

# STREET FOODS AND FAST FOODS: HOW MUCH DO SOUTH AFRICANS OF DIFFERENT ETHNIC GROUPS CONSUME?

**Objective:** To assess consumption of street food (sold by vendors) and fast food (from fast food outlets) by different ethnic groups in South Africa.

**Design:** A national cross-sectional survey representative of adults ( $\geq 16$  years,  $N=3827$ ) from different ethnic groups, provinces, geographic localities, and socio-economic strata was undertaken.

**Methods:** Trained interviewers visited participants at their homes during October 2009. Specific questions relating to street food and fast food consumption were asked.

**Results:** At the national level, 11.3% of the population bought food from street vendors and 6.8% from fast food outlets frequently ( $\geq 2$  times a week). Black Africans were the most frequent consumers of street food with nearly one out of five (19%) consuming such foods at least twice a week. By contrast, Indians (1.9%) and Whites (2.9%) had the lowest street food consumption. Indians (14%) and Whites (12.5%) had the highest fast food consumption with the lowest percentages found in the Black (5.4%) and Euro-Afr-Malay groups. The highest consumption of street food took place in urban informal (19.4%) and urban formal areas (16.7%). The lowest percentage of respondents buying street food was recorded in rural areas (4.7%).

**Conclusions:** Both street foods and fast foods are commonly consumed by South Africans with Black Africans being the most frequent consumers of street foods and Whites of fast foods. This first national survey on street food and fast food consumption identifies this business sector as a potential area for health and nutrition education intervention. (*Ethn Dis.* 2011;21(4):462–466)

**Key Words:** Street Foods, Fast Foods, South Africa, Black Africans, Dietary Intake

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From Centre for the Study of Social and Environmental Determinants of Nutrition, Population Health, Health Systems and Innovation, Human Sciences Research, Cape Town, South Africa

Address correspondence to N. P. Steyn, PhD; Centre for the Study of Social and Environmental Determinants of Nutrition; Human Sciences Research Council

Nelia P. Steyn, MPH, PhD; Demetre Labadarios, MB ChB, PhD

## INTRODUCTION

Due to its low cost and convenience, street food is consumed each day by an estimated 2.5 billion people worldwide.<sup>1</sup> Furthermore, it is projected that street foods sold by vendors account for up to 40% of the daily diet of urban consumers in developing countries.<sup>2</sup> Street food, by definition<sup>3</sup> is provided by a stand, cart or kiosk on the street or pavement. Street food is usually sold in busy public areas such as pavements, school premises, beaches, rail and bus stations.<sup>2</sup>

Fast food restaurants on the other hand are more formal and are generally located in a building or structure off the street. They may or may not provide seating and are also referred to as fast food outlets or quick service restaurants.<sup>4</sup>

Street foods are most commonly sold in low- and middle-income countries and the types of food sold vary according to socio-economic status of buyers and the food culture of the local people. Four categories of street food items are typically sold: whole meals, snacks, beverages, and fruit. One or two specific items may also be sold from a cart (eg, hotdog vendors).<sup>5</sup> In Mali, it is estimated that 19–27% of the average family budget is spent on street food; this is an essential part of the diet of middle-income and poor families.<sup>6</sup> In Latin America, street food purchases account for up to 30% of urban household spending.<sup>1</sup> In Bangkok, 20,000 street food vendors provide city residents with an estimated 40% of their

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(HSRC); Population Health, Health Systems and Innovation; HSRC, 12th Floor, Pleinpark Building; Cape Town, South Africa; NPSteyn@hsrc.ac.za

overall energy intake. As well as being cheap, street foods can also be nutritious.<sup>1</sup> A study in Calcutta, India, found that an average street meal contained about 30 grams of protein, 15 grams of fat and 180 grams of carbohydrates.<sup>1</sup> One of the advantages of the street food culture is that it stimulates the use and demand of traditional foods and agricultural produce which may otherwise be overtaken by Westernization of diet. Secondly, it may add value to tourism as has been the case in Singapore's popular markets.<sup>2</sup>

Fast foods on the other hand are generally associated with high income countries, with the United States being the leader.<sup>7</sup> Eating away from home has become increasingly common and comprises about 50% of food expenditure in the United States.<sup>8</sup> In a national study, 37% of adults and 42% of children reported eating fast food on one or both days of the survey.<sup>9</sup> Fast food consumption has been associated with many adverse nutritional consequences, including obesity and a higher dietary intake of energy, fat, saturated fat and lower intakes of vitamins A, C, and fruit and vegetables.<sup>9–12</sup>

In South Africa there is a paucity of national data on both street food and fast food consumption. According to Mathee<sup>13</sup>, food vending has increased in South Africa in recent years and may employ up to 25% of the workforce. Because street food is generally inexpensive, readily available, meets the need of immediate hunger, and provides vendors with a source of income it needs to be recognized that street foods contribute to individual and to household food security.

Fast foods, by virtue of their more formal setting and higher cost may not be accessible (affordable) to those in low-income strata. Two studies on fast

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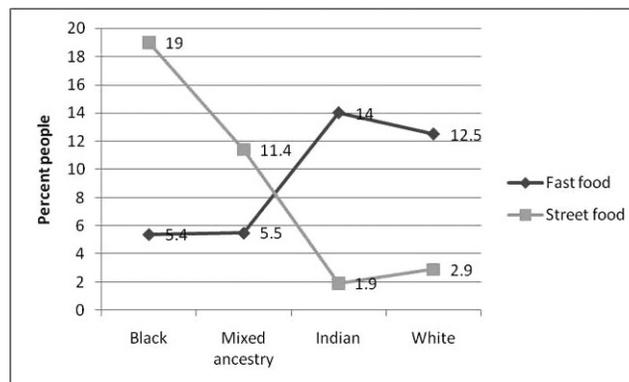
food consumption have recently been reported in young adults in Johannesburg<sup>14</sup> and adolescents, aged 17, in Soweto.<sup>15</sup> Almost half (42%) of the employed young adults spent more than R200 (\$28) on fast food per month. Twenty-one percent of all participants had fast food at least once a week while 27.6% consumed it two to three times a week.<sup>14</sup> In adolescents, nearly 40% visited a fast food outlet between one and three times a week, with 35% visiting between four and ten times a week.<sup>15</sup>

## METHODS

### Sample and Participants

The South African Social Attitudes Survey (SASAS) has been conducted annually by the Human Sciences Research Council (HSRC) in South Africa since 2003. The aim of the study is to conduct a longitudinal survey on the public's attitudes, beliefs and behavior patterns on social issues.<sup>16</sup>

The sample was stratified to include all 9 provinces and geographic areas (formal urban, informal urban [squatter areas], formal rural, tribal) and population groups (Black, White, Indian, mixed ethnicity [Euro-Afr-Malay]) according to census categories.<sup>17</sup> The tribal areas refer to predominantly rural areas where traditionally chiefs still make decisions on matters under their jurisdiction. The Living Standards Measurement (LSM) system was used to classify people according to their living standards, using criteria such as the degree of urbanization, ownership of cars and major appliances.<sup>18</sup>



**Fig 1. Percent population who purchased street food and fast food two or more times a week, by ethnicity**

### Data Collection

In 2009, the SASAS Nutrition module comprised 3827 sampling units (projected sample) which were randomly selected in a client survey on food diversity and population consumption of ready to eat purchased foods (fast food and street food). The nutrition module included a face validated questionnaire which was translated into 11 official languages and back-translated to ensure retention of meaning. Trained interviewers completed the questionnaires while interviewing the randomly selected participants aged  $\geq 16$  years. Quality of data was assured by telephonic and physical back checks on 10% of questionnaire interviews.

### Statistical Analyses

Simple descriptive statistics were obtained by means of percentages of the final realized sample ( $N= 3287$ ). When examining frequency of consumption, a consumption of two or more times a week was arbitrarily selected to represent high frequency use, and about 2–3 times a month as moderate use.

### Ethical Approval

The survey received ethics approval from the HSRC's Ethics Committee. The participants signed informed consent and were assured that all information was treated confidentially. Parti-

cipants who were aged 16 or 17 years old received signed consent from a parent or guardian while those aged  $\geq 18$  signed their own consent.

## RESULTS

Black Africans were the most frequent consumers of street food with nearly one out of five (19%) consuming such foods frequently ( $\geq 2$  a week) (Figure 1). By contrast, Indians (1.9%) and Whites (2.9%) had the lowest street food consumption. Indians (14%) and Whites (12.5%) had the highest fast food consumption with the lowest percentages found in the Black (5.4%) and mixed ethnic (colored) groups (5.5%).

The youngest consumers, aged 16–24 years, purchased most frequently from vendors (21.4%) while the group aged  $\geq 50$  the least (9.8%) (Figure 2). The same pattern was followed with fast food intake, although the percentages in each category were much lower.

Purchasing from vendors frequently ( $\geq 2$  week) was most prevalent in the medium LSM group (20.5%), while moderate use (2–3  $\times$  a month) was high in both low (27.8%) and medium (33.5%) income categories (Figure 3). Frequent fast food purchases occurred most often in the high LSM category (13.4%) and least often in the low LSM

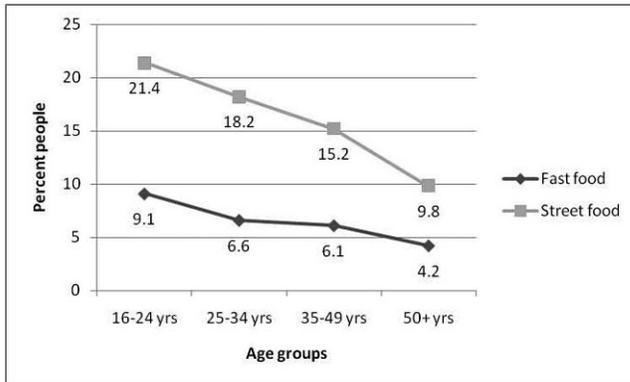


Fig 2. Percent population who purchased street food and fast food two or more times a week, by age group

category (0.9%). Moderate fast food use (2–3× a month) was highest in the high LSM (50.4%).

By far the highest consumption (≥2 times a week) of street food took place in urban informal (19.4%), urban formal areas (16.7%) and tribal areas (16.3%) settings (Figure 4). The purchase of fast foods ≥2 times a week was highest in urban formal areas (9.7%) and lowest in rural (.7%), tribal (2.6%) and in urban informal areas (2.8%).

The most frequently purchased street food items were fruit (58.6%), followed by cold drinks (29.3%), cooked foods (15.2%), sweets and

biscuits (18.2%), savory snacks (25.1%) and other foods (22.5%).

## DISCUSSION

The most common food items purchased on the street in South Africa were fruit, cold drinks, savoury snacks, biscuits and cooked food such as pap and fried meat. The first four items selected were most likely due to convenience for both the seller and buyer. The purchasing of fruit is a positive practice nutritionally, however, the other four items are high in sugar, fat and/or salt and cooked foods are

frequently fried (eg, fat cakes [dumplings] and fried meat). A recent study on young adults in Johannesburg<sup>14</sup> reported that the types of fast foods commonly consumed were also fried and energy-dense, namely, burgers, pizza, fried chicken and soft drinks. This study also reported that 42% of the employed participants, although earning less than R5,000 (\$714) per month, spent more than R200 (\$28.6) per month on fast foods, and 31% reported having fast foods 2 to 3 times a month.

While two studies have evaluated fast food consumption in South Africa by young adults and adolescents,<sup>14,15</sup> little has been documented on street foods and their contribution to food security in South Africa. Indeed, there have been a number of studies in other African countries that determined street food intake.<sup>6,7,10,11,19–23</sup> In Burkina Faso, for instance, the typical food vendor is a married and illiterate woman of 32 years, while the consumer is male, aged 27 years, and working in a profit-making business.<sup>20</sup> Vendors mainly sell cereals (48.5%), meat (33.9%), milk (9.6%) and fruits (4.4%).

In Nairobi, it was found that more items were sold by vendors in working areas than in slums and that purchasing power influenced the type of foods sold although they were commonly from the cereal-based group.<sup>21</sup> A study of schoolchildren in Tunisia found that 75% of the pupils used their pocket money to buy from street vendors.<sup>22</sup> Although 27% spent money on sweets/candy, 24% bought sandwiches, 21% bought sunflower seeds and nuts and 20% cheese, thus indicating that healthier items were also popular. Ekanem<sup>23</sup> has reported on some of the main prepared/cooked street foods sold in Africa, (ie, roasted meat, fried snails, fried /roasted yams or plantain, cooked/roasted maize, steamed bean cakes, peeled oranges and other fruits, groundnuts, sugarcane, boiled eggs, soya milk, Fulani cheese, and fermented cereal drinks.

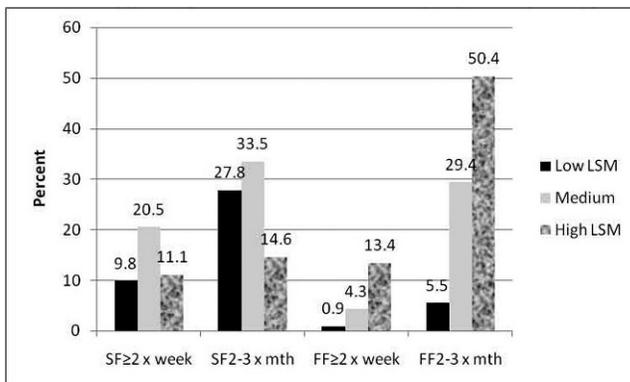


Fig 3. Percent population in different living standard means (LSM) categories buying from from street vendors (SF) or fast food (FF) outlets frequently (2 or more times a week) and moderately (2–3 times a month)

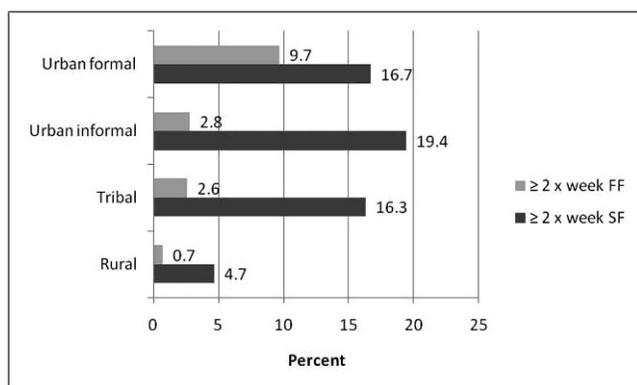


Fig 4. Frequency of purchasing street food (SF) and fast foods (FF) in different geographic areas

The idea of healthy street foods is not a new one. In France a chocolate-flavored spread rich in micronutrients was developed for homeless men.<sup>24</sup> The idea of fortified foods which are filling yet high in micronutrients and affordable may contribute to nutritional well-being of poor people who buy off the street. In poor women in rural Malawi, daily intake of snacks (street foods) contributed significantly to energy, fat, vitamin C and vitamin A intakes.<sup>25</sup> In terms of nutrient intake, street foods have been shown to contribute nutritionally in terms of energy intake, protein, calcium, vitamin A and protein intake of the diet of Nigerian adolescents.<sup>26</sup> A study in Benin reported that buying of street food is a family strategy to reduce the preparation of breakfast at home with more than 90% of children

given pocket money by their parents and less than 20% of children eating breakfast at home.<sup>27</sup>

The issue of street foods is one that has not been sufficiently explored in the South African context as a source of nutrition and also as a possible opportunity for job creation depending on whether hygienic aspects can be assured. According to von Holy and Makhoane, street vending in South Africa is the largest employer in the informal sector and a major contributor to the economy.<sup>28</sup> A survey in Accra, Ghana, found that women were more likely to be employed as street vendors than men, contrary to the findings of the present study.<sup>29</sup> Furthermore, street vendors had the largest percentage of food-secure homes. Hence, besides being a source of income they also contributed nutritionally to the diet.<sup>29</sup>

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## CONCLUSIONS

A large sector of the population in South Africa buys food from street vendors and to a lesser degree from fast food outlets. The sale of street foods thus contributes to food security of many who buy or sell such items, particularly those in the low socio-economic group.

## REFERENCES

1. Food and Agricultural Organization of the United Nations. Agriculture and Consumer Protection Department. School kids and street food. <http://www.fao.org/AG/magazine/0702sp1.htm>. Accessed August 24, 2010.
2. Consumers International. Food ready to eat. <http://www.streetfood.org>. Accessed July 8, 2011.
3. Street food. [http://en.wikipedia.org/wiki/Street\\_food](http://en.wikipedia.org/wiki/Street_food). Accessed August 24, 2010.
4. Fast food. [http://en.wikipedia.org/wiki/Fast\\_food](http://en.wikipedia.org/wiki/Fast_food). Accessed August 24, 2010.
5. Freese E, Romero-Abal ME, Solomons NW. The street food culture of Guatemala City: a case study from a down-town, urban park. *Arch Latinoam Nutr*. 1998;48(2):95–103.
6. Bendech Ag, Chauliac M, Gerbouin-Rerolle P, Malvy D. Home and outside food complementarity in Bamako (Mali): nutritional and economic aspects. What is the rationality behind consumers' choices? *Rev Epidemiol Sante Publique*. 1999;47(2):151–164.
7. French SA, Harnack L, Jeffery RW. Fast food restaurant use among women in the Pound of Prevention study: dietary, behavioural and demographic correlates. *Int J Obes*. 2000; 24:1353–1359.
8. Harnack LJ, French SA. Effect of point-of-purchase calorie labeling on restaurant and cafeteria food choices: A review of the literature. *Int J Behav Nutr Phys Activity*. 2008;5:51.
9. Paeratakul S, Fedinand DP, Champagne CM, Bray GA. Fast-food consumption among US adults and children: dietary and nutrient intake profile. *J Am Diet Assoc*. 2003;103(10):1332–1338.
10. Bowman SA, Vinyard BT. Fast food consumption of US adults: Impact on energy and nutrient intakes and overweight status. *J Am Coll Nutr*. 2004;23(2):163–168.
11. Bowman SA, Gortmaker SL, Ebbeling CB, Pereira MA, Ludwig DS. Effects of fast-food consumption on energy intake and diet quality among children in a national household survey. *Pediatrics*. 2004;113(1):112–118.
12. Jeffery RW, French SA. Epidemic obesity in the United States: are fast foods and television viewing contributing? *Am J Public Health*. 1998;88(2):277–280.
13. Mathee A, von Schirnding YE, Byrne J, et al. The greater Johannesburg Healthy Foods/Markets Programme. *Urban Health News*, 1996;(28):39–47.
14. Van Zyl M, Steyn NP, Marais M. Characteristics and factors influencing fast food intake of young adult consumers in Johannesburg South Africa. *S Afr J Clin Nutr*. 2010: in press.

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15. Feeley A, Pettifor JM, Norris SA. Fast-food consumption among 17-year-olds in the birth to twenty cohort. *S Afr J Clin Nutr.* 2009; 22(3):118–123.
16. Anon. Technical details of the survey. In: Pillay U, Roberts B, Rule S, eds. *South African Social Attitudes (SASAS)*. Cape Town: HSRC Press; 2006.
17. Pillay U. Introduction. In: Pillay U, Roberts B, Rule S, eds. *South African Social Attitudes (SASAS)*. Cape Town: HSRC Press; 2006.
18. South African Advertising Research Foundation. Living Standards Measure. <http://www.saarf.co.za/LSM/lms.htm>. Accessed August 18, 2010.
19. Drabo KM, Toe LP, Savadogo LG, et al. Main characteristics of the street food sector in Bobo-Dioulasso, Burkina Faso. *Bull Soc Pathol Exot.* 2009;102(1):36–40.
20. Rheinlander T, Olsen M, Bakang JA, Takyi H, Konradsen F, Samuelsen H. Keeping up appearances: perceptions of street food safety of urban Kumasi, Ghana. *J Urban Health.* 2008;85(6):952–964.
21. Mwangi AM, den Hartog AP, Mwadime RK, van Staveren WA, Foeken DW. Do street food vendors sell a sufficient variety of foods for a healthful diet? The case of Nairobi. *Food Bull Nutr.* 2002;23(1):48–56.
22. Neffati L, Ridha H, Kolsteren P, Hildebrand K. Street food among children: a study in north Tunisia. *Sante.* 2004;14(1):43–48.
23. Ekanem EO. The street food trade in Africa: safety and socio-environmental issues. *Food Control.* 1998;9(4):211–215.
24. Darmon N. A fortified street food to prevent nutritional deficiencies in homeless men in France. *J Am Coll Nutr.* 2009;28(2):196–202.
25. Hallund J, Hatloy A, Benesi I, Thilsted SH. Snacks are important for fat and vitamin intakes among rural African women: a cross-sectional study from Malawi. *Eur J Clin Nutr.* 2008;62:866–871.
26. Oguntona CR, Kanye O. Contribution of street foods to nutrient intakes by Nigerian adolescents. *Nutr Health.* 1995;10(2):165–171.
27. Chauliac M, Ategbo E, Amoussa W, Zohoun I. Food habits outside the home by school children in Cotonou (Benin). *Sante.* 1998;8(2):101–108.
28. Von Holy A, Makhoane FM. Improving street food vending in South Africa: achievements and lessons learned. *Int J Food Microbiol.* 2006;111:89–92.
29. Levin CE, Ruel M, Morris SS. Working women in an urban setting: traders, vendors and food security in Accra. *World Dev.* 1999;27(11):1977–1991.

### AUTHOR CONTRIBUTIONS

*Study concept and design:* Steyn, Labadarios

*Acquisition of data:* Steyn, Labadarios

*Data analysis and interpretation:* Steyn, Labadarios

*Manuscript draft:* Steyn, Labadarios

*Statistical expertise:* Steyn, Labadarios

*Acquisition of funding:* Steyn, Labadarios

*Administrative:* Steyn, Labadarios

*Supervision:* Steyn, Labadarios