

NUTRITION TRANSITION: IMPLICATION FOR HEALTH AND SUSTAINABLE LIVELIHOOD

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OUTLINE

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 - NUTRITION TRANSITION
 - HEALTH
 - SUSTAINABLE LIVELIHOOD
- ▣ PATTERNS OF THE NUTRITION TRANSITION
- ▣ FACTORS FUELLING THE NUTRITION TRANSITION
- ▣ TRADITIONAL VS MODERN DIET
- ▣ WHAT SHOULD NIGERIANS BE EATING?
- ▣ WHAT ARE WE EATING?
- ▣ HEALTH CONSEQUENCES OF NUTRITION TRANSITION
- ▣ DIETARY/LIFE STYLE GUIDELINES

WHAT IS NUTRITION TRANSITION?

- ▣ Changes in dietary patterns and nutrient intakes when populations adopt modern lifestyles during economic and social development, urbanization and acculturation

WHAT IS HEALTH?

- ▣ A state of complete physical, mental and social well being and NOT merely the absence of disease or infirmity – WHO (1948)

WHAT IS SUSTAINABLE LIVELIHOOD?

- ▣ Livelihood
 - Encompasses capabilities, assets and activities required to secure the necessities of life
- ▣ A livelihood is sustainable when it can
 - cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets (material and social resources) both now and in the future, while not undermining the natural resource base – Chambers and Conway (1992)

PATTERNS OF THE NUTRITION TRANSITION

- ▣ 5 PATTERNS OR PHASES/STAGES HAVE BEEN IDENTIFIED
 - 1. PALEOLITHIC PERIOD (HUNTER GATHERER)
 - 2. FAMINE/MONOCULTURE
 - 3. RECEDING FAMINE
 - 4. DIET RELATED CHRONIC NON COMMUNICABLE DISEASES
 - 5. BEHAVIOUR CHANGE

1. PALEOLITHIC PERIOD

- ▣ THE EARLY MAN
- ▣ HUNTER GATHERER(Wild plants and animals)
- ▣ PHYSICAL ACTIVITY IS LABOUR INTENSIVE
- ▣ LEAN BODY STATURE
- ▣ DIET IS LOW IN FAT
- ▣ HIGH IN FIBER
- ▣ LOW FERTILITY
- ▣ LOW LIFE EXPECTANCY
- ▣ HIGH MORTALITY

2. PERIOD OF FAMINE/MONOCULTURE

- ▣ PLANTED ONLY ONE TYPE OF CROP
- ▣ DIET HIGH IN CEREALS
- ▣ PHYSICAL ACTIVITY IS LABOUR INTENSIVE
- ▣ NUTRITIONAL DEFICIENCIES COMMON
- ▣ HIGH FERTILITY
- ▣ HIGH MORTALITY
- ▣ LOW LIFE EXPECTANCY

3.

INDUSTRIALIZATION/RECEDING FAMINE

- ▣ BEGINNING OF INDUSTRIAL REVOLUTION
- ▣ DIET MOSTLY STARCHY
- ▣ LOW FAT
- ▣ HIGH FIBER
- ▣ ACTIVITY PATTERN TENDING TOWARDS INACTIVITY
- ▣ MICRONUTRIENT DEFICIENCIES COMMON
- ▣ GRADUAL AND SLOW DECLINE IN MORTALITY

4. DIET RELATED NON COMMUNICABLE DISEASES

- ▣ PREVALENT IN HIGH INCOME COUNTRIES
- ▣ DIET HIGH IN TOTAL FAT, CHOLESTEROL
- ▣ HIGH IN SUGAR AND REFINED CARBOHYDRATES
- ▣ MARKED REDUCTION IN PHYSICAL ACTIVITY
- ▣ SEDENTARY LIFE STYLE
- ▣ INCREASED PREVALENCE OF OBESITY
- ▣ INCREASED LIFE EXPECTANCY WITH INCREASED DISABILITY
- ▣ DEGENERATIVE DISEASES

5. BEHAVIOUR CHANGE

- ▣ CONSCIOUS DESIRE TO PREVENT OR DELAY DEGENERATIVE DISEASES AND PROLONG LIFE
- ▣ REDUCED FAT DIET
- ▣ DECREASED CALORIC BEVERAGES/INCREASED WATER INTAKE
- ▣ INCREASED FRUIT AND VEGETABLE CONSUMPTION
- ▣ INCREASED RECREATION AND PHYSICAL ACTIVITIES
- ▣ DECREASED OBESITY AND DIET RELATED CHRONIC DISEASES ACCOMPANIED BY HEALTHY AGEING

Table 1: Nutrient composition of traditional (hunter-gatherer) and modern (Western) diets

	Traditional Diet	Modern/Western Diet
	% Total dietary energy	
Protein	9.0	10.0
Carbohydrate	80.0	50.0
Sugar	3.0	18.0
Starch	77.0	32.0
Total fat	11.0	40.0
P:S Ratio	1.41	0.44

Characteristics of The Nutrition Transition

- ▣ Increased consumption of
 - fats
 - Sugar/Salt
 - animal foods
- ▣ Decreased consumption of
 - fruits and vegetables
 - fibre
- ▣ Decreased Physical Activity
- ▣ Alcohol and Tobacco Use/Sedentary live style

WHAT ARE THE DRIVERS OF NUTRITION TRANSITION?

- ▣ URBANIZATION
- ▣ GLOBALIZATION – TRADE LIBERALISATION
- ▣ ACCULTURATION
- ▣ SOCIAL AND ECONOMIC DEVELOPMENT
- ▣ TECHNOLOGICAL DEVELOPMENT-FOOD INDUSTRY, ICT, TV, GSM ETC.
- ▣ MASS MEDIA/ADVERTISING
- ▣ FAST FOODS

TRENDS IN URBANIZATION IN NIGERIA

Year	Total Population	Urban Population	Urban Population (%)	Cities of 20,000 or more	Cities of 100,000 or more	Cities of 500,000 or more	Cities of over 1,000,000
1921	18,720,000	890,000	4.5	10	-	-	-
1931	20,956,000	1,343,000	6.7	24	2	-	-
1952/54	30,402,000	3,701,000	10.2	54	7	-	-
1963	55,670,000	10,702,000	19.2	183	24	2	-
1972	78,927,000	19,832,000	25.1	302	38	3	-
1984	96,684,000	31,906,000	33.0	356	62	14	-
1991	101,900,000	37,703,000	37.0	589	68	23	-
1999	110,650,000	43,500,000	41.0	774	76	28	5
2006	140,431,790						

Source: adapted from (Aniah, 2001; NBS, 2009)

FAST FOODS

- ▣ ANY FOOD THAT IS QUICK,
CONVENIENT AND USUALLY NOT
VERY EXPENSIVE

FAST FOODS

- ▣ HIGH IN FAT/ENERGY DENSE
 - Trans fats
 - ▣ Increase LDL cholesterol – bad cholesterol
 - ▣ Decrease HDL cholesterol – good cholesterol
- ▣ HIGH IN SUGAR
- ▣ HIGH IN SALT – MSG, ADDITIVES, COLOURINGS
- ▣ PREDISPOSE TO OBESITY
- ▣ BAD FOR HEALTH

FAST FOOD BUSINESS IN NIGERIA

- ▣ IN 2005
- ▣ 70 FRANCHISES
- ▣ TURNOVER
 - N10 – 12 BILLION ANNUALLY
 - ▣ 0.5% OF GDP

In 2014

- Over 800 QSR (Fast food restaurants)
- Worth more than N200 billion
-
- Employs about 500,000 workers

▣ WHAT SHOULD WE BE
EATING?

Fig 5: Food Guide Pyramid



Source: Olu Akinkugbe Foundation

▣ WHAT ARE WE EATING?

Fast Foods



FAST FOOD INDUSTRY WITHIN THE NIGERIAN CONTEXT



HEALTH CONSEQUENCES OF NUTRITION TRANSITION

- ▣ CHRONIC NON COMMUNICABLE DISEASES
 - OBESITY AND CO-MORBIDITIES
 - ▣ DIABETES MELLITUS
 - ▣ CARDIOVASCULAR DISEASES
 - ▣ CANCER

NUTRITION TRANSITION AND TYPE 2 DIABETES

- ▣ No longer a disease of the West, now common in all countries of the world especially the low to medium income countries
- ▣ Once a disease of affluence, now common among the poor
- ▣ Once an adult onset disease, now common among children because of the rising rates of childhood obesity

GLOBAL BURDEN OF TYPE 2 DIABETES

- ▣ According to International Diabetes Federation (IDF, 2010)
 - Diabetes affects 285 million people worldwide
 - By 2030, the figure is projected to reach 438 million
 - Two-thirds of the cases will occur in low to middle income countries
 - Globally, diabetes accounted for 12% of health expenditure in 2010 or at least \$376 billion
 - By 2030, the figure will reach \$490 billion

IMPLICATIONS FOR SUSTAINABLE LIVELIHOOD

- ▣ A livelihood is sustainable when it can
 - cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets (material and social resources) both now and in the future, while not undermining the natural resource base – Chambers and Conway (1992)

Dietary Guidelines for preventing chronic diseases

- ▣ Fruit and vegetable intake – $\geq 400\text{g/day}$
- ▣ Reduced intake of saturated fats $< 7\%$
- ▣ Reduced intake of trans fats $< 1\%$
- ▣ Reduced intake of refined sugar $< 10\%$
- ▣ Reduced intake of salt $< 5\text{g/day}$
- ▣ BMI $18.5 - 24.9\text{kg/m}^2$ for individuals



***THANK
YOU***