

# Research Brief

## Formative Study on Bouillon Fortification

Elizom Research and Consulting Ltd. on behalf of the National Fortification Alliance Nigeria with funding from Helen Keller Intl.

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## Research Highlights

- Bouillon is widely used with 98% consumption in Nigeria.
- Bouillon could be potentially used as an appropriate vehicle for micronutrient fortification based on its availability, accessibility, and affordability.
- Bouillon consumption is universal, it is widely consumed and has a high market penetration by lower-income populations and those at highest risk of micronutrient deficiencies.

## Key Objective

The objective of this formative study was to explore and document the knowledge, preferences, perceptions, and attitudes of the Nigerian population, regarding bouillon and bouillon fortification. In addition, assessing behaviors and practices regarding bouillon and salt use as well as consumption decisions.

## Background

Currently, micronutrient fortification of Bouillon is on voluntary basis in Nigeria, with manufacturers free to decide the types, chemical forms and levels of the vitamins and minerals to add to the product. There is presently no specific national guidance on voluntary micronutrient fortification of this product. There are varied views among various stakeholders regarding the consumption and micronutrient fortification of bouillon in Nigeria. Many of these stakeholders agree that Bouillon fortification holds a great potential for reaching most Nigerians with essential vitamins and minerals. There are recommendations that the varied views and concerns about bouillon fortification should be addressed through research to inform policy decisions regarding its acceptance as a fortification vehicle, thus the current research.

## Methodology

A cross-sectional survey was conducted in rural and urban communities across six states in Nigeria. In the survey design, one state was selected from each of the six geopolitical zones of the country. These states included: Rivers (South-South), Enugu (South-East), Oyo (South-West), Plateau (North-Central), Bauchi (North-East) and Kano (North-West). Selections of Enumeration Areas (EAs) were made across the three senatorial districts in each state and EAs were stratified into urban and rural communities with 50% urban and 50% rural. The formative study used a cross-sectional mixed methods design, combining both quantitative and qualitative research methods. The quantitative method involved household surveys through interviews with women of reproductive age (15–49 years) who were responsible for cooking the family meals. Where available, grandmothers and husbands were also interviewed. The qualitative method involved Focus Group Discussions (FGDs) with women of reproductive age (15–49 years) who did not participate in the structured interviews and men (husbands of the women that were interviewed) separately, and in-depth Interviews (IDIs) with key stakeholders as well as commercial food vendors [Table 1].



| Table 1: Marital Status |          |       | State  |        |        |        |        |         | TOTAL  |
|-------------------------|----------|-------|--------|--------|--------|--------|--------|---------|--------|
|                         |          |       | Oyo    | Enugu  | Rivers | Kano   | Bauchi | Plateau |        |
| Marital Status          | Single   | Count | 159    | 155    | 211    | 122    | 39     | 127     | 813    |
|                         |          | %     | 28.4%  | 48.4%  | 50.2%  | 21.0%  | 12.0%  | 37.2%   | 31.9%  |
|                         | Married  | Count | 376    | 154    | 198    | 424    | 262    | 189     | 1603   |
|                         |          | %     | 67.1%  | 48.1%  | 47.1%  | 73.1%  | 80.6%  | 55.4%   | 63.0%  |
|                         | Divorced | Count | 8      | 1      | 2      | 12     | 5      | 11      | 39     |
|                         |          | %     | 1.4%   | 0.3%   | 0.5%   | 2.1%   | 1.5%   | 3.2%    | 1.5%   |
|                         | Widowed  | Count | 17     | 10     | 9      | 22     | 19     | 14      | 91     |
|                         |          | %     | 3.0%   | 3.1%   | 2.1%   | 3.8%   | 5.8%   | 4.1%    | 3.6%   |
| Total                   | Count    |       | 560    | 320    | 420    | 580    | 325    | 341     | 2546   |
|                         | %        |       | 100.0% | 100.0% | 100.0% | 100.0% | 100.0% | 100.0%  | 100.0% |

## Results

- ✦ **Knowledge and Perceptions about Micronutrients:** Only 14% of the respondents were aware of the term “micronutrients’.
- ✦ **Awareness, Consumption and Perceptions of fortified foods:** About one-quarter (24%) of all respondents said they had heard about food fortification. Currently, only 7% of respondents are aware that bouillon contains vitamins and minerals.
- ✦ **Proportion of the Population that Consume Bouillon:** Results show that Bouillon is widely used for preparing foods with nearly every household using bouillon within the last seven days prior to the survey. While 98% had used bouillon within the last 7 days prior to the survey, about 95% had used it to prepare food within the last 24 hours.
- ✦ **Perceived Health Benefits and Risks Associated with Bouillon Consumption**  
The overall percentage of those who perceived health benefits of bouillon consumption is 3%. On the other hand, overall, only 1% perceived any health risks for consuming bouillon.

## Recommendation

Following fortification, manufacturers should be exempted from taxes as it would ensure there is minimal price change.

## Conclusion

Overall, the data from the formative study on bouillon fortification showed that bouillon is widely used in all six states under survey. Even though it is well known among the population that bouillon contains some salt, the level of salt is generally not known, and it is believed that bouillon and salt serve different purposes individually.

Bouillon is primarily used in cooking to enhance the taste of the food. Taste is a determining factor to consumers as to what brand of bouillon to purchase.

Most people do not perceive any health risk of bouillon consumption if it is moderately used. However, too much of sodium consumption through bouillon and salt is perceived to cause hypertension.

Bouillon fortification is seen as a very good idea for health benefits. Consumers will welcome the idea of adding vitamins and minerals to bouillon provided it will not affect the taste. However, if the taste changes, some will prefer not to buy because bouillon is used purposely for the taste and flavor it gives.

While bouillon fortification is generally perceived as very good and having health benefits, if it implies price increase, — though users will find it difficult not to use bouillon, they are likely to reduce the quantity purchased or buy the unfortified brands or possibly mix the fortified and unfortified together as a means of balancing the health benefits and price.

