UNDERSTANDING MALNUTRITION
Towards a new dawn
Ministry of Women & Child Development
Government of India

Technical support from unicef
NUTRITION: THE FOUNDATION OF LIFE

- Nutrition deals with the access and utilisation of food and nutrients for life, growth development and well-being.
- Good nutrition is essential for improved learning capacity, intellectual and cognitive performance.
- Nutrition constitutes the foundation for human development by reducing susceptibility to infections, illnesses and also the disability and mortality burden. Good nutrition enhances cumulative lifelong learning capacities and adult productivity.
- Poor nutrition starts before birth, generally continues into adolescence and adult life and can span generations. It is often irreversible.
- The first two years of life and life before birth are most important. These are periods of rapid growth and development, which lay the foundation of mental, physical and emotional development of a person.
- Adequate nutrition during this ‘Critical Period’ is essential, as early damage due to poor nutrition is only partially reversible in later life.
### MALNUTRITION: CHALLENGING INDIA’S FUTURE

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<tr>
<th>CHILDREN</th>
<th>WOMEN AND ADOLESCENT GIRLS</th>
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<td>• Every fifth child in the world lives in India</td>
<td>• 36% of women are underweight</td>
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<td>• 22% babies are born with low birth weight</td>
<td>• Among women who are thin, 44% are moderately or severely thin</td>
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<td>• 50 out of 1000 live births do not complete their first year of life</td>
<td>• 56.2% women suffer from iron deficiency anaemia</td>
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<td>• 42.5% children (0-5) years are underweight</td>
<td>• Undernutrition declines and overnutrition increases with the age of a woman</td>
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<td>• 79% of children (6-35 months) have iron deficiency</td>
<td>• Half of adolescent girls in the age group 15-19 years are undernourished</td>
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<td>• Approximately 2.75 crores of adolescent girls are undernourished</td>
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<td>• 56% of adolescent girls suffer from iron deficiency anaemia</td>
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WHAT IS MALNUTRITION?

- Malnutrition is the inadequate or excess intake of protein, carbohydrates, fat, vitamins and minerals, to meet the daily nutritional requirements of an individual.
- Malnutrition may be overnutrition or undernutrition.
- Overnutrition leads to obesity and associated risks of non-communicable diseases.
- Undernutrition leads to poor growth and development.

ADOPT A BALANCED DIET. PREVENT MALNUTRITION

- A Balanced diet contains foods that provide adequate amounts of carbohydrates, fat, protein, minerals and vitamins, which help the body to grow, develop and stay healthy.
- There are four basic food groups:
  Group 1    Cereals, millets and pulses
  Group 2    Vegetables and fruits
  Group 3    Milk and milk products, eggs, meats and fish
  Group 4    Oils, fats, nuts and oilseeds
Undernutrition is complex and multi-faceted and has several causes.

- **Immediate causes** operate at the individual level. They are the result of either inadequate dietary intake, or exposure to infectious diseases, or even a combination of both. Common infectious diseases, like diarrhoea and acute respiratory infection, result in decreased intake and poor absorption of nutrients, leading to undernutrition. Undernutrition reduces an individual’s resistance to infection, thereby increasing the likelihood of further infection.

- **Underlying causes** operate at the household and community level. They include household food insecurity, inadequate maternal and child care, inadequate health services and an unhealthy environment (such as lack of sanitation and safe drinking water facilities). These are referred to as Food, Care and Health factors.

- **Basic causes** revolve around socio-cultural factors such as early marriage, poverty, gender bias, etc.
THE CYCLE OF UNDERNUTRITION

UNDERNUTRITION IS INTER-GENERATIONAL IN NATURE

An undernourished mother will give birth to a low birth-weight baby, the low birth-weight baby will grow as an undernourished child, then to an undernourished teenager and finally to an undernourished pregnant woman. Negligence and lack of care for a girl child during childhood and adolescence, complicates this picture further, and the cycle persists through generations.

In order to avert irreversible cumulative growth and development deficits that compromise maternal health, child health and survival, it is critical to prevent undernutrition as early as possible, across the life cycle.
CONSEQUENCES OF UNDERNUTRITION

Short-term adverse effects include recurring illness, weakness, delayed physical and mental development, irritability, poor appetite, low weight for age, etc.

Long-term adverse effects are stunting or short height for age, poor learning ability, poor performance at school and poor general health. All of which reflect in poor working capacity, resulting in low income. Stunting in girls can have effects on child bearing, resulting in low birth weight babies.

THE FIRST STEP TO PREVENT UNDERNUTRITION - DETECTION

The weight of infants and young children needs to be monitored closely, right from birth, through weighing and plotting the weight on the growth chart against age.

Monitoring of weight helps to:
- Detect growth faltering in early stages, preventing the early onset of undernutrition.
- Identify underweight children who need special care and feeding at home.
- Identify severely underweight children who require medical attention and referral.
- Identify causes of weight loss or the lack of growth, i.e., illnesses like diarrhoea, acute respiratory infection, malaria, inadequate food intake, illness of the mother, etc.
- Take appropriate and timely action through counselling of mothers and the family.
The first two years of a child's life present a ‘Window of Opportunity’ to prevent undernutrition in children. Some key interventions can offer the best chance for a child's survival and optimal growth & development.

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<th>STAGE OF LIFECYCLE</th>
<th>INTERVENTIONS</th>
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| **Infancy**        | **Timely initiation of Breastfeeding - within one hour of birth.**  
  - Colostrum, the yellowish, thick and sticky fluid secreted for the first 3-5 days after birth is rich in nutrients and offers immunity to the child.  
  - This helps to prevent neonatal and infant mortality and morbidity.  
  - Body contact helps to build a bond between the mother and the newborn and also keeps the baby warm.  
  - It stimulates milk production and the increased secretion of milk.  
  
  **Exclusive Breastfeeding during the first six months of life. There is no commercial formula food which equal to breast milk and there is no substitute for mother’s milk.**  
  - Mother’s milk is the best food for the child and contains all the nutrients needed by the infant for optimum growth and development. Even water is not required as mother’s milk has adequate water.  
  - It ensures maximum protection for the child against diseases and death.  
  - Breast milk is easier to digest than formula milk, and unlike formula milk does not cause constipation.  
  - Breastfeeding does not require any pre-preparation or pose any risk of contamination, as long as the mother maintains a sufficient degree of personal hygiene. |
Timely introduction of complementary foods after six months. Age-appropriate complementary feeding along with continued breastfeeding for two years or beyond.

- After six months of age, breast milk alone cannot fulfill the nutritional requirements of growing infants, as they are then undergoing a period of rapid growth and development. Hence, semi-solid foods should be introduced along with breastfeeding.
- Every child of 6-24 months should be fed age-appropriate, energy and nutrient-dense, diverse complementary foods with increased quantities and frequency, as the child grows in age.
- The child should be fed with love and care.

Timely and Complete Immunisation, Iron, Folic acid and Vitamin A supplementation with De-worming.

- Immunisation helps to protect the child against various preventable diseases. Every child should receive all primary immunisation by the age of one and booster doses thereafter.
- Vitamin A supplementation helps to maintain good eyesight and develops strong immunity. Besides giving foods rich in Vitamin A, nine doses of supplementation must be given. First dose is given at 9 months and thereafter, one dose every 6 months, up to the age of five years.
- Iron Deficiency Anaemia (IDA) is commonly seen in infants and young children. It makes them lethargic, irritable, reduces their learning ability, subsequently affecting school performance. Foods rich in iron, along with supplementation of iron and folic acid, is necessary.
- Deworming, twice a year, helps to prevent worm infestation.
Frequent & appropriate feeding for children during and after illnesses, including Oral Rehydration with Zinc Supplementation during Diarrhoea.

- Diarrhoea, Acute Respiratory Infection and Malaria, all impact the nutritional status of a child. An illness causes loss of body fluids and nutrients, leading to dehydration.
- Infection can be prevented by ensuring:
  - Access to safe drinking water and sanitation facilities
  - Adopting hand washing practices at critical times
  - Safe disposal of stool
- Effective management of common illnesses can be done by:
  - Treatment of diarrhoea with Oral Rehydration with Zinc
  - Treatment of acute respiratory infection at health facilities
- An illness reduces appetite and increases energy requirements. Therefore, feeding during and after an illness is essential to rebuild strength and increase resistance to infection:
  - Frequent small nutrient dense meals should be given
  - At no cost should feeding be stopped
  - Breastfeeding should be continued and given more frequently
  - The intake of fluids should be increased
  - Feeding should be done with love and care

Improved food and nutrient intake for adolescent girls, particularly to prevent Anaemia.

- Adolescence is a period of rapid growth and development. Nutrient stores are developed in the body for pregnancy and lactation. Iron deficiency anaemia is common among adolescent girls, but iron intake continues to remain poor. An inter-generational vicious cycle of poor nutrition, growth and development sets in. Specifically, cases of early marriage and early pregnancy result in poor gestational weight gain, and hence, girls have low birth weight babies.
- Every adolescent girl should be given a proper and adequate diet, rich in iron, folic acid and other vitamins & minerals.
- The prevention of early marriage and delay in age at first pregnancy, are essential for good health of adolescent girls.
**Pregnancy / Lactation**

**Improved care and nutrient intake, including iron, during pregnancy and lactation.**
- Pregnancy and lactation are periods of physiological stress when the food and nutrient requirements increase, since the foetus/infant is dependent on the mother to meet its requirements. Proper intake of food and iron during this period can help in preventing low birth weight. Hence, pregnant and lactating women should consume a diet:
  - With additional protein and energy
  - Rich in iron, folic acid and other minerals and vitamins
  - With iodised salt
- A pregnant and lactating mother is advised to rest for at least two hours during the day.
- Proper health care, during and after pregnancy, includes:
  - At least three antenatal checkups
  - Consumption of at least a 100 iron folic acid tablets
  - Two Tetanus Toxoid injections
  - Institutional delivery and post-natal checkup
  - Advice on birth spacing

**Other Physiological Groups**

All adults, the youth, elderly men and women, should ensure a diet
- With adequate nutrients
- With iodised salt
- With ample fibre
- Without junk food
The persistent high levels of undernutrition and the slow pace of its decline is a major concern for the nation. The Prime Minister's National Council on India’s Nutrition Challenges, took the decision of launching a Nationwide Information, Education and Communication (IEC) campaign, against malnutrition/under nutrition, coordinated by the Ministry of Women & Child Development (MWCD).

In pursuance to the above decision, a campaign has been designed which has the pro-bono services of Sh. Aamir Khan and the technical support of UNICEF.

The campaign aims at:

- Creating awareness about nutritional challenges, the importance of optimal nutrition and creating an enabling environment to mobilise communities to prevent malnutrition.
- Promoting home-level care and behaviour orientation for appropriate infant and young child feeding practices, child care and development, optimal nutrition and care during pregnancy & lactation, and better utilisation of available services.
- Reaching out to families, pregnant women, mothers, caregivers, adolescent girls, PRIs, teachers, opinion leaders and the community at large.
CAMPAIGN APPROACH

The campaign will be carried out through a multi-channel approach at the national, state and local levels. As the reach of each medium varies in each state, the campaign will harness the potential of conventional and modern media.

For achieving the desired impact, the activities under the campaign will be of greater vigour and intensity in priority states, where the prevalence of undernutrition amongst children is high. Further, to reach out to people in different parts of the country, the campaign would be in Hindi and subtitled/dubbed in 17 other languages, including English.
ROLE OF MEDIA FOR IMPROVED NUTRITION

The increasing availability of nutrition and health information has not always increased the knowledge of the general population. While communicating scientific knowledge to the general public, several challenges are encountered. Therefore, the correct technical information needs to be disseminated in a non-technical manner for a clear understanding by the audience. This will also help them to understand and navigate better the health-care system made available to them.

The media has an extremely powerful and challenging role to play when it comes to disseminating information to the disadvantaged and vulnerable sections with lower levels of education and higher levels of undernutrition amongst children and women.

The media can make a positive difference by:

- Advocating the importance of good nutrition and its benefits.
- Reaching out and empowering families to prevent causes of undernutrition, like diarrhoea, malaria, poor infant feeding practices and poor hygiene practices.
- Advocating correct health and nutrition behaviour, such as promotion of breastfeeding, hand washing practices, use of toilets and consumption of safe drinking water.
- Influencing families and communities to dispel myths, taboos related to nutrition and changing behaviour by adopting positive practices.
- Promoting nutrition, health care and family support during pregnancy. All of which helps in ensuring the health of the mother and the new born baby and reduces the risk of low birth weight.
- Laying emphasis on the care of children, adolescent girls and pregnant women.
- Disseminating information about government programmes to enable better utilisation of services.
- Disseminating updated scientific information on nutrition and health related issues to the public.
Stage 1 – **Create Awareness**: Over a period of 8 weeks, the country will see a massive drive to generate awareness about the alarming consequences of malnutrition. Various media – Print ads, TV commercials, Outdoor signages, etc. – will be used, to make sure the dangers of malnutrition are brought home to all concerned. People will be sensitised and educated, about the various signs and symptoms of malnutrition.

Stage 2 – **Clarion Call**: The second phase of the campaign will be spread over 6 weeks, to mobilise the masses to take a pledge against malnutrition. Again, a multi-pronged media strategy will see the usage of Print, TV commercials, Outdoor signages, etc. The ultimate aim of this stage is to attract the maximum participation of people in the fight against malnutrition.

Stage 3 – This stage of the campaign will explain the Chaar Baatein, or the four critical practices that safeguard a child from malnutrition. It is critical to remember and practice these.

1. Pregnant women must eat healthy, nutritious food: green leafy vegetables, milk, eggs, dals, fresh fruits, etc., should be consumed, and the intake should be 1/4th more than her regular intake. Folic acid and iron tablets should be taken everyday, and can also be sourced from the Aanganwadi center. Pregnant women should get at least 8 hours of sleep at night and 2 hours of rest during the day. She should be stress-free, in a relaxed and happy environment.
2. Mother's first milk is best for the child: Mother's first milk, called colustrum, should be given to the baby within an hour of delivery. It is an invaluable gift for the baby, full of vitamins and protein, which help the child in fighting illnesses like pneumonia and diarrhea. Colustrum intake by the baby is critical to avoid malnourishment.

3. For the first six months, exclusive breastfeeding for the child: The child should not be given anything else, not even water. Water could contain impurities, increasing the likelihood of water borne diseases, leading to malnutrition.

4. Seventh month onward, complementary foods to be introduced: Apart from mother's milk, soft foods like mashed fruits and vegetables, dals, porridge and other milk products, should be introduced in small quantities at least 3 to 4 times a day. Breastfeeding should continue till the child is 2 years old.

Stage 4 – Mother & Child Protection Card: The final stage of the campaign will inform the public about the Mother & Child Protection Card. Its highlights and features will be abundantly communicated across media platforms. Ease of access and the multitude of benefits, will be prominently displayed in this stage. The correlation between the MCP card and the fight against malnutrition will also be highlighted.
THE FOUNDATION OF A HAPPY LIFE IS A HEALTHY LIFE