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Effect of using proximity to educational institutions in licensing alcohol outlets in Kenya: A case of Mukurweini Sub-County, Nyeri County

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ABSTRACT

County government of Nyeri licenses alcohol outlets using its domesticated Alcoholic Drinks Control Act of 2024. This law makes it mandatory for alcohol outlets to be located a minimum distance of 300 meters from educational institutions. This study evaluated the relative effect of this law on the number of applications to sell alcohol rejected by the Nyeri County Liquor Committee in 2025 in Mukurweini sub-County. A retrospective comparative study design was utilized. Mukurweini sub-County liquor licensing reports for 2019 and 2025 were analyzed for the number of applications rejected and reasons for the same. The 2025 report contained distances to an educational institution for rejected applications. Incidence rate ratio was determined, with the 2019 reports being classified as unexposed and the 2025 reports as exposed based on time of law enforcement. In 2019, 22 out of 208 applications (10.6%) were rejected compared to 94 out of 210 applications (44.8%) in 2025. The incidence rate ratio was 4.3 (95% CI 2.7-7.1, p= 0.00). The attributable fraction in the exposed group was 0.77. In 2019, the rejections were mainly due to violation of public health and food safety laws, while in 2025 they were due to violation of the 300 meters distance to an educational institution. In 2025, the mean number of alcohol outlets violating the 300 meters' rule were 3 (95% CI 2.5-3.6) per educational institution and the mean distance was 146 meters (95% CI 129-162). Implementing the new law on proximity of alcohol outlets to educational institutions led to a four-fold increase in number of applications rejected. This led to a reduction in the density of alcohol outlets and by extension exposure of school-going population to alcohol and alcohol related advertising.

This indicates that sub-national, distance-based alcohol control policies are both effective

and enforceable.

Keywords: *alcohol selling outlets, policy, educational institutions, Kenya, regulation*

INTRODUCTION

Alcohol is widely consumed in in Kenya. It is available in various forms like beer, wine, spirits and traditional brews. A nationwide study found that 7% of women and 13% of men in Kenya consumed alcohol every day or almost daily (Kenya National Bureau of Statistics, 2022). Studies done on certain segments of the population have indicated higher figures. A study reported a prevalence rate of 11.8% among the 15-65 years' cohort; and another 5% (1.36 million) in the same cohort being classified as addicts (NACADA, 2022). Similarly, a study on persons living with HIV found that 8.9% were heavy alcohol users (HAU) with more males being HAU at 19.6% (Wake & Rosen, 2024). Another study among injecting drug users living with HIV found that 15% were heavy alcohol users. A heavy user was defined as drinking more than 14 drinks a week for men and 7 or more drinks among women (DesLauriers et al., 2023). A study among female sex workers in Nairobi, found that 29.9% were harmful users of alcohol (Beksinska et al., 2022).

In Kenya, alcohol consumption is of public health importance. It has been demonstrated to cause psychological distress among adults aged 15-54 years (Kamau et al., 2025). It is also a risk factor for road traffic accidents with motorcycle riders who consumed alcohol being twice likely to be involved in an accident compared to non-alcohol drinkers (Makwaga et al., 2025). Heavy use of alcohol among people living with HIV and injecting drug users has been associated with needle sharing, having more sexual partners, being unaware of one's serostatus and defaulting on treatment (DesLauriers et al., 2023, Wake & Rosen, 2024). Alcohol consumption is also a risk factor for non-communicable diseases (NCDs) e.g., hypertension and depression. A national survey found that women who consumed alcohol were 1.5 times more likely to have an NCD compared to women who had never consumed alcohol (Okyere et al., 2024). Alcohol use has been reported in Kenyan educational institutions. Studies have found prevalence rates of 18.6% among university students (Kamenderi et al., 2025); 3.8% and 2.6% among secondary and primary school going children respectively (NACADA, 2016, 2018). Children and adolescents are at risk of early initiation into alcohol use due to peer pressure, curiosity and its availability. In Kenya, children as young as 7 years old have been reportedly introduced to alcohol (NACADA, 2022).

One proxy of alcohol availability is the number of outlets selling alcohol in a given area. Alcohol outlet density (AOD) has been defined as 'the number of physical locations in which alcoholic beverages are available for purchase either per area or per population"

(CDC, 2017, p.3). The more the outlets, the higher the density. Studies have shown that adolescents living in areas with high density of alcohol outlets are likely to start consuming alcohol at an early age (Rowland et al., 2016) or engage in heavy drinking (Trapp et al., 2018). In Kenya, 26% of primary school pupils and 56.3% of secondary school students interviewed positively affirmed that alcohol was easily accessible in or within the school environment (NACADA, 2016, 2018). In South Africa, a study among high school students found that alcohol was also available with 54% of students confirming the close proximity of alcohol outlets to their school (Mathibe et al, 2022). In Kenya, 22% of secondary school students interviewed identified a bar near their school as a source of drugs and substances of abuse (NACADA, 2016). One way of controlling alcohol availability is to reduce the density of alcohol outlets. Strategies for reducing AOD include ensuring that licensed alcohol outlets are located at a stipulated distance from educational institutions. This creates a buffer and limits exposure of school-going children and adolescents to alcohol and alcohol advertisements.

Licensing of alcohol outlets near educational institutions in Kenya

On 24th June 2025,, the Kenyan government adopted the National Policy on the Prevention of Alcohol, Drugs and Substance Use (The Presidency, 2025). This policy restricts sale of alcohol near educational institutions, residential areas and places of worship. It explicitly states that no alcohol selling outlet shall be located less than 300 meters from an educational institution (NACADA, 2025). This policy has elicited a lot of debate among various stakeholders like bar owners and alcohol manufacturers. The leadership of NACADA recently clarified that the policy is not a legal instrument and only provides direction (Njaaga, 2025). This means that it cannot be enforced as it needs to be operationalized via legal statutes. On the other hand, this provision can be enforced in Nyeri County as it'salready anchored in law.A key example is section 22 of the Nyeri County Alcoholic Drinks Control Act 2024which stipulates that 'The County Liquor Committee shall not grant a new license for the sale of alcoholic drinks unless it is satisfied that the premises in respect to which the application is made is located at least 300 meters from any nursery, primary, secondary or other learning institutions for persons under the age of 18 years' (County Assembly of Nyeri, 2024, p 19).This study evaluated the effect of this law on the number of applications to sell alcohol rejected after its enactment.

METHODS

Study design

This was a retrospective comparative/ before-after study design using secondary administrative data. The data utilized was Mukurweini sub-county liquor licensing reports for the years 2019 and 2025. The year 2019 was classified as unexposed and the year 2025 as exposed because the new LiquorLicensingAct came into effect in 2025. The study chose the 2019 data as it was the only available data from the Mukurweini sub-county public health office. In Nyeri County, licensing of alcohol outlets is carried out as stipulated in the Nyeri County Alcoholic Drinks Control Act (County Assembly of Nyeri, 2024). This law was enacted in 2024 and operationalized in 2025. It has provisions for the establishment of the Alcoholic Drinks Control Directorate, County Liquor Committee and sub-CountyAlcoholic Drinks Regulation Committees.

Every year, new applicants and existing alcohol outlets must apply to the sub-county committee in which the premises is located. The former is for new licenses while the latter is either for renewal or applying for a different license e.g. when changing from a bar to a restaurant. The committee then collates and publishes details of all applicants and displays these in the sub-county administrator's notice board and other public places for a period of 21 days. Copies are also sent to relevant stakeholders like planning, security and public health officers for their inputs. The sub-county Public Health Officer carries out due diligence including sanitary inspections and reports back to the sub-county committee. The committee reviews all applications after 21 days and submits its findings to the county liquor committee for processing of licenses. (County Assembly of Nyeri, 2024).

The 2025 liquor report was accessed from the Mukurweini sub-county administrator's notice board. It was pinned there to inform the general public of the licensing outcome and also inform those whose applications were rejected of their right to appeal (County Assembly of Nyeri, 2024). The 2019 liquor report was accessed from the Mukurweini sub-county Public Health Office.During the 2025 inspections, the proximity of liquor selling outlets to educational institutions was assessed. The threshold was 300 meters and this was determined using geographic information system (GIS). This was measured by the county liquor licensing committee with technical assistance from the county department of lands, physical planning, housing and urban development. This department has competent professionals backed by a fully equipped GIS laboratory (Republic of Kenya, 2024). Any outlet which did not meet this threshold was rejected and the distance to an educational institution noted. Ethical clearance was not necessary as this study analysed published public reports and the focus was on aggregate data. The study did not focus on location of a premise or name of the applicant.

Each report was analysed for proportion of applications rejected and reasons for the same. The 2025 report had distances to educational institutions for rejected applications. These were analysed for mean distances and type of educational institutions. Confidence intervals were also calculated using the standard error of the mean on the sample of applications rejected specifically due to the distance rule. Incidence rate ratio of the likelihood of an application being rejected after the introduction of the new liquor law was calculated. The reports for 2019 were classified as unexposed while those of 2025 were classified as exposed. A Shapiro Wilk test for normality was done for rejected alcohol outlets followed by a two-sample independent t-test to see if the average number of license applications rejected solely due to the 300-meter rule per educational institution was different among primary and secondary schools. Data was transferred to a spreadsheet and analyzed using Stata.

Study area

Mukurweini is one of the eight sub-counties of Nyeri County. It has an area of 179.1 square kilometers and a population of 89,137 as per the 2019 national census. Majority of area residents are engaged in agriculture where they cultivate cash crops like coffee as well as food crops like maize, beans and vegetables. They also keep livestock e.g. dairy animals and fish farming (County Government of Nyeri, 2023). Its headquarters is Kiahungu township located a distance of 24 kilometers from Nyeri town. Various sub-county level government offices are located here. These include the offices of the deputy county commissioner and sub-county administrator. The average size of a household is 3.6 members (County Government of Nyeri, 2022).

RESULTS

In 2019, 22 out of 208 applications (10.6%) were rejected compared to 94 out of 210 applications (44.8%) in 2025. The incidence rate ratio was 4.3 (95% CI 2.7-7.1, p= 0.00). The attributable fraction was 0.77 (95% CI 0.63-0.86). In 2025, the mean number of alcohol-selling outlets violating the 300 meters was 3 (95% CI 2.5-3.6) per affected educational institution; and mean distance to an educational institute was 146 meters (95% CI 129-162). The least distance was 7.5 meters. Of the educational institutes with alcohol selling outlets located a distance of less than 300 meters, 71% were primary schools and 29% secondary schools. The Shapiro wilk test for normality was 0.4. A two-sample independent t-test showed no significant difference in mean number of alcohol outlets near primary schools (M=2.9, SD=0.4) and those near secondary schools (M=3.4, SD=0.4); t (-1) =29, p (0.14). In 2019, the rejections were mainly due to violation of public health and food safety laws.

These include lack of a sanitary facility e.g., a urinal or one in poor structural condition; lack of a kitchen; poor structural condition of the building and lack of a valid food handler's certificate. In 2025, all the rejection applications were due to violation of the 300 meters' distance from an educational institution.

DISCUSSION

The Nyeri County Liquor Control Act of 2024 is a sub-national policy response that operationalizes alcohol control efforts at the County level. It complements the 2025 NACADA policy among other national guidelines. Implementation of this new liquor law led to a decline in the number of alcohol outlets licensed in Mukurweini sub-county. Applications submitted after the new law came into effect were 4.3 times more likely to be rejected compared to applications submitted before this law had been implemented. The attributable fraction of 0.77 would means that, in the absence of this law, 77% of rejected applications would have been approved. Nyeri County is located in Central Kenya. A national survey found that 74.1% of residents in this region agreed that there was a proliferation of bars in the last 5 years, and another 66.6% stated that there was an increase in under-age drinking (NACADA, 2022). This intervention may address some of these issues.

Prior to this intervention, the density of alcohol outlets in Mukurweini was high with an average of 3 outlets per affected school. The shortest distance observed was 7.5 meters. This means that this outlet was literally at the school's doorstep. The density of alcohol outlets was slightly more among secondary schools albeit insignificantly. A plausible reason could be primary and secondary schools tend to be located adjacent to one another and thus not much difference in terms of distance. A study by NACADA showed that the ages of 13-15 years are critical as this is when learners start using alcohol in secondary schools (NACADA, 2016). A mean density of 3.4 alcohol outlets violating the 300 meters' guidelines may facilitate easy access to alcohol. Density of alcohol outlets has been shown to be high in sub-Saharan African countries which lack or do not enforce this intervention. In Dar es Salaam, Tanzania density of alcohol outlets within a distance of 400 meters from an educational institution was high with a range of 9-126; with schools located in low-income areas having the highest densities (Ibitoyeet al., 2019). In Nigeria, Odeigah and colleagues found that 73.2% of the schools in Abeokuta were located within a distance of 400 meters from an alcohol outlet (Odeigah, et al., 2023).

The number of applications for a liquor license was more or less the same for the comparison period. This was 208 and 210 respectively. This may infer that the number of alcohol outlets has remained more or less the same. Primary schools tend to be more compared to secondary schools and this may explain why more alcohol selling outlets violating the 300 meters distance are doing so in respect to a primary school. In 2022, Nyeri County had 382 primary

schools and 220 secondary schools (County Government of Nyeri, 2023). Early Childhood Development Education (ECDE) centers are domiciled in primary schools. These cater for pre-school learners aged between 3 and 5 years. This means the ages of children in primary schools can range from 3 to 14. For some, this is a formative age and it is prudent that alcohol selling outlets do not violate the 300 meters' threshold. In Nyeri County, the school going cohort comprises 35.6% the population. This comprises of 29.8% for primary and secondary; and 5.8% for ECDE's (County Government of Nyeri, 2023). It is prudent that this cohort is shielded from exposure to alcohol and alcohol-related advertising.

Studies have also shown that in the long-term reducing alcohol outlets density is beneficial. It reduces crime, binge drinking, alcohol-related harm, domestic violence; child abuse and neglect (Toomey et al., 2012, Campbell et al., 2009). This is important as it helps to secure the public health status of the population. The 2010 Constitution of Kenya allocated the function of liquor licensing to the newly created 47 semi-autonomous county governments. Some carry out this function solely relying on policy and laws issued by the national government (NACADA, 2025) while others have gone a step further and enacted their own liquor licensing laws (County Assembly of Nyeri, 2024). This study recommends that the requirement that no alcohol selling outlet be located less than 300 meters from an educational institution be made mandatory and incorporated in liquor licensing across the 47 counties. To safeguard against possible litigation from interested parties, this provision should be anchored in law. This study also recommends further studies to look at the implementation and impact of this intervention as it is scaled up across the country.

A limitation of this study is that distance was only recorded for alcohol outlets violating the 300 meters threshold. This means that mean distance for all the alcohol outlets cannot be determined. Secondly, though a high number of applications were rejected in 2025, there is a provision for appeals. It is assumed that if a new premise meets this 300-meter threshold, it may be issued with a license.

CONCLUSION

Enforcing the 300 meters barriers of alcohol outlets to educational institutions resulted in a four-fold increase in the likelihood of an application for selling alcohol being rejected. This led to a reduction in the density of alcohol outlets in Mukurweini sub-county. This will in turn reduce exposure among school going population to alcohol and alcohol advertising. This indicates that distance-based alcohol control policies are enforceable at the county level.

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