

Impact of Home Gardening Support Provided to Refugees in Cox's Bazar, Bangladesh

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Background – home gardens

- Home garden interventions combine training in gardening with nutrition
- In South Asia, the evidence is strong for the impact of home gardens in rural areas
- Home gardens are now also often promoted among refugees living in camps
- They are expected to improve livelihoods and diets
- However, there is very little evidence for their impact

Background – Cox's Bazar

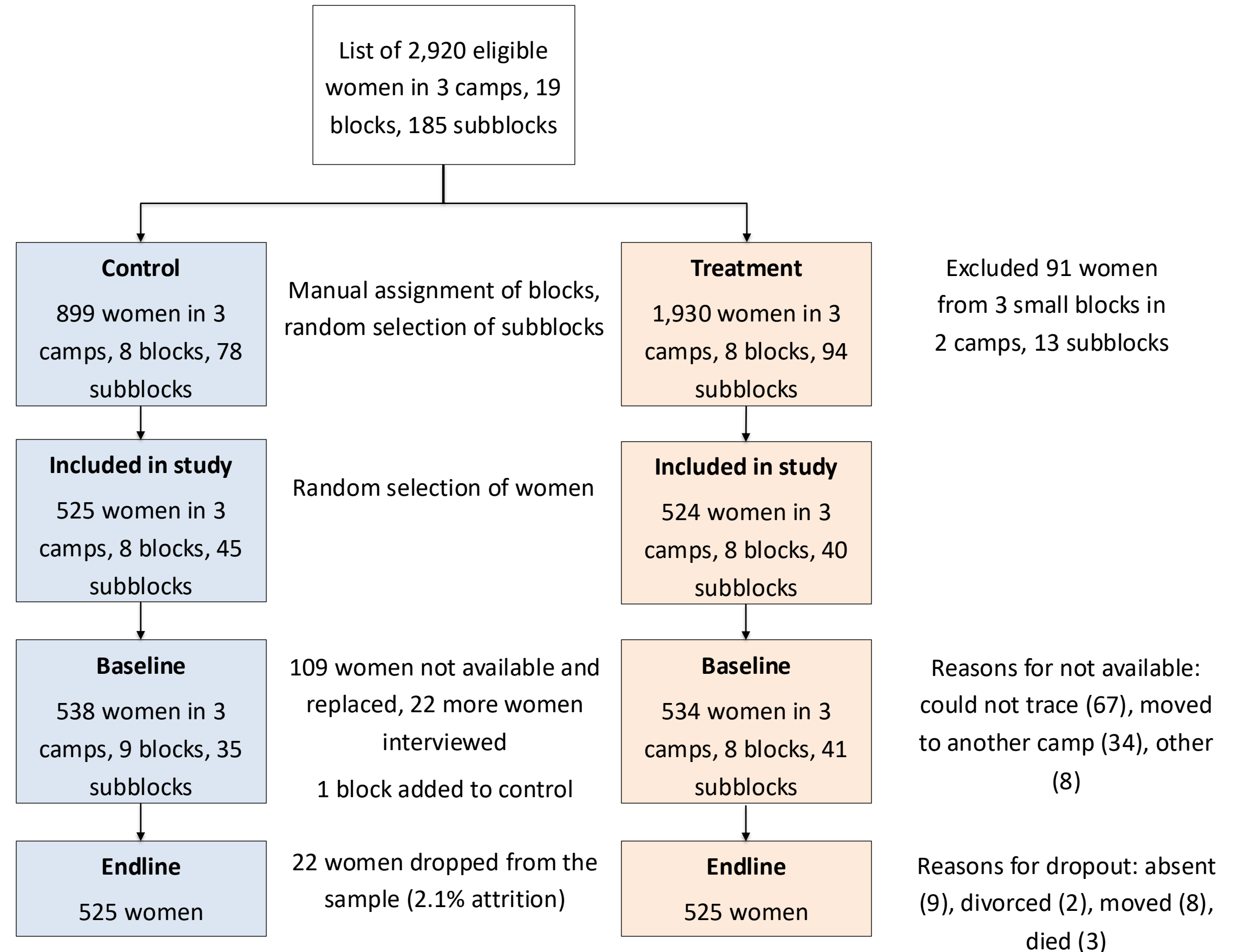
- Nearly 1 million refugees, mostly ethnic Rohingya, who have fled Bangladesh
- 33 refugee camps supported by local and international humanitarian organizations
- **Concern Worldwide** and **SHED** supported 50,000 women from 2023-2026
 - Promotion of optimal maternal, infant and young child nutrition practices
 - Awareness campaigns to encourage effective behavior change and health-seeking actions
 - Support to grow seasonal vegetables and fruits to improve dietary diversity



Refugee camp in Cox's Bazar in February 2025

Research design

- Baseline March 2024
- Endline February 2025
- Intent-to-treat
- Difference-in-differences
- Primary outcomes:
 - Garden adoption
 - Vegetable consumption (24h)
 - Food security (HFIES)
- Secondary outcomes:
 - Year-round production
 - Nutrition knowledge
 - MDD-W
 - Self-esteem
 - Social cohesion



Sample characteristics

- All respondents were women
- Spent 6.7 years in the camp
- Mean age was 28 years
- Mean household had 5.9 persons
- 35% had not attended school
- 96% had produced vegetables in their original home



Interviews in March 2024

Gardening in camps

Space, lack of seeds, insect pests, expensive inputs, and rodents were the main challenges mentioned

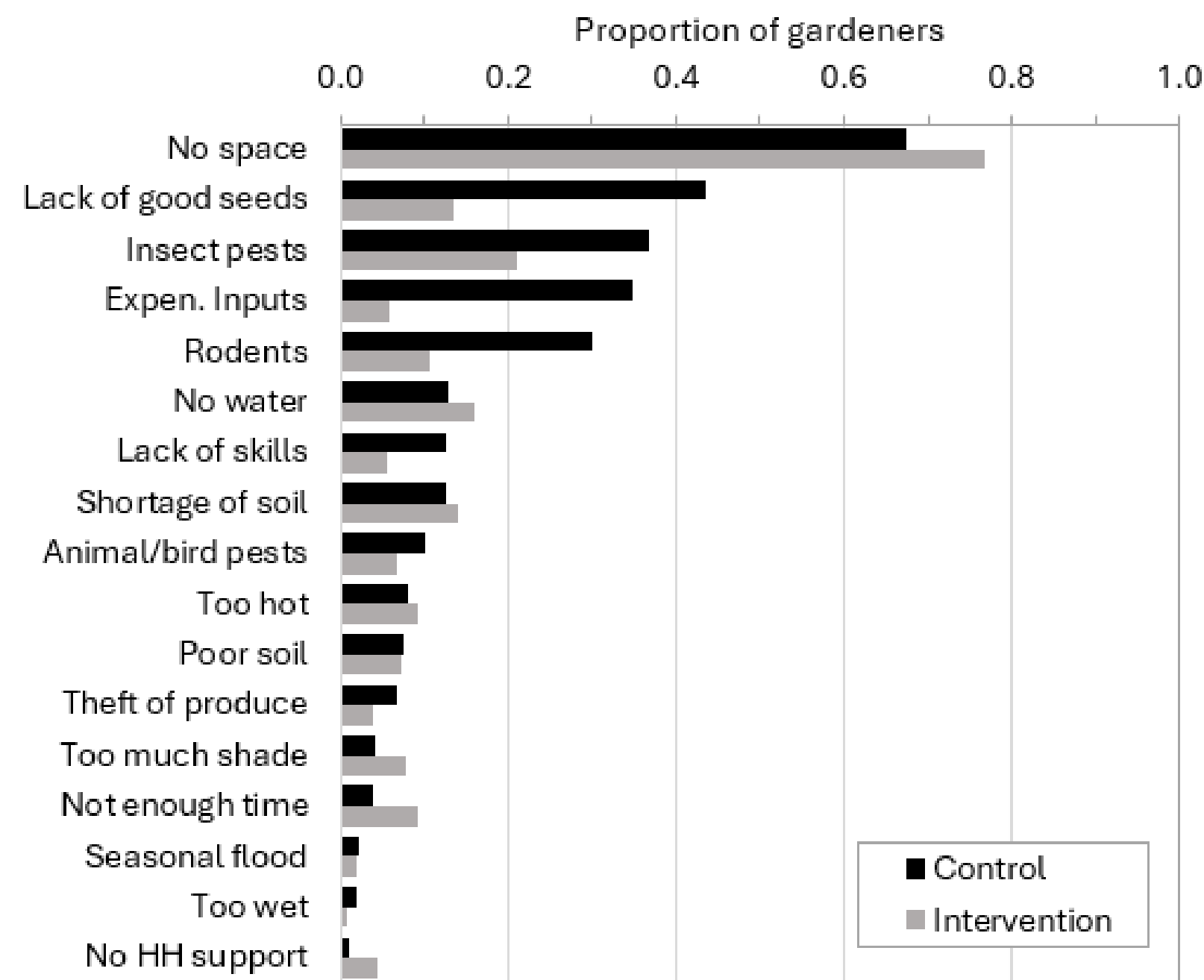


Figure 1. Constraints to gardening at endline, by control and treatment (subsample of households involved in gardening)



Man watering a vegetable garden in Cox's Bazar, February 2025

Impact

Outcome	Baseline mean	Effect size	P-value	% change
Has a garden (0/1)	0.50	0.17	0.018	34%
# of seasons producing (0-3)	0.89	0.72	<0.001	81%
Food and nutrition knowledge (0-12)	7.16	2.78	<0.001	39%
Vegetable consumption (servings/wk) *	51.88	1.94	0.162	-
Fruit consumption (servings/week) *	7.74	1.02	0.020	13%
MDD-W (0/1) *	0.63	-0.05	0.127	-
Food insecurity (HFIAS)	3.81	-2.50	0.019	-66%
Self-esteem scale (0-30)	14.92	0.463	0.107	-
Social contribution (0-15)	8.12	0.291	0.471	-

* Based on a 24h recall and PSM on endline data. All other outcomes based on DID on baseline and endline.

Perceived benefits of gardening

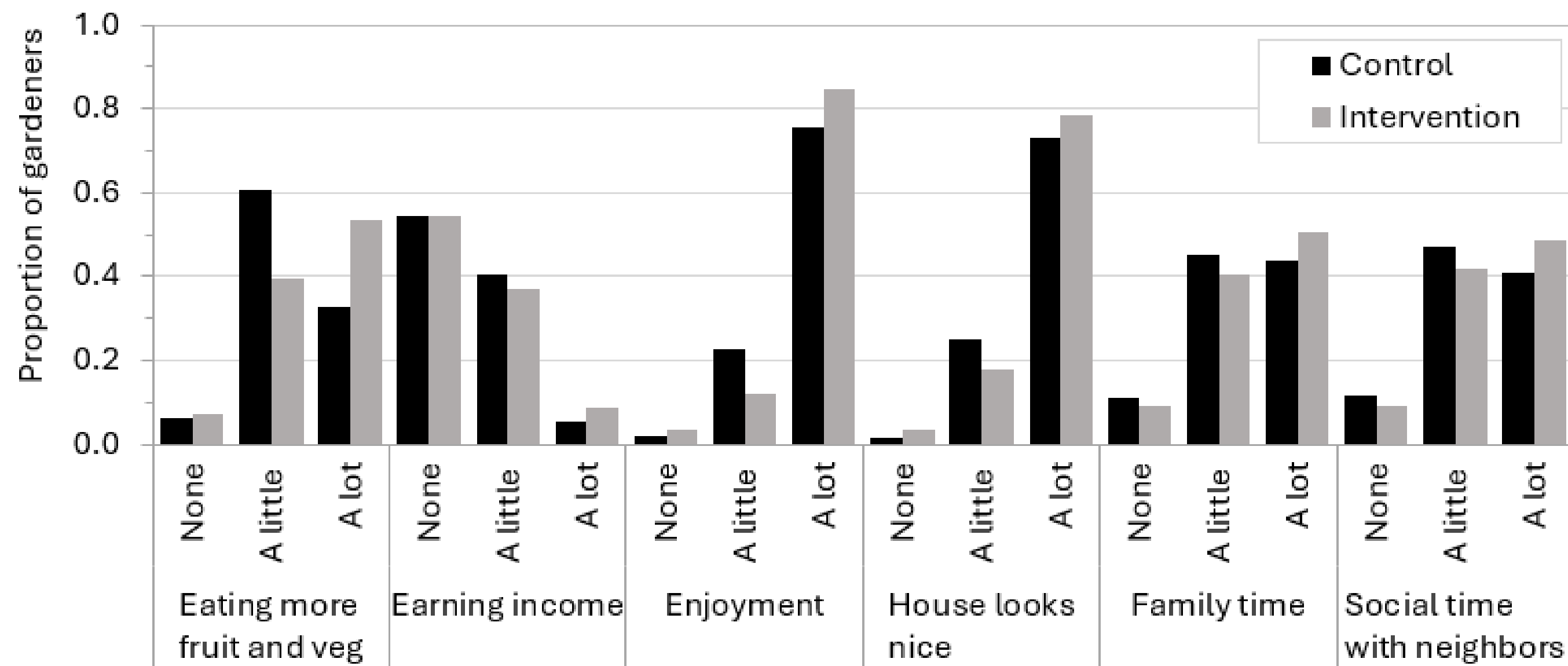


Figure 2: Perceived benefits of gardening at endline

Implications for scaling and policy

- Home garden interventions appear effective in refugee camp settings despite significant constraints; however, more studies would be needed to confirm this.
- While home gardens are usually evaluated in terms of their impact on income and nutrition, perceived personal and social benefits could be particularly important for refugee populations.

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