



Short Title: Analysis of the school food environment in urban and peri-urban area of southern Benin to design nutrition intervention

The HealthyFoodAfrica project aims to improve the nutrition of school children. The project's Food System Lab in Benin analyzed food availability in primary schools using Food Group Score (FGS) based on the number of food groups available within primary schools in one hand and food quality and safety using the Summary Hygiene Index (SHI) based on hygiene and sanitary practices in the other hand. This will show evidence for improving and help to better design a nutrition intervention targeting school food environment and school-children feeding practices.

Methods: Twelve public primary schools with canteens were randomly selected. Data was collected using semi-structured questionnaire administered to cookers and observation within schools. Fifteen food groups were considered to determine the FGS and the median FGS was 8. The median SHI was 7 out of 15 best practices considered. Scores were compared among urban and peri-urban areas.

Results: Cereals, legumes/nuts/seeds followed by sweet foods and drinks were the most represented food groups available in all schools. Food groups which are good source of micronutrients such as fruits and vegetables are poorly represented. Food supply appeared to be limited ($FGS < 8$) in nine schools out of twelve, and peri-urban zone had higher FGS than urban zone. Overall, eight schools out of the twelve have a SHI higher than the median score, and

the urban zone have a higher SHI compared to peri-urban ($p = 0.01569$).
Conclusion: Nutrition education program targeting hygiene and sanitary practices and strategies for improving food supply diversity such as establishment of school gardens are needed to develop healthy food environment around school.



Teacher and school children working in school garden.

