

“You cannot travel one hundred metres without finding such alcohol”: community perspectives on the availability of substitute alcohol products since the ban of alcohol sachets in Malawi and Uganda

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Abstract

Background

Malawi and Uganda banned alcohol sachets in 2017 and 2019 respectively, to reduce alcohol availability and affordability and protect population health, particularly young people and the most vulnerable in society. However, the unintended consequences of those bans, particularly the emergence of substitute products, is under-researched.

Methods

This qualitative study draws on 18 community focus group discussions conducted across both countries (n = 9 per country) between 2023 and 2024. Participants included adult men and women, in-school and out-of-school young males and females, traditional leaders, teachers, and health workers. Data were analysed thematically.

Results

While participants considered the sachet bans effective, this effectiveness seemed to last only a short while. All groups, from both countries, confirmed that substitute products have proliferated after the ban. These include small bottles of recorded high-strength spirits (of up to 220ml) and widely available unrecorded homebrews, sold by variable measures according to demand and community members' purchasing power. The high affordability of those products was mentioned in a majority of groups. Participants indicated that some unrecorded alcohol may be adulterated with substances such as methanol and other untested additives. Community members expressed that substitute products are very widely available and often sold without age verification. In both countries this was viewed as leading to increased consumption and harm.

Conclusion

Sachet bans in Malawi and Uganda produced significant market displacement rather than meaningful reductions in alcohol availability. Without understanding the market more fully and without comprehensive legislation, banning a single product (such as sachets) is unlikely help to protect public health in the longer term.

Introduction

Globally, around 2.6 million deaths are attributable to alcohol consumption. Moreover, alcohol contributes to injuries, road traffic collisions, violence, and a wide range of non-communicable diseases, including cancers, diabetes, and cardiovascular disease (World Health Organisation, 2024). Alcohol-related harm also places substantial pressure on healthcare systems and impacts on the wider society. Estimates from high-income countries suggest that the economic cost of alcohol-related harm may account for between 1.4% and 2.7% of annual GDP [3].

The World Health Organization African Region experiences a disproportionate burden of alcohol-related harm, with an estimated 52 alcohol-attributable deaths per 100,000 population per year, compared with a global average of 32 (World Health Organisation, 2024). This reflects a distinct pattern seen across many African countries: although a smaller proportion of the population drinks alcohol, those who do are more likely to drink heavily and experience alcohol-related harm [4]. Between 2010 and 2019, both per capita alcohol consumption and heavy episodic drinking remained stable or increased across much of sub-Saharan Africa, with considerable variation between countries [5]. Adolescent alcohol consumption in Africa is also high and appears to be increasing in some settings [6–12]

Rising alcohol consumption in parts of Africa has been lined to increased availability and affordability, greater normalisation of drinking, and broader economic changes [13–16]. Increased alcohol marketing and pricing strategies contribute to

greater alcohol availability and consumption, particularly amongst young people [7,13,17–23]. These trends may have important long-term public health implications if left unregulated, particularly given that around 70% of the sub-Saharan African population is under 30 years old [24,25].

The situation in sub-Saharan Africa is further complicated by the high prevalence of unrecorded alcohol. Unrecorded alcohol refers to alcohol that is produced, distributed, or sold outside formal systems of regulation and taxation [26]. This includes homebrewed or informally produced alcohol, counterfeit alcohol, surrogate alcohol not intended for human consumption, and cross-border purchased or smuggled alcohol. The World Health Organisation estimates that unrecorded alcohol accounts for around 21% of global alcohol consumption, and 35% in Africa [26]. Malawi and Uganda, the two countries examined in this paper, have particularly high levels of unrecorded alcohol consumption, with an estimated 43% and 39% of alcohol consumption respectively coming from unrecorded sources, much of which consists of homebrewed products [27].

Unrecorded alcohol may also pose additional health risks beyond those associated with ethanol itself. Some informally produced beverages contain toxic contaminants or adulterants, including methanol and heavy metals, which have been linked to acute poisoning, blindness, alcohol psychoses, and other severe harms [26,28,29]. Such risks are evident in Africa, where products have been reported to be adulterated, and production may also occur in unhygienic conditions, including the use of unsafe water and contaminated production environments [30,31]. In addition, unrecorded alcohol is often substantially cheaper than taxed alcohol products, which may contribute to heavier drinking patterns and increased consumption among economically disadvantaged populations [26].

In response to concerns about alcohol-related harm, Malawi and Uganda introduced bans on alcohol sachets in 2017 and in 2019 respectively [32,33]. Alcohol sachets are small plastic pouches containing high-strength recorded or unrecorded alcohol. They had become widely available and highly affordable, particularly among young and economically disadvantaged populations and had been linked to heavy drinking, alcohol-related harms, and risky sexual behaviours [32–38]. The bans therefore formed part of broader efforts to reduce alcohol availability and protect public health. However, less is known about how communities experienced these policy changes, including perceptions of their effectiveness and the emergence of substitute products following the bans. Understanding these responses at community level is important because alcohol markets may adapt to regulation in ways that weaken or alter intended public health effects.

This qualitative paper reports findings from the comparative study *“Regulating alcohol packaging and supply to protect health in Sub-Saharan Africa: evidence from policy systems in Malawi and Uganda-RAPSSA”*. Whereas the authors have written elsewhere about the rationale and history of those bans [32,39], this paper focuses instead on the period following the alcohol sachet bans in Malawi and Uganda. It explores community perceptions of the effectiveness of the bans, ongoing alcohol availability, and the presence of other small, inexpensive, and easily accessible substitute alcohol products within local alcohol markets, which are perceived to be linked to further harm.

Methods

We conducted 18 focus group discussions in Malawi (n = 9) and Uganda (n = 9). In Malawi, these were conducted between December 2023 and May 2024 in Blantyre and Zomba, both located in the southern region. In Uganda, they were conducted between January and July 2024 in the Wakiso and Gulu Districts, in Central and Northern Uganda. The sites were selected to capture varied urban, peri-urban and rural experiences. In Malawi, Blantyre is the second largest city and while Zomba is more peri urban. In Uganda, the Gulu District is predominantly rural, while the Wakiso District is an urban district located near Kampala City. The focus group characteristics are presented in Table 1 below.

Table 1
Focus Group Characteristics

Unique identifier	Group Type	Number of participants	Location type
MALAWI			
MG1-AF	Adult Females	10	Peri-urban
MG2-AM	Adult Males	10	Urban
MG3-YFIS	In-School Young females	10	Urban
MG4-YMIS	In-School young Males	10	Peri-Urban
MG5-YFOS	Out of School young females	10	Urban
MG6-YMOS	Out of School young Males	10	Urban
MG7-Traditional Chiefs	Traditional Chiefs (mixed genders)	6	Urban
MG8-Teachers	Teachers (mixed genders)	10	Urban
MG9-HSAs	Health Surveillance Assistants (mixed genders)	10	Peri-Urban
UGANDA			
UG1-AM	Adult Males	10	Urban
UG2-YFOS	Young Female Out-of-school	8	Urban
UG3-YMOS	Young male out-of-school	8	Rural
UG4-AF	Adult Female	8	Rural
UG5-HW	Health workers (mixed genders)	8	Rural
UG6-Traditional chiefs	Traditional chiefs (mixed genders)	8	Rural
UG7-YFIS	Youth Female In-school	8	Rural
UG8-YMIS	Youth male In-school	8	Urban
UG9-Teachers	Teachers (mixed genders)	7	Urban
Total		159	

Ethical approvals for this study were obtained from the University of Stirling (8077), the University of Malawi (P.03/23/221) and Makerere University School of Public Health in Uganda (SPH-2023-394) as well as the Uganda National Council of Science and Technology (HS3130ES). In Malawi, an approval letter was also obtained from the South-West Education Division Office to recruit young people from secondary schools, and authorisation was obtained from the District Health Office in Zomba to conduct focus group discussions with Health Surveillance Assistants. To increase the methodological transparency, we have added a COREQ (Consolidated Criteria for Reporting Qualitative Research) checklist as supplementary table 1, based on best practice guidance [40].

Recruitment and data collection

In both countries, data collection began with community entry meetings with district officials, traditional authorities, and local leaders – a customary practice in both Malawi and Uganda – to introduce the study and invite community members to participate. In both countries school administrations facilitated access to in-school young participants, while out-of-school young participants aged 16–18 were recruited through local community leaders. Inclusion criteria in both countries were adults aged 18 and above, and young people aged 16–18. After the entry meetings, potential participants who came

forward with an interest in taking part were provided with an information sheet and given ample time to review it and ask questions from the researchers. All those who came forward (provided that they were over 16 with parent consent and belonged to the groupings represented in Table 1) were included in our groups discussions. Written informed consent was obtained from all participants aged 18 and above. For participants under 18, written parental consent and participant assent were obtained in writing. Participants in both countries received compensation to cover transport expenses to the focus group discussions, in line with ethics committee requirements.

Across both countries, we aimed for a purposive sample of different community participant types to allow for triangulated views [41]. Participants included adult men and women, in-school and out-of-school young people of both sexes, traditional leaders, and health workers. In Malawi, groups were also conducted with health surveillance assistants, the lowest cadre of health facility personnel, who undertake health surveillance and live in the communities where they work, making them well-attuned to community behaviours; Chiefs and village headpersons also took part, as they play a significant role in local governance, surveillance, community mobilisation, and supported the sachet ban at the local level [32,39,42]. Teachers were included given their direct experience of young people's drinking behaviours around schools. Given previously reported concerns about the impact of sachet alcohol consumption on young people [32,35,36,43], 4 groups with young people were conducted in each country.

Focus groups were conducted in Malawi by DM (male) and BK, and in Uganda by CN (female) and NMT. Whilst DM and CN were early career researchers, they were upskilled by IU, an expert qualitative researcher and social scientist with a PhD and nearly 20 years of qualitative research, including some in Malawi previously; they were supported by BK who is a Senior Lecturer and NMT, who is a professor, both with significant experience in the conduct of focus groups. No member of the team had any relationship with participants prior to the study. All 4 researchers are researchers in public health and were fully cognizant that they were approaching the study from this perspective, but also maintained reflexivity throughout, owing to regular meetings with the rest of the team.

The focus group discussions were conducted in pre-arranged, confidential venues convenient and acceptable to all participants, as well as confidential, an important consideration given that alcohol can be a sensitive topic [32,44]. In both countries, discussions with adults and young people were conducted in single-sex groups to promote open, comfortable, and in-depth discussion, while mixed-gender groups were used for health workers and teachers. The first two groups in each country served as pilot, after which the team met with IU to discuss any amendments to the topic guide. DM and CN created an excel spreadsheets for all the groups where key notes and impressions were noted after each group. In Malawi, the focus group discussions length averaged 66 minutes, while in Uganda they averaged 109 minutes. In Malawi, they were conducted in Chichewa, the local language, and in Uganda, discussions were conducted in Luganda and Acholi. All focus group discussions were transcribed and anonymised prior to analysis.

A semi-structured topic guide was used in both countries, covering the following domains: (a) knowledge and experiences of alcohol sachets and similar products; (b) knowledge and experience of the sachets ban and perceptions of its enforcement; (c) perceptions of alternative products consumed in the community following the ban; and (d) views on actions and policies that could reduce alcohol consumption and protect population health. This paper focuses primarily on perceptions of alternative products consumed in the community following the sachet bans and on other perceived unintended consequences. Focus groups stopped as we reached data saturation around the topics of interest.

Analysis

Analysis followed the same approach in both countries. Transcripts were de-identified and imported into NVivo 20, to support the process. We analysed the data the methodology of thematic analysis inspired by Braun and Clarke's process, which is a multi-phase process involving familiarisation with data, generating initial codes, defining themes and overarching categories, linking themes and producing the final writing [45,46]. Coding was undertaken by DM and CN (research assistants) and reviewed for reliability by more senior expert researchers IU, NZ and BK. The research team in each country

first closely read a number of transcripts and developed an initial thematic coding framework with the broader team, which was piloted on the first two transcripts before being applied to the remainder. Once coding was complete, we used the framework matrix function in NVivo 20 to summarise data under the themes and sub-themes from our codebook; thereafter we reviewed and linked the themes from each country and compared Uganda and Malawi results. We used a descriptive case study approach to investigate and compare the results from both countries. Case study analysis offers a detailed understanding of the complexity of each case (whether an institution, community or country) case whilst enabling the comparison between and across contexts [41]. We discussed our interpretations at a number of meetings as a Team, leading ultimately to the writing of the final results. We specifically compared the perceived effectiveness of the sachet bans and the perceived links between substitute products and harm across both countries. But the case study approach also enabled us to contrast the availability of certain products in Malawi and compare with those in Uganda, whilst maintaining the contextual differences. By adopting a cross-case studies comparison approach through the results, we aimed to enhance the validity of our findings, and their potential replicability and applicability to other countries.

Results

The effectiveness of alcohol sachet bans in Malawi and Uganda

All focus groups, across both countries, indicated that the ban on alcohol sachets was effective in eliminating this product from the market, with positive effects in terms of consumption initially. In Malawi, teachers and young people particularly noted that the ban led to a reduction in consumption, including reduced drinking in school settings.

"Yes 2013, 14, 15 then 2016 and they started disappearing then 17, 18, 19 they disappeared completely." (UG2-YFOS)

"These days they don't have the sachets. So, I would say it [consumption] has been reduced in the context of the school." (MG8-Teachers)

In both countries, participants attributed the ban's success primarily to its multi-sectoral implementation. In Malawi, participants described a decisive top-down action by the Ministries of Health, together with the Ministry of Trade and Industry, the Malawi Bureau of Standards and the police; they also highlighted the strong implementation at local government level (district, town and city councils). In Uganda, the Uganda National Bureau of Standards was seen as having played a central role, checking the quality of alcohol sold and closing premises found to be selling sachets, with support from the police and security forces as well as local government officials.

"The Government told them [manufacturers] that they should stop producing the alcohol in sachets as it was being very destructive. So, you know when the government gives an order, no one can refuse it." (MG1-AF)

"In Kampala there was alcohol that was found in some shops and when they found this sachet alcohol in Kampala shops, the owners of the shops were arrested." (UG8-YMIS)

Community-level actors such as chiefs and other traditional leaders played a meaningful role in both settings. In Malawi, a few groups reported that Chiefs monitored the sale and consumption of sachets in their communities and educated residents on the ban. Uganda's groups similarly highlighted the role of community leaders at the local level, who used the media, and other means to sensitise populations to the ban.

"...when they enacted the law, they announced on radio to give information ...during functions like burials, marriage, the leaders and law makers kept giving such information to the people, that's how that information spread and reached everyone." (UG6-Traditional Leaders)

However, in all 18 focus groups, all the participants confirmed that the sachets ban only offered a short reprieve, and that similarly affordable and highly available substitute products have emerged since the ban, maintaining harmful consumption. Table 2 below provides illustrative quotes from all the groups, which clearly substantiate this point.

Table 2
Perspectives on replacement products post sachet ban in Malawi and Uganda

Malawi focus group discussions illustrative quotes	Uganda focus group discussions illustrative quotes
<i>"In the past it was happening and as of now it's still happening with bottled alcohol... They tend to be small Malawi gin bottles and when such bottles tend to be consumed, they say that it's the same as consuming the Ryders [popular sachet]" (MG1-AF)</i>	<i>"They don't sell alcohol sachets again or make them, so they replaced with bottles" (UG1-AM)</i>
<i>"it's the same alcohol, they have just removed the sachets and replaced with glass bottles" (MG2-AM)</i>	<i>"They banned it ...sachets reduced when the bottles were introduced" (UG2-YFOS)</i>
<i>"because of the banning of sachets, that's when there was the introduction of other alcohol such as magagada [homebrew type] that was introduced in order to replace the sachets so that their business should continue" (MG3-YFIS)</i>	<i>"It is the packaging that has been changed to bottles but chief waragi is still chief waragi of those days that was in the sachet, and it is the one they are using now" (UG3-YMOS)</i>
<i>"What they changed is the packaging, companies are still producing the alcohol, the formula is the same, the alcohol content percentage is the same which is 45 percent a small bottle. So, the end result that is happening upon people consuming the small bottle such as booster, shooter, and the like, it's the same things we were experiencing, the difference is just the packaging" (MG4-YMIS)</i>	<i>"Kadeng ci deng"[homebrews] ... so the bad effects of this alcohol that has replaced sachet alcohol is still there, and it has left people suffering" (UG4-AF)</i>
<i>"Ryder (popular sachet) is available, but it's packed in small bottles" (MG5-YFOS)</i>	<i>"[with] sachet alcohol being banned there is more cheaper drinks, they have only changed the packaging, those small bottle alcohol are there and you find our children are still using it" (UG5-HW)</i>
<i>"It's the same alcohol sachets but they just changed packaging and started putting the alcohol in bottles" (MG6-YMOS)</i>	<i>"Now that they [sachets] have been stopped, they thought they should change the packaging to the small plastic bottles so people are still able to move with them in their pockets so all that is still the outcome of the sachet alcohol which is still the same as the effect of alcohol" (UG6-Chiefs)</i>
<i>"So, there was no change because there was just a change in the quantity that the alcohol is being packaged. Instead of having a hand full amount in terms of quantity, we are having now three hands" (MG7- Chiefs)</i>	<i>"The manufacturers have changed the way to package the alcohol back then they used to package it in these sachets but these days they have changed the packaging it's now in small bottles, ...but still you realize that the content is almost the same" UG7-YFIS)</i>
<i>"[bottles are] the cheapest alcohol available, they just branded and then repacked them, they are still there... it's like they sort of found a loophole to the sachets...now most of the packaging is in glass bottles of very small bottles" (MG8-Teachers)</i>	<i>"These polythene bags, it helped us that when it was banned [but] they brought the plastic bottled alcohol to replace this alcohol" (UG8-YMIS)</i>
<i>"Some of the sellers started putting kachasu in the bottles and started selling them, and those people that got used to drinking the sachets, started buying tots." (MG9-HSAs)</i>	<i>"So, it was being packaged in polythene, now the substitute of the packaging material is the cheap plastic bottle, so that packaging is still going on" (UG9-Teachers)</i>

The availability of substitute products consumed since the ban

In this section, we present data from the two case studies separately to account for the contextual differences between Uganda and Malawi. Where the prices of products are mentioned, we give the Malawi Kwacha or Uganda Shillings amount and the exchange rate in US Dollars, so that wider audiences can relate.

Malawi Case study

Below, we describe in detail the products which were consumed as an alternative after the sachets were banned. Some of these substitute products existed prior to the ban, whereas others were newly manufactured and sold after the ban, in what our participants described as a bid by manufacturers to simply substitute one product for another. We provide a

supplementary table summarising the alcohol products we identified, including reported product characteristics, packaging formats, affordability, sale settings, and community concerns (Supplementary Table 2). Supplementary materials also include images of selected products (Supplementary Fig. 1). Product classifications (recorded/unrecorded) were based on participant descriptions and discussions during focus group discussions. However, distinctions between recorded and unrecorded alcohol products were not always clear, and some products may have moved across formal and informal markets or been sold in repackaged or unlabelled forms.

The proliferation of small bottles of recorded alcohol

Across most of the Malawi focus groups, participants mentioned a proliferation of small bottles of alcohol available in their communities. They argued that the industry and manufacturers simply repackaged the alcohol from sachets (or similar), in small bottles (from 200 to 330mls) locally known as “nips”. Young people groups (particularly out of school young people, and young males) were the most knowledgeable of these brands of ‘nips’, mentioning 18 brands commonly consumed by them and others in their communities. Most nips were sold in returnable and reusable clear glass bottles and contain spirits (gin, brandy, rum, vodka). A few of the groups mentioned that the alcohol contained in the popular nips was mostly spirits of 40% alcohol volume, which they perceived as strong, and potentially harmful. Larger bottles of spirits, cider and beer are sold in glass bottles of 330mls and above. However, even for recorded alcohol, there had been a conscious move to smaller packaging sizes. For instance, in our teacher’s group, a participant stated, *“now that they [Castel Malawi] have introduced a 300 millilitres bottle, the consumption for gin has skyrocketed”* (MG8-Teachers). This suggested that the presence of smaller (and cheaper) bottles was leading to increased consumption.

The 200ml nips (smaller bottles) were described as extremely affordable (see Supplementary Table 2). For example, the groups stated that an Ice London bottle, could be bought at MK700-1000/ US\$0.40–0.58), whilst Jambo Gin could be purchased for MK500-1200 (US\$0.30–0.68), and Zikomo cost MK800 (US\$0.46). These were particularly popular brands amongst the young people groups. Larger bottles of beer (Carlsberg) could be purchased for MK2000 (US\$1.15, while baby gin bottles (Malawi Gin at 330ml) could be purchased for MK4000-5000 (US\$2–3). The adults, health surveillance assistants and teachers’ groups mainly mentioned the larger bottles of alcohol, such as Malawi Gin, Chibuku beer, or Hunters Cider, perhaps due to their own bigger purchasing power, as larger bottles would be more expensive. However, amongst some of the adult groups, smaller and cheaper bottles (e.g. Powers No1, Red Deer and Right choice) were also frequently mentioned.

The affordability of the nips, as a driver for consumption, was particularly stressed in the young people’s groups of both sexes.

“Ok, the nip (bottle is) sold at MK500 while the bigger Malawi gin bottle (750ml) is sold at MK3000...alcohol in nips is cheap as compared to other brands, so, one tends to see that if he or she buys [recorded brand] it will cost him or her about MK15000 to get drunk and yet maybe he has only MK1500 in his pocket. Therefore, he will buy two nips of cheap alcohol which contains over 40 percent alcohol.” (MG4-YMIS)

Most groups, across all ages, reported that these small bottles could be purchased in grocery shops and supermarkets, clubs, bars, tuck shops, on markets and in ‘shebeens’ (local, typically unlicensed, drinking place or informal bars). In some of the groups, participants added that alcohol is also sold to anyone who asks for it, without any age verification or restriction; as a young person stated: *“The ones that are selling alcohol do not look at the age of the one that is buying, everyone is sold and can consume regardless of age”* (MG6-YMOS). Our focus group with teachers confirmed that young people can easily purchase alcohol in the community (sometimes by pooling financial resources together between them, to buy a larger bottle or several bottles at once). The adult female group similarly showed concerns around young people mixing alcohol with energy drinks or soft drinks (*“when the youth buy this alcohol, they tend to buy energy drink or ginger drink and add alcohol in that.”*) (MG1- AF). Supplementary Table 2 also lists products such as Right Choice which is mixed with flavourings, and Zikomo Cola Rum, a popular nip brand mixed with cola flavouring.

Taken together, this combination of availability, affordability, accessibility, and high alcohol volume content of the nips was seen as a concern by most of the groups, including the traditional leaders who have a key role in surveillance and support within their communities.

The persistence of unrecorded alcohol

The other product mentioned in the Malawi focus groups as having replaced sachet consumption was unrecorded alcohol, particularly homebrews. Of course, these products were also manufactured and consumed pre-sachet ban, but all groups mentioned an increase in the consumption of those post ban. The alcohol named *Kachasu* was particularly prevalent and mentioned in almost all groups as being available and consumed by all.

"Everyone is buying this alcohol; it's not target specific to a certain group. Everyone is buying the alcohol whether the youth, men and women" (MG1-AF).

The young people's groups of both genders were the most knowledgeable of these homebrewed products, mentioning 13 different names of unrecorded alcohol, with *Kachasu*, *Magagada*, *Makhaya* and *Ambuye Nditengeni* being the most mentioned.

This alcohol was described as sold in markets, informally in the villages, and extremely available. As a young male explained *"it's everywhere...for Kachasu, you cannot travel 100 meters without finding such alcohol" (MG4-YMIS).*

There were worries among some the groups regarding the content of some of this unrecorded alcohol. For instance, the alcohol named *Ambuye Nditengeni* (translating literally in Chichewa to *"Take me Lord"*), has particularly been reported in the press as being harmful to health, due to being mixed with methanol [47]. Our Malawi groups participants mentioned a number of unrecorded alcohol types being mixed with other substances prior to being sold, which raised concerns about their content.

"(Ambyue Nditengeni), It's made from water that is used to clean metals [methanol]." (MG5-YFOS)

"There are rumours that they buy pills [Lean, a prescription medicine mixed with opioids] and they dilute in a drum." (MG4-YMIS)

In terms of the unrecorded alcohol strength, our participants used words such as "harmful," "powerful", and they felt the strength of this alcohol was similar to that contained in sachets in the past.

"The things one was experiencing upon consuming alcohol sachets, it's exactly what is happening when one consumes this alcohol (Makhaya)...the alcohol content percentage is the same which is 45 percent." (MG4-YMIS)

The other main concern expressed by participants around this type of unrecorded alcohol is that it is usually sold by measure (including small measures) according to the purchasing power of the consumer (including young people).

"In shebeens [they] buy like at wholesale in 5 litres bottles and resell at their drinking joints. But if I can go there with MK300 or MK500, they will still sell me it." (G4-YMIS)

Alcohol vendors were described as re-using glass bottles (e.g. other alcohol bottles or soft drinks bottles), to pour unrecorded alcohol in them to sell. The adult males group confirmed that small plastic bottles are used by sellers, with measuring marks drawn on them, by which two lines of alcohol may cost MK200 (US\$0.12), three lines MK300 (US\$0.17), all the way up to MK700 (US\$0.40).

The extreme affordability of this unrecorded alcohol was confirmed in six of the groups (including all 4 young peoples' groups). Participants stated that unrecorded alcohol sells for as low as MK200 (US\$0.12) for one measure, and then in

quantities worth MK500 (US\$0.30), MK750 (US\$0.43), and MK1000 to MK1200 (US\$0.58–0.68) for a 330ml bottle. This was seen as a strategy on the part of sellers, following the ban of the alcohol sachets.

"I think the spirit is still there, we don't have the sachets as in the word itself but the idea of capturing a certain section of the economy that is focusing on those people who are on the low-income section. The idea is still there because as they are trying to increase access of the alcohol to poor people or those with low earning power, they are also increasing themselves to the abuse by the young people. So, in the same idea that they used to have those sachets, in order to get a better access to the poor markets. In these days when they are having the alcohol in smaller packets." (G8-Teachers)

Uganda Case Study

Our findings in Uganda suggested that a wide range of small, inexpensive, and easily accessible alcohol products remained available following the sachet ban, and as in the Malawi case, have become sachet substitutes. These include both locally produced and commercially branded products. We provide a supplementary table showing the alcohol products identified across focus group discussions, including reported product characteristics, packaging and serving formats, affordability, sale settings, and key community concerns (Supplementary Table 3). Supplementary materials also include images of selected products (Supplementary Fig. 1). Product classifications were based on participant descriptions and discussions during focus group discussions. However, distinctions between recorded and unrecorded alcohol products were not always clear, and some products may have moved across formal and informal markets or been sold in repackaged or unlabelled forms.

The multiplication of small bottles of recorded alcohol

Similar to the findings of the Malawi focus groups, participants in Uganda reported the widespread availability of small plastic bottles of alcohol, particularly 200mls bottles. This is despite the fact that the regulations from the National Alcohol Policy (NACP) set *"the lowest volume to be not less than 250mls (for spirits)"* (Ministry of Health-(DUO1).

All our focus groups could name at least one brand of the small bottles from sizes of 120mls to 200mls (as shown in Supplementary Table 3). Across the 4 young people's groups 12 brands of 200ml bottles were cited (with Torrero, Bond 7 and the small bottles of Uganda Waragi most cited). Across the 5 adult groups, 12 brands of the small 200ml bottles were named (some being the same brands as those mentioned by young people). The adult male group alone (UG1) mentioned 8 brands of the small bottles of alcohol, which perhaps is representative of the preponderance of male drinking in Uganda.

"These days, Uganda Breweries [largest manufacturer in Uganda] is packaging Uganda waragi in small plastic bottles, then other companies are also packaging their alcohol in small plastic [bottles]... the different types of alcohol which used to be in sachets have now come in plastic bottles of different millilitres, like 100mls, 200mls, 500mls and so on." (UG6-Traditional Chief-Rural)

"The alcohol in small bottles is still a lot in our area here for instance Adrikos, Salvador, High 5, those are the ones here in our area and many others" (UG3-YMOS-Rural)

Those bottles were described by our participants as extremely affordable (especially the smaller sizes). For instance, a Kabisa small bottle can be purchased for UGX500 to 1000 (US\$0.14-29); an Empire vodka small bottle could cost between UGX500 and 2500 (US\$0.14–0.71), Coffee spirit UGX2500 (US\$0.71), same as Adrikos gin or High 5 small bottles, though the prices cited amongst groups varied a little. Larger bottles of beer (e.g. a Senator beer bottle at 300ml) could cost as low as UGX2500 (US\$0.71). The affordability of small bottles was raised in a number of groups, as the reason for buying them: *"most of the reason [we buy them] is because they are cheap, and affordable from lowest prices"* (UG2-YFOS-Urban).

Over half of the groups reported that the small bottles described above were widely available in retail shops, markets, supermarkets, trading areas, small bars in urban areas, as in villages.

"Alcohol, small bottles are very many, even the new ones that we are seeing are entering the market. There are many in all the trading centres everywhere you go, you see they have bars." (UG3-YMOS-Rural)

Our participants stated that all gender and ages are consuming the smaller bottles of alcohol, especially the young and males. Some of the products appeared to target the young population through marketing. In one of the young female groups, a participant stated about the Kabisa small bottle: *"it makes you strong and when you see the writing on it, they have drawn a person who is very well built so there are very many people who are taking it"* (UG7-YFIS-Rural); see Supplementary Fig. 1.

The persistence of the availability of homebrews

In the Uganda case, participants described unrecorded alcohol as a longstanding and widespread feature of local markets, and a replacement product post sachet ban. Across the 4 young people groups (urban and rural), no less than 12 types of unrecorded alcohol or home brews were mentioned as available in the community, with and *Kadeng ci deng* as most cited (see Supplementary Table 3). Young males and females out of school were the most knowledgeable of these products.

"These days other new types of alcohol have come out in the market, even alcohol of UGX500 which can make you drunk. You can still find, for instance, Kasese, Lira-Lira, Kadeng ci deng." (G3-YMOS-Rural)

The adult women and traditional leader's groups, both conducted in rural areas, named 9 types of homebrews produced and consumed locally (including *Kadeng ci deng*, *Kasese*, *Kwete*, *Wiri* and *Lujutu*). This is not surprising as homebrewing is common in rural areas.

In most of our focus groups, participants reported that homebrewed alcohol is packaged in large jerrycans or drums and then measured in cups or small bottles to be sold to customers at different prices, depending on what each customer can afford.

"These shop dealers always have a tap where they begin with UGX1000 or above. But when they have measured for you, so in case you go with UGX10,000, they'll just give you a glass bottle. But once you go with your own bottle, they will ask you, for how much alcohol you want them to put for you; they will open the tap and put it for you." (G8-YMIS-Urban)

In a few of the Uganda groups, it was also mentioned that chemicals or additives are sometimes added to these brews, giving them a sweet taste or a colour.

"The chemical that is used to make Kadeng [ci deng] changes the colour ...they also bring another chemical to change the fermenting of that alcohol that makes people smell it as nice, like banana." (G4-AF-Rural)

Across 6 out of our 9 groups (including 3 three of the young people groups), participants stated that the price of this alcohol (e.g. *Kadeng ci deng* or *Kasese*) starts at UGX500 [US\$0.14] for a smaller cup or bottle, and at UGX1000 [US\$0.29] for a larger one. This means, as an adult man put it, that *"even a lower-earning person is able to drink those alcoholic drinks"* (UG1-Adult males). Several of the groups (especially Chiefs and teachers) worried about the affordability of those products, especially to the poorest who rely on their day-to-day income, gained through informal work, for survival.

"If someone goes and does an odd job, he can earn UGX2000, UGX5000, so what they do is that the little money that they have got, they will buy alcohol with it ... because the price is cheap." (UG6-Traditional-Rural)

Perceived links between alcohol products, availability, and perceived harms in Uganda and Malawi

Both the Malawi and Uganda focus groups stated that those small, inexpensive, and easily accessible alcohol products have become widely available within local alcohol markets following the sachet ban, and that they are linked to an increase in consumption.

"The alcohol that is packed in nips is the one that tends to be cheap as compared to the other brands...as of now, the percentage of people consuming that alcohol has increased because we tend to share or buy alcohol for one another." (MG4-YMIS)

"Previously, we had only about two vehicles pass by while transporting alcohol (in small bottles). Currently, each day here, I see about 30 vehicles moving loaded with alcohol which means it increases." (UG1-AM-urban)

In Malawi, several groups expressed concerns that some of the poorest people are drinking heavily whilst suffering from hunger, which makes the impact on their health more pronounced (especially when products are untested and may contain chemicals or other additives).

"When it comes to Ambuye Tengeni, if you drink without eating, it takes you to the Lord indeed! ... A lot of people are drinking alcohol without eating, so there tend to be a lot of effects on people including deaths." (MG9-HSAs)

This is important in this context, as Malawi suffers from chronic food insecurity, with over half of its population living below the poverty line (United Nations, 2022).

In our Uganda groups, participants also expressed concerns over the widespread availability of alcohol; they stated that the small bottles could now be found at stadiums, around playgrounds, at many social events (with loaded trucks driving around the city delivering alcohol); they mentioned increased accessibility to the poorest and the most vulnerable.

"Alcohol these days, even the youths drink it. It's not that someone has to have a lot of money, we have UGX500, UGX1000; so, if one does casual work, they use that money to buy alcohol. Youth, men, women all are taking that alcohol. The one in jerrycans, ... even the children are taking it, when they hear music at the disco place or at a funeral anywhere, they all go there because they know the vendors are there selling that type of alcohol." (UG4-AF)

Discussion

The main findings of this study

This study examined some of the unintended consequences of the sachets bans. Although the bans were perceived as successful in initially reducing availability and consumption (particularly amongst the younger populations), participants in both countries described the continued availability of small, inexpensive, and easily accessible alcohol products post sachets bans. Some of these products were already present within local alcohol markets in the past (e.g. homebrews), while others appeared to emerge or become more prominent after the ban (e.g. the small 200mls bottles).

Our participants stated that these substitute products have effectively replicated the sachets' affordability and availability. Both countries' groups described the continued prevalence of unrecorded (homebrew) alcohol, untested, and in some cases adulterated with methanol or other substances. These were packaged in bulk and sold in smaller, measured amounts (measures, cups, bottles) at any price the customer can afford. Replacement products are often sold without age verification, which is a concern in both cases. Age verification in Malawi may still be problematic to enforce, since many do not yet hold National ID cards particularly rural areas (despite a large-scale registration process started in 2017[50]). Although in Uganda the Government recently moved to Digital ID cards, a recent study showed that while urban and higher socio-economic groups benefited from easier access to registration and replacement services, rural populations often failed to register for those ID cards, due to lower interest; young people also failed to do so, due to their perception that they have less of a need for ID-linked benefits, compared to older groups [51]. The replacement products described in our focus

groups were reported as easily accessible to young people and the poorest in communities (around schools, in villages, at events, and in all formal and informal outlets).

What is already known on this topic

In the last decade, publications have noted innovations in alcohol products design, packaging and pricing in Africa and their links with increased alcohol consumption [22,52–55]. For instance, the impact of alcohol sachets on alcohol availability and harm has been well documented [32,34,35,37,38,43,56,57]. The literature shows that both small packages (such as sachets) and larger than average packaging of alcohol (e.g. bigger bottles) have been linked to heavier drinking, harmful consumption and risky sexual behaviours in Africa [34,37,55,58]. For example, concerns have been raised in South Africa regarding the increase in container sizes of alcohol products (larger bottles and large wine containers), which have been described as predictors of heavy episodic drinking and heavy consumption [54,55].

However, we found very few papers which explored the availability of substitute products consumed following sachet bans in Africa. Two studies have stated that sachet bans originally contributed to reducing availability in Malawi and Uganda [33,36]. Smart et al.'s observational study of 100 alcohol venues in two Ugandan districts, conducted soon after the 2019 ban, showed a significant reduction in their availability in off-premises outlets, where they had been primarily sold. At that time, the authors warned that the sachet ban may push consumers toward other cheaper informal alcohol (such as homebrews), which already accounts for a large part of alcohol consumption in Uganda [33]. Similarly, in their small qualitative study, conducted shortly after the 2017 sachet ban in Malawi, Salimu et al. [36], pointed to the emergence of alcohol purchased by sellers from manufacturers in 5 litre bottles, to re-sell to demand to consumers; they warned that “the new packaging practice renders the alcohol readily available to underage populations through increasing accessibility”[36]

What this study adds

To our knowledge, this study is the first to explore the types of alcohol products available and consumed at community level since the sachets bans in Malawi and Uganda. In both cases, the product which seems to have proliferated is the small bottle of recorded alcohol which we document in this paper for the first time. The Malawi Liquor Act of 2015 allows spirits and liquor to be packaged in glass bottles of 200mls [59]. In Uganda, the 2019 National Alcohol Control Policy set the alcohol's “lowest volume to be not less than 250mls (for spirits), 750mls for wines and 330mls for beers”[48]. Our results show a conscious move towards the production and sale of smaller sizes in both countries, to increase availability. In Malawi, one of the biggest manufacturers, Castel Malawi, introduced in 2022, a smaller 330mls bottles of brandy, vodka and gin (now commonly known as ‘baby gin’). At that time, Castel stated that this was “to ensure uninterrupted availability of the iconic spirits and introduce an affordable pack size for common customers” [60]; they also justified the move as a way “to reach out to those people who cannot afford to buy a 750ml bottle of these spirits” [61]. In similar moves in Uganda, the Uganda Breweries website shows the different package sizes in which Uganda Waragi, a particularly popular brand in the country, can be sold: “200ml PET bottle at UGX4,600 and 100ml PET bottle at UGX2,600” [62]. Such strategies are worrying, since these manufacturers have some of the biggest market shares in Uganda and Malawi, and are likely to set ‘small bottles’ trends for other producers to follow.

Our results are applicable to other countries in the region, where sachets may still be found, or have recently been banned [56], and where other products may have emerged also to fill the gap. This paper shows that the alcohol industry is adept at working with and around regulations to increase the demand and the availability of alcohol (Ferreira-Borges et al., 2017), and may be reducing alcohol packaging sizes in an attempt to boost consumption in Africa [63]. In this context it may be advisable to issue clearer labelling regulations, and to educate the public around standard drinks or units, minimum guidelines, and alcohol harms, as has been suggested for Nigeria [64,65].

On the basis of our results, we also recommend that when drafting legislation to ban products like alcohol sold in small sachets, a clear provision should be made to prevent the industry from circumventing the legislation through producing a selling similar products that aim to get around the legislation via technicality (e.g. like selling small quantities of the product

in bottles instead of sachets). A separate Malawi paper we published show how manufacturers in Malawi (including those packaging items in plastics) attempted to delay the sachet ban by making different arguments around packaging [32]. When we paper shared preliminary findings at the latest Network of African Parliamentary Committees on Health (NEAPACOH) meeting in Zambia in February 2026 [66], parliamentarians from other countries verbally confirmed similar trends regarding small alcohol bottles availability, which were already a concern (e.g. Zambia). The latest country to tackle this issue is Nigeria where, in November 2025, the NAFDAC issued “a total ban on the production and sale of alcoholic beverages in sachets and small-volume PET/glass bottles (below 200ml) ...to safeguard public health and protect vulnerable populations – particularly children, adolescents, and young adults – from the harmful use of alcohol” [67]. Our findings will be of use to Nigeria’s efforts and to any other country issuing similar policies in the future.

In our paper, we show that the low price of the substitute products available post-bans may be a driver for consumption, especially among the youngest and the poorest. In Malawi, a recent paper described that lower-income and rural households spent proportionately more on alcohol than wealthier and urban counterparts, and that alcohol consumption expenditure crowded out spending on food, housing, and education among the poorest [68]. This has significant implications for the development of a country which ranks 172/193 on the latest Human Development Index [69]. Fontes et al. have similarly reported that in South Africa, spending was regressive throughout 1995–2011, meaning poorer households devoted a larger share of their total expenditure to alcohol than richer households [70]. The authors concluded that there was no evidence that alcohol taxation increased regressivity, but that coherent alcohol policies, alongside monitoring of substitution effects between beverage types, could further reduce this inequity. This is an under researched topic at present and more investigation is needed.

Finally, our paper adds significant detail on the consumption of unrecorded alcohol (e.g. homebrews) in Malawi and Uganda, where little literature on the topic exists. Very few studies have explored this issue in Malawi [71,72] or Uganda [73], but they highlight unrecorded alcohol production as a significant chemical, health and environmental risk, compounded by regulatory gaps, and a lack of awareness of alcohol strength and harm among consumers. There is a significant gap in knowledge around what unrecorded alcohol is, where it is sold, and who consumes it [29,53,72,74]. Unrecorded alcohol accounts for a large proportion of sales in the African continent (possibly between 30% and 50% depending on countries) and is also a major source of livelihood for some populations [26,75]. Literature suggests that the best policies may consist in regulating unrecorded alcohol markets (e.g. licensing of traditional brew sellers and offering financial incentives to the producers for registration and quality control), as a safer alternative to outright bans, to protect livelihoods and cultural practices [74,76,77]. Public awareness campaigns about the dangers of consuming unrecorded alcohol have also been recommended, including in Malawi [26,72]. Stronger epidemiological monitoring, and more research is needed to capture the true scale of unrecorded alcohol consumption, and guide effective policy responses (Rehm et al., 2014; Room et al., 2022).

Limitations

Although this study provides the first qualitative insights into the types of products consumed following the alcohol sachets ban in Uganda and Malawi, this was a small exploratory study, and a wider retail monitoring study is required to account for all types of products manufactured and sold in urban as well as rural communities. Moreover, although we verified most of the names and descriptions of products mentioned in the focus groups through web searches, in the absence of a larger-scale study, it was not always clear whether some products could be classed as recorded or unrecorded, since community members did not necessarily distinguish between the two. More in-depth research is therefore required in this area to build a clearer picture and develop a contextually specific typology.

Conclusion

This study provides qualitative evidence on how alcohol markets in Malawi and Uganda have evolved following the introduction of sachet bans. While these policies were effective in removing sachets from circulation, they did not produce

sustained reductions in availability or affordability. Instead, they were followed by a shift towards small-format bottled spirits and the continued availability of unrecorded alcohol, both of which reproduce the key features that made sachets attractive to consumers. These findings suggest that policy approaches targeting a single product type are unlikely to have lasting effects unless they form part of a broader and more coherent strategy addressing packaging, pricing and availability across the market. They also highlight the need for legislation to anticipate and limit industry responses aimed at circumventing regulation. The persistence of unrecorded alcohol further points to the importance of more pragmatic regulatory approaches that engage with, rather than simply prohibit, this sector. More generally, there remains a lack of systematic, policy-relevant data on alcohol markets in these settings. Future work should prioritise more detailed mapping of products, pricing and points of sale, alongside improved measurement of unrecorded consumption, to better inform policy development.

Declarations

Ethics approval and consent to participate

Ethical approvals for this study were obtained from the University of Stirling (8077), the University of Malawi (P.03/23/221) and Makerere University School of Public Health in Uganda (SPH-2023-394) as well as the Uganda National Council of Science and Technology (HS3130ES). In Malawi, an approval letter was also obtained from the South-West Education Division Office to recruit young people from secondary schools, and authorisation was obtained from the District Health Office in Zomba to conduct focus group discussions with Health Surveillance Assistants. All focus group participants provided written consent to take part in the study

Consent for publication

“Not applicable”

Competing interests

The authors declare that they have no competing interests.

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Author Contribution

IU, DM, MO, CN, NMT, RB, and CP led the conceptualisation of the study. Investigation was conducted by DM, CN, NMT, and BK. Data curation was carried out by IU, DM, CN, NMT, and BK. Formal analysis involved IU, PO, DM, MO, CN, NMT, RB and BK. The methodology was developed by IU, MO, NMT, GM, RB, and BK. Supervision was provided by IU, NMT and BK. Validation was performed by IU, DM, MO, CN, PO, NMT, CP, and BK. IU led the writing of the original draft of the manuscript supported by PO, DM, CN, NMT, RB and BK. Tables and figures were prepared by IU, PO, and RB (with support from CN and DM). All authors read, reviewed and approved the final manuscript.

Data Availability

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