

# 1. Nutrition - Malnutrition and Diseases of Malnutrition

Wednesday, 25 September 2019 09:43

## Public Health Nutrition OVERVIEW

1. Nutrition Policies Guidelines and Protocols - MOH
  - Understanding Malnutrition
  - High priority nutrition interventions - Kenya
  - Priority Nutrition Interventions within the health sector
  - Key nutrition policies, guidelines and protocols
2. Community Nutrition Diagnosis
  - Assessment of nutrition status - methods and protocols
  - Methods in assessment of child nutritional status
  - Interpretation and application of assessment results

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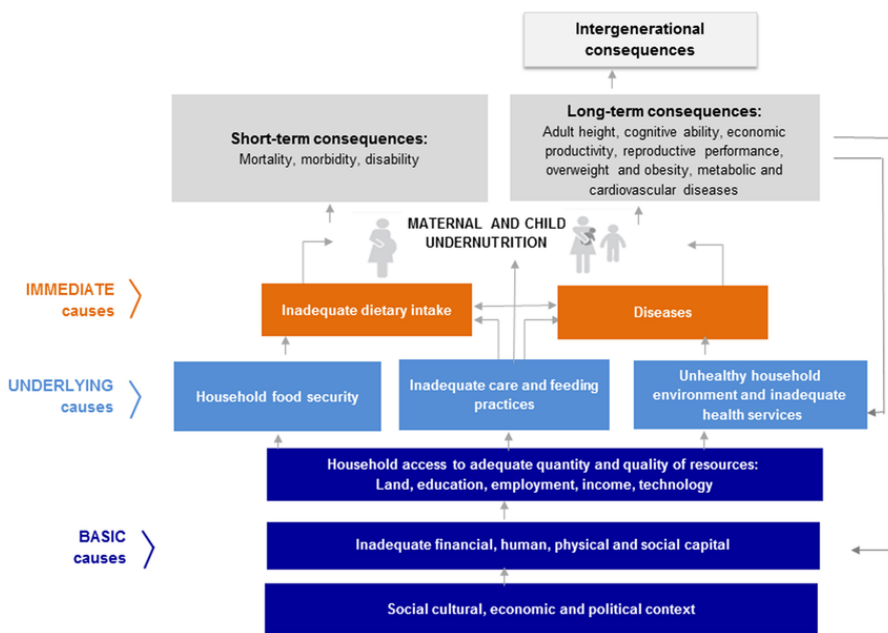
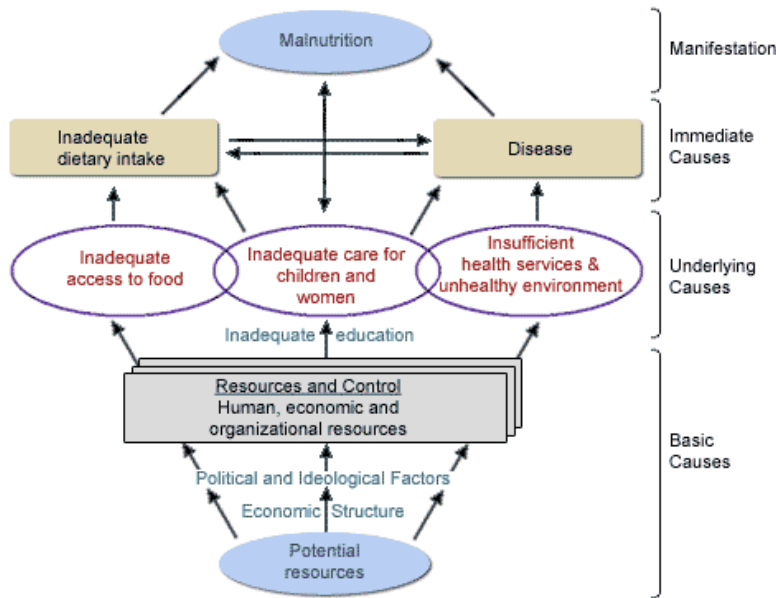
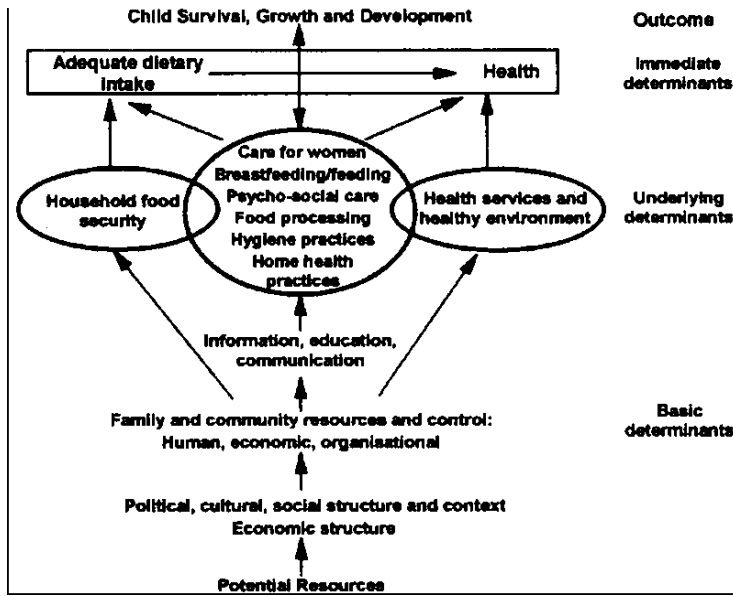
- CAT 1 - Community Diagnosis - GPA, HCA, Group work reports
- Written CAT - 15 marks
- Final Exam - MCQ, SAQ, LAQ
- Oral Exam - 10% of the 70%

## Malnutrition:

- It is impairment of health reflecting from imbalance between dietary intake and requirement
- Can be problems due to intake of food or processing of food
- It includes
  - Overnutrition (obesity) due to excess intake
  - Undernutrition or insufficient intake
  - Malnutrition - single nutrient deficiency OR 2 or more required nutrients - e.g. vitamins, minerals
- Poor Nutrition is usually manifested in many forms
  - Depending on the major deficient nutrient
  - Depending on the period of exposure
- Malnutrition types
  - Macronutrient Deficiency
    - PEM - Kwashiorkor, Marasmus - moderate to severe forms
  - Micronutrient Deficiency
    - Iron Deficiency Anaemia - Nutritional anaemia
    - Vitamin A deficiency
    - Iodine Deficiency Disorder
- Manifestation of PEM
  - Underweight
  - Stunted growth
- Nutrition - requirements
  - Male - 2500 kCal / day
  - Female - 2100 kCal / day

## Conceptual framework of undernutrition

- Developed by UNICEF in 1990
- It explains the
  - Immediate causes which affect the individual
  - Underlying causes relating to families - households
  - Basic causes which relate to the community and nation
- What is malnutrition driven by:
  - Culture
  - Beliefs
  - Health seeking behaviour



**Maternal and Child Undernutrition**

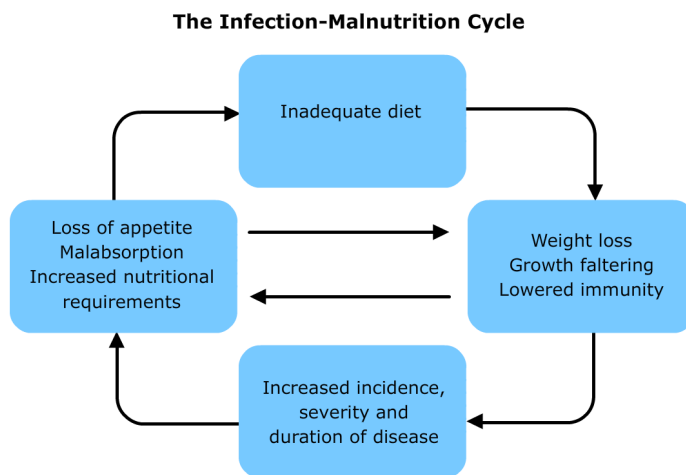
- Short Term Consequences
  - Mortality
  - Morbidity
  - Disability
- Long Term Consequences
  - Adult height
  - Cognitive ability
  - Economic productivity
  - Reproductive Performance
  - Metabolic + CVS consequences

Leads to...

- Inter-generational Consequences
  - Laneet Series 2003
  - Need to break the cycle
  - Changes that lead to prevention

Immediate Causes

- Interplay between inadequate dietary intake and infection at the individual level which leads to a vicious cycle
- Disease <-> Food Intake



Underlying Causes

- Concern unmet basic needs of children and women
- They include:
  - Inadequate household food security
  - Inadequate care for women and children
  - Inadequate health, health services and unhealthy environment including poor water and sanitation
- What drives the inadequate household food security?
  - Transport
  - Poverty - SES
  - Climate and ecology - drought
  - Agricultural techniques
  - Poor governance and corruption
  - Conflict - tribal
  - Pests and diseases
  - Poor supply
  - Weak support for production
- What drives the inadequate care for women and children?
  - Women
    - Dietary intake - Fe + folate
    - Short leaves for maternity / nursing mothers
    - Poor spouse support
    - Clinics during and after pregnancy
  - Children
    - Poor hygiene techniques

- Poor quality diets
- Not immunizing and supplementing children

### Household Food Security

- Access to food
- Adequate quality + quantity to fulfil all nutritional requirements for all household member throughout the year.
- People are food secure if they meet their food needs through out the year and if the food is both available and accessible.

### Livelihood Strategies

- To achieve food security people undertake various activities
  - Agriculture
  - Agro-pastoralism
  - Trade
  - Fishing / hunting

### Caring Practices

- They help translate available food and health resources into adequate food intake and prevention of diseases
  - Feeding practices
    - Breastfeeding
    - Complementary feeding
  - Health and hygiene seeking practices
    - Immunization
    - Early detection and treatment of infections
  - Emotional and cognitive stimulation for children and women
  - Care and support for women

### Public Health and Environmental Factors

- Access to basic health services - should reduce severity and duration of infections as determined by distance and cost of health services
- Access to portable water and sanitation
- Presence of malaria breeding sites

### Socioeconomic Causes

- Related to
  - Unequal distribution of resources in a society, historical background
  - Other external factors: Political, Legal, Cultural

### Community Nutrition Diagnosis

- Key Focus in Nutrition
  - Objectives
  - Tools
  - Pre-texting data collection tools
  - Data collector, Nutrition status assessment
  - Analysis and report writers

H/W: Role of Diet and Nutrition in NCDs = 1st October 2019

3 pages