



## Prevalence of Hypertension among Adult Traders in Some Selected Markets in Awka, Awka - South Local Government Area, Anambra State, Nigeria

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### Abstract

**Introduction:** Hypertension is a global health problem. The global prevalence of hypertension is on the increase. It is associated with increased risk of cardiovascular diseases.

**Objective:** The study determined the prevalence of hypertension among adult traders in some selected markets in Awka - South Local Government Area, Anambra State.

**Methods:** Three hundred and ninety respondents were selected using simple random sampling technique. A structured questionnaire was used to determine their socio-economic status, food consumption pattern. Body Mass Index status of respondents were calculated using weight and height measures.

**Results:** Findings showed that most of the respondents were between the ages of 31-40 years (24.4%), 27.9% were aged 41-50 years. About 60.5% of respondents were married, 18.5% were single, 18.9% widowed and 2.1% divorced. The prevalence of hypertension at chronic stages (stage 2 and 3) was found to be slightly higher in males (13.6%) than in females (11.4%). About 21.0% of the subjects were on low salt diet, 12.8% and 11.5% of the respondents were on low fat and carbohydrate diets respectively. About 37.5% of the respondents checked their blood pressure status regularly while 49.7% checked theirs occasionally. The nutritional status of respondents showed that more than half (56.7%) of them were overweight, while 10.8% were obese.

**Conclusion:** Poor dietary and lifestyle practices may have led to malnutrition (overweight/obesity) which predisposed the traders to high blood pressure.

**Keywords:** Hypertension; Nutritional Status; Adult Traders; Assessment; Obesity Awka- South L.G.A; Anambra State; Nigeria

### Introduction

Hypertension is a persistent elevation in the blood pressure to systolic greater than 140 mmHg and diastolic less than 90 mmHg [1]. Just as too much air pressure can damage a balloon, too much pressure can cause damage and harm to healthy arteries and blood pressure. Systolic pressure is measured by the cardiac output and refers to the pressure in the arteries system at the highest. Diastolic pressure measures the peripheral resistance and refers to the pressure in the arteries system at its lowest. Blood pressure is normally measured at the brachial artery with sphygmomanometer (pressure cuff) in millimeters of mercury (mmHg) and given a systolic over diastolic pressure [2]. The systolic pressure refers to the heart's period of contraction and it is as a result of increased cardiac output and increased pulse pressure. The diastolic pressure measures peripheral resistance and refers to arterial pressure at its lowest. The most important factors that determine the

blood pressure are the peripheral resistance and increased peripheral resistance is produced by arteriolar constriction [3].

High blood pressure or hypertension is an extremely common and dangerous condition and is rampant among most societies of the world. Although initially without symptoms it is a "silent emergency" [4]. Hyperactivity of the sympathetic nervous system is thought to be responsible for hypertension. Hypertension is a global health problem. The global prevalence of hypertension is on the increase. In 2000, 972 million people had hypertension with a prevalence rate of 26.4%. These were projected to increase to 1.54 billion individuals with a prevalence rate of 29.4% in 2025 [5]. Approximately 7.1 million deaths each year may be attributable to hypertension [6]. Hypertension is a silent killer and a major public health problem in black populations worldwide [1]. It is becoming increasingly common in developing countries as emerging factors

identify hypertension as a major cause of morbidity and mortality in Sub-Saharan Africa [7].

Uncontrolled hypertension has been associated with serious end-organ damage such as heart disease, stroke, renal disease and blindness [8]. The prevention and control of hypertension has not received due attention in many developing countries even though it is one of the most modifiable risk factors for cardiovascular diseases. World Health Organization [9] reported that the prevalence of raised blood pressure (Hypertension), in adults more than 25 years was 38.6% for males and 41.2% for females in Nigeria. Certain conditions such as obesity, diabetes mellitus, and psychological stress have been associated as risk factors for hypertension [10].

In developing countries like Nigeria the habit of routine checks on blood pressure is not common. Most patients become aware of the problem when they go to the hospitals for other related and unrelated ailments. Moreover, many people in developing countries do not pay particular attention to what they eat; they consume whatever is available and affordable [11]. Reliable epidemiologic data are useful for the design and implementation of effective strategies for the prevention and control of hypertension. Findings from this study will help to educate adult traders on the importance of regular blood pressure checkup which may reduce the risk of cardiovascular diseases.

### Specific objectives

1. Determine the socio-economic characteristics of the study population
2. Investigate their food consumption pattern
3. Determine the blood pressure level of the study population
4. Determine the effect of weight and body mass index (BMI) on blood pressure

## Materials and Methods

### Study design

This was a cross-sectional survey of adult traders in some selected markets in Awka, Awka-South Local Government Area of Anambra State.

### Area of study

Awka is the capital of Anambra State, Nigeria with an estimated population of 301,657 as of 2006 Nigerian Census. The city is located about 400 miles East of Lagos in the center of the densely populated Igbo heartland in South Eastern Nigeria. Awka is located midway between two major cities Onitsha and Enugu. Awka comprises of seven Igbo groups sharing common blood linkage Ayomna-okpala, Nkwelle, Amachalla, and Ifite-oka Ezinator, Amikwo, Ezi-oka and Agulu. Awka comprises of 33 villages. Awka people are known for blacksmith, making farm implements, household tools

and guns. They also specialized in carving of wood, ivory and arts designs including elegantly carved tools, door shutters and door panels.

### Population of the study

Population of study consists of adult traders from Eke Awka, Aforumuokpu, Orie-ifite-oka and Nwko-Anaenyi in Awka, Awka-South Local Government Area, Anambra State.

### Sampling size calculation

$$N = \frac{Z^2 \times P \times (100-P)}{C^2}$$

N= Sample size

Z = Confidence Level

P = Prevalence of hypertension among adults (30 - 60 years).

C= Confidence interval

Therefore; N= Sample Size, Z= 1.96 approximated to 2, P= 39.9% (WHO, 2014), C=5%

$$N = \frac{2^2 \times 39.9 \times (100-39.9)}{5^2} = \frac{159.6 \times (60.1)}{25} = \frac{9591.96}{25}$$

N=383.6

The sample size calculated was 384. The sample size was rounded up to 390 to make room for dropouts.

### Sampling procedure

Two markets; Eke Awka and Ngwo Amaenyi were randomly selected from four markets (Eke Awka, Ngwo Amaenyi, Aforumuokpu and Orie-ifite-oka) in Awka Metropolis. One hundred and ninety-five (195) Adult Traders were each selected randomly from the two markets for the survey.

### Preliminary visits and informed content

A letter of approval was obtained from the Head, Department of Human Nutrition and Dietetics it was issued to the traditional rulers and heads of the various selected markets in order to gain permission to carry out the study. Adult traders in Awka Metropolis were enlightened and informed about the survey. Their consent was sought for the study. As many as accepted to participate in the study formed the sampling frame.

### Questionnaire administration

A validated and pretested questionnaire was used to collect information on medical assessment, socio-economic and demographic characteristics, and food consumption patterns of respondents.

### Anthropometric measurement

Anthropometric Measurements of height and weight of subjects were taken.

### Weight determination

A calibrated electronic scale, with a precision to the nearest 0.1kg was used to determine weight. Individuals wore light clothing with no shoes and stood on the scale, with their body equally distributed on both feet [12]. Before any participant was weighed, the electronic scale was set to zero. This contributed to the validity of the technique used and consequently assured reliable results.

### Height determination

The standing height of participants with no shoes, were measured to the nearest 0.1cm. Participants stood with their heels together, arms to the side, legs straight, shoulders relaxed and head in the Frankfort horizontal plane (looking straight ahead) as described by Lee and Nieman [12]. The participants placed their heels, buttocks, scapula and the back of their head against the vertical board of the height meter.

### Body mass index (BMI)

From the height and weight determination, the body mass index (BMI) was calculated using the formula:

$$BMI = \frac{Weight (kg)}{Height(M^2)}$$

### Classification of body mass index by WHO (2014)

- Underweight: <18.5
- Normal: 18.50 – 24.9
- Overweight: ≥25.00
- Pre – obese: 25.0 0– 29.99
- Obese Class 1: 30.00 – 34.99
- Obese Class 2: 35.00 – 39.99
- Obese Class 3: ≥40.0

### Blood pressure determination

To get the blood pressure, the respondent sat in a comfortable position, after resting for about 10 minutes, the cuff of the sphygmomanometer was tied around their non-dominant upper arm, the researcher used her left hand to check their pulse then pumped the cuff till the pulse was not heard again and an extra 10mmHg was added. The researcher fixed the ear piece of the stethoscope in her ear and placed the pulse piece on the brachial artery anteriorly at the elbow joint then read off by noting the first loud sound in the systolic and the last loud sound in the diastolic and recorded the measurement. This was done three consecutive times and the average computed.

### Classification of blood pressure. Chobanian., et al. [6]

### Statistical analysis

Data obtained were analyzed using descriptive statistics such as frequency, percentage and cross tabulation. T-test was used to compare the mean anthropometric values of the male and female

traders. Analysis of variance (ANOVA) significant was judged at p<0.05. Statistical package for social science (SPSS) for windows version 21 was used.

Hypertension	SBP (mmHg)	DBP (mmHg)
Normal	90-119	60-79
High normal	120-139	80-89
Stage 1	140-159	90-99
Stage 2	160-179	100-109
Stage 3	≥180	≥110

Table a

## Results

### Characteristics of the respondents

Result on table 1 showed that more than half (52.8%) of the respondents were males and 47.2% were females. Most of the

Parameters	Frequency	Percentage
Sex		
Male	206	52.80
Female	184	47.20
Total	390	100.0
Age (in years)		
30	46	11.80
31-40	95	24.40
41-50	109	27.90
51-60	78	20
61-70	47	12.10
Above 70	15	3.80
Total	390	100.0
Religion		
Christian	315	80.80
Muslim	39	10
Traditional	35	9
Others	1	0.30
Total	390	100.0
Marital status		
Single	72	18.50
Married	236	60.50
Widowed	74	18.90
Divorced	8	2.10
Total	390	100.0
Family type		
Polygamous	135	34.60
Monogamous	255	65.40
Total	390	100.0

Table 1: Characteristics of respondent.

respondents were between the ages of 31-40 years (24.4%) and 41-50 years (27.9%). Majority (80.8%) of the respondents were Christians. More traders were married (60.5%) than single (18.5%), widowed (18.9%) and divorced (2.1%). About 65.4% of the respondents had monogamous families while 34.4% had polygamous families.

**Socio-economic status of respondents**

Table 2 shows that about 45.6% of the respondents were urban dwellers while 54.4% were rural dwellers. 43.1% of the respondents had a family size of 4-6 persons, 27.2% had a family size of 1-3 persons while 29.7% had a family size above 6. About 13.1% of the respondents completed their primary education, 19.0% did not have formal education, 36.9% completed their secondary education while 31.0% attended tertiary education. Many of the respondents were retailers (45.2%), 28.6% were distributors and 26.7% were wholesalers. Twenty percent (20.0%) of the traders' claimed their monthly income was less than ₦5000, only a few (1.3%) earned above ₦50,000 per month.

Parameters	Frequency	Percentage
Place of residence		
Urban	178	45.60
Rural	212	54.40
Total	390	100.0
Family size		
1-3	106	27.20
4-6	168	43.10
Above 6	116	29.70
Total	390	100.0
Educational status		
No formal education	74	19.0
Primary education	51	13.1
Secondary education	144	36.9
Tertiary education	121	31.0
Total	390	100.0
Type of trade		
Distributor	110	28.20
Wholesaler	104	26.70
Retailer	176	45.20
Total	390	100.0
Traders monthly income		
≤₦5,000	78	20
₦6,000- ₦10,000	87	22.30
₦11,000-₦20,000	93	23.80
₦21,000-₦30,000	56	14.40
₦31,000-₦40,000	50	12.80
₦41,000-₦50,000	21	5.40
Above ₦50,000	5	1.30
Total	390	100.0

**Table 2:** Respondents socio-economic characteristics.

**Respondents food consumption pattern**

Results from table 3 show the food consumption patterns of respondents. About 26.7% of the respondents acquired their foods from the garden, 17.4% purchased their foods from the market. One third (35.1%) of the respondents ate at least twice daily, while 33.6% ate three times daily. A few of the respondents (13.3%) ate once daily. Half (50.8%) of the respondents were not on any special diet. About 21.0% were on a low salt diet, 12.8% and 11.5% of respondents were on low fat and carbohydrate diets respectively. Many of the respondents (51%) ate foods in between meals. Almost half (44.6%) of the respondents skipped meals. Breakfast and lunch were skipped by 21.5 and 12.8 percent of the respondents respectively.

Parameters	Frequency	Percentage
How they get most food items		
From garden	104	26.70
Purchased	68	17.40
Children/relatives	77	19.70
Garden/purchased	138	35.40
Received as gift	3	0.80
Total	390	100.0
Frequency of feeding a day		
Once	52	13.30
Twice	137	35.10
Thrice	131	33.60
More than thrice	70	18.0
Total	390	100.0
Those on special diet		
Yes	192	49.20
No	198	50.80
Total	390	100.0
Which one		
Low salt	82	21
Low carbohydrate	45	11.50
Low protein	15	3.90
Low fat	50	12.80
Not Applicable	198	50.80
Total	390	100.0
Did you eat in between meals		
Yes	199	51
No	191	49
Total	390	100
Meals Skipped		
Breakfast	84	21.50
Lunch	50	12.80
Dinner	40	10.30
Not applicable	216	55.40
Total	390	100.0

**Table 3:** Food consumption patterns of respondent

**Medical assessment**

About 65.8% of the respondents had visited the hospital within the year under study; some 30.3% of the respondents went to the hospital as a result of ill health while others (13.6%) visited the hospital for check-up. About 37.5% of respondents checked their blood pressure regularly while 49.7% check theirs occasionally. It was observed that some of the respondent’s family had a history of Diabetes mellitus (27.7%) as well as hypertension (26.2%) and obesity (17.9%). More than half of the respondents (51.8%) had psychological stress that lasted for about a month or less, however about 28.7% had psychological stress more than a month.

Parameters	Frequency	Percentage
Hospital visitation		
None	106	27.20
Once	114	29.20
Twice	66	16.90
Thrice	72	18.50
Others	32	8.20
Total	390	100.0
Reason for visitation		
Was sick	118	30.30
To visit someone	92	23.50
For checkup	53	13.60
On advice to do so	21	5.40
Not Applicable	106	27.20
Total	390	100.0
How often do you check your BP		
Daily	12	3.10
Weekly	134	34.40
Never	50	12.80
Others	194	49.70
Total	390	100.0
Family Diseases history		
Diabetes mellitus	108	27.70
Obesity	70	17.90
Dental problem	23	5.90
Hypertension	102	26.20
Cardiac diseases	23	5.90
Arthritis	31	7.90
Cancer	15	3.90
Not Applicable	18	4.60
Total	390	100.0

**Table 4:** Respondents medical assessment.

**Nutritional status of respondents**

Table 5 shows the nutritional status of respondents. More than half of the subjects (56.7%) had normal BMI status, 19.2% were

overweight. About 10.8% and 13.3% of the respondents were obese and underweight respectively. The prevalence of obesity was higher in females (13.1%) than in males (8.7%).

BMI status	Frequency	Percentage
Underweight	52	13.30
Normal	221	56.70
Overweight	75	19.20
Obese	42	10.80
Total	390	100.0

**Table 5:** Anthropometric measurement of the respondent.

**Respondents body mass index (BMI) by sex and age**

Among the male respondents, 17.0% were underweight, 20.4% were overweight and 8.7% were obese. For the females 9.2% were underweight, 17.9% were overweight and 13.1% were obese. The prevalence of obesity was higher in females (13.1%) than in males (8.7%).

Results also shows that 9.6% of respondents less than 30 years were underweight, 15.4% between 61-70 years were underweight and 11.5% of respondents above 79 years were underweight. About 20.0% of respondents less than 30 years were overweight, 18.7% between 31-40 years were overweight, 29.3% between 41- 50 years were overweight, 22.6% between 51-60 years were overweight and 6.7% between 61-70 years were overweight. About 19.0% of respondents under 30 years were obese, 28.6% between 31-40 years were obese, 26.2% between 41-50 years were obese, 16.7% between 51-60 years were obese and 9.5% between 61-70 years were obese.

**Blood pressure category**

Results in table 7 shows that 13.3% of the respondents were in the pre - hypertensive stage, 10.8% were in the stage 1 hypertension, 7.7% in stage 2 hypertension and 4.9% had stage 3 hypertension. In all, 24% of the respondents were hypertensive

**Respondents blood pressure level by sex category**

Table 8 shows that 12.1% male and 14.7% female traders had a pre-hypertensive status while 8.3% male traders and 14.6% female traders had already transited to stage 1 hypertension. About 8.3% male and 7.1% female traders had stage 2 hypertension while 5.3% male and 14.3% female traders had stage 3 hypertension.

Results revealed that traders above 30 years were the least hypertensive. For traders between 41-50 years 19.2% were pre- hypertensive, 33.2% were at stage1 hypertension, 16.7% stage 2 and 36.8% were at stage 3 hypertension. For traders between 51-60 years, 21.1% were pre- hypertensive, 16.7% were at stage 1 hypertension, 43.3% were at the stage of 2 and 26.3% at the stage 3 hypertension. For traders’ 60-70 years 9.6% were pre- hypertensive,

BMI STATUS	Male		Female		Total		p-value
	No	%	No	%	No	%	
Underweight	35	17	17	9.20	52	13.30	
Normal	11	53.90	110	59.80	221	56.70	0.26
Overweight	42	20.40	33	17.90	75	19.20	
Obese	18	8.70	24	13.10	42	10.80	
Total	206	100.0	184	100.0	390	100.0	

Table 6: Body Mass Index (BMI) by Sex and Age category.

Age in years	Under weight		Normal		Over weight		Obese		p- value
	No	%	NO	%	NO	%	NO	%	
>30	5	9.60	18	8.70	15	20	8	19	
31-40	11	21.20	58	26.20	14	18.70	12	28.60	
41-50	13	25	63	28.50	22	29.30	11	26.20	0.04
51-60	9	17.20	45	20.40	17	22.70	7	16.70	
61-70	8	15.40	30	13.60	5	6.70	4	9.50	
Above70	6	11.50	7	3.20	2	2.60	0	0	
Total	52	100.0	221	100.0	75	100.0	42	100.0	

11.9% had stage 1 hypertension, 20% had stage 2 hypertension while 15.8% had stage 3 hypertension.

Parameters	Frequency	Percentage
Blood Pressure level		
Normal	247	63.30
Pre-hypertension	57	13.30
Stage 1 hypertension	42	10.80
Stage 2 hypertension	30	7.70
Stage 3 hypertension	19	4.90
Total	390	100.0

Table 7: Blood pressure level category.

Blood pressure	Male		Female		p-value
	NO	%	NO	%	
Normal	136	60	111	60.30	
Pre-hyper-tension	25	12.10	27	14.70	
Stage 1 hypertension	17	8.30	25	13.60	0.16
Stage 2 hypertension	17	8.30	13	7.10	
Stage 3 hypertension	11	5.30	8	4.30	
Total	206	100.0	184	100.0	

Table 8: Blood pressure level by sex and age category.

Age in years	Normal		High normal		Blood pressure		Stage 1		Stage 2		Stage 3		p-value
	No	%	No	%	No	%	No	%	No	%	No	%	
>30	31	12.60	8	15.40	5	11.90	2	6.70	-	-	-	-	
31-40	69	27.90	15	28.80	7	16.70	3	10	1	5.30			
41-50	73	29.60	10	19.20	14	33.20	5	16.70	7	36.80	0.02		
51-60	42	17	11	21.10	7	16.70	13	43.30	5	26.30			
61-70	28	11.30	5	9.60	5	11.90	6	20	3	15.80			
Above 70	4	1.60	3	5.80	4	9.50	1	3.30	3	15.80			
Total	247	100.0	52	100.0	42	100.0	30	100.0	19	100.0			

**Relationship between respondents BMI and blood pressure status**

The result show that 10.9% of respondents with underweight had a normal blood pressure, 40.3% had pre-hypertension, and 9.5% were at stage 1 hypertension. For those with normal BMI, 63.5% of respondents had a normal blood pressure, 36.5% of them were pre-hypertensive, 76.1% had stage 1 hypertension, 33.3% had stage 2 hypertension while 15.7% had stage 3 hypertension. For those with overweight BMI, 17.8% of respondents had a normal blood pressure, 13.4% were pre-hypertensive, 7.1% had stage 1 hypertension, 50% had stage 2 hypertension and 31.5% had stage 3 hypertension. For the respondents with obese BMI, 7.7% had normal blood pressure, 9.6% had pre- hypertension, 7.1% had stage 1 hypertension, 16.6% had stage 2 hypertension and 52.6% had stage 3 hypertension.

**Discussion**

This study investigated the prevalence of hypertension among 390 adult traders in some selected markets in Awka - South Local Government Area, Anambra State. The mean age of the respondents was 43 years. This compares well with a study showing a mean age of about 42 years in rural communities in Nigeria [13]. There were more Christians than any other religion in the study area. This is so because South East, Nigeria is a Christian dominated region. There were more married traders than the singled, divorced and widowed. This is corroborated by a study carried out by Joshi., *et al.* [14], which showed that more married people were willing to settle as traders than other counterparts who felt they still had a chance of trying other things while, the married ones saw trading as a means of escaping the financial duress brought

BMI status	Normal		High normal		Stage 1		Stage 2		Stage 3		Total	p-value
	No	%	No	%	No	%	No	%	No	%		
Underweight	27	10.90	21	40.30	4	9.50	-	-	-	-	52	
Normal	157	63.50	19	36.50	32	76.10	10	33.30	3	15.70	221	0.36
Overweight	44	17.80	7	13.40	3	7.10	15	50	6	31.50	75	
Obese	19	7.70	5	9.60	3	7.10	5	16.60	10	52.60	42	
	247	100.0	52	100.0	42	100.0	30	100.0	19	100.0	390	

**Table 9:** Cross tabulation and chi-square tests between respondents BMI and blood pressure status.

about by their marriages. From the result, it is evident that the demographical distribution of the respondents were highly in favor of the rural dwellers as they constituted (54.4%) of the sample size against the urban dwellers (45.6%). The relatively high percentage of urban dwellers is somewhat not surprising as Eke - Awka market is located within the cosmopolitan area of the capital territory axis hence justifying the influx of urban dwellers into the markets system. The respondents family size showed a greater number of them having a large family size with respondents having 4 - 6 children amounting to (43.3%) of the respondents. About 57.2% of the respondents surprisingly earned below ₦20,000 per month. This is as a result of the respondents being mostly retailers as the result revealed. Retailing outlet within the channel of distributors in the economics of trade resides at the lower levels of income generation through sales whereas the wholesaler and distributors stand to make more income within the same context. The findings revealed that more of the respondents were retailers; hence this will justify the low income generated per month by the respondents as some of them were operating kiosks and other small trading outlets. Fortunately, there was a low cost of living as the respondents claimed that they spend less than ₦2,000 per week on living costs. This is in a sharp contrast to most industrialized cities like Lagos, Port- Harcourt and Abuja where residents spend more than the said amount on daily expenses. Weekly alcohol consump-

tion was reported to be high (44.9%) among the respondents. The harmful use of alcohol is a major risk factor for premature deaths and disabilities in the world. An estimated 4.5% of the global burden of disease is caused by harmful use of alcohol [15]. There is a direct relationship between higher levels of alcohol consumption and rising risk of some cancers, liver diseases and cardiovascular diseases. About 30.2% of the respondents smoked. Manufactured cigarettes represent the major form of smoked tobacco [16]. Smoking is estimated to cause about 71% of all lung cancer deaths, 42% of chronic respiratory disease and nearly 10% of cardiovascular disease [17]. Most of the respondents (70.3%) made use of table salt while eating. The amount of dietary salt consumed is an important determinant of blood pressure levels and overall cardiovascular risk [18]. It was observed that many respondents did not go for regular checkup and this may have predisposed them to hypertension. Body checkup is necessary to identify health status. Constant medical checkups and adherence to dietary/lifestyle and drug regimen will help reduce hypertension cases. This study recorded high prevalence of overweight (19.2%) and obesity (10.8%) among the respondents. This maybe as a result of their sedentary lifestyle, coupled with long hours of physical inactivity and high energy intake [19]. Similar studies equally revealed high prevalence of obesity among market traders across Nigeria [20,21]. More females (13.1%) than males (8.7%) were obese in this study, al-

though there was no significant relationship ( $p=0.26$ ) between sex and BMI. The worldwide prevalence of obesity reports that 10% of men and 14% of woman in the world were obese ( $BMI > 30\text{kg}/\text{m}^2$ ), (WHO, 2011). The study found a prevalence of hypertension of 23.4% in the respondents. The rate of hypertension in this study is however lower than the 42% recorded in a market population in Enugu, Nigeria [22]. Female traders were more hypertensive (23%) than male traders (21.9%). However, there was no significant relationship ( $p=0.16$ ) between blood pressure category and sex. There was a significant relationship ( $p=0.03$ ) between blood pressure category and age as older adults had more cases of hypertension than younger adults. There was no significant relationship ( $p=0.35$ ) between blood pressure category and body mass index in the respondents.

### Conclusion

The study found a prevalence of hypertension of 23.4% in the respondents. Female traders were more hypertensive (23%) than male traders (21.9%). This study recorded high prevalence of overweight (19.2%) and obesity (10.8%) among the respondents. Hypertension is a silent Killer. There was a significant relationship ( $p=0.03$ ) between blood pressure category and age; as older adults had more cases of hypertension than younger adults. Poor dietary and lifestyle practices may lead to malnutrition which may predispose an individual to risk of cardiovascular disease such as high blood pressure and obesity. Excessive use of table salt and inadequate check-up may have also played a role in the hypertensive cases observed in this study.

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