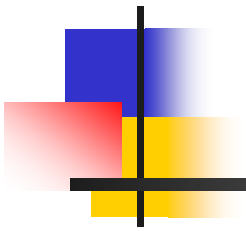


GOING FORWARD WITH NUTRITION IN NIGERIA



Prof. Tunde Oguntona
Department of Nutrition
University of Agriculture
Abeokuta, Ogun State.



PRESENTATION OUTLINE

Triple Burden of Malnutrition in Nigeria

-1

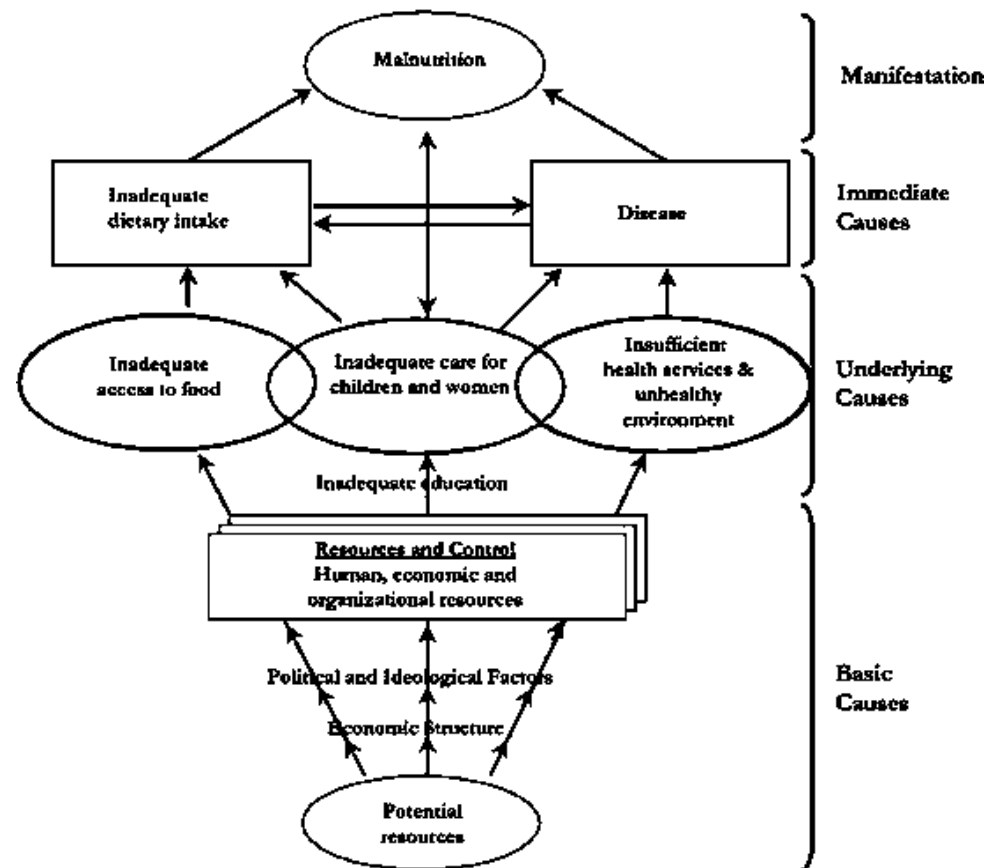
- Conceptual framework
 - Burden 1: Under-nutrition in Vulnerable groups
 - Burden 2: Nutrition Transition
 - Burden 3: Maternal Nutrition & Foetal Origin of DR-NCDs
 - **What to do ?**
- There are roles at all levels
- Individual/family levels
 - Governments' levels
 - Professional Associations' level
 - Private Sector's level

Slide 2

-1

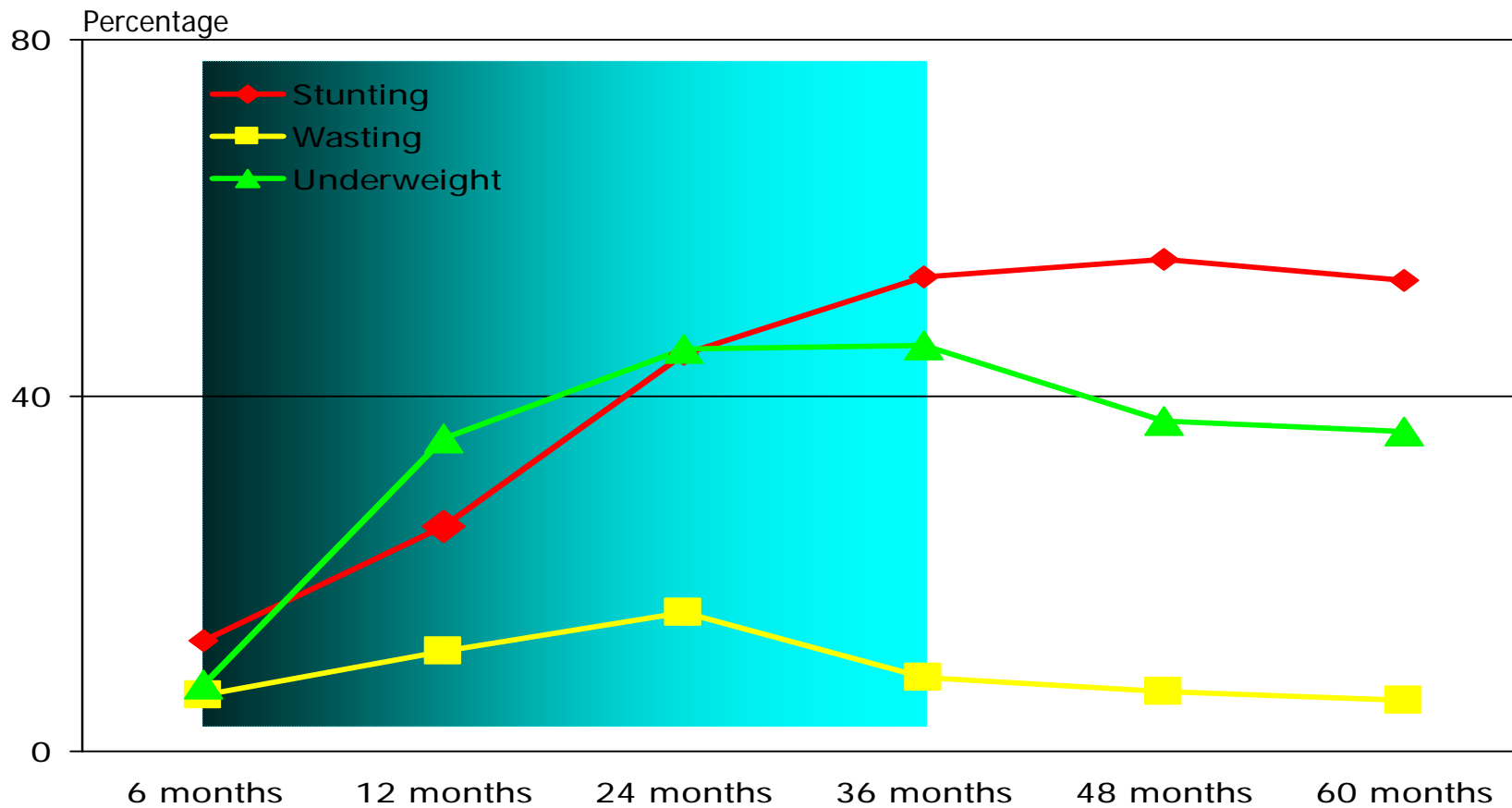
Abbey Intl. Computer Services, 2007-04-26

Conceptual framework for the causes of Malnutrition



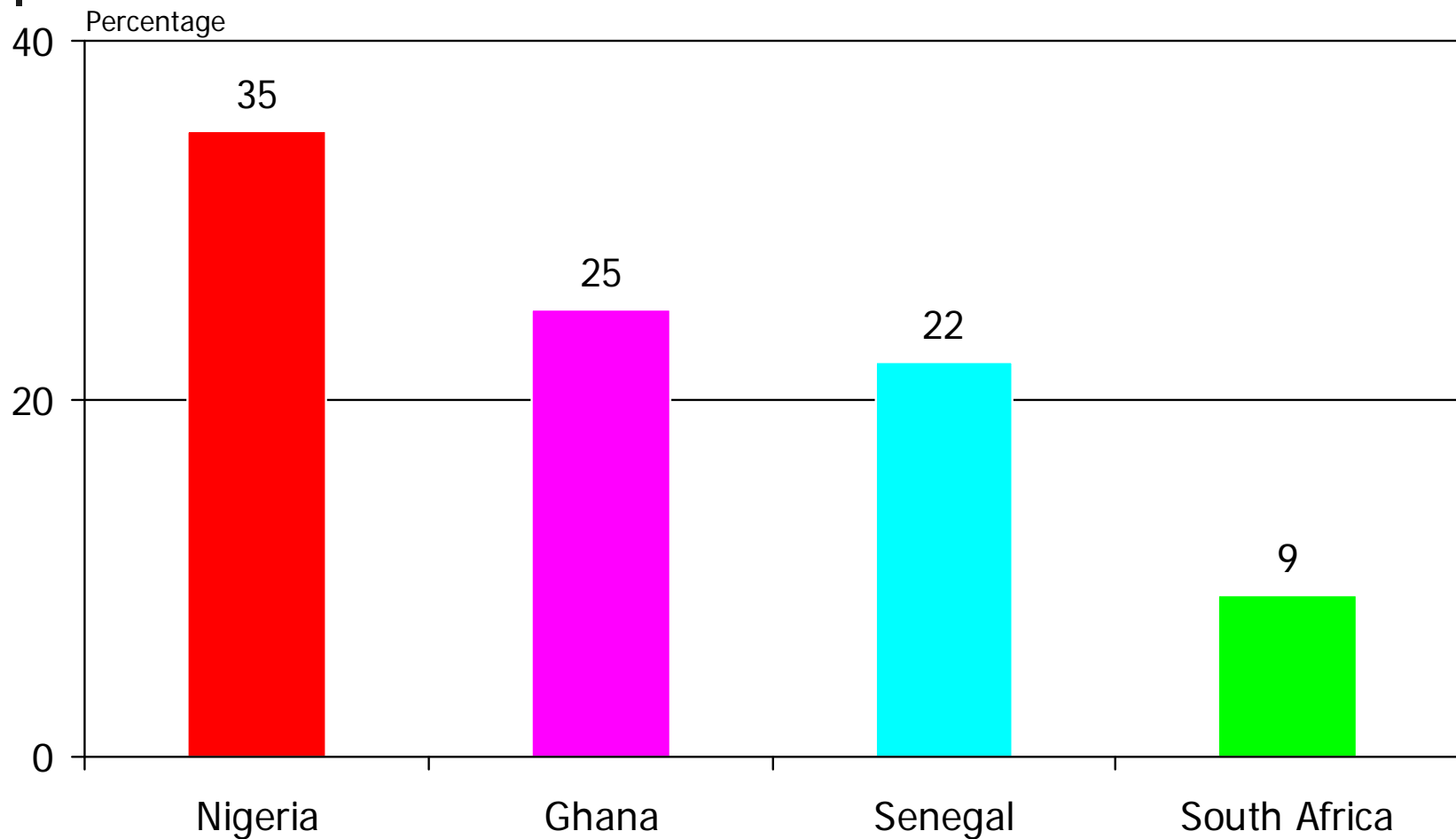
Evolution of Child Malnutrition with Age

NDHS'90



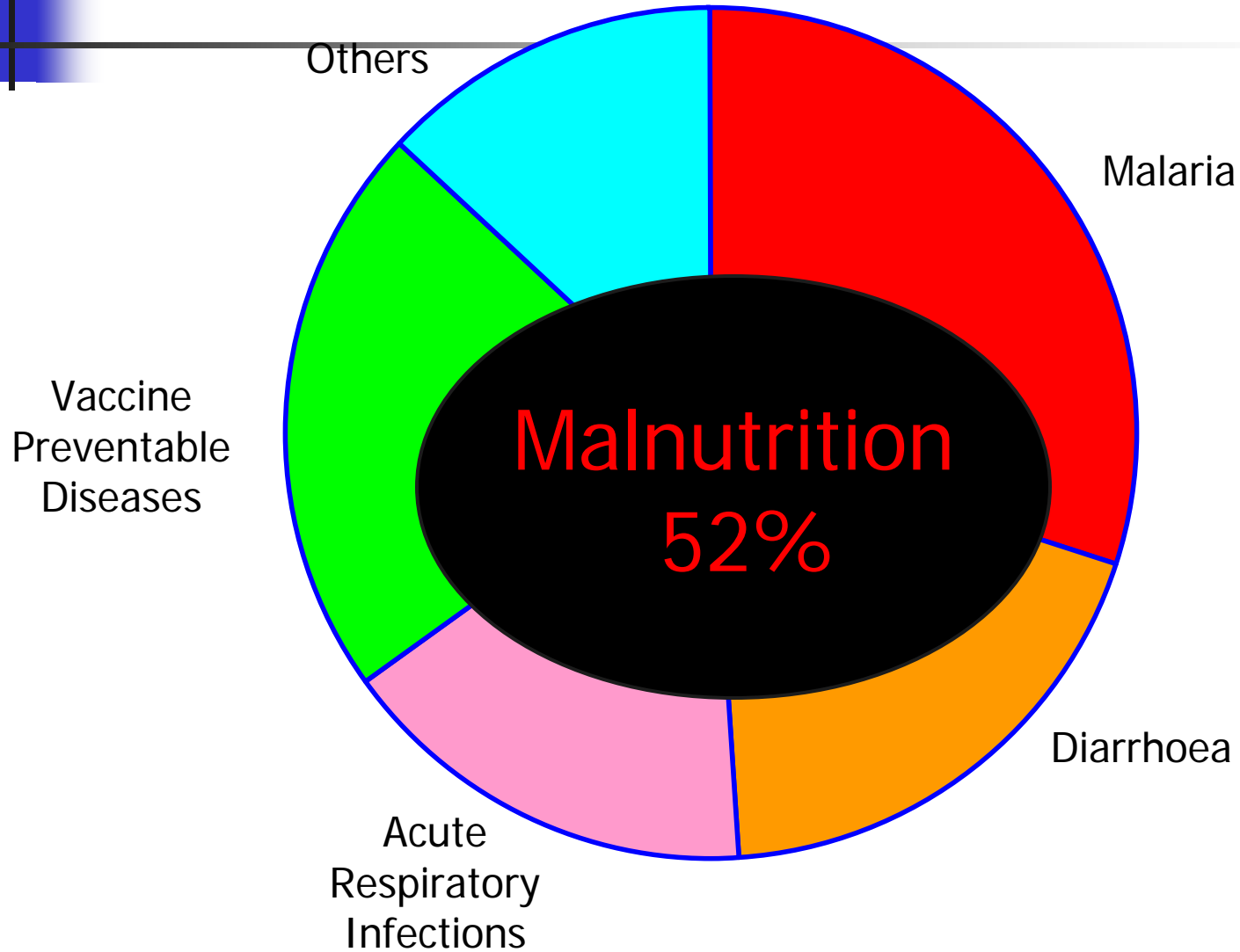
Protein-Energy Malnutrition

NDHS'90 / Unicef '01



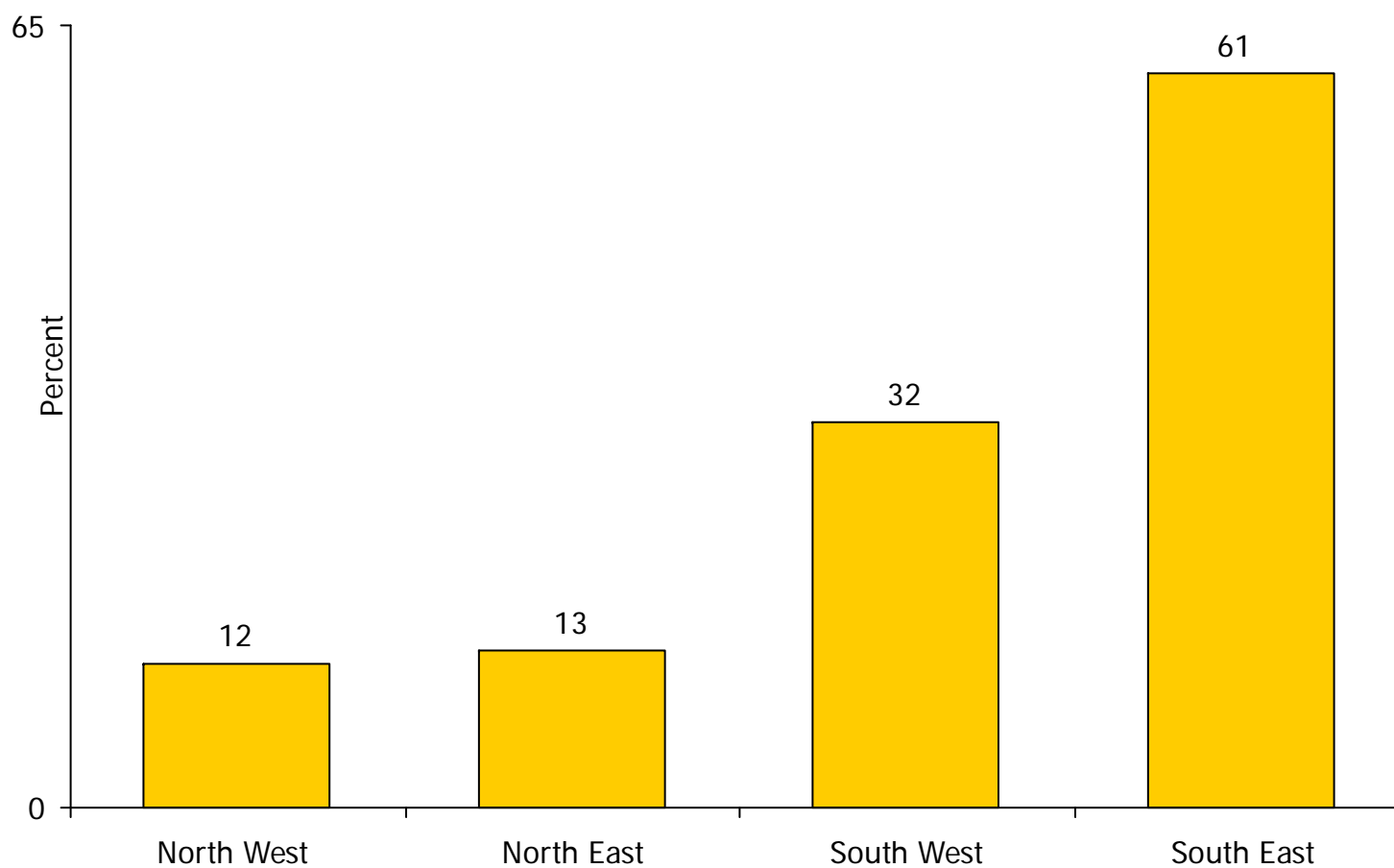
Causes of Child Mortality in Nigeria

NHMIS'99



Anemia in Women of Reproductive Age

PIC, 1993



Anemia in Women of Reproductive Age

64,000

lives

of women

lost

2001-2010



UNICEF/Pirozzi



NUTRITION TRANSITION

“As populations in the developing countries enhance their economic demand, they tend to seek out many of the lifestyle traits of western society that we now accept as causally linked factors in non-communicable diseases”

Dr. J Jervell

President, International Diabetes Federation



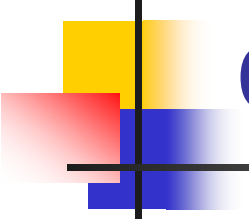
CHARACTERISTICS OF 'WESTERN DIET'

- high fat,
- low fiber,
- high salt
- high content of simple Carbohydrates
(i.e.Sugar)



Changed Dietary Pattern During Nutrition Transition

- Increased intake of high fat foods (e.g. turkey parts, broiler chicken, animal entrails, fast foods etc.)
- Increased intake of refined carbohydrate foods (e.g. flour, noodles, pasta, etc.)
- Increased intake of salt and salty foods (e.g. flavor enhancers, some processed foods)
- Increased intake of simple sugars (e.g. carbonated and fizzy drinks)
- Reduced intake of high fibre foods (e.g. cassava tuber, green leafy vegetables)



Which are these chronic diseases ?

- Cardiovascular diseases: These are diseases that affect the heart and blood vessels. They can manifest in form of hypertension, high blood pressure, stroke and other heart problems.

Predisposing factors include

- High fat intake
- Smoking
- Obesity



Chronic Diseases (contd.)

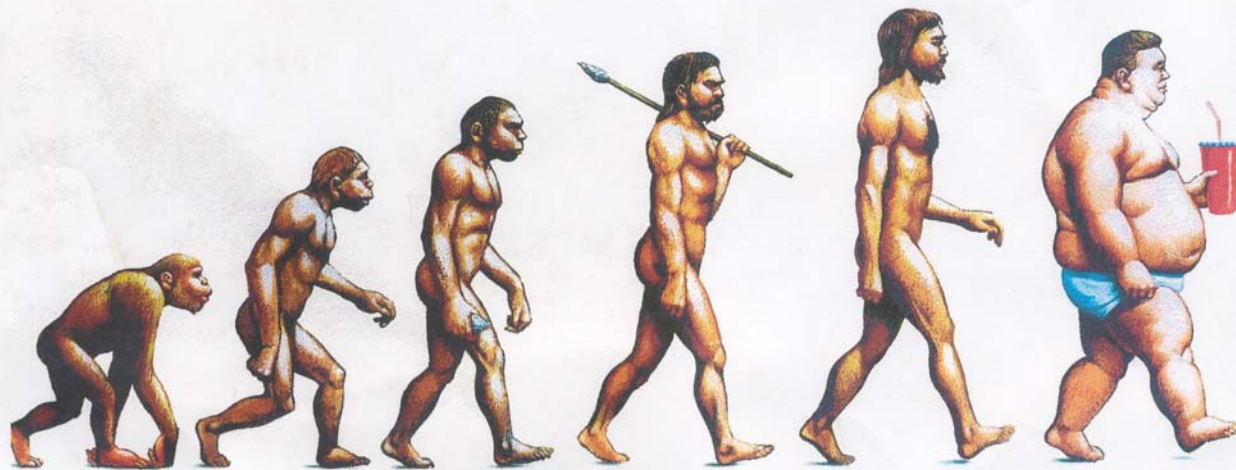
- Diabetes Mellitus: This is a heterogeneous group of syndromes, which is characterized by an elevation of fasting blood glucose. This could be caused by a relative or absolute insulin deficiency. Two types are recognized namely :
 - Insulin dependent (Type 1) and
 - Non-insulin Dependent or NIDDM, (Type 2)



Chronic diseases (contd.)

- Obesity : This is a condition where an individual' body weight in relation to his/her height is above that which is desirable for good health

The shape of things to come





Maternal Nutrition

(Foetal origin of Chronic Diseases)

- The Hypotheses is that : Factors operating during pregnancy or early post-natal development may predispose individuals toward diabetes and heart diseases



The evidence

- **Clinical and experimental evidence** showed that, compared to infants with birth-weight >4kg., LBW infants
 - 26% had impaired glucose tolerance
 - 17% were afflicted with diabetes at age 64yrs.
 - 200% more likely to die of heart disease before 65yrs.

(Hoet, J.J 1997)



More evidence

- **Epidemiological evidence from India** reveals that, young children born in Under-privileged areas with high levels of LBW already have

- High cholesterol levels*

- High blood sugar levels*

- Abnormal insulin level*

- Elevated blood pressure*

(Hoet, J.J. 1997)



Infant Feeding

- Do early feeding practices have long lasting effects on body composition in later life?



Infant feeding & DR-NCDs: The Evidence

- Duration of breast feeding showed a dose response protective relationship against risk of Overweight in 4 year-old children.-(Grummer-Strawn et.al 2004)
- Overall prevalence of overweight was lower in breastfed children at 6-14 years of age.-even with the data controlled for;
 - parental education
 - parental obesity
 - maternal smoking
 - high birthweight
 - number of siblings
 - watching TV

- (Toschke et. al. 2002)

Infant Feeding & DR-NCDs:

The Evidence (contd.)

- A significant positive association was found between breastfeeding and diabetes among children of Diabetic mothers. -(Plagemann et. al. 2004)



What to do ?

There are roles at all levels

- Individual/family levels
- Governments' levels
- Professional Associations' level
- Private Sector's level



Individual / Family level

- Prioritize food and care for pregnant and lactating mothers and their infants
- Breastfeed exclusively for six months and continue breastfeeding for 2 years or more
- Follow guidelines for complementary feeding and care practices for infants and young children
- Emphasize food group diversity, responsive feeding/eating, and adequate physical activity throughout the life cycle



National Level

- Create informed Policy environment
- Establish a sustainable Institutional framework to guide and monitor food and nutrition programs in the country
- Establish desirable intake trends and goals
- Ensure provision of recreational and good sporting facilities
- Support professional Associations



Professional Associations

- Conduct and support problem-oriented nutrition research
- Provide governments with evidence based advice
- Establish food based dietary guidelines
- Conduct vigorous and sustained advocacy



Private Sector's Role

- Actively support Governments' efforts at reducing Under-nutrition in Women & Children.
- Proactive in addressing negative issues in Nutrition Transition



Private Sector's Role (contd.)

WHY ?

- It makes good business sense
- Corporate responsibility
- Prevent unnecessary Litigation



Private Sector's Role (contd..)

- Support a common appraisal of what represents a good quality diet
- Facilitate development of a common strategy to promote healthful eating and lifestyle.
- Provide sustained Support for strengthening capacity of Human Resources for positive change.
- Institute a more robust Self monitoring for good advertising practice in the food & beverage sector.

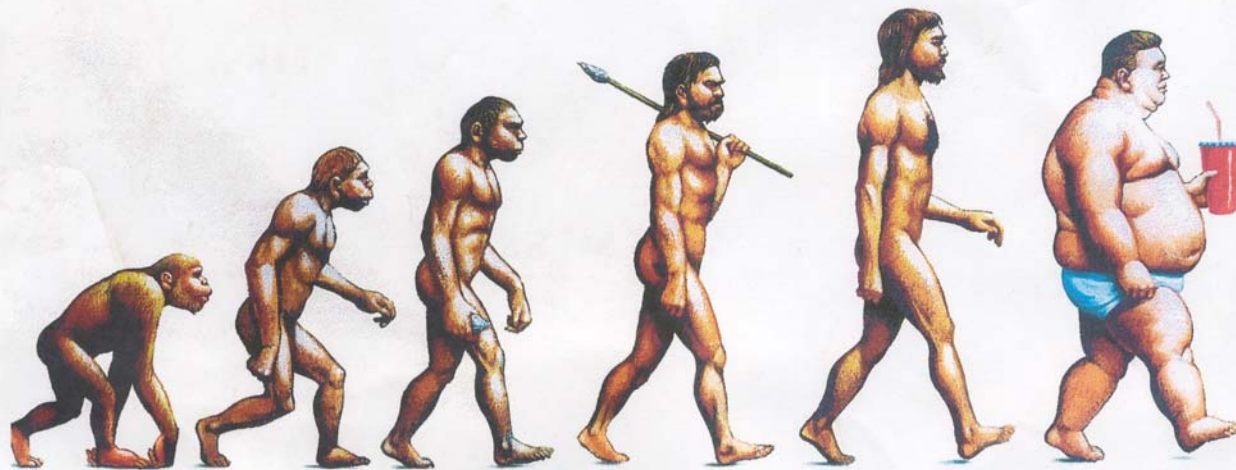


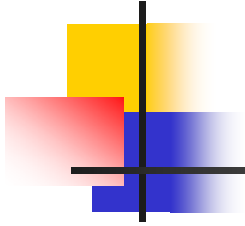
Private Sector's Role (contd...)

Some possible Specifics

- 1.) Support for regular Nation-wide nutrition data collection
- 2.) Development of appropriate high impact complementary foods/supplements
- 3.) Sustained Advocacy for Nutrition to
 - * Nigerian Governments
 - * Foreign Governments
 - * International Development Partners

The shape of things to come





THANK YOU FOR YOUR ATTENTION