

## AN ASSESSMENT OF POULTRY PRODUCTS PREFERENCE AMONG THE ELITES OF ASABA, DELTA STATE.

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### Abstract

The study carried out an assessment of poultry products preference among the elites of Asaba, the sample comprised staff of Secondary schools, Federal and States Ministries and Federal College of Education (Tech) Asaba. A well structured questionnaire was designed to elicit the required information from the respondents based on the objectives of the study. Information obtained was analyzed using simple percentages and mean. The results revealed that majority of the elites consume chicken, mainly broilers and poultry eggs on regular basis. Most of the people buy live chicken from the open market to avoid eating of dead or diseased but dressed chicken. Though they like eating all parts of the chicken, they usually eat parts during meals. They prefer eating poultry meat fried to when it is either cooked or smoked and in their native soup and pepper soup. The study has revealed that the elites in Asaba prefer eggs of the domestic fowl to the eggs of other species of poultry. The eggs are eaten regularly in boiled form at home.

### Introduction

Poultry refers to birds reared for meat, eggs and other purposes. These include chicken, domestic turkey, goose, guinea fowl, pigeon, ostriches and ducks. Those that are of commercial or economic importance in Nigeria, however, are chickens, guinea fowls and turkeys, amongst which chickens predominate (Obinne, 2008).

The major products obtained from poultry are meat, eggs, by-products including droppings, feathers, bones and blood. The meat and eggs are a good source of protein to man. Poultry meat and eggs do not only supply best high quality protein, but also provide important vitamins and minerals. The Net Protein Utilization (NPU) which is an index of protein quality and calculated by multiplying protein digestibility by biological value of chicken eggs is 87. Eggs and chicken meat are rich in most essential amino acids such as lysine, thyronine, the sulphur-bearing amino acids (methionine and cysteine) and occasionally tryptophan which are generally lacking in most staple foods especially the cereals. Eggs also contain lutein which lower the risk of cataracts and muscular degeneration.

In a study that analyzed the meat preference of rural people in India, Raju and Suryanarayana (2005) revealed that the rural Indians prefer chicken to mutton and fish due to its taste, Rimal, (2002) observed that Americans consume less of red meat such as beef because of the saturated fat or cholesterol in it but consume more of the non-red meat such as poultry due to their less fat and cholesterol content.

Preference for poultry products is influenced by many factors among individuals. Rimal (2002) identified these factors to include price, income, taste and culture. Tradition, customs and demographic characteristics are also factors found to influence meat preference and consumption. However, educational attainment and exposure is expected to improve the level of human development and offers good awareness on the needs to increase the consumption of protein of animal origin. Most consumers despite their level of education cannot afford regular consumption of poultry products which thus become luxury for many households who only consume them during celebrations. Jeremiah (1981) observed that preferences for meat consumption do change with time, geographical location and age of consumers. In urban areas, poultry meat is consumed more often due to relatively higher level of income, the availability

either as fresh or frozen product and chains of fast food outlets whose recipes and menus are rich in chicken meat and eggs. Thus, the consumption of poultry meat is largely occasional for most families.

### Purpose of the study

This study investigated the consumption preference of poultry products among the elites of Asaba in Oshimili South Local Government Area of Delta State. The study also identified:

- 1 The types of poultry species and products that is mostly preferred among the elite of Asaba.
- 2 Assess the poultry products preference criteria among the study area.
- 3 The factors that determine poultry products preference among the consumers

### Research Questions

The following research questions were proposed for the study:

- 1 What types of poultry species and products are mostly preferred by the elite of Asaba?
- 2 What are the criteria for poultry products preference among the elites of Asaba?
- 3 What are the factors that determine poultry products preference among the study population?

### Methodology

The population of the study comprised the elites residing in Asaba and who consume poultry product. Four (4) Government establishments were selected for the study. This is because it is assumed that the elites in Asaba are mostly Government workers and can be easily located in Government establishments. The establishments used were Federal College of Education (Technical) Asaba, Federal Ministries, States Ministries and Secondary Schools. The instrument used for data collection of this study was a well structured questionnaire. The questionnaire consisted of two sections; Section A, contained the demographic data of the respondents while section B addressed the three objectives of the study. Thirty five copies of the questionnaire were administered in each of the establishment to make a total of 140 respondents. The data collected on objectives 1 and 2 of the study were analyzed using simple percentage. Objective 3 was analyzed by using simple statistical mean obtained from four point Likert-scale rating based on Strongly Agreed (SA) =4; Agreed (A) = 3; Disagreed (D) =2 and Strongly Disagreed (SD) =1.

### Results and Discussion

**Table 1. Demographic characteristics of the respondents**

S/n	Items	Variables	No. of respondents	Percentages
1	<i>Educational status</i>	Primary School	04	2.86
		Secondary Education	14	10.00
		Tertiary Education	122	87.14
		<b>Total</b>	<b>140</b>	<b>100.00</b>
2	<i>Marital Status</i>	Married	72	51.43
		Single	60	42.86
		Divorced	08	05.70
		<b>Total</b>	<b>140</b>	<b>100.00</b>
3	<i>Ages (Years)</i>	Less than 20	43	30.71
		21-30	60	42.87
		31-40	22	15.71
		41-50	13	09.29
		51-60	02	01.43
		<b>Total</b>	<b>140</b>	<b>100.00</b>
4	<i>Means of Livelihood</i>	Civil Servant	105	75.00
		Business Tycoon	12	08.57
		Contractor	09	06.43
		Any others	14	10.00
		<b>Total</b>	<b>140</b>	<b>100.00</b>

5	<i>Family Size</i>	1	23	16.43
		2	23	16.43
		3	48	34.29
		4	32	22.86
		Above 4	11	07.86
		Extended Family	03	02.14
		<b>Total</b>	<b>140</b>	<b>100.00</b>

Source: Field survey, 2012

Table 1 shows that 87.14% of the respondents had tertiary education, 10% had Secondary Education and only 2.86% attended Primary Schools. This reveals that all the respondents are educated and are expected to be enlightened on the importance of animal protein in their daily nutrition. The minimum protein requirement of the body for normal growth and development as recommended by FAO is 34g/day (Esobhanwan, Ojo and Ikhelao, 2008).

The result showed that 51.43% were married, 42.86% were single while only 5.7% are divorced. Most of the people were married with family size range of 3-7. This means that poultry meat and eggs may form a large part of family meal because of the protein needs of the children for growth and development. The ages show that most of the respondents are between the ages of 25-30years (73.57%). This implies that poultry meat and eggs which are rich in protein and low in cholesterol may still form part of their regular meal without constituting health hazard.

The civil servants formed 75%, business tycoon, 8.57%, contactors, 6.43%. All these demographic data show that all the respondents are adult and have the finance to buy poultry meat and eggs. The family size of the respondents ranges from 1 to above 4. The respondents with family size of 1 and 2 are 16.43% each while 3, 4 and above 4 are represented by (34.29%, 22.86% and 7.86 %,) respectively. The extended family occupied 2.14%. Family size of 3 and four are common among the elites in Asaba.

Research question 1: What types of poultry species and products are mostly preferred by the elite of Asaba?

Table 2. Assessment of poultry species and products preference

S/n	Items	Variables	No. of Respondents Percentages	
1	<i>What type of poultry products do you Like to eating most</i>	Poultry Meat	37	26.43
		Poultry Eggs	17	12.14
		Both Meat and Eggs	86	61.43
		<b>Total</b>	<b>140</b>	<b>100.00</b>
2	<i>What type of poultry species do you Prefer its products to the other</i>	Chicken	67	47.86
		Turkey	40	28.57
		Duck	08	05.71
		Geese	07	05.00
		Quail	07	05.00
		Guinea fowl	11	07.86
		<b>Total</b>	<b>140</b>	<b>100.00</b>

The assessment of poultry species and products preference is presented in Table 2. The result shows that 61.43% eat both meat and eggs, 26.43% preferred poultry meat to eggs (12.14%). The largest proportion that shows preference for both meat and eggs might be as a result of educational exposures which make them to be aware of nutritional benefit of the poultry products. Among the poultry species, 47.86% of the respondents prefer chicken products, 28.57% preferred turkey products, 7.86% guinea fowl, 5.71% duck while only 5% each preferred products from geese and quail. This result is not surprising as the poultry markets in Asaba are predominantly domestic chickens and the imported frozen turkey. This result agrees with the report of Suryanaraya, (2005) that Indians prefer chicken to mutton and fish due to its taste and Rimal (2002) that Americans consumes more of non-red meat due o high retailed price of red meat.

Research question 2: What are the criteria for poultry products preference among the elites of Asaba?

Table 3. Assessment of poultry meat preference

S/n	Items	Variables respondents	No. of Percentages
1	<i>If chicken is one of your favorite meat, Which of the chicken meat do you enjoy eating?</i>	Broiler Meat 56 Cockerel Meat 43 Spent/old layers Meat 20 Local Chicken Meat 21 <b>Total 140</b>	40.00 30.71  14.29  15.00 <b>100.00</b>
2	<i>How often do you eat poultry meat?</i>	Regularly 56 Occasionally 40 At will 44 <b>Total 140</b>	40.00 28.57 31.43 <b>100.00</b>
3	<i>How can you rate the texture of the poultry meat?</i>	Tough 37 Moderate in texture 55 Soft 48 <b>Total 140</b>	26.43 39.29 34.29 <b>100.00</b>
4	<i>What quantity of poultry meat do you eat in a meal?</i>	Whole Bird 17 Halves of birds 24 Cut Part 99 <b>Total 140</b>	12.14 17.14 70.71 <b>100.00</b>
5	<i>What part of poultry meat do you prefer eating?</i>	The thigh 32 The Legs 10 The Chest 08 The Wings 15 The Neck 06 The Trunk 02 The Head 05 The Intestine 07 The Gizzard 11 The Liver 08 All the parts 36 <b>Total 140</b>	22.86 07.14 05.71 10.71 04.29 01.43 03.57 05.00 07.89 05.71 25.71 <b>100.00</b>
6	<i>In what form do you prefer your poultry meat Processed</i>	Cooked 45 Fried 62 Smoked 33 <b>Total 140</b>	32.14 44.29 23.57 <b>100.00</b>

Table 3 reveals that 40%, 30.71%, 14.29% and 15% of the respondents enjoy eating broiler meat, cockerel meat, old layers and local chicken respectively. However, 26.43%, 39.29%, 34.29% of the respondents rated poultry meat as tough, moderate in texture and soft. Jahan, Paterson and Piggot, (2005) reported that organic chicken meat was generally firmer and strongly flavoured than broiler chicken meat. The result also shows that 40% consume poultry products regularly, 31.43% eat poultry products at will while 28.57% eat it occasionally. The readily availability of poultry meat in the market and plurality of fast food outlets might account for the regular eating habit. The result equally showed that 70.71% of the respondents eat cut parts of poultry, 17.14% eat half of birds while 12.14% eat whole birds. The marital status, (the family size) and preference for chicken at home may have influenced the size of poultry meat consumed by the respondents. It is evident that most of the respondents (25.71%) like eating all parts of the chicken rather than preferring one part to the other. However, 22.86% of the target group prefers the

thigh to any other part. This is substantiated by Okunbanjo (1986) who observed that high priced meat from the thigh is regularly purchased among sampled population from South-western Nigeria. Almost one half of the respondents (44.29%) prefer eating fried poultry meat to cooked or smoked poultry meat. This finding is consistent with the report of Memon *et al.*, (2009) that most of the consumers in Hyderabad district in Southern Indian prefer broiler meat when it is fried.

Table 4. Assessment of source of procurement, form and soup preference

S/n	Items	Variables	No. of respondents	Percentages
1	<i>What is the point of Purchase of your poultry Bird</i>	Poultry Farms	44	31.43
		Poultry Vendors	18	12.86
		Open Market	58	41.43
		Meat Shops	20	14.29
		<b>Total</b>	<b>140</b>	<b>100.00</b>
2	<i>In what form do you like to buy your poultry meat</i>	Live bird	75	53.57
		Freshly killed and plucked	25	17.86
		Dressed and refrigerated	40	28.57
		<b>Total</b>	<b>140</b>	<b>100.00</b>
3	<i>What is the reason for your choice in (2) above</i>	Freshness	49	35.00
		Avoid dead but dressed bird	13	9.29
		Avoid diseased but dressed Bird	21	15.00
		Easy cooking	31	22.14
		Cheaper price	26	18.57
		<b>Total</b>	<b>140</b>	<b>100.00</b>
4	<i>Where do you usually eat your poultry meat?</i>	Cooked at home	90	64.29
		At restaurants	22	15.71
		At eateries	10	07.14
		Smoked meat vendors	18	12.86
		<b>Total</b>	<b>140</b>	<b>100.00</b>
5	<i>In which type of soup do you like poultry meat to be prepared</i>	Pepper Soup	44	31.43
		Egusi Soup	32	22.86
		Ogbono Soup	23	16.43
		Oha Soup	14	10.00
		Local Soup	17	12.14
		Any other soup	10	07.14
		<b>Total</b>	<b>140</b>	<b>100.00</b>

The result in table 4 shows that majority, (41.43% and 31.43%) of the respondents buy poultry birds from open market and poultry farms respectively while only few respondents buy birds from meat shops and poultry vendors with 14.29% and 12.86% respectively. 53.57% of the target population prefer buying live birds to dressed and refrigerated bird (28.57%) and freshly killed and plucked bird (17.86%). The reasons for the preference for live birds may be for the purpose of eating fresh meat (35.00%), easy cooking (22.14%) and cheaper price (18.57%). It might also be to avoid the purchase of dead or diseased but dressed birds (9.29% and 15.00%) respectively. These could be a deliberate attempt to prevent infection with zoonotic diseases which are capable of affecting humans through infected meat (Obinne, 2008).

The result further reveals that most of the respondents (64.29%) prefer cooking and eating poultry meat at home to buying from meat vendors (12.86%) or restaurants and eateries (15.71% and 7.14%) respectively. More than a quarter of the target population (31.43%) prefer eating poultry meat in pepper

soup to eating the meat either in egusi soup, ogbono soup, oha soup or any other soup. This may be as a result of the cultural background of the people.

Table 5. Assessment of poultry eggs preference

S/n	Items	Variables	No. of Percentages	
1	<i>If you eat poultry eggs, what type of poultry species eggs do you like eating?</i>	Local chicken eggs	23	16.43
		Domestic fowl eggs	67	47.85
		Guinea fowl eggs	22	15.71
		Duck eggs	15	10.71
		Quail eggs	04	02.86
		Turkey eggs	09	06.43
		<b>Total</b>	<b>140</b>	<b>100.00</b>
2	<i>How often do you eat poultry eggs?</i>	Regular	51	36.43
		Occasionally	44	31.43
		At will	45	32.14
		<b>Total</b>	<b>140</b>	<b>100.00</b>
3	<i>In what form do you prefer to eat your eggs?</i>	Boiled	72	51.43
		Fried	42	30.00
		Raw	15	10.71
		Snacked based	11	07.86
		<b>Total</b>	<b>140</b>	<b>100.00</b>
4	<i>Where do you like eating your eggs?</i>	Prepared at home	98	70.00
		At restaurants	15	10.71
		Eateries	27	19.29
		<b>Total</b>	<b>140</b>	<b>100.00</b>

Results of Table 5, on preference for poultry eggs show that the respondents prefer the consumption of domestic fowl eggs (47.86%) to local chicken egg (16.43%) and guinea fowl eggs (15.71%). This may be due to the availability of domestic fowl eggs as many poultry farms in Asaba rear domestic fowls at commercial level. Quail eggs have the least preference (2.86%). It may be as a result of unavailability and lack of knowledge of quail bird and its eggs in the study area. The results show that 36.43% of the respondents eat eggs regularly, 32.14% eat at will and 31.43% only eat it occasionally. Most of the people (51.43%) prefer eating eggs that are boiled to eggs that are fried (30.00%) and raw (10.71%). Only 7.86% respondents prefer eggs in snacks. Most of the respondents (70.00%) prefer to eat cooked eggs prepared at home to eggs prepared at eateries (19.29%) and restaurants (10.71%) than when fried (40.71%). The preferred points of purchase of eggs are poultry farms (40.71%). However, 30.00% prefer buying from egg vendors while 29.29% buy from supermarkets. The respondents prefer to eat eggs prepared at home to the eggs prepared at eateries and restaurants (19.29% and 10.71%) respectively.

Research question 3: What are the factors that determine poultry products preference among the study population?

Table 6. Factors that determine poultry products preference

S/N	Variable	No of responses	Total	X	Remark
A	<i>Availability of poultry products</i>	408	140	2.91	Accepted
B	<i>Palatability of the products</i>	401	140	2.86	Accepted
C	<i>Tenderness of the meat/easy chewing</i>	405	140	2.90	Accepted
D	<i>Tooth problem</i>	273	140	1.95	Rejected
E	<i>Affordable cost</i>	347	140	2.47	Rejected
F	<i>Low fat contents compared to red meat</i>	377	140	2.69	Accepted
G	<i>Easy processing</i>	392	140	2.80	Accepted
H	<i>Age</i>	418	140	2.99	Accepted
I	<i>Taste</i>	424	140	3.03	Accepted
J	<i>Nutritional benefits</i>	439	140	3.14	Accepted

Factors that determine poultry products preferences are presented in Table 6. The results show that poultry products are preferred because of their nutritional benefit (M=3.14), this may be because it is classified as white meat, which means that it has low fat contents compared to red meat (M=2.69) which is equally one of the factors for poultry meat preference. Ages of the respondents (M=2.99) is also a factor that determines their choice of meat. Also majority of the respondents in the study area are less than 30 years. The results also show that poultry products are readily available (M=2.91) and palatable (M=2.86). The meat from poultry is also preferred because of its tenderness and ease of processing (M=2.90) and (M=2.80) respectively. Tooth problem (M=1.95) and affordable price of poultry meat (M=2.47) are not factors that determine respondents' preference for poultry meat. Poultry products are also preferred because of their taste (M=3.03).

### Conclusion and recommendation

The findings of this study revealed that elites in Asaba prefer meat and eggs of domestic fowls to meat and eggs of other species of poultry. These products are consumed fried and regularly as a result of their availability, ease of chewing and processing. The regular consumption of the products even when fried need to be reconsidered because of the increased cholesterol level when fried. However, it is recommended that adults only eat the products when fried with non-saturated oil and the egg yolk which contains high level of cholesterol should be removed for health reasons. Adults are also enjoyed to eat more of boiled eggs with the yolk removed. This will ensure reduction in the level of cholesterol consumed.

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