

Title: **Needs Assessment, Contextualised Treatment Protocols and Low Resource Nutritional Surveillance for Hard to Access and Inaccessible Areas in Syria**

**Valid International and UNICEF Syria**

**Background**

Undernutrition in Syria is of increasing concern, particularly in areas that are difficult or impossible to access due to ongoing conflict. Acute malnutrition has been reported in these areas in multiple age groups, including children under the age of five, older children aged 5 to 10 years, adolescents between 10 and 20 years, and adults. UNICEF Syria has identified the need for:

1. Appropriate anthropometric cut-offs for older children, adolescent and adults that can be used to assess and monitor the nutritional status of people in inaccessible areas.
2. Contextualized treatment protocols for older children, adolescents and adults and training (self-learning) materials for the implementation of these protocols.
3. A methodology to quantitatively assess and monitor nutritional status among different age groups that takes into account severely restricted access and limited capacities on the ground.

**Valid International** has been working with **UNICEF Syria** to address these needs since April 2016.

**Anthropometric Cut-Offs**

Through a combination of literature review and analysis of data from different sources we examined:

- Recent consensus in defining wasting, starvation and sarcopenia of different origins
- The link between MUAC and body composition, functional performance and outcomes of starvation among different origins and in the age groups of interest
- Context-specific suitable MUAC cut-offs for the 3 age groups of interest (children over 5 years, adolescents and adults).

Based on this work and a series of assumptions (detailed in the final report) we propose cut-offs for SAM and for MAM.

**Protocols for acutely malnourished older children, adolescents and adults**

Acute malnutrition and particularly oedematus malnutrition in older age groups is often not associated with poor diet. For this reason late presentation is often common and dietary management can be challenging. The protocols have taken these issues into account. The essentials of good practice and management have been combined with the need for a very simple protocol which is easy to use in the context of Syria. The package has been developed with input and review from doctors from the Syrian and American Medical Society as well as agencies and individuals with experience in similar situations. We have also drawn on relevant guidance from agencies such as WHO<sup>1</sup> as well as programmatic experience (where appropriate) of rapid response in situations of siege, blockade and conflict in Yemen, Pakistan (FATA), South Sudan and Gaza<sup>2</sup>.

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<sup>1</sup> *The Integrated Management of Adolescent and Adult Illness (IMAAI)*, WHO, 2004. The IMAI recommends MUAC <160 and MUAC <185 with clinical signs for adolescents and adults.

*Guidelines for an integrated approach to the nutritional care of malnourished HIV infected children aged 6-14 years*. WHO, 2009.

<sup>2</sup> UNICEF South Sudan. Rapid Response Program for SAM and MAM in protected areas and areas under siege, 2014-15. Data Analysis November 2015. Save the Children Outpatient Therapeutic Program in Gaza, April 2009. UNICEF and Save the Children analysis of OTP data (W3) in Saada, Hajjah, Hodeida, Lahj and Taiz Governorates under blockade, Yemen 2010, 2011 and 2015.

## **Nutritional Surveillance for Hard to Access and Inaccessible Areas**

To establish the rates of undernutrition among different age groups, we propose a rapid assessment design that requires the set-up of sentinel data collection sites in hard to access and inaccessible areas, with data collection being conducted by existing health centre staff, schoolteachers and/or other data neutral community actors. This is based on the assumption that UNICEF Syria will be able to indirectly access such areas through local connections and obtain information from them. A randomised design is proposed whereby data collectors systematically survey a randomly selected block within their area of operation. The initial round of data collection could provide: a) an overall prevalence of undernutrition for the age groups of interest (e.g. under-fives, older children, adolescents, and adults) across the 19 identified areas, and b) a classification of whether each individual area falls above or below a set threshold prevalence for undernutrition for each age group. We propose repeating surveys at least once per month so that subsequent rounds can provide estimates at area level using Bayesian methods.

### **Next steps**

Several next steps are being discussed:

- A follow up study to assess functionality and appropriateness of proposed MUAC cut-offs
- Remote support for training and implementation of treatment protocols. Fine-tuning of protocols based on pilot of their implementation and broader review by stakeholders.
- Remote support for data collection, analysis and interpretation of data collected through the nutritional surveillance system.