

Perceptions and consumption of fortified food products in Ghana: the case of mushroom-fortified bread



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1. Introduction

- Refined bread is a major breakfast and bedtime meal in Ghana
- Increased consumption of refined products leads to serious malnutrition
- The situation is more serious in households that consume inadequate quantities of vegetables, fruits and proteins.
- Bread fortification with mushrooms is a viable way to reduce micronutrients malnutrition (WHO, 2006).
- Mushroom adds protein, vitamins, minerals (Ca, Mg, Fe, etc.) and fibre to refined bread to improve nutritional content (Irakiza et al., 2021).
- This study examined perceptions and consumption patterns



2. Research Methodology

1. Study Area: Kumasi (400 households in low, middle and high income areas)

2. Sampling Method: Stratified, systematic and simple random sampling techniques

3. Method of data collection: Personal interviews using structured questionnaire

4. Data Analysis: Descriptive statistics, Perception Index (based on Likert scale ranking), Probit and Tobit regression models



Field interviews

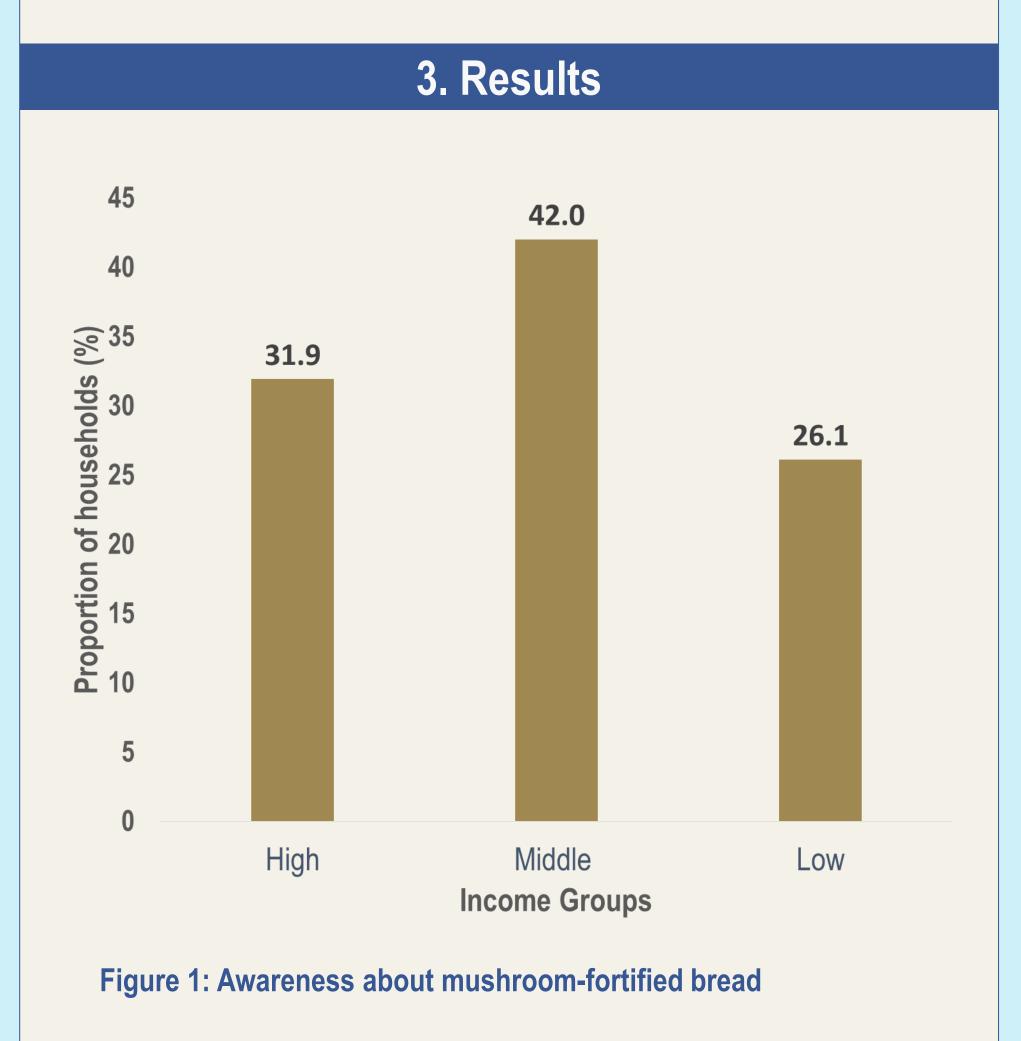
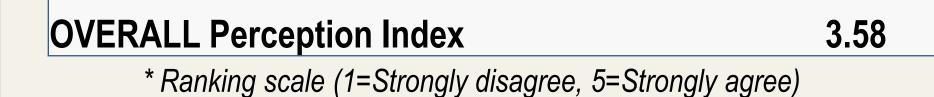


Table 1: Consumers' Perception on Mushroom-fortified bread

INCOME GROUP	PERCEPETION DOMAIN	Mean Score*
LOW	Healthy and Nutritious	3.94
	Taste & sensory appeal	3.38
	Affordability & availability	3.20
MIDDLE	Healthy and Nutritious	3.99
	Taste & sensory appeal	3.64
	Affordability & availability	3.14
HIGH	Healthy and Nutritious	4.00
	Taste & sensory appeal	3.71
	Affordability & availability	3.16



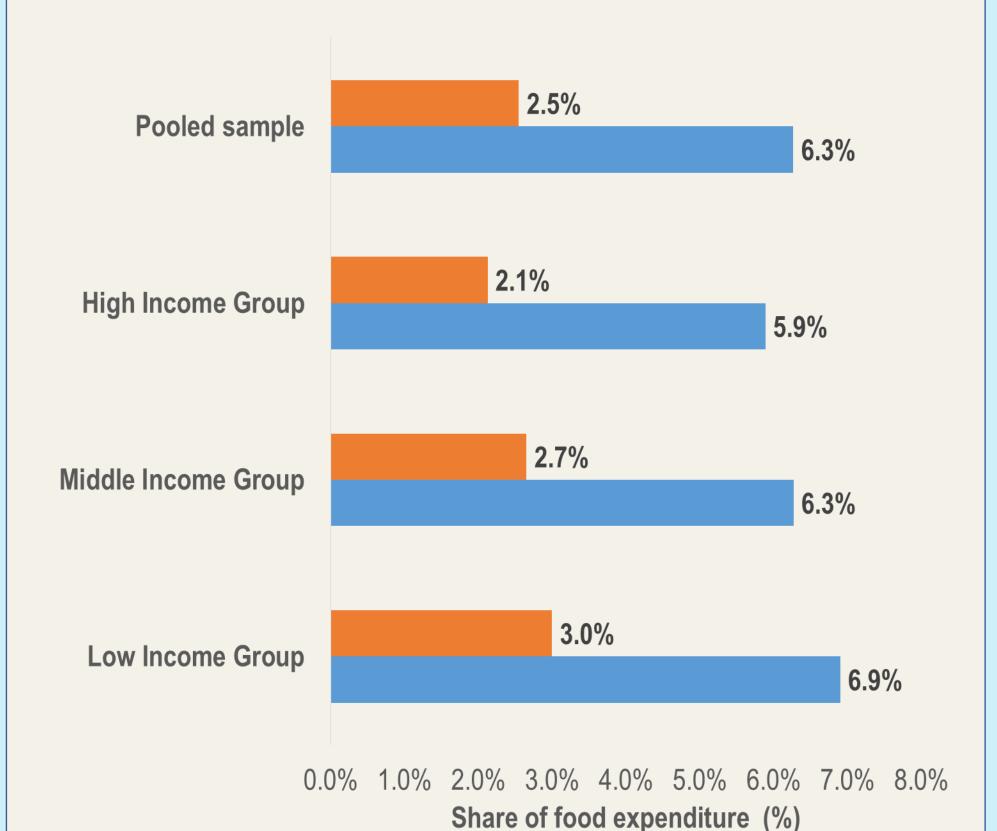


Figure 2: Share of Household food budget spent on mushroom bread

Mushroom Bread

Ordinary Bread

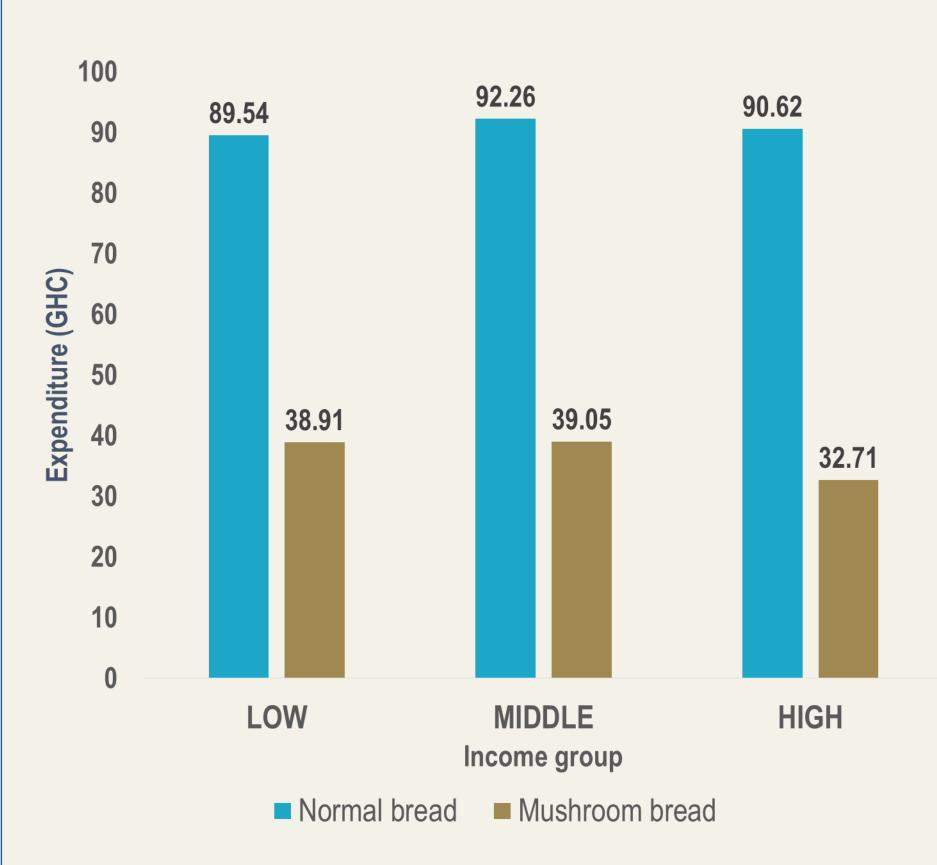


Figure 3: Monthly Household expenditure on bread



Bread baking and wholesale point

Table 2: Determinants of willingness to consume mushroom bread

Marginal effect
-0.002**
0.001**
-0.025**
-0.038**
-0.002
0.040**
0.108***
0.191***
1.623***

Obs. =400; LR chi2(11) = 53.01; Prob. > chi2 =0.000; Pseudo R2 = 0.16; Log likelihood= -161.04.

4. Conclusion & Recommendation

- Despite high awareness level (63%) about mushroomfortified bread on the market, **only one in four consumers** have ever purchased and consumed the product.
- II. Generally, consumers have positive perception about mushroom-fortified bread because of its nutritional content and superior sensory attributes.
- III. Willingness to consume mushroom bread is significantly influenced by awareness, perception, age, household composition and income level, *ceteris paribus*.
- Sensitization and awareness creation about the health benefits of mushroom-fortified bread via local radio stations and social media platforms could stimulate demand for this new and healthy food product.

5. Acknowledgements

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6. References

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