

# Deux Oeufs: Cracking the potential of eggs to improve child growth and development – Rwanda

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## Why this research matters

- Malnutrition among children under five is a matter of public health concerns in sub-Saharan Africa and is mostly reported as child linear growth retardation (stunting).
- Stunting was reported to be 33% in the Rwandan Demographic and Health Survey (RDHS, 2019/20).
- Growth retardation starts in utero making the first thousand days post-conception a critical period of potential intervention to reduce stunting and improve early childhood development.
- Increased maternal ASF consumption during pregnancy and lactation may improve child growth and development.
- This study aims to investigate how the consumption of eggs during pregnancy may affect birth outcomes, specifically birth length



## Overarching goal

Test the effects of maternal egg consumption during pregnancy on birth outcomes, with birth length as the primary outcome of the study.

## Approach

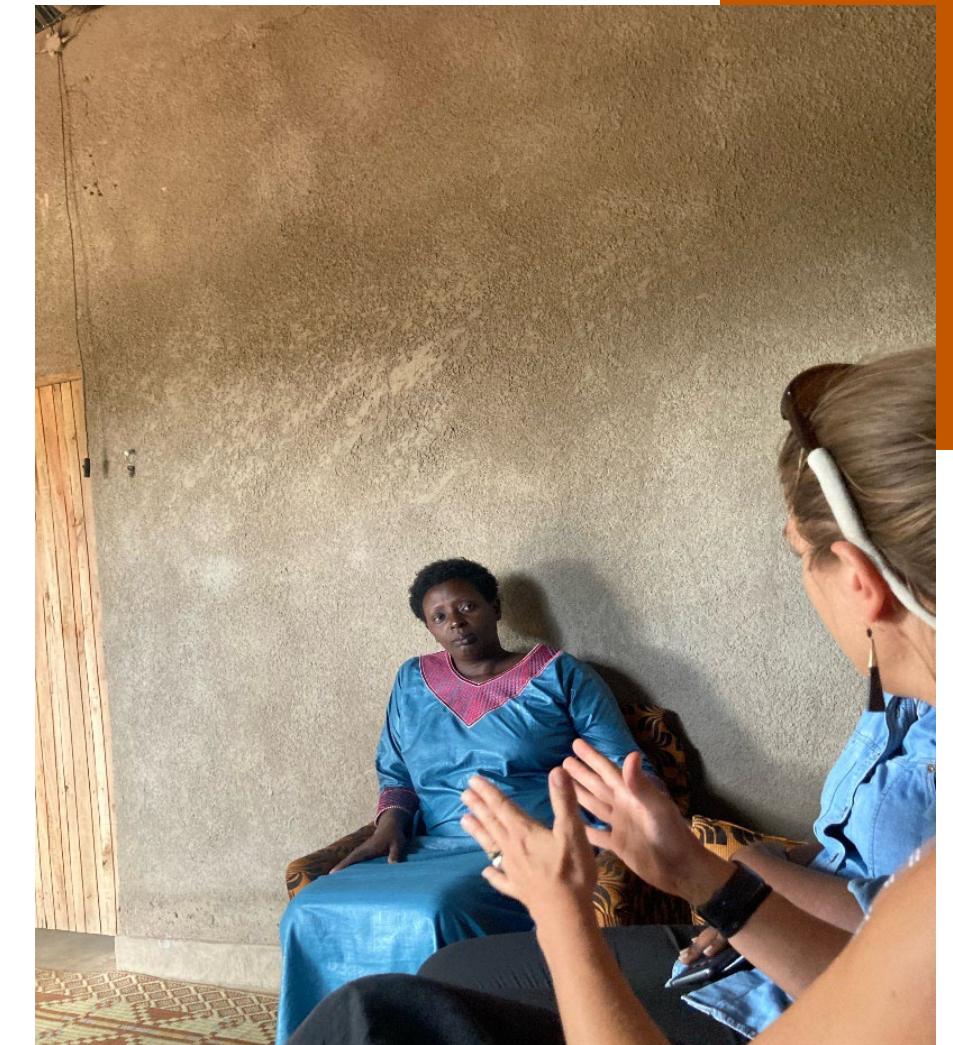
- An individually randomized controlled trial with two treatment arms: T1 (eggs) and T2 (control).
- All enrolled mothers in the study will receive standard care for pregnant women as outlined by the Government of Rwanda and 6 kg of fortified blended flour (FBF) per month.
- All participants will receive health insurance if they are not previously covered, as well as household visits.
- Additionally, participants in the T1 group will receive two eggs per day, and the daily consumption of eggs will be directly observed.
- Sample size: 478 per arm

## What we have done so far

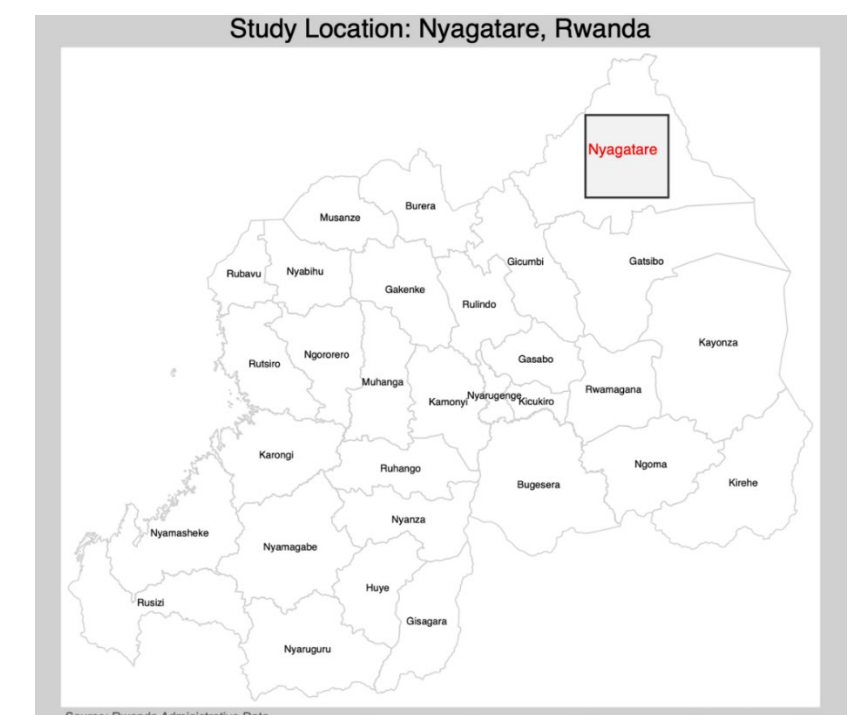
- ✓ Conducted formative research (FR) to test assumptions for study design
- ✓ Engaged with the community (prospective participants) and healthcare staff (Community Health Workers, staff at the health center)
- ✓ Involved local collaborators and government officials of the district
- ✓ Piloted of survey, food preparation, and intervention delivery
- ✓ Obtained ethical approval from Rwandan National Ethics Committee and University of Florida

## Early Insights

- Formative research conducted from July through September 2023 found that eggs were seen as highly nutritious, and consumption was widely accepted though not practiced due to cost.
- Formative research also indicated that pregnancies are often not confirmed during first trimester, underscoring the need for community mobilization efforts.
- Malnutrition remains a priority issue of the Rwandan government, thus policies and efforts to reduce malnutrition in the region are evolving and ongoing; study design has been altered from original design to work within and with government programming.



## Study site



**Nyagatare** district, Eastern province

**Recruitment sites:**  
Karaganzi and Ndama Health Centres.

