Causality of Undernutrition among Children and Women in Nepal

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Workshop on Causality Analysis for Nutrition: Preparation for MSNP-II
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Deprivations will be analyzed

• **Stunting**
  ✓ Terai
  ✓ Mid and Far West Mountain and Hills
  ✓ Central, Western, Eastern Mountains and Hills

• **Obesity**
Malnutrition & death

Inadequate dietary intake

Disease

Insufficient health services & unhealthy environment

Inadequate Maternal & Child Care

Resource Control and Organizational structures

Political, Ideological, Economic structures

Insufficient food security

Root causes

Underlying causes

Immediate causes

Manifestations
Causality for Under-nutrition: Terai

Manifestation
- Undernutrition
- Stunting

Immediate Causes
- Inadequate Dietary Intake
- Disease

Underlying Causes
- Insufficient Health Services & Unhealthy Environment
- Inadequate Care for Mothers and Children
- Inadequate Access to Food (Food Insecurity)
- Inadequate Education

Basic Causes
- Resources & Control Human, Economic & Organizational
- Political and Ideological Superstructure
- Economic Structure
- Potential Resources

Agriculture

Social Protection

Health

WASH
**Inadequate Dietary Intake**

**Immediate Causes**

- **Breastfeeding**
  - ✓ Inadequate Breastfeeding: Children not receiving breastmilk within one hour of birth and exclusively for 6 months as recommended

- **Inadequate Complementary feeding**
  - ✓ Minimum Meal Frequency is lowest in Terai (MICS)
  - ✓ Diet Diversity is poorest in Terai (MICS)

- **Food Consumption Score** low in Terai (NLSS)

- **Iron rich food** consumed lowest in Eastern Terai (NLSS)

- **Insufficient intake of micronutrient**

- **Calorie Intake** in MW&FW Terai 2515 Kcal is lower than national average (2536 Kcal) but in higher in Western Terai 2590Kcal, Eastern Terai 2640 Kcal, Central Terai 2762 Kcal

- **Timely Feeding/Eating**
Immediate Causes

**Infections/Diseases**

- **Childhood Diseases**
  - High Prevalence of Diarrhea (National 12%, Eastern Terai 15.5%, Western Terai 16.6%, MW Terai 13.2%)
  - High Prevalence of ARI (National 6.7%, Eastern Terai 11.2%, Mid West Terai 11.4%)
  - Fever: National 20.1%, Eastern Terai 28.6%, MW Terai 20.7%

- **Parasitic Infestation**
  - High Worm Infestation in Terai
  - Highest Prevalence of Malaria in Terai

- **Nutritional Diseases**
  - Highest Prevalence of Anemia in Terai
  - Highest GAM prevalence as well as caseload in Terai: (National 11.3%, Central Terai 17%, Eastern Terai 13.3%, Western Terai 13.1%, Far West Terai 12.6%)
  - Highest SAM in Terai (National 3.2%, highest in Eastern Terai 4.9%, Central Terai 3.8%)
  - Highest in Urban Terai 7%
  - Hyper Arsenicosis/Iron
• **Food Availability**
  ✓ Non of the Terai Districts are classified as food insecure (NeKSAP MoAD 2016)
  ✓ Availability is not a problem in Terai, but Access to Food and utilization of food is a concern for Terai
  ✓ High Family Size
  ✓ Inadequate availability of Fortified Food
  ✓ Inadequate Nutrition Sensitive Agriculture

• **Access to Food**
  ✓ Access to food particularly a problem among certain groups like freed Kamaiyas, Baadhis, Kamularis as well as ethnicities like Mushahar and Chamar
  ✓ No access to nutritional foods in Dalit community (vegetables, meats) (BNA-2013)
  ✓ Sharing of Child Food among elder siblings
  ✓ Affordability: Poor Income and Livelihood
Underlying Causes

• Consumption/Utilization
  ✓ No/Low Locally processed foods from nutritious food (eg noodles from buch-wheat)
  ✓ Low Awareness/Ignorance on Nutrition Values of Local Nutritious Food, therefore low consumption. Terai Dalit (as well as Hill) have highest inadequate food consumption scores, as per NLSS
  ✓ Food taboos related to pregnant women, lactating mothers and children. No special food generally provided to pregnant women, lactating mothers and children
  ✓ High dietary energy from staples & food poverty (higher the intake from staple higher the stunting/wasting)
  ✓ Food Acceptability and Inadequate Food Quality: Poorly nutritious junk foods

• Food Quality
  ✓ Use of pesticides laden food, hormones, antibiotics, food adulteration
  ✓ Coliforms, Bi-carbonates in dairy products
Inadequate Care for Mothers and Children

- Poor Infant and Young Child Feeding Practices
  - Early Initiation of BF lowest in Terai
  - Exclusive BF is particularly poor in Western and Central Terai.
  - No particular time for initiation of Complementary feeding among Tharus, unlike “Paasni” i.e. Rice feeding for children among other caste/ethnicity
  - Prelacteal feeding (e.g., Honey Suaahara Formative Research) prevalent
  - Girls initiate complementary food early than boys
  - Junk food provided instead of home made nutritious food
  - Diet Diversity is poorest in Terai: Exclusive focused on Rice. Diet diversity (National Average 28.5) is only 4.5% among Madhesi’s (DHS 2011), as compared to Brahmin/Chhetri 48.8%.
  - The meal frequency (National 77.7) is also minimum among Madhesi (63.8) and Muslims (69.8) as compared to Newar (94.1)
  - No separate/special food or feeding practices for children, pregnant women and lactating mother than adult family members

- Lack of awareness and Knowledge
  - Lack of knowledge on balance diet and frequency of feeding
  - Nutrition values of fruits, pulses, eggs, dairy, meat
Inadequate Care for Mothers and Children

**Improper Perceptions and Social Practices:**
- Mother-in-law’s perception of no need for special care (rest, eat at least twice a day with snack & animal source food at least once/day, 4 ANC visits, 225 Iron Folic Acid tabs, deworming, postpartum Vitamin A) of pregnant mother.
- Mothers’ workload, busy in Household/Farm works (urban-formal works) and do not have time for feeding
- Older Sibling caring for young children
- Water and Other fluids are fed before 6 months in perception that babies are thirsty of warm weather.
- Ignorance about children’s growth monitoring
- Poor education among mothers/caregivers – restrictions – low empowerment – lack of decision making
- Poor Milling and Cooking practices
- Inadequate Child Stimulation

**Social Norms and Beliefs:**
- Early marriage and Early pregnancy high in Terai, especially among the Muslim (BNA)
- Intra-household food distribution: Women and Daughter-in-law should eat food after feeding all other family members (eat whatever is left)
- Dalit mother-in-law expect that non-breast milk (honey, cow and goat milk with water) should be provided to baby after birth (within three days) as flow breast milk takes time.
- Mother-in-law & husband believe that having certain food (green vegetable, fish, papaya, orange, potato skin) may harm the baby through breast milk (BNA)
Underlying Causes

**Insufficient Health Services & Unhealthy Environment**

- **Insufficient Health Services**
  - Health Service Providers concentrated in urban/population dense areas
  - No/limited Child friendly behaviors among Health Workers
  - Poor access to adequately staffed services, facility, information
  - FCHVs not holding Mothers Group Meeting regularly to inform pregnant mothers with young children (<2 years of age).
  - The disadvantaged (Dalits) have limited access to information from FCHVs; limited representation of dalits in FCHVs.
  - FCHVs incentivized for delivering single & vertical interventions (e.g. Vit A/ANC/delivery) and not for integrated package.
  - No specific human resource for Lactation Management and Counselling
  - Poor Health seeking behavior
  - Community do not feel confident to claim mosquito nets and free medicine
  - Narrow Birth Spacing
    - Hospital/Facilities practicing Breast Milk Substitute immediately after birth (Caesarian sections)
    - Poor Supply Chains, No or untimely procurement
    - Poor and inadequate quality of health care services
    - Poor out-reach functionality
    - Poor supportive supervision and monitoring – quality of recording, reporting and information management
**Unhealthy Environment**

- Poor Food/Water handling
- Poor Immunization Coverage in Terai *(Data?)*
- Access to Sanitation Facilities poor in Terai (the 9 lowest coverage districts i.e. below 60% are all in Terai eastern/central/western Terai)
- Open defecation high in Terai
- Hygiene/handwashing not optimal in Terai
- High population density/crowded clusters/Houses and animal husbandries nearby human residences
- Human/children excreta not disposed properly as well as poor drainages in Terai
- Mosquitos/Flies
- Poor water quality arsenic/iron
Basic Causes

**Economic:**
- Limited budget allocation for nutrition from local government – district, municipality and VDCs
- The resource allocation does not match the caseload
- Due to poor economic status of majority of families (Dalit and landless), parents are engaged in daily waged labour, children left alone with siblings
- Terai Dalit (as well as Hill) have highest prevalence of poverty, and also have highest food insecurity (inadequate food consumption)

**Social:**
- The disadvantaged (landless - tenure, dalits) cannot afford 3 meals per day, including animal source foods.
- Nutrition is a lower priority for society as compared to infrastructure or tangible benefits
- Discrimination (Caste/Ethnicity)
- Cash Transfer for Dalits Not utilized for Nutrition – Weak linkages between nutrition and social transfer programmes

**Education:**
- Education Curriculums having inadequate components of nutrition/school interventions
- Poor Quality/Insufficient quantities of School Meals
Basic Causes

- Disaster/Floods/Fire:
  - Low Preparedness and Disaster Risk Management

- Governance/Partnership:
  - Insufficient coordination among health, nutrition, agriculture, water & sanitation
  - Effective functioning of the MSNP architects/structures particularly at local, district and regional levels
  - No/Low Culture of Coming together to discuss Nutrition Agenda among sector leadership
  - Poor Governance/Accountability
    - Inadequate Ownership/Integration of nutrition in sector annual plans
    - No Nutrition Cadres: No Nutrition Officer at districts, No Focal person at health facility
    - Insufficient Capacity of public sector for nutrition
    - Institutional authority/structure for Nutrition not effective for scale up nutrition (Health)
    - Harmonization among donors/development partners and alignment with national priorities/policies

- Political
  - Sensitization levels on importance of nutrition still low/insufficient among leaders/politicians/bureaucrats/planners at local/central levels – nutrition low priority
  - Ineffective implementation of existing legislation/ New Legislation needed for Breastfeeding, Maternity Protection