

**EARDA**

# **Adolescent Health Need of the hour**

**Dr. Abha Khetarpal  
Mrs. Parul Singh**

## Increasing Lust of Street Food among Adolescents

Prabhjot Kaur<sup>1</sup> and Saroj Bala<sup>2</sup>

<sup>1</sup>Assistant Professor, <sup>2</sup>Post Graduate

Department of Foods & Nutrition, Guru Nanak Girls College, Yamuna Nagar

<sup>2</sup>IGNOU

**Introduction:** Street food refers to foods and beverages which are prepared and sold by the sellers on places like streets, festival areas and consumed by the consumers there and then. As compared to restaurant foods, these foods are more affordable alternatives to homemade food. The underlying factors which make street foods a threat for health include the cleanliness of site of production, usage of contaminated water for cooking, insufficient hygiene, attitude and practices adopted by the seller during their preparation and storage.

**Objectives:** The objectives of this study are as under:

1. To investigate the factors influencing street food consumption among adolescents
2. To identify the commonly eaten street foods by the subjects
3. To analyse the frequency of consumption of street foods

**Methodology:** The study was conducted at two higher secondary schools and a co-educational Government College of Naraingarh, Distt. Ambala. 300 adolescents between the age group of 15-20 years were taken as sample.

**Results:** Out of the total 300 respondents, 117 (39.0 percent) respondents were in the habit of consuming street food on a daily basis followed by 95 (31.7 percent) adolescents who visit street food outlets at least once a week. The frequency of street food consumption of both boys and girls is almost similar. The most frequently reported reasons for eating at street food were: taste (34.3 percent), quick service (24.5 percent) and reasonable price (16.7 percent). The least frequently reported reasons were: socialising and peer pressure (10.2 percent), easy accessibility (7.8 percent) and fun and entertainment (6.5 percent).

**Conclusions:** There is a need of efforts and laws for more widespread and comprehensive assessment of different issues related to street food availability and consumption in different settings. Focussed legislative measures should be adopted for following laws and regulations during their preparation and storage.

**Keywords:** street food, adolescents, lust, frequency, taste

### **Introduction**

Street food refers to foods and beverages which are prepared and sold by the sellers on places like streets, festival areas and consumed by the consumers there and then. As compared to restaurant foods, these foods are more affordable alternatives to homemade food. The underlying factors which make street foods a threat for health include the cleanliness of site of production, usage of contaminated water for cooking, insufficient hygiene, attitude and practices adopted by the seller during their preparation and storage.

In other words, street foods are ready-to-eat foods or drinks sold by a hawker or vendor at any public place. They are often sold from a portable food booth, food cart or food truck and meant for immediate consumption. Generally street food belong to a particular region, but in present scenario most of them have gained popularity beyond their native regions.

The concept of street food is engraved in the foundation of the cultural, financial and political composition of every community. The essence of a culture is clearly exhibited by its street food. Street food is a global phenomenon uniting societies at a universal level.

Street foods being reasonable and easily accessible serve as a major source of urban food consumption for millions of average income consumers. Along those lines, street food stands as a source of income for many families. However, socio-economic benefits breed risks. Such risks include sanitation problems, traffic congestion in streets, social problems (child labour, unfair competition to formal trade), lack of knowledge of street vendors on food poisoning and diseases associated with preparation methods, and health hazards. Although street foods act like an enhancing factor for fusion and preservation of various cultures, but their excessive consumption may lead to serious negative side effects.

Street foods are an integral part of a country's cuisine. Their role in preserving cultural and social heritage of local cuisine can't be overlooked. Approximately 2.5 billion people around the world consume street food every day. Production and selling of street food has become a part of social life. As the people in developing countries spend an important amount of their budget for eating outside, street food has become an alternative eating trend. In Latin America people spend nearly 30 percent of their budget for street food.

Street foods business is a constant income for millions of uneducated people. However, their sale invites various risks. These include causing accidents on busy traffic, being fined because of occupying the pavements, doing sales illegally or employing children as workers. Since the money spent on street food is not too much, it helps especially poor families to meet their daily nutritional requirements. Regarding the employment, street food provides a good job opportunity and income for sellers with small capitals and especially for women.

India is multi-cultural country. Most states of India are different from each other in terms of culture, ethnicity, language and the food they eat. Indian street food menu is not only mouth-watering but available in almost the entire country. The street food is very popular among Indians. Almost all the strata of the Indian society hit the roads for 'chaats' during their shopping and outings. Even the kids go gaga over the road side delicacies even though western style fast food joints are popping up in every nook and corner serving pizzas and burgers.

The changes taking place in people's life styles have caused the habit of eating outside to evolve. Owing to availability of less cooking time, visible changes have been evident in food consumption patterns of the society. Mutual cultural interactions, fast lifestyles and greater engagement of women force in professional life have clearly influenced and altered the nutrition style especially in metropolitan cities. In present day's world, people find an increased preference to buy street foods to satisfy their hunger outside home. Street foods are being prepared and sold at places like streets, schools, train stations, bus terminals, entertainment and festivals areas where people are crowded. These foods and drinks are generally ready to eat hence can be consumed there and then with much convenience.

The reasons for preference of street foods by people all over the world are variety, cheapness and availability thereby leading to more consumption of these foods. These foods are highly demanded both by the sellers and consumers because of their taste, easy availability, low cost, cultural and social heritage connection.

There are many studies about relation of street food and diseases, because of lack of knowledge about hygiene, and food has highlighted the importance of the issue. This study aims to provide information on street food consumption with general specifications of street food, the reason why they are preferred and general conditions like hygiene, quality, and safety.

### Objectives

1. To investigate the factors influencing street food consumption among adolescents
2. To identify the commonly eaten street foods by the subjects
3. To analyse the frequency of consumption of street foods

### Review Of Literature

In today, millions of people catch diseases originating from food sources and thousands of deaths occur in world. One of the reasons for spreading of diseases, originating from food sources is that street food sellers do not have sufficient information about food safety. Besides, in various researches made in some countries, insufficiencies were found out relating with application of hygiene and sanitation, preparation of food, food safety rules and knowledge of street food sellers. Poor hygiene, difficulty in obtaining drinking water, not removing wastes and similar environmental problems and the fact that

street food are exempt from legal legislations, all these factors increase risks in ensuring food safety (Rheinlander et al., 2008; Omemu and Aderoju, 2008; Abdalla et al., 2009; WHO, 2010; FAO, 2011; Choudhury et al., Rane, 2011; Kealesite et al., Kabama, 2012).

Street food safety is influenced starting from the quality of raw material to food processing and storing and similar steps in the process. Besides the fact that raw materials used in these products are of poor quality, these foods are stored under unsafe and water, toilets, freezing-ice creams, disinfection, hand washing, and removal of wastes (Hanashiro et al., 2005; Torres, 2006). Rise of food originated diseases is related with wrong storage (50%), reheating-storing under inappropriate conditions (45%) and cross contamination (39%) (Bean and Griffin, 1990). It is known that the places where street food is prepared, sold and consumed provide appropriate conditions for contamination (Munde and Kuria, 2005).

Many studies have shown that there is a correlation between food hygiene education and lack of attitude relating with food hygiene (Luby et al., 1993; Howes et al., 1996). Omemu and Aderoju (2008) found out in the study they conducted in Nigeria that 12 percent of street food sellers learned their knowledge about food preparation at the university and that 31 percent of them had yearly medical health certificate. Chukuezi (2010) found out that street food played an important role in meeting nutrition requirements of people living in the cities, but that there are various health risks related with the food and that 23.8 percent of women sellers were preparing food under non-hygienic conditions. Besides, he stated that street sellers had to take health and food safety education.

Rehman et al. (2012) reported that in Malesia, street sellers did not have enough knowledge and that there were malfunctioning during applications, and that street sellers needed to be informed about food safety, hygiene and disease originating from food sources.

Samapundo et al. (2015) reported in their study made in Haiti that 60 percent of foodborne diseases were caused by flies and other animals and that 65 percent arose from lack of drinking water. They also reported that food were served with bare hands, and that sellers did not wash their hands after touching money, and that 70 percent of sellers did not freeze the cooked food. Silva et al. (2014) mentioned that in Brasil 22.6 percent of street food sellers did not disinfect their hands while working and that 80.2 percent touched food and money at the same time. In their study, they emphasized that many of the street food sellers worked under poor hygiene conditions and they stated the socio economical importance of street food sector.

Food and drinks prepared on the streets are usually sold within aluminium packaging, nylon bags, and newspapers. Munde and Kuria (2005) observed that in Kenya, raw materials and equipment used were not washed regularly and that cooked foods were stored at environmental temperature within plastic cases, pitchers, and buckets with no covers. Besides, they also emphasized that 85 percent of food serving places were next to garbage and waste cans, that the food containers were not clean, that the sellers did not pay attention to their personnel hygiene, and that they did not wear apron, cap, or gloves.

## Methodology

The study was conducted at two higher secondary schools and a co-educational Government College of Naraingarh, Distt. Ambala. Sample size was 300 adolescents between the age group of 15-20 years. The present study included the students who were willing to participate and available during data collection. The research data has been collected via a questionnaire which was initially tested as a pilot study on one tenth of the sample. The questionnaire was organised into two main sections as follows:

- i) Part-A: Demographic information such as gender, age, religion, residential area, basic education, family income, pocket money etc.
- ii) Part-B: A semi- structured knowledge questionnaire was used to assess the knowledge and 5 point attitude Likert scale related to street food consumption among students

The self structured knowledge questionnaire consisted of 20 items for assessing the knowledge of students regarding street food consumption. A five point Likert scale, ranging from one (1) "strongly disagree" to five (5) "strongly agree" was used.

ed to determine adolescents' attitude towards street food safety and the reasons for choosing street foods. The respondents were informed about the purpose of the study and verbal consent was taken from them for their participation in the study. They were also assured that the information given by them will be kept confidential and will be used only for research. The adolescents in the survey were especially reminded that truthful information was required for the success of the study.

The participants were asked to indicate their favourite five from the list of 20 street foods mostly consumed in India. And on and so far for food safety knowledge; food purchase decisions; factors influencing food choices; concerns about food safety of street foods; attitudes towards food safety regarding street foods. The factors influencing food choices were designed based on food choice questionnaires developed by other researchers, including convenience, sensory appeal (appearance, taste, smell, texture and sound), price, nutritional value, mood, familiarity, the appearance of street food and safety. Questionnaire were modified and tested for suitability through Cronbach's alpha test with a reliability coefficient of 0.83. The questionnaire took approximately 15 minutes to complete.

### Results And Discussion

The data was collected with respect to gender, age and educational level of the subjects. Out of the total 300 respondents, 70 per cent males and 26.0 per cent females belonged to 13-16 years age group whereas 31.0 per cent males and 20.0 per cent females were in the age group of 17-20 years. The educational level data revealed that 17.0 and 16.0 percent female subjects were studying in classes below matric and above matric respectively while 15.3 and 21.7 percent male subjects were studying in classes below matric and above matric respectively. However, 17.0 percent males and 13.0 percent females were under graduates.

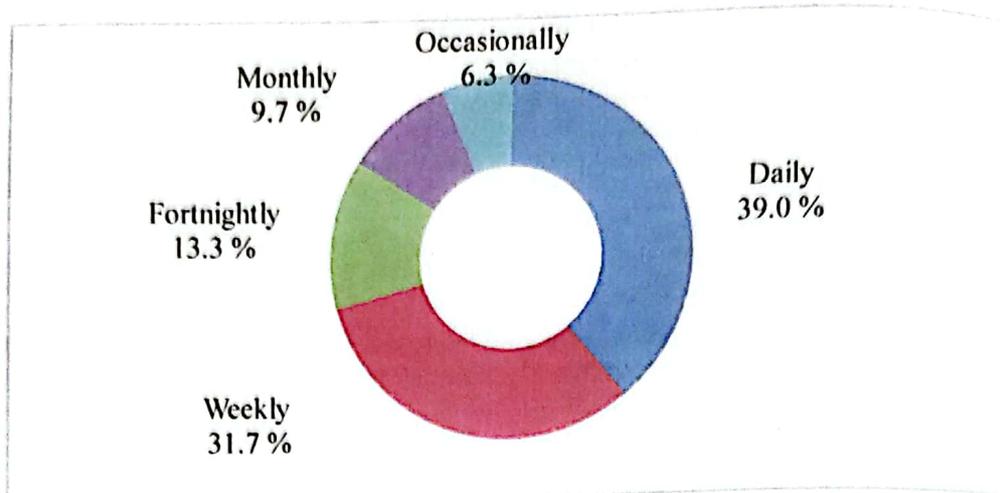
Table 1: Demographic Profile of the Subjects:

Parameter	Category	Male n (%)	Female n (%)
Age	13-16	69 (23.0)	78 (26.0)
	17-20	93 (31.0)	60 (20.0)
Education	Below Matric	46 (15.3)	51 (17.0)
	10 <sup>th</sup> to 12 <sup>th</sup>	65 (21.7)	48 (16.0)
	Under Graduates	51 (17.0)	39 (13.0)

Street food operations normally feature a limited menu, fast service, low prices and counter self-service using disposable service-ware. There are two very important attributes of street food outlets — convenience and a high level of perceived value. These establishments are typically located in high-traffic, high-visibility locations where many potential consumers pass by each day. They provide a close-by, convenient place to dine for many individuals. Street food joints also offer a relatively low price dishes and quick service.

Table 2: Frequency of Street Food Consumption Pattern among Adolescents

Frequency	No. of Respondents (n)	Percentage (%)
Daily	117	39.0
Weekly	95	31.7
Fortnightly	40	13.3
Monthly	29	9.7
Occasionally	19	6.3

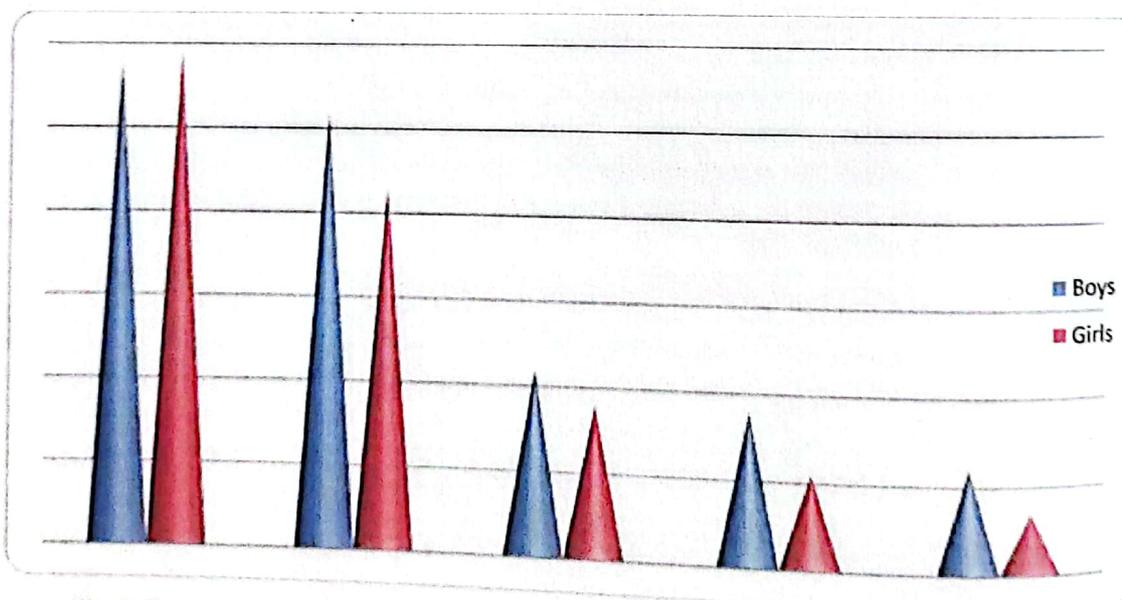


**Fig. 1 Frequency of Street Food Consumption Pattern among Adolescents**

The analysis of results indicates that out of the total 300 respondents, 117 (39.0 percent) respondents were in the habit of consuming street food on a daily basis followed by 95 (31.7 percent) adolescents who visit street food outlets at least once a week as shown in Table 2 and Figure 1. However, 40 subjects (13.3 percent) replied that they consume street food once a fortnight followed by 9.7 percent who pursue this routine on a monthly basis. Only 6.3 percent of adolescents respond that they visit street food joints occasionally.

**Table3: Comparison of Frequency of Street Food Consumption between Boys and Girls**

	Occasionally n (%)	Monthly n (%)	Fortnightly n (%)	Weekly n (%)	Daily n (%)
<b>Boys</b>	12 (4.0)	18 (6.0)	22 (7.3)	52 (17.4)	58 (19.3)
<b>Girls</b>	07 (2.3)	11(3.7)	18 (6.0)	43 (14.3)	59 (19.7)



**Fig. 2 Comparison of Frequency of Street Food Consumption between Boys and Girls**

Table 3 and figure 2 clearly indicates that frequency of street food consumption of both boys and girls is almost similar. Boys consume street food more frequently than the girl respondents per week as reported by 17.4 percent boys and 14.3 percent girls. The female adolescents (2.3 percent) have ranked little lower than their male counterparts (4.0 percent) regarding the frequency of occasionally eating street food.

Table 4: Most frequently Reported Reasons to consume Street Food

Reasons	Number of Respondents (n)	Percentage (%)
Taste	103	34.3
Quick Service	73	24.4
Reasonable Price	50	16.7
Socializing & Peer Pressure	31	10.3
Easy Accessibility	23	7.7
Fun & Entertainment	20	6.6

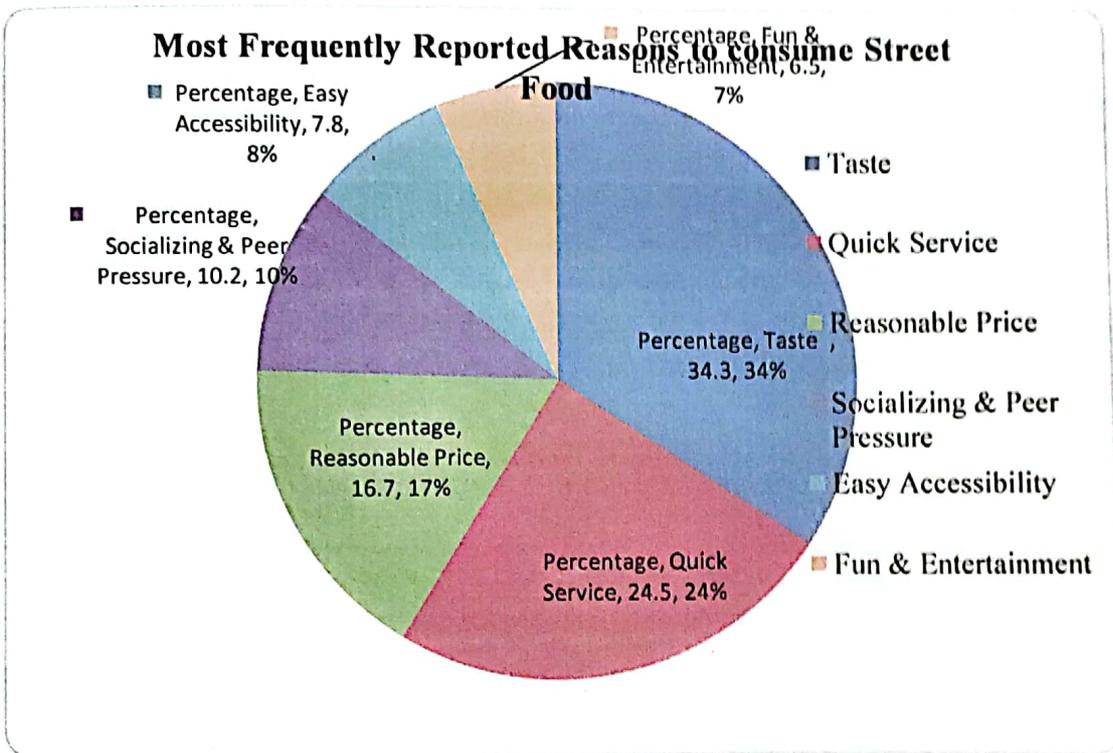


Fig. 3 Most Frequently Reported Reasons to consume Street Food

The most frequently reported reasons for eating at street food were: taste (34.3 percent), quick service (24.5 percent) and reasonable price (16.7 percent). The least frequently reported reasons were: socialising and peer pressure (10.2 percent), easy accessibility (7.8 percent) and fun and entertainment (6.5 percent). The other variables pointed out by the adolescents were: Ease of home delivery and take away products, the availability of the menus and convenient opening hours of street food joints. Although the frequency of consuming street foods is higher for adolescents, they stated they do not like to stick one place as they intend to taste other products and explore different eateries. Getty and Thompson (1994) examined the

roles of service quality and satisfaction in explaining behavioral intention. Their findings indicated that high satisfaction increases customers' intentions to repurchase and recommend the product.

### Conclusion

There is a need of efforts and laws for more widespread and comprehensive assessment of different issues related to food availability and consumption in different settings. Focussed legislation measures should be adopted for following and regulations during their preparation and storage.

### Suggestions

- Raw material for street food preparation should be selected carefully from reliable source or authorized distributor
- Food preparation should be carried out in hygienic conditions
- Efforts should be made to maintain and enhance the nutritional value of prepared foods
- Food handlers should wear a uniform to create positive impact on consumer perception
- Maintenance of personal hygiene should be strictly followed by food handlers
- Food handlers should participate in workshops on skill development conducted by National Association of Vendors of India (NASVI)
- Food handlers should acquire knowledge of food preparation and hygiene practices through *Hunar Se Rozgar* (HSRT) learning programmes

### References

- Abdalla, M.A., Suliman, S.E., & Bakhiet, A.O. (2009). Food safety knowledge and practices of street food vendors in Atbara City (Naher Elneel State Sudan). *African Journal of Biotechnology*, 8: 6967-6971.
- Bean, N.H. & Graffin, P.M. (1990) Foodborne diseases outbreaks in the United States 1973-1987, Pathogen vehicles and trends. *Journals of Food Protection*, 53: 804-817.
- Choudhury, M., Mahanta, Goswami, J.S., & Mazumder, M.D. (2011). Will capacity building training intervention given to street food vendors give us safer food? A cross-sectional study from India. *Food Control*, 22(8): 1239.
- Chukuezi, C.O. (2010) Food Safety and Hygiene Practices of Street Food Vendors in Owerri, Nigeria. *Sociology of Science*, ISSN 1923-0176, 1(1): 50-57.
- Food and Agriculture Organization (FAO). (2011). The place of urban and peri-urban agriculture (UPA) in rural food security programmes. Rome (Italy). Technical Cooperation Dept, ISBN 978-92-5- 106845-8. Available <http://www.fao.org/docrep/014/i2177e/i2177e00.pdf>(accessed Dec 30, 2015)
- Getty, J. M. & Thompson, K. N. (1994). The relationship between quality, satisfaction, and recommending behavior in lodging decision. *Journal of Hospitality & Leisure Marketing*, 2(3), 3-22.
- Hanashiro, A., Morita, M., Matte, G.R., Matte, M.H., & Torres, E.A.F.S. (2005) Microbiological Quality of Street Foods From a Restricted Area of Sao Paulo City, Brazil. *Food Control*, 16(5): 439-444.
- Kealesitse, B. & Kabama, I.O. (2012) Exploring the influence of quality and safety of consumers' food purchase decision in Botswana. *International Journal of Business Administration*, 3: 90-97.
- Luby, S.P., Jones, J., & Horan, J. (1993) A large salmonellosis outbreak associated with a frequently patronized restaurant. *Epidemiology and Infection*, 110: 31-39.

- Lucca, A & Torres, E.A.F.S. (2006). Street-Food: the hygiene condition of hot-dogs sold in Sao Paulo, Brazil. *Food Control*, 17(4): 312-316.
- Muinde, O.K., Kuria, E. (2005). Hygiene and sanitary practices of vendors of street foods in African Journal of Food Agriculture and Nutritional Development (AJFAND), 5(1):1-14
- Omemu, A.M. & Aderoju, S.T. (2008). Food safety knowledge and practices of street food vendors in the city of Abeokuta, Nigeria. *Food Control*, 19(4): 396-402.
- Rane, S. (2011) Street Vended Food in Developing World, Hazard Analyses. *Indian J Microbiol*, 51(1): 100-106.
- Rehman, M.M., Arif, M.T., Bakar, K., & Tambi, Z. (2012). Food safety knowledge, attitude and hygiene practices among the street food vendors in Northern Kuching city, Sarawak. *Borneo Science*, 31: 95-103.
- Rheinlander, T., Olsen, M., Bakang, J.A., Takyi, F., Konradsen, H., & Samuelsen, L. (2008). Keeping up appearances, perceptions of street food safety in urban Kumasi, Ghana. *Journal of Urban Health*, 85: 952-964.
- Samapundo, S., Climat, R., Xhaferi, R., & Devlieghere, F. (2015). Food safety knowledge, attitudes and practices of street food vendors and consumers in Port-au-Prince, Haiti. *Food Control*, 50: 457-466.
- Silva, S.A., Cardoso, R.C.V., Goes, J.A.W., Santos, J.N., Ramos, F.P., Jesus, R.B., Vale, R.S., & Silva, P.S.T. (2014). Street food on the coast of Salvador, Bahia, Brazil, A study from the socioeconomic and food safety perspectives. *Food Control*, 40: 78-84.
- World Health Organization (WHO). (2010). Basic steps to improve safety of street-vended food. *International Food Safety Authorities Network (INFOSAN)*, INFOSAN Information Note No. 3/2010-Safety of street-vended food. Available at [http://www.who.int/foodsafety/fs\\_management/No\\_03\\_StreetFood\\_Jun10\\_en.pdf](http://www.who.int/foodsafety/fs_management/No_03_StreetFood_Jun10_en.pdf) (accessed Dec 30, 2015).