

Understanding the Interplay of Tobacco Smoking and Heavy Drinking in Hypertension Prevalence: Insights from a Community-Based Study in Uganda



MAKERERE UNIVERSITY

Paineto Masengere¹, Nynke Halbesma², Fiona Dobbie²

1 - Makerere University School of Public Health, Kampala, Uganda

2 - Usher Institute, University of Edinburgh



THE UNIVERSITY
of EDINBURGH

Introduction

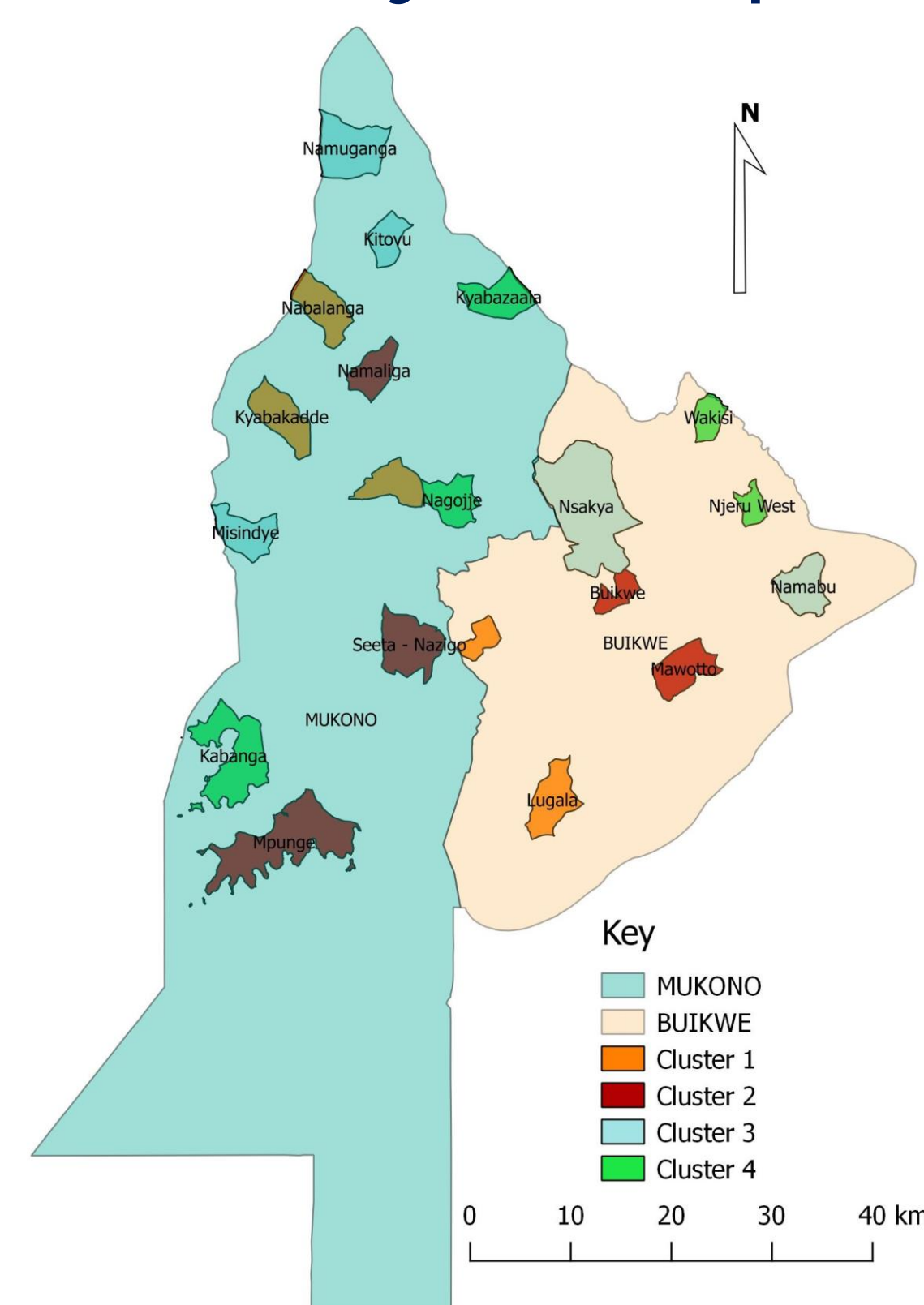
- Hypertension poses a significant burden on Uganda's strained healthcare system, with high prevalence rates.
- Tobacco use, and heavy drinking contribute to the development of hypertension and to further its complications.
- We explored the association between tobacco use, heavy drinking, and existing hypertension in a community-based cross-sectional study in Uganda's Mukono and Buikwe districts

Objective

- To assess the joint effect of tobacco smoking and harmful drinking on the prevalence of hypertension in Mukono and Buikwe districts in Uganda.

Methodology

- Distribution of study sites (parishes)

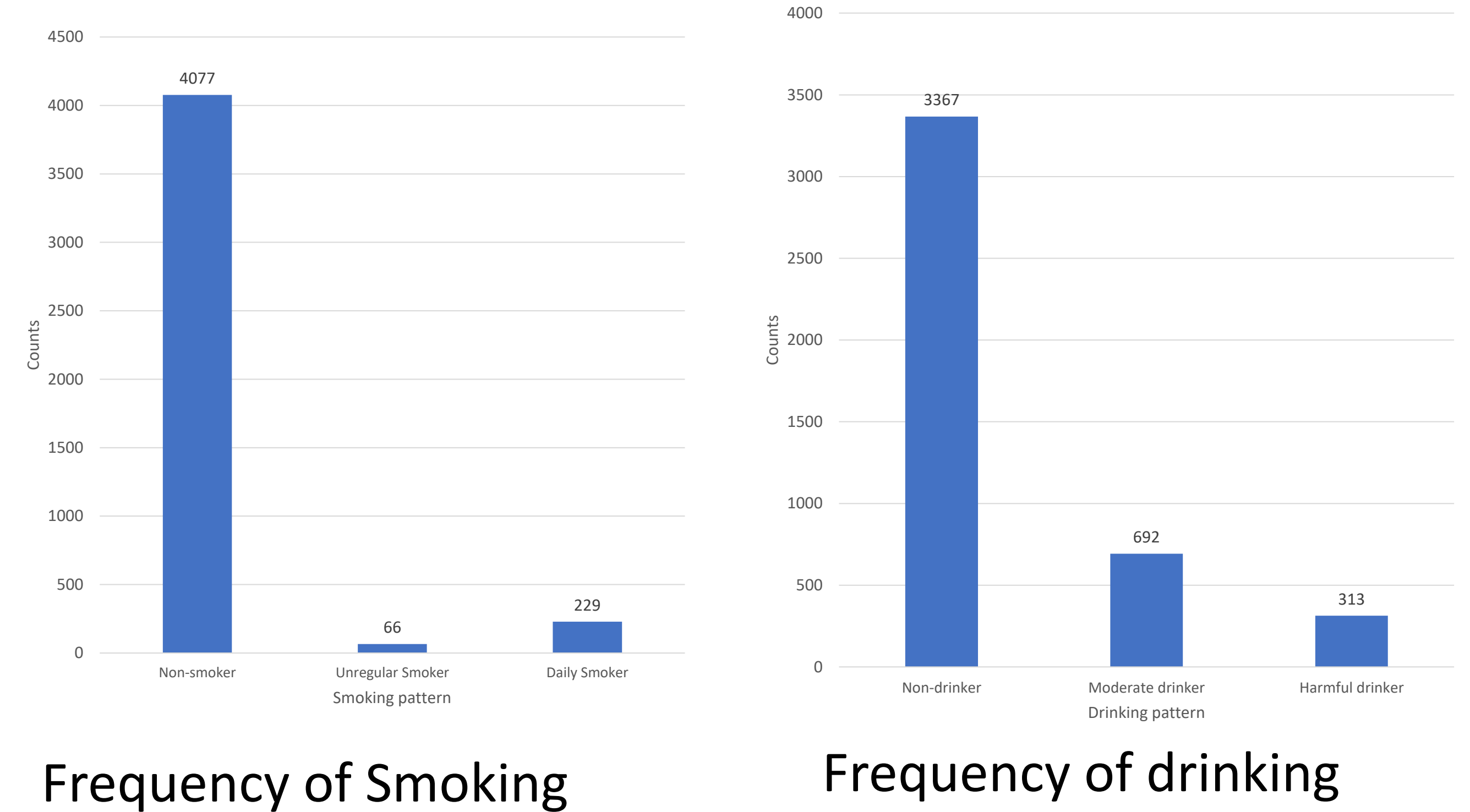


Source: OpenStax.org

- Secondary analysis of Data from 4,372 adults (aged 25–70) collected in 2019
- Participants from 3,689 randomly selected households across 80 villages in the target districts.
- Logistic regression used to assess associations in R
- Relative Excess Risk due to Interaction (RERI) used

Results

- Prevalence of smoking and drinking



- Association between Smoking, Drinking, & Hypertension

Risk factor	OR (95% CI)	OR (95% CI)
Smoking		
Non-smoker	Reference	Reference
Current smoker	1.36 (1.04, 1.76)	1.08 (0.79, 1.46)
Alcohol consumption		
Non-drinker	Reference	Reference
Moderate drinker	1.53 (1.27, 1.83)	1.43 (1.15, 1.78)
Harmful drinker	2.50 (1.96, 3.18)	2.44 (1.84, 3.21)

- Joint effect of tobacco smoking and harmful drinking

- Conjoint smokers and heavy drinker had 30% more odds of having high blood pressure than the summation of the separate risks of the individual risk factors

Conclusion

The joint effect of tobacco smoking and heavy drinking is higher than the combined individual effects of smoking and drinking on the prevalence of high BP

Acknowledgement

