Care group Lesson: MUAC & Oedema Screening and referral
For children 6-59 months
Action Against Hunger USA

Acknowledgement:
This lesson was developed by Action Against Hunger's Nutrition teams in Nigeria and Uganda, with the support of the Social and Behaviour Change Adviser. The lesson is part of a curriculum for the care group approach and was developed using the facilitation cue' illustrations and method for meeting facilitation from Care Groups: A Reference Guide for Practitioners[1]. The pictures for the IEC were provided by Action Against Hunger's Haiti and Nigeria country teams.

Note for project implementers on how to define the community-based screening strategy:
The screening strategy and learning objectives shall be adapted by the project implementing team according to the local screening strategy and referral pathways for nutrition treatment at district and central levels. Based on a discussion with local health authorities and partners, the prevalence of undernutrition in the area, the national CMAM[2]/IMAM protocol, the potential COVID-19 risks associated to screening, and the ability of health facilities to absorb increased caseloads in the field, the implementing team may choose to mobilize the care group volunteers (CGV) as the main entry point for SAM[3]/MAM detection at community level, or they can opt for directly involving the care group members (mothers and caregivers of children under 5 years old) in monitoring their child's MUAC for early detection of undernutrition. This second option is called the "Family MUAC approach[4]" and involves training parents and equipping them with MUAC tapes. In the COVID-19 context, this option might be preferred as it minimizes contact and reduces the risk of contagion. The implementing team shall adapt this lesson plan according to the strategy selected, the type of MUAC tapes used in the area of intervention, and to the risks related to the COVID-19 pandemic.

If you choose to go with the Family MUAC approach, a gradual rollout is recommended to be able to assess the quality of detection and referral. Begin by training the CGVs on MUAC measurements and oedema check and ask them to practice on their own children. When they feel comfortable with it, train then on how to train mothers/care givers to assess their own children.

Before training CGVs or mothers/caregivers on how to use MUAC, make sure that:

- The district and the heath facilities are informed and are supportive of this activity.
- Nutrition treatment is available and the facilities have enough capacity to absorb a potentially higher caseload.
- The referral pathways has been discussed and agreed upon with district focal points, health facility management and other community level actors involved in SAM/MAM detection.
- The roles and responsibilities regarding SAM/MAM detection between CHW, VHTs and CGVs are well defined and communicated to everyone.
- Local leaders have been informed of this activity and understand that CGVs/parents are able to screen their children.

COVID-19 precaution: Refer to the care group COVID19 checklist and SOP for activities in COVID-19 context.

[1] *The Technical and Operational Performance Support (TOPS) Technical and Operational Performance Support Program. 2016. Care Groups: A Reference Guide for Practitioners*
[2] Community management of acute malnutrition (CMAM) and Integrated management of Acute Malnutrition (IMAM)
[3] Severe Acute Malnutrition (SAM) and Moderate Acute Malnutrition (MAM)
[4] Learn more about Family MUAC: https://www.acutemalnutrition.org/en/Family-MUAC

Learning Objectives:

Volunteer-based screening approach:	**Family MUAC approach:**
The CGV will be the one screening the children from their neighbour groups • CGV will be able to identify signs of malnutrition • CGV will be able to screen a child (6-59 months) using a MUAC tape • CGV will be able to check for bilateral oedema • CGV will be able to link with the community health worker or designated health volunteer to organise referral or to refer directly to the nutrition service • CGV will be able to explain what malnutrition is and encourage parents to seek adequate care for children	**The CGV will teach the mothers/caregivers from their neighbour groups how to screen their own children and equip each group member with a MUAC tape.** • CGV will be able to teach Caregivers to identify sign of malnutrition • CGV will be able to teach Caregivers how to use a MUAC tape • CGV will be able to teach Caregivers how to check for bilateral oedema • CGV will be able to explain MUAC tape diagnosis and care seeking pathway to caregivers • Caregivers will be able to accompany caregivers for screening, referral and contact with community health worker or designated health volunteer

Materials

Volunteer-based screening approach:	**MUAC parent approach:**
• Attendance • Counselling cards lesson #2- Pictures of malnutrition signs, screening instruction, and treatment is effective (example with boy and girl). • MUAC tapes for each CGV • Optional: clay to show oedema test • Ask few CGVs to bring their **healthy** child ages 6-59 months for the practice	• Attendance • Counselling cards lesson #2- Pictures of malnutrition signs, screening instruction, and treatment is effective (example with boy and girl). • MUAC tapes for each CGV • **MUAC Tapes for each care group member (1 per household)** • Optional: clay to show oedema test • Ask few CGVs to bring their **healthy** child ages 6-59 months for the practice

Summary of lesson: **MUAC and Oedema Screening - Total time: 2 hours**

Step	Step name	Time Allocated
1	Welcoming and Lesson objectives	5 minutes
2	Game: Pass the parasite	10 minutes
3	Attendance and trouble shooting	5 minutes
4	Examine • Review progress from last month's commitments	10 minutes
5	Storytelling • Give a short story related to the lesson • Ask about current behaviours	20 minutes
6	Behaviour change promotion through pictures • Show the pictures and explain the messages	15 minutes
7	Activity: **Assessing Malnutrition**	20 minutes
8	Discuss potential barriers and solutions • Probe about barriers and Discuss possible solutions	10 minutes

9	Practice and Coaching	20 minutes
10	Request a commitment to try out new behaviour & closure	5 minutes

	**Game: Pass the Parasite** (10 minutes)

Note for facilitator:

1. Welcome participants and, if working in the COVID-19 context, adapt activities per COVID-19 programmatic adaptation SOP (e.g. organize handwashing, physical distancing, adapt to gathering restriction, etc.). Start with the warm-up game. If working in the COVID-19 context, select a game that does not involve contact (e.g. Orchestra's leader, or a song).

2. Ask for one volunteer and instruct the other participants to stand in a circle, very close together. The volunteer stands in the middle of the circle.

3. The facilitator walks around the outside of the circle and secretly slips a stick into someone's hand.

4. Tell the participants that the stick represents a "very dangerous parasite." They must quickly pass the parasite around the circle behind their backs.

5. The job of the volunteer is to study the people's faces and bodies and guess who has the parasite.

6. When the volunteer guesses correctly, the volunteer takes the place of that person and the game continues with a new person in the middle.

Now that we are energized, let's begin our lesson.

	**Attendance and trouble shooting** (5 minutes)

1. The promoter fills out the attendance sheet for each leader (CGV)
2. The promoter fills out vital events[5] mentioned by each leader (new births, new pregnancies, and mother/child deaths).
3. The promoter asks about undernutrition screening and children attending CMAM/IMAM programs (as some CGV may already be involved in nutrition activities as volunteers). In the next monthly meeting, the promotor will add screening to the "vital events' monitoring (number of children 6-59 months screened, outcomes, and referral).
4. The health promoter thanks the CGVs for their hard work and encourages them to keep up the good work

When CGV teaches Neighbour groups (mothers/caregivers) this step is a bit different:

- CGV will take attendance
- CGVs will ask about new births, pregnancies, or illnesses in the families of the neighbour women attending and help refer those with severe illness to the local health facility
- CGVs ask the neighbour women about their commitments from the last meeting and follow up with those who had difficulty trying out new practices.

[5] Note for implementer: Adapt the vital event and monitoring template according to project goals and indicators.

	**Examine**: (10 minutes)

1. The promoter reviews with each CGV their progress towards last meeting's commitments. Ask each mother:
    a. What was your commitment in the last lesson?
    b. What went well? What was difficult?
    c. How did you manage the difficulties?

2. The promoter facilitates a discussion about possible solutions and support available (e.g. plan a joint visit to discuss with a community leader), and he/she should note of the main issues and follow up action needed to support CGVs.

	**Story: Listen and Ask** (20 minutes)

1. The promotor reads the short story below:

Nyantuc and Halima have been friends since they were little girls. They live in a village named Bukkel[6]. They are both married and have three young children. They like to chat together when they have some time. Nyantuc is part of a group of volunteers that discus health issues every month. She enjoys attending it. She feels that she is learning a lot.

One morning, as Nyantuc was going to fetch water, she stopped at Halima's home to pay her a visit. They started chatting as usual but Nyantuc noticed that Halima seemed worried. Nyantuc asked her what is going on? Halima explained that she didn't sleep well; she was concerned about her younger boy. The child is often sick, and he got diarrhea again last week. Halima explained that she tried to feed him the best she can, but the boy has little appetite and is weak.

Nyantuc asked her friend if she could assess the boy and Halima said yes, please, come in! The little boy, indeed, looked weak and thin. His ribs were almost visible. Nyantuc took a colored tape from her bag, and with the help of Halima, she measured the child's arm. Nyantuc didn't want to scare her friend, but she saw that the tape read RED.

She gently told her friend that the child was unwell. She felt sorry, but the child needed to be taken immediately to the health center. This was quite a serious condition; the child needed immediate care!

Nyantuc is a mother herself, and she knows how it feels when your child is suffering. To encourage her friend, she kindly explained that the child would get better with treatment: Thanks to God! There is a very good treatment available, very effective and it is free! She saw before how children from the village had been cured! She advised Halima and her husband to bring the child to the health facility as soon as possible. The husband is not very happy with this news. At first, he refused to send the child to the health center. He said "*It is too far. It was just diarrhoea. It is nothing.*" However, after much persuasion, he understood that his child needed urgent care, and he quickly organized the transportation to the health center.

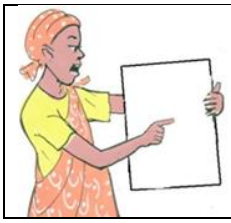
2. **After reading the story, the promoter asks the following questions to the group:**
    - How did Halima know that her child was sick? What were the signs of the sickness?
    - What type of sickness do you think is? What may cause it?
    - What was the tool that Nyantuc had in her bag? How does it work?
    - If a child is very thin and malnourished, what treatment does he need?
    - As a mother or father, how does one feel when his/her child is sick?

[6] Health promoter mentions immediate community

- Where would you go to seek help if a child is malnourished?

3. The promotor should acknowledge contributions from the participants. He/she should summarize what has been said and complete information about the causes of malnutrition (lack of food, lack of hygiene, sickness, diarrheal, respiratory diseases)

4. The promotor should remind everyone to be aware of not blaming mothers for child malnutrition. Most mothers do the best they can to keep their children healthy. When a child is sick, the mother will feel sad, stressed, and worried. Always be kind and encouraging.

	**Behaviour change through pictures: Show and Explain** (15 minutes)

Signs of malnutrition (Picture#1. Very Thin/marasmus children, and Picture #2. Children with oedema).

1. Introduce the lesson of the day by showing the lead mothers and fathers the photos[7] of severely malnourished children (Picture#1. Very Thin/marasmus children, and Picture #2. Children with oedema).
2. Ask the CGVs to describe what they see in these pictures and highlight signs of undernutrition.
3. Ask them if they have seen these signs in children before.
4. Share the key messages of the lesson

Key take away messages

Signs of Malnutrition to look out for

- **The child has been losing weight and is very thin.**
- **The child has prominent ribs and sunken eyes ("elderly face")**
- **The child is weak and unactive**
- **The child refuse to eat**
- **There is a change in hair colour.**
- **Frequent Diarrhoea and vomiting**

Detection method

- **For children from 6 months to five years, malnutrition can be detected using a MUAC tape and checking the feet for oedema.**
- **For infant 0-6 months, it is not possible to use the MUAC tape to measure children because they are too small. If an infant shows visible sign of malnutrition (visible ribs, very thin, doesn't eat), the infant needs to be brought for a medical consultation at the health center.**

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TREATMENT (show the picture #5 and 6, "treatment is effective for boys and girls")

1. The promoter asks the participants what they understand from these pictures.
2. The promoter explains that the picture shows a boy and a girl before treatment and after treatment. This can show how effective the treatment is.
3. The promoter explains that the treatment is free and available.
4. The promoter explains that :
   - Both boys and girls can get malnutrition and can be treated.
   - The malnourished child is given a daily ration of Plumpynut (RUTF) or CSB porridge.
   - This medicine, the Plumpynut/RUTF, should not be consumed by others children or adults.
   - Treatment is generally on a weekly basis and can last 4 to 12 weeks. It means that

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[7] Use photos adapted to the local context. Do not necessarily select the worse cases of undernutrition.

the care giver needs to go weekly to the health facility until the child is discharged by the health worker.

	**Activity: Practice Assessing MUAC and Oedemas check (20 minutes)**

MUAC SCREENING

1. The Promoter will demonstrate in front of the CGV how to use a MUAC tape to assess malnutrition (refer to Picture #3). The promoter makes sure that everybody can see the demonstration (ask them to stand or sit in around, close enough to observe the process).
2. The promoter asks a CGV with a healthy child to volunteer for the exercise, and explain each step at the same time he/she demonstrates it.
    - STEP 1: Asks the age of the child to check if the child is in the target age (6-59 months)
    - STEP 2: The child should either sit or stand depending on the age of the child.
    - STEP 3: The child should make a right angle (90°) with the left arm.
    - STEP 4: Locate the tip of the shoulder and the tip of the elbow of the child's left arm.
    - STEP 5: Place the tape at the tip of the shoulder and pull the tape past the tip of the bent elbow.
    - STEP 6: Locate the mid-point and mark it with a pen or charcoal.
    - STEP 7: With the left arm relaxed, place the MUAC tape round the mid-point (see pointer 10)
    - STEP 8: Check the tension of the MUAC tape - make sure it is not too tight or too loose.
    - STEP 9: Take the reading at the window of the MUAC tape and note the color coding
    - STEP 10: The facilitators should explain the implications when it falls on red, yellow or green.
3. The promoter asks another CGV with a healthy child to volunteer for the exercise, hands her a MUAC tape and asks her to demonstrate again in front of everybody.
4. The promoter asks for any observations and questions. If needed the promoter shall redo the demonstration, ensure that all the information is correctly translated and understood.
5. The promoter distributes the MUAC tapes, split the participants in small groups, and ask them to practice with the MUAC tape on their own children.
6. Ask the group to practice for 5 min. The promoter monitors each group and makes corrections if needed.

CHECKING FOR OEDEMA

1. The Promoter will demonstrate in front of the CGV how to assess for bilateral oedema. The promoter can demonstrate the test on a CGV or on his/her own feet. Sometimes it is difficult to understand what pitting oedemas looks like if you have never seen it. The promoter can use clay to show what the "pits" look like, or use Picture #4.
    - STEP 1: Apply some pressure on the top of both feet for three seconds
    - STEP 2: Release the pressure after 3 seconds
    - If there is a pit (indentation) in the foot after the thumb is lifted, then the child has oedema (see fig 1 below). The pit will remain in both feet for several seconds.
    - STEP 3: The facilitator should explain the implications when there is oedemas.

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REFERRAL

Note for project implementer: *Referral criteria may change from one place to another, depending on national protocol for CMAM/IMAM, type of MUAC tape in use, nutrition services available in the area of intervention and the organisation providing the service delivery and community-based activity. Discuss with district focal points and health practitioners to define where the CGVs (or parent in case of Family MUAC) should refer children. Adapt the recommendations accordingly*.

1. The promoter reminds the criteria for referral (picture #4).

- **Red MUAC =>The child needs urgent care**. Contact the health volunteer or go directly to the Nutrition Unit/Health Centre with nutrition treatment.
- **Yellow MUAC** => The child's health is concerning. Contact the CMAM volunteer/focal point or go directly to the Nutrition Unit/Health Centre with nutrition treatment.
- **Green MUAC** => Thank the mother, her child is well! Tell her to continue, the child is doing well.
- **OEDEMAS (both feet) =>The child needs urgent care**. Contact the health volunteer or go directly to the Nutrition Unit/Health Centre with nutrition treatment.

2. The promoter gives the list of facilities where the treatment is available, and the name and contact information of the focal person to make the referral.

	**Discuss potential barriers and solutions: Probe and Inform** (15 minutes)

The health promoter should ask the CGVs the following questions:

1. How do you feel about doing detection and referral?
2. Do you think you can screen your own children and children from the neighbourhood with the MUAC tape?
3. What type of challenges do you think you may face?
4. What would be the solution? What type of support may you need?

   Note down the different responses given by the participants and discus about solution and support that can be provided (e.g. accompany the CGV during home visit or in a meeting with traditional leader to explain their new role)

5. Facilitate a discussion between the CGVs to express possible challenges and to share ideas to solve those problems. Help the CGVs to find solutions to the barriers mentioned.

<u>Possible Barriers & solutions</u>

- Community members may not trust that the CGV/mother is capable of taking MUAC: we shall organise sensitization meetings or radio shows to explain this activity.
- Parents may not believe that their child is malnourished (they think it is witchcraft), even if the MUAC is RED: we shall discuss way to convince them or ask an influential person to advocate.
- Distance and lots of time spend at the health facility (waiting time) to get treatment: we shall discuss this challenge with the health facility management, may be possible to reorganise services in a better way or to request outreach services, etc.
- The community volunteer does not like when the CGVs refer because they are the one with the power to refer children: we shall have a meeting with community volunteers and health worker to discuss this issue, listen to their view, review role and responsibility, and discuss way to work together.

	**Practice and Coaching**: (20 minutes) CGVs screening: practice a screening Family MUAC approach: practice teaching MUAC use

1. The promoter will split the CGVs into smaller groups so they can practice the lesson of the day as a role play. One person will act as the CGV doing a home visit and conducting a screening with a MUAC tape and oedema check. The other participants will act as the mother, father or relative. They will practice detecting severe malnutrition (red MUAC).
2. They will practice and discuss among themselves how to tell the parents that the child is malnourished in a gentle manner, and how to convince and encourage them to go to the health facility.
3. After ten minutes, ask the participants to switch roles in the role play, and to practice again.
4. The promoter should assess each group and give feedback.
5. After the practice, the promoter will remind the CGVs of the importance of good and respectful communication, how to explain the objective of the visit, how to ask permission to screen the child, how to avoid a judgemental attitude or being rude, and how to understand how parents can feel when they learn that their child is malnourished. Sometimes the term malnourished is perceived as offensive for parents, and the CGVs need to discuss which language is appropriate.
6. Finally, the promoter explains that with this session the CGVs should start to screen their own children 6-59 months.
7. The CGVs should explain the process and activities planned before they start screening children in their neighbourhood: e.g. There will be some communication done at community level to introduce them properly, so people will be aware that they will do screening.

	**Request for commitment & closure** (5 minutes)

In conclusion, the promoter summarizes the key learning of session: undernutrition sign, detection, and referral.
The promoter will remind the CGVs that she/he is available for questions in person (or by phone/WhatsApp, etc), and when he/she will come for field visit.

The health promoter asks the CGVs:

1. Are you willing to commit to the new practices we have learnt today?
2. What is your commitment?