

# Nutrition education and school garden improve children and adolescents' diets in urban and peri-urban areas of southern Benin



Sam Bodjrenou<sup>1,2\*</sup>, Ines Mlantahou<sup>2</sup>, Fatoumata Barry<sup>2</sup>, Elie Koukou<sup>1,2</sup>, Waliou Amoussa Hounkpatin<sup>2</sup>

<sup>1</sup>The Alliance of Bioversity International & CIAT, Food Environment and Consumer Behaviour, Benin <sup>2</sup>University of Abomey-Calavi, Department of Human Nutrition and Food Sciences and Technology, Benin \*s.bodjrenou@cgiar.org



#### **OBJECTIVES OF THE STUDY**

Evaluate the effect of a food and nutrition education (NE) programme including school gardens (SG) on schoolchildren knowledge, attitude and practices (KAP) in southern Benin.

#### Overview of HealthyFoodAfrica

HFA project is a collaboration between 17 partners in Europe and Africa aiming at developing more sustainable, equitable and resilient food systems.



HFA is implemented in 10 African cities, the so-called Food System Labs located in Kenya, Uganda, Ethiopia, Ghana, Zambia and Benin.



In Benin, HFA supported the *National Integrated School Feeding programme* implemented since 2017 using a participatory approach.



Development of

nutrition education

tools tailored to loca

contexts.

Provision of two

primary schools with

gardens and

necessary

equipment.

### MAIN ACTIVITIES IN BENIN

Development of NE innovative tools and implementation of NE sessions for school actors including Cooking demonstrations







Urban school gardens for fruits and vegetables production









Use of gardens products for children feeding









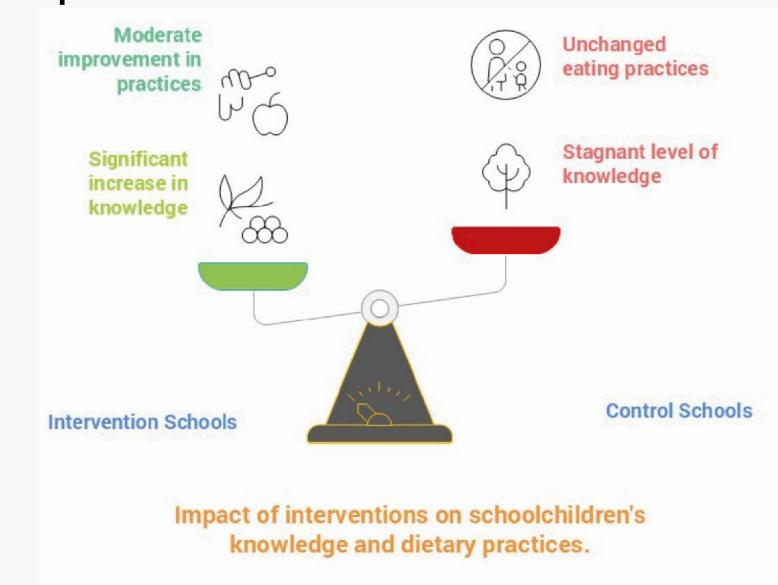


#### METHODOLOGY OF EVALUATION

- ☐ 1.5 academic year intervention☐ Cluster randomised trial with group of elementary schools as intervention group and another as control group
- Evaluation of food environment of elementary schools with canteens
- Evaluation of schoolchildren knowledge, attitudes and practices (KAP) among nutrition and dietary recommendations.

## MAIN FINDINGS AFTER INTERVENTION

Overall knowledge of children among roles of different food groups as well as attitude among diversified diet *increased* in the intervention group compared to the control.



**Practices**: 75–86% of schoolchildren from the intervention group reported having a diversified diet after the intervention compared to 50% in control group.

Percentages of children who had diversified diet decreased from baseline to endline in the control group (p = 0.011) whereas remained constant in the intervention group and similarly for dietary species richness.

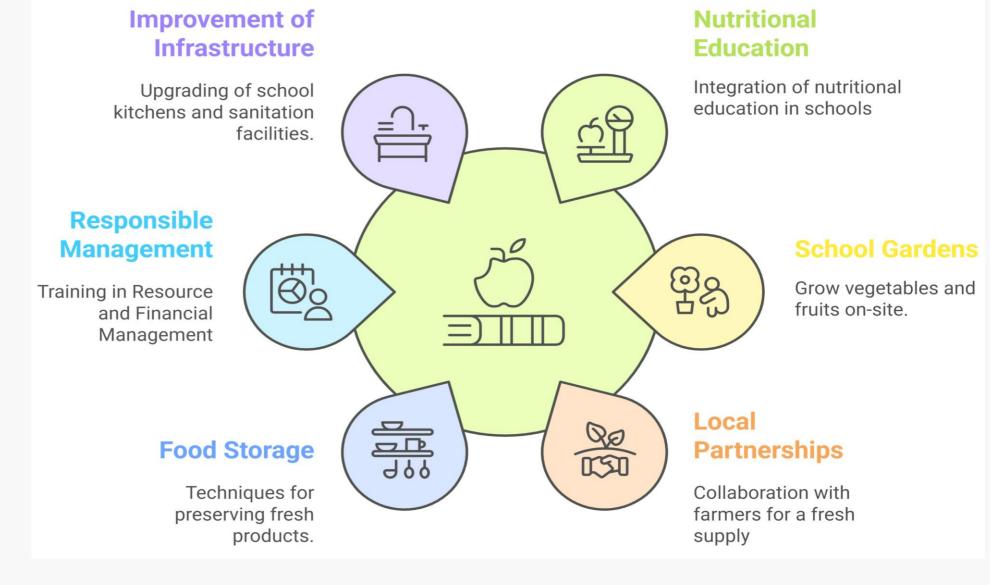
Percentages of children having consumed and the diversity of **fruits** consumed had *significantly increased* in the intervention schools.

#### **KEY LESSONS**

Nutrition Education + School gardens programme facilitated gaining knowledge and positive attitudes as well as improving practices like consumption of fruits and diversified/balanced diet

#### RECOMMENDATIONS

To be more effective and sustainable, school feeding related interventions need to be *intensive* (implemented over a long period) and *reinforced* by actions for improved access, availability, and consumption of nutritious foods within households.



References (DOIs)

10.23751/pn.v25i3.13992 / 10.1186/s40795-024-00857-7 / 10.17037/PUBS.04672261







