



Navigating nourishment: Unveiling disparities between rural and urban food environment – a case study in Kenya



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INTRODUCTION

- Across Low- and Middle-Income Countries (LMIC), changing food environments have led to changes in dietary patterns from traditional diets, high in nutrients, to highly processed foods, which are nutrient-poor among both urban and rural populations (Downs et al., 2022).
- There is lack of useful food environment data to inform policies in Africa (Turner et al., 2020).
- Study aim: **provide context-specific data for both rural and urban food environments to inform policy interventions aimed at supporting healthy diets**



METHODOLOGY

- Study area 1) Viwandani in Nairobi County = urban
2) Kiima Kiu in Makueni county = rural
- Timeline: October to December 2023
- GPS coordinates from all vendors in the study area were collected
- Vendors were categorised into 12 different types (figure 1 and 2)
- Foods sold per vendor were listed and assigned to 10 food groups based on Minimum Dietary Diversity Score for Women
- Unhealthy food groups were categorized based on Global Dietary Recommendation foods to limit



Kiosk



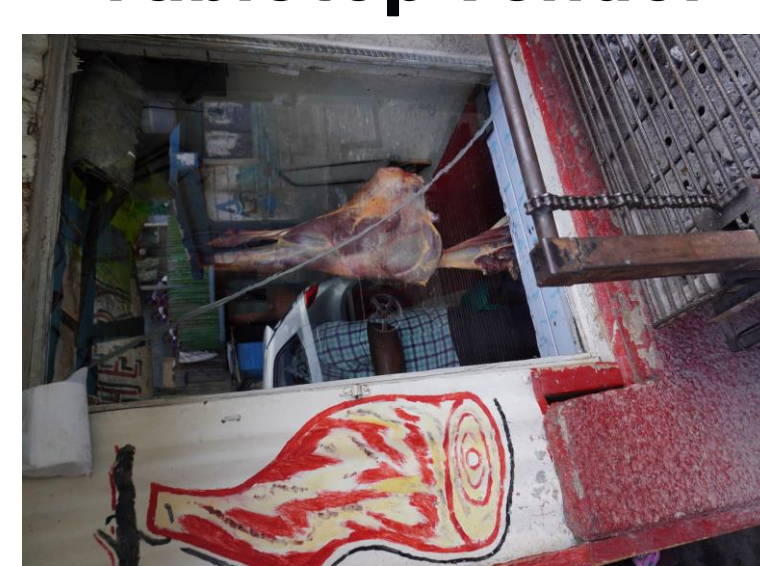
Tabletop vendor



Cooked food vendor



Ambulant vendor



Butcher



Cereal shop

Figure 1: Different vendor types, both in the rural and urban food environments



RESULTS

Top 3 vendors by presence: Kiosks, Tabletop vendors, Cooked food vendors

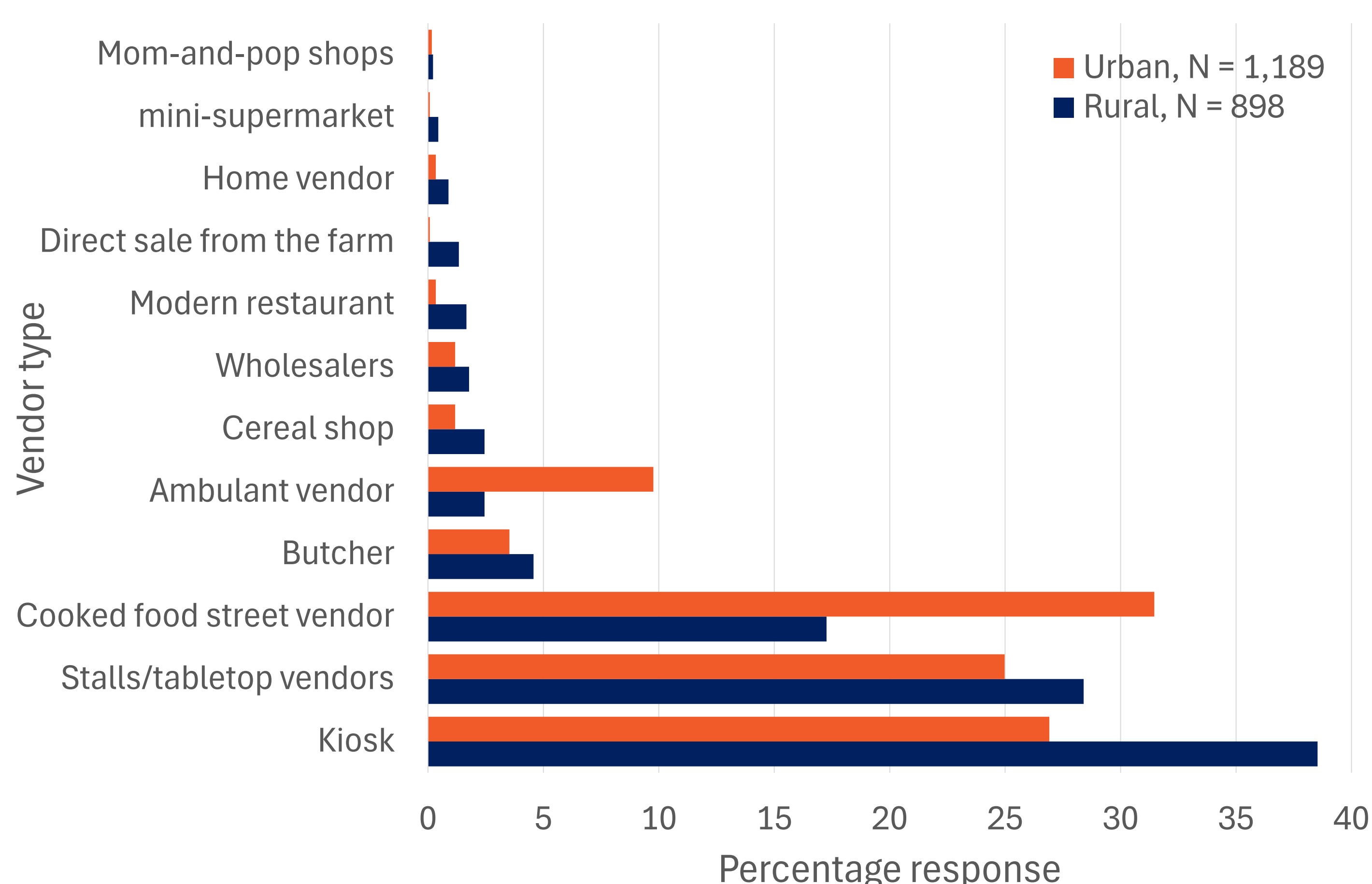


Figure 1: Rural and urban vendor type distribution

- Mean vendor food diversity was significantly ($p < 0.001$) higher among rural than urban vendors.
- Within a 50m radius, the urban food environment had a higher diversity than the rural food environment.

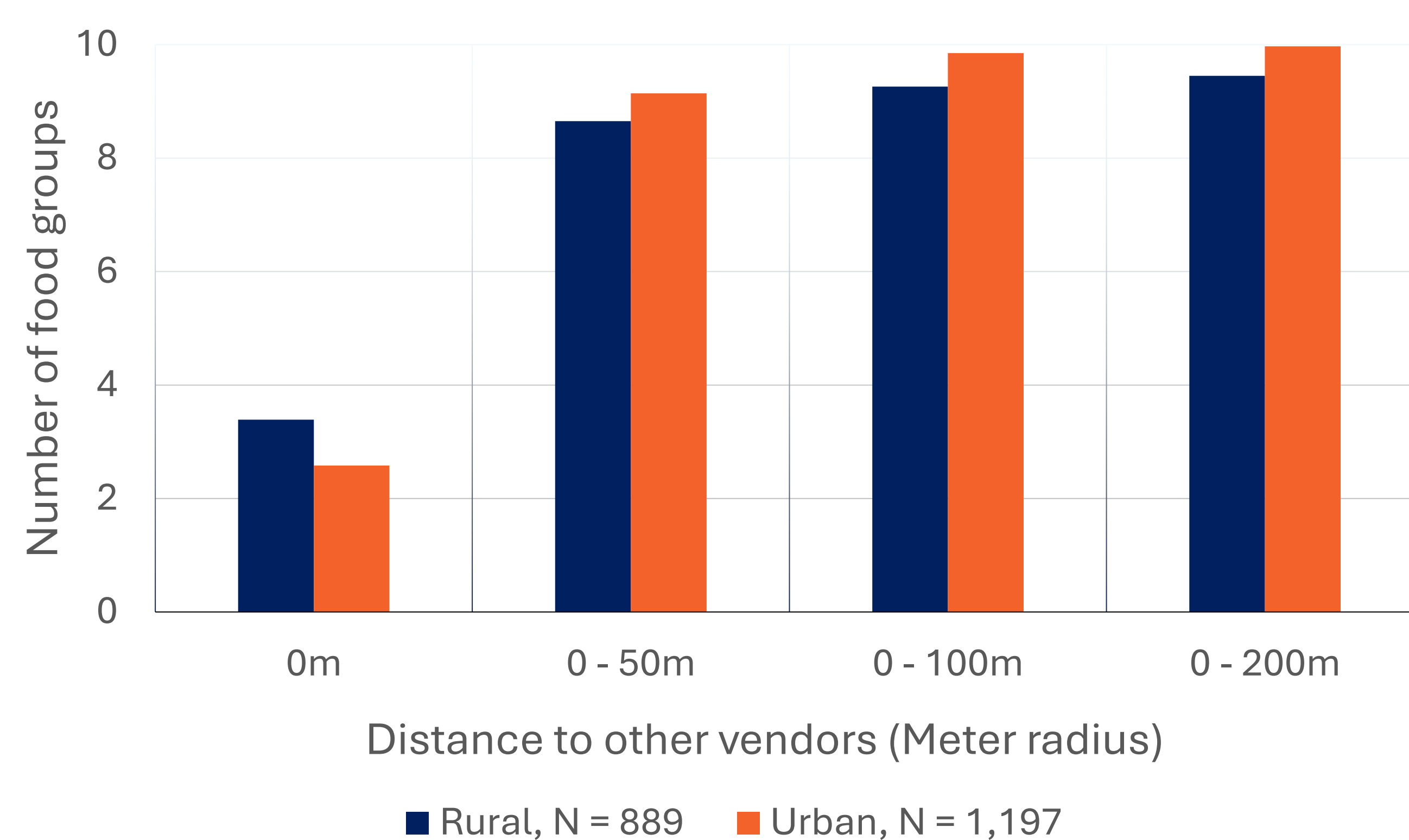


Figure 3. Vendor food group diversity among rural and urban vendors

- Mean vendor unhealthy food diversity score higher among rural vendors than urban vendors

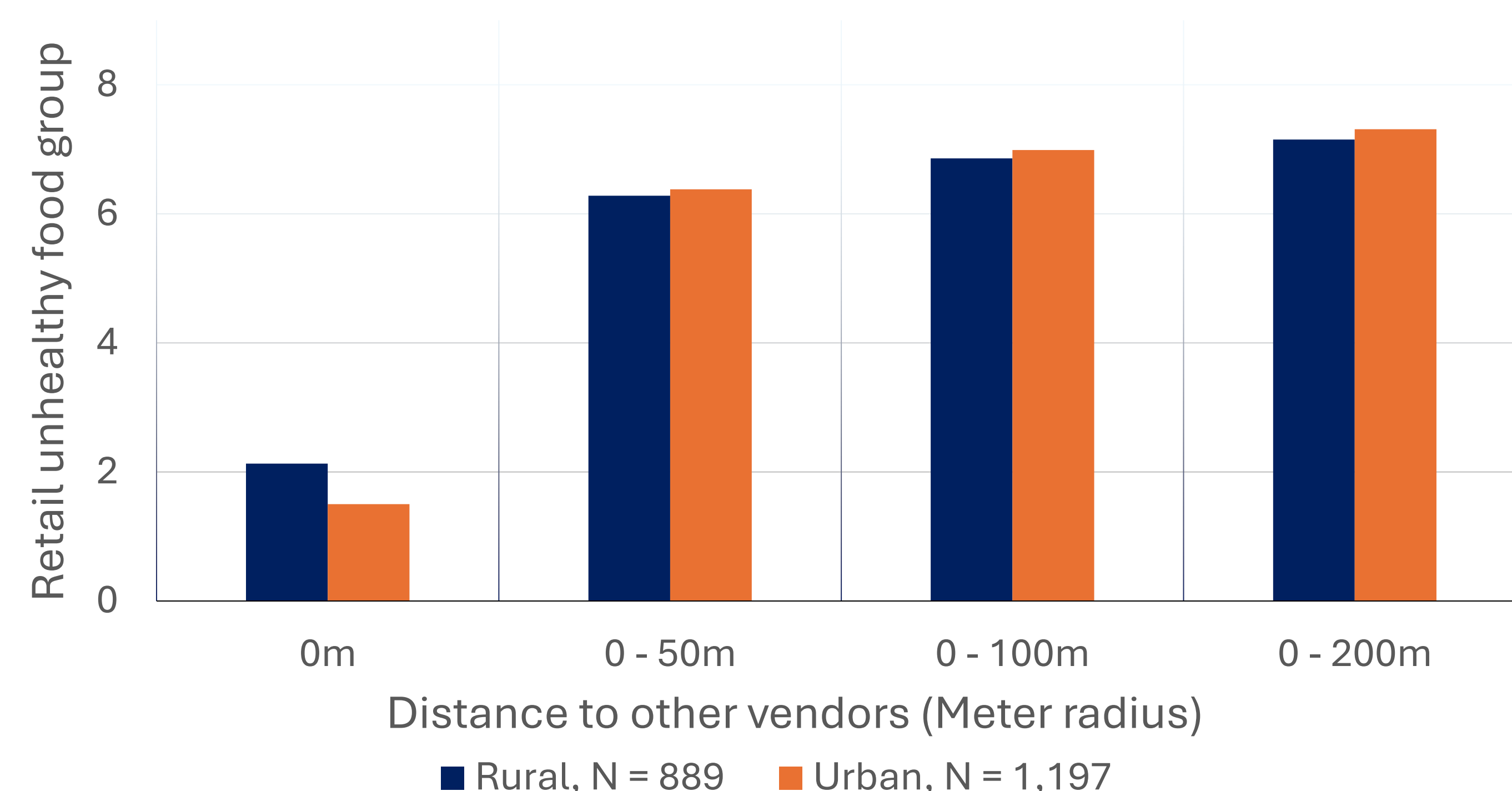


Figure 4. Unhealthy food diversity score among rural and urban vendors



CONCLUSIONS

- The high presence of cooked food street vendors could indicate the high reliance on ready-to-eat food in many urban households.
- The rural food environment is equally endowed with unhealthy foods just as the urban food environment.
- Using radius in Food environment gives a different orientation of a particular food environment as opposed to individual vendor analysis



FURTHER READING

Downs, S.M.; Ahmed, S.; Warne, T.; Fanzo, J.; Loucks, K. (2022). The global food environment transition based on the socio-demographic index. *Glob. Food Secur.* 33, 100632.

Turner, C et al. (2020). Food Environment Research in Low- and Middle-Income Countries: A Systematic Scoping Review. doi.org/10.3390/nu14132571

ACKNOWLEDGMENTS

