Towards a new dawn

स्वास्थ्य एवं परिवार कल्याण मंत्रालय
Ministry of Health and Family Welfare

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Ministry of Women and Child Development

POSHAN Abhiyaan
PM's Overarching Scheme for Holistic Nourishment
सही पोषण - देश रोशन

Protocol for MANAGEMENT of MALNUTRITION IN CHILDREN

PROTOCOL FOR MANAGEMENT OF MALNUTRITION IN CHILDREN

Nutrition is acknowledged as one of the most effective entry points for physical and intellectual growth and development. It is a key Sustainable Development Goal. Optimum and appropriate nutrition is essential for women and children to survive, thrive and break the intergenerational cycle of malnutrition and poor health in the community.

Malnutrition

Malnutrition is one of the most important challenges facing contemporary India. While malnutrition is widely used to describe under nutrition, it actually represents both under and over nutrition. While under-nutrition results from inadequate consumption, poor absorption or excessive loss of nutrients, over-nutrition results from excessive energy and fat intake. With the observed nutrition transition in the population, both under and over-nutrition co-exist, as evident from the data from National surveys. The programme guidelines detailed in this document however deal exclusively with under-nutrition.

Under-nutrition and the Nutrition Gap

Under-nutrition is caused by several determinants such as low family income, large family size, gender bias, changing crop patterns due to various reasons leading to dietary imbalance, access to food, loss of traditional food habits, lack of knowledge etc. Poor health conditions such as diarrhoea and anaemia have a cascading effect which perpetuates under-nutrition.

Forms of Childhood Undernutrition

Under nutrition in children below five years of age in populations is measured by three anthropometric indices which are based on a comparison of the measured height and weight of the child compared to the WHO defined reference height and weight of children of the same age and sex. These three indices, viz., (i) weight-for-age, (ii) height/ length-for-age, (iii) weight- for-height/ length are used to identify underweight, stunting and wasting, respectively.

Underweight: Underweight can result from either chronic or acute malnutrition or both. An underweight child has a weight-for-age Z-score at least two standard deviations below the median (-2 SD) for the World Health Organization (WHO) Child Growth Standards.

- **Moderate Underweight (MUW)** is defined as weight-for-age between -2 and -3 SD as per WHO growth standard.
- **Severe Underweight (SUW)** is a condition in which a child has a very low weight in relation to age (Z score of < - 3 SD), as per WHO child growth standards.

Stunting: Failure to achieve expected height/length as compared to healthy, well-nourished children of the same age is a sign of stunting. Stunting is an indicator of linear growth retardation. It is an indicator of chronic growth failure associated with a number of long-term factors including chronic insufficient nutrient intake, frequent infection and inappropriate feeding practices. A stunted child has a height-for-age Z-score that is at least two standard deviations (-2 SD) below the median for the WHO Child Growth Standards.

Wasting: Wasting indicates current or acute malnutrition resulting from failure to gain weight or actual weight loss. Suboptimal Infant and Young child care and feeding practices including inadequate complementary feeding in older infants and young children from 6 months to 2 years of age, repeated enteric and respiratory tract infections are some of the factors leading to Severe Acute Malnutrition (SAM) in children. Wasting in individual children and population groups can change rapidly and shows marked seasonal variations associated with changes in food availability or disease prevalence to which it is very sensitive. A wasted child has a weight- for-height Z-score at least two standard deviations (-2 SD) below the median for the WHO Child Growth Standards.

- **Moderate Acute Malnutrition (MAM)** defined as weight-for-height between -2 and -3 SD as per WHO growth standard.
- **Severe Acute Malnutrition (SAM)** is a condition in which a child has a very low weight in relation to length/height (Z score of < - 3 SD), as per WHO child growth standards. SAM is a severe form of wasting.

Growth Faltering means growth rate below the standard for a child's age & gender. It may include both weight and length/height are lower than standard.

Implications of Undernutrition

Undernutrition has an adverse impact on all stages of the life cycle, but some of the most damaging effects occur from conception to 1000 days of age. Prevention is important at this time. Besides contributing significantly to child mortality, irreversible brain damage can occur in this period of life. Both underweight and stunting set in early, in the first 2 years, when the child needs to be fed adequately and appropriately and is also exposed to frequent episodes of infections, particularly diarrhea. In India, the highest burden of under nutrition occurs between birth and two years of age; therefore, preventive measures need to predominantly address children under 2 years. Moreover, prevention of under nutrition during this period is important and requires initiatives to ensure that children are born healthy and with adequate weight. Once children settle into a growth curve at the end of 2 years, it is particularly difficult to shift the linear growth pattern upward, and recover from stunting. Indeed, attempts to overfeed such children entail a risk of them becoming overweight with higher propensity to develop non-communicable diseases as adults, including diabetes, hypertension and cardiovascular disease.

Therefore, it is critical to prevent under-nutrition, as early as possible, across the lifecycle, to avert irreversible cumulative growth and development deficits that impact maternal and child survival and health. It undermines the achievement of optimal learning outcomes during elementary education, impairs adult productivity and undermines gender equality.

Strategies to tackle undernutrition among children

The Government has taken several initiatives to break the intergenerational cycle of malnutrition. Adopting a life-cycle approach, interventions have been designed to meet the nutritional requirements of adolescent girls, pregnant women, lactating mothers and children through several schemes like POSHAN Abhiyaan, Anganwadi Services, Scheme for Adolescent Girls and Pradhan Mantri Matru Vandana Yojana (PMMVY) as direct targeted interventions to address the problem of malnutrition in the country.

POSHAN Abhiyaan was launched on 8th March 2018, with an aim to achieve improvement in nutritional status of Adolescent Girls, Pregnant Women and Lactating Mothers in a time bound manner by adopting a synergised and result oriented approach. Further, the efforts under the Supplementary Nutrition Programme under Anganwadi Services and POSHAN Abhiyaan were rejuvenated and converged as 'Saksham Anganwadi and POSHAN 2.0' (Mission Poshan 2.0) to address the challenges of malnutrition in children, adolescent girls, pregnant women and lactating mothers through a strategic shift in nutrition content and delivery and by creation of a convergent ecosystem to develop and promote practices that nurture health, wellness and immunity.

Poshan 2.0 focuses on Maternal Nutrition, Infant and Young Child Feeding Norms, Treatment of MAM/SAM and Wellness through AYUSH. It rests on the pillars of Convergence, Governance, and Capacity-building. POSHAN Abhiyaan is the key pillar for Outreach and will cover innovations related to nutritional support, ICT interventions, Media Advocacy and Research, Community Outreach and Jan Andolan.

Under Poshan 2.0, focus is on diet diversity, food fortification, leveraging traditional systems of knowledge and popularizing use of millets. Nutrition awareness strategies under Poshan 2.0 aim to develop sustainable health and well-being through regional meal plans to bridge dietary gaps. Further, greater emphasis is being given on the use of millets for preparation of Hot Cooked Meal and Take Home rations (not raw ration) at Anganwadi centres for Pregnant Women, Lactating Mothers and Children below 6 years of age, as millets have high nutrient content which includes protein, essential fatty acid, dietary fibre, B-Vitamins, minerals such as calcium, iron, zinc, folic acid and other micro-nutrients thus helping to tackle anaemia and other micro-nutrient deficiencies in women and children. As per the Scheme Guidelines issued for Mission Saksham Anganwadi & Poshan 2.0, millets need to be mandatorily supplied at least once a week and suitably integrated in Take Home Ration (not raw ration) and Hot Cooked Meal in a palatable form.

Another key plank of the Abhiyaan are the Poshan Vatikas or Nutri-gardens that are being set up across the country to provide easy and affordable access to fruits, vegetables, medicinal plants and herbs.

Framework and Specific Details of Supplementary Nutrition

The services provided recognize that there is an intergenerational cycle of under nutrition, needing a comprehensive health and wellness approach, covering the entire life cycle of growth, with a focus on critical periods of nutritional vulnerability and opportunity for enhancing human development potential. The comprehensive health and wellness approach includes the following:

- Support for adolescent girls including their nutrition and skilling.
- Pre-birth nutrition support to pregnant women and post-birth to lactating mothers.
- Promotion of early initiation of breastfeeding and exclusive breast feeding in 0-6 month old infants.
- Promotion of age-appropriate and adequate complementary feeding starting from 6 months of age along with continued breastfeeding for 2 years or beyond.
- Ensuring dietary adequacy in children between 6 to 72 months.
- Prevention and management of early childhood illnesses

These interventions are represented in the Figure below:

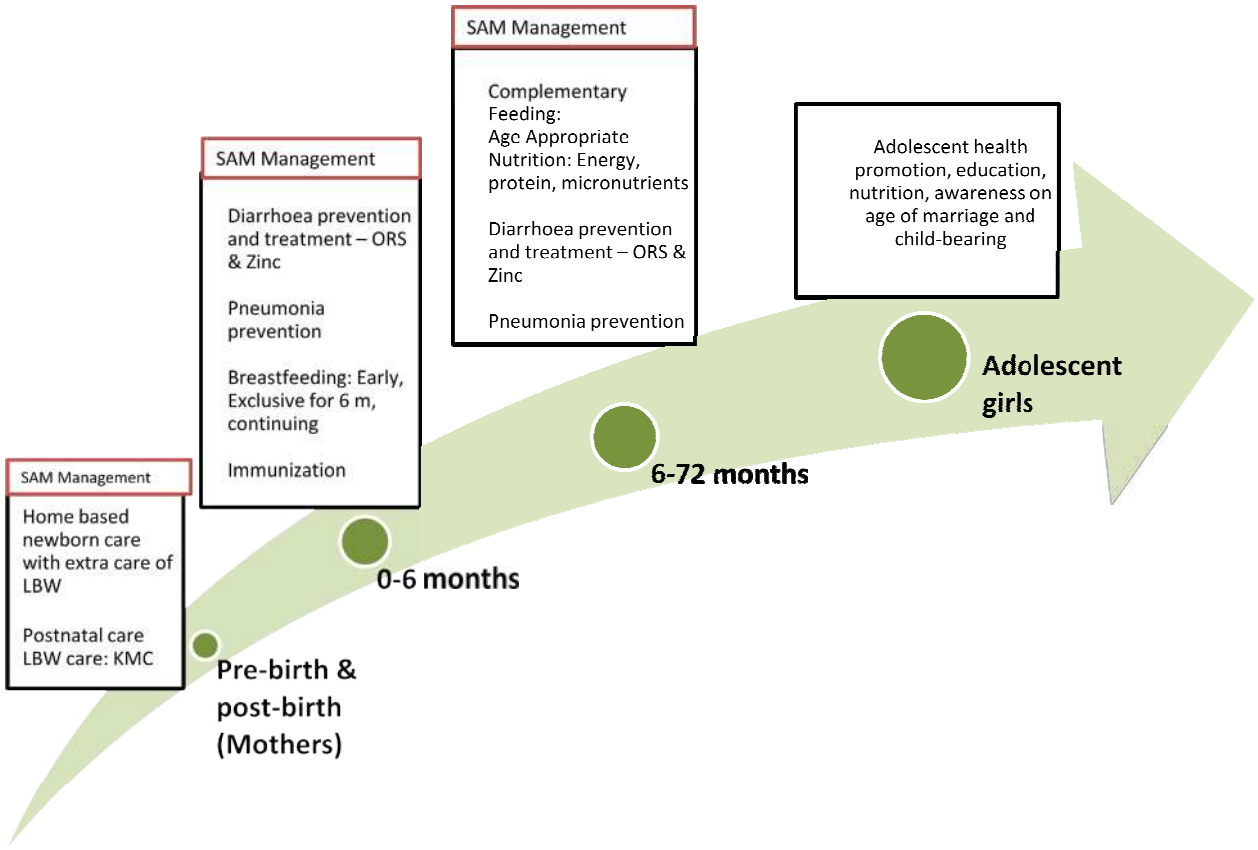


Figure: Comprehensive health and wellness approach towards life cycle of growth

PROTOCOL FOR ASSESSMENT AND MANAGEMENT OF MALNUTRITION IN CHILDREN

Step-1: Growth Monitoring

- Identification of malnourished children should be done using the Growth Monitoring data (Weight-for-height and Weight-for-Age). The anthropometric measurements of children (Height and Weight) should be entered each month in the POSHAN Tracker data management application by the AWW to identify the degree of malnutrition and monitor growth.
- Severe acute malnutrition (SAM) is defined by very low weight-for-height/length (Z-score below-3 SD of the median; WHO child growth standards) or by visible severe wasting or by the presence of nutritional oedema. Severe underweight (SUW) is defined by very low weight-for-Age (Z-score below-3 SD of the median; WHO child growth standards).
- For identification of SAM children, active screening should be done by AWW/ASHA through house to house visit looking for presence/absence of bilateral pitting oedema* or severe degree of wasting. Passive screening is done during Growth Monitoring/Village Health, Sanitation and Nutrition Days (VHSND) for children (6–59 months) and looking for presence/ absence of bilateral pitting oedema or severe degree of wasting.

  *Also known as nutritional edema and edematous malnutrition, bilateral pitting edema is identified when thumb pressure, applied to the tops of both feet for three seconds, leaves an indentation in the foot after the thumb is lifted.
- After identification of children using Growth Monitoring Data, Appetite test shall be carried out by the AWW for all SAM children in order to assess for the presence of medical complications.
- Screening of children at OPDs/in-patient wards in health facilities using weight-for-height and weight-for-age measurements shall also be done.
- Children below 6 months shall be managed as per protocol given in **Annexure-I**.

Step-2: Appetite Test for SAM Children

- Appetite test shall be carried for SAM children by AWW in the presence of parent/family member.
- Test is to be carried out in a peaceful/ quiet area of the Anganwadi Centers (AWC).
- The appetite test shall be carried out using the Hot Cooked Meal/THR available at AWC.
- SAM children who fail the appetite test shall be referred to NRC.
- Children who pass the appetite test shall be enrolled as beneficiary under the Supplementary Nutrition Program and also referred to PHC Medical officer for medical assessment.

- Refer to **Annexure-II** for details of Appetite Test.

Step-3: Medical Assessment

- Every SAM child who passes the appetite test and all SUW children shall be screened for health status by ANM/Medical Officer of PHC within 3-5 days of appetite test at PHC to identify any health issues or hidden infection or danger signs.
- Children with any medical complication should be referred to the nearest health facility for medical management and further treatment of sickness.
- Infants less than 6 months of age who are visibly wasted or oedematous or too weak or feeble to suckle, should be immediately referred to the nearest health facility/NRC for evaluation and treatment by ASHA/AWW/ANM. Further, severely underweight (SUW) children of 0-6 months should also be referred to NRC directly for further management as per WHO guidelines.
- Refer to **Annexure-III** for details.

Step-4: Decide level of care

Degree of Malnourishment	**Level of care**
Moderate Acute Malnutrition (MAM), i.e., Weight-for-Height between -2 SD to -3 SD	To be managed at AWC
Severe Acute Malnutrition (SAM) without Medical Complication, i.e., Weight-for-Height < -3 SD and passed Appetite Test	To be managed at AWC
Severe Acute Malnutrition (SAM), i.e., Weight-for-Height < -3 SD with Medical Complications and/or Presence of bilateral pitting oedema and/or loss of appetite (failed appetite test)	To be managed at NRC
Moderate Underweight (MUW), i.e., Weight-for-Age between -2 SD to -3 SD	To be managed at AWC
Severe Underweight (SUW), i.e., Weight-for-Age < -3 SD without Medical Complication	To be managed at AWC

Step-5: Nutritional Management:

- All SAM children who fail appetite test and/or with medical complications (based on Medical Assessment at Step-3) should be referred to NRC for further management.
- All children diagnosed with MAM, MUW and SUW shall be enrolled under the Supplementary Nutrition Programme at the Anganwadi Center and should be

provided supplementary nutrition as per the nutrition norms contained in Schedule-II of the National Food Security Act. The details areas under:

Age/ Physiological Group	Type of Meal	Energy (kcal)	Protein (g)	Total Fat (g)	Carbohydrate (g)	Cereal :Pulse Ratio	Calcium (mg)	Zinc (mg)	Iron (mg)	Dietary Folate (µg)	Vitamin A (µg)	Vitamin B6 (µg)	Vitamin B12 (µg)
Undernourished children (6-12 months)	THR	400	15-20	15-18	35	2:1	200	1.5	1.5	50	115	0.35	0.66
Undernourished children (1-3 years)	THR	700	25-30	25-30	70	2:1	270	2	4	70	120	0.55	0.66
Undernourished children (3-6 years)	MS + HCM + THR	800	25-30	25-30	70	2:1	300	3	6	80	160	0.66	1.24

THR: Take Home Ration; MS: Morning Snack; HCM: Hot Cooked Meal

- With respect to the above table, it may be noted that the PDCAAS score (Protein Digestibility Corrected Amino Acid Score) shall be between 0.8 to 1.0 to ensure provision for high-quality protein as provided in Schedule-II of NFSA, 2013.
- For SAM Children (6 months to 6 years) without medical complications, the nutritional standards suggested in Schedule-II of the National Food Security Act may be followed (as mentioned in table above), which is an additional allowance for the SAM child who is consuming regular food at home. However, if the child is supposed to receive the entire day's food from the Anganwadi Center, the child should be provided Energy @120 Kcal/kg body weight/day (*Ref: Technical report of NIN: Revision of Food and Nutrition norms under Schedule II of the National Food Security Act, 2013, prepared in collaboration with Department of Food and Public Distribution, Ministry of Consumer Affairs, Food and Public Distribution, October, 2022*).
- While constructing diets for malnourished children, the principles of diet diversity should be followed taking into consideration variety, balance and moderation, for the different beneficiary groups. The food baskets should include diverse foods viz., combination of locally sourced cereals and millets, pulses & legumes, nuts & seeds, vegetables including leafy vegetables, and eggs. Use of more than one type of food from each of the food groups on rotation is suggested to promote diversity within each of the suggested food groups. Whole/minimally/appropriately processed grain and gram are suggested to be included to maximize nutrient content and availability.
- Milk, Egg and other culturally acceptable sources of protein may be part of the supplementary nutrition as these provide good amounts of amino acids and fatty acids essential for both physical and cognitive development.

- Fruits like Amla, Guava, Banana, Papaya, etc., are important sources of Vitamin- C and Vitamin-A and also promote the absorption of Iron; hence these should be part of supplementary nutrition.
- Whole milk powder is suggested to be included additionally for malnourished children to improve protein quality and contribution of other bio-actives to support recovery.
- Palm oil should not be used, and oil sold loose (which could be adulterated) should also not be used.
- Locally available vegetables and green leafy vegetables like tomatoes, cucumber, spinach, fenugreek, amaranth, etc., should be provided which will take care of essential micronutrients like Vitamins A, Folic Acid, Iron, Magnesium, etc.
- Nutritious recipes based on the nutrition norms and local wholesome foods may be formulated by respective State Government Departments.
- In order to meet the nutrition norms suggested in the table above, the suggested food baskets may be referred, which are placed at **Annexure-IV.**

Step-6: Medical Management:

- All the SAM children without medical complications and SUW children who need medical care as per the assessment done at step-3 shall be treated as prescribed by the Medical Officer.

Step-7: Nutrition, Health Education and counseling including WASH practices:

- Growth faltering in children starts at an early age, often during the first six months of life, as illustrated earlier. Breastfeeding together with complementary feeding helps prevention of malnutrition. Early initiation and exclusive breastfeeding should be intensively promoted for children up to the age of 6 months, followed by age-appropriate and adequate complementary feeding from 6 months of age along with continued breastfeeding for 2 years or beyond.
- The parents and caregivers of the child should be sensitized on nutrition, feeding practice, diet quality, Infant and Young Child Feeding practices including quality and adequacy of age-appropriate Complementary Feeding (use of four or more food groups), Water, Sanitation & Hygiene, (WASH) practices (use of safe drinking water, personal hygiene, hand washing, use of toilets, cleanliness of home and surroundings and other food safety practices, etc.).
- IEC materials & videos shall be used by AWWs during home visits and group counseling at AWC.
- During home visits, AWWs shall demonstrate feeding practices and handhold the mothers to improve responsive feeding, counsel mother/caregivers.

- During follow-up, it should be stressed that these children are at risk of repeated infections and prone to growth faltering and therefore, the importance of appropriate child care practices and timely care by the caregivers needs to be emphasized.

Step-8: Visit by AWW and Referral:

- The progress of the child shall be monitored regularly by AWW and recorded in the Poshan Tracker.
- Every SAM/SUW child shall be visited and mother/caregiver shall be counseled on weekly basis during the first month followed by fortnightly visits.
- For MAM/MUW children fortnightly visits shall be followed.
- If any MAM/MUW/SUW child reflects health issues or growth faltering, such children may be referred to Medical Officer of the nearest health facility for further evaluation and medical management.
- The MAM/MUW/SUW/SAM Children enrolled in the Supplementary Nutrition program at AWC may need to be transferred to the PHC/CHC for evaluation and for further evaluation and management in case of:
    - Severe medical complication or anorexia
    - Fever (>39 degree C) or Hypothermia (< 35 degree C)
    - Severe pneumonia
    - Diarrhea (More than 5 watery stools in 12 hrs) or showing signs of dehydration
    - Severe anemia
    - Not alert, unconscious, apathetic, convulsions
    - Appearance of oedema
    - Not eating for three consecutive days
    - Weight loss for two consecutive weeks
    - Failure to gain weight for consecutive two weeks
    - Non-recovery after three months in the care program

Step-9: Duration of Monitoring

The moderately and severely malnourished children enrolled under the Supplementary Nutrition Programme at AWC shall be monitored until:

(1) MAM/MUW child completes 2 months after achieving normal weight/height.
(2) SAM/SUW child up to the age of 6 years.

Step-10: Follow-up Care

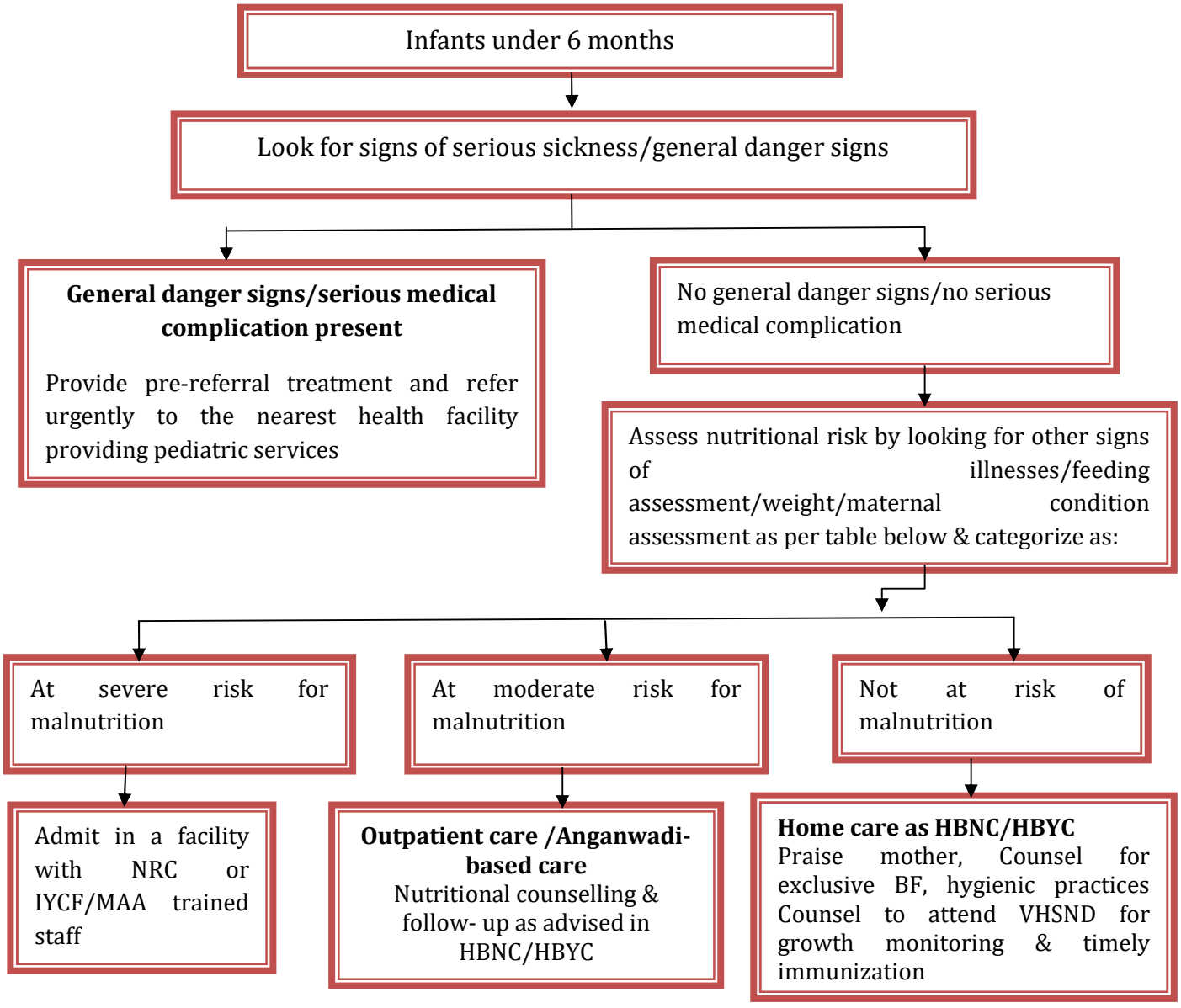
- Follow-up shall be done for the children who become normal weight/height.

- Children shall then be continued to be enrolled under Supplementary Nutrition Program and provide services as per existing protocol.
- Weight and Height shall be monitored every month.

Other Key Points

- The Director (WCD) shall ensure undertaking training, capacity building, effective implementation, and name-based monitoring of the SAM/MAM children and shall also take up need-based assessment of the program.
- **Buddy Mother Concept:** Buddy Mother Concept is one of the best practices employed by the State of Assam for the management of SAM/MAM children. In this, the mother of a healthy child becomes the buddy mother of a malnourished child of the same Anganwadi center and they meet on weekly basis and discuss about various practices related to nutrition.
- States/UTs shall ensure the quality of Supplementary Nutrition being provided meets the norms of food safety as well as nutrient composition to ensure consistent quality and nutritive value per serving. The Supplementary Nutrition provided shall be tested from FSSAI owned/registered/empanelled/NABL accredited laboratory. Random testing must be conducted by Anganwadi Services functionaries after receipt of stock at the AWC or at the Block Level. Anganwadi Services functionaries, i.e., CDPO or Supervisor shall draw the samples as per the prescribed procedure and send the sample for testing to a FSSAI owned/registered/empanelled/NABL accredited laboratory. The periodicity of sample testing shall be once in a quarter of an annual year, per project. The Streamlining Guidelines issued by the Ministry on 13th January, 2021 may be referred for further details.
- The roles and responsibilities of functionaries are at **Annexure-V**.

Annexure-I


Infants under 6 months
Look for signs of serious sickness/general danger signs
General danger signs/serious medical complication present
Provide pre-referral treatment and refer urgently to the nearest health facility providing pediatric services
No general danger signs/no serious medical complication
Assess nutritional risk by looking for other signs of illnesses/feeding assessment/weight/maternal condition assessment as per table below & categorize as:
At severe risk for malnutrition
At moderate risk for malnutrition
Not at risk of malnutrition
Admit in a facility with NRC or IYCF/MAA trained staff
Outpatient care /Anganwadi-based care
Nutritional counselling & follow- up as advised in HBNC/HBYC
Home care as HBNC/HBYC
Praise mother, Counsel for exclusive BF, hygienic practices Counsel to attend VHSND for growth monitoring & timely immunization

At Severe Nutritional Risk (Any of the following)	At Moderate Nutrition Risk (Any of the following)	Not at Nutritional Risk
• Not able to feed • Any general danger sign (IMNCI) • Birth weight <1800 gm during first month • Weight loss between two consecutive visits after 2nd week of life even after nutritional counseling • State weight for three consecutive visits even after nutritional counseling • Sudden loss of weight (loss more than 10% from previous record in a week) • Sharp drop across growth curve line • Congenital anomalies interfering feeding	• Birth weight 1800-<2500 g • Moderate / severe malnutrition (<-2SD W/A or W/L) • No regained birth weight by day 14 • Static weight between two consecutive visits even after nutritional counseling • Breastfed with any of the following feeding problems ➢ Poor attachment ➢ Not suckling effectively ➢ Less than 8 breastfeeds in 24 hours ➢ Receives other foods or drinks ➢ Oral ulcers/oral thrush • Not breastfed at all or mixed feeding with any of the following ➢ Milk incorrectly or unhygienically prepared ➢ Giving insufficient replacement feeds ➢ Using a feeding bottle ➢ Adverse maternal psychosocial factor	Birth weight >2.5 Kg and • Exclusively breasted AND • WFA or WFH =>2SD • Has gained >=125 gm from last visit AND • No maternal nutritional/ psychosocial issues

Annexure-II

Appetite Assessment and Test

A. Assessment of Adequacy of Appetite:

Presence or absence of good appetite in the child with SAM has a very important bearing on planning his/her treatment and rehabilitation. Children who have good appetite and are able to eat adequate amount of food can be managed in the home settings with the support of AWWs/ASHAs. Children, who refuse to eat optimally, will need to be referred to NRC.

Adequacy of appetite is tested by an Appetite Test. In an Appetite Test, specified amount of food is offered to the child who is then observed as to how he/she actively consumes the food.

B. Indication: All SAM children (Weight-for-Height <-3SD) will undergo Appetite Test.

C. Where the Appetite Test to be done:

- The Appetite Test will be carried in a separate quiet area of the Anganwadi Centers (AWC).
- The AWW should convince the mothers/ caregivers to bring the child to AWC. However, even after 2-3 attempts by the AWW, if the child does not turn up at AWC, the Appetite Test should be conducted at home. AWW will visit the child's home carrying the food available at AWC for the Appetite Test. The Test may be conducted with the support of ASHA.
- To minimize the time gap between identification of SAM and referral for further management, the period for communication between AWW and ANM should not be more than 2 days.

D. Food to be used in Appetite Test: Locally available food items (Hot Cooked meals and Take Home Ration not raw ration) available at the Anganwadi Centers are to be used for Appetite Test.

E. How to conduct the Appetite Test:

a) Do the Test in a separate quiet and comfortable area where the child will be given up to an hour for eating the Test diet.

b) Explain to the mother/caregiver how the Test will be done.

c) The mother/caregiver should wash her hands.

d) The mother sits comfortably with the child on her lap and offers feed.

e) The child should not have taken any food for the last 2hours.

f) The Test usually takes a short time but may take up to one hour.

g) Children may be offered the Test feed according to the body weight: < 5kg – 15 grams (3 teaspoon) Test feed; 5 to 9.9 kg – 30 grams (6 teaspoon) Test feed; and ≥10 kg – 45 grams (9 teaspoon) Test feed. One teaspoon is roughly equivalent to 5grams.

h) The child must not be forced to take the food offered.

i) The child should have free access to safe drinking water while he/she is taking the test feed.

j) When the child has finished, the amount taken is judged or measured.

k) The child should have consumed most (at least three-fourth) of the Test feed offered as per weight to pass the Test.

l) Following the Appetite Test, the child should be observed for 30 minutes for any immediate adverse events.

F. How to Interpret the Appetite Test

Appetite	**Observation**	**Action**
Good	Child eats food Eagerly	Continue in community care at Anganwadi Center
Poor	Child takes food with persistent encouragement	Child may continue in community care at Anganwadi Center but must be observed carefully for any weight loss or clinical deterioration
Refused	Child refuses food even after persistent encouragement	Transfer to NRC

Annexure-III

Assessment for Emergency/Danger signs –Action Protocol based on Assessment

Assessment	Findings	Action to be taken
Danger signs	• Not accepting Feeds • Lethargy and altered sensorium • Severe chest in-drawing • Intractable/persistent vomiting • History of convulsion in current illness	Urgent referral to nearest Health facility
Respiratory Rate	• ≥60 respirations/minute under2months. • ≥ 50 respirations/minute from 2-12months. • ≥40respirations/minutefrom1-5years.	Referral to nearest health facility
Temperature (Axillary)	• >39 degree centigrade (>102.2degreeFahrenheit). • <35 degree centigrade (<95degreeFahrenheit).	Referral to nearest health facility
	• Fever - Mild to moderate <39 degree (<102.2 degree Fahrenheit). • Temperature below 36.5 degree centigrade but above 35 degree centigrade.	Supplementary Nutrition Program
Diarrhoea	• All diarrhea with dehydration or diarrhoealasting14daysormore • Dysentery • Some or severe dehydration	Referral to nearest health facility
	• No dehydration	Supplementary Nutrition Program
Cough	• More than two weeks	Referral to Nearest health facility
Pallor	• Severe Pallor	Referral to Nearest health facility

	• Some Pallor/No Pallor	Supplementary Nutrition Program
Oedema	• Bilateral pitting oedema	Referral to nearest health facility
Skin	• Extensive skin lesions/denuded skin	Referral to nearest health facility
Others	• Mother/caregiver not confident. • Age less than six months • Static weight for three consecutive weeks or weight loss for two consecutive weeks	Referral to nearest health facility

Annexure-IV

Suggested food baskets for provision of Supplementary Nutrition to Malnourished Children

S.No.	Category	Type of Meal	Cereals & Millets (g)	Pulses & Legumes (g)	Green Leafy Vegetables (g)	Vegetables (g)	Nuts & Seeds (g)	Cooking Oils (g)	Egg (Nos)	Whole Milk Powder (g)
1.	Undernourished children (6-12 months)	THR	30	15	0	0	12	7.5	1	10
2.	Undernourished children (1-3 years)	THR	60	30	0	0	20	15	1	20
3.	Undernourished children (3-6 years)	MS + HCM	50	25	25	50	10	10	0	0
		THR	30	15	0	0	12	7.5	1	10

THR: Take Home Ration; HCM: Hot Cooked Meal; MS: Morning Snack; WMP: Whole Milk Powder

- The suggested food baskets in the table above is for provision of Supplementary Nutrition to Malnourished children in order to meet the nutrition norms suggested in the table at Step-5 of protocol above.
- Quantity of food group is in terms of raw equivalents.
- Minimally polished & appropriately processed grain & gram is suggested to improve the content & availability of vitamins and minerals.
- One Egg may be provided on all days to all age groups if culturally acceptable. Nuts & seeds/milk may be proportionately increased in beneficiaries not consuming eggs.
- It is suggested to include fresh whole fruits to the extent possible to improve bio-available nutrients.
- If Double Fortified Salt is used, it will contribute additional iron @ 1mg/g of salt.
- If Fortified Rice or Fortified Wheat Flour is used, it will contribute additional iron @ 0.028-0.043mg/g, additional folic acid @ 0.075-0.125µg/g and additional vitamin B12 @ 0.00075-0.00125 µg/g of rice or wheat flour.
- If Fortified Oil is used, it will contribute additional vitamin A @ 6.0-9.9µg/g and additional vitamin D @ 0.11-0.16µg/g (or 4.4-6.4IU/g) of oil.
- If Fortified Milk is used, it will contribute additional vitamin A @ 0.27-0.45µg/ml and additional vitamin D @ 0.005-0.008µg/ml (or 0.20-0.32IU/ml) of milk.

(Ref: Technical report of NIN: Revision of Food and Nutrition norms under Schedule II of the National Food Security Act, 2013, prepared in collaboration with Department of Food and Public Distribution, Ministry of Consumer Affairs, Food and Public Distribution, October, 2022)

Annexure-V

Roles and Responsibilities of Functionaries at State level

Role of AWW:

- Record the weight and height of the child every month and enter the data in the Poshan Tracker App.
- Conduct appetite test for all severely underweight and severely wasted children.
- Refer children with poor appetite (failed appetite test) and/or presence of oedema or medical complications to NRC/nearest health facility for further assessment immediately.
- Apart from the regular identification/detection and referrals, monthly village health sanitation and nutrition day (VHSND), biannual de- worming day, bi-annual vitamin-A supplementation rounds, etc., may also be utilized for identification/detection of children with SAM.
- Manage Nutritional requirements of malnourished children at Anganwadi level.
- Maintain the list of SAM children detected by her and maintain follow-up records. Ensure immediate referral of the SAM children to the nearest health facility.
- Share the list of SAM children identified by her with ASHA and ANM within 2 days, to help in timely medical evaluation and referral by ANM.
- Counsel the parents and caregivers of children.

Role of ASHA

- Support AWW in mobilization and growth monitoring of children.
- Facilitate referral of SAM child to NRC.
- Bring SAM children to PHC for medical examination.
- Counsel families and caregivers and ensure that the child gets admitted to CHC/PHC/NRC if referred.
- Support AWW in fulfilling her role effectively.
- May visit the SAM/MAM child at home once in a month along with AWW.
- Counsel and interact with parents and family members.
- Sensitize mothers and caregivers on appropriate feeding practices, Hygiene and sanitation.
- Ensure administration of Vitamin–A drops, Albendazole tablets, IFA syrup as per the recommended dosage.
- ASHA shall follow up all SAM/MAM children in her area.

Role of ANM:

- During VHSND, evaluate SAM children identified by AWW through Growth Monitoring for the presence of medical complications including oedema. Children whose weight-for-height is less than -3 SD and with bilateral pitting oedema, other medical complications or poor appetite will be categorized as medically complicated SAM and will be referred to NRC/nearest health facility for further management.
- Administer vaccines as per immunization schedule according to the child's age.
- During VHSND, support AWW in performing appetite test.

Role of CDPOs and Supervisors

The CDPO should be designated as the focal point for the care programme at AWC to monitor and supervise the implementation and will have the following roles:

- Facilitate training of health workers and AWWs in coordination with the Block Medical Officer (BMO)
- Ensure linkages between the NRCs and the community care at AWCs
- Monitor data from the blocks and report to the District/State on periodic basis and share with PHC In-charge/BMO.
- Some of the key points to be monitored closely are:
    - Number of new admissions each month
    - Number of children referred to NRC
    - Availability of drugs for SAM management with ANM during VHSND
    - Transfer between different programmes (AWC and NRC)
    - Maintenance of records
- Ensure the availability of functional growth measuring devices in all the AWCs.
- Capacity building of AWW on screening procedure, appetite test and counselling.
- Review status of SAM & MAM children during Sector, projects meetings.
- Review the referral cases and coordinate with Medical Officer.
- Review the program on set indicators, i.e., admissions, defaulters, recovery, and non-respondents) & also conduct field visits

Role of Medical Officers

- Assess all the SAM/MAM/SUW children referred from AWC for presence of medical complications and further management.
- Conduct a detailed examination of the child. In case of any medical conditions/ailments, the medical officer shall treat the child for the ailments. In case it is not feasible for the medical officer to treat the child at the PHC (if the condition of the child is beyond the purview of PHC treatment) the Medical Officer shall refer the child to the nearest NRC.

- Based on the clinical assessment, provide treatment, follow-up guidance to Frontline Functionaries of ICDS and Health and parents/caregivers.
- Coordinate with CDPOs and Supervisors.
- Monthly progress report should be submitted to District Medical and Health Officer.

Role of DPO/ District Social Welfare Officer (DSWO)

DPO/DSWO will monitor the implementation of the programme in the district and will have the following roles:

- Planning of services in discussion with District Health Officer
- Fund flow and positioning of manpower and trainings
- Infrastructure strengthening, if required at AWC
- Quarterly review of the programme performance

Role of District Administration

- The District Administration shall review the progress every month. Weekly review on a dedicated day may be organized at village/urban ward level. Quarterly review to be organized with stakeholder departments at state level under the Chairmanship of Principal Secretary, WD&CW Dept.
- The District Magistrate shall be the Nodal Point in the district for monitoring nutritional status and quality standards.
- The DM/Collector shall chair, supervise and monitor the activities of the District Nutrition Committee. The Members of the District Committee have to be mandatorily certified nutrition experts.
- Undertake overall administration and coordination of the nutrition project and ensure smooth and effective delivery of all intended services in the project jurisdiction.
- Conduct periodic monitoring, including surprise spot-checks, collection of samples for quality testing of supplementary nutrition (THR and HCM) provided, ensuring adequate measures for food safety and hygiene are followed throughout the supply chain, assessing the quality of pre-school delivery etc., to ensure quality and undertake necessary course correction.
- Conduct Joint Field Visits with Medical Officer (MO) and Joint Review Meetings on monthly basis, especially with regards to SAM children.

Role of Community:

1. **<u>Panchayats</u>**
   - The role of Panchayati Raj Institutions is very important for the success of nutritional Interventions. Awareness generation on the effects of malnutrition at the Poshan Panchayat platform can be the first step.
   - Members of Panchayat Raj Institution (PRI) should be involved to motivate, mobilize community leaders and SHGs for support and participation in VHSND, ensure the availability of clean and safe drinking water and toilet to the residents of the Gram Panchayat and support the health and WCD functionaries in working towards "Malnutrition – Free" Gram Panchayats.
   - At the grassroots level, Panchayats can serve as a useful convergence platform for Mothers Groups and VHSNC to discuss issues of nutrition and wellness and sensitize people about the importance of nutrition for beneficiaries.
   - POSHAN Panchayats and VHSNCs shall discuss the situation of malnutrition in the Gram Panchayat, including status of children affected by malnutrition, the probable causes of malnutrition and implementation gaps that need to be addressed.

2. **<u>Buddy Mothers</u>**
   - Buddy system between mother of a healthy child and mother of a malnourished child may be introduced, enabling close and joint supervision and exchange of guidance between the buddy mothers with respect to health of the malnourished child.

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Towards a new dawn

Ministry of Women & Child Development

Government of India