK mobile data collection platform.
- Used different types of alcohol sales outlets, retail shops, bars and Malwa joints.

# Results

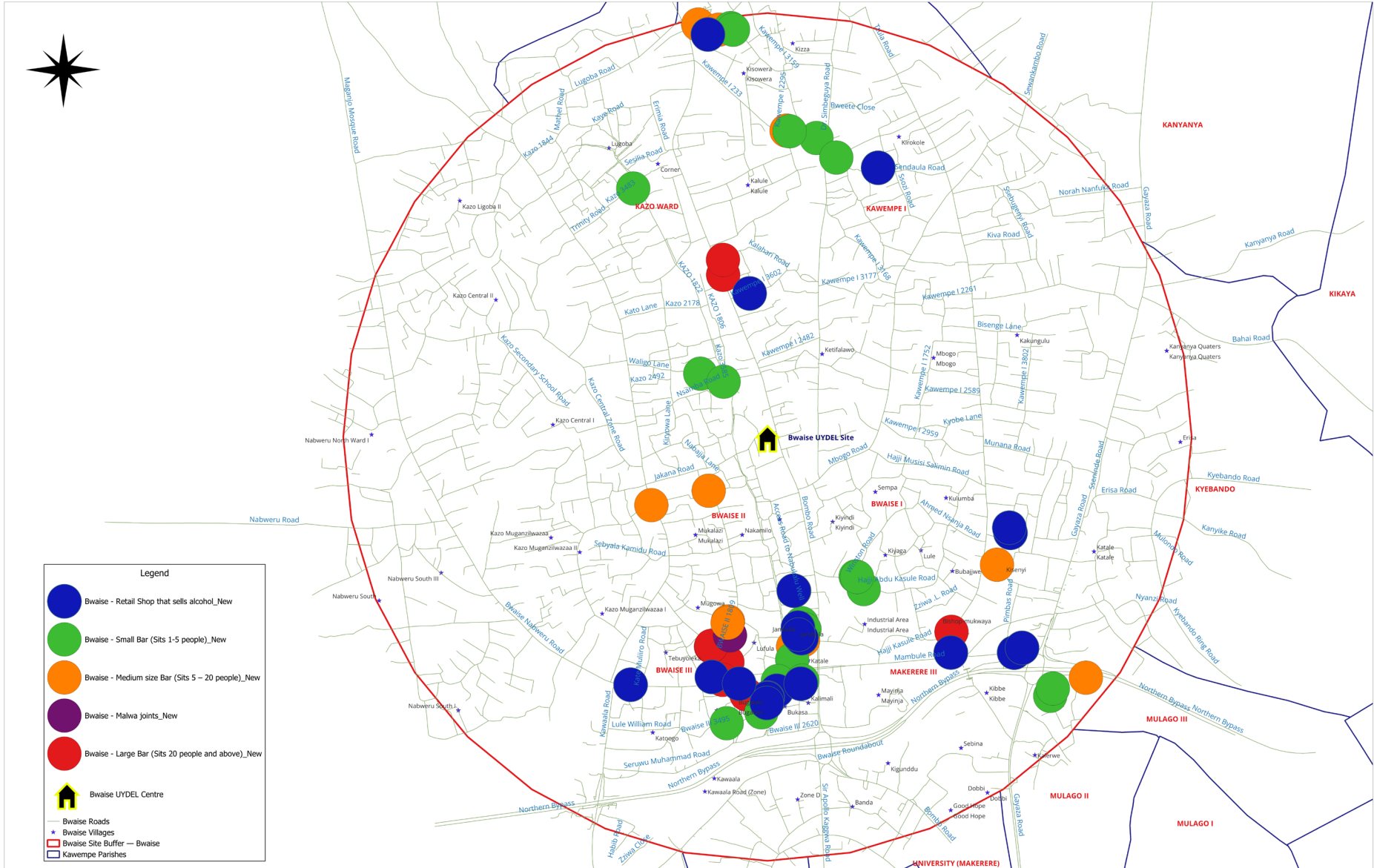
- A total of 381 alcohol selling points were identified and mapped.
- Of these, 213 or 56% of the alcohol selling points were either retail shops or small bars (seating  $1 < 5$ ).
- Large bars (seating  $\geq 20$ ) (n=66; 17%) and medium size bars (n=84; 22%) (seating 5-20) were also identified.
- Makindye had the highest number of alcohol selling points (163) followed by Banda (145) and Bwaise (73).
- A total 18 Malwa joints were mapped during the community mapping activity; Banda (10), Bwaise (2), and Makindye (6).

# MAP SHOWING ALCOHOL SELLING POINTS IN TOPOWA PROJECT STUDY SITE: BANDA (NAKAWA DIVISION)

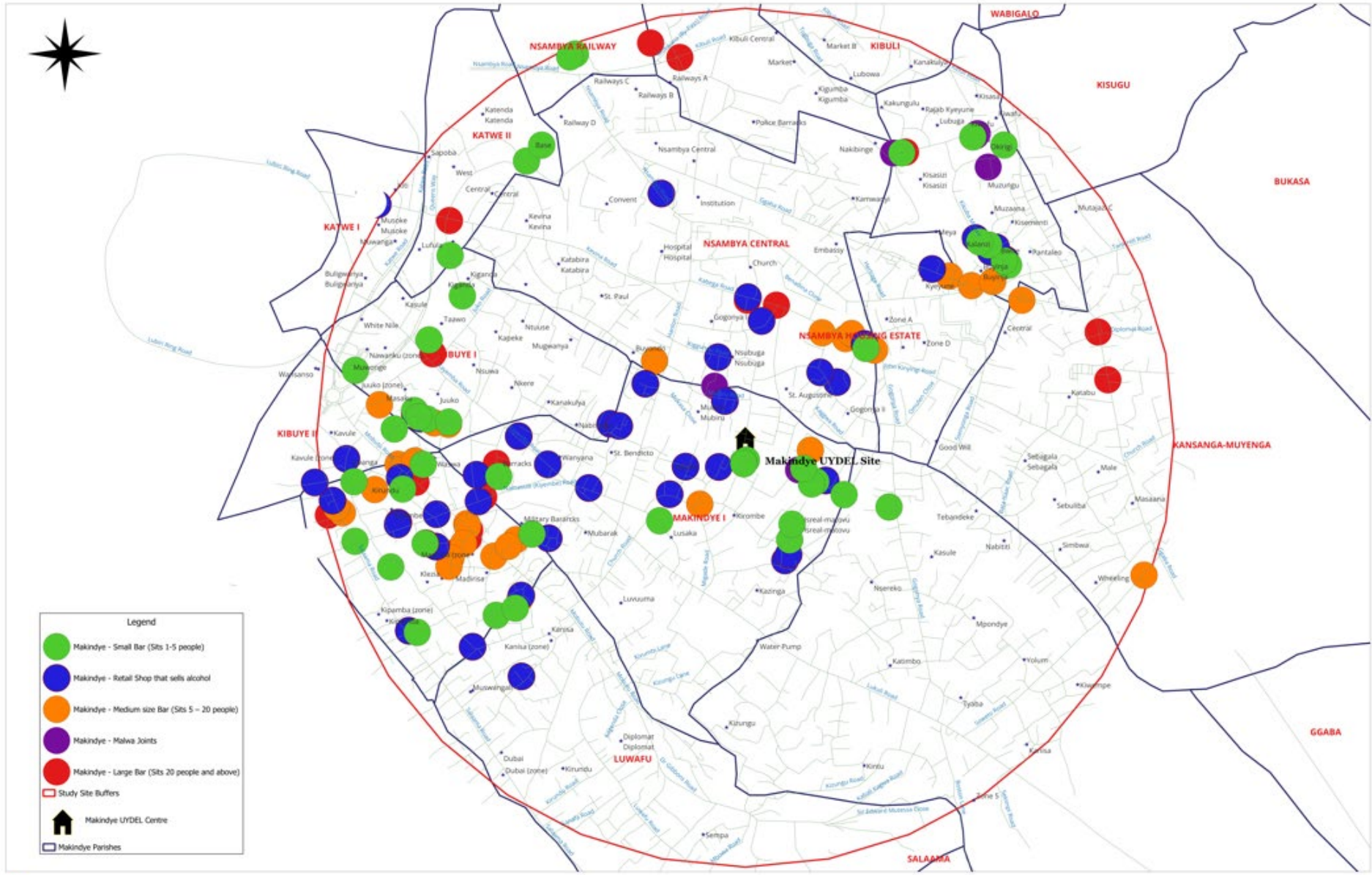




MAP SHOWING ALCOHOL SELLING POINTS IN TOPOWA PROJECT STUDY SITE: BWAISE (KAWEMPE DIVISION)



MAP SHOWING ALCOHOL SELLING POINTS IN TOPOWA PROJECT STUDY SITE: MAKINDYE (MAKINDYE DIVISION)



**Legend**

- Makindye - Small Bar (Sits 1-5 people)
- Makindye - Retail Shop that sells alcohol
- Makindye - Medium size Bar (Sits 5 – 20 people)
- Makindye - Malwa Joints
- Makindye - Large Bar (Sits 20 people and above)
- Study Site Buffers
- Makindye UYDEL Centre
- Makindye Parishes



## Summary of Findings & Next Steps

- The density of alcohol selling points across the selected study sites varied.
- Each study site also had great heterogeneity in both number and types of outlets.
- Need to determine number or proportion of potentially missed Malwa outlets as they rarely have signs.
- Feasible strategy to use the container approach for mapping alcohol outlets.
  
- Next steps:
  - We launched the 27-month cohort study to capture how the young women navigate their community and proximity to alcohol outlets (and other urban stressors).
  - The women who have been recruited into the cohort reside within the 2,000M radius for each study site where community mapping has been completed.
  - We will also inquire in surveys and daily diaries (at key time points) if they see alcohol marketing and alcohol outlets (among other stressors) and how this exposure may be linked to their own alcohol use and other mental health factors.

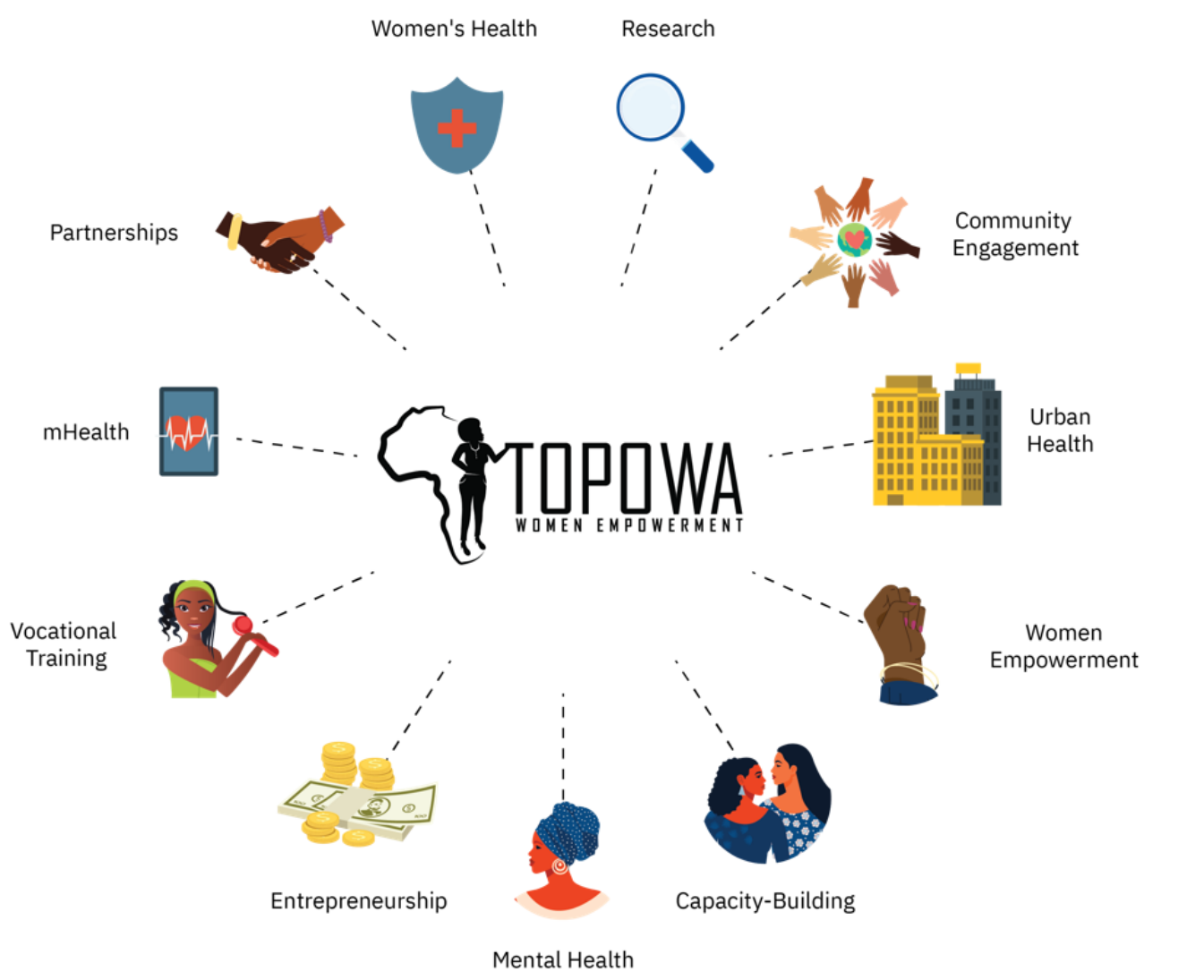
*Thank You!*

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Kampala, Capital of Uganda



# Alcohol Problem Context in Uganda

- Alcohol is commonly used among youth
- Alcohol is poorly regulated
- Alcohol legal drinking age of 18 is NOT enforced
- Alcohol is heavily promoted to youth
- Alcohol is cheaper than water
- Alcohol fuels violence, injuries, HIV/AIDS...
- There is scarce research on alcohol availability, marketing, price and other SAFER priorities

# Alcohol Environment in Kampala Slums

**Understanding Alcohol Marketing Content & Strategies in Urban Slums of Kampala, Uganda**  
 Joseph Madden<sup>1</sup>, Monica H. Swahn<sup>1</sup>, Charles Chanda<sup>2</sup>  
<sup>1</sup>Georgia State University School of Public Health, Atlanta, United States  
<sup>2</sup>Tanzanian Slum Project, Kampala, Uganda

**Objective**  
 Improve evidence-based policies to reduce alcohol consumption by adolescents and other vulnerable populations within urban slums by increasing an understanding of the content and strategies implemented by the alcohol industry.

**Methods**  
 Data was collected by Georgia State University study abroad students walking a 100m overlapping route from a *side side* (stokely) stand via smart phone.  
 The data was processed and categorized to align with common marketing practices and strategy and a database created via Excel. (n=137)  
 Simple, descriptive analysis was performed to understand the major stakeholders, the most common messaging, where the advertisements were placed, and the type of creative assets or collateral utilized.  
 Categories sought to align with the common, yet modified, "Product Mix" methodology. The captured data fit into four pillars - Place, Price, Product, and Social.

**Data Definitions**

- Place - Utilizing the location where the product is served
- Price - Utilizing the end user's costs as a selling point
- Product - Utilizing an element of the product's design or unique selling point (USP)
- Social - Utilizing alcohol as a way to improving social life or having fun

**Table 1: Categorization of Advertisements**

Marketing Pillars	Sub-Categorization	Percent of Total
Place (n=5)	Bar/Restaurant	4.69%
	Price	4.69%
	BoGo	1.56%
Product (n=19)	Low Price	7.81%
	New Product	5.47%
	Empowerment	14.84%
	Flavor	1.56%
	High Value	5.47%
Social (n=68)	Nationalism	8.59%
	New Product	2.34%
	Product Itself	8.59%
	Quality	9.38%
	Taste	10.16%
Social (n=27)	Empowerment	53.13%
	Friendship	2.34%
	Party	10.94%
		7.81%
		21.09%

**Limitations**

- Small number of samples so cannot be certain that all messages were captured
- The photos captured were all within the same neighborhood, so the findings or insights are limited to this particular area.
- Unclear directions for participants led to poor photographs that made it more difficult to determine where the photos were placed in relation to the street.
- No surveys were conducted with this data set to determine who would be most influenced by these advertisements which is an ongoing challenge within urban slums.
- The research team sought to categorize or consolidate by major companies, but there are complicated hierarchies, small companies, and a general lack of documentation readily available via simple internet searching.

**Insights**

- While there are 128 different products or brands represented in our sample, 1 companies represented 75% of the advertisements.
  - Local or independent Ugandan distilleries represented only 15% of the advertisements.
- Majority (n=85) of the advertisements focused on differentiating the product itself
  - Taste & quality
  - Name suggestion & "nationalism" followed up
- Advertisements focused on the idea (n=17) that alcohol is important for social interactions.
  - Special moments are created with alcohol
  - Improve interactions with friends
  - "Be a boss"
  - Become a better host
- When price is mentioned, it generally focused on a low price.
  - A small overlap between Price & Product, but "High Value" (n=7) is represented
  - "Bang for Your Buck"
- While nationalism/patriotism was a common theme, it is interesting to see near 50% of the present brands being foreign.

**Table 2: Most common stakeholders/companies (90% are represented here)**

Company Name	Number of advertisements	Percent of Total
Diageo	54	43%
AB InBev	40	32%
Local Ugandan Company	18	14%

**Recommendations**

- Engage local stakeholders (community leaders, NGOs, faith-based, etc) to ensure messaging and findings are cultural competent
- Counter campaigns can focus on:
  - Separate friendship & alcohol
  - Understanding taste & quality advertisement
  - Low price is not as common as expected
  - Refute messaging that wrong alcohol industry drives a strong local economy
- Collect a larger data sample to better understand the messaging and strategies being utilized by advertisers in vulnerable communities. This includes diversifying the neighborhoods studied/environments searched to see how the alcohol industry targets different communities.
- Improve training and direction for data collection to ensure that the photographs taken clearly capture the tag lines, the company name, the type of ads and their placement.
- Continue to improve data collection to tie together advertisements with targeted audiences.
- Better understand business hierarchies or structures to attribute and track stakeholders and accountability in settings where there is limited regulation for alcohol marketing.

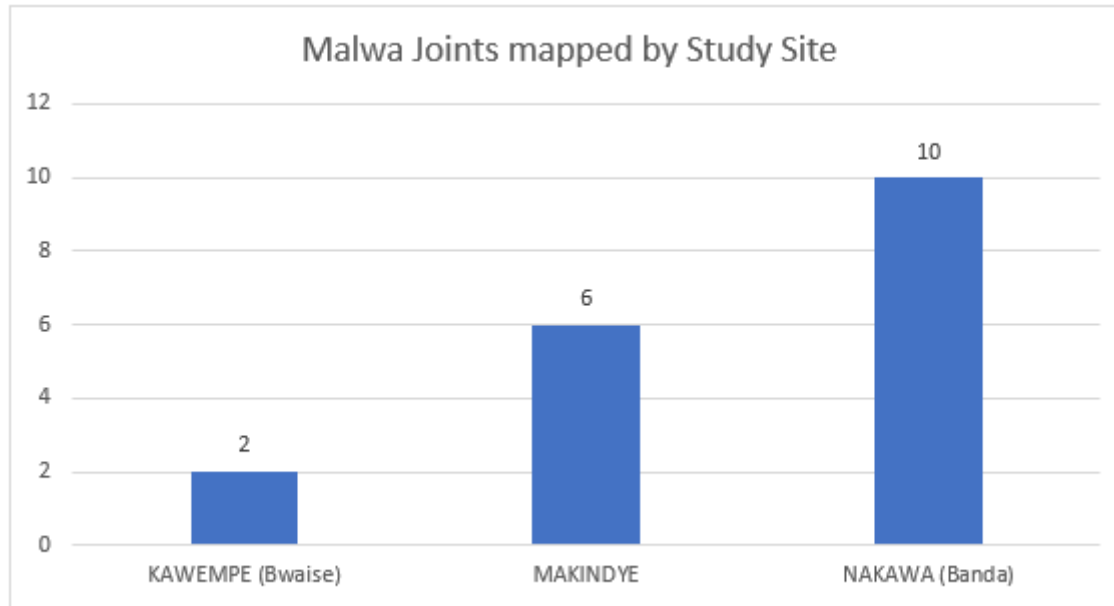
**Conclusion**  
 The above information, courtesy Joseph Madden at [jmadden@gsu.edu](mailto:jmadden@gsu.edu) is meant to share marketing strategies so to learn about the practices that the data collection team. The data was collected on Tuesday, 22nd November. Special thanks to the Charles Chanda for his mentoring and support in implementing the setting of the Diageo in June 2017.

**Funding**  
 The presenting author is an independent researcher not currently being funded by any outside parties not in the process seeking any funding.

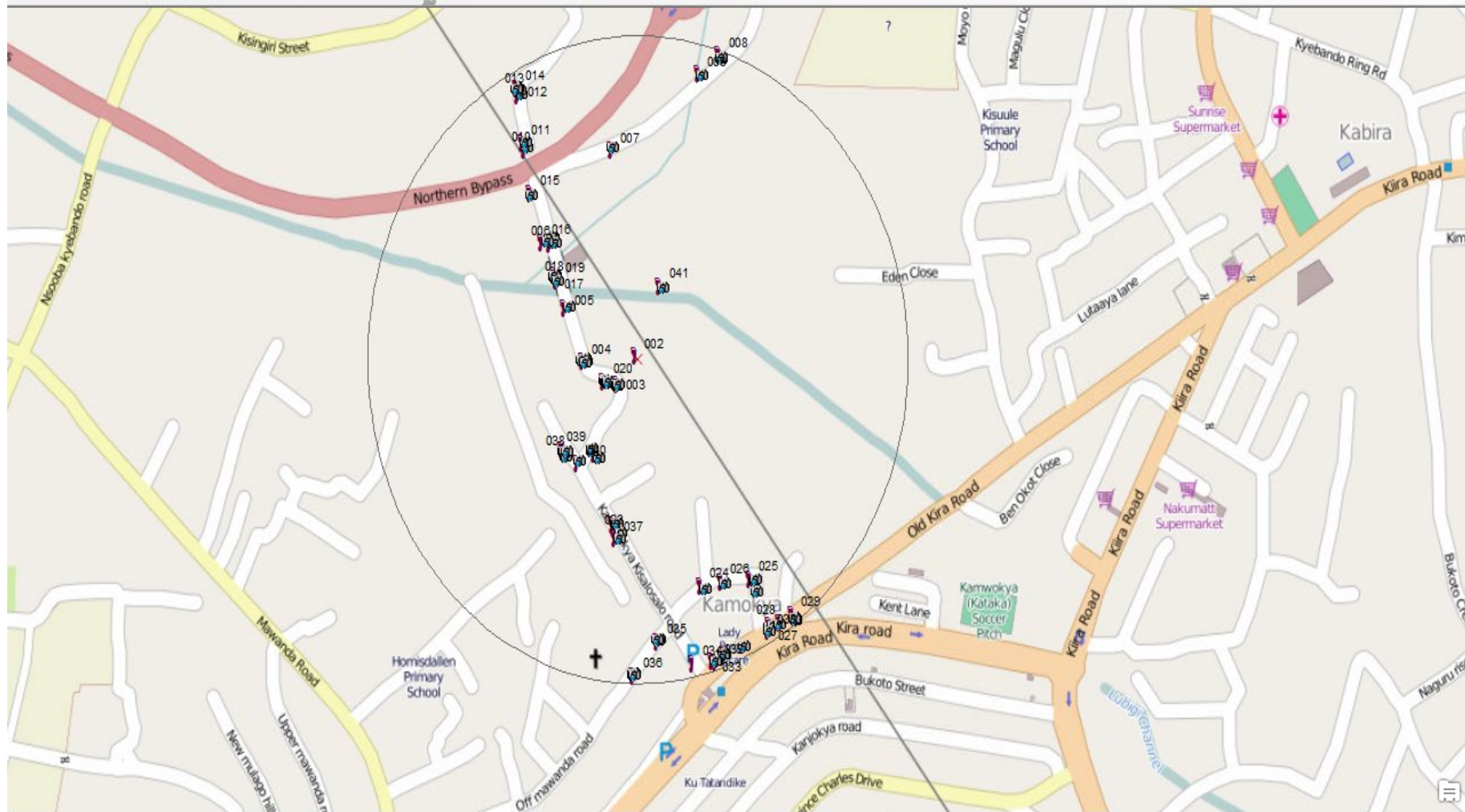


- High levels of drinking
  - Even among youth
- Easy access to alcohol
  - Sold day and night
- Low price
  - No minimum unit price
- Intense marketing
  - No restrictions
- Branded bar décor
  - Creative marketing









32.587 0.349 Decimal Degrees

# Place and Health: Slums

Research on the social determinants of health and unmet health needs among slum dwellers or more succinctly “slum health” is emerging and gaining more interest, as the proportion of slum dwellers are rapidly increasing across multiple continents as part of rural migration.

One study noted that those living in slums represent a great concern, as **“this neglected population has become a major reservoir for a wide spectrum of health conditions that the formal health sector must deal with”** Riley et al., 2007.

There are many complexities embedded in studying slums and arguably their study needs to be contextualized to represent both **social and physical constructs**.

Also, as the slum environment is embedded in the context of the Social Determinants of Health and furthermore contextualized by the strong link between poverty and mental health, it is important to better determine the specific factors that may exacerbate mental health among those living in the slums.



## Community Mapping

To understand the specific environmental influences and how they contribute to mental health, we will also map communities where study participants live. We will extend previous research and our previous work on the "slum rating scale" to quantify exposure to commercial determinants of health, as well as the typical indicator of urban slums such as lack of water, lack of sanitation, overcrowding, and non-durable housing structures.





***Specific Aim 1:*** *Through mixed methods, identify AGYW's perceptions of proximal social and environmental stressors and their role in mental health outcomes. We will conduct 6 focus groups (2 for each selected UYDEL center; n=10 AGYW in each group) to inform study measures and assessment of neighborhood indicator mapping (e.g., housing conditions, alcohol outlets) and a Photovoice project (5 AGYW from each UYDEL center; n=15 AGYW) focused on understanding how AGYW perceives SeSTT and empowerment, in the context of proximal social and environmental stressors.*

***Specific Aim 2:*** *Through a prospective cohort of AGYW, determine if SeSTT modifies the pathways between proximal social and environmental stressors and mental health outcomes, through the RDoC constructs of negative valence, sustained threat, and arousal and regulatory systems. We will measure threat reactivity in fear conditioning, ratio of salivary cortisol, dehydroepiandrosterone (DHEA) and  $\alpha$ -amylase, sleep quality (Fitbit wearable sensors, 5 daily diaries), and environmental stressors (geotrackers and 5 daily diaries).*

