Safety and Hygienic Implications of Street Vended Foods in Anyigba Town, Kogi State – Nigeria

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Abstract
The study has pointed out that most of the street vended foods in Anyigba town are unsafe for human consumption. It has identified the poor construction and location of the vending sites, lack of facilities like potable water, refuse collection facilities, personal hygiene, and temperature abuses and the way and manner the foods are packaged as the main factors responsible for the lack of safety and quality of the foods. It has thus recommended that the government should regulate the activities of street vendors by enacting a code of practice for the street food business. To ensure the safety and quality of food, workshops or talk shops should be regularly organized to avail the food vendors of basic hygiene and sanitary practices necessary for food handling and preparation.

Keywords: Street food, Food vendors, Safety, Quality

Introduction
Street food vending is a common phenomenon in Nigerian towns and cities. By way of definition, street vended foods are ready-to eat foods and beverages sold by vendors and hawkers on the street or prepared in the home and consumed on the street without subjecting it to another preparation (FAO, 1989). They are less expensive and the most accessible means of obtaining the desired nutritional needs. With the unprecedented urban growth and especially the increase in the size of the unemployed labour force, the demand for street vended foods has gained momentum. The ready-to-eat foods as they are generally called, are sold by vendors and hawkers in make shift stalls, push carts by the streets and public places like mechanic sites, markets, etc.

In Nigeria, the presence of street foods and street food vendors has become one of the most fascinating aspects of social life in urban and peri-urban centres. In fact, street food trade in Nigeria is becoming a viable and important informal-sector industry. In Nigeria, like many other developing countries, street vended foods play very significant roles. Besides its flavours and convenience, it offers business opportunities for many entrepreneurs. The sale of street foods enhances the income of the operators and meets the food demands of urban dwellers especially the low income group.

Though street food vending in Nigeria is not a new phenomenon, there has been a steady increase in the number of operators in recent years. This increase could be attributed to the poor state of the Nigerian economy. For instance, Nigeria has been experiencing unprecedented rate of social problems. Unemployment has continued to rise due to the declining economic situation. Consequently, there has been increasing migration of youth to the urban centres. The migration has continued to create a high demand for ready-to-eat foods by the migrants. In the face of the harsh economic situation in the country, these foods are relatively cheap and readily available for the teeming unemployed.

Though street vended foods are relatively cheap and accessible, their safety and quality have remained a serious issue of concern to health experts and international bodies (Agu, 2011). For example, according to the World Health Organization (WHO, 1984), Ashenafi (1995) street vended foods are prone to be contaminated by either spoilage or pathogenic micro-organisms. The Food and Agricultural Organization (FAO, 1997) also maintained that street vended foods are prone to food poisoning due to improper and unhygienic handling of the foods and the unregulated nature of the sector of the economy.

In Nigeria, surveys carried out by the department of Public Health of the Federal Ministry of Health in 2006 and 2007 gave over two million cases of food borne diseases and the number of death put at over five hundred thousand. Many of these deaths were said to be linked to the consumption of contaminated street vended foods. Also, the Consumer Protection Council survey on street vended foods within the Federal Capital Territory Abuja gave a similar scenario that presupposes that the situation could be worse in the hinterland (Agu, 2011). Studies by Abdussalam and Kaferstein (1993) have also confirmed that foods sold by the streets have strong epidemiological links with illness.

Over the years, Nigerians have come to appreciate local delicacies commonly hawked in our streets. Interestingly, Nigeria is an agrarian country with rich varieties of foods. Unfortunately, most of the street food vendors are not conversant with the best practices of food preparation, presentation, packaging and preservation. But considering the above positions and the continued increase in the number of operators of street foods in Anyigba, one therefore hazards that the people of Anyigba are continually being exposed to food hazards and poisoning. This assertion thus forms the basis for this study; to examine the safety and the hygienic implications of street vended foods in Anyigba.
METHODOLOGY
This study is purpose-based as such the survey design was used. The survey design enhanced the collection and analysis of data from a few people considered to be representative of the entire group.

Two methods namely; semi-structured interview and structured observation were used in collecting data from food vendors in Anyigba. The semi-structured interview provided the opportunity of obtaining information on such practices as type of food sold, food preparation and handling, and the hygienic status of cooking utensils. The structured observation on the other hand provided the opportunity to identify the location of the food vendors, the utensils used and the environment under which the food vendors operate, and how the foods were processed. The information obtained is presented in analytical and descriptive forms.

RESULTS
In determining the safety and the hygiene of street vended foods in Anyigba, the study took into consideration the following variables. The type of food sold, sex of the vendors, age, educational qualification. Other characteristics included vending sites, place of food preparation, food handling practices, personal and environmental hygiene. Ninety seven (97) food vendors were randomly selected and interviewed.

The study identified the commonly vended foods as rice/beans, pounded yam, akpu, eba (garri), beans cake (akara), tea/bread, pepper soup, fried yam/plantain, suya (meat snacks), fish (roasted fish), roasted chicken kunu, akamu, fruits and vegetables,

A survey of Anyigba revealed that more than half (62 or 63.92%) of the food vendors were female while 35 (36.08%) of them were males. In terms of age, 18(18.56%) of the vendors were between 20-30 years while the majority of them (67 or 69.07%) were between the age bracket of 31-40. Only 12 or 12.37% of the vendors were in the age bracket of 41-50.

On the basis of education, 52 (53.61%) had no formal education while 32 (32.99%) had primary education. Only 13 or 13.40% of the vendors had secondary education (see table 4).

With regards to site, the study observed that 51 (52.58%) of the food vendors sold their foods in wooden stalls, 11 (11.34%) in wheel barrows, while 35 (36.08%) operated in rented zinc houses facing the streets.

Discussions with the food vendors revealed that none of the food vendors had any formal training in food preparation and handling. All of them got their cooking skills through their parents and later improved upon them through self training.

The survey revealed that besides those that operate in wheel barrows, all the other vendors prepare their foods at permanent sites with the help of apprentices. The study particularly observed that most of the vendors (especially the relatively sedentary ones) operated in dirty environments. Wastes and garbage were seen to be thrown about indiscriminately as many of the vendors had no garbage receptacles. The vendors prepared their foods on dirty surfaces over and over again. The survey also revealed that all the food vendors got their water from water tanker operators and water hawkers popularly called “mairuwa”, the source of which they do not know.

The survey further observed that while cooking or serving food, none of the vendors including their apprentices wore any aprons nor covered their hair. Especially the women vendors had long nails and wore jewelries. Most of the food vendors also handled money while cooking and serving food.

DISCUSSION
The population of Anyigba has continued to rise since the establishment of Kogi State University some 23 years ago. Due to the increase in population, the street food industry has being playing an important role especially in meeting the food demands of the inhabitants. Thousands of Anyigba settlers are fed daily with a variety of relatively cheap foods. Separate studies by Muleta and Ashenafi (2001), Omemu and Aderoju (2008) have also concluded that street foods are sources of cheap food and nutrition for many low-income groups.

However, health experts have continued to argue that several health hazards are associated with these street vended foods; that life threatening diseases are associated with these streets foods. The Food and Agricultural Organization (FAO, 1990) for instance, maintains that street foods are largely unsafe because the vendors are often untrained in food safety, food hygiene and sanitation and most often work in unsanitary conditions. In our context, only a few of the vendors had secondary school certificate while the majority had no formal education. And none of the vendors had any basic training in food handling and preparation. This means that knowledge about food vending was acquired by self teaching-trail and error. But for food safety and hygiene to be assured, the food handlers must of necessity possess the knowledge and skills to enable them handle food hygienically (Sharmila, 2011). In our context, the study has established that due to the low level of literacy, lack of proper training and guidance on food vending, vendors prepared their foods in highly unhygienic and unsanitary conditions.

The study also observed that most of the food vending sites were poorly constructed and located
thereby exposing the foods to flies, dust and vehicular emissions. In addition, refuse, garbage and waste water were observed to be recklessly thrown around. This attitude has made most of the food sites breeding places for flies and other related infections, contaminations and hazards. Studies by Muinde and Kuria (2005) have confirmed that the lack of facilities for liquid drainage and waste water, and garbage disposal lead to garbage accumulation which provide harborage for insects and animal pests that are linked to enteric disease transmission. The study established that Anyigba town generally lacks potable water. But water is an important raw material in many street vended operations. Due to the shortage of clean potable water, most of the vendors reused the water especially for cleaning utensils and used dishes. But studies by Angula, et al and Dev, et al have all shown that contaminated water creates a public health risk when it is used for drinking, washing of foods, used in the processing of food or used for washing equipment, utensils and hands.

Survey of Anyigba town also revealed instances of gross temperature abuses. For example, meat snacks like suya, fish, and chicken were generally observed to be subjected to temperature abuses as they were all under heated or under roasted. But WHO (1989) maintained that inadequate heating and under cooking can contribute to food poisoning.

The study also discovered risk factors relating to food packaging. For instance, it was observed that many of the foods were presented and delivered without protective packaging. For example, the meat snacks (suya), the beans cake (akara) were wrapped in old newspapers and cement bags. But the heaps of newspapers and cement bags usually serve as good breeding places for cockroaches and other insects that can cause serious illness. Moreover, in the houses where these newspapers and cement bags are kept, deadly chemicals or insecticides like nuvan or sniper popularly called “otapiapia” are applied to ward off the menace of the cockroaches and other insects that breed in the homes because of the papers and bags. These papers are later used to wrap our food. It was also observed that many of the vendors in the process of packaging clean off the dust on the newspapers and cement bags by blowing air and in the process pass on a number of pathogens to the consumers. This is what Sharmila (2011) calls the introduction of hazards by cross contamination. Similarly, “kunu”sellers collect empty bottles from the streets; bottles into which the kunu is put and sold to consumers. This is usually done without minding what the bottles were subjected to.

The safety of any food is dependent on the personal hygiene of individuals. This position is strongly emphasized by Marriot (1985) as he states that personal hygiene is important because human beings are the main sources of food contamination (Akinyele 1987; Sharmila, 2011). In our context, it was observed that toilet facilities were not available in most of the vending sites visited vendors passed out body wastes in near-by hidden places and returned to business without washing their hands properly. But the hands of food handlers are the most important vehicle for the transfer of organisms from faeces, nose, and skin to the food (WHO, 1989; Sharmila, 2011).

Also, food vendors handle money while serving food, do not use aprons, do not cover their hair, and have long nails and this is a sure way of contaminating and introducing microbes on food. It is the position of this study that the chemicals women apply on their hair and fingernails are harmful. Besides, the long nails are sure places for the incubation and breeding of germs. Therefore exposing these into contact with food can have severe health implications for the people.

CONCLUSION AND RECOMMENDATIONS
This study has examined the safety and hygienic implications of street vended foods in Anyigba town. The study has observed that the street food vendors prepare food in unhygienic and unsanitary conditions. The study has particularly noted that these street foods are generally unsafe for human consumption as much of them are exposed to dust and vehicular emissions due to the poor construction and location of the vending sites. The study has also shown that most of the food sites are breeding places for flies, rodents and other insects as they are generally littered with waste water, garbage and refuse. In addition, most of the food vendors lack basic food handling practices as most of them handle money, do not cover their hair nor use aprons while serving food. More so, the women vendors prepare food with long and painted nails. The study has thus recommended that

1. The government should regulate the activities of street vendors by enacting a code of practice for the street food business. Conditions should be put in place to ensure that food vendors comply with hygienic and sanitary conditions.

2. To ensure the safety and quality of food, workshops or talk shops should be regularly organized to avail the food vendors of basic hygiene and sanitary practices necessary for food handling and preparation. To ensure compliance environmental sanitation laws, staff of the state environmental sanitation boards should be posted to all the major towns of the state. The presence of the sanitation officers, it is hoped, would compel food vendors to clear their sites of refuse and garbage. Especially, people should be enlightened on how to manage waste.

3. The study also recommends that potable drinking water should be provided by constructing boreholes in all parts of the state. This will eliminate the problem of water related infections and contamination. In
addition, waste management facilities should be provided.

(4) And above all, the synergy between the Consumer Protection Council, the National Orientation Agency and other relevant bodies should be strengthened particularly in the area of training of street food vendors on appropriate food preparation methods, presentation as well as the maintenance of good personal hygiene.

REFERENCES
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