
Today, less than 25 percent of children suffering from acute malnutrition receive treatment. Even though it is the same condition, acute malnutrition is arbitrarily divided into two categories: severe and moderate. Each treatment is managed separately, with programmes overseen by different UN agencies, and using different protocols and therapeutic foods. Often treatment is only available for children suffering from severe acute malnutrition. If we are to reduce the health and mortality burden from malnutrition, treatment has to be easily available to more children before they reach the severe stage. The effectiveness and cost-effectiveness of current protocols need dramatic improvements.

The OPTImising MAlnutrition treatment (OptiMA) strategy is grounded in optimising three main areas of current practice:

1. **Earlier Detection**: training mothers and family members to screen their children for malnutrition by using mid-upper arm circumference (MUAC) bracelets. By finding acutely malnourished children early, we reduce their chance of falling ill and requiring hospitalisation.

2. **Coherency**: using a single anthropometric measure (MUAC) for screening, diagnosis, and discharge (in addition to oedema) makes the whole process more understandable for families and easier for clinicians, because they no longer have to measure their children’s height to determine if they are malnourished or not.

3. **Simplify**: using a single, ready-to-use therapeutic food (RUTF), at a gradually-reduced dosage based on weight and MUAC status, allows for treating more children for a similar amount of RUTF compared to current programmes.

In Burkina Faso in 2017, ALIMA conducted an OptiMA pilot study treating nearly 5,000 children, in which RUTF dosage was determined by a child’s MUAC and weight. Full analysis is currently being finalised, and a manuscript will be submitted to a peer-reviewed journal in the first quarter of 2019. But from a purely programmatic standpoint, OptiMA-Burkina Faso treated 50 percent more children than in the previous year without adding staff to manage the increased caseload. The amount of RUTF consumed per child was reduced by 50 percent compared to previous years.
OptiMA-DRC is one of two randomised control trials (RCTs) ALIMA is planning (the other is OptiMA-Niger), which began in 2018 with financing from the innocent foundation, in order to provide more evidence on the implementation of this approach. The individually randomised trial in DRC will address four important research gaps:

1. Is gradual RUTF dose-reduction non-inferior for the most severely malnourished, e.g. children with oedematous malnutrition or MUAC <115 or those with weight-for-height z-score (WHZ) <-3 and MUAC <125 mm?
2. What is the incidence of relapse among acutely malnourished children following recovery?
3. What are the nutrition and health outcomes of children who are close to requiring RUTF supplementation (i.e. have MUAC or WHZ measures just above cut-offs) but don’t yet qualify?
4. What are the measurable cost-efficiencies associated with a simplified protocol compared to current standard treatment protocols?

Expected Impact

The ultimate aim is that simplified, efficient acute malnutrition protocols such as OptiMA lead the way to scaling up treatment for more children. To get there, more evidence is required, so over the next 2 years ALIMA plans to gather evidence through three critical streams of work: RCTs, operational pilots in multiple contexts and cost-effectiveness analyses. NGOs, UN agencies, and national level policy makers will then have the tools they need to implement this approach, and provide the correct, cost-effective treatment, to children that need it.

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