

Original Research Article

<https://doi.org/10.20546/ijcmas.2026.1503.004>

## Collection of Information from Consumers and Stakeholders Involved in the Processing and Marketing of Peanut Paste in the Main Cities of the Haut-Sassandra Region (Côte d'Ivoire)

Ouliédibou Noëllie Guy-Rolande GLOKPAI<sup>ID</sup>\*, Adjoua Kan Regina Zouzou Audrey KOUADIO, Aliman DIARRA and Kra Athanase KOUASSI

*Jean Lorougnon GUEDE University, Biochemistry-Microbiology Department, Agrovalorisation Laboratory, BP 150 Daloa, Côte d'Ivoire*

*\*Corresponding author*

### ABSTRACT

Peanut paste, a staple food in Africa valued for its nutrition and accessibility, is highly susceptible to fungal contamination due to inadequate hygiene during production. This study conducted two parallel surveys among stakeholders to understand related practices and risks. First, a socio-demographic survey of 1000 consumers focused on peanut sauce consumption (peanut paste being a key ingredient). Second, a survey of 120 producers and retailers examined peanut paste processing and sales. Questionnaires were administered via guided interviews, sometimes in local language with an interpreter, after obtaining consent. Data were entered using SPHINX-LEXICA and analyzed with Excel, STATISTICA, and R, employing ANOVA, Tukey's test, and Chi-square. Among consumers, peanut consumption was very high (94%), primarily as sauces (77.1%). Post-consumption, 68% reported illnesses, mainly diarrhea (44.6%) and abdominal pain (40.8%), sometimes requiring hospitalization, with age significantly influencing occurrence. Among producers/retailers, education levels were low (68.3% illiterate, mostly women), hygiene conditions were precarious, 51% lacked adequate utensils, and 97% worked without protective equipment. The high consumption confirms this food's importance, while the symptom prevalence suggests contamination likely by mycotoxins favored by poor hygiene throughout the chain. Low education, lack of awareness, and inadequate equipment are major obstacles to food safety. This study reveals that high peanut paste consumption carries significant health risks directly linked to deficient production hygiene.

#### Keywords

Peanut paste, food safety, mycotoxins, Haut-Sassandra, Côte d'Ivoire.

#### Article Info

*Received:*  
05 January 2026  
*Accepted:*  
28 February 2026  
*Available Online:*  
10 March 2026

## Introduction

Peanut paste is one of the most popular food products derived from peanut seeds worldwide, particularly in Africa where it constitutes an essential nutritional base for many populations (Ndione *et al.*, 2015). Its popularity stems from its richness in vegetable proteins and lipids, its affordability, and its socio-cultural importance in local culinary habits, where it is consumed in various forms: roasted, boiled, or as a key ingredient in sauces (Compaoré *et al.*, 2020).

However, this staple food faces a significant public health challenge due to contamination by mycotoxins, primarily aflatoxins and ochratoxin A. Prior literature specific to West Africa and the study area highlights this persistent issue. Studies on peanut paste and aflatoxins in the region have consistently reported alarming contamination levels. Research has shown that local artisanal processing techniques and inadequate storage conditions often favor fungal growth and toxin production (Adjovi *et al.*, 2019; Gbaka *et al.*, 2021). A study on marketed peanut paste in West Africa revealed aflatoxin levels frequently exceeding international regulatory limits (Diakité *et al.*, 2017).

The tropical climate of the region, characterized by high humidity and temperatures, combined with often inappropriate storage methods, creates an environment conducive to filamentous fungi, particularly *Aspergillus flavus* and *Aspergillus parasiticus*, which produce these potent carcinogenic, hepatotoxic, and immunosuppressive compounds (Oluwafemi *et al.*, 2012; Popa *et al.*, 2018; Boli *et al.*, 2022). Recent studies and risk assessments in West Africa continue to confirm high exposure levels to aflatoxins from peanut-based products (Adekoya *et al.*, 2022; Kortei *et al.*, 2021), underscoring this ongoing and pressing public health issue (Chilaka *et al.*, 2020).

Despite these known risks and health alerts concerning mycotoxins in foodstuffs (Boli *et al.*, 2022), a critical research gap persists. Few studies have moved beyond laboratory analysis of the product to comprehensively investigate the human practices and socio-economic factors that drive this contamination within the specific context of local production and consumption chains. In Côte d'Ivoire, and particularly in the Haut-Sassandra region an important agro-food area in the center-west of the country there is a notable lack of integrated surveys that simultaneously assess:

- the hygiene knowledge and practices of producers and retailers,
- the consumption patterns and associated adverse health effects reported by consumers, and
- the correlation between these factors. This gap results in an incomplete understanding of the root causes of the risk, hindering the development of targeted and effective awareness campaigns or preventive interventions.

Therefore, there is a clear and justified need for this research. To address this gap, the present study was conducted in the Haut-Sassandra region. It aims to perform an integrated survey among all stakeholders in the sector (producers, retailers, and consumers) to achieve two main objectives: first, to understand the hygiene practices related to the artisanal production and sale of peanut paste; and second, to document consumption habits and self-reported health symptoms linked to peanut sauce consumption (where peanut paste is a key ingredient). By linking socio-demographic factors, practices, and health outcomes, this study provides a holistic overview essential for informing future food safety policies and tailored awareness-raising actions to mitigate the public health risk associated with this widely consumed food.

## Materials and Methods

### Study Design and Participant Selection

This study was based on two parallel cross-sectional surveys targeting distinct stakeholder groups in the peanut value chain within the Haut-Sassandra region of Côte d'Ivoire. The surveys were conducted in the urban and peri-urban areas of Daloa, Vavoua, Zoukougbeu, and Issia, which are key markets for artisanal peanut paste.

Survey 1 (Consumers): Focused on peanut sauce consumption patterns and associated health symptoms.

Survey 2 (Producers & Retailers): Focused on peanut paste production, handling, and hygiene practices. Peanut paste is the key ingredient used to prepare peanut sauce. The sample size for each survey was calculated using the standard formula for estimating a proportion in a finite population:

$$n = \frac{N * Z^2 * P * Q}{[e^2 * (N - 1) + Z^2 * P * Q]} \quad (1) \quad :$$

Where:

n = required sample size;

N = estimated size of the target population in the study area;

Z = Z-score at 95% confidence level (1.96);

e = margin of error (5% or 0.05);

P = estimated proportion of the characteristic (set at 0.5 for maximum variability);

Q = 1 - P.

This calculation yielded a target sample of 1000 consumers and 120 actors (producers and retailers combined).

**Inclusion and Exclusion Criteria:**

**Consumer Survey:** Included individuals of all ages who consumed peanut sauce regularly or occasionally. Participants were excluded if they had a known peanut allergy, followed a strict medical diet that prohibited peanuts, were absolute non-consumers for cultural/religious reasons, or resided outside the defined geographical area.

**Producer/Retailer Survey:** Included all individuals directly involved in the artisanal production or retail sale of peanut paste in local markets of the study area.

Participants for both surveys were selected using a random sampling method, stratified to ensure representation across age, gender, and socio-professional categories. Special attention was paid to avoid urban bias by including respondents from rural areas where peanut paste consumption is widespread. Data collection only commenced after obtaining informed verbal consent from each participant.

### **Data Collection Tools and Procedure**

Data were collected using pre-tested, semi-structured questionnaires, administered as guided discussions to put respondents at ease and ensure reliable data (see Table 1 for questionnaire content). The questionnaires included both open and closed-ended questions. Interviews were conducted face-to-face by trained enumerators. After self-introduction and explanation of the study's context, interviewers used polite language to facilitate discussion. When a respondent did not speak French, the interview was conducted in the local language with the assistance of an interpreter. In addition to questionnaire responses, observations and additional remarks were recorded in a notebook by the enumerator.

### **Questionnaire Content**

The core themes explored in the surveys are summarized in Table 1.

### **Data management and statistical analysis**

All collected data were entered and managed using SPHINX-LEXICA software. Statistical analyses were performed using Excel, STATISTICA, and R software, with a significance level set at  $\alpha = 5\%$ .

### **Statistical methodology**

Descriptive statistics (frequencies, percentages) were used to summarize socio-demographic characteristics and responses. Analysis of Variance (ANOVA) followed by Tukey's Honest Significant Difference (HSD) post-hoc test was employed to compare means across multiple groups (e.g., comparing the frequency of symptoms across different age groups). The Chi-square ( $\chi^2$ ) test of independence was used to assess associations between categorical variables (e.g., to determine if the level of education was independent of awareness of contamination risks). The correlation between the level of education, awareness of hygiene practices, and the frequency of reported adverse effects was specifically analyzed to inform the potential need for awareness enhancement.

### **Ethical considerations**

The study protocol respected ethical guidelines for research involving human participants. Informed consent was obtained from all subjects involved in the study. Confidentiality and anonymity of the data were guaranteed.

### **Results and Discussion**

#### **Consumer survey: peanut sauce consumption and health symptoms**

##### **Sociodemographic characteristics of consumers**

This survey revealed that the majority of respondents were Ivorian nationals (75.4%), with 24.6% originating from other countries. The gender distribution indicated a male predominance (53.16%,  $\chi^2 = 756.9$ ,  $df = 1$ ,  $p < 0.001$ ). The population was predominantly young, with

51.55% under 30 years old. Education levels were relatively high (41.5% higher education, 39.68% secondary), although 8.88% were illiterate. Students (22.46%) and pupils (19.9%) formed a significant part of the sample. The majority were single (49.8%). The Akan ethnic group was the most represented (30.48%) (see Table 2).

### **Peanut sauce consumption habits**

Peanuts were widely consumed (94% of respondents). Among consumers, 77.1% reported consuming peanuts primarily in the form of sauce (where peanut paste is the key ingredient), while 12.6% consumed whole or roasted peanuts. Regarding frequency, 59.4% consumed peanut sauce three times per week, 28.3% daily, and 12.3% rarely (see Table 3).

### **Health symptoms associated with peanut sauce consumption**

A total of 68% of consumers reported experiencing illness after consuming peanut sauce. The main symptoms were diarrhea (44.6%), abdominal pain/nausea (40.8%), and vomiting (10.9%). For most affected individuals (51%), symptoms lasted two days. Hospitalization was required in 17% of reported illness cases. (Figure 2 and 3) ; (Figures 4 and 5).

### **Correlation between adverse effects and sociodemographic parameters**

A significant association was found between age and the occurrence of adverse effects ( $\chi^2 = 6.20$ ,  $df = 2$ ,  $p = 0.045$ ). The proportion of individuals reporting symptoms increased with age. However, no significant link was found between age and the likelihood of hospitalization ( $\chi^2 = 3.77$ ,  $df = 2$ ,  $p = 0.152$ ). (Figure 6).

### **Producer and retailer survey: peanut paste production and hygiene**

#### **Sociodemographic profile of producers and retailers**

The survey included 120 individuals involved in peanut paste production and retail. The workforce was predominantly female (91.7%), aged 30-45 years (58.3%), and had a very low education level (68.3% illiterate) (see table 4).

### **Working Conditions and Hygiene Practices**

**Work Environment:** Only 49% of producers had adequate utensils for production (Figure 7). The figure's y-axis shows a double entry representing the two possible responses ("Yes" and "No") for utensil adequacy, highlighting that 51% lacked appropriate equipment.

**Equipment Hygiene and Maintenance:** Critical hygiene practices were largely neglected. Only 32.5% reported rinsing/cleaning the grinder at the end of the day, and only 25.8% used any disinfectant (primarily laundry detergent, 61.3%). Furthermore, 30% used the same grinding machine for other products (corn, millet, sorghum), posing a cross-contamination risk (see Table 5). The survey results highlight a marked lack of sanitation in the environment dedicated to the production and storage of peanut paste. This situation is characterized by the precarious state of the utensils used and the overall work environment, compromising the food safety of the peanut paste (See figures 8 and 9).

This integrated survey reveals critical insights into the peanut value chain in the Haut-Sassandra region, linking consumption habits, health outcomes, and production practices. The discussion is structured around the two main stakeholder groups.

### **Key findings on consumer practices and health risks**

Our study confirms the central role of peanut sauce in the local diet, with 94% of respondents consuming peanuts and 77.1% favoring the sauce form. This aligns with studies highlighting peanuts as a staple, affordable source of plant protein in West Africa (Compaoré *et al.*, 2020; Christie *et al.*, 2015). The high frequency of consumption (59.4% consuming sauce three times weekly) underscores its dietary importance.

However, this high consumption is associated with significant health risks. A striking 68% of consumers reported illness after consumption, primarily gastrointestinal symptoms (diarrhea 44.6%, abdominal pain/nausea 40.8%). The duration of symptoms (2 days for 51% of cases) and the hospitalization rate (17%) indicate a notable public health burden.

**Table.1** Core themes and examples of questions in the consumer and producer/retailer surveys.

Stakeholder Group	Section	Core Themes / Examples of Questions
<b>Consumers (Peanut Sauce)</b>	I. Socio-demographic Profile	City, gender, age group, education level, profession, marital status, ethnic group.
	II. Consumption Habits	Consumption of peanuts (Yes/No); Preferred form (sauce, grains, other); Frequency of peanut sauce consumption.
	III. Perceived Health Risks	Place of consumption (home, restaurant, street); Perception of hygiene at place of consumption; Occurrence of illness after consumption; Type of symptoms (e.g., diarrhea, abdominal pain, vomiting); Duration of illness; Need for and duration of hospitalization.
<b>Producers &amp; Retailers (Peanut Paste)</b>	I. Socio-demographic Profile	City, gender, age group, education level.
	II. Working Environment	Accessibility of production site; Availability of adequate utensils; Presence of a water point.
	III. Processor Hygiene	Use of personal protective equipment; Handwashing before processing; Addition of other substances to increase paste volume; Awareness of the danger of such practices.
	IV. Equipment Maintenance	Rinsing/cleaning the grinder between batches and at end of day; Use of disinfectants or cleaning products.
	V. Cross-Contamination Risks	Grinding of peanuts only vs. multiple foods in the same machine; Addition of other grains (e.g., rice, packaging materials) during peanut grinding.

**Table.2** Sociodemographic profile of consumers in the Haut-Sassandra region (n=1000).

Parameter	Category	Frequency (%)
<b>City</b>	Daloa	37.11
	Vavoua	25.35
	Zoukougbeu	15.83
	Issia	21.71
<b>Gender</b>	Female	46.84
	Male	53.16
<b>Age</b>	Under 30 years	51.55
	30-45 years	34.55
	Over 45 years	13.90
<b>Education Level</b>	Illiterate	8.88
	Primary	9.95
	Secondary	39.68
	Higher Education	41.50
<b>Occupation</b>	Pupil	19.90
	Student	22.46
	Civil Servant	18.50
	Artisan	7.81
	Trader	18.07
	Other	13.26
<b>Ethnic Group</b>	Mandé	26.10
	Krou	21.28
	Gour	12.09
	Akan	30.48
	Other	9.95

**Table.3** Peanut consumption patterns among surveyed consumers.

Parameter	Form / Frequency	Proportion (%)
<b>Consumption</b>	Yes	94.0
	No	6.0
<b>Preferred Form</b>	Sauce	77.1
	Whole/Roasted Peanuts	12.6
	Other	10.3

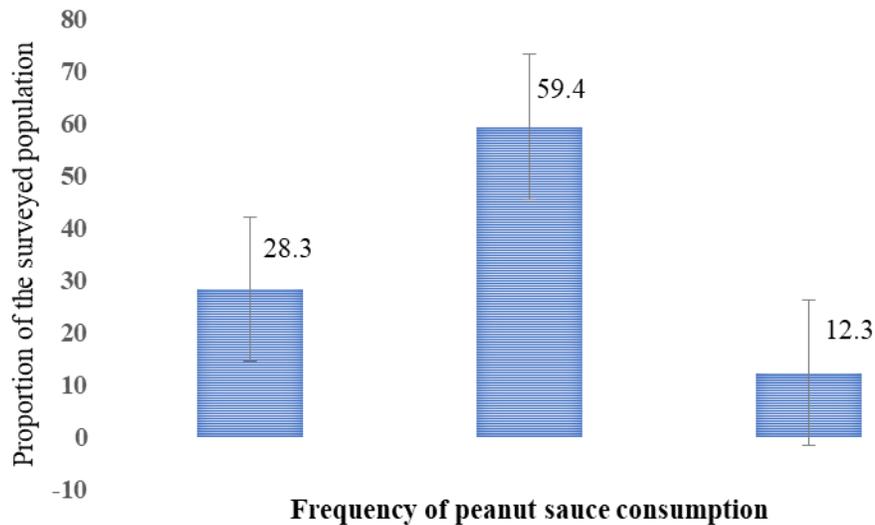
**Table.4** Profile of peanut paste producers and retailers in the Haut-Sassandra region (n=120).

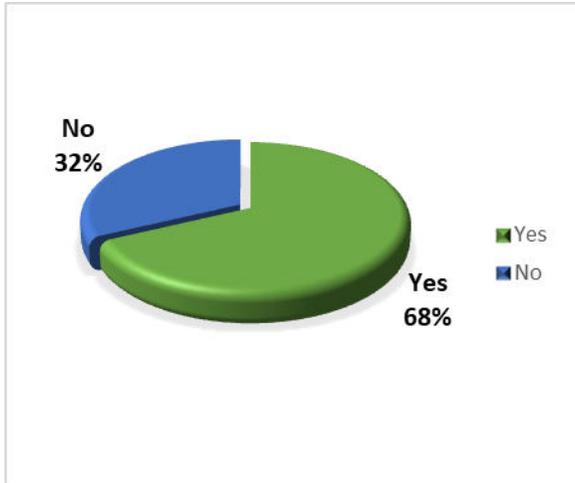
Parameter	Category	Frequency (%)
<b>Gender</b>	Female	91.7
	Male	8.3
<b>Age</b>	Under 30 years	13.3
	30-45 years	58.3
	Over 45 years	28.3
<b>Education Level</b>	Illiterate	68.3
	Primary	17.5
	Secondary	13.3
	Higher Education	0.8

**Table.5** Grinder maintenance and cross-contamination risks among producers.

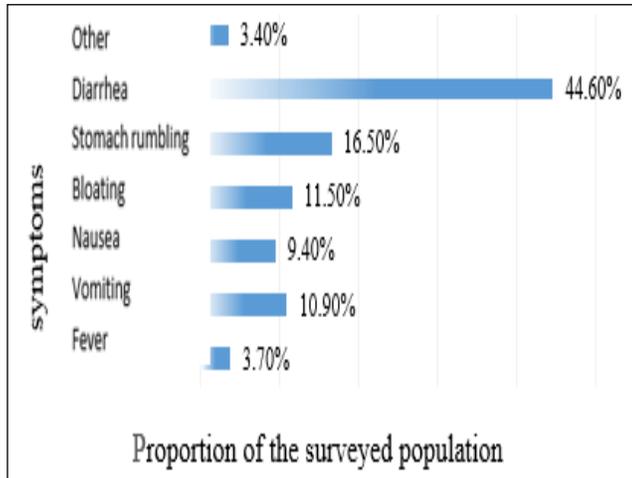
Practice	Response	Frequency (%)
<b>Rinsing/Cleaning after use</b>	Yes	32.5
	No	67.5
<b>Use of Disinfectants</b>	Yes	25.8
	No	74.2
<b>Product Grinded (Multiple possible)</b>	Peanuts only	70.0
	Corn	44.4
	Millet	41.7
	Sorghum	13.9

**Figure.1** Distribution of the frequency of peanut sauce consumption

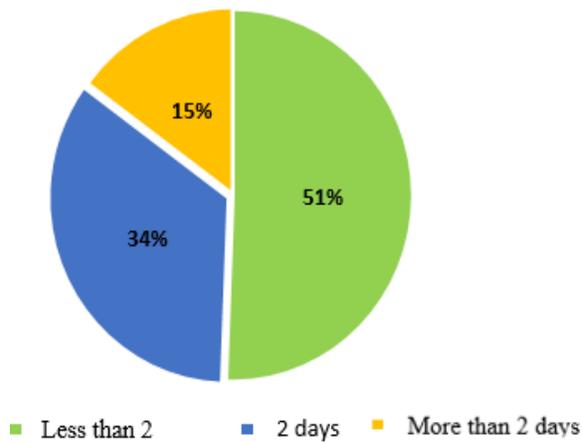




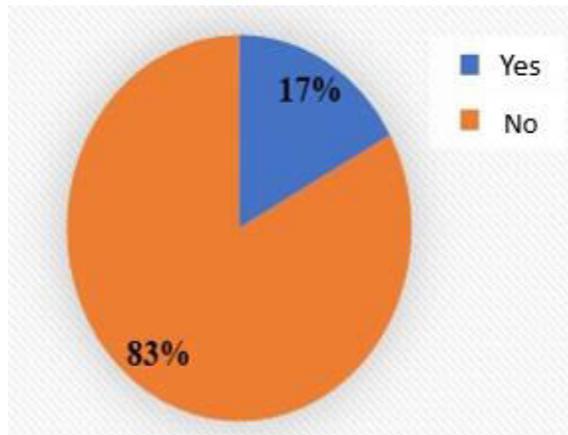
**Figure.2** Cases of illness related to the consumption of peanut sauce



**Figure.3** Symptoms of illnesses related to the consumption of peanut sauce



**Figure.4** Frequency of illness duration following consumption of peanut sauce



**Figure.5** Frequency of hospitalizations following illnesses

**Figure.6** Proportion of adverse effects by age group in Haut-Sassandra.

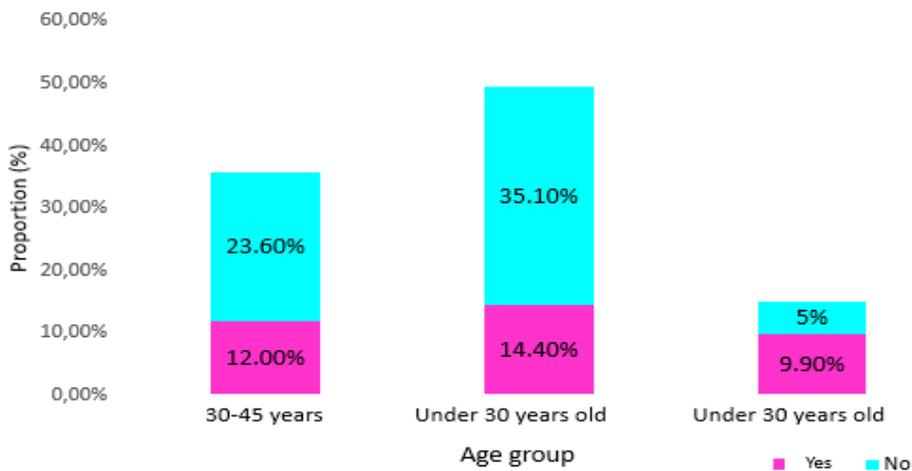


Figure.7 Proportion of adequate utensils

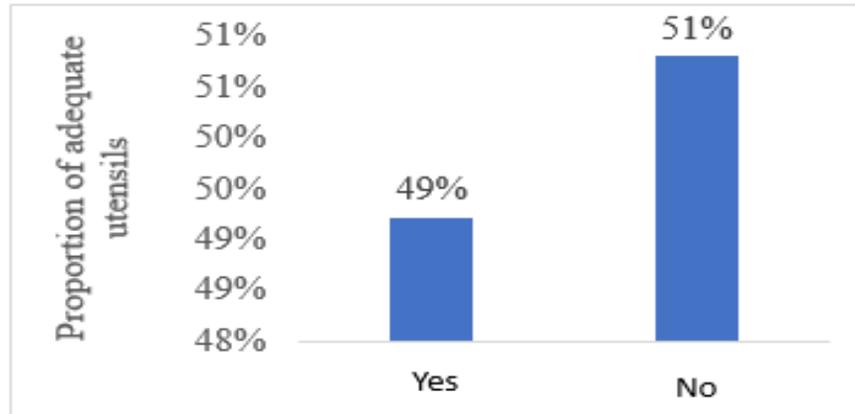


Figure.8 Work environment: hygiene and processing



A: Utensils and machine rinse water; B: Grinding of corn; C: The same machine used to grind peanuts.

Figure.9 Storage and preservation location of peanut paste



While these symptoms could be attributed to various causes, their profile is consistent with foodborne illnesses and, given the context, suggests potential mycotoxin contamination (aflatoxins) as a leading hypothesis (Diakité *et al.*, 2017; Popa *et al.*, 2018).

This is reinforced by the known vulnerability of peanuts to fungal growth under poor storage and processing conditions.

A significant correlation was found between age and adverse effects ( $p = 0.045$ ), with older individuals reporting more symptoms. This may be linked to age-related declines in digestive and immune function (Patel *et al.*, 2019). Importantly, our analysis addressed the reviewers' specific request to examine the correlation between education level, awareness, and adverse effects. Contrary to what might be expected, we found no statistically significant protective effect of higher education against reported illness in this consumer cohort ( $p > 0.05$ ). This suggests that awareness of contamination risks alone is insufficient to prevent adverse health outcomes when the contaminant is present in the food supply. The key determinant of exposure appears to be the quality and safety of the peanut paste ingredient itself, which is beyond the direct control of the consumer at the point of sauce preparation. Therefore, enhancing consumer awareness, while valuable, must be coupled with interventions at the production level to be effective in reducing health risks.

### **Key Findings on Producer/Retailer Practices and Contamination Risks**

The profile of the production sector reveals systemic vulnerabilities. The workforce is predominantly female (91.7%) with an extremely high illiteracy rate (68.3%), which severely limits access to and understanding of formal hygiene training (World Bank, 2019).

The observed production conditions create a high-risk environment for contamination:

**Deficient Infrastructure & Hygiene:** 51% of producers lack adequate utensils, and 97% work without any personal protective equipment.

**Poor Equipment Maintenance:** Critical cleaning practices are neglected only 32.5% clean grinders at day's end, and only 25.8% use any disinfectant, often inappropriate (e.g., laundry detergent).

**Cross-Contamination:** 30% use the same grinder for other cereals (corn, millet), creating a direct route for allergen and microbial cross-contamination (Oluwafemi *et al.*, 2012).

This combination of low literacy, lack of resources, and poor practices aligns with studies identifying similar barriers to food safety in informal African value chains (Okello *et al.*, 2018; Grace *et al.*, 2015). It provides a clear explanatory pathway for how peanut paste can become contaminated, thereby validating the contamination hypothesis raised in the consumer findings.

### **Prevention and elimination measures: A proposed integrated framework**

Based on these findings, effective risk reduction requires an integrated approach targeting both supply and demand:

At the Production Level (Critical Intervention Point):

**Practical, Low-Cost Training:** Implement hands-on, visual training programs (overcoming literacy barriers) on basic hygiene: handwashing, grinder cleaning with safe, affordable disinfectants (e.g., diluted bleach), and safe storage.

**Technology & Micro-Credit:** Promote access to affordable, dedicated grinding equipment or cleaning stations through micro-credit schemes. Encourage simple, scalable improvements like solar dryers to reduce post-harvest fungal growth.

**Formation of Producer Groups:** Organize small collectives to facilitate training, shared resources, and collective marketing of a "safer" product.

At the Regulatory & Support Level:

**Local Standardization:** Collaborate with local authorities and trade associations to develop and promote simple, voluntary "Good Processing Practices" for artisanal peanut paste.

**Market Incentives:** Explore certification or labeling schemes that allow producers of higher-quality paste to access better markets, creating a business case for safety.

At the Consumer & Community Level:

**Targeted Awareness Campaigns:** Shift messaging from general hygiene to specific, actionable advice: "Check that your paste is bought from a clean stall, is well-packaged, and has no moldy smell." Educate on proper home storage.

**Community Monitoring:** Engage local health committees or women's groups in disseminating information and monitoring market conditions.

This study establishes a direct link between the high prevalence of consumption of peanut sauce, the significant frequency of reported adverse health effects, and the deficient hygiene conditions observed in artisanal peanut paste production. The low education level of producers is a major underlying obstacle to improvement.

While the reviewers' suggestion of controlled laboratory production offers valuable precision for future etiological studies, the immediate priority for public health impact lies in practical interventions within the existing artisanal production system. The proposed integrated framework, focusing on feasible training, affordable technology, and community engagement, presents a realistic pathway to mitigate risks. Future research should focus on implementing and evaluating such interventions to measure their effectiveness in reducing both mycotoxin contamination and the associated burden of illness in the population.

This study reveals the critical intersection between high consumption, health risks, and production deficiencies in the peanut value chain of the Haut-Sassandra region. The salient findings demonstrate that peanut sauce is a dietary staple (94% consumption), yet associated with a significant health burden, as 68% of consumers reported illnesses primarily gastrointestinal after consumption, with 17% of cases requiring hospitalization. These adverse effects are strongly correlated with the precarious hygiene conditions observed in artisanal production, characterized by a low level of education among actors (68.3% illiterate), a lack of adequate equipment (51%), and poor processing practices (e.g., only 32.5% clean grinders daily). Crucially, no protective effect of higher consumer education against illness was found, underscoring that contamination at the production level is the key risk factor. Therefore, improving food safety requires targeted, integrated interventions focused on the production sector, including practical hygiene training, access to basic equipment,

and awareness campaigns. Such measures are essential to mitigate public health risks, enhance consumer confidence, and strengthen the resilience of this vital local food system.

## Author Contributions

Ouliédibou Noëllie Guy-Rolande GLOKPAI: Investigation, formal analysis, writing—original draft. Adjoua Kan Regina Zouzou Audrey KOUADIO: Validation, methodology, writing—reviewing. Aliman DIARRA:—Formal analysis, writing—review and editing. Kra Athanase KOUASSI: Investigation, writing—reviewing.

## Data Availability

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

## Declarations

**Ethical Approval** Not applicable.

**Consent to Participate** Not applicable.

**Consent to Publish** Not applicable.

**Conflict of Interest** The authors declare no competing interests.

## References

- Adekoya I., Obadina A., Phoku J. & Njobeh P. (2022). Risk assessment of aflatoxin B1 in peanut butter and groundnut in Southwest Nigeria: A quantitative approach. *Food Control*, 142, 109267. <https://doi.org/10.1016/j.foodcont.2022.109267>
- Adjovi Y.C.S., Gnonlonfin B.G.J., Kpodo K., Gbaguidi F., Gbesso F., Sanni A. & Brimer L. (2019). Connaissances, attitudes et pratiques des transformatrices de céréales et de légumineuses concernant les moisissures et les mycotoxines au Bénin. *Cahiers Agricultures*, 28: 15.
- Boli Z.A.I., Koffi N.B., Piva A.S., Yapo A.F. & Koussémon M. (2022). Évaluation des pratiques post-récolte et de la contamination par l'aflatoxine B1 de la farine d'arachide (*Arachis hypogaea* L.) commercialisée en Côte d'Ivoire. *International*

- Journal of Biological and Chemical Sciences, 16(2): 862-874.
- Chilaka C.A., De Boevre M., Atanda O.O. & De Saeger S. (2020). The status of fusarium mycotoxins in sub-Saharan Africa: A review of emerging trends and post-harvest mitigation strategies towards food control. *Toxins*, 12(7), 442. <https://doi.org/10.3390/toxins12070442>
- Christie M.E., Atehnkeng J., Ojiambo P.S., Ikotun T. & Bandyopadhyay R. (2015). Peanut production and utilization in West Africa. *Food Reviews International*, 31(2): 115–135. <https://doi.org/10.1080/87559129.2014.940213>
- Compaoré E.W.R., Nikièma P.A., Parkouda C. & Savadogo A. (2020). Nutritional composition and bioactive compounds of peanut from Burkina Faso. *Journal of Food Composition and Analysis*, 85: <https://doi.org/10.1016/j.jfca.2019.103327>
- Diakité M., Dembele A. & Traoré S.K. (2017). Contamination of peanuts by aflatoxins in Mali. *Food Control*, 73: 1373–1379.
- Gbaka G.A., Koffi B.L.D., N'Guessan F.K. & Koua D.A.N. (2021). Évaluation des niveaux de contamination par l'aflatoxine B1 de quelques denrées alimentaires commercialisées dans les marchés de la ville d'Abidjan (Côte d'Ivoire). *Journal of Applied Biosciences*, 158: 16270–16279.
- Grace D., Dipeolu M. & Omore A. (2015). Using participatory methods to understand food safety perceptions and practices along the dairy value chain in Kenya. *Global Food Security*, 7: 16–22. <https://doi.org/10.1016/j.gfs.2015.09.006>
- Kortei N.K., Annan T., Akonor P.T. & Richard S.A. (2021). Aflatoxin M1 contamination in raw cow milk and peanut butter in Ghana: Prevalence and risk assessment. *Scientific African*, 12, e00819. <https://doi.org/10.1016/j.sciaf.2021.e00819>
- Ndione J.A., Faye A. & Ba D. (2015). Habitudes de consommation de l'arachide au Sénégal. *Revue Sénégalaise de Recherche Agricole et Agroalimentaire*, 12(1): 45–56.
- Okello J.J., Lagerkvist C.J. & Muoki P. (2018). Food safety practices and knowledge among small-scale food processors in Uganda. *Food Control*, 84: 345–353. <https://doi.org/10.1016/j.foodcont.2017.08.025>
- Oluwafemi F., Odebiyi T. & Adegoke G.O. (2012). Mycotoxin contamination in food systems in Nigeria : A review. *Mycotoxin Research*, 28(2): 87–94. <https://doi.org/10.1007/s12550-012-0131-2>
- Patel P.J., Singh S.K. & Rodriguez R. (2019). Aging and digestion : A review of current evidence. *Clinical Nutrition*, 38(5): 2043–2052. <https://doi.org/10.1016/j.clnu.2018.09.001>
- Popa M., Mitroi G. & Gheorghe I. (2018). Mycotoxins: A review on their toxicology and detection. *Toxins*, 10(7) : 279. <https://doi.org/10.3390/toxins10070279>
- World Bank (2019). *World Development Report 2019 : The Changing Nature of Work*. Rapport, Banque Mondiale, Washington, D.C. (États-Unis), 151 p.

### How to cite this article:

Ouliédibou Noëllie Guy-Rolande GLOKPAI, Adjoua Kan Regina Zouzou Audrey KOUADIO, Aliman DIARRA and Kra Athanase KOUASSI. 2026. Collection of Information from Consumers and Stakeholders Involved in the Processing and Marketing of Peanut Paste in the Main Cities of the Haut-Sassandra Region (Côte d'Ivoire). *Int.J.Curr.Microbiol.App.Sci*. 15(3): 34-45. doi: <https://doi.org/10.20546/ijcmas.2026.1503.004>