NUTRITION OF WOMEN AND CHILDREN IN TANZANIA

Theobald C.E. Mosha; Ph.D.
SOKOINE UNIVERSITY OF AGRICULTURE
BACKGROUND

• Tanzania is one of the countries in East Africa.
• It has a land area of 945,087 sqkm of which 886,039 sqkm is dry land and 59,048 sqkm is water body
• It has a population of 44,929,002.
• 47% of the household members are children less than 15 years
Background

- Average household size is 5 people
- Literacy level:
  --- Men – 82%, and Women: 72%
- Secondary education
  --- Men – 23%, and Women: 16%
- Total fertility rate – 5.4 children per woman; TFR has declined slightly over the past 20 yrs
- Average age at first birth – 19.5 years
Trends in Fertility

TFR for women age 15-49 for the 3-year period before the survey

<table>
<thead>
<tr>
<th>Year</th>
<th>TFR</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDHS 1991-92</td>
<td>6.3</td>
</tr>
<tr>
<td>TDHS 1996</td>
<td>5.8</td>
</tr>
<tr>
<td>TRCHS 1999</td>
<td>5.6</td>
</tr>
<tr>
<td>TDHS 2004-05</td>
<td>5.7</td>
</tr>
<tr>
<td>TDHS 2010</td>
<td>5.4</td>
</tr>
</tbody>
</table>
Fertility by Zone

Tanzania 5.4

Lake 6.3
Western 7.1
Central 6.5
Southern Highlands 5.4
Northern 4.6
Eastern 3.9
Zanzibar 5.1
Southern 4.4

TFR for women age 15-49 for the 3-year period before the survey
Background

- Infant Mortality rate = 51 per 1000 live births
- Under-five mortality rate = 81 per 1000 live births
- Neonatal mortality rate = 26 per 1000 live births
- Life expectancy = 53.14 years
CHILDREN AND WOMEN NUTRITION

• Good nutrition – prerequisite for national development and well-being
• Poor nutrition affects mostly women and children due to their unique physiology
• SE factors in society are also unfavorable to these social groups
• Adequate nutrition - critical to child growth and development
CHILDREN AND WOMEN NUTRITION

- Age 0 – 2 y important for optimal growth. Children under the age of 5 years - used as a marker for changes in nutrition situation
- This period, however, is characterized by micronutrient deficiencies that impair growth
- Prevalence of illnesses including malaria, diarrhea and RTI are high
- Malnutrition in women reduces productivity, increases susceptibility to infections and adverse pregnancy outcomes
Nutrition situation of children in TZ

- Stunting – low height relative to age
- Prevalence of stunting = 42%
  --- Highest prevalence (55%) = 18 – 23 mo children
  --- Lowest prevalence (18%) = < 6 mo children
- Stunting by sex:
  --- Boys = 46%
  --- Girls = 39%
- Stunting by Residence
  --- Rural areas = 45%
  --- Urban areas = 32%
Nutrition situation of children in TZ

- Stunting by region
  --- 4 regions had levels exceeding 50%
  1. Dodoma = 56%
  2. Lindi = 54%
  3. Iringa = 52%
  4. Rukwa = 50%

--- 2 regions had levels below 20%
  1. Zanzibar urban = 20%
  2. Dar es Salaam = 19%
Children’s Stunting by Region

Tanzania
- Kagera: 44%
- Mwanza: 39%
- Arusha: 31%
- Manyara: 46%
- Tanga: 28%
- Pwani: 32%
- Morogoro: 44%
- Dodoma: 56%
- Lindi: 54%
- Mbeya: 50%
- Rukwa: 50%
- Ruvuma: 46%
- Mtwara: 44%
- Dar es Salaam: 19%

Percent of children under 5 stunted (too short for age)
Nutrition situation of children in TZ

• Wasting – indicates severe loss of body mass or excessive body mass (O/wt and Obesity)

• Prevalence of Wasting: 5%
  --- Highest prevalence (11%) = 6 – 8 mo children
  --- Lowest prevalence (2%) = 36 – 47 mo children

• Wasting by Sex
  --- Boys = 6%
  --- Girls = 4%
Nutrition situation of children in TZ

• Wasting by Residence
  --- Urban = 6%
  --- Rural = 2%

• Wasting by Region
  --- Arusha had the highest prevalence = 10%
  --- Mbeya had the lowest prevalence = 1%
Nutritional Status of Children

- Stunted (too short for age): 25% moderate, 17% severe (42% total)
- Wasted (too thin for height): 4% moderate, 1% severe (5% total)
- Underweight (too thin for age): 12% moderate, 4% severe (16% total)

*Based on the new WHO Child Growth Standards
Nutrition situation of children in TZ

- Prevalence of O/Weight and Obesity defined by WHZ ≥ +2 SD = 5%
- O/Weight and Obesity by sex
  - Boys = 5.5%
  - Girls = 4.6%
- Prevalence by residence
  - Rural = 4.9%
  - Urban = 5.8%
(NBS, 2011)
Nutrition situation of children in TZ

• Underweight – low weight relative to age
• Prevalence of underweight = 16%
  --- Highest prevalence (21%) = 18 – 23 mo children
  --- Lowest prevalence (9%) = < 6 mo children
• Underweight by sex:
  --- Boys = 17%
  --- Girls = 14%
• Underweight by Residence
  --- Rural areas = 17%
  --- Urban areas = 11%
Nutrition situation of children in TZ

• Underweight by region
  1. Arusha has the highest prevalence = 28.2%
  2. Mbeya has the lowest prevalence = 9.7%
Nutrition situation of children in TZ

• Anemia – characterized by low levels of Hb in blood
• Major public health problem in TZ among children and pregnant women
• Cause – inadequate intake of iron, folate, Vit B12
• Enhanced by malaria, parasitic infection and sickle cell diseases
Nutrition situation of children in TZ

• Prevalence of anemia = 57%
  ---Highest prevalence (81%) = 9 – 11 mo children
  --- Lowest prevalence (47%) = 48 - 59 mo children

• Anemia by sex:
  --- Boys = 60.9%
  --- Girls = 56.4%

• Anemia by Residence
  --- Rural areas = 60.9%
  --- Urban areas = 58.1%
Anaemia in Children

Percentage of children age 6-59 classified as having anaemia

- Mild (10.0-10.9 g/dl): 27
- Moderate (7.0-9.9 g/dl): 29
- Severe (below 7.0 g/dl): 2
- Any anaemia: 59
Nutrition situation of children in TZ

• Anemia by region

1. Lindi has the highest prevalence = 76.8%
2. Kilimanjaro has the lowest prevalence = 41.8%
Anemia in Children by Region

Percent of children age 6-59 months with any anaemia

- Tanzania 59%
- Kagera 49%
- Kigoma 62%
- Mwanza 63%
- Mwanga 75%
- Mara 47%
- Arusha 63%
- Manyara 52%
- Kilimanjaro 42%
- Tanga 53%
- Pwani 71%
- Morogoro 59%
- Pemba North 70%
- Pemba South 69%
- Unguja North 78%
- Unguja South 59%
- Tabora 69%
- Shinyanga 63%
- Singida 44%
- Singida 53%
- Dodoma 48%
- Rukwa 42%
- Mbeya 55%
- Iringa 46%
- Lindi 77%
- Ruvuma 59%
- Mtwara 67%
- Dar es Salaam 69%
- Town West 59%

Trends in Anemia in Children

Percentage of children age 6-59 classified as having anaemia

- Any anaemia: 72 (2004-05 TDHS), 59 (2010 TDHS)
Nutrition Situation of Women in TZ

- Short stature - reflects previous SE conditions, inadequate nutrition during childhood and adolescence
- Height < 145 cm – increased risk
- Proportion of women with < 145 cm
  -- National average = 3.5%
  -- Highest proportion (5.4%) among 15 – 19 y group
  -- Lowest proportion (2.8%) among 20 – 29 y group

Height distribution by Residence
-- Urban = 3.4%
-- Rural = 3.4%
Nutrition Situation of Women in TZ

• Distribution of heights by region
  -- Highest proportion (11%) of women with height < 145 cm = Mtwara region
  -- Lowest proportion (1%) of women with height < 145 cm = Arusha, Mara and Shinyanga regions
Nutrition Situation of Women in TZ

• **Thinness**

• Women with BMI < 18.5 kg/sqm
  -- National average = 11.8%
  -- Highest proportion (17.6%) among 15 – 19 y group
  -- Lowest proportion (2.5%) among 20 – 39 y group

• Low BMI distribution by Residence
  -- Urban = 8.1%
  -- Rural = 12.8%
Nutrition Situation of Women in TZ

• Distribution of low BMI by region
  -- Highest proportion (24.5%) of women with low BMI = Dodoma region
  -- Lowest proportion (4.5%) of women with low BMI = Mbeya region
Nutrition Situation of Women in TZ

• **Overweight and Obesity**
  • Women with BMI $\geq 25$ kg/sqm
    -- National prevalence = 21.6%
    -- Highest prevalence (29.3%) among 30 – 39 y group
    -- Lowest prevalence (9.1%) among 15 – 19 y group

• **Overweight/Obese by Residence**
  -- Urban = 36.3%
  -- Rural = 15.2%
Nutrition Situation of Women in TZ

• Prevalence of Overweight/Obesity by region
  -- Highest prevalence (44.6%) = Dar es Salaam region
  -- Lowest prevalence (9.5%) = Dodoma region
Nutritional Status of Women

- Normal: 67%
- Overweight: 15%
- Thin (mild): 9%
- Thin (moderate and severe): 2%
- Obese: 6%

Percent of women 15-49 by nutritional status
Nutrition Situation of Women in TZ

• **Anemia Prevalence**
  
  Women with Hb < 12 g/dL (non pregnant) and Hb < 11 g/dL (pregnant women)

• National prevalence = 40%
  
  -- Highest prevalence (42.2%) among 15 – 19 y group
  
  -- Lowest prevalence (38.8%) among 30 – 39 y group

• Anemia distribution by Residence
  
  -- Urban = 43.5%
  
  -- Rural = 38.8%
Nutrition Situation of Women in TZ

• Prevalence of anemia by region
  -- Highest prevalence (64.2%) = North Pemba region
  -- Lowest prevalence (17.9%) = Kilimanjaro region
Anemia in Women

Percentage of women age 15-49 classified as having anaemia

- Mild: 29%
- Moderate: 10%
- Severe: 1%
- Any anaemia: 40%
Anemia in Women by Region

Percentage of women age 15-49 classified as having any anaemia
Trends in Anemia in Women

Percentage of women age 15-49 classified as having anaemia

- **2004-05 TDHS**
  - Mild: 22
  - Moderate: 15
  - Severe: 1
  - Any anaemia: 48

- **2010 TDHS**
  - Mild: 29
  - Moderate: 10
  - Severe: 1
  - Any anaemia: 40
Summary of key aspects

• 42% of children are **stunted** (short for their age)
• 11% of women are **thin**, while
• 22% are **overweight or obese**
• 59% of children age 6-59 mo are **anemia** while
• 40% of women age 15-49 are classified as **anemia**.
Important Targets

• National Strategy for Growth and Poverty Reduction (*MKUKUTA*) targets to reduce IMR, U5MR and MMR by half by end of 2015.

• According to UNICEF, tackling the global nutrition problem is essential to attaining any of the other MDGs.

• MDG No. 4 states that in order to reduce the current infant and U5 mortality levels, under-nutrition in children must be reduced by two thirds (60%) by the year 2020.
Important Targets

• According to FtF - comprehensive package of proven nutrition interventions can achieve a —one-fifth to one-third decrease in stunting among children under five years over a two to three year period.

• FtF program is thus determined to improve the nutritional status of women and children in Tanzania

• They set following targets that must be attained by the end of the 5 year project

1. Reduce the prevalence of stunting among children from 42% to 32%

2. Reduce the prevalence of wasting among children from 5.9% to <5%

3. Reduce the prevalence of underweight among women (BMI < 18.5 kg/sqm) from 11% to <1%
Important Targets

• In order to achieve their goal, FtF needs support from development partners, interested parties and stakeholders

-- CRSP

--- National Governments

--- NGO

--- CBO

--- FBO

--- Other stakeholders
Thank you for listening