MALNUTRITION BURDEN IN NIGERIA – NEED FOR ACTION

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Malnutrition, in all its forms, includes undernutrition (wasting, stunting, underweight), inadequate vitamins or minerals, overweight, obesity, and resulting diet-related noncommunicable diseases.
Impact: Sustained high rate of stunting adversely affects human capital and economic progress.
TWO MAJOR FORMS OF UNDERNUTRITION ASSAULT ON THE NIGERIAN CHILD

Acute Malnutrition or Wasting: Child is too thin (low weight compared to height)

Chronic Malnutrition or Stunting: Child is too short (low height compared to age)

Similar to Death Sentence

Similar to Life Sentence
Conceptual frame-work of Malnutrition (Multi-factorial causes)

Source: UNICEF 2013
BASIC CAUSES OF MALNUTRITION

**Poverty**, Social cultural, Economic and political context

Inadequate financial and human resources

Land, education, employment, income, technology

Inadequate supply of drugs

Poor nutrition leadership and governance

Inadequate staffing

Weak coordination within relevant Ministries and MDAs
UNDERLYING CAUSES OF MALNUTRITION

Household Food Insecurity
- Lack of access to nutritious foods
- Lack of cash income and limited livelihood opportunities

Inadequate Care and Feeding Practices
- Sub-optimal Infant & Young Child Feeding (IYCF)
- Poor Knowledge on diversity and nutritious diets
- Poor Knowledge and beliefs on IYCF
- Poor Nutrition Education

Poor Water and Sanitation Facilities and Practices
- Unsafe water supply
- Lack of Latrines
- Inadequate Sanitation practices
IMMEDIATE CAUSES OF MALNUTRITION

Inadequate dietary intakes: Inadequate food intake refers to both quantity of food and quality of the diet.
- Both are needed for proper growth and development.
- The quality of a diet is reflected by the dietary diversity and the micronutrient content of the diet.

Diseases: Disease can be a cause and consequence of malnutrition.
- For example, common childhood infections and diarrheal diseases can lead to poor absorption or ability to retain nutrients.
- Furthermore, malnutrition can increase the severity of infections and diseases.
ADDRESSING NUTRITIONAL CHALLENGES REQUIRES A MULTISECTORAL APPROACH
MALNUTRITION
BURDEN
Malnutrition Burden

According to the Nigeria Profile of the Global Nutrition Report, 2019:

• Nigeria experiences a malnutrition burden among its under-five population. As of 2016, the national prevalence of under-five overweight is 1.5%, which has decreased slightly from 1.6% in 2015. The national prevalence of under-five stunting is 43.6%, which is significantly greater than the developing country average of 25%.

• Nigeria's under-five wasting prevalence of 10.8% is also greater than the developing country average of 8.9%.

• In Nigeria, 28.7% of infants under 6 months are exclusively breastfed. There is insufficient data on low birth weight.

• Nigeria's adult population also face a malnutrition burden. 49.8% of women of reproductive age have anaemia, and 6.3% of adult men have diabetes, compared to 6% of women. Meanwhile, 13.1% of women and 4.6% of men have obesity.
Malnutrition: Scope of the problem in Nigeria

- **Over 12 million** children are **stunted** in Nigeria; **2.6 million** children are wasted annually
- Nigeria records the **highest number of stunted children** in Africa
- Malnutrition is associated with **~53% of deaths among under-five children** (Economic Recovery & Growth Plan, 2017-2020)
- High child mortality and stunting are linked to deficiencies in key micronutrients (Vitamin A, Iron, Zinc and calcium), Macro nutrients (Carbohydrates, protein, fats) and associated poor feeding practices as well as overall nutritional status of the mother.
- Everyday, more than 2000 children under-five years old and 145 women of child bearing age die as a result of malnutrition.

Malnutrition: Scope of the problem in Nigeria Contd.

• Nigeria has the second highest burden of stunted children in the world, with a national prevalence rate of 32 percent of children under five.
• An estimated 2 million children in Nigeria suffer from severe acute malnutrition (SAM), but only two out of every 10 children affected is currently reached with treatment.
• Seven percent of women of childbearing age also suffer from acute malnutrition.
• Exclusive breastfeeding rates have not improved significantly over the past decade, with only 27 percent of babies being exclusively breastfed during their first six months of life.
• Only 18 percent of children aged 6-23 months are fed the minimum acceptable diet.
Malnutrition: Scope of the problem in Nigeria Contd.

- Micronutrient Deficiency is a major public health problem in Nigeria.
- The WHO has classified vitamin A deficiency as a public health problem in Nigeria.
- NDHS 2018 report shows that:
  - only 41% of children between 6-59 months received vitamin A supplements. It means that 6 out of 10 children do not receive adequate levels of vitamin A supplements.
  - A high level of Anaemia in Nigeria with 58% of women of reproductive age, 68% of children 6-59 months and 81% of children 12-17 months being anaemic.
- According to the World Bank Nutrition Country Profile, Nigeria loses 1.5 billion USDs in GDP annually to Micronutrient deficiencies.
Children across ALL geopolitical zones are affected by malnutrition

- **Children with stunting**
  - North West: 57%
  - North East: 49%
  - North Central: 29%
  - South West: 25%
  - South South: 20%
  - South East: 18%

  **National average**: 37%

- **Children with wasting**
  - North West: 9%
  - North East: 10%
  - North Central: 6%
  - South West: 5%
  - South South: 4%
  - South East: 5%

  **National average**: 7%

- **Children underweight**
  - North West: 35%
  - North East: 30%
  - North Central: 19%
  - South West: 15%
  - South South: 10%
  - South East: 10%

  **National average**: 22%

**SOURCE:** Nigeria Demographic Health Survey (NDHS) 2018

- Over 1 in 2 children are stunted in NE & NW
- Around 1 in 5 children are stunted in the South
Percentage of Stunting by States

Source: NDHS, 2018
10 of the 37 States contribute to over 50% stunted children in Nigeria

Number of children under-five stunted by State in 2018 NDHS

Source: NDHS, 2018
The national prevalence of severe wasting is 1.7%.

The prevalence ranges from 0% in Ondo to 6.5% in Sokoto State.
<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2013</th>
<th>2015</th>
<th>2018</th>
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<tbody>
<tr>
<td>Stunting</td>
<td>41%</td>
<td>37%</td>
<td>33%</td>
<td>32.0%</td>
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<tr>
<td>Wasting</td>
<td>14%</td>
<td>18%</td>
<td>7.2%</td>
<td>7.0%</td>
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<tr>
<td>Underweight</td>
<td>23%</td>
<td>29%</td>
<td>19.4%</td>
<td>19.9%</td>
</tr>
<tr>
<td>EBF</td>
<td>13%</td>
<td>17%</td>
<td>25%</td>
<td>27.2%</td>
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</tbody>
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Sources: NDHS 2008, 2013, NNHS 2015, 2018
Definitions of Hunger

**Physical manifestations of malnutrition**

- **Impaired brain development & lower IQ**
- **Low birth weight**
- **Lost productivity & Increased healthcare costs**
- **Premature death**
- **Risk of diabetes, cancer, stroke etc.**
- **Weakened immune system**

**Effects of undernutrition**

- **Impaired brain development & lower IQ**
- **Low birth weight**
- **Lost productivity & Increased healthcare costs**
- **Premature death**
- **Risk of diabetes, cancer, stroke etc.**
- **Weakened immune system**
Nigeria - Cause of under-five deaths 2010

- Malnutrition: 53%
- Neonatal: 29%
- Malaria: 20%
- Diarrhea: 11%
- HIV: 4%
- Other: 15%
- Pneumonia: 14%
- Injuries: 3%
- Other: 1%
- Congenital: 2%

Other 1%
- Congenital 1%
- Pneumonia 2%
- Diarrhea 1%
- Sepsis etc. 6%
- Preterm 10%
- Intrapartum 8%
A vicious cycle: undernutrition and infection

SOURCE: https://immunizationevidence.org/featured_issues/undernutrition-and-infectious-disease/
A vicious cycle: undernutrition and infection

Undernutrition has been called the most common cause of immunodeficiency worldwide.\(^1\) With poor nutrition, some parts of a child’s immune system do not function properly.

- The skin and gut cannot effectively block disease-causing bacteria, viruses and parasites from entering the body.

- The thymus, a gland in the neck which helps develop the disease-fighting T cells, becomes smaller and other parts of the immune system do not function properly. Thereby undernourished children are put at increased risk of developing diseases to which they are exposed in their environment and against which they otherwise would normally be able to defend themselves.

\(^7\) Prendergast AJ. Malnutrition and vaccination in developing countries. Phil Trans R Soc B 2015; 370: 20140141.
A vicious cycle: undernutrition and infection

With each episode of disease, some of the energy and calories a child would otherwise use for growth and development is diverted to fight off the infection. Calories are consumed to mount a fever, one of the body’s protective mechanisms.

- If the child has pneumonia, breathing requires more work and this will require more calories, too.
- If the child has diarrhea, less nutrients are absorbed while the gut is inflamed and infected. For these reasons, a sick child needs more energy and calories to fight off the infection and recover, and an undernourished child – who has fewer energy reserves and likely less access to nutrient-rich food to begin with – falls even further behind in fulfilling their nutritional needs and is more susceptible to the next bout of illness.²

²Katona P and Katona-Apte J. The interaction between nutrition and infection. CID 2008; 46(10): 1582-1588.
THE CYCLE OF POVERTY AND LACK OF OPPORTUNITY BEGINS IN THE EARLY YEARS.

1. The early years set the life-long foundation for human capital
2. Adequate nutrition, early stimulation, and caring environments in the 1000-day window is imperative for development, learning, and future earning
3. Socio-emotional skills predict future success and productivity
4. Economic growth alone is not enough
5. If not, the damage to future human capital is largely irreversible

Source: Cordero E, D'Acuna E, Benveniste S et al. 1993
The Benefits of Improved Nutrition for Economic Growth

INVESTMENT IN NUTRITION

Direct Effects
- Near term (improved intakes)

Indirect Effects
- Long term (size, stature)
- Cognitive ability (schooling)

Productivity
Efficiency
Equity

ECONOMIC GROWTH AND NATIONAL DEVELOPMENT

Adapted from World Bank, 1992. Investing in Nutrition in Developing Countries.
$160 to cure a child suffering from severe wasting

$76 Ready-to-Use-Therapeutic Food
Peanut paste fortified with the nutrients children need for recovery

$84 Everything else
Including staff time, supply chain, routine medicines and training

https://ciff.org/impact/one-million-malnourished-children-treated-nigeria/
## CHALLENGES TO IMPLEMENTING NUTRITION INTERVENTIONS IN NIGERIA

| Accountability & Coordination | ▪ Weak coordination among governments MDAs and partners  
▪ Limited political will and visibility for nutrition  
▪ Lack of delineation of roles and responsibilities and accountability |
|------------------------------|---------------------------------------------------------------|
| Funding                      | ▪ Inadequate/lack of Budget line for nutrition at all levels  
▪ In some cases what is budgeted is not released and not judiciously utilized.  
▪ Funding commitments are not in sync with Global nutrition efforts |
| Service Delivery and SBCC    | ▪ Fragmentation and verticalization of nutrition programs and interventions  
▪ Health facilities are not equipped with essential nutrition materials e.g. Vita. A, Iron, Zinc/ORS, Deworming tablets, MUAC tapes, Weighing scale  
▪ Routine nutrition service delivery data are not readily available  
▪ Inadequate engagement of communities – Traditional and religious bodies  
▪ Poor knowledge, attitude and practices of infant and young child feeding |
| Food System                  | ▪ Not focused on Nutritious foods  
▪ Excessive post harvest losses especially for fresh foods  
▪ Heavy marketing of low nutrient foods  
▪ Agric commodities processed into foods with low fiber, high salt, fat and sugar |
| Human Resources              | ▪ No Directorate level staff and Department of Nutrition in all Federal MDAs and most states  
▪ Non engagement of qualified nutritionist into the Civil Service  
▪ Poor training of health workers to effectively provide nutrition services at the health facilities |
ACTION
Framework of actions to attaining optimal fetal, child nutrition and development

Benefits during the life course

- Cognitive, motor, and socicemoval development
- School performance and learning capacity
- Adult stature
- Obesity and NCDs
- Work capacity and productivity

Optimum fetal and child nutrition and development

- Breastfeeding, nutrient rich foods, and eating routine
- Feeding and caregiving practices, parenting stimulation
- Low burden of infectious diseases
- Food security, including availability, economic access, and use of food
- Feeding and caregiving resources (maternal, household, and community levels)
- Access to and use of health services, a safe and hygienic environment
- Knowledge and evidence
- Politics and governance
- Leadership, capacity, and financial resources
- Social, economic, political, and environmental context (national and global)

Nutrition specific interventions and programmes

- Adolescent health and preconception nutrition
- Maternal dietary supplementation
- Micronutrient supplementation or fortification
- Breastfeeding and complementary feeding
- Dietary supplementation
- Dietary diversification
- Feeding behaviours and stimulation
- Treatment of severe acute malnutrition
- Disease prevention and management
- Nutrition interventions in emergencies

Nutrition sensitive programmes and approaches

- Agriculture and food security
- Social safety nets
- Early child development
- Maternal mental health
- Women’s empowerment
- Child protection
- Classroom education
- Water and sanitation
- Health and family planning services

Building an enabling environment

- Rigorous evaluations
- Advocacy strategies
- Horizontal and vertical coordination
- Accountability/incentives regulation, legislation
- Leadership programmes
- Capacity investments
- Domestic resource mobilisation
Action Taken...

Increased Food Production

Multisectoral Collaboration

Supplementation

Fortification

Interventions

Policies and Plans
Way Forward for Nigeria

Five Important points to Consider

Increased domestic resources for Nutrition

Generate quality data and ensure appropriate use of such data

Keep Nutrition high in National Agenda

Stay Focussed: align with a common framework

Scale up High Impact Interventions
The road map is ready

State Executives to approve it & commit to support its implementation
Believe in the policy/plan and provide needed leadership for its implementation. (Adequate political will to save this vulnerable group is germane)
• Mobilize resources for its implementation
  I. Allocate and release on a timely basis funds for implementing interventions as planned
  II. Use plan to mobilize resources (Get partners, philanthropist, corporate organizations in the state to key into and align with the nutrition plan)
• Monitor/review implementation, ask questions & demand for feedback/reports to facilitate decision making
Secure government commitment towards ensuring the wellbeing of its citizens and the future of its children as good nutrition is key to economic growth of the nation.