

A secondary data analysis method to identify priority foods for local food composition data studies

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Where does food that end up on a plate come from??

Introduction

- Food composition varies spatially and affects dietary nutrient supply.
- Subnational food composition data is lacking, creating a knowledge gap.
- Household food consumption and expenditure survey data can provide insights into the foods which will be most consumed after home production.

Aim: Develop a methodology to prioritise which foods should have spatially disaggregated data collected for inclusion in food composition tables



Figure 1: Visualisation of food items Credits: Microsoft Designer Image generator

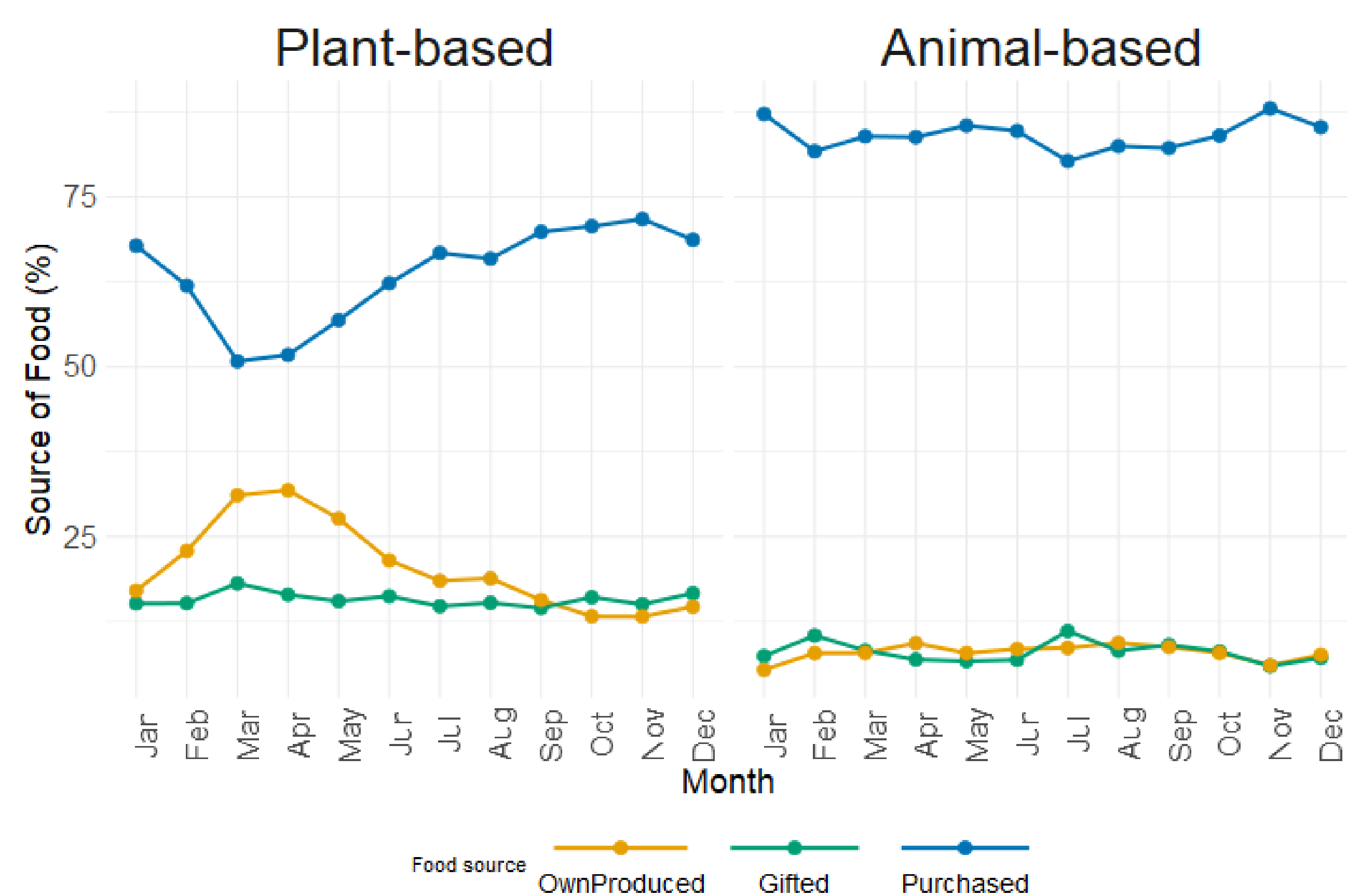


Figure 2: Malawi food sources classified according to Plant-based or Animal-based food items. There is a clear seasonal trend on the consumption patterns of Homegrown foods.

Findings and interpretations

- Plant-based food items mostly sourced locally or gifted (~70% purchased).
- Animal-based and other food items mostly purchased (~90% or more).
- Seasonal trends observed for plant-based staples and vegetables.
- No clear seasonal trend observed for animal-based foods.
- Households consume some own-produced food all year round.

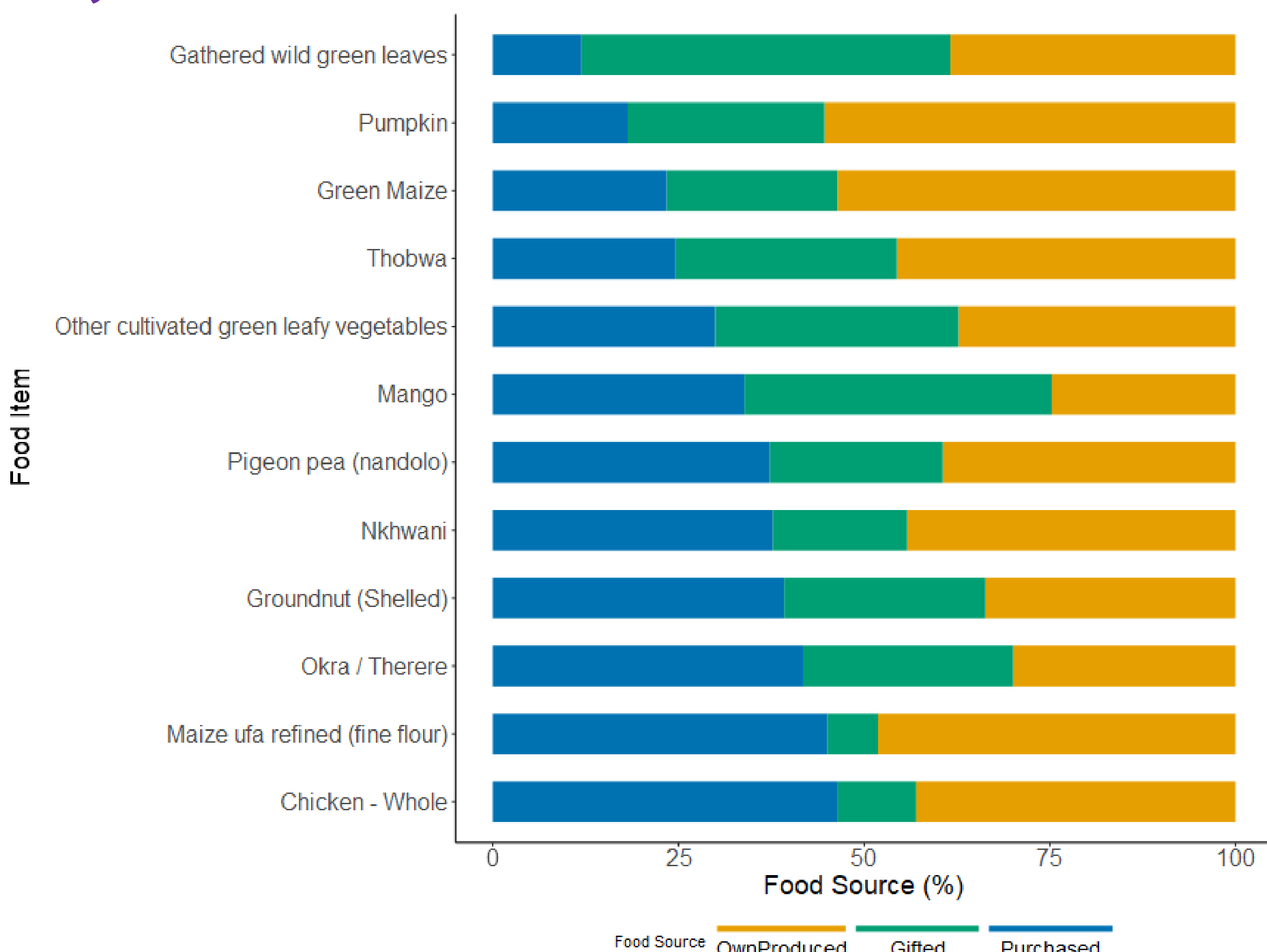


Figure 4: Top 12 food items in Malawi ranked by least purchased item. To determine the rankings, we focused on food items that were consumed by at least 10% of the respondents (n=1143)

Methods

- R-package for classified food items as purchased, own-produced, or gifted using 'R'.
- Method tested by Analysing Malawi Fifth Integrated Household Survey (IHS5; 2019-2020).
- Food item classifications done at group and individual levels.
- Comparisons automated with R scripts for standardization.

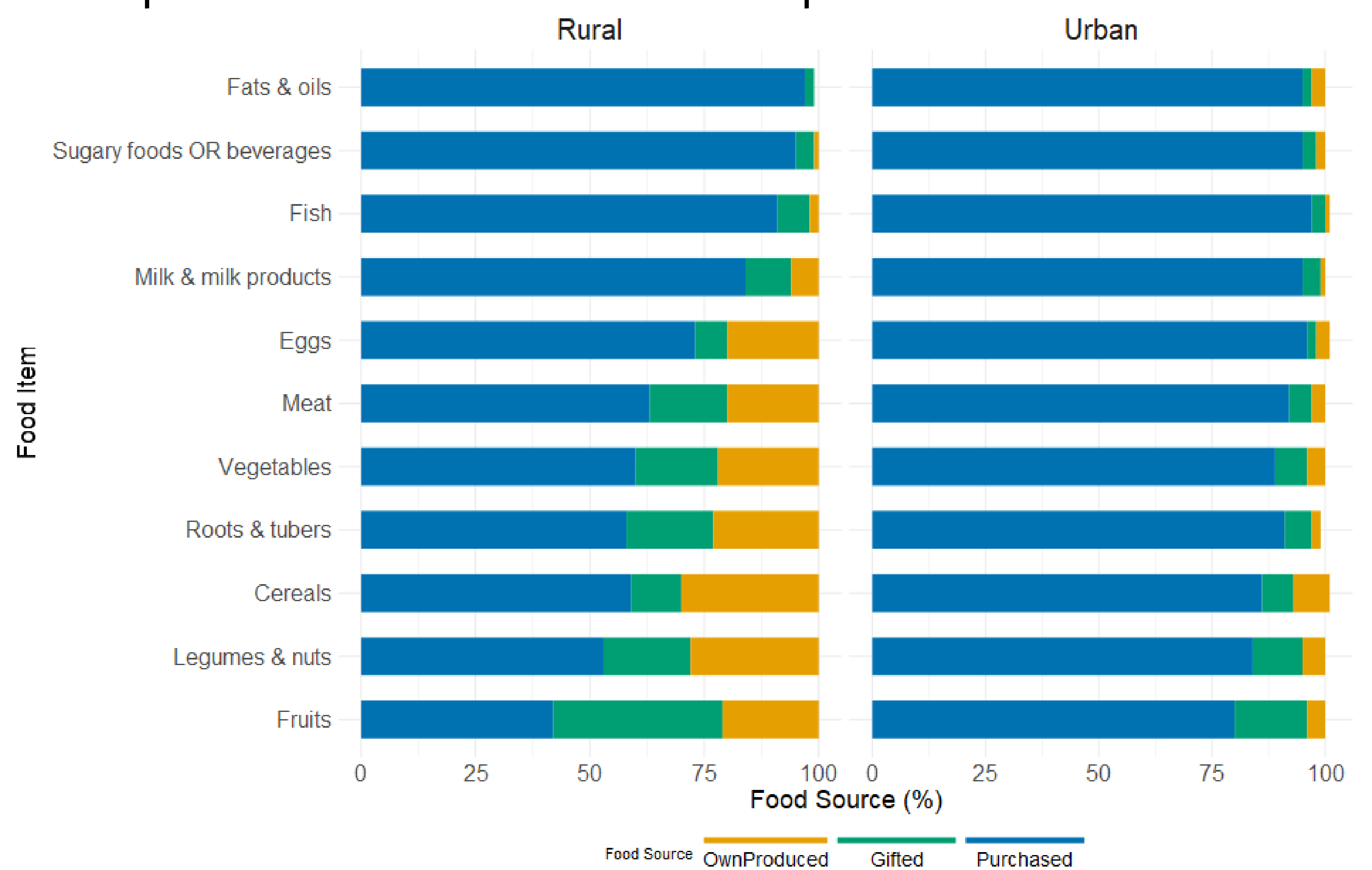


Figure 3: Malawi food sources classified according to type of residence (urban/rural). There are significant differences in sources of food consumed by the two residence type groups.

Conclusions

- Residence type and source of food items are potentially valuable considerations when estimating apparent intakes and micronutrient deficiencies.
- Local food composition data needed for accurate nutrient estimates.
- Seasonality of home consumption, and spatial variation in food composition, may have implications for micronutrient surveys.
- Approach applicable to any HCES data with food item sources.
- Reproducible scripts available on GitHub

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