Nutrition is the study of how foods and their individual parts affect survival and health of living things. Nutrition is concerned with how people stay alive and well by consumption of food. It includes how people obtain their food, how it is processed, handled, prepared, shared, eaten and with what happens in the body- how it is digested, absorbed and used by the body to contribute to good health.

To plan is to formulate a scheme or program for the accomplishment, enactment, or attainment of something. Therefore nutritional planning can be defined as the process of planning how people will stay alive and well by consumption of food that is safe and nutritious.

Nutritional Economics is a synthetic concept that deals with the interplay between economic systems, nutritional status and food security, and how changes in the former affect the latter. If economic and environmental changes in a community affect access to food, food security, and dietary health, then this interplay between culture and biology is in turn connected to broader historical and economic trends associated with globalization. Nutritional status affects overall health status, work performance potential, and the overall potential for economic development (either in terms of human development or traditional western models) for any given group of people.

**The Determinants of Food Choice**

**Major Determinants of Food Choice**

The key driver for eating is of course hunger but what we choose to eat is not determined solely by physiological or nutritional needs. Some of the other factors that influence food choice include:

- Biological determinants such as hunger, appetite, and taste
- Economic determinants such as cost, income, availability
- Physical determinants such as access, education, skills (e.g. cooking) and time
- Social determinants such as culture, family, peers and meal patterns
- Psychological determinants such as mood, stress and guilt
- Attitudes, beliefs and knowledge about food
The complexity of food choice is obvious from the list above, which is in itself not exhaustive. Food choice factors also vary according to life stage and the power of one factor will vary from one individual or group of people to the next. Thus, one type of intervention to modify food choice behaviour will not suit all population groups. Rather, interventions need to be geared towards different groups of the population with consideration to the many factors influencing their decisions on food choice.

1. Biological determinants of food choice

   - Hunger and satiety

Our physiological needs provide the basic determinants of food choice. Humans need energy and nutrients in order to survive and will respond to the feelings of hunger and satiety (satisfaction of appetite, state of no hunger between two eating occasions). The central nervous system is involved in controlling the balance between hunger, appetite stimulation and food intake.

The macro-nutrients i.e. carbohydrates, proteins and fats generate satiety signals of varying strength. The balance of evidence suggests that fat has the lowest satiating power, carbohydrates have an intermediate effect and protein has been found to be the most satiating.

The energy density of diets has been shown to exert potent effects on satiety; low energy density diets generate greater satiety than high energy density diets. The high energy density of high-fat and/or high-sugar foods can also lead to ‘passive overconsumption’, where excess energy is ingested unintentionally and without the consumption of additional bulk.

An important satiety signal may be the volume of food or portion size consumed. Many people are unaware of what constitutes appropriate portion sizes and thus inadvertently consume excess energy.

   - Palatability

Palatability is proportional to the pleasure someone experiences when eating a particular food. It is dependent on the sensory properties of the food such as taste, smell, texture and appearance. Sweet and high-fat foods have an undeniable sensory appeal. It is not surprising then that food is not solely regarded as a source of nourishment but is often consumed for the pleasure value it imparts.

The influence of palatability on appetite and food intake in humans has been investigated in several studies. There is an increase in food intake as palatability increases, but the effect of palatability on appetite in the period following consumption is unclear.

   - Sensory aspects
‘Taste’ is consistently reported as a major influence on food behaviour. In reality ‘taste’ is the sum of all sensory stimulation that is produced by the ingestion of a food. This includes not only taste per se but also smell, appearance and texture of food. These sensory aspects are thought to influence, in particular, spontaneous food choice.

From an early age, taste and familiarity influence behaviour towards food. A liking for sweetness and a dislike for bitterness are considered innate human traits, present from birth. Taste preferences and food aversions develop through experiences and are influenced by our attitudes, beliefs and expectations.

2. Economic determinants of food choice

- Cost and accessibility

There is no doubt that the cost of food is a primary determinant of food choice. Whether cost is prohibitive depends fundamentally on a person's income and socio-economic status. Low-income groups have a greater tendency to consume unbalanced diets and in particular have low intakes of fruit and vegetables. However, access to more money does not automatically equate to a better quality diet but the range of foods from which one can choose should increase.

Accessibility to shops is another important physical factor influencing food choice, which is dependent on resources such as transport and geographical location. Healthy food tends to be more expensive when available within towns and cities compared to supermarkets on the outskirts. However, improving access alone does not increase purchase of additional fruit and vegetables, which are still regarded as prohibitively expensive.

3. Physical determinants of food choice

- Education and Knowledge

Studies indicate that the level of education can influence dietary behaviour during adulthood. In contrast, nutrition knowledge and good dietary habits are not strongly correlated. This is because knowledge about health does not lead to direct action when individuals are unsure how to apply their knowledge. Furthermore, information disseminated on nutrition comes from a variety of sources and is viewed as conflicting or is mistrusted, which discourages motivation to change. Thus, it is important to convey accurate and consistent messages through various media, on food packages and of course via health professionals.

4. Social determinants of food choice

- Influence of social class
What people eat is formed and constrained by circumstances that are essentially social and cultural. Population studies show there are clear differences in social classes with regard to food...