

2. Nutrition - Nutrition Interventions - an Overview

Wednesday, 25 September 2019 09:37

Malnutrition - Summary

- Comprises of a **double burden of malnutrition**
 - Undernutrition - Stunting, under-weight, and wasting and micronutrient deficiencies
 - Overnutrition - Overweight and Obesity
 - *Prevalence of undernutrition tend to be higher than that of overnutrition*
 - *Look up the Kenya Prevalence of the 3 indicators of undernutrition (Stunting, underweight and wasting)*
- *What does it mean when we say something is of public health significance?*
 - *Affects a large number of people - subject for worry*
 - *It is preventable - mostly using cost effective methods and should not be causing high rates of mortality*
 - *High morbidity and Mortality associated with that particular disease / conditions if left unaddressed, unresolved and untreated*
- There are also multifactorial causes of malnutrition

Consequences of undernutrition

- Has negative consequences on health, physical and cognitive growth, intellectual performance and earning potential, thereby constraining social and economic development of communities and countries
- Inhibits the body's immune system from fighting disease, inhibits cognitive, social emotional and motor development
- Irreversible consequences of chronic malnutrition early in life
- Nutrition related non-communicable disease
 - E.g. Diabetes - due to high diet in starches and sugars

Goal?

- Improve nutrition to save lives, increase economic productivity and advance development
- How?
 - Reduce chronic, acute, and micronutrient malnutrition among women of reproductive age and children under 5 years with a focus on the first 1000 days window - Pregnancy to a child's second birthday
 - *Why - first immunization for a baby comes from breastmilk*
 - *Child also has many developmental milestones during the first 2 years*
 - *Child is totally vulnerable and dependent on the parents for their nutrition which is why it is crucial to get it right*
 - *Child is also vulnerable from a health perspective during the first 2 years of their life as they have not developed fully (immunity, digestion)*
 - *Mothers need to be able to breastfeed exclusively for the first 6 months*
 - *Mother needs to feed well during pregnancy - e.g. iron and other micronutrients that could hinder a healthy baby formation*

1000 days window of opportunity

- Science has shown that the first 1000 days (Pregnancy and till a child's 2nd birthday) are the most critical to ensure physical and cognitive development
- Focus - key interventions
 - Good maternal nutrition
 - *Very critical - responsibility falls on the mother and family to ensure that a mother has good nutrition during pregnancy and lactation*
 - *Micronutrients such as iron and folate are also very important during this time*
 - *Vitamin A is also very critical in this process*
 - *High protein requirement*
 - *Calcium is also very necessary during both pregnancy and lactation*
 - *Hydration is also very important*
 - Optimal breastfeeding (immediate and EBF)
 - *What is optimal - exclusive for 6 months, the complementary continuing up to 24 months*
 - Appropriate complementary feeding - dietary diversity
 - *Introduction should not be past 6 months*
 - *Nutritional Quality of the diet*
 - *Adequate in terms of amounts - 250 ml - thus give small frequent feeds as you continue to breastfeed from 6 months increasing in amount*
 - *Safety of the food*
 - *Keep tabs of how much has been eaten, and encourage them if they are a poor feeder*
 - *Dietary diversity - changing the starches and protein components of the meal to ensure diversity of the meal*
 - Appropriate hygiene practices

Strategies

- Multisectoral approach that addresses direct and underlying causes of malnutrition
 - Water and irrigation
 - Education
 - Government
 - Family and community
- Implement high impact interventions in **health, nutrition, agriculture, education, water and sanitation**
 - Health - supplementation for women and children, and control and treatment of diseases, monitoring of women and children, immunization
 - Nutrition - diet for certain conditions and certain ages of patients
 - Agriculture - food security, food safety, government intervention
- Scale up **effective, integrated** nutrition specific and nutrition sensitive intervention

Nutrition Specific Interventions

- These are interventions that address **immediate causes of undernutrition** such as
 - *Dietary intake*
 - *Diseases and infection*
- Nutrition Specific Interventions, if implemented at scale, have impact on malnutrition and the associated morbidity and mortality
- *H/W What is the difference between Nutrition specific and nutrition sensitive intervention, pick one and discuss it (20 marks)*

- **Kenya's High Impact Nutrition Interventions (HINI)**
 1. Promote exclusive breastfeeding for 6 months. **13% deaths prevented**
 2. Promote optimal complementary feeding after 6 months. **6% deaths prevented**
 3. Vitamin A supplementation 2 doses / year for children 6 - 59 months. **2% deaths prevented**
 - i. 6 months to 12 months - 100000 iu dose
 - ii. 12 months to 59 months - 200000 iu dose 2 times a year
 4. Zinc supplementation for diarrhoea management. **5% deaths prevented**
 - i. **Why???** What is the role of zinc ?
 5. Multiple micronutrients for children < 5 years - in the form of a sachet of 2g with about 14 different micronutrients
 6. Iron folic acid supplementation for pregnant mothers. **20% reduction in maternal mortality**
 7. Deworming for children (2 doses / yr 12 - 59 months) - prevent anaemia
 8. Promotion of improved hygiene practices = hand washing - prevention of diarrhea disease
 9. Salt iodization. **13% increase in intelligence quotient**
 10. Iron fortification of stable foods. **17% increase in adult productivity**
 11. Prevention and treatment of severe acute malnutrition and moderate malnutrition

- Why HINI For Kenya?
 - Malnutrition levels unacceptably high
 - About 30% of child deaths attributed to malnutrition
 - Growth of 2.1 million Kenyan children < 5 years stunted limiting realization of full potential

- **Scale Up Requires**
 - Leadership
 - Funding
 - Partnerships and coordination
 - Advocacy
 - Monitoring and evaluation
 - Long term commitment

Nutrition Sensitive Interventions

- Addresses underlying and systemic / basic causes of malnutrition and include
 - Family planning - healthy spacing of pregnancies
 - Water, sanitation and hygiene
 - *Access to water*
 - *Proper waste disposal of waste*
 - *Proper washing of food before usage and cooking*
 - Nutrition sensitive agriculture
 - Food safety and processing
 - *Safe transportation of food products*
 - *Pesticides, toxins that should not be found in local foods*
 - Early childhood care and development
 - *Ensuring that schools and nursery's are providing adequate quality and quantity of nutrition for the students*
 - Girls and women's education and empowerment
 - Economic strengthening, livelihoods and social protection
 - *Social protection programs to ensure families in rural areas can receive a small amount of money to get by on the minimum*

Summary.

- Explicitly designed to address direct and underlying determinants of under nutrition
 - Food intake
 - Disease / infections
 - Household food security
 - Infectious disease control (public health and environment factors)
 - Caring practices

H/W - Maternity Protection

- *Recommendation is that if a mother is not able to breastfeed a baby, then they should express milk*
- *Working mothers should be able to express milk at work in a private area designated for mothers.*
- *Provision for mother who choose not to breastfeed / cannot produce milk - then they may use formula milk, however this will not be the same quality as breastmilk.*