What works in managing MAM?

Evidence from recent systematic reviews and remaining knowledge gaps

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“...multiple unexplained adjustments to the numbers; data entries with no sourcing; unexplained use of different time periods; and inconsistent uses of source data.”

Source: Giles and Giuliano (May 25, 2014) Financial Times, p.5
“To solve the problem a more coherent, results-oriented political and resource commitment by national governments is needed.”

Blanket supplementary feeding in Leogane and Port-au-Prince to prevent “deterioration of nutritional status.”

Children 6-35 months one supply “supplementary plumpy” and children 36-59 months CSB (350g), oil (20g) and sugar (15g).

“Although measuring the impact of a programme like this is difficult due to challenges in attribution… low levels of GAM suggest the combination of nutrition interventions … contributed to averting a nutrition crisis.”

It’s hard to prove that ‘nothing changed’ because of your intervention;

but it’s also hard to prove that an intervention did achieve change.
Common concerns on quality of evidence

- “The evidence base proving which humanitarian responses are most effective is extremely lacking.” (Darcy et al. 2013)

- There is a “dearth of published evidence from a range of settings on this topic [CMAM]” (ENN 2012).

- “The type of research currently published fails to answer adequately many of the questions posed.” (Hall et al. 2011)
Recent systematic reviews

Scoones et al. (2011) - *SAM treatment with RUTFs*

Picot et al. (2012) - *SAM treatments in <5ys*

Sguassero et al. (2012) *Supplementary feeding to promote physical growth in <5ys (incl. MAM)*

Lazzerini et al. (2013) - *Special foods for MAM*

Lenters et al. (2013) - *Interventions for SAM and MAM*

Moorty et al. (2014) - *Food/non-food interventions in treating MAM*
Not just RCTs (in the search terms)!

Scoones et al. 2011: Randomised controlled trials (RCTs), incl. quasi-randomised.

Picot et al. 2012: RCTs, controlled clinical trials (CCTs), cohort with control (CWCs) (prospective/retrospective), case–control (CC) studies.

Sguassero et al. 2012: RCTs (by cluster or individual).

Lazzerini et al. 2013: RCTs (by cluster or individual, quasi-randomised, non-randomised CCTs, controlled before/after studies (CBAs), interrupted time time series (ITS).

Lenters et al. 2013: No restriction on study design (in search).

Moorty et al. 2014: RCTs (by cluster or individual), CBAs.
“High risk” and “unclear risk” appear too often in systematic reviews (even in your great studies!)
Despite different inclusion factors, time-frames, approaches...

...very similar findings across current reviews
1. **Food supplements work** in treatment of MAM and SAM
2. Lipid RUFs > FBFs **for weight gain and recovery rate**
3. Mortality, default, progression, etc. **N.S.**

4. **Too few studies** to allow confident generalization!
5. Too few studies outside a handful of (African) sites

6. Quality of **evidence very often ‘low’ or ‘unclear’**
7. **Heterogeneity** prevents meta-analyses, sub-group analysis
Sources of Heterogeneity

**Definition** of wasting: Weight-for-age; Gomez I,II,III; +mild; Grade II,

Defining **recovery**: Cut-offs (% median, WHZ Z-score, WH gained); duration (8, 12, 16 weeks, no time-frame);

**Research skills used**: Trained research nurses, rural health post staff, academic researchers

**Metrics reported**: Not all studies report mortality, progression to SAM, daily weight gain, default, follow-up, relapse, sub-group heterogeneity, costs
“For the time being, we have to do with what we have; that is, a very diverse and heterogeneous set of data.”


- Lenters 2013: “gaps in our ability to estimate effectiveness
- Lazzerini 2013: “limitations in the completeness and applicability of the evidence”
Rapid weight gain versus sustained recovery (nature of ‘cure’; calls for longer-term follow-up); gut health, body composition

Seasonality and incidence versus generalized prevalence rates

Larger samples to allow sub-group analysis

Cognitive outcomes (short, longer-term)

Actual programming elements (not just products)

Real costing of programming realities; cost-effectiveness
1. Wasting is a **development issue**; entry point for integrated actions (in emergency and non-emergency).

2. Link to development agenda (funding, programming) requires focus on **evidence quality**.

3. **Action can’t wait**; but many evidence gaps still to fill:

   - Promote “**low risk of bias**” *in reporting*, not just study design (completeness, transparency, context)—don’t let lack of clarity impair credibility à la Piketty...

   - Promote donor/government **demand for quality**.