

Short Communication

Meat production and consumption in the Wa Municipality of Ghana

Mahaboubil-Haq, M. and *Adzitey, F.

Department of Animal Science, Faculty of Agriculture, University for Development studies, P.O.
Box TL 1882, Tamale, Ghana

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Abstract

This study examines meat production and its consumption in the Wa Municipality of Ghana. A total of 80 consumers and 30 butchers were randomly sampled in four communities (Nayiri, Jujeidayiri, Kabanye and Doori) and an abattoir, respectively in the Municipality. Semi-structured questionnaires were administered to both consumers and butchers. Majority of the consumers surveyed were females (57.5%) and literate (66.3%). Also majority of the consumers were Muslims (65%), while 35% were Christians; thus none was a traditionalist. At the abattoir all the butchers were males and majority were Muslims (79.3%), 17.2% were Christians and 3.4% were traditionalists. The results showed that beef was the most preferred type of meat, followed by chicken, chevon (goat meat), mutton, pork and guinea fowl. Majority of the consumers (78.8%) buy and consume meat daily. Most consumers (60%) in the Municipality obtained their meat from the market referred to as the butcher. The factors which mostly influence the consumption of meat are taste, price, availability, tradition and nutrition. Taste was the most influencing factor for the choice of meat in Wa Municipality. Though meat produce in Wa Municipality is usually inspected by responsible authority from the Wa Municipal Assembly, most of the consumers rated the local meat as unhygienic.

Keywords

Butchers
Consumers
Consumption
Meat
Production

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Introduction

Meat is essential in our diets and the role of meat has been prominently discussed when talking about food trends (Smith *et al.*, 2000; Adzitey, 2012). Meat is also considered by most nutritionists as an essential part of a well balance diet due to its complete proteins (Adams, 1995). Proteins together with carbohydrates, lipids, vitamins, minerals and water from meat and other sources are important nutrients which when combined in the right proportion promote healthy life (Adzitey, 2012). Meat has been a staple food and under high demand since prehistoric era (Eaton and Konney, 1985). The choice of animals for consumption as meat varies with socio-economic and religious background of the consumer (Abuska, 2006). In Ghana and other tropical countries meat is produce under unhygienic conditions (Abuska, 2006; Sulley, 2006; Abukari, 2007; Osman, 2008; Sadiq, 2008; Adzitey *et al.*, 2010; Adzitey *et al.*, 2011a; Adzitey *et al.*, 2011b; Adzitey *et al.*, 2014). The unhygienic practices include dressing carcasses on the floor of the slaughter houses and slabs, using unclean water to wash carcasses and inadequate pre and post slaughter inspection.

The demand for meat as a food commodity for trade had led to the act of slaughtering and butchering

of animals, which is one of the oldest trades of mankind (Chriqui, 2007). In Ghana, it was reported that animal protein per capita per day for the period of 1990 to 1998 was 13.4 g rising to 13.7 g (FAO, 1992). In addition, the amount and type of meat varies with tradition, price, income levels, educational status and availability of meat (FAO, 1999). Meat intake in the traditional Ghanaian usually compensates for the short coming in the staple diet that consists of root and cereal crops (FAO, 1999). Meat production and consumption is influenced by consumer's preference for different types of meat. This situation is unknown in Wa Municipality. This study aims at determining consumers preferences for different types of meat, the factors which influence the choice of a particular type of meat and the most vended meat type in Wa Municipality.

Materials and Methods*Study area*

The study was conducted in the Wa Municipality of Ghana. The Wa Municipality is one of the eleven Districts that make up the Upper West Region (UWR) of Ghana. The Upper West Region is located in the North-West part of Ghana and shares borders with the La Cote D'Ivoire to the North-West, Burkina Faso to

*Corresponding author.
Email: adzitey@yahoo.co.uk
Tel: +23324995310

the North, Upper East to the East and the Northern Region to the South. Wa Municipality lies within latitude 1° 40' N to 2° 45' N and longitude 9° 32' to 10° 20' W, and has a land mass area of approximately 234.74 square kilometers (Ministry of Food and Agriculture, 2015). The vegetation is of the Guinea Savannah grassland type, made up of short trees with little or no canopy and shrubs of varying heights.

Data collection

Semi-structured questionnaires were used to collect information from butchers and consumers. The Municipality was divided into four zones and one community randomly selected from each zone. Butchers and consumers were sampled, with a sample size of 30 and 80, respectively. Respondents were randomly selected in each zone.

Data analysis

Data was analyzed using Statistical Package for Social Scientist (SPSS) 16.0 and results presented in a form of graphs and tables.

Results and Discussion

Age, gender, educational and religious status of consumers

The age of respondents (consumers) is presented in Table 1. Most people interviewed were youth and middle age who were involved in trading to look for money for the up keep of the home. This age group is also actively involved in food preparation and meat consumption. FAO (1994) reported that meat is particularly important in the diet of young people. Most of the respondents were females (57.5%) while males were 42.5%. Females' dominance could be attributed to the fact that, most of the respondents were interviewed at various meat selling points in the market and more often than not it is females who buy meat for the home.

The result shows that majority (66.3%) of the consumers had tertiary education. Those who had primary, junior high and senior high school education were 6.3%, 2.5% and 15%, respectively and 10% had no formal education. This high level of education suggests that most of the respondents will have better understanding and opinion about the hygiene of locally produced meats.

Meat consumers in the Wa Municipality belong to the two main religions; these are Islam (65%) and Christianity (35%). This has an influence on where meat is bought and the type of meat highly purchased in the Municipality. Muslims will purchase beef, chevon and mutton but not pork; while Christians

Table 1. Age distribution of consumers

Age range	Number of respondents	Percentage
Less than 21	12	15.0
21-30	49	61.3
31-40	13	16.3
41-50	3	3.8
Over 50	3	3.8
Total	80	100.0

will purchase all meat types. Furthermore, Muslims believe that meats sold at supermarkets are haram (not fit for consumption) and will not like to buy imported meats sold at the supermarkets.

Types of meat consumed, reasons and opinions of consumers about meat hygiene

Majority of the respondents usually consumed beef (50.0%), followed by chicken (31.3%), chevon (7.5%), pork (6.3%), mutton (3.8%) and guinea fowl (1.3%). Alhassan and Barnes (1994) and Adzitey (2013) listed the sources of meat consumed in Ghana to be from cattle, poultry, goat, sheep, pig, and game animals. This study also agrees with that of Annor-Frimpong and Danquah (1994) who observed that beef is the most available meat type in urban communities.

Beef was the most consumed meat type in the Municipality due to its availability and lower price whilst guinea fowl meat was the least consumed type of meat due to its higher price. Most consumers of chicken also associated their choice to price. Majority (78.8%) buy and consume meat daily, this is followed by 15.0% consuming meat weekly, 3.8% monthly and 2.5% buying and consuming meat in every two weeks. Consumers demand for fresh meat, as most people hold the notion that the taste of frozen meat deteriorates with time. Meat bought from the butcher is considered fresh as it is believed that butchers slaughter animals on daily basis. Becker *et al.* (1988) reported that consumers tend to believe that meat bought from the butcher is better than meat bought from the supermarket.

From the survey, it was noticed that taste, price, religion, income level and proximity to market were reasons for the choice of meat (Figure 1). This result agrees with a study by Braham *et al.* (1985) who reported that, the reasons for meat having a special place in our diet include taste, price, tradition, availability and nutrition. Putman and Gerrior (1997) also reported that price, income, taste and preferences

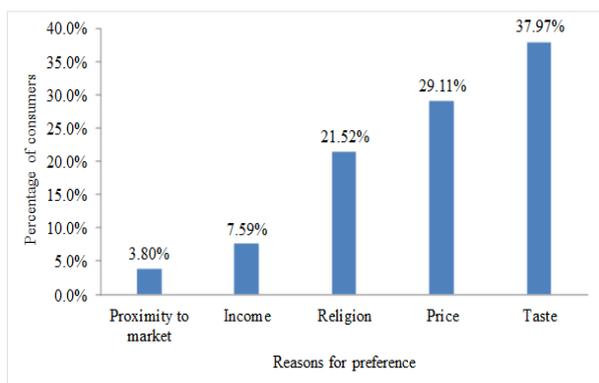


Figure 1. Reasons for consumers choice of meat

Table 2. Age distribution of butchers

Age range	Number of respondents	Percentage
Less than 21	8	27.6
21-30	5	17.2
31-40	10	34.5
41-50	6	20.7
Total	29	100.0

are the key variables affecting the level of meat consumption. In this study, taste was the highest reason for a choice of meat. Even though, consumers ranked taste to be highest reason for choice of meat they consume more beef than other meat species because of price and availability.

Consumers in the Wa Municipality obtained their meat from different sources. Most (60.0%) of them obtained their meat from the market, that is from the butcher, 33.8% of them obtain their meat (imported meat) from the supermarket (an essential consideration for the hygiene of the meat) and less than 10% of them rear and slaughter the animals themselves for the meat. It is possible that most of the consumers surveyed were not engaged in farming as a business, that is rearing of animals but they are engaged in trading and other work. It is also possible that some of these consumers have lots of animals but do not slaughter them for food.

The study revealed that 45% of the consumers in the Municipal consider the local meat as hygienic, majority (55%) however indicated that local meat is unhygienic. It has been reported that in Ghana and other tropical countries meat is produce under unhygienic conditions (Abuska, 2006; Sulley, 2006; Sadiq, 2008; Osman, 2008; Adzitey *et al.*, 2010; Adzitey *et al.*, 2011a; Adzitey *et al.*, 2011b; Adzitey *et al.*, 2014). Even though most of the respondents are of the view that meat bought from the butcher is unhygienic, they still buy from them; because they consider meat sold in the supermarket not to be fresh and less tasty though hygienic.

Age, gender, educational and religious status of butchers

The study revealed that in Wa, majority of the butchers (34.5%) are between the ages of 31-40, while 27.6% are less than 21 (Table 2). Butchering in Wa is dominated by youth and middle aged men which agrees with the reports by Abuska (2006), Sadiq (2008) and Abukari (2007), who reported that

butchering is dominated by youth and middle age men in Tolon-Kumbungu and Central Gonja District of Ghana. These two groups do not only show the anxiousness for earning wealth but also the energy required for the activities involved in the business.

In Wa all butchers are males. This agrees with a study by Adzitey *et al.* (2011a) who reported that butchering and sale of meat is a male job in the Bawku Municipality. From the results it was observe that 24.1% of butchers have no formal education and only 10.3% had tertiary education. 27.6%, 27.6%, and 10.3%, respectively had education to the primary, JHS and SHS. The low level of education and illiteracy rate will have a negative influence on the standard of handling meat in the Municipal. Abuska (2006), Sulley (2006), Adzitey *et al.* (2011a) and Sadiq (2008) reported that most butchers in the three northern regions of Ghana are not educated.

The results revealed that majority of the butchers are Muslims (79.3%) while 17.2% were Christians. Only 3.4% were Traditionalists. This agrees with reports by Adzitey *et al.* (2011a) and Abuska (2006) that in Bawku Municipality and Garu-Tempene District respectively, who reported that butchering and sale of meat is done mostly by people of the Islamic faith.

Type, season, and butchers opinion on the sale of meat

The types of meat sold in the Wa Municipality were beef (58.6%), mutton (17.2%), chevon (13.8%) and pork (10.3%). Beef was the most sold type of meat in Wa Municipality and this agrees with a study by Annor-Frimpong and Danquah (1994) who observed that beef is the most available meat type in urban communities. Pork was the least sold type of meat and this could be as a result of Muslim dominance in the Municipality.

From the survey, most of the butchers interviewed indicated that it is during festive seasons (65.5%) that there is high demand for meat followed by market

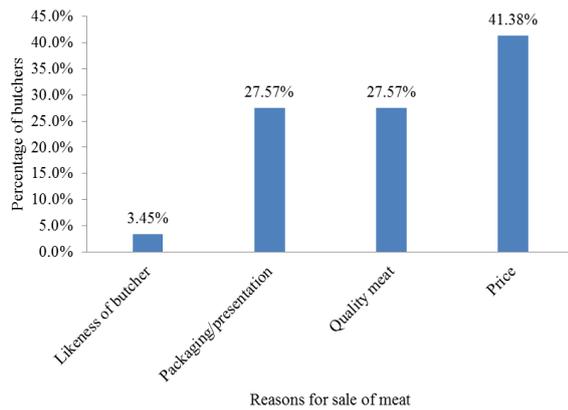


Figure 2. Butchers' opinion on the sale of meat

days (34.5%). Thus Muslim and Christian festivities increase the overall demand for meat. On market days also, there is always a high demand for meat due to the influx of people from nearby villages and buyers from the Municipal.

From the study, most butchers interviewed indicated price as the main reason for sale of meat followed by quality meat and packaging/presentation and likeness of the butcher as showed in Figure 2. Price was the highest reason for the sale of meat by butchers, indicating that consumers prefer cheap meat. Packaging and presentation of meat which includes the display of meat on the stand or butchers table was the second highest reason for the sale of meat, which most of the butchers indicated that it serve as a source of attraction to consumers.

Conclusion

Beef was the most preferred type of meat in the Wa Municipality, followed by chicken and chevon (goat meat), whilst pork, mutton and guinea fowl meat were the least preferred meat types. Factors that affect the choice of meat are taste, price, tradition, availability and nutrition, but taste was the most influencing factor. Majority (55%) of meat consumers in Wa Municipal rated locally produce meat as unhygienic and beef was the most sold type of meat in the Municipality.

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