Mmeka? Methods of collecting food prices in Kampala, Uganda

Andrea L. S. Bulungu, Ph.D., MPH

ANH Academy Research Community on Food Access

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Andrea L S Bulungu is a public health nutrition researcher based in Uganda, and Research Assistant Professor with the E3 Nutrition Lab at the Brown School of Washington University in St Louis. Andrea's work focuses on research methods and interventions for addressing the drivers of maternal and child nutrition in resource-poor settings.

She is a long-time nutrition consultant for the World Bank, and has also consulted for ILRI, ICF International, and FAO, among others. Andrea has experience working on nutrition programming in Cambodia, Ethiopia, Guatemala, Haiti, India, Indonesia, Lao PDR, Madagascar, Myanmar, Nigeria, Papua New Guinea, Senegal, Sierra Leone, and Uganda.

She holds a Ph.D. from the London School of Hygiene & Tropical Medicine, a master's degree in public health from Washington University in St Louis, and a bachelor's degree in art from Indiana University.

HOST MENTOR
Rosemary Isoto, Senior Lecturer in the Department of Agribusiness and Natural Resource Economics, College of Agricultural and Environmental Sciences at Makerere University in Kampala, Uganda

HOME MENTOR
Lora Iannotti, Professor in public health at the Brown School of Washington University in St Louis, USA, and Director of the E3 Nutrition Lab

Andrea L. S. Bulungu, Ph.D., MPH
Research Assistant Professor, E3 Nutrition Lab | Brown School at Washington University in St Louis
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Agenda

#		Presenter	Time
1	Background on the Mmeka study motivation and methods, including a preview of the "Collecting Food Prices: A Guide for Diet Quality Researchers"	Andrea	15 minutes
2	Research assistants panel on food price data collection challenges and lessons learnt	RAs, facilitated by Andrea	15 minutes
3	Discussion	Everyone	20 minutes

Background

Mmeka? Methods of collecting food prices in Kampala, Uganda

Research Rationale in a Nutshell

"Almost 3.1 billion people could not afford a healthy diet in 2020."

FAO The State of Food Security & Nutrition in the World 2022

" … the cost of an EAT–Lancet diet exceeded household per capita income for at least 1·58 billion people."

Hivonen et al, 2020

"On average, the most affordable nutrient adequate diet exceeds the cost of adequate energy by a factor of 2.66…"

Bai et al, 2020

Research Objectives

The Mmeka study aims to assess the feasibility of innovative methods of food price data collection and compare the food prices obtained via innovative and traditional methods.

Specifically, there are three research questions that will be addressed. In Kampala, Uganda:

(1) What is the feasibility, for collecting prices of a variety of commonly consumed foods, via innovative methods?

(2) How do food prices collected via innovative methods compare to food prices collected for the Consumer Price Index (CPI) and via traditional market surveys?

(3) What is the variability in prices of foods, food groups, and food group indicators across geographic areas and vendor types?

Study Design

Three concurrent methods of food price data collection are used:

1 **Secondary (reference) data** by UBOS, etc.

2 **Market surveys** by research assistants

3 **Crowdsourcing** by "citizen scientists"

Informal Markets

Formal Markets

Main markets

Local markets

Small Vendors

Small shops / Dukkas

Supermarkets

Online markets

Vendors

Division	Main Market	Supermarkets	Small Vendors	Online
Central	Nakasero Market	Mega Standard	RA-determined	Jumia and Glovo
Kawempe	Wandegeya Market	Queens		
Lubaga	Busega Market	Smart Mini		
Makindye	Bunga Market	Bunga Bethel		
Nakawa	Nakawa Market	Carrefour – Lugogo		
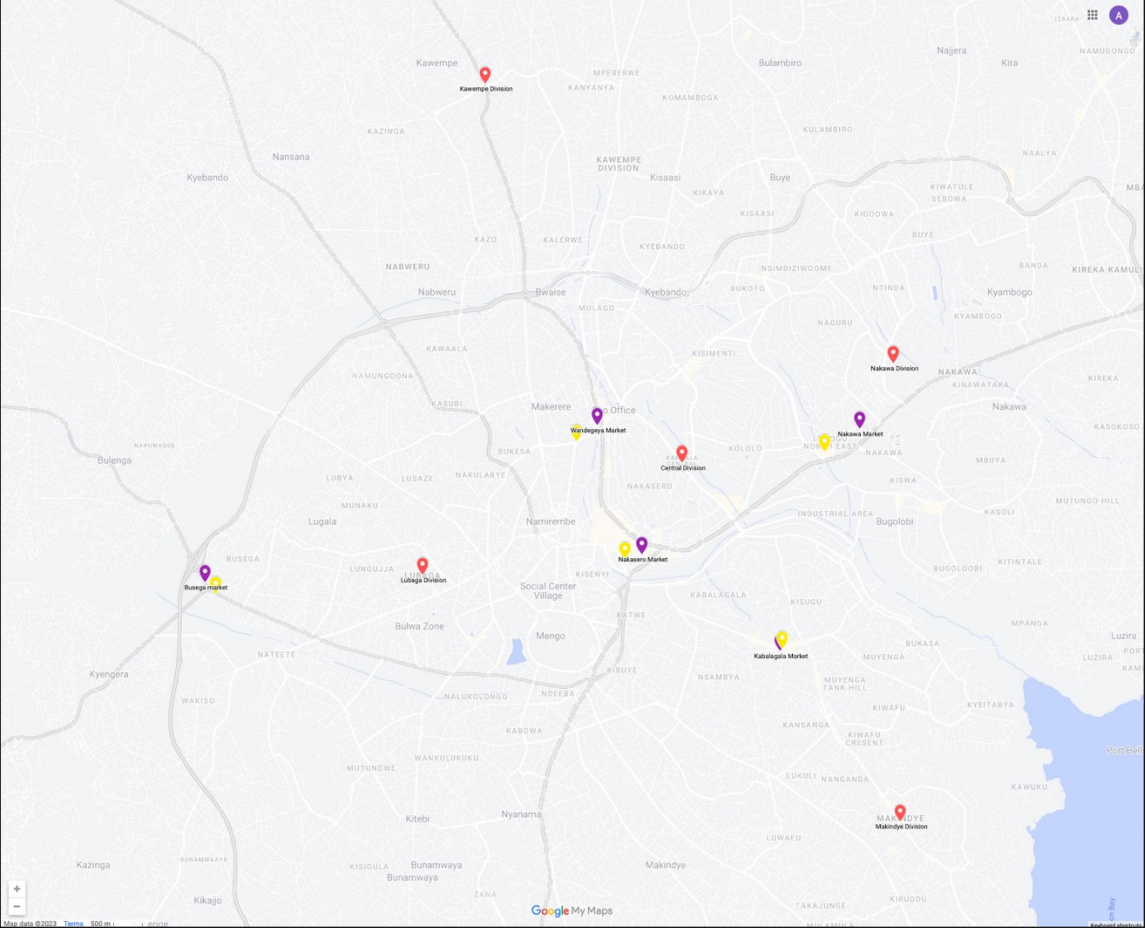
Main Market

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Description: Large, usually open-air markets selling fresh foods and packaged foods. Few in number (1 or 2 per District). Open 24 hours. Receive produce direct from farmers / aggregators. Organized and regulated but informal - for the fresh foods especially, shoppers negotiate prices with the vendors.

Supermarket

Images removed.

Description: Large, organized, regulated, and formal. Often affiliated with international chains. Have refrigerators and freezers for cold foods. Use RFID and modern check-out and payment systems. Selling packaged foods and fresh foods. Restricted hours. Prices for most food items are listed and not negotiable.


*Pictures copyright Andrea L. S. Bulungu, the Mmeka study*

Small Vendor

Images removed.

Description: Small shops (dukkas) or individual vendors, including mobile vendors. Collectively they sell a variety of foods, but usually each small vendor sells a limited range of food items. Some prices may be negotiable. Vendors with permanent structures are usually licensed, whereas street and mobile vendors are often operating out of the legal bounds and vulnerable to be chased by local authorities.

Online Vendor
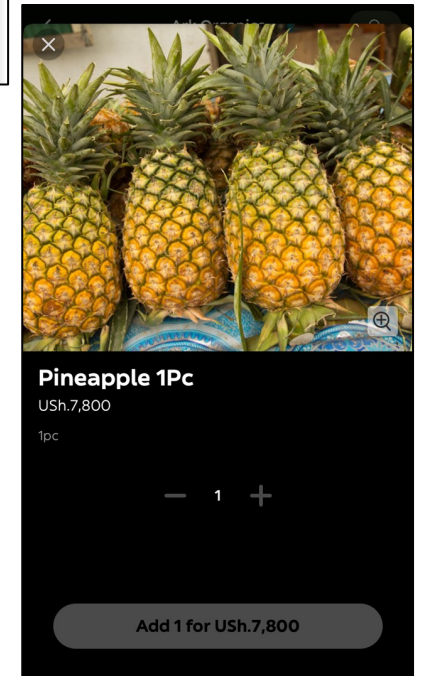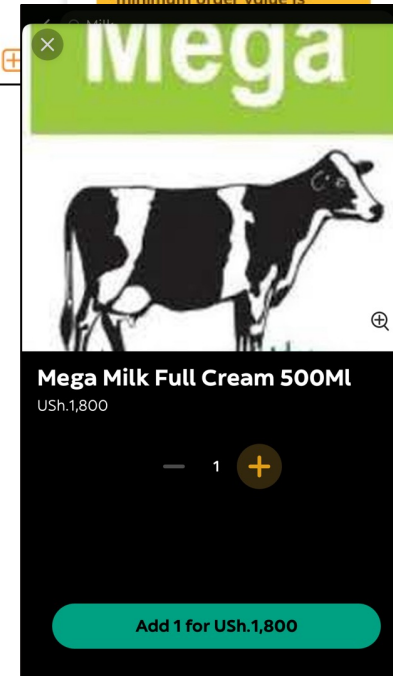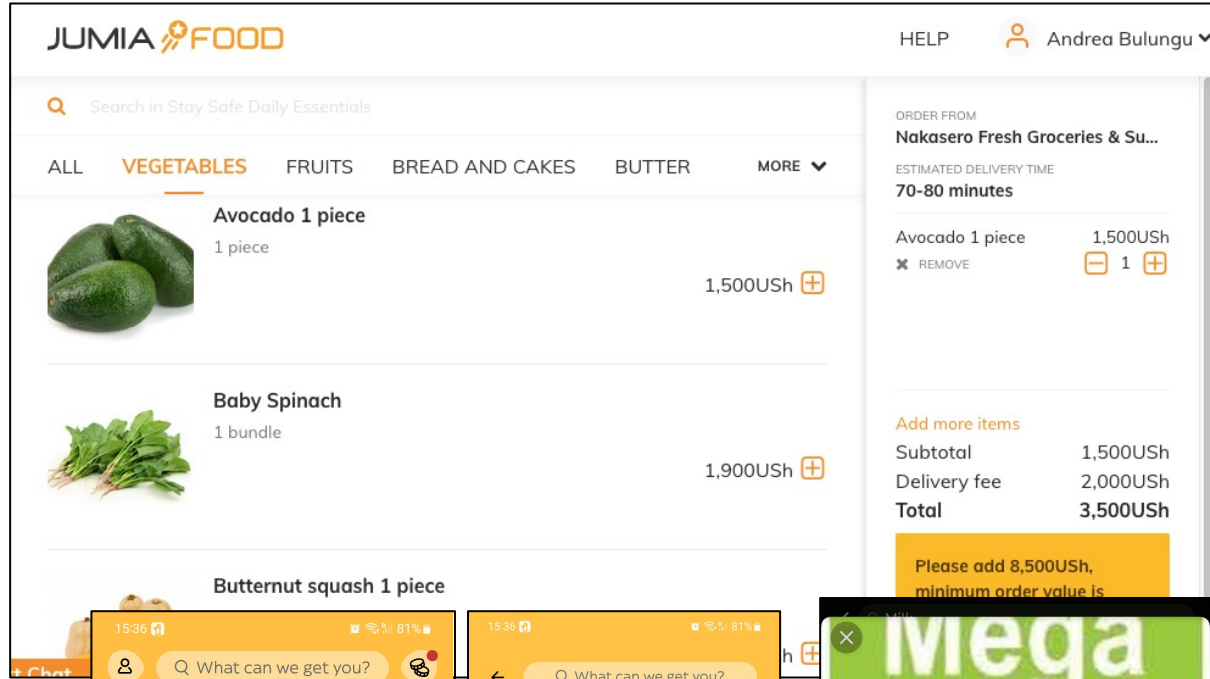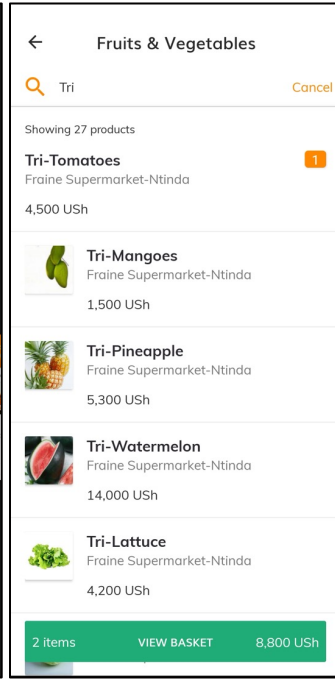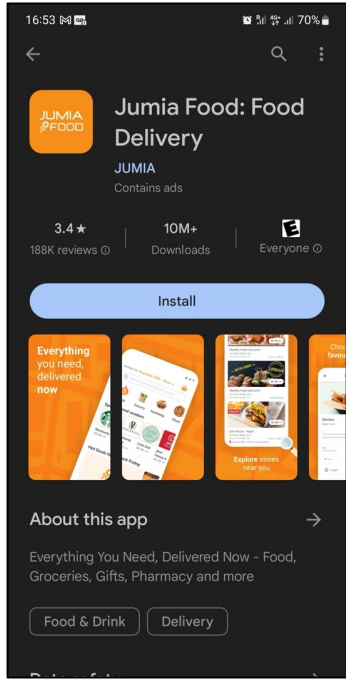
Shopping List

FG	Food Item	FG	Food Item	FG	Food Item
DQQ1	**Super rice**, maize flour, spaghetti, macaroni, bread loaf, chapati	DQQ10	**Ndiizi**, bogoya, avocado, pineapple, watermelon, apples, guava, jackfruit, pear, ekitaferi	DQQ20	**Tilapia**, mukene, nile perch, sardines
DQQ2	**Millet**, sorghum flour	DQQ11	**Biscuits**, cake, cookies, daddies	DQQ21	**Groundnuts**, simsim, pumpkin seeds
DQQ3	**Irish potatoes**, sweet potatoes, cassava, cassava flour, matooke	DQQ12	**Chocolate**, ice cream, lollipop/sweet	DQQ22	**Crisps**, Gorillos
DQQ4	**Beans**, pigeon peas, cowpeas, black-eyed peas, green gram, soya flour	DQQ13	**Eggs**	DQQ23	**Instant noodles**
DQQ5	**Carrots**, pumpkin	DQQ15	**Yoghurt**	DQQ25	**Fresh milk**, packaged milk, powdered milk
DQQ6	**Nakatti**, ejjyobyo, dodo, ebbugga, malakwang, sukumawiki, eggobe, spinach, mutere	DQQ16	**Sausage**	DQQ26	**Sugar**
DQQ7	**Tomatoes**, green cabbage, biringanya, entula, katunkuma, green pepper, mushrooms, okra	DQQ17	**Beef**, goat, lamb, offal	DQQ27	**Packaged juice**, fresh juice, passionfruit
DQQ8	**Mango**, papaya, passionfruit, ekinyanya	DQQ18	**Pork**, rabbit	DQQ28	**Soda**, energy drink
DQQ9	**Oranges**, tangerines	DQQ19	**Broiler**, kroiler, chicken (UNSP)	Other	**Ginger, garlic, red onions, salt, cooking oil, grasshoppers**

DQQ14 (cheese), DQQ24 (fried foods), and DQQ29 (fast food) have been excluded.
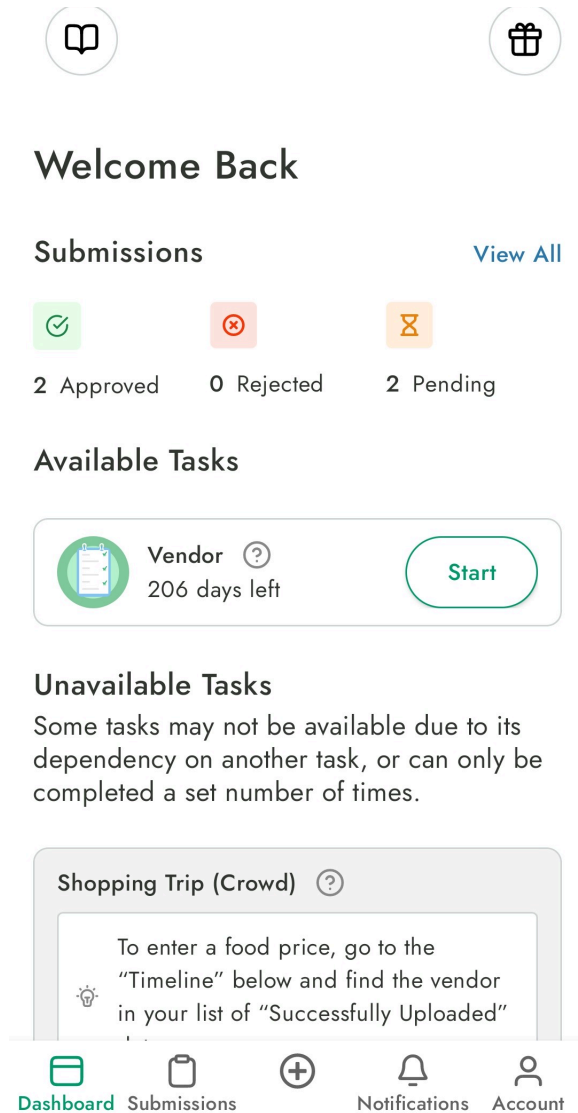
Data Collection with Poket
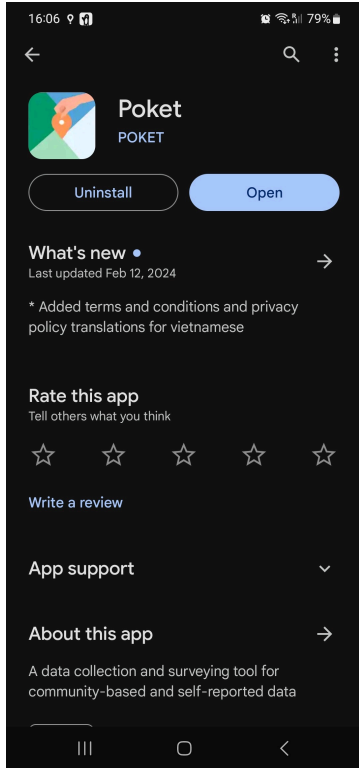
Use this link to access the app from play store, download and register:
https://play.google.com/store/apps/details?id=com.poket.android.app
Engagement code: foodpricescrowd

Watch the tutorial:
https://www.youtube.com/watch?v=bj86F6d3oho

Welcome Back

Submissions View All

✓ 2 Approved   ⊗ 0 Rejected   ⧖ 2 Pending

Available Tasks

Vendor ⑦
206 days left   **Start**

Unavailable Tasks

Some tasks may not be available due to its dependency on another task, or can only be completed a set number of times.

Shopping Trip (Crowd) ⑦

To enter a food price, go to the "Timeline" below and find the vendor in your list of "Successfully Uploaded"

Dashboard Submissions Notifications Account

Create a Submission

0%

Shopping Trip (Crowd)

Food Item Name *

Quantity*

Unit*

○ Gram (g)
○ Kilogram (Kg)
○ Milliliter (Ml)
○ Liter (L)
○ Item
○ Piece
○ Bundle
○ Cluster
○ Heap
○ Cup
○ Other

Brand

Size

Other Description

Price (UGX)*

Picture of food item*

💡 You can upload a maximum of 1 photos.

Upload Image

Done

Collecting Food Prices: A Guide for Diet Quality Researchers

Andrea L. S. Bulungu

2024

- Introduction
  - Role of food prices in food and nutrition research
  - Review of existing resources
  - Purpose of the guide
- Research methods
  - Market surveys
  - Web- and mobile-based food shopping apps
  - Crowdsourcing
  - Secondary data
- Cross-cutting considerations
  - Vendor types and vendors
  - Food groups and food items
  - Minimum required data
  - Periodicity and time of day
  - Data collector qualifications and skills
  - Ethics review
  - Training
  - Logistics
- Appendices
  - Example instrument
  - Other resources
  - Common challenges and potential solutions

Please let me know if you would be interesting & willing to review the guide!

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WhatsApp: +1 202 250 4399

RA Panel

Mmeka? Methods of collecting food prices in Kampala, Uganda

Mmeka Study Research Assistants

Harriet Naiga
Market surveys
Online surveys

Gilbert Odong
Market surveys
Online surveys

Patience Namatovu Debora
Market surveys

Bernice Galinda
Online surveys

CHALLENGES AND LESSONS LEARNT

VENDORS: What are the challenges of collecting prices from different types of vendors (supermarkets, main markets, small vendors, online) and your strategies for overcoming them?

FOOD GROUPS: What are the challenges of collecting prices for different food groups (fresh foods, meats, packaged foods, etc.) and your strategies for overcoming them?

DATA REPORTING: How was your experience using the Poket app to report food prices?

Discussion

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Thank you!

Mmeka?: Improved methods for collecting food price data in Kampala, Uganda