



सत्यमेव जयते
ग्रामीण विकास मंत्रालय
भारत सरकार



ANAEMIA IN WOMEN AND CHILDREN

Facilitator Guide for SHG Meetings



Deendayal Antyodaya Yojana - National Rural Livelihoods Mission (DAY-NRLM)

Ministry of Rural Development, Government of India



Dear Facilitator

This facilitator guide on **Reducing Anaemia**, is designed to help all facilitators under State Rural Livelihood Missions (SRLMs) in rolling out the Flipbook and disseminating key messages within the SHG groups and other community cadres. Reducing Anaemia session is part of a training package on Food, Nutrition, Health and WASH (FNHW) consisting of Flip books, Facilitator guides, Posters, Counselling Cards and Stickers.

The objective of this training on Reducing Anaemia is to empower SRLM staff, cadres and community at large with the knowledge and key behaviors to improve the health and nutrition practices to prevent nutritional anaemia. This knowledge may consequently help to adopt better behaviour and practices that will improve the SHG women and their family's health. We all know that better health and nutrition results in higher productivity leading to reduction in poverty and improvement in quality of life.

It should be kept in mind that this orientation package, although meant for SHG women, should serve as reference material for the entire family. Information provided under each session through flipbooks and this guide should be seen as collective learning for the family, and each member of the family needs to play their part to ensure that the messages are adopted by them in everyday lives.

The responsibility of getting these behaviors imbibed does not lie with women only; the men/husbands/older boys in the family need to ensure making arrangements for whatever is required to follow these practices on FNHW..

Objectives

After going through the module, the facilitator will be able to:

- Understand about nutritional anaemia, its consequences, how to manage during the vulnerable ages and special conditions.
- Gain knowledge on essential nutrition care actions including intake of iron rich foods, supplements and significant practices.

Initiate the Session

Anaemia is a condition in which the number of red blood cells (RBCs), and consequently their oxygen-carrying capacity, is insufficient to meet the body's physiological needs. **The function of the RBCs is to deliver oxygen from the lungs to the tissues and carbon dioxide from the tissues to the lungs. This is accomplished by using haemoglobin (Hb), a protein composed of haem and globin. Anaemia impairs the body's ability for gas exchange by decreasing the number of RBCs transporting oxygen and carbon dioxide.** Iron is necessary for synthesis of haemoglobin. Iron deficiency is thought to be the most common

cause of anaemia globally, but other nutritional deficiencies (including folate, vitamin B12 and vitamin A), acute and chronic inflammation, parasitic infections, and inherited or acquired disorders that affect Hb synthesis, red blood cell production or red blood cell survival can all cause anaemia.

Case Study

Reena is a 13-year-old girl. She lives with her parents, two brothers and a younger sister in Rampur, a town in Uttar Pradesh. Reena goes to school and also helps her mother with all the household work. Her normal diet is rice and watery dal twice a day, and vegetables once a while. She is very fond of noodles and burgers which she frequently enjoys in the school canteen during recess. She feels very weak and is always exhausted. Her grades are falling as she cannot concentrate in the class. She feels irritable and does not like playing as she starts panting even on slight effort. Ask the participants –

- ▶ What has happened to Reena?
- ▶ What other signs and symptoms might Reena be having?

Note: Do not explain answers to the participants here, just listen to what they have to say.

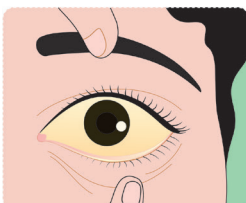
Step 1: What is Anaemia and its symptoms?

Initiate discussions with the group on what do they understand by Anaemia, what is it called in their local language, and what according to them are the reasons for nutritional anaemia.

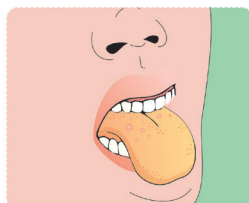
Anaemia is a condition in which the number of red blood cells and their oxygen-carrying capacity is insufficient to meet the body's physiological needs. Anaemia is also referred to as 'Pandu Rog' in some areas, which means disease with pallor, because there is lack of redness in the skin, tongue, eyes and face. Having the right amount of iron in blood is necessary for one to keep fit, healthy and for proper physical and mental development of the child.

The main symptoms of Anaemia are listed below –

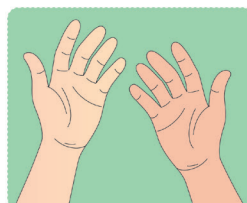
- Paleness, reduction of redness in skin, face, tongue and eyes.
- Lack of interest in work, getting tired soon.
- Shortness of breath or suffocation.
- Lack of focus in work and forgetting things.
- Weakness and Dizziness.



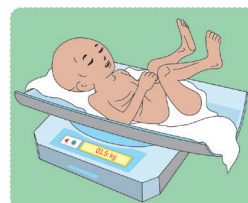
Paleness of lower eyelids.



Paleness of tongue.



Paleness of hands.



Low birth weight baby.

- Loss of appetite.
- Swelling in face and legs.
- Low birth weight babies.

Activity: Discuss the symptoms of Anaemia and conduct self-evaluation for checking symptoms of Anaemia with the group members.

Self-Assessment Form

S.No	Questions	Yes	No
1	Do you feel sick very often		
2	Are your eyes looking pale		
3	Do you experience shortness of breath/difficulty in breathing		
4	Do you feel tired and sleepy all the time		
5	Are you experiencing heavy blood loss during menstruation		
6	Do you experience cold hands and feet		
7	Is your skin looking pale		
8	Do you have brittle nails		
9	Are you experiencing with hair loss and muscle weakness		
10	Are you experiencing headaches very often		
Note: After getting the responses, share with the participants the possibilities of Iron deficiency Anaemia based on their recorded symptoms.			

Refer to the table below and inform the group on haemoglobin levels to understand severity of Anaemia.

Population	No Anaemia (Gm/dL)	Mild Anaemia (gm/dL)	Moderate Anaemia (gm/dL)	Severe Anaemia (gm/dL)
Children 6–59 months of age	≥11.0	10–10.9	7.0–9.9	<7.0
Children 5–11 years of age	≥11.5	11.0–11.4	8.0–10.9	<8.0
Children 12–14 years of age	≥12.0	11.0–11.9	8.0–10.9	<8.0
Non-pregnant women 15 years of age and above	≥12.0	11.0–11.9	8.0–10.9	<8.0
Pregnant women	≥11.0	10.0–10.9	7.0–9.9	<7.0
Men (15 years of age and above)	≥13.0	11.0–12.9	8.0–10.9	<8.0

Step 2: Reasons and Consequences of Anaemia

There are a number of reasons for a person to be anaemic, such as from an anaemic woman during pregnancy and childbirth, late or inadequate complementary feeding of children below two years, diets lacking iron rich foods, worm infestations and even unhygienic conditions in and around households.



Causes of High Burden of Anaemia			
Low Iron Stores	Dietary	Iron Loss	Maternal Anaemia
<ul style="list-style-type: none">• During Pregnancy in anemic mothers.• Poor iron stores from infancy, childhood deficiencies and adolescent Anaemia	<ul style="list-style-type: none">• Inappropriate IYCF esp. Complementary Feeding Practices• Excessive Consumption of 'Iron Inhibitor's' (tea /coffee, calcium rich foods) and low intake of 'Iron Enhancers'(Vitamin- C etc.• Low bioavailability of dietary iron• 50% of the population is consuming <50%	<ul style="list-style-type: none">• Due to parasitic load (malaria, intestinal worms)• Poor environmental sanitation, unsafe drinking water and inadequate personal hygiene	<ul style="list-style-type: none">• Increased iron requirement due to tissue, blood formation and energy requirement during pregnancy.• Iron loss from postpartum haemorrhage• Teenage Pregnancy• Repeated Pregnancies with less than 2 years interval

These causes can be explained to the group with the help of categorization in the table below –

Discussion Points on problems associated with anaemia if left untreated...

- This condition results due to deficiency of iron in our diet.
- Women are at risk of iron-deficiency anaemia because of additional blood loss during menstruation and increased iron requirements during pregnancy.
- Adolescent girls having anaemia are susceptible to miscarriage and giving birth to low birth weight babies.
- Anaemia is an associated problem in malnourished children below 5 years.
- Pregnant women facing anaemia are more likely to have delivery complications and premature birth.
- Anaemia can lead to heart related complications also.
- Losing a lot of blood may result in severe anaemia and can sometimes be fatal.

Step 3: Vulnerable Groups for Anaemia and requirements for each group

Now initiate discussion on who is more susceptible to suffer from anaemia and what should be done to prevent nutritional anaemia specifically. Explain to the group that children, adolescents and women are more prone to iron deficiency and as a result suffer from anaemia. Also explain that this can be prevented by taking care of diet and prescribed supplements depending on the stage of life.

Some factors to be kept in mind are –

- The first few minutes after birth of a child are very crucial for a lifetime amount of iron. **Remember that the cord of the child after birth should be cut only after 3 minutes, to preserve the amount of iron in the blood of the new-born baby.**

- Consumption of a balanced diet by all age groups consisting of iron rich and Vitamin C rich foods is very important.
- Vitamin C helps and enhances the absorption of iron in the body and ensures availability in right quantities.
- Pregnant and lactating women need to consume a diet based on trimester wise recommended quantity and food groups.

Step 4: Requirements for the vulnerable groups for prevention of Anaemia

Inform the participants that for each group it is necessary to ensure a combination of diet, supplements and timely deworming, so that the body retains the required amount of iron and anaemia and related disorders can be prevented. Go through the important points to remember and requirements of each vulnerable group one by one -

For Children 6 months to 59 months (5 years) - These are the foundation years in the life of a child, remember to introduce complementary feeding for the child timely i.e as soon as the child completes six months of age. mothers should try and continue breastfeeding also till the child is two years of age. As the child grows, ensure feeding a balanced diet and include important food groups in the daily diet of the child. Alongside -

- Give IFA syrup 20 mg twice a week. Elemental iron and 200 µg folic acid) supplements. Take care that iron syrup is not given on an empty stomach.
- Feed the child with an Albendazole tablet twice a year to prevent stomach worms.
- Both IFA syrup and Albendazole tablets are provided free of cost from the nearest health center and Anganwadi.
- Ensure Feeding the child Iron rich diet and diet containing Vitamin C. These help in better absorption of iron in the body.

For Children 5 - 9 years - Remember that these are the growing years and time for holistic development for the child. Along with maintaining a balanced diet and including maximum food groups in a day's diet. Alongside -

- Give one pink colored iron tablet every week. Take care that this is not taken on an empty stomach. This should also not be taken with milk, tea or coffee.
- To prevent stomach worms, give one tablet of Albendazole twice a year.
- Both iron and Albendazole tablets are provided free of cost from the nearest health center and Anganwadi and also in government schools
- Ensure Feeding the child Iron rich diet and diet containing Vitamin C. These help in better absorption of iron in the body.
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For Adolescents 10 - 19 years - Along with rapid physical and mental development this is also a stage of emotional development for the child. Remember that consumption of a balanced diet is maintained, include healthy food options in



the diet, avoid fried and sugary food items and lead an active lifestyle. Alongside, to maintain sufficient iron reserves –

- Take one blue colored iron tablet every week. Never take an iron tablet on an empty stomach. Do not take it with milk, tea or coffee.
- To prevent stomach worms, take one tablet of Albendazole twice a year.
- If you feel tired, can't concentrate on work, forget important things or start feeling short of breath, go to the nearest health center and get tested for anaemia.
- Both iron and Albendazole tablets are provided free of cost from the nearest health center and Anganwadi and also in government schools.
- Consume iron rich and Vitamin C rich diet. Vitamin C allows better absorption of iron in the body.

For women in reproductive age – It is very important for women to maintain consumption of a balanced diet, include at least five of the ten food groups daily along with healthy food options in the diet, limit intake of fried and sugary food items and lead an active lifestyle. These factors contribute to ensuring that women are healthy and will remain so if they enter pregnancy or any other condition demanding additional requirements. Along with the above, to maintain sufficient iron reserves in the body –

- Take one red colored iron tablet every week. Never take it on an empty stomach. Don't take it either with milk, tea or coffee.
- Make sure to take one tablet of Albendazole twice a year to prevent stomach worms.
- Iron tablets and Albendazole Tablet are available free of cost at nearby Health Center and the Anganwadi.
- Consume iron rich and Vitamin C rich diet. These allow better absorption of iron in the body.

For pregnant and lactating women – Pregnant and lactating women have to pay a lot of attention to their nutrition, since their unborn/new born baby is dependent on them for its nutrition. These women must include five food groups in their daily diet along with the recommended increase in quantities as per their trimester. Special emphasis should be paid to consuming iron and Vitamin C rich foods to maintain Haemoglobin levels. Along with diet, to meet the increased demand for iron and other key nutrients, remember that if iron tablets are taken regularly as prescribed, the mother and child can be saved from the dangers and risks that may occur due to loss of blood. To prevent anaemia –

- Take one red iron tablet every day starting from the fourth month of pregnancy to 180 days (6 months) and continue for another six months after delivery. A total of 360 tablets are to be consumed.
- Keep taking the pills even if you feel nauseous or uncomfortable, these side effects will not last long. These effects can be reduced by taking iron tablets about one to two hours after a meal but never take it empty stomach.
- Do not take it with milk, tea, coffee or calcium tablets.
- To prevent stomach worms, take one tablet of Albendazole once in the second trimester of pregnancy.

- If you feel tired, can't concentrate on work, forget important things or start feeling shortness of breath, go to the nearest health center to get tested for anaemia and get treatment.
- Get IFA and Albendazole tablets free of cost from the nearest health center and Anganwadi.

Refer to the Maternal Nutrition session for details regarding diet and other points to remember at this stage.

Discussion Points: Why iron and Vitamin C rich foods?

Read the following and understand to answer if there are queries on why should one have iron and vitamin C rich foods and what can be done to enhance iron absorption in the body through our regular diet -

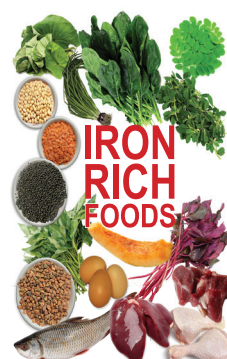
- Iron is important because your body needs it to make haemoglobin. Dietary Diversification helps to acquire more iron rich foods.
- Vitamin C has been shown to enhance iron absorption. Foods's rich in iron and Vitamin C. (citrus, lemon, Amla, guava, gooseberry etc).



Iron and Vitamin C rich foods

Key recommendations to increase Iron availability in the body.

1. **Eat lean red meat:** This is the best source of easily absorbed heme iron. Eating it several times per week can help if you are deficient.
2. **Eat vitamin C-rich foods:** Consuming vitamin C-rich foods together with foods rich in non-heme iron may increase the absorption of iron by up 300%.
3. **Avoid coffee and tea with meals:** Drinking coffee and tea with meals can reduce iron absorption by 50-90%.
4. **Soak, sprout and ferment:** Soaking, sprouting and fermenting grains and legumes can improve iron absorption by lowering the amount of phytates naturally present in these foods.
5. **Use a cast iron pan:** Foods prepared in a cast iron pan tend to provide two to three times more iron as those prepared in non-iron cookware.
6. **Boiled Beetroots and Black Chana:** It serves as a good synergistic nutrient source of iron and protein. They will mutually help each other to increase the blood volume and haemoglobin.



Discussion Points on Haemoglobin levels the significance of IFA/iron supplements:

- The normal hemoglobin levels for all age groups is between 11 to 15 grams and below this range is different levels of Anaemia – 7 to 10.9gm is Moderate Anaemia and 4 to 6.9 is Severe Anaemia whereas less than 4 is very severe Anaemia.
- Ensure that all children, adolescent girls including pregnant and lactating women are supplemented with tablets of IFA. Remember that red tablets are for women, blue for adolescent girls and boys, pink for children above 5 years and syrup for children below 5 years.
- Pregnant adolescent girls should be referred to the nearest health facility and given IFA tablets as per ANC guidelines.
- Also ensure that albendazole tablets for deworming are given as prescribed to all age groups.

Step 5: Anaemia Mukh Bharat

Ask the group if they know about and tell them about Anaemia Mukh Bharat, a program strategy under Poshan Abhiyaan, by the National Health Mission to reduce prevalence of anaemia. The key interventions of the program are as follows:

6 interventions

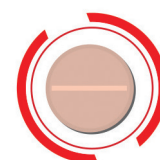
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Prophylactic iron folic acid supplementation

Periodic deworming of children, adolescents, women of reproductive age and pregnant women

2



3



Intensified year-round behaviour change communication campaign including ensuring delayed cord clamping

Testing of anaemia using digital methods and point of care treatment

4



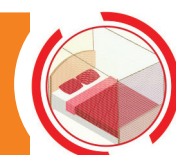
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Mandatory provision of iron and folic acid fortified food in public health programmes

Addressing non-nutritional causes of anaemia in endemic pockets, with special focus on malaria

6





Role of Self Help Group

- ▶ The group should ensure that all members understand what is anemia, its consequences and the importance of diet in maintaining hemoglobin levels in the body.
- ▶ The group members should ensure that the men in the family and other members make sure the availability of iron and vitamin C rich foods in the house, especially if their are pregnant, lactating women and small children in the house.
- ▶ It should also be ensured that iron supplements and deworming tablets are made available from government health centers or Anganwadi, depending on family members, by collaborating with ASHA, ANMs and Anganwadi workers when required.

Note: The Self Help Group should be ready to support those members who face problems or find it difficult to convey these messages and convince their families.

Session concludes: End the session by revisiting the questions from the case study and their answers. Thank the participants and close.





The Food, Nutrition, Health and WASH (FNHW) Toolkit has been developed by the National Mission Management Unit (NMMU) with support from Technical Assistance agencies–TA- NRLM (PCI) and inputs from ROSHNI–Centre of Women Collectives led Social Action, National Institute of Rural Development (NIRD), State Institutes of Rural Development (SIRDs), National Resource Persons (NRPs), State Rural Livelihood Missions (SRLMs) of Bihar, Chhattisgarh, Jharkhand, Odisha, Uttar Pradesh, Andhra Pradesh, Telangana and Maharashtra, JEEViKA Technical Support Program–Project Concern International (JTSP–PCI) and UNICEF state teams from Odisha, Bihar and Chhattisgarh.

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