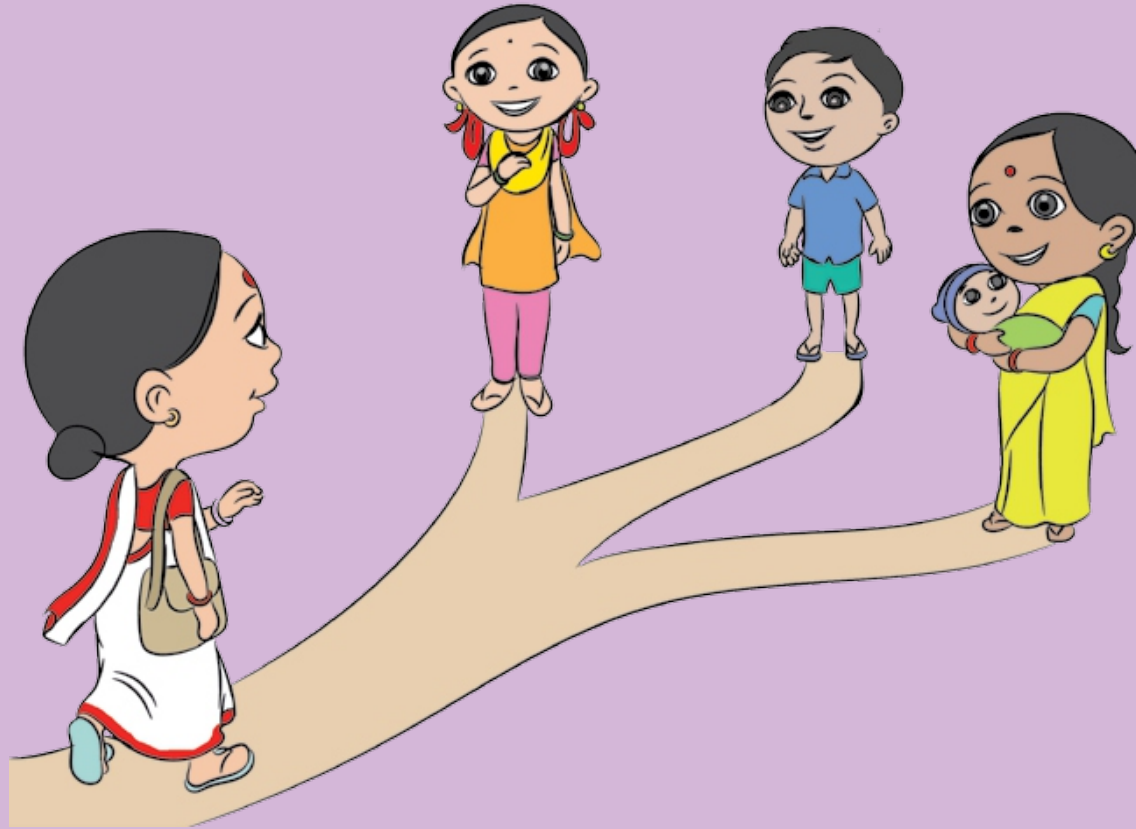


Prevention of anemia in children and adolescent girls



Ministry of Women & Child Development
Government of India, 2018

19





Did you meet any women or men with these symptoms during the last month?



Welcome the participants in the meeting.

Display the card. Ask the participants to read the symptoms one by one as written on the card.



Ask:

Did they meet any women or men with the following symptoms?

Listen to the participants carefully and let there be a discussion on their experiences related to every symptom.

Tell the participants that such symptoms indicate lack of blood or anemia.



5 Minute

M19

Prevention of anemia in children and adolescent girls

F1

Did you meet any women or men with these symptoms during the last month?



- Breathlessness while climbing stairs or the slope
- Decrease in capacity of work
- Mental tiredness, irritation
- Paleness of the tongue
- Paleness of palm and sole

Why does this happen?





Review: What had we learnt last time about lack of blood or anemia?



Display the card. Ask the participants to read the questions one by one. What do they remember about these topics?

Write down the main points as told by the participants.



Tell everyone

We have learnt in the last meeting that hemoglobin is a vital component of our blood. This substance is made of iron and protein, which is important for growth and development of the body.



Review based on the points given on the right side.

Explain the following:

Where is hemoglobin produced in our body?

- Hemoglobin is present in our blood. Blood is made from the bone marrow in the long bones in our body.

What is the role of hemoglobin in our body?

- Hemoglobin is the substance that carries oxygen in the blood from lungs to different organs in our body.
- If the level of hemoglobin in our blood is less than normal, the required amount of oxygen will not reach the organs.
- We experience breathlessness if oxygen does not reach our organs. We breathe faster to supply oxygen to our organs. Therefore, we feel lazy and tired.

What symptoms will tell you that someone is anemic?

- If the level of hemoglobin in our blood is less than normal, it is called anemia. Anyone can check for some symptoms in a person, which indicates lack of blood in the body, such as:
 - Paleness of the palm and sole
 - Paleness of the nail
 - Paleness of the tongue and lips and sometimes black spots
- Or visit the nearest health center and test the level of hemoglobin in the blood on the advice of the doctor.



5 Minute

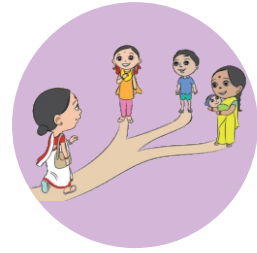
M19

Prevention of anemia in children and adolescent girls

F2

Review: What had we learnt last time about lack of blood or anemia?

- Where is hemoglobin produced in our body?
- What is the role of hemoglobin in our body?
- What symptoms will indicate that someone has lack of blood or anemia?





Review: Why does the level of hemoglobin decrease in the blood?



Display the card.

Ask the participants to read the points written on the card and let the discussion happen. Enquire what they remember about this.

Explain the reasons of anemia referring to the points on the right.



Tell the participants again about hemoglobin.

As we discussed just now that hemoglobin is a vital component of our blood. When the level of hemoglobin in the blood decreases, it is called anemia. Hemoglobin makes our blood red and supplies oxygen to our organs.

The decrease in the level of hemoglobin in our blood is majorly due to two reasons:

- A. If the production of blood slows down in the body
- B. If the body loses blood due to some reason

Which foods help in the formation of blood in our body?

- We should eat food that are rich in iron and some vitamins like folic acid and vitamin B12.
- Eat green leafy vegetables, cereals like bajra and ragi, some beans and dry fruits like almond, groundnuts etc. in vegetarian diet. These foods should be eaten with citrus food items such as lemon, amla, guava etc. which helps in absorption of iron.
- Eat protein rich foods. Households that are non-vegetarian may continue to consume food items that are good sources of high quality protein, Vitamin A and D. Also the food should be well cooked, soft and mashed.

What types of diseases will immediately turn a healthy person anemic?

- Some long-term diseases prevent the formation of hemoglobin like TB, disease of liver, diseases of blood like sickle cell anemia, thalassemia, cancer, arthritis etc.

What are the reasons why iron is not absorbed even if we eat iron rich food and leads to anemia?

- Certain foods block digestion of iron like tea/coffee and calcium. Therefore, these should not be taken with iron tablets.
- Vitamin C, which is present in citrus foods like lemon, chili, amla, guava, helps in digestion of iron.

There are some conditions when the loss of blood in the body is much faster than its production:

- Certain types of worms suck blood from the intestines.
- Menstrual cycle causes blood loss in women.
- The red blood cells are damaged due to diseases like malaria.
- The body loses blood in disease like piles.



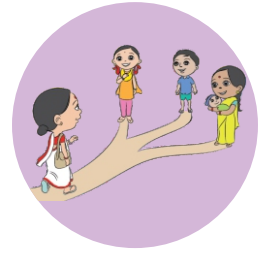
10 Minute

M19

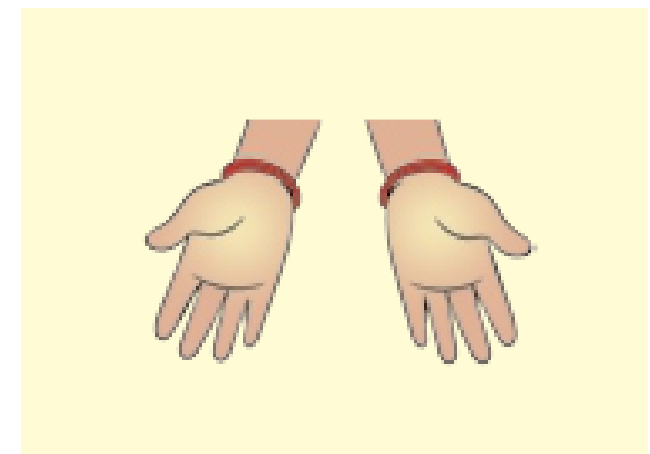
Prevention of anemia in children and adolescent girls

F3

Review: Why does the level of hemoglobin decrease in the blood?



- What is hemoglobin?
- Which foods help in the formation of blood in our body?
- What types of diseases will immediately turn a healthy person anemic?
- What are the reasons why iron is not digested even if we eat iron rich food, and leads to anemia?





How and why does Anemia happen in children?



Display the card.

Tell the participants:

As we have learnt in the last month that women are comparatively more anemic than men and what needs to be done during pregnancy and after delivery to prevent anemia among women. Similarly, today we will learn how important it is to prevent anemia among children and adolescents.

Ask the participants to read the points one by one and let the discussion happen in detail.

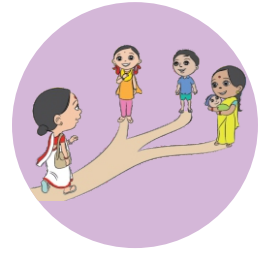
Use the information on the right to explain each of the points during the discussion.

There are some simple reasons for anemia in children. The child gets its blood and nutrition from the mother during pregnancy and there is sufficient stock of iron to last for the first 4-6 months after birth. After 6 months, the following reasons may lead to deficiency of iron in children:

- Not initiating complementary feeding after completion of 6 months or not feeding appropriate quantity of complementary food. This leads to iron deficiency in children.
- Iron deficiency may take place when the child is fed top milk and milk from other sources after 6 months.
- When the child often suffers from diarrhea and fever which are not treated timely or do not receive appropriate nutrition after illness.
- These are the most common reasons why 6 out of every 10 children in the age group 6 months to 5 years in our country are anemic.



How and why does Anemia happen in children?



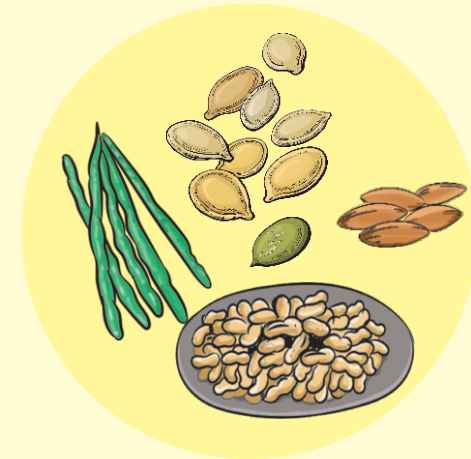
- Do children have anemia from birth?
- When do children start to develop anemia?
- What are the reasons for anemia in children?



Green leafy vegetables
with citrus food



Cereals and Millets



Beans and Dry Fruits





What will be the effect of anemia on children?



Display the card.

Ask the participants to read the points one by one and let the discussion happen in detail.

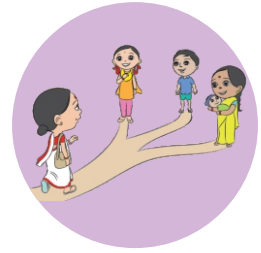
Use the information on the right side for detailed discussion on each point.

Anemia in children affects their entire life as we learnt earlier in the complementary feeding module. Children especially require iron after 6 months of age along with other nutrients, since their iron stores (which they develop while in mother's womb), get over by the age of six months. Iron is required for the following purposes:

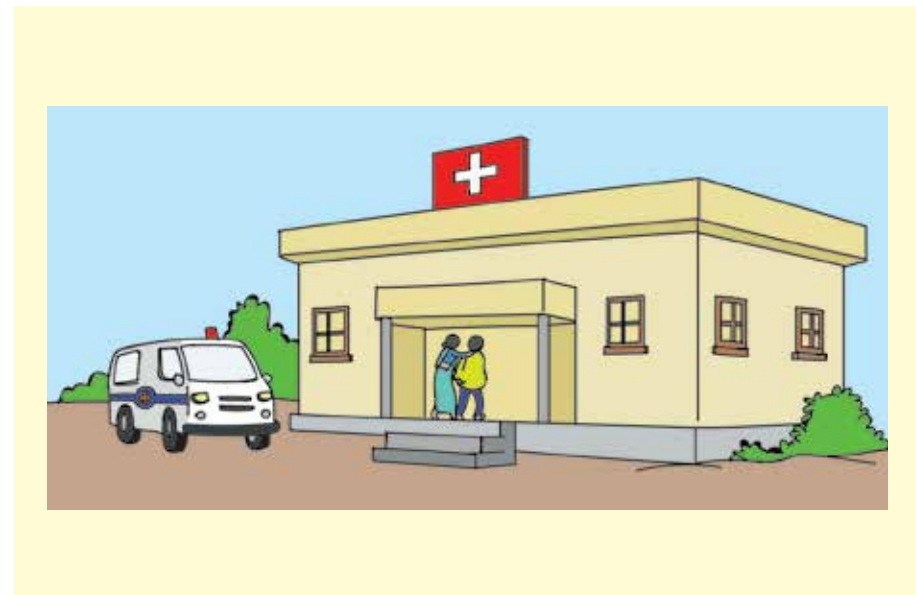
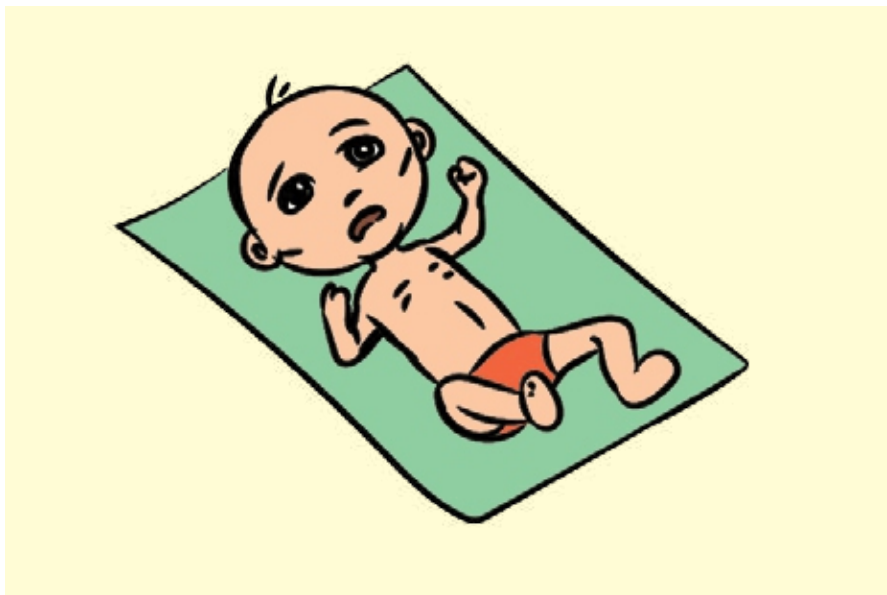
1. **For Growth:** The height and weight of the child increases during childhood, especially during the first two years. This means that during this period, the length of the bones increase, the muscles increase and the internal organs increase in size. For this growth of organs, appropriate quantity of hemoglobin is required continuously.
2. **For Learning:** During the first two years, as the child sees, listens, tastes and touches, her memory increases and she learns very quickly. She requires iron for development of her brain as well as her body. Any deficiency would slow down her learning ability.
3. **For Activities:** The activities of the child keep on increasing every month with increase in age like rolling, crawling, sitting, standing and finally walking. Deficiency of iron in children decreases the hemoglobin level in the blood, which, in turn, leads to less supply of oxygen to the organs. This makes the child lazy and her activities decrease with growing age.
4. **For fighting against infections:** As the child grows during the first two years, she often falls sick due to infections like cough and cold, diarrhea, fever, etc. To prevent and fight against such infections, the child needs variety of nutrients in the food. Due to lack of nutrition, the child may fall sick for a long time, she may lose weight and may develop serious illnesses.

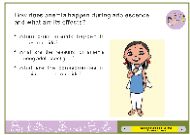


What will be the effect of anemia on children?



- Children born to anemic mothers are mentally and physically weak.
- Anemia affects the learning ability and activities of the children during childhood and increases the chances of illness.





How does anemia happen during adolescence and what are its effects?



Display the card.

Tell all participants:

As anemia hinders growth among children, similarly severe effects are seen during adolescence.

Ask the participants to read the points one by one and let the discussion happen in detail.

Use the information on the right for detailed discussion on each point.

After birth, the iron stores are maintained in children for the first 4-6 months, which they had obtained from the mother while in her womb. Upon completing six months of age, these stores begin to reduce and if not replenished, the deficiency continues even during adolescence. In our country nearly 6 out of 10 children have anemia. This means that the deficiency of iron during childhood is continuing even during adolescence. Anemia is found very commonly among adolescent girls due to iron deficiency. If the adolescent girls have anemia, it may have long term effect during pregnancy and the child may be born weak. This is a vicious cycle which we need to break.

The reasons for anemia among adolescent girls are as follows:

1. The iron deficiency from childhood is not replenished.
2. The menstrual cycle starts at nearly 13 years of age in adolescent girls and as we have understood that they lose blood regularly every month.
3. Developing worms in the stomach which suck blood.
4. Diseases that happen time and again like diarrhea, cough and cold and fever.
5. Occurrence of any severe disease.
6. Apart from these, the girls start doing household work at an early age but they don't get nutritious food accordingly.
7. Sometimes the adolescent girls in the households are given less food or they are not encouraged to have full and nutritious diet.

Anemia among adolescent girls is dangerous for the future of our society.



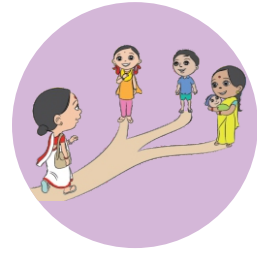
15 Minute

M19

Prevention of anemia in children and adolescent girls

F6

How does anemia happen during adolescence and what are its effects?



- When does anemia happen in adolescent girls?
- What are the reasons for anemia among adolescent girls?
- What are the consequences of anemia in adolescent girls?





What can we do to prevent anemia among children and adolescent girls through our programs?



Display the card.

Ask the participants to read the points one by one and let the discussion happen in detail.

Use the information on the right for detailed discussion.

The Government of India is running various programmes to prevent anemia among its citizens during the crucial stages of their lives. Our Anganwadi is a key place to run these programs. To prevent the prevalence of anemia among children and adolescents:

- 6 month to 5 year old child: 1 ml syrup twice in a week.
- 5 to 10 year old child: Weekly Iron tablet for in school children through teachers and out of school children through AWC.
- 10 to 19 year old adolescent boys/girls: Weekly Iron tablet for in school adolescents through teachers and out of school adolescents through AWC.

Deworming tablets every 6 months:

- 12 month to 5 year old child: Deworming tablet once in 6 months.
- 5 to 10 year old child: Deworming tablet once in 6 months for in school children through teachers and out of school children through AWC.
- Adolescents (10 to 19 years): Deworming tablet once in 6 months for in school adolescents through teachers and out of school adolescents through AWC.

Apart from these, counseling on consuming iron and Vitamin C rich food is done by the ANM, ASHA, school teacher and Anganwadi worker.



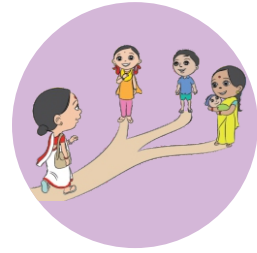
15 Minute

M19

Prevention of anemia in children and adolescent girls

F7

What can we do to prevent anemia among children and adolescent girls through our programs?



For the children:

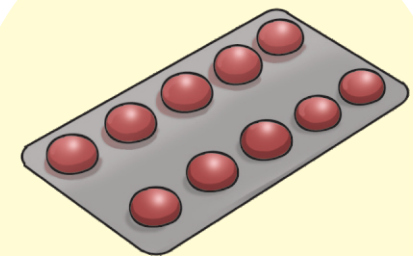
- 6 month to 5 year old children: 1 ml syrup twice in a week
- 5 to 10 year old children: Iron tablet for children once in a week

For adolescent boys/girls:

- Adolescents (10 to 19 years): Iron tablet once in a week

Deworming tablet every 6 months:

- 12 month to 5 year old children: Deworming tablet once in 6 months.
- 5 to 10 year old children: Deworming tablet once in 6 months
- Adolescents (10 to 19 years): Deworming tablet once in 6 months.



Iron Tablets



Deworming Tablets





What advice should we provide to maintain the iron stores among children and adolescent girls?



Display the card.

Ask the participants to read the points written on the card and let the discussion happen. Enquire what they remember about this.

Use the information on the right for detailed discussion on each point.

What do we do to ensure increased production of blood in the body:

- Eat items that are rich in iron, like
 - Eat green leafy vegetables that are locally available (with lemon, amla, guava), cereals like bajra and ragi, some beans and dry fruits like almond, groundnuts etc. in vegetarian diet.
 - Eat protein rich foods, such as pulses, beans, milk and its products, nuts, etc. Households that are non-vegetarian may continue to feed food items that are good sources of high quality protein, Vitamin A and D. Also the food should be well cooked, soft and mashed.
 - Add lemon, amla, guava and such citric foods to the diet which help in digestion of iron.
 - Don't drink tea or coffee before and after one hour of eating food or consuming iron tablet because it prevents digestion of iron.
 - If you are taking calcium tablets then take it in the morning and iron tablet at night after food. This is because calcium inhibits absorption of iron, when taken together or too close to each other.

To reduce the loss of blood from the body:

- Take deworming tablets –Albendazole.
- Examine and treat the problems related to menstrual cycle in the nearest health center.
- Immediately treat diseases like piles.
- Get complete and quick treatment of malaria.



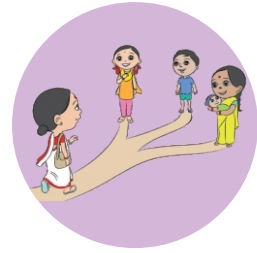
15 Minute

M19

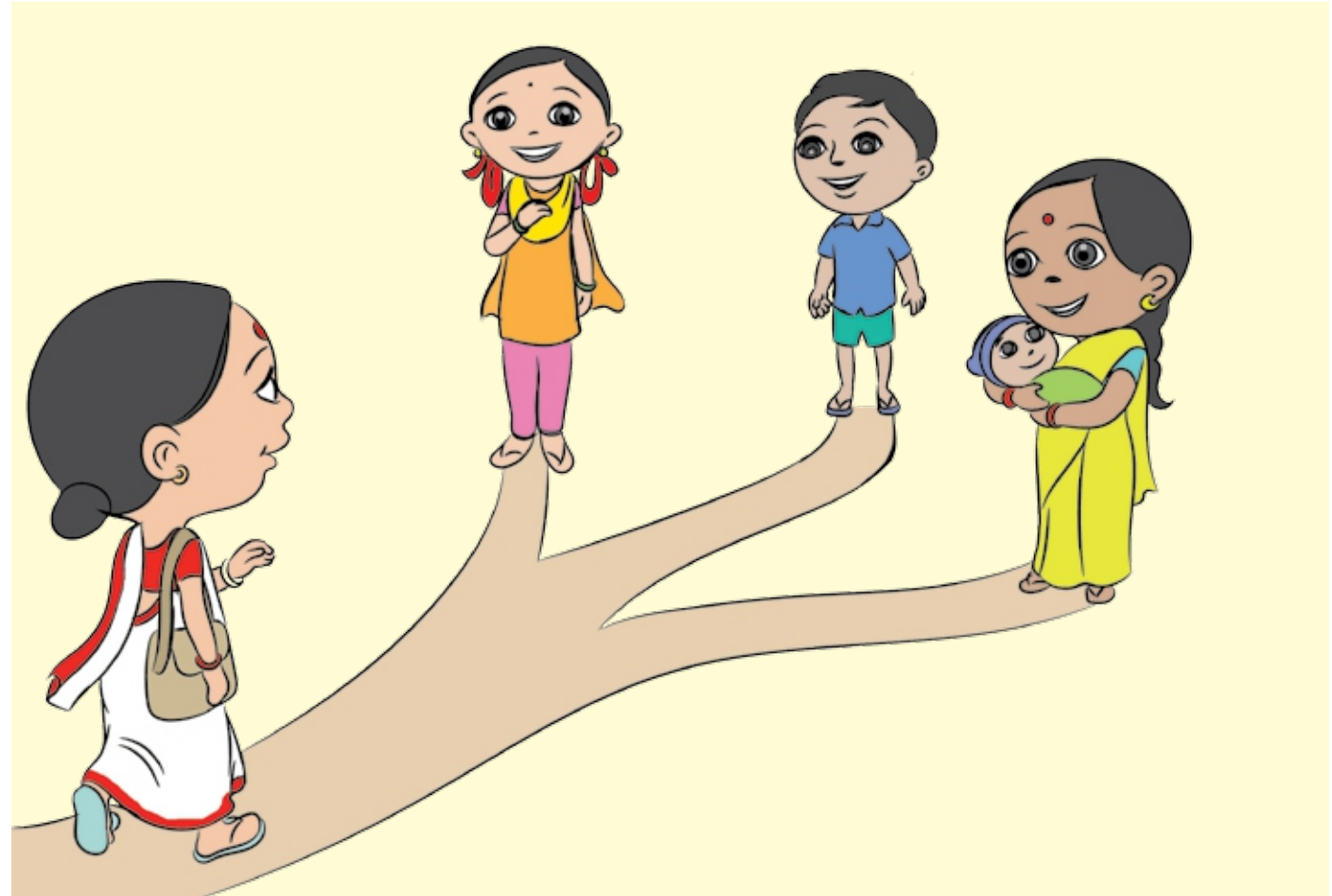
Prevention of anemia in children and adolescent girls

F8

What advice should we provide to maintain the iron stores among children and adolescent girls?



- What will help in increased production of blood in the body?
- What will help in reducing loss of blood from our body?





Action Points for the next month -



Display the card.



Ask the participants to read the points and let the discussion happen.

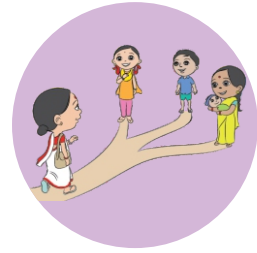
Explain:

We distribute iron tablets to every pregnant woman. This is important and we will continue to do so. But this is not enough. Therefore, apart from this, we need to improve the level of hemoglobin among the adolescent girls before their first pregnancy by giving them iron tablets. And don't forget the children.

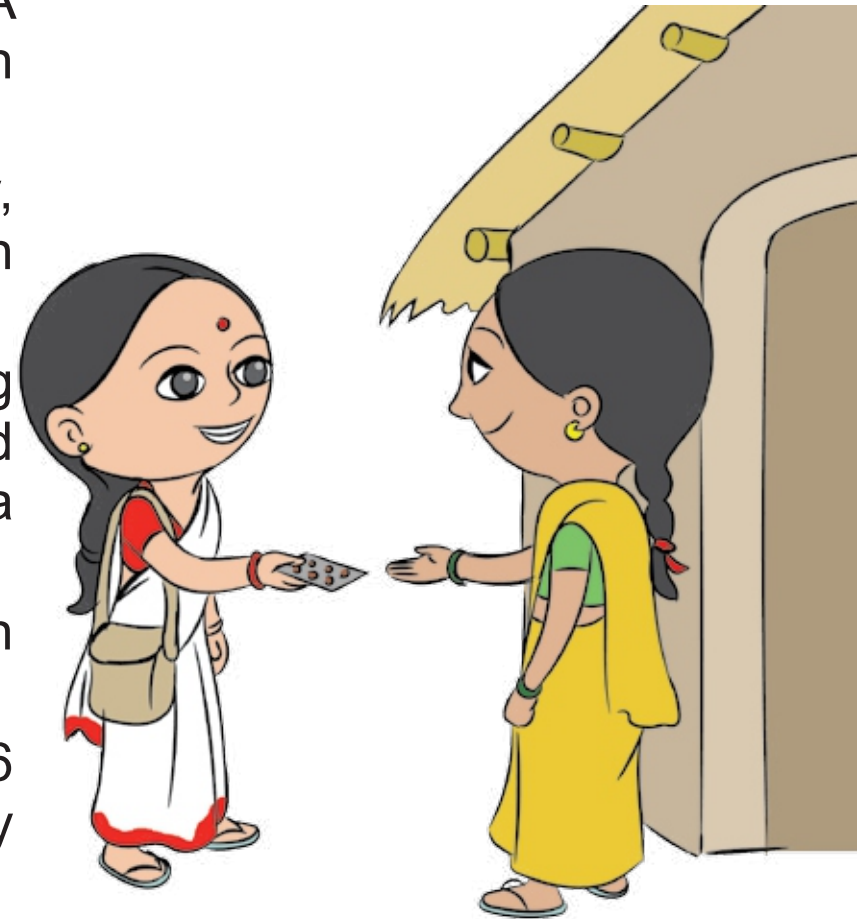
If there is a problem in understanding, then discuss each point again by referring to the previous cards.



Action Points for the next month -



- During home visit to families having children more than 6 months of age, counsel them about the IFA syrup provided by government and child iron tablets.
- During monthly VHSND/THR/Annaprasan Day, counsel families and children on having iron rich food.
- During monthly home visit to families having adolescent girls and during VHSND, THR and Annaprasan day, counsel on prevention of anemia and consumption of iron tablets.
- Counsel on prevention of anemia and consumption of iron tablets during pregnancy and after delivery.
- Provide iron syrup and tablets to children above 6 months of age and adolescent girls respectively who are connected to Anganwadi center.



- 1 *Why this Monthly Meeting ?*
- 2 *Making or updating Home Visit Planner & Initiating Home Visits*
- 3 *Planning and Organizing Community Based Events at AWC*
- 4 *Observing Breastfeeding in Newborn Babies - Why and How*
- 5 *Identification and Care of a Weak Newborn baby*
- 6 *Complementary Feeding: Diet Diversity*
- 7 *Preventing Anemia in Women*
- 8 *Assessment of Growth in Children*
- 9 *Ensuring that Complementary Feeding improves over time*
- 10 *Ensuring Exclusive Breastfeeding*
- 11 *Care of the Weak Newborn Baby - How many weak babies are we missing?*
- 12 *How to ensure timely initiation of Complementary Feeding*
- 13 *Identifying and preventing Severe Acute Malnutrition*
- 14 *Feeding During Illness*
- 15 *Supporting mothers with issues in Breastfeeding*
- 16 *How to take care of weak newborn with the help of Kangaroo Mother Care*
- 17 *Identification & Referral of Sick Newborn*
- 18 *Preventing illnesses to avert Malnutrition and Death*
- 19 **Prevention of Anemia in girls and adolescents**
- 20 *Birth Preparedness- For Institutional and Home Delivery*
- 21 *Preparation During Pregnancy: For NewBorn Care & Family Planning*

