

## **Sustainable Developmental Solutions or Product-based Illusions for Addressing Severe Acute Malnutrition?**

Product based solutions are being promoted as a simple and permanent cure for the proverbial tip of childhood undernutrition, namely severe wasting (thinness or severe acute malnutrition; SAM), which is being portrayed as a medical emergency.<sup>1</sup> The facts (as discussed below) suggest that this strategy will distort public expenditure towards distractive and uncertain “quick fixes” in preference to ongoing appropriate focus on sustainable development including food security.

Projections of SAM as a medical crisis are extrapolated from famine prone African regions, mortality risk modelling based on an era with rudimentary health services, and decade old prevalence data. The national estimates of SAM burden have substantially reduced from 6.4% to 4.6%, with recent data suggesting even lower prevalences (3.3% in HuNGAMA survey of 100 worst Districts and 2.2% in rural UP). Importantly, during an average follow-up of 8 months in the recent UP data-set, only 11/409 (2.7%) SAM children expired and 31% of survivors had spontaneous complete recovery (not-wasted) within the existing health framework. Undoubtedly, the “SAM crisis” in India is considerably overstated, leading to a misconception that most afflicted children will die or never recover. Thus targeting SAM as an emergency for dramatic child survival gains is fallacious, particularly if it erodes other essential budgetary allocations. Even demographically, most under-five deaths occur within 6 months of age (~55% within first 28 days and ~75% below 6 months),<sup>2</sup> when food-product supplementation strategies have no relevance.

The recently disseminated data from a large, multi-centric, robust efficacy trial in Indian children needs careful contextualisation prior to adoption in the programmatic setting. Roughly 1.1% of over 1,00,000 screened children between 6 months and 5 years of age had SAM. All children with uncomplicated (without illness) SAM were provided free services of a local woman to help feed the child 8 times/day (during the latter 2/3<sup>rd</sup> phase of the trial) and free treatment or hospitalisation, if required, for any intercurrent illnesses. Still there were three deaths. At the end of 4 months of free therapeutic foods (the longest duration for any SAM feeding trial), only half of the ~850 subjects had complete recovery (~40% without local woman support in initial phase). The locally created ready to use therapeutic food (RUTF) product had ~13% greater success while recovery rates with factory produced RUTF were similar to augmented home based foods. It is noteworthy that for four months (or till

recovery), RUTF was the sole or predominant dietary intake for the selected children. *Importantly, four months after stopping this therapeutic regimen, the overall recovery rates plummeted to ~15%, with no differences between the three groups (home based foods, locally created RUTF and factory produced RUTF).* Thus the profile of SAM in India is different from African settings; even with prolonged free feeding support and preventive and curative services that are not feasible under programmatic conditions, only half the afflicted subjects recover and in ~70% of them, the recovery is short lived. Further, the choice of the therapeutic food or product makes no difference for sustained recovery.

Evidence on other key aspects is essential to formulate a rational policy: (i) Cost-effectiveness analyses of home based foods versus RUTF; (ii) Relative preference of beneficiaries for home based foods to allow sharing within the vulnerable family; (iii) Threat of disrupting optimal Infant and Young Child Feeding (IYCF) practices with RUTF propagation; (iv) Risk of metabolic perturbations (adiposity and hypercholesterolemia) due to high fat content of RUTF; and (v) Reason for different success rates with two RUTFs having similar composition.

Childhood undernutrition is a deep rooted and multi-dimensional problem, resulting from maldevelopment. The important ingredients for addressing this malady in a *sustainable* manner include food security; protecting, promoting and supporting breastfeeding and optimal complementary feeding; preventing early child bearing;<sup>3</sup> strengthening preventive and curative health systems, especially the capacity of frontline workers; enhancing literacy; and improving water supply and sanitation.<sup>4</sup> The slow and steady improvement of nutritional status, distinctly accelerating now, bears testimony to this approach. In fact, India is now also witnessing rapidly escalating overnutrition and associated morbidities, even among the underprivileged. Prudent, cost-effective and sustainable strategies to address SAM should follow the holistic preventive route instead of diverting funds towards distributing nutrient-products with evanescent benefits for the mere tip of the iceberg.

There is unanimity that children afflicted with SAM need urgent medical and social assistance within the ambit of sustainable development goal and convergence with ongoing programmes. It may therefore be more meaningful to use SAM as a signal of a distressed family and amalgamate remedial efforts with the recently launched initiative of identifying and assisting vulnerable populations within villages. With a broadened intervention scope, these families could be provided quality food security with facilitated access to optimal

preventive and curative health care. We make a fervent plea for an urgent time bound national consultation to take an informed policy decision based on available evidence and choices with *equal representation of all stakeholders and beneficiaries*. A hasty introduction of products like RUTF to “eliminate the SAM crisis” will provide negligible value for money for the national exchequer; instead it could be used as an opportunity for commercial exploitation of maldevelopment induced misery.

## REFERENCES

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