DIET AND LIFESTYLE: A PANACEA FOR ACHIEVING LONGEVITY IN UGEP, NIGERIA

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ABSTRACT: *The body cannot be healthier than the food man eats. Nutrition is to health what drug is to the body too. This paper seeks to highlight the relationship between diet and longevity most importantly in prevention of morbidity and recovery from ill-health. Nutrition is coming to the fore as a major modifiable determinant of chronic disease, with scientific evidence increasingly supporting the view that alterations in diet have strong effects, both positive and negative, on health throughout life. Diet has been known for many years to play a key role as a risk factor for chronic disease. Hunger, malnutrition and poor lifestyle remain among the most devastating problems facing the majority of the world's poor and needy people; our communities inclusive. The Objective is to clarify the role of diet in preventing and controlling morbidity and premature mortality resulting from non-communicable diseases (NCDs). Using Health Belief Model (HBM), questionnaire was designed for data collection, 100 questionnaires were administered, interviews and existing literature were used too. Data generated were analyzed using descriptive statistics such as mean, simple percentages and illustrative graphs. The findings show that poverty, ignorance, poor lifestyle and inequality were discovered to be the major limiting factors to proper nutrition which would have boosted health and longevity. The study demonstrated 65% increase in morbidity cases among the low income earners and the ignorant as to the average income earners and the ignorant. The result shows that there is a strong relationship between nutrition and health. Ignorance, as one of the limiting factors to proper dieting, is at the fore front. Base on this study/ findings, it is recommended that local food be patronized too in our locality and stakeholders should organize food/agricultural programmes at least annually to ensure knowledge is increased on proper nutrition with the aim of promoting healthy living.*

KEYWORDS: Longevity, Lifestyle, Panacea, Local Food,

INTRODUCTION

The body cannot be healthier than the food man eats and lifestyle determines lifespan. There is a great relationship between diets and health effects as research suggests that not having breakfast can affect intellectual performance especially in children (Pollitt et al, 1998). No one food can be said to be healthy, but a healthy diet can do us better. A food constituent, the amount is not suppose to expose the consumer to health risk hence the importance of knowing the interactions among constituent should be considered (CAC/GL, 2007).

This paper seeks to highlight the relationship between healthy diet and longevity most importantly in morbidity and recovery from ill health. A healthy diet is one which contains the six constituent of food in the right proportion. The collective views of International groups of experts on "Diet, Nutrition and the Prevention of Chronic Diseases", have it that; there is an unavoidable link between diet and chronic diseases as well as physical activities and healthy live (WHO/FAO, 2003).

Study Area:
The target group is the Ugep Urban population in Yakurr Local Government Area of Cross River State, Nigeria. Ugep Urban lies between latitude 50 401 and 60 101 north of the Equator and longitude 80 21 and 60 101 east of the Greenwich Meridian and 120km (75miles) northwest of Calabar the capital of Cross River State, Nigeria. The major language spoken by the people is Lokạạ with an approximate population of 144, 421. Ugep share northern and eastern boundaries with Assiga, Nyima, and Agoi Clans of Yakurr Local Government Area, southern boundary with Biase Local Government Area and Eastern boundary with Abi Local Government Area and constitutes five major geopolitical divisions (Ijiman, Ketabebe, Ijom, Ikpakapit, and Bikobiko) which were the focus of this study.
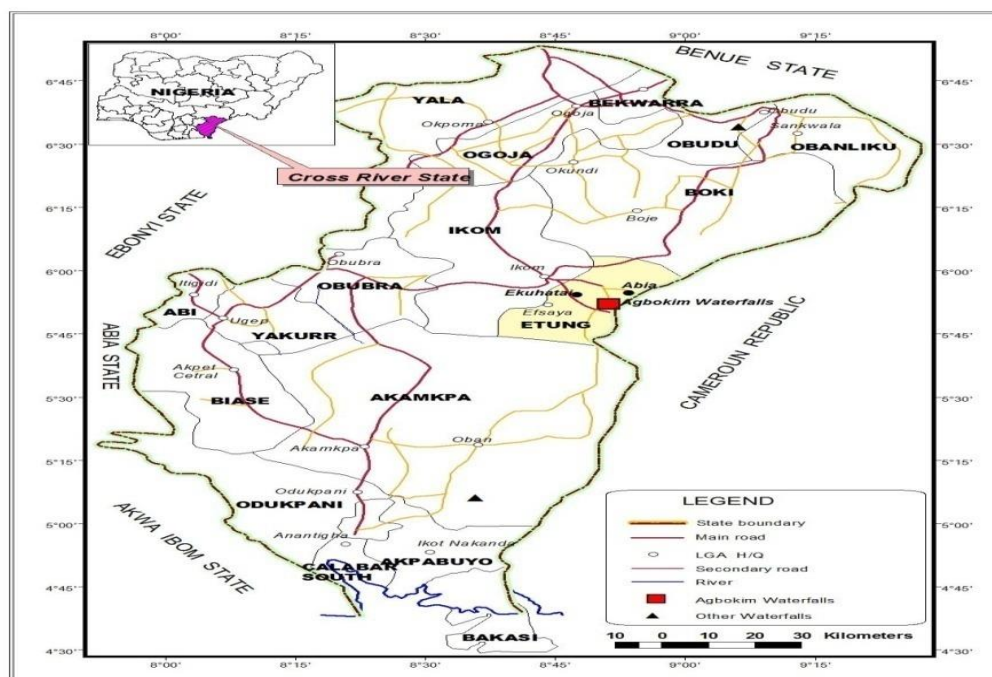

Figure 1. Map of Cross River State showing Ugep Urban in Yakurr Local Government Area.

The Problem:
One of the basic needs of man, just like every other living creature, is food. In as much as we generally believe we eat to stay alive there is a need to eat healthily. Ignorance has bridged between healthy dieting and its role even among the academia to those with very low level of awareness. To some extent, the people belief is eating to get filled (quantity) as against eating healthy diets (quality/balanced diet) perhaps for the sake of their activities for the day. An excess in a particular nutrient intake may be harmful to the body, therefore, moderation is the best.

Aim and Objectives of the Paper
The broad objective of this paper is to clarify the role of diet in preventing and controlling morbidity and premature mortality resulting from non-communicable diseases (NCDs).
Other objectives include;
1. Finding out the reasons for the consumption of some variety of meals through interviews and questionnaire.
2. Finding out the available meals in our population of interest including the cultural/traditional varieties through interviews and questionnaire.
3. Evaluating the level of awareness of our population of interest on the relationship between diet and non-communicable diseases and mortality resulting from this as well as their physical activity lifestyle with the aim of increasing their level of awareness in the course of the study.

Review of Literature
Nutrition is to health what drug is to the body too and this is coming to the fore as a major modifiable determinant of chronic disease, with scientific evidence increasingly supporting the view that alterations in diet have strong effects, both positive and negative, on health throughout life. Diet has been known for many years to play a key role as a risk factor for chronic disease (WHO/FAO, 2003).

Hunger, malnutrition and poor lifestyle remains among the most devastating problems facing the majority of the world's poor and needy people, and nearly 30% of humanity are currently suffering from one or more of the multiple forms of malnutrition (WHO, 2000). Hunger and food insufficiency in children are associated with poor behavioural and academic functioning (Alaimo et al, 2001 & Kleinman et al, 1998). There have also been significant negative consequences in terms of inappropriate dietary patterns, decreased physical activities… especially among poor people. Chronic NCDs – including obesity, diabetes mellitus, cardiovascular disease (CVD), hypertension and stroke, and some types of cancer – are becoming increasing significant causes of disability and premature death in both developing and newly developed countries (WHO, 2002). Dietary adjustments may not only influence present health, but may determine whether or not an individual will develop such diseases as cardiovascular disease, cancer and diabetes much later in life. There is need for countries food policies to focus not only on under nutrition but also on addressing the prevention of chronic diseases.

Nutrition and lifestyle influences the risk of chronic disease and as opined by WHO/FAO 2003, "to a large extent, physical activity and nutrients share the same metabolic pathways and can interact in various ways that influence the risk and pathogenesis of several chronic diseases, and as such lack of physical activity is already a global health hazard and is a

prevalent and rapidly increasing problem in both developed and developing countries, particularly among poor people in large cities". Aside from nutrition, other principal risk factors for chronic diseases are; tobacco use and alcohol consumption, and are to be placed at the forefront of public health policies and programmes. The burden of chronic diseases is rapidly increasing worldwide. It has been calculated that, in 2001, chronic diseases contributed approximately 60% of the 56.5 million total reported deaths in the world and approximately 46% of the global burden of diseases, and the proportion of the burden of NCDs is expected to increase to 57% by 2020 (WHO, 2002). Almost half of the total chronic disease deaths are attributable to cardiovascular diseases, with obesity and diabetes also showing worrying trends, not only because they already affect a large proportion of the population, but also because they have started to appear earlier in life.

Studies has projected that, by 2020, chronic diseases will account for almost three-quarters of all deaths worldwide, and that 71% of deaths due to ischaemic heart disease (IHD), 75% of deaths due to stroke, and 70% of deaths due to diabetes will occur in developing countries (WHO, 1998). In 2003 report of the WHO/FAO international experts have it that, broad parameters for a dialogue with the food industries constitutes; less saturated fat; more fruits and vegetables; effective food labeling; and incentives for the marketing and production of healthier products, and that global "health and nutrition literacy" requires a vast increase in attention and increase in resources as well as the need for policies to favour the poor and be appropriately targeted, as poor people are most at risk and have the least power to effect change.

The deficiency of some basic nutrients may cause serious harm, for instance, iodine deficiency is the greatest single preventable cause of brain damage and mental retardation worldwide, and is estimated to affect more than 700 million people, most of them located in the less developed countries (WHO/UNICEF/ICCIDD, 1999). Lifestyle and traditional diets are changing in many developing countries; hence it is not surprising that food insecurity and undernutrition persist in the same countries where chronic diseases are emerging as a major epidemic. Children are in a similar situation; disturbing is the prevalence of overweight among this group and this has taken place over the past 20years in developing countries as diverse as Nigeria, India, Mexico and Tunisia (de Onis M & Blössner M, 2000). Overweight and obesity, influenced by poor diet and activity, are significantly associated with an increased risk of diabetes, high blood pressure, high cholesterol, asthma, joint problems, and poor health status (Mokdad et al, 2003).

The root causes of malnutrition include poverty and inequity, and eliminating these causes requires political and social action of which nutritional programmes can only be one aspect. Sufficient safe and varied food supplies not only prevent malnutrition but also reduce the risk of chronic diseases, more so, nutritional deficiency increases the risk of common infectious diseases, most common are those of childhood, and hence there is need for complementarity (WHO, 2000). To reduce the global burden of non-communicable diseases, through promoting healthy diets and lifestyles, requires a multisectoral approach involving the various relevant sectors in the society not just ensuring food security for all, but achieving also the consumption of adequate quantities of safe and good quality foods that together make up a healthy diet, and this will also reflect economic development (Drewnowski, & Popkin, 1997).

According to WHO's report, 2002, on "diet, physical activity and health", already 79% of deaths attributable to chronic diseases are occurring in developing countries, predominantly

in middle-aged men. This is becoming predominant in childhood and adolescence. Poor dietary habits is associated with early indicators of atherosclerosis which is the most common cause of heart diseases and begin as early as childhood and adolescence as well as related to high blood cholesterol levels. Osteoporosis resulting from inadequate intake of calcium, type 2 diabetes as adult onset diabetes has become increasingly prevalent among children and adolescents, overweight and obesity are all influenced by poor diet and inactivity including high blood pressure, high cholesterol, asthma, joint problems and poor health status (Kavey et al, 2003; U.S Dept. of Health and human services, 2004; Rosenbloom et al. 1999; Vankat et al, 2003; and Mokdad et al, 2003). Eating too little and eating too much both lead to poor health, and any disease, chronic condition or illness which causes a change in the way man eat, or makes it hard for man to eat, puts our nutritional health at risk and also feeling sad, depressed or over stressed up, can cause big changes in appetite, energy level, digestion, weight, well-being and holistic health.

METHODOLOGY

This research is focused on "Diet and Lifestyle as a panacea for achieving longevity in Ugep Urban" in Yakurr Local Government Area of Cross River State, Nigeria. Primary and secondary sources of data were used in order to avoid bias in our finding and results. Using Health Belief Model (HBM), semi – structured questionnaire were designed and administered. The primary sources of data collected involved the use of questionnaire, interviews and our direct field observations while the secondary data sources involved current literature and journals. One hundred (100) questionnaires were designed and administered while ninety six (96) were retrieved and analyzed, and this constitutes the sample population which was got through randomization. Our respondents were adults between the ages of eighteen (18) and seventy five (75) who are local dwellers in our target population (Ugep – Urban).

The choice of HBM for this study is base on the fact that it explains/predicts health behaviours by focusing on the attitudes and belief of individuals with the aim of exploring a variety of long- and short – term health behaviours and based on the understanding that a person will take a health – related action if he/she understands the following constructs; perceived threats and benefits, perceived susceptibility, severity, barriers as well as the concept of self – efficacy and cues to action. This is a strong tool for preventive health behavior including health promotion (e.g. diet, alcohol, smoking, exercise).

Data generated were analyzed using descriptive statistics such as mean, standard deviation, illustrative graph, charts, and simple percentages.

FINDINGS/RESULTS

The study investigated the lifestyle and diet consumption of the people of Ugep Urban to find out whether their Lifestyle is healthy through regular exercise, reduction of alcohol consumption and smoking level as well as whether their diet is adequate through the consumption of diet rich with the six classes of food and more of fruits and vegetable; and all these as a panacea to attaining longevity and productive health.

Table 1&2.Shows the Means, Standard Deviation, and the percentages of the raw data obtained from the field survey and the presentation of the tools used for data collection.

Table 1.Primary Data showing Tools used in the Field/Results in Mean and Standard Deviation

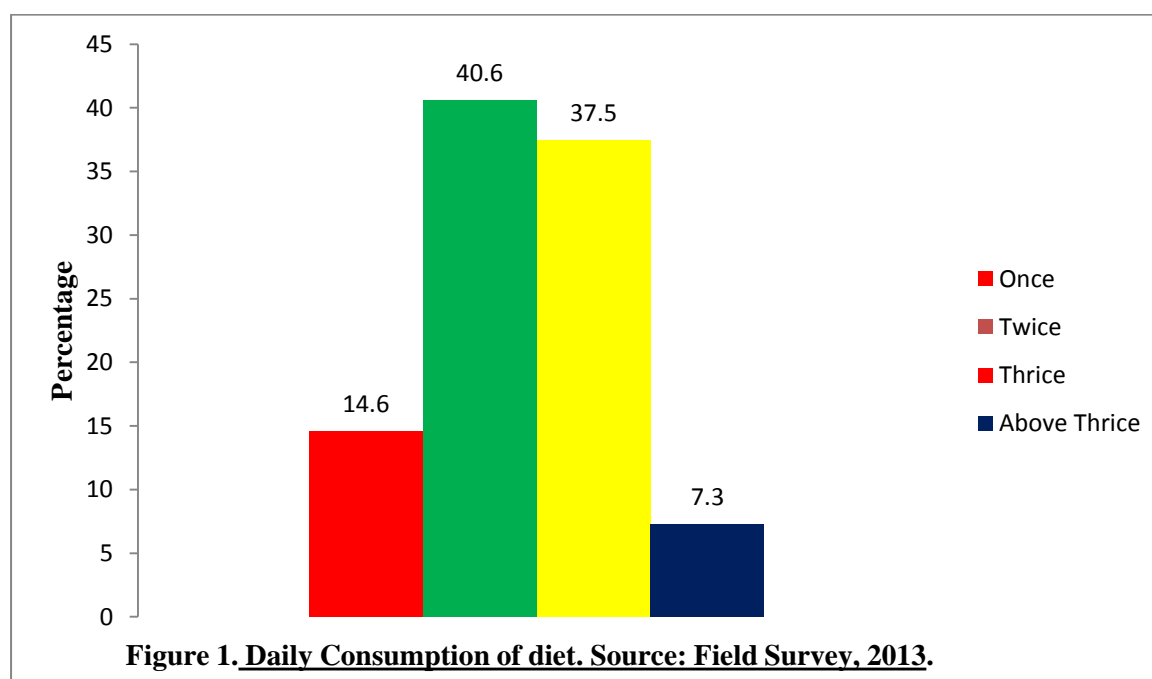| ITEM/TOOL		FREQUENCY	MEAN	STD.DEVIATION
1	Sex Sampled	96	1.55	.500
2	Responsibility for daily meals	96	1.39	.489
3	Daily consumption of diet	96	2.38	.824
4	Variety of often consumed	96	1.31	.586
4b.	Reason for preference to specific meals	96	2.19	.772
5	Variety of meals available in Ugep Urban	96	1.67	.496
6	Adequate diet level of awareness	96	1.30	.462
6b.	Extend of awareness/composition	96	1.36	.484
7	Level of Fruits, Vegetables and Milk product consumption	96	1.58	.496
8	Perceived Susceptibility of NCDs resulting from Malnutrition	96	1.20	.401
9	Attitude to exercise	96	1.57	.497
10	Level of smoking	96	1.91	.293
10b.	Alcohol consumption level	96	1.70	.462
11	Perceived Benefits of Adequate Diet and Healthy Lifestyle as a panacea for attaining Longevity	96	1.05	.223
12	Ability to afford daily meals	96	1.45	.500
12b.	Reasons for non – ability to afford daily meals	96	2.18	.951

Data source: Field Survey (2013)

Table 2.Detailed raw data showing results in Simple Percentages

ITEM	SEX	FREQUENCY (N)	PERCENT (%)
1	Male	43	44.8
	Female	53	55.2
	Total		
2	**Are you responsible for your daily meals?**		
	Yes	59	61.5
	No	37	38.5
	Total	96	100.0
3	**How many times at least do you eat daily?**		
	Once	14	14.6
	Twice	39	40.6
	Thrice	36	37.5
	Above	7	7.3
	Total	96	100.0
4	**What variety of meal do you eat often?**		
	Carbohydrates	72	75.0
	Protein	18	18.8
	Vegetable	6	6.3
	Total	96	100.0
4b.	**And why do you prefer it?**		
	Nature of Job	15	15.6
	Preference	54	56.3
	Availability	21	21.9
	Affordability	6	6.3
	Total	96	100.0
5	**What are the available varieties of meals you know in this community?**		
	Carbohydrate source		
	Vegetable source		
	Protein source		
	Total		
6	**Do you know anything about "Balance Diet"?**		
	Yes	67	69.8
	No	29	30.2
	Total	96	100.0
6b	**Composition?**		
	No idea	61	63.5
	Little idea	35	36.5

	Total	96	100.0
7	**How often do you eat fruit, vegetable or milk product?**		
	Daily	40	41.7
	Not Daily	56	58.3
	Total	96	100.0
8.	**Do you belief malnutrition can cause ill-health including obesity, diabetes, heart and sometimes death?**		
	Yes	77	80.2
	No	19	19.8
	Total	96	100.0
9	**How often do you exercise?**		
	Daily	41	42.7
	Not Daily	55	57.3
	Total	96	100.0
10	**Do you smoke?**		
	9	9	9.4
	87	87	90.6
	Total	96	100.0
10b	**Do you take alcohol?**		
	Yes	29	30.2
	No	67	69.8
	Total	96	100.0
11	**Do you belief a Balance Diet and regular exercise can help you attain a healthy life and also live longer?**		
	Yes	91	94.8
	No	5	5.2
	Total	96	100.0
12	**Have been able to eat what your body needs at a particular point in time?**		
	Yes	53	55.2
	No	43	44.8
	Total	96	100.0
12b	**If no what do you think has been the reason?**		
	Ignorance	36	37.5
	Busy	7	7.3
	Poverty	53	55.2
	Total	96	100.0

Data source: Field Survey (2013)

The analysis in table 2 shows the level of responsibility of individuals to daily meals, demonstrating that; 61.5% are responsible for their meals while 38.5% adults still depend on others (parents, children, friends or relatives) for their daily consumption/affordability of meals − this marks poverty level − which is also a factor that can hinder the consumption of required meals hence these percent of people eat not what they need/when they need it but what/when their sources provides on their table. This has influenced the number of times food is consumed daily as most times 14.6% eat once daily, 40.6% eat twice, 37.5% thrice; while only about 7.3% eat thrice and above daily, though the number of times one eats does not really guarantee healthy but the adequacy of the diet is what counts even if it is once daily. Figure 1 explains more.

Figure 1. Daily Consumption of diet. Source: Field Survey, 2013.

The result also provides in detail the preferences to consumption of certain meals, most consumed food and reasons for such preferences which ranged from nature of job (daily activities), preference, availability of the meal to affordability. The study presents varieties of meals (both Local Foods/Traditional Sources) in our target group showing carbohydrate sources as the leading source followed by vegetables then proteins as regards level of consumption. Meals consumed often; 75% for carbohydrate sources, 18.8% for proteins and 6.3% for vegetables. Reasons for consumption; 15.6% attribute it to the nature of their daily job to sustain them for energy, 21.9% attribute it to availability of the meal, 6.3% said affordability, while 56.3% attribute it to just likeness/preference to meals. Local foods available were classified according to Vegetable sources (64.6%), Carbohydrate sources (34.4%), and Protein sources (1%) as represented in figure 2 & 3 respectively. The degree of adequate diet awareness was measured and was found that 69.8% had the awareness while 30.2% had little or no awareness. Even though there was a certain level of awareness, there was no encouraging level of attitude and practice as well as among those with little or no idea of what an adequate diet really is. This was measured through practical/demonstrative exercise using variety of meals to check if there is a good knowledge on the composition of a balanced diet and its preparation. The place of fruits, vegetables and milk products level of

consumption was not left out in this study. The analysis presents that 58.33% of peoples consumption of fruits, vegetables or milk products is poor while the attitude of 41.67% of people to fruits, vegetable or/and milk products consumption is very much encouraging and as well regular as regards daily body requirement.
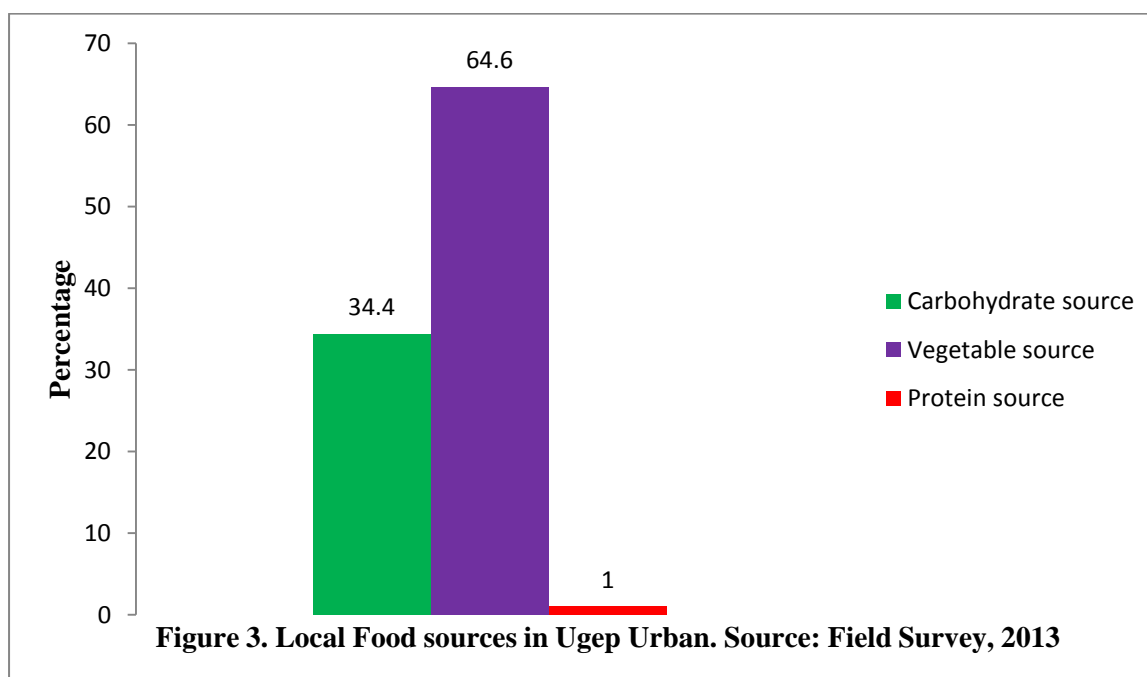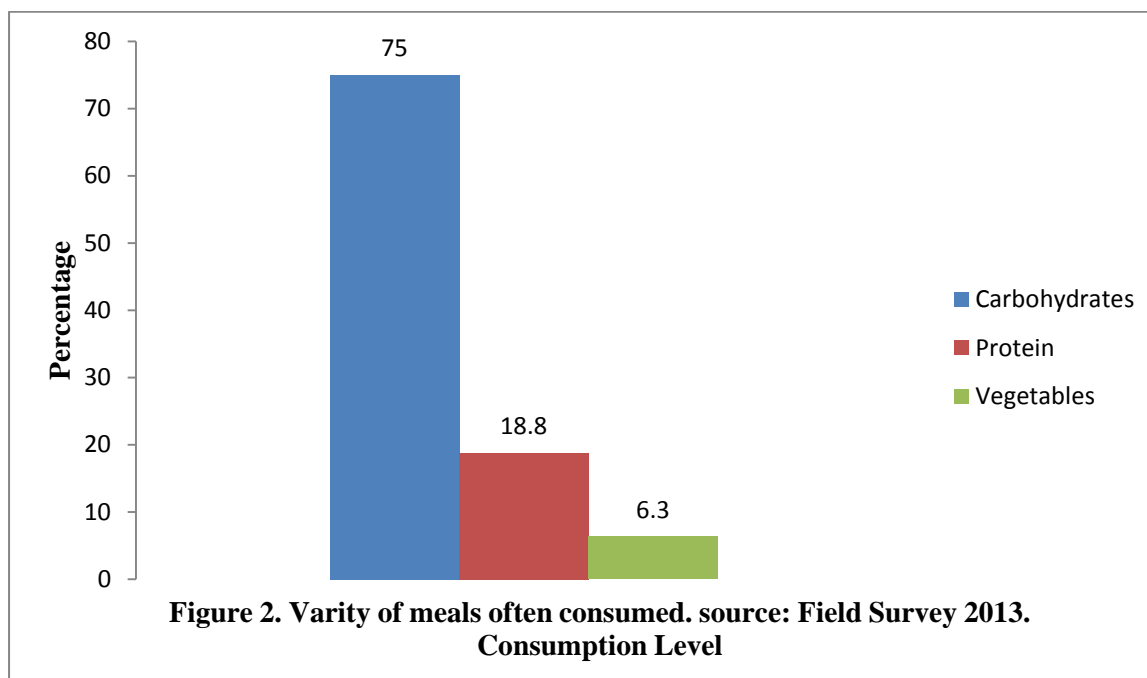
Figure 2. Varity of meals often consumed. source: Field Survey 2013. Consumption Level

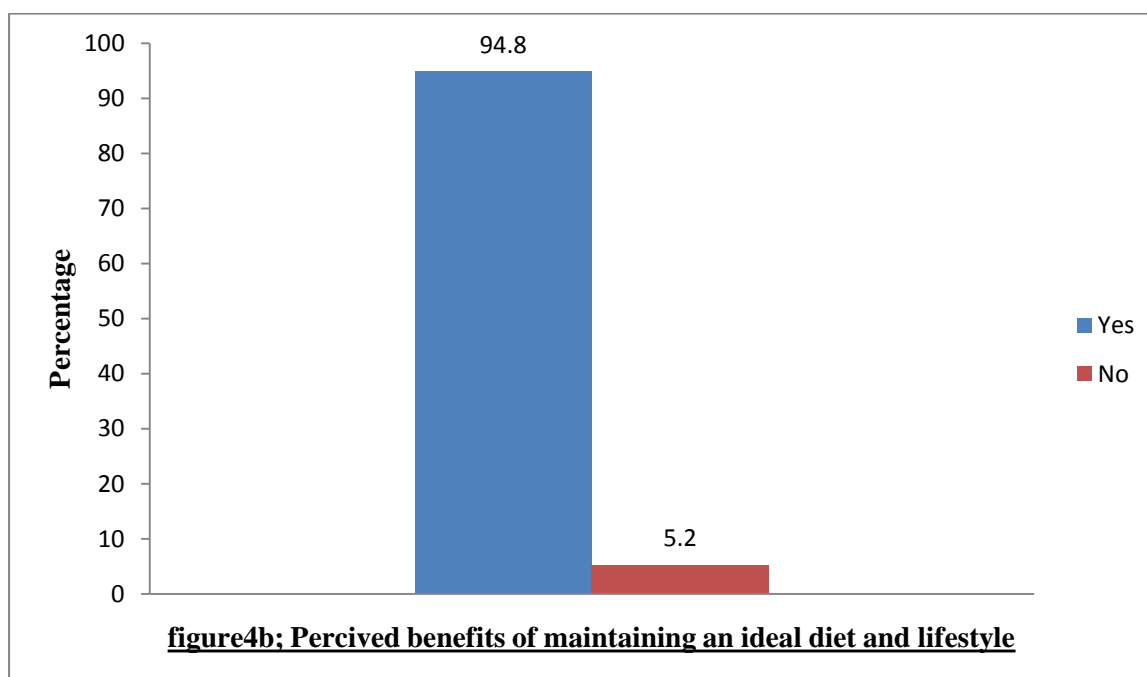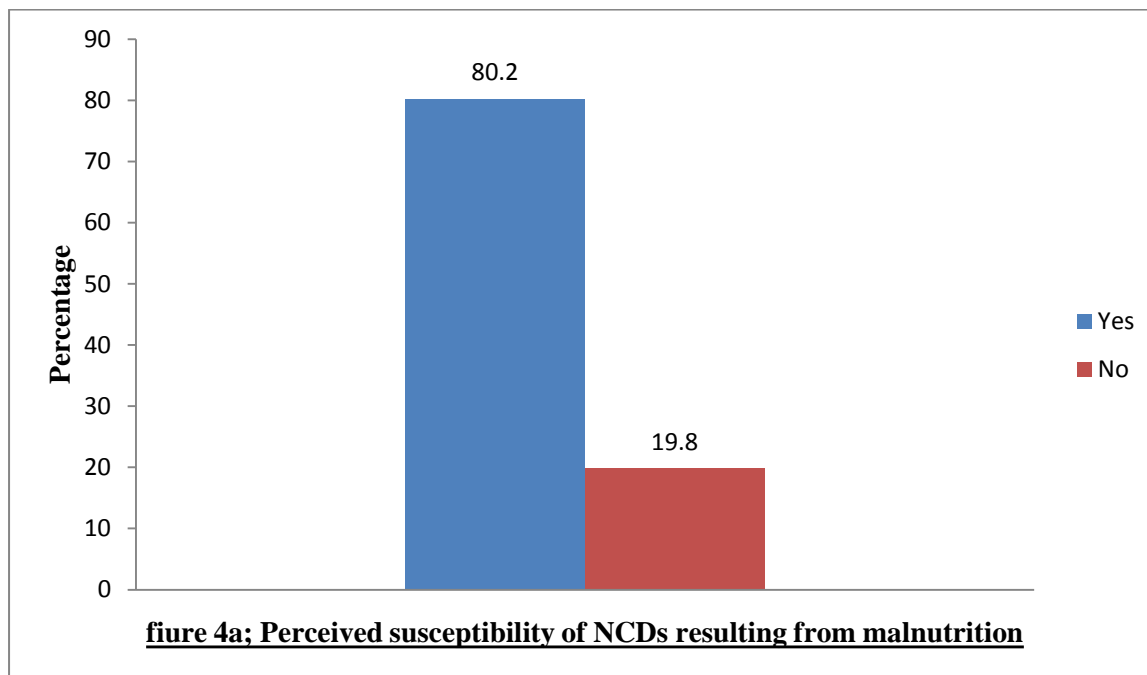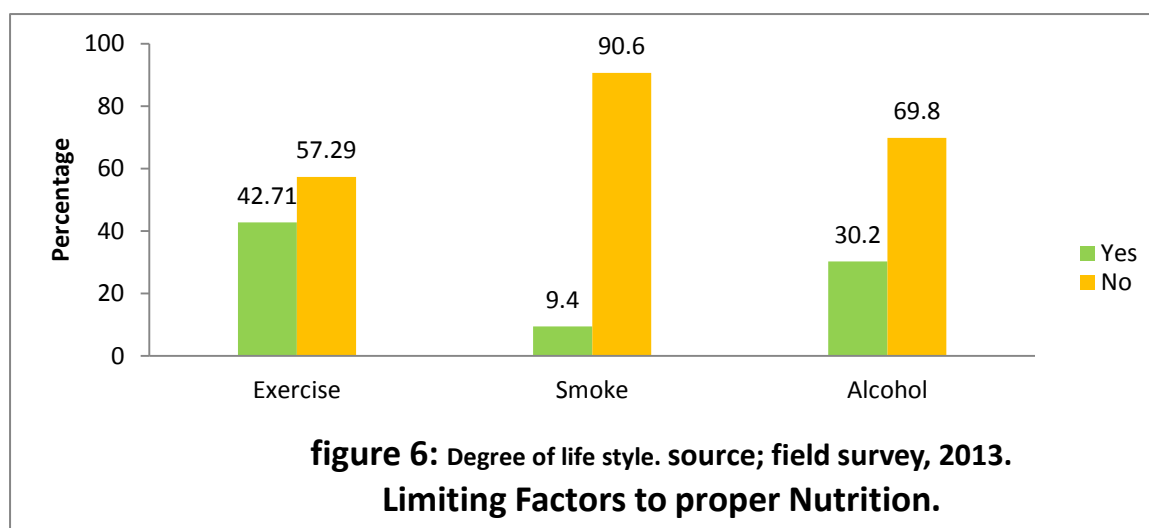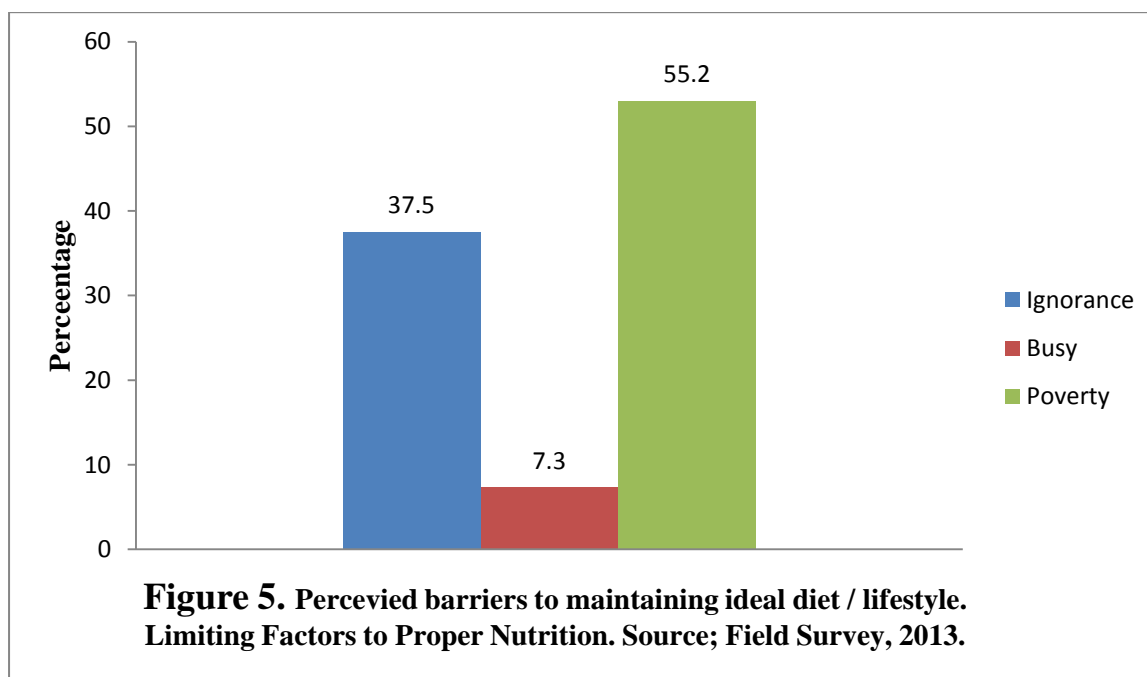**Figure 3. Local Food sources in Ugep Urban. Source: Field Survey, 2013**

Figure 4a&4b shows the perceived susceptibility to Non – Communicable Diseases (NCDs) resulting from malnutrition, and the perceived benefits of maintaining adequate diet and lifestyle. 80.2% believed that malnutrition can result in ill – health including obesity, diabetes, heart problems and can result to death while 19.8% of people did not belief/not sure

that malnutrition can result to ill – health, NCDs and death. On the level of the peoples perceived benefits, 94.8% of our population believed that adequate diet, regular exercise, abstinence/reduction in alcohol consumption and smoking can enhance health and longevity as against 5.2% of the population who do not belief at all. These imply an encouraging level of will to change and adopt innovations in our population of interest.

fiure 4a; Perceived susceptibility of NCDs resulting from malnutrition

figure4b; Percived benefits of maintaining an ideal diet and lifestyle

There are some perceived barriers that have stood in between adequate dieting, perhaps influenced excess consumption of calories and contributed to under nutrition as well as healthy lifestyle, there by inflated malnutrition level. These barriers/factors were found to include ignorance, poverty and busy schedule as illustrated in figure 5. Ignorance contributed

37.5% to inflated malnutrition, poverty level contributed 55.2% while busy schedule 7.3% respectively. However, other limiting factors to proper nutrition as presented in figure 6 were discovered to be exercise, smoking and alcohol consumption level which constitutes lifestyle. The study demonstrates 9.4% smokers and 90.6% non – smokers, 30.2% alcoholics and 69.8% non – alcoholics, and for attitude to exercise; 42.71% have a healthy attitude to daily and routine exercise while 57.29% have an irregular exercise pattern and no exercise at all, thus, not healthy for the body. These results and findings are as gathered from the field in our community of interest (Ugep Urban).

Figure 5. **Percevied barriers to maintaining ideal diet / lifestyle. Limiting Factors to Proper Nutrition. Source; Field Survey, 2013.**

figure 6: **Degree of life style. source; field survey, 2013. Limiting Factors to proper Nutrition.**

DISCUSSION

In attempt to study diet pattern and lifestyle as a panacea for enhancing longevity in Ugep – Urban, the study also examined the level of awareness and practice of adequate dieting and its benefits.

It is noticed that to sustain a healthy diet and purchasing of what an individual needs at a particular point in time; it requires the financial ability of the person in question, availability of the product (food), information/awareness (whose contrary is ignorance), equality in distribution of farm produce among other considerations. On assessing the local foods and sources of food found in Ugep – Urban, it is observed that protein sources was the least of the food sources available, followed by abundance of carbohydrate sources and more of abundance of vegetables and fruit sources. Despite this fact, carbohydrates were more often consumed by the people with respect to the vegetables that are found to be more in abundance and this has increased the level of diabetes cases among the people and hence, contributes a reasonable percent to the global statistics of diabetic patients. These local food sources are discovered to be farm produce produced by the people. The carbohydrate sources included so many tubers, roots, seeds and grains like yams, cassava, maize, rice; vegetable sources included cassava leaves whose local name (LN) is Ijakpo, fern (LN; Ikpaladidi), Utal, Obudomoh, Libangha, Efou, and many other vegetable sources still in local names. Protein sources were basically beans species.

The consumption of vegetable sources was found out to be as composite meals not as special meals and the process of preparation is poor which indicates over heating/cooking which in turn destroys food nutrients in the food source there by leaving it with less or no nutrient for the body if or when consumed. On this note, there was a demonstration exercise on preparation of meals in order to retain its nutrients and to ensure its adequacy.

The role of diet in preventing and controlling morbidity and premature mortality resulting from Non – Communicable Diseases (NCDs) was clarified. The study found out reasons for the consumption of certain variety of meals and awareness was increased on the research topic of interest in the course of the study during counseling session, and on these, the goal and objectives of the study was 96% achieved.

CONCLUSION/RECOMMENDATIONS

The results/findings from the questionnaire survey of this study indicates that adequate diet and healthy attitude to lifestyle is a good panacea to achieving longevity and that, for any change to be effected on an individual or a people, they must first belief that the change is possible/achievable, belief the susceptibility and severity of the problem as well as belief in the perceived benefits of the programme/exercise. In the course of the study, all these features were demonstrated by about 75% of our population of interest. The study proved that, among other factors, ignorance, poverty, poor lifestyle, and inequality are the major limiting factors to proper nutrition. Though ignorance attributes to malnutrition, the study still demonstrates over 65% increase in morbidity cases among the low income earners and the ignorant (the poor) as to the average income earners and the ignorant (the rich) which imply that, ignorance is also discovered among the poor and the rich as well as among the illiterates and the literates, therefore, putting ignorance as one of the limiting factors to proper dieting at the fore front.

Base on these study/findings, it is therefore recommended that the following be given recognition and consideration;

i. Local foods/traditional foods should be patronized too in our various localities to complement foreign foods in order to reduce cost and expenses as well as dependency on foreign sources for the benefit of both the poor and the rich.

ii. Consumption of at least a variety of fruit daily and at least an exercise of thirty (30) minutes early morning or evening WALK, while for the physically challenged, the disability will determine the type of exercise, therefore there is need to consult a health care provider to make recommendation.

iii. Regular information should be disseminated on adequate dieting, meals preparation both to Urban and Rural dwellers at least four (4) times annually via the media and indigenous languages, clearly stating the relevance of this.

iv. Government and stakeholders should organize food/agricultural programmes that will cover education of the public, food production/security at least annually to ensure knowledge is increased on proper/adequate nutrition with the aim of encouraging agricultural practice and promoting healthy living.

This study demonstrated that there is a strong relationship between nutrition and health.

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