FRUIT & VEGETABLES
FOR SUSTAINABLE HEALTHY DIETS
SCIENCE
MEETING
DECEMBER 06, 2024
COLOMBO, SRI LANKA

Impact of- and Lessons Learned from WFP's Nutrition-Sensitive, Shock-Responsive Food Assistance for Assets Program in Sri Lanka on Men's and Women's Dietary Intake

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Background

Challenges

Agricultural livelihoods in Sri Lanka are affected by weather, economic, & health shocks.

Diets high in carbohydrates and low in micronutrients contribute to the double burden of malnutrition in Sri Lanka.

Opportunities

Social assistance & agriculture-based resilience programs (i.e., WFP's Food Assistance for Assets (FFA) Programs) can be made nutrition-sensitive for greater outcomes.

Limited evidence globally on how to make programs nutrition sensitive.

Objective

To assess the impact of the nutrition-sensitive FFA program on dietary intake among a combined program intervention group (R5N with or without HPP) compared to a control group.

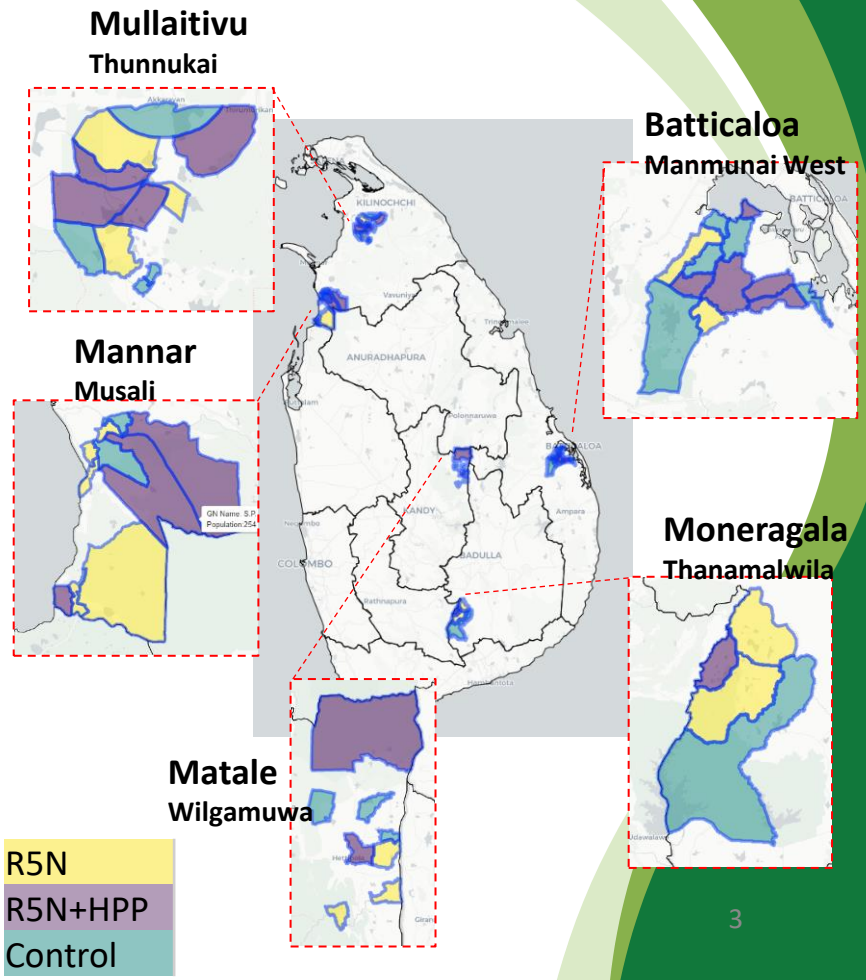
Interested in whether/ how integrating a HPP into a FFA program with cash transfers to support asset building can impact diet outcomes

R5N Project: Building Resilience Against Recurrent Natural Shocks through Diversification of Livelihoods for Vulnerable Communities in Sri Lanka

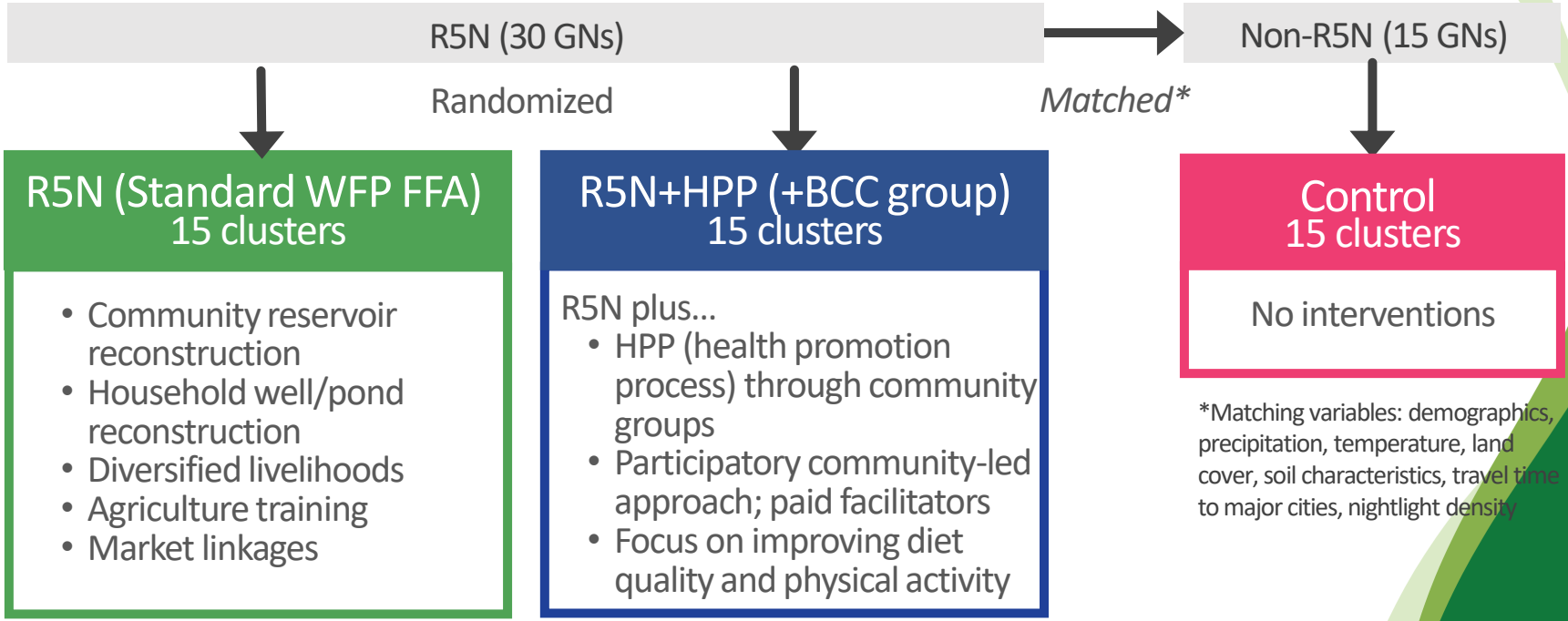
Study sites & sample

Sample selection

- R5N and R5N+Health Promotion Program (HPP) samples were the universe of R5N beneficiaries
- Control sample was a random sample of HHs with available phone num. from electoral lists in selected control GNs
- Control group oversampled to allow for improved match during analysis



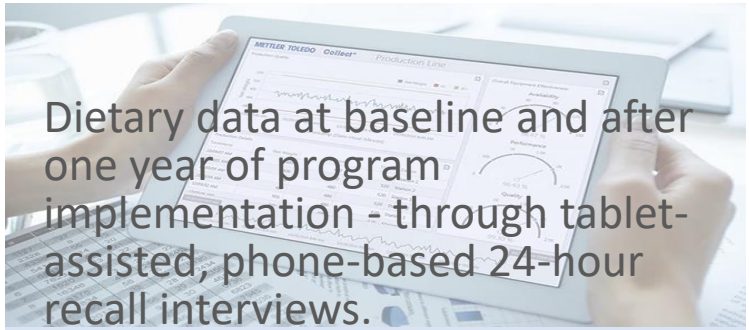
Study design & interventions



*Matching variables: demographics, precipitation, temperature, land cover, soil characteristics, travel time to major cities, nightlight density

Data collection for household & diet surveys

Approx. **1500** households at baseline, **950** at endline.



Dietary data at baseline and after one year of program implementation - through tablet-assisted, phone-based 24-hour recall interviews.

Baseline: Dec 2019 – Feb 2020
Endline: Dec 2020 – Feb 2021

Up to 5 calls per household

1-3	Roster, dwelling characteristics, program exposure, food/non-food consumption, assets, nutrition knowledge, food security, COVID, agriculture
4	24-hr diet recall
5	24-hr diet recall (repeat for ~50% of survey participants)

Data analysis

Energy and nutrient intakes were estimated from the 24-hour dietary recall data using standard recipe, portion size conversion and food composition database developed for Sri Lankan foods.

Usual nutrient intakes were modelled to adjust for measurement error.

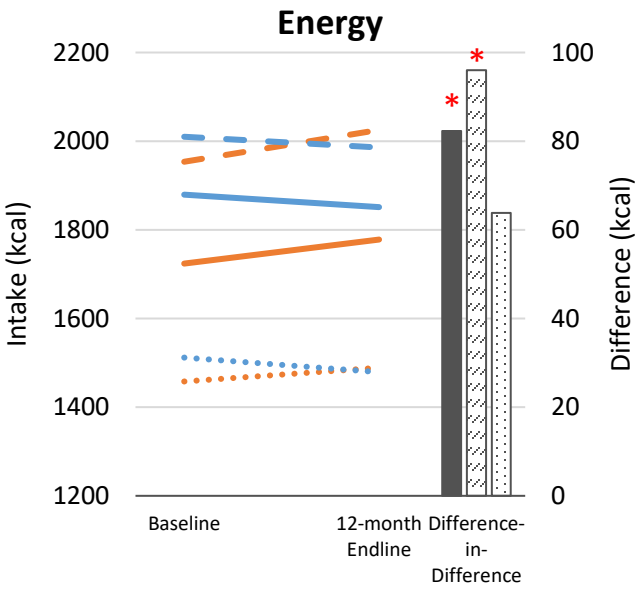
Propensity score-based matching was used to account for socio-economic and demographic differences between groups.

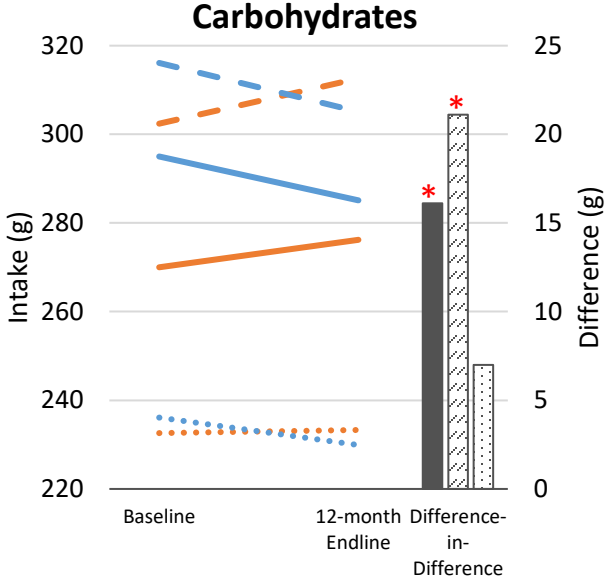
To assess program impacts, cross-sectional and difference-in-difference comparisons were tested using Welch's t-test with bootstrap standard errors.

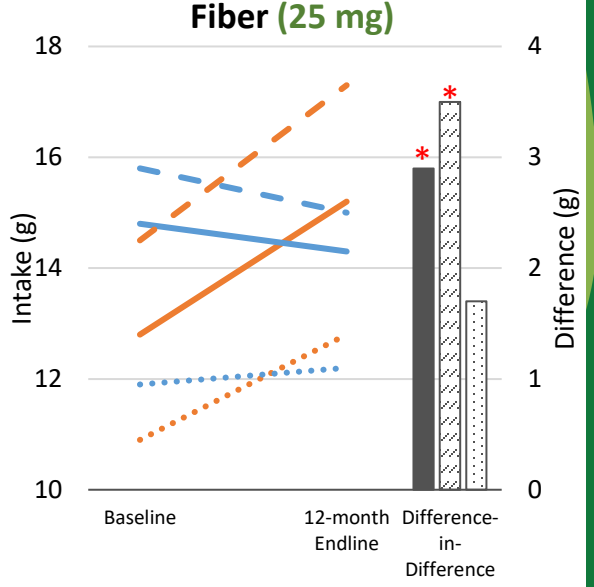
Baseline household characteristics

	Any R5N (R5N + (R5N+HPP) *N* = 517	Control *N* =398
Respondent characteristics	Mean	Mean
Age	45.1	44.5
Male	53.1	46.2
Respondent is head of household	58.2	55.0
Married	85.6	82.1
Education of respondent		
No schooling	4.8	6.6
Primary (grade 1-5)	16.3	19.4
Some secondary	23.8	21.6
Completed secondary	38.3	34.4
Higher secondary	4.8	5.1
Household characteristics		
Household size	4.2	4.3
Dwelling		
Owns house	89.5	91.9
Total number of rooms	3.8	3.6
Has electricity access	93.7	93.0

Impact of R5N (with or without HPP) on nutrient intake



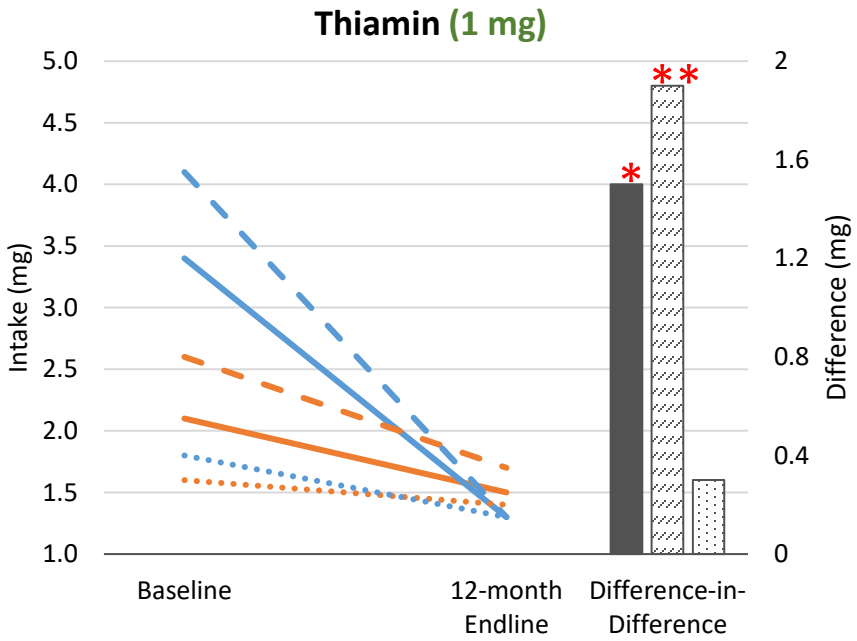


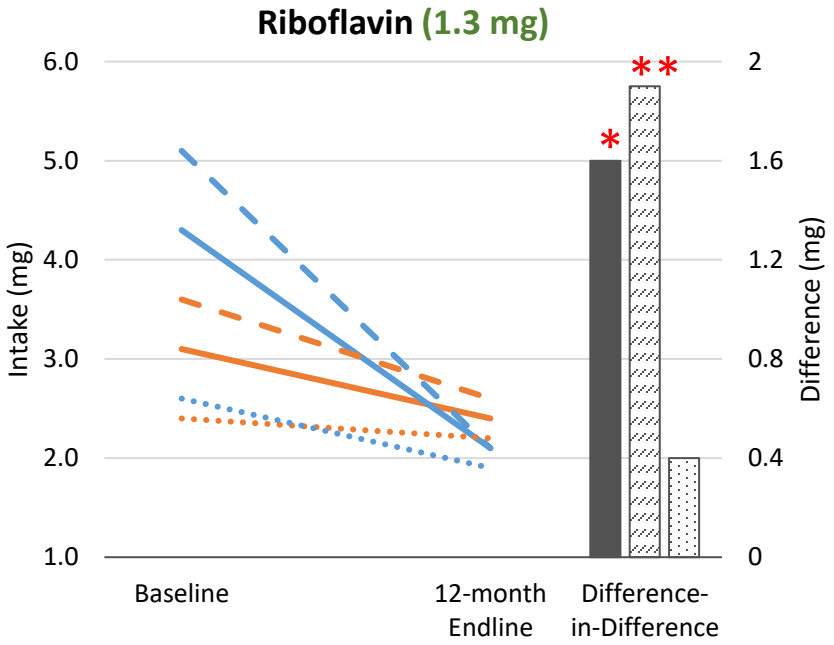


Difference-in-difference p < 0.05	*
Difference-in-difference p < 0.1	**

R5N: All
R5N: Men
R5N: Women
Control: All
Control: Men
Control: Women
All
Men
Women

Impact of R5N (with or without HPP) on nutrient intake





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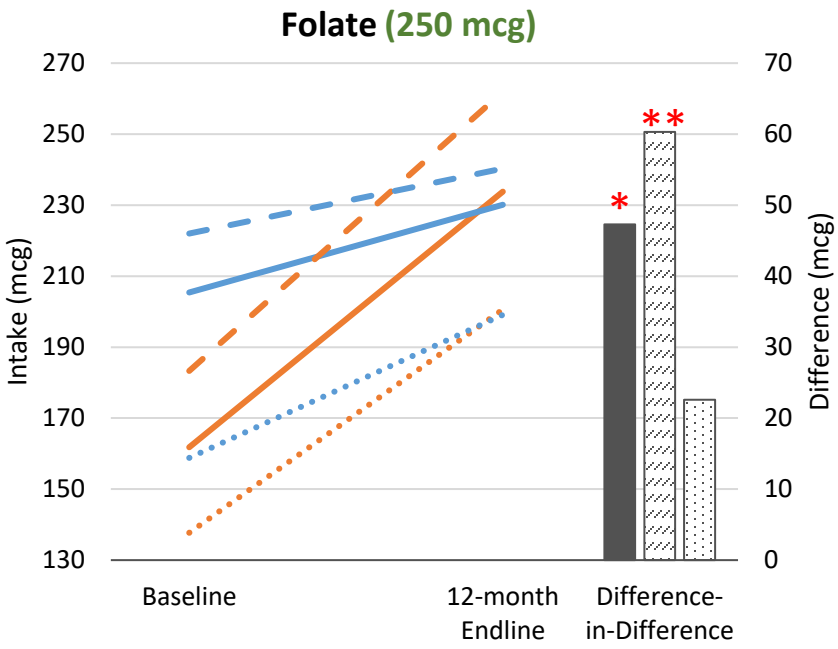

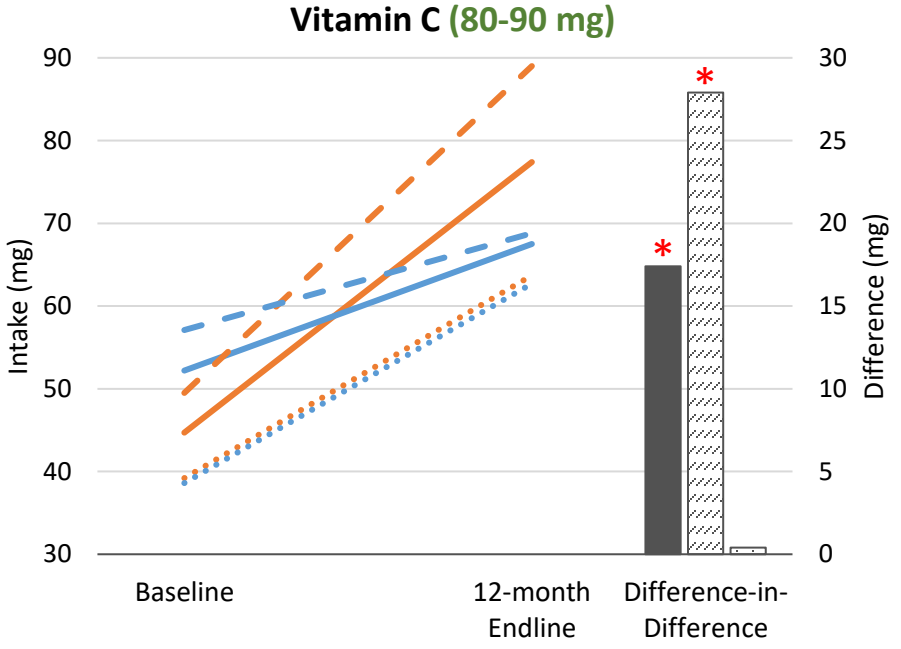

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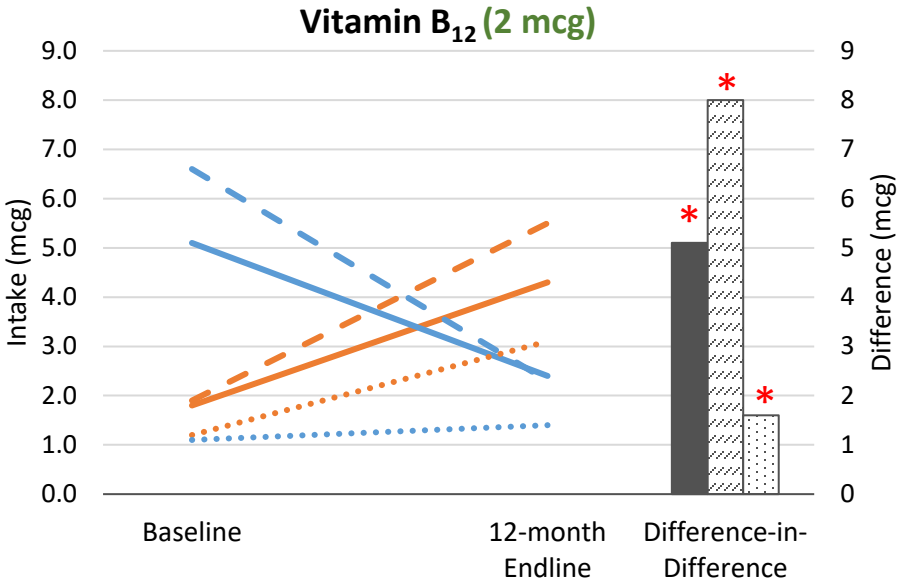
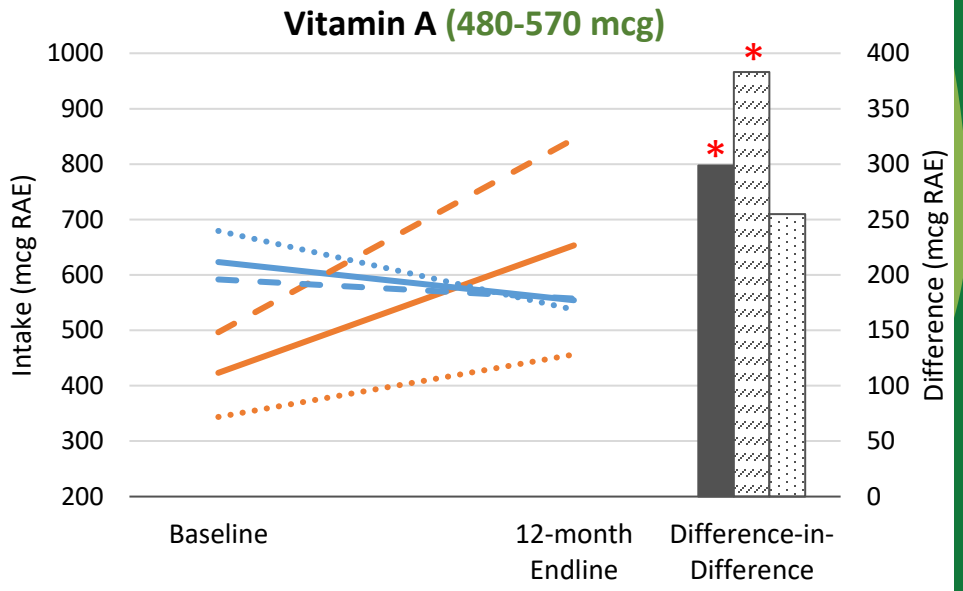
Impact of R5N (with or without HPP) on nutrient intake





Difference-in-difference p < 0.05	*
Difference-in-difference p < 0.1	**

R5N: All
R5N: Men
R5N: Women
Control: All
Control: Men
Control: Women
All
Men
Women

Impact of R5N (with or without HPP) on nutrient intake - Summary

	All	Men	Women
Energy	▲		
Carbohydrate	▲	▲	
Fibre	▲	▲	
Thiamin	▲	▲	
Riboflavin	▲	▲	
Folate	▲	▲	
Vit C	▲	▲	
Vit B_{12}	▲	▲	▲
Vit A	▲	▲	

No sig. differences – Protein, fat, Ca, Fe, Zn, niacin, B6

Difference-in-difference p < .05	▲
Difference-in-difference p < 0.1	▲

Conclusions

- The combined agricultural and nutrition-sensitive resilience building interventions showed positive impact on intake of several micronutrients compared to the non-intervention control.
- Although intakes of several micronutrients increased there was limited impact on decreasing the prevalence of inadequacy.
- These results are promising, and provide some evidence that this type of nutrition-sensitive resilience building program can improve diet-related outcomes
- Future research will examine whether impact was sustained post-program

FRESH Sri Lanka

WP1: Understanding consumer behavior

DEMAND | SUPPLY | FOOD ENVIRONMENT

FOCUS:
INCREASE DESIRABILITY & AFFORDABILITY

Primary Target Groups:
Young children, adolescents and women

ACTORS & PARTNERS:

-Universities in focal countries and internationally
-Multilateral organizations
-Scaling Partners
-NGOs
-CSOs
-Policy Makers

CHALLENGES

AFFORDABILITY | POOR QUALITY DIETS | PREFERENCES | CONVENIENCE & TIME | HOUSEHOLD DECISION-MAKING | POLICY ENVIRONMENT

OUTCOME Key actors are actively engaged in designing and testing interventions to increase fruit and vegetable intake

IMPACTS

- Nutrition, health & food security
- Poverty reduction, livelihoods & jobs
- Climate adaptation & mitigation
- Enviro health & biodiversity
- Gender equality, youth & social inclusion

FRESH SL End-to-End Evaluation

Primary objectives:

1. To evaluate the impact of the FRESH interventions on vegetable production among **rural** households and dietary intake of F&V among women and men within those households.

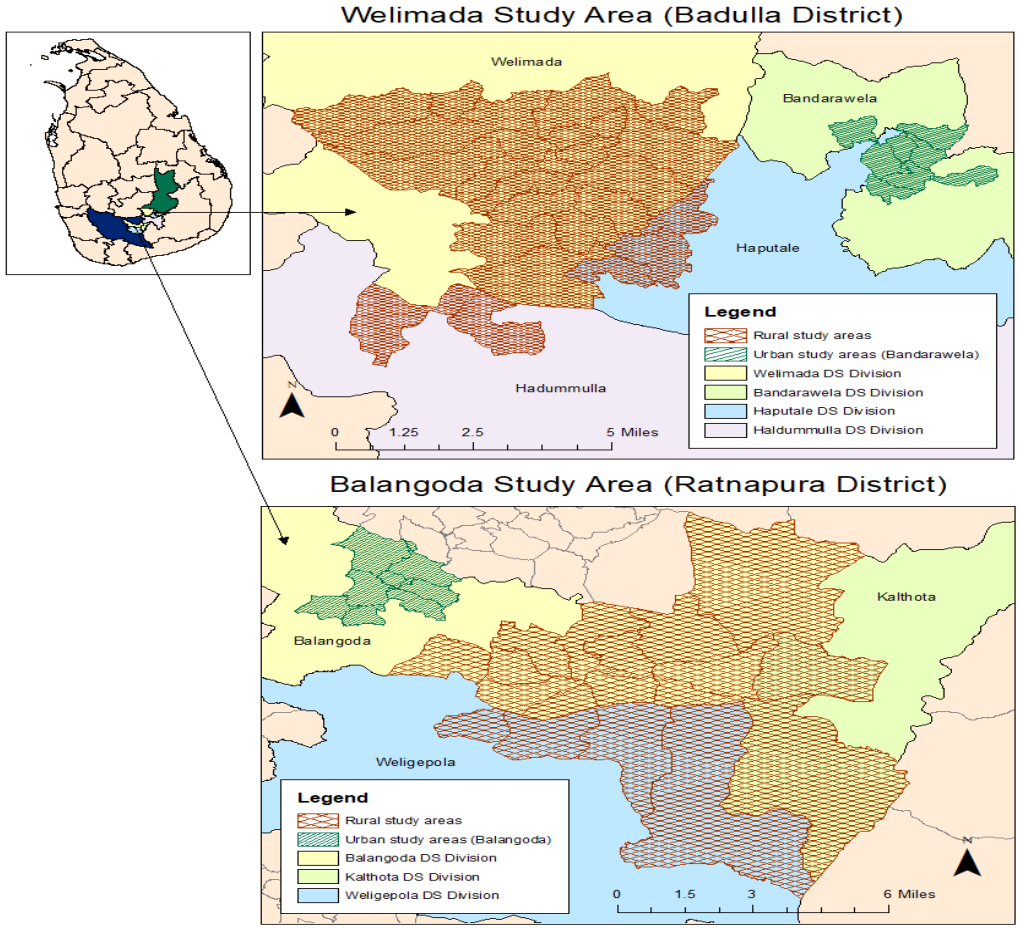
2. To evaluate the impact of the FRESH demand + FE intervention on dietary intake of F&V among women and men within **urban** households

Primary outcomes: Vegetable production and F&V intake

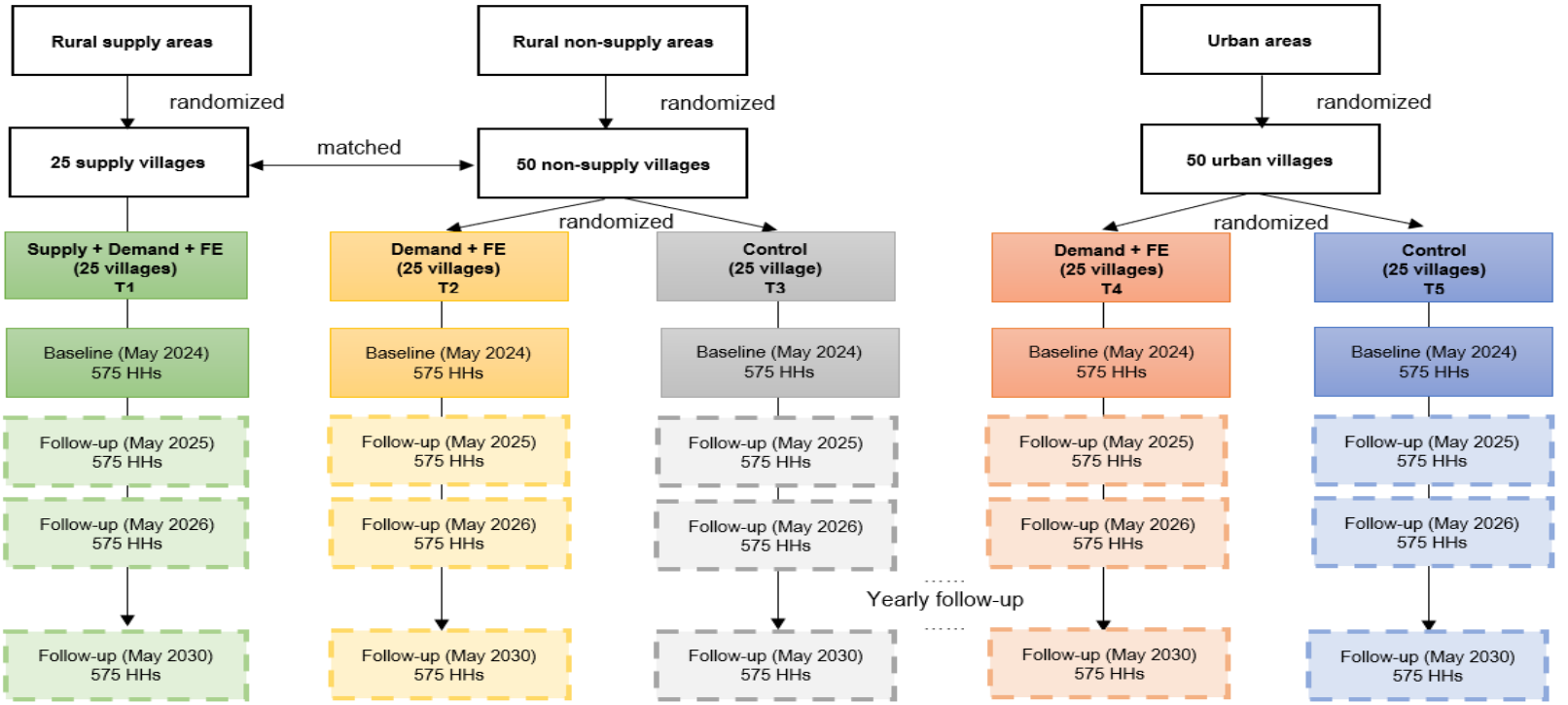
Target population: Women (20-49y)

Other population: Men (20-49y) and convenience sample of adolescents

Study areas


Welimada Study Area (Badulla District)
Welimada
Bandarawela
Haputale
Hadummulla
Legend
Rural study areas
Urban study areas (Bandarawela)
Welimada DS Division
Bandarawela DS Division
Haputale DS Division
Haldummulla DS Division
0
1.25
2.5
5 Miles
Balangoda Study Area (Ratnapura District)
Kalthota
Balangoda
Weligepola
Legend
Rural study areas
Urban study areas (Balangoda)
Balangoda DS Division
Kalthota DS Division
Weligepola DS Division
0
1.5
3
6 Miles

Overview of study



Acknowledgements

Funding: We would like to thank WFP and A4NH for funding this research. *We would also like to thank all funders who supported this research through their contributions to the CGIAR Trust Fund: https://www.cgiar.org/funders/*

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University of California, Davis

- Charles Arnold
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- Hami Abebe
- Tonya Xie

International Food Policy Research Institute

- Samuel Scott
- Nishmeet Singh
- Gayathri Ramani
- Neha Kumar

Wayamba University of Sri Lanka

- Chathurika Madumali
- All enumerators

Medical Research Institute

- Dr Renuka Jayathissa and the team

WFP

- Anusara Singhkumarwong
- Saman Kalupahana
- Kate Sinclair
- Thushara Keerthiratne

Foundation for Health Promotion

- Dr Diyanath Samarasinghe
- Dr Manoj Fernando
- Prof Duminda Guruge

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Thank You

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Website
https://www.cgiar.org/initiative/fruit-and-vegetables-for-sustainable-healthy-diets-fresh/

We would like to thank all funders who support the FRESH Initiative through their contributions to the CGIAR Trust Fund: www.cgiar.org/funders.