Cost-Disrupting Innovations to Reduce the Cost of Ready-to-Use Therapeutic Food

Before applying, applicants should familiarize themselves with the supporting documents for this Grand Challenge, including the terms and conditions of the Gates Foundation, the Rules and Guidelines, Application Instructions, and Frequently Asked Questions (FAQs).

If you are planning to apply to this RFP, we will be hosting a dedicated webinar on March 30, from 7:00-8:00 AM Pacific

This Grand Challenge seeks innovations that can substantially increase the number of children treated for SAM per dollar of spend. We are interested in solutions that achieve step-change improvements in economics by reducing the cost of Ready-to-Use Therapeutic Food (RUTF). Another Grand Challenges RFP looks at reducing the total cost of treating a child without changing the unit cost of RUTF or using a RUTF alternative.

The Grand Challenge is explicitly designed as an idea-sourcing and proof-of-concept mechanism.

The Challenge

We seek innovative approaches capable of achieving at least a **30% reduction in the ex-factory unit cost of RUTF** in Sub-Saharan Africa and South Asia.

Cost reductions should be calculated relative to the applicant's own current ex-factory production baseline or a clearly justified comparator. Applicants should explicitly state baseline assumptions. Reductions are not required to be measured against a single global benchmark price.

This call focuses specifically on physical composition, ingredients, manufacturing, packaging, and factory-level production economics. Clinical trials and delivery-only approaches are out of scope.

All formulations must present a plausible pathway to meet the Codex Guidelines for Ready-to-Use Therapeutic Foods (CXG 95 2022).

Solutions must:

- Provide a validated pathway to ≥30% cost reduction.
- Include a transparent cost model with clear assumptions and sensitivity analysis.
- Demonstrate proof-of-concept feasibility (e.g., pilot manufacturing, engineering models, simulations).
- Present a credible pathway to normative/regulatory acceptance and adoption.
- Show a clear scalability pathway with durable cost reductions at scale.

Focus Area	Potential Approaches	Required Deliverables
Protein Diversification and Dairy Replacement (Highest Priority) Milk powder is the largest cost driver in standard RUTF. We seek high-quality protein solutions (PDCAAS ≥0.9, preference toward 1.0) that reduce cost while maintaining a credible pathway to Codex compliance.	• Optimized dairy-based protein systems (≥50% dairy protein retained) • Partial dairy reduction (25–75%) using complementary proteins • Dairy-free high-quality protein blends (excluding fava/field beans) • Protein quality optimization technologies (fermentation, extrusion, fortification, enzymatic treatment) • Novel protein matrices enhancing absorption, efficiency, or stability	• Prototype formulations meeting Codex/WHO specifications • PDCAAS ≥0.9 with documented amino acid profiles and digestibility • Stability testing (Climatic Zone IVb) • Sensory and acceptability data • Cost comparison model (USD/MT) • Roadmap for regulatory and normative uptake
Lipid Optimization and Stabilization Oils are significant cost and volatility drivers. We seek lipid systems that enable use of lower-cost or local oils while maintaining shelf life and nutritional adequacy.	• Stable regional oils or blends (e.g., sunflower, sesame, cottonseed, palm olein) • Processing or antioxidant systems enabling use of less refined oils • Encapsulation or matrix innovations to reduce oxidation • Approaches reducing reliance on high-barrier packaging	• Fatty acid profile characterization • Oxidation stability data (target 24-month shelf life in Zone IVb) • Sensory assessment • Local supply and volatility assessment • Quantified cost impact (USD/MT)

Focus Area	Potential Approaches	Required Deliverables
Manufacturing and supply inefficiencies materially affect ex-factory cost.	• Process intensification • Automation/digitization • Modular or scalable LMIC-appropriate equipment • Input sourcing and procurement innovations • Factory-integration strategies reducing logistics and working capital	practice • Proof-of-concept feasibility evidence • Cost comparison (current vs. proposed USD/MT) • Scalability and capital/payback assessment

Cross-Cutting Requirements

All funded projects must address:

- Clinical Safety and Nutritional Adequacy.
  - Compliance with Codex RUTF Guidelines (CXG 95-2022).
  - Energy density: 520–550 kcal/100g.
  - Protein: 10–12% energy.
  - Lipids: 45–60% energy.
  - PDCAAS ≥0.9 (preference toward 1.0).
  - Micronutrient and food safety compliance.

Projects materially altering formulation must present a path to clinical noninferiority and normative acceptance.

- LMIC Applicability & Equity
  - Feasible manufacturing in LMICs
  - Strengthened regional production capacity
  - Encouragement of LMIC-led consortia

- **Option B:** We will consider several proposals for awards of **up to $1,500,000 USD** for each project, with a grant term of **up to 36 months**. Application budgets should be commensurate with the scope of work proposed.

Indirect costs should be included in the budget and should not exceed 10-15% of the total award (subject to the Gates Foundation's indirect cost policy).

Eligibility

We welcome applications from universities and research institutes, RUTF manufacturers and food processors, ingredient and packaging suppliers, engineering and technology firms, NGOs with strong technical capacity, and for-profit entities (subject to global access requirements). Consortia led by or including LMIC-based organizations are strongly encouraged. Individuals and organizations classified as individuals for U.S. tax purposes are not eligible to receive an award from the foundation as part of this initiative.

What we are looking for

Successful proposals will:

- Demonstrate ≥30% ex-factory cost reduction.
- Include a credible, transparent cost model.
- Provide proof-of-concept feasibility evidence.
- Present a regulatory and normative adoption pathway.
- Show durable scalability.
- Address LMIC manufacturability and equity considerations.

We will not fund proposals that:

- Focus solely on policy advocacy or tariff reform.

- Reduce Cost of Severe Acute Malnutrition Treatment RFP - French
- Reduce Cost of Severe Acute Malnutrition Treatment RFP - Korean
- Reduce Cost of Severe Acute Malnutrition Treatment RFP - Portuguese
- Reduce Cost of Severe Acute Malnutrition Treatment RFP - Spanish
- Reduce Cost of Ready-to-Use Therapeutic Food - Rules and Guidelines
- Reduce Cost of Ready-to-Use Therapeutic Food - Application Instructions
- Reduce Cost of Ready-to-Use Therapeutic Food - Budget Template and Narrative.
- Reduce Cost of Ready-to-Use Therapeutic Food - Webinar Slides
- Reduce Cost of Ready-to-Use Therapeutic Food - Webinar Video
- Reduce Cost of Ready-to-Use Therapeutic Food - Frequently Asked Questions (FAQs)