



Health & Nutrition Technical Brief

## Management of Wasting in the context of COVID-19: Program Adaptations for CMAM Programs

### ADAPTING THIS GUIDANCE

**All Staff must seek out and follow COVID-19 guidance on legally permissible working and gatherings issued by their local government agencies.** Nothing in these guidelines should be interpreted as authorizing staff to ignore the law or put themselves or our beneficiaries in increased danger of contracting COVID-19. If legally permissible, these guidelines should be used by all WV staff and volunteers to conduct group meetings, other mass gatherings, home visits, or other contact with beneficiaries that are not prohibited under local laws and regulations. This includes CHWs and also Child Protection, Education, WaSH, Livelihoods, Health and Nutrition, F&D, and CS staff and home visitors. **Always follow local ministry of health or other government regulations on mass gatherings and group meetings. Where the MOH or government regulations are more stringent, follow those regulations. Where government regulations are less stringent, then the following WV recommendations should be adhered to, as a minimum practice.** We encourage you to discuss and share these guidelines with other organizations and the MOH in your country.

### THE APPROACH

Wasted children are at high risk of death from common childhood illnesses such as diarrhea, pneumonia, malaria and measles, and globally wasting accounts for 4.7% of all deaths of children aged under 5 years.<sup>1</sup> While available evidence on COVID-19 infections shows that children generally present with milder symptoms, we do not yet know how it will affect wasted children. It is reasonable to assume that children with wasting are at a higher risk

<sup>1</sup> [https://www.who.int/nutrition/topics/globaltargets\\_wasting\\_policybrief.pdf](https://www.who.int/nutrition/topics/globaltargets_wasting_policybrief.pdf)

of COVID-19 related pneumonia,<sup>2</sup> and that nutrition service provision may be interrupted during COVID-19 outbreaks.<sup>3</sup> In addition, with the number of people experiencing acute hunger expected to double due to the COVID-19 pandemic, it is anticipated that there will be an increase in the number of children requiring treatment for wasting.<sup>4</sup>

World Vision's priorities for the management of wasting in the context of COVID-19 are three-fold:

1. **Intensify efforts to prevent child wasting** including measures to protect, promote and support breastfeeding (including among infected mothers), to promote nutritious complementary foods and adequate complementary feeding practices (including responsive and active feeding during illness), and continued utilization of primary health care.
2. **Sustain and adapt existing services for the early detection and treatment of child wasting** to respond to anticipated increases in the prevalence of child wasting, and to ensure continuity of the provision of critical services for the early detection and treatment of child wasting while reducing the risk of infection among service providers and between service providers and children, and planning for alternative options if and when delivery platforms become disrupted or non-functional (e.g. during lock-downs).
3. **Pre-positioning of essential nutrition commodities** (e.g. F100/75, RUTF), where possible, to anticipate pipeline disruptions due to mobility restrictions.

The table<sup>5</sup> below describes programmatic adaptations that should be considered for CMAM programming. Where there are no mobility restrictions in place, preparatory measures for child wasting programming should be considered. Additional measures should be considered when partial or full mobility restrictions are in place.

**KEY ASSUMPTION:** Follow the guidance of the Ministry of Health and Nutrition Cluster, where such guidance exists. For assistance in adapting this guidance to your context, please contact Disaster Management - Getinet Amenu ([Getinet\\_Amenu@wvi.org](mailto:Getinet_Amenu@wvi.org)) or the TSO (<https://www.wvcentral.org/TSO/Pages/Request.aspx>) for support.

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<sup>2</sup> <https://www.nutritioncluster.net/sites/default/files/2020-04/Joint%20statement%20on%20COVID%2019%20and%20Wasting.pdf>

<sup>3</sup> <https://reliefweb.int/report/yemen/covid-19-aftershocks-secondary-impacts-threaten-more-childrens-lives-disease-itself>

<sup>4</sup> <https://insight.wfp.org/covid-19-will-almost-double-people-in-acute-hunger-by-end-of-2020-59df0c4a8072>

<sup>5</sup> Adapted from UNICEF/GTAM/GNC brief 'Management of child wasting in the context of COVID-19' available [here](#)

## RECOMMENDED ADAPTATIONS

Program Component	Anticipated Disruption/Challenge	Recommended Adaptations	Relevant Resources/Tools
<b>Community mobilization &amp; screening activities</b>	<p>Need to minimize the risk of COVID-19 transmission and to protect health workers &amp; volunteers, by promoting a “no touch” approach in settings in which communities have localized clusters of COVID-19 (e.g. urban centers or regional transportation hubs) or community transmission.</p>	<p>Initiate/intensify trainings for caregivers and community members on the use of MUAC, and the provision of MUAC tapes to all caregivers.</p> <p>Ensure all caregivers are aware of changes to treatment services as a result of COVID disruptions (e.g. changed frequency of visits).</p> <p>During community mobilization and screening activities, ensure that WV staff, CHWs and health workers wear appropriate Personal Protection equipment – including surgical masks - if available. Follow <a href="#">WV OCS Guidance on Staff and Volunteer Protection for COVID-19</a>, and guidance in <a href="#">WV’s Risk Communication and Community Engagement Training Guide</a> (especially modules 4, 5, and 6).</p> <p>During lockdowns where the only-option is remote follow-up, consider conducting a risk assessment for wasting through telephone or SMS using these <a href="#">screening questions</a>.</p>	<ol style="list-style-type: none"> <li>1. <a href="#">Family MUAC Training guide (ALIMA)</a></li> <li>2. <a href="#">Family MUAC Remote training guidance – annex in this document</a></li> <li>3. <a href="#">WV Family MUAC toolbox-English description, English Tools; French description, French Tools</a></li> <li>4. Family MUAC Community of Practice: <a href="https://www.acutemalnutrition.org/en/Family-MUAC">https://www.acutemalnutrition.org/en/Family-MUAC</a></li> <li>5. <a href="#">Management of child wasting in the context of COVID-19 (UNICEF/GTAM/GNC)</a></li> </ol>
<b>Inpatient Services</b>	<p>Need to minimize risk of COVID-19 transmission in inpatient settings</p> <p>Infants under 6 months may be underserved due to overstretched inpatient capacity, or shift to MUAC only protocols may result in exclusion of infants from programs</p>	<p>Ensure strict adherence to recommended hygiene and safety measures in Stabilization Centres/Wards, including enforcing strict staff sickness policy, screening and triage procedures, identification of isolation areas, limiting contact with multiple healthcare workers, PPE use, and strict cleaning protocols (e.g. disinfecting scales between measurements).</p> <ul style="list-style-type: none"> <li>• Emphasize strong hygiene standards of mothers, all those handling infants under six months, and of feeding equipment, while actively supporting skin to skin contact and breastfeeding.</li> <li>• Increase physical space to at least two (2) metres between beds in Stabilization Centres.</li> <li>• Reduce family member visits to primary caregiver only.</li> <li>• Whenever possible, separate patient areas for suspected/confirmed COVID-19 cases from non-cases and apply recommended IPC measures.</li> <li>• Frontline Health Workers wear appropriate PPE, including face masks and gloves.</li> <li>• Consider adoption of MAMI approach, if feasible</li> </ul>	<ol style="list-style-type: none"> <li>1. <a href="#">Management of child wasting in the context of COVID-19 (UNICEF/GTAM/GNC)</a></li> <li>2. <a href="#">CMAM Adaptations (Concern)</a></li> <li>3. <a href="#">C-MAMI Tool Version 2</a></li> </ol>

Program Component	Anticipated Disruption/Challenge	Recommended Adaptations	Relevant Resources/Tools
<b>Outpatient-Based Services</b>		<p><b><u>Where there are no population mobility restrictions:</u></b></p> <ul style="list-style-type: none"> <li>• Minimize the risk of infection for staff working in In-patient/Outpatient nutrition centers and CHWs as per WHO guidance. Ensure that CHWs and Frontline Health wear appropriate Personal Protection equipment – including surgical masks - if available and follow strict hygiene protocols. Follow <a href="#">WV OCS Guidance on Staff and Volunteer Protection for COVID-19</a>, and guidance in <a href="#">WV's Risk Communication and Community Engagement Training Guide</a> (especially modules 4, 5, and 6).</li> <li>• Where services are available, maintain provision of treatment for moderate wasting applying recommended IPC measures and reducing the frequency of follow-up visits to 1 every 4 weeks for children by increasing the take-home ration of specialized nutrition foods (e.g. RUFs, Super Cereal+).</li> <li>• Reduce overcrowding through more frequent provision of services (e.g. from 1 to 3 outpatient days per week) applying recommended IPC measures or through delocalization of services to the community.</li> <li>• Reduce exposure by shifting to MUAC only for anthropometric measurements in children and encouraging caregivers to carry out MUAC and oedema assessments under the supervision of a health practitioner, during OTP visits.</li> <li>• Initiate on-the- job training for Community Health Workers (CHWs) to treat uncomplicated wasting including introduction to simplified treatment protocols and approaches, if feasible.</li> <li>• Continue provision of preventive food supplementation and hygiene kits to children and pregnant and lactating women (PLW) applying recommended IPC measures, avoiding any mass gatherings. Where distributions</li> </ul>	<ol style="list-style-type: none"> <li>1. <a href="#">Management of child wasting in the context of COVID-19 (UNICEF/GTAM/GNC)</a></li> <li>2. <a href="#">Community of Practice for Simplified Approaches</a></li> <li>3. <a href="#">Simplified Protocol Summary (IRC)</a></li> <li>4. <a href="#">WHO IPC Guidance</a></li> <li>5. <a href="#">IASC Recommendations for adjusting food distribution SOP</a></li> <li>6. <a href="#">CMAM Adaptations (Concern)</a></li> </ol>

Program Component	Anticipated Disruption/Challenge	Recommended Adaptations	Relevant Resources/Tools
		<p>must be done in group settings (or when they are organized by others), encourage workers to follow the guidance in <a href="#">WV OCS Guidance on Staff and Volunteer Protection for COVID-19</a>, and guidance in <a href="#">WV's Risk Communication and Community Engagement Training Guide</a> (especially modules 6).</p> <ul style="list-style-type: none"> <li>• Continue provision of preventive food supplementation to children and PLW applying recommended hygiene and safety measures.</li> </ul> <p><b><u>Where there are partial or full mobility restrictions:</u></b></p> <ul style="list-style-type: none"> <li>• Whenever possible, deliver all treatment for uncomplicated wasting in the community via Community Health Workers (CHWs)<sup>6</sup> or other community-based platforms using a limited/no touch simplified treatment approach<sup>7</sup>.</li> <li>• Programmatic modifications should consider: <ul style="list-style-type: none"> <li>○ Using simplified admission criteria<sup>8</sup> (e.g. MUAC and oedema only)</li> <li>○ Using expanded admission criteria (&lt;120mm or &lt;125mm MUAC and/or oedema)<sup>9, 10</sup></li> <li>○ Adopt simplified RUF dosage (e.g. 1 sachet/day for uncomplicated<sup>11</sup> moderate wasting, and 2 sachets/day for uncomplicated severe wasting)</li> <li>○ Appropriate remuneration of CHWs in alignment with MOH protocols.</li> </ul> </li> </ul>	

<sup>6</sup> Lopez-Ejeda N, Charle-Cuellar P, G. B. Ale'F, Alvarez JL, Vargas A, Guerrero S (2020) Bringing severe acute malnutrition treatment close to households through community health workers can lead to early admissions and improved discharge outcomes. PLoS ONE 15(2): e0227939. <https://doi.org/10.1371/journal.pone.0227939>

<sup>7</sup> If routine medicines including antibiotics can only be provided at health facilities, introduce single-visit attendance on admission and transition to full community-based follow-up via CHWs or other community-based platforms for all subsequent visits.

<sup>8</sup> Chitekwe, S., Biadgilign, S., Tolla, A. et al. Mid-upper-arm circumference-based case-detection, admission, and discharging of under five children in a large-scale community-based management of acute malnutrition program in Nigeria. Arch Public Health 76, 19 (2018). <https://doi.org/10.1186/s13690-018-0266-4>

<sup>9</sup> Burrell, A., Kerac, M., & Nabwera, H. (2017). Monitoring and discharging children being treated for severe acute malnutrition using midupper arm circumference: Secondary data analysis from rural Gambia. (International Health, 9(4)). <https://doi.org/10.1093/inthealth/ihx022>

<sup>10</sup> Before shifting to expanded admission criteria, consider carefully the sufficiency of RUTF stocks.

<sup>11</sup> Maust, A. et.a. (2015) Severe and Moderate Acute Malnutrition Can Be Successfully Managed with an Integrated Protocol in Sierra Leone (J Nutr. 2015 Nov;145(11):2604-9. doi: 10.3945/jn.115.214957. Epub 2015 Sep 30.)

Program Component	Anticipated Disruption/Challenge	Recommended Adaptations	Relevant Resources/Tools
		<ul style="list-style-type: none"> <li>• Reduce the frequency of follow-up visits to once per month for children with uncomplicated severe or moderate wasting by increasing the take-home ration of RUFs and other nutrition commodities. If all services are suspended, distribute RUFs/nutrition commodities for up-to 8 weeks. Whenever possible, establish links between these households and existing social protection systems.</li> <li>• Maintain frequency of provision of specialised nutrition foods or other preventative supplementation to children and PLW to 1 per month adhering to recommended hygiene and safety measures, avoiding any mass groupings of people. _</li> </ul>	
<b>Data &amp; Reporting</b>	Inability to collect monthly tally sheets from health facilities	<ul style="list-style-type: none"> <li>• Collect monthly tally sheet totals by phone, and continue to enter data into CMAM database.</li> <li>• Where treatment has shifted from health facilities to community treatment by CHWs, ensure CHWs have a register books/or mobile reporting to record monthly tallies.</li> </ul>	

## ANNEX - GUIDANCE ON USING FAMILY MUAC IN THE CONTEXT OF COVID-19<sup>12</sup>

Family MUAC is one of the adaptations recommended by UNICEF, the Global Nutrition Cluster, and the Global Technical Assistance Mechanism for wasting programs in the context of COVID-19<sup>13</sup>

Family MUAC has been showed to result in earlier detection of wasting and earlier referral for treatment.<sup>14</sup> Once trained, caregivers can be equally skilled at measuring MUAC and assessing for oedema compared to community health workers. World Vision has experience using Family MUAC in Mauritania, Niger, Sierra Leone and DRC.

Preparation and training for Family MUAC, is usually done in group settings by community health workers. In the context of COVID-19, we need to adjust our methods of training and rolling-out this approach.

Below are some tips for implementing the Family MUAC approach in the context of COVID-19. If you have suggestions or experiences to share on methods you have used, please share them in the WV CMAM Implementers Skype group, or with [colleen\\_emory@worldvision.ca](mailto:colleen_emory@worldvision.ca) directly.

## GENERAL PRINCIPLES

- When organizing a training for Family MUAC, follow the guidance in [WV's Risk Communication and Community Engagement Training Guide](#) (especially Module 6)
- Family members can be trained on MUAC measurement and oedema assessment techniques either 1 – 1 or in small groups. Keep all group meetings limited to 5 people or fewer, or as approved by local authorities.
- CHWs can go house to house and conduct one-on-one training, while respecting social distancing and IPC measures. This will take longer but may be more suitable to some contexts.
- MUAC tapes should be provided to each household that has a child between the ages of 6 months and 5 years. Remind caregivers to keep the MUAC tape in a safe place and not to bend the tape.
- Tablets or phones may be useful for training household members. The phone/tablet can be placed somewhere temporarily or use a selfie-stick. Short instructional videos can be used to demonstrate how to measure MUAC and assess for oedema. Any videos produced would need to be translated, guidance on what narrative to include can be provided. Here is a sample video for MUAC (although this not the ideal video, just illustrative):
  - MUAC: <https://www.youtube.com/watch?v=vW0St0NbWWY>

## SAMPLE TRAINING MESSAGES FOR TRAINING CAREGIVERS TO MEASURE MUAC AND OEDEMA<sup>15</sup>

### ***1. Introduce yourself and explain what you will be training the HH about today***

This training session is designed to teach you how to screen your own children and detect the early signs of malnutrition.

<sup>12</sup> With acknowledgement to material developed by Alima <https://www.alima-ngo.org/uploads/b5cb311474e9a36f414a69bd64d39596.pdf> and GOAL

<sup>13</sup> [https://www.nutritioncluster.net/sites/default/files/2020-04/Wasting%20Programming%20COVID19%20Brief%201%20%28Draft%29\\_27%20March\\_v1.pdf](https://www.nutritioncluster.net/sites/default/files/2020-04/Wasting%20Programming%20COVID19%20Brief%201%20%28Draft%29_27%20March_v1.pdf)

<sup>14</sup> Blackwell, N. et.al. (2015) Mothers Understand And Can do it (MUAC): a comparison of mothers and community health workers determining mid-upper arm circumference in 103 children aged from 6 months to 5 years. (Arch Public Health. 2015 May 18;73(1):26. <https://pubmed.ncbi.nlm.nih.gov/25992287/>

<sup>15</sup> <https://www.alima-ngo.org/uploads/b5cb311474e9a36f414a69bd64d39596.pdf>



## 2. What is malnutrition?

All children need to eat nutritious food like beans, carrots, fish, meat, and eggs. Malnutrition is caused by decreased food consumption, poor quality diets and/or disease resulting in malabsorption or lack of appetite causing a sudden loss of weight or oedema. Oedema is swelling of the feet and/or legs.

## 3. How to recognize early signs of malnutrition?

Low MUAC and oedema are two signs of malnutrition.

## 4. What is the difference between wasting and oedematous malnutrition? \*Use local photos for training

Wasting (Marasmus)	Oedema (Kwashiorkor)
	
<ul style="list-style-type: none"><li>• Irritable, tired, and hungry</li><li>• Older looking face</li><li>• Muscle wasting, skin sticks to the bones</li><li>• Still has an appetite</li><li>• Sometimes has oedema on both feet, legs, and/or face</li></ul>	<ul style="list-style-type: none"><li>• Pitting edema on feet, legs, and/or face</li><li>• Seems sick, sad, does not move much</li><li>• Discolored and brittle hair</li><li>• Cracked skin</li><li>• Tired, loss of appetite</li><li>• Cries a lot</li></ul>

## 5. Steps for measuring a child's MUAC:

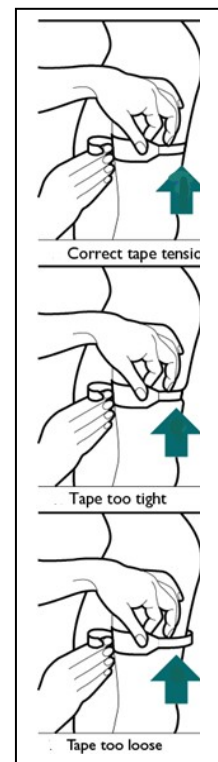
Use a standard MUAC tap with 3 colours and numbers.





1. Make sure child is at least 6 months of age, but less than 5 years of age.
2. Slide the tape around either the left or right arm up to what you estimate to be the midpoint between the shoulder and elbow.
3. With the arm hanging down relaxed at the side of the body, tighten the tape with enough tension so the tape is held against the skin without pinching. (If the tape is too tight, the skin will be pinched. If the tape is too loose, the tape will not be touching the skin. Both can cause inaccurate measurements.)
4. Read the color in the window between the two arrows to identify the nutritional status of your child.

Have the caregiver practice this technique on a their child, and observe the technique (with appropriate social distancing)



If MUAC is **RED** colour: Repeat the MUAC measure to be sure you are correct. If you measure Red twice, your child has severe malnutrition and can quickly become ill. You should go to the health center within 48 hours.

IF MUAC is **YELLOW** colour:

*In an area WITH programming for Moderate Acute Malnutrition (MAM)*

Your child may have moderate malnutrition. You should go to the MAM treatment program within 1 week. Encourage your child to eat nutritious foods like beans, carrots, fish, meat and eggs. Check the MUAC every few days to see if your child has become more malnourished (RED) in which case you should go to the health center within 48 hours.

*In an area WITHOUT MAM programming*

Your child may have moderate malnutrition. Unfortunately, there are no programs in the area to address this. Try to feed him or her nutritious food like beans, carrots, fish, meat, and eggs. Check MUAC every few days and if your child becomes more malnourished (RED) go to the health center within 48 hours

IF MUAC is **GREEN** colour: Your child is properly nourished. Continue to feed him or her nutritious food like beans, carrots, fish, meat, and eggs. Check MUAC every two weeks.

## 6. How to Check for Oedema:

- 1) Press your thumbs down on top of your child's feet for three seconds
- 2) If there is still an imprint a few seconds after you have removed your thumbs, your child may have severe acute malnutrition so you should go to the health center as soon as possible.



Hold thumbs for three seconds



Pitting in both feet remains

**\*training tip:** a plastic bag filled with soil<sup>16</sup> can be useful for demonstrating oedema

## 6. Wrap Up

Thank the caregivers/HH members for their attention and answer any questions they may have. Provide encouragement to the caregivers and HH members, as this can boost their morale and give them hope in difficult situations. Remind caregivers to check their child's MUAC every two weeks, and that they can ALWAYS visit the health facility if they have concerns about their child, regardless of MUAC or oedema status.

## PREGNANT & LACTATING WOMEN

Pregnant and lactating women (PLW) require additional nutrient intake to support the growth of the fetus and physiological changes in pregnancy and during lactation to support milk production. As with children, MUAC cut-offs can be used to indicate malnutrition in PLW. While thresholds will vary from country to country, <23cm is frequently used as an admission criteria for PLWs to supplementary feeding programs. In some instances, if resources are limited and caseload is high, a MUAC threshold of <21cm is used.

The family MUAC approach can also be used to assess for malnutrition in PLWs within the household, using the same instructions above. Be sure to find out what nutrition services are available for Pregnant and Lactating women in your context, and what MUAC thresholds are used.

<sup>16</sup> <https://www.alima-ngo.org/uploads/b5cb311474e9a36f414a69bd64d39596.pdf>