

The food environment determines fruit and vegetable consumption of low-income urban Vietnamese and Nigerian adults

#ANH2021

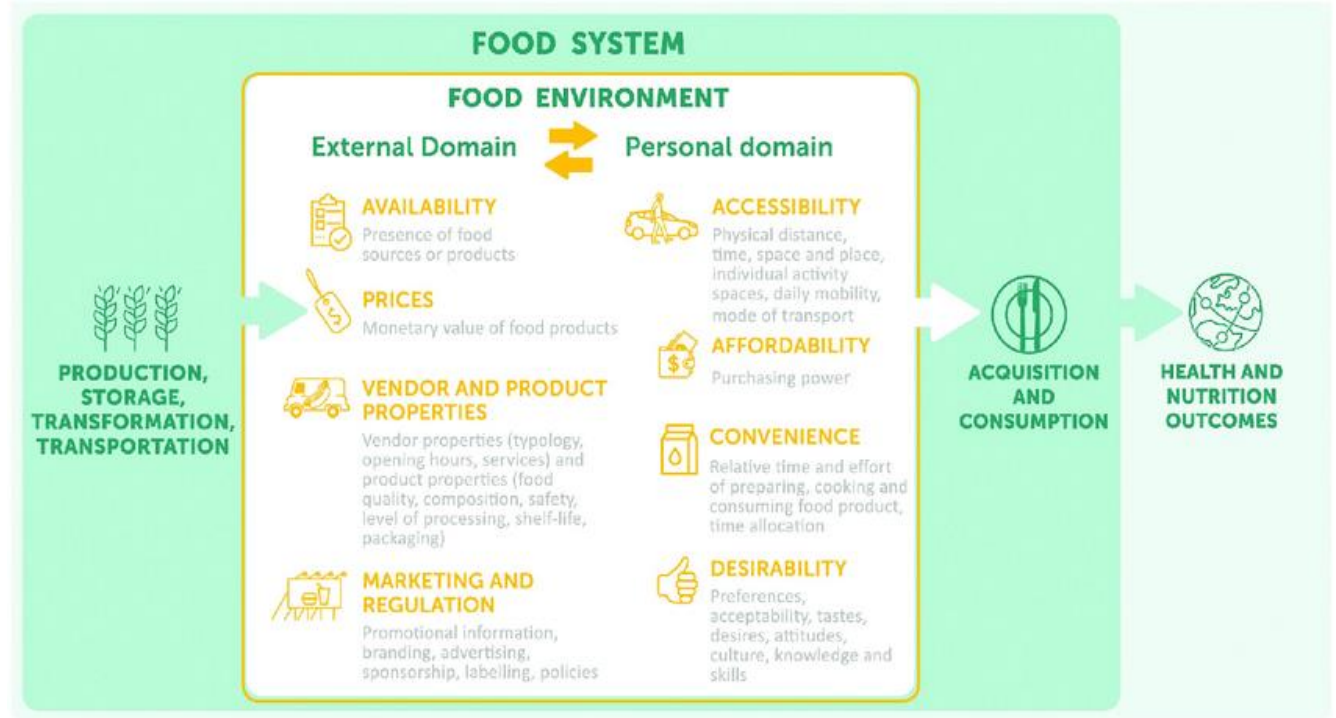
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30th June 2021, Giulia Pastori



Low intake of
fruit and
vegetable

Influence of
food
environment on
consumption



Turner et al. 2019



Methodology





Hanoi, Vietnam & Ibadan, Nigeria



Minimum Dietary Diversity for Women (MDD-W)



200 Low-income Women (18-49y)



Healthy Dietary Index (HDI)



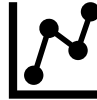
Peri-urban & Urban areas



Habitual intake: NRC



Repeated Quantitative 24h Recall



Multiple regression: Habitual FV intake and Food environment determinants



Questionnaire



Diet Quality

Vietnam

Mean FV intake (g)	208 ± 135
- Fruit	43%
- Vegetable	99%

Nigeria

163 ± 129
17%
95%

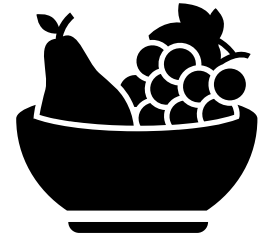
Minimum Dietary Diversity

Score (WDDS≥5) 43%

39%

Healthy Dietary Index (0-8) 1±1.0

2.9±1.1





Vietnam



ACCESSIBILITY

- + Time spent to go to buy vegetable
- Would like to buy more FV
- Challenge: vegetable not available
- + Challenge: fruit not available
- Mean of transportation (bike)

AFFORDABILITY

- + Fruit expenditure
- Fruit bought >1-2 times a week

DESIRABILITY

- + fruit intake considered neither important nor unimportant
- vegetable diversity considered unimportant
- + decision on amount of fruit purchase

FOOD SYSTEM

FOOD ENVIRONMENT

Personal domain



ACCESSIBILITY

Physical distance, time, space and place, individual activity spaces, daily mobility, mode of transport



AFFORDABILITY

Purchasing power



CONVENIENCE

Relative time and effort of preparing, cooking and consuming food product, time allocation



DESIRABILITY

Preferences, acceptability, tastes, desires, attitudes, culture, knowledge and skills

CONVENIENCE

- Out of home consumption
- + Sale point for FV on the way to work
- Sale point chosen for safe and good quality vegetable



Nigeria



ACCESSIBILITY

- Challenge: lack of storage for vegetable
- + Challenge: FV not available
- + means of transportation (foot,bus,bike,keke)

DESIRABILITY

- + eating fruit because told by health workers
- + eating vegetables because common habit
- + confidence in preparing FV for households
- + Challenge: fruit not safe

SYSTEM

ENVIRONMENT

Personal domain



ACCESSIBILITY

Physical distance, time, space and place, individual activity spaces, daily mobility, mode of transport



AFFORDABILITY

Purchasing power



CONVENIENCE

Relative time and effort of preparing, cooking and consuming food product, time allocation



DESIRABILITY

Preferences, acceptability, tastes, desires, attitudes, culture, knowledge and skills



ACQUISITION AND CONSUMPTION

AFFORDABILITY

- + Fruit expenditure
- + Own production
- Challenge: lack of money to buy fruit
- + Challenge: FV too expensive
- + wild sources
- + FV bought 4-5 times a week

CONVENIENCE

- + FV bought every day
- + Sale point chosen for safe vegetable
- + Sale point for fruit as habit

HEALTH AND NUTRITION OUTCOMES



Conclusion

- Fruit and vegetable intake below the WHO recommendations
- Vietnam:
 - + position of the vendors
 - lack of availability & out of home consumption
- Nigeria:
 - + own production & habit
 - lack of money, storage and unsafe foods



► Affordability, Accessibility and Acceptability are the main gaps

Thank you

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