Breakthrough Innovations to Significantly Reduce the Cost of Severe Acute Malnutrition Treatment

Grand Challenges

Grand Challenges Request for Proposals

Applications due no later than April 28, 2026, 11:30 a.m. U.S. Pacific Time

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

If you are planning to apply to this RFP, we will be hosting a dedicated webinar on April 2, from 7:00-8:00 AM Pacific Time. This session will provide a comprehensive overview of the RFP details and an opportunity to have your questions answered. To participate in the webinar, please register and submit your questions in advance. If you cannot attend live, the webinar will be recorded and available on this challenge page after the session.

Please note that Children's Investment Fund Foundation (CIFF) and GiveWell have expressed interest in potentially funding projects submitted through this RFP. Representatives from these organizations will participate in the review process. Applicants will be notified if their proposal is selected for further consideration by either organization.

Background

Severe Acute Malnutrition (SAM) remains a leading contributor to child mortality globally. At the same time, global resources available for SAM treatment are flat or declining, while the burden of wasting remains high. Under these constraints, improving outcomes will require not only expanding budgets but fundamentally improving the cost-effectiveness of SAM treatment.

While Ready-to-Use Therapeutic Food (RUTF) is central to SAM treatment, it represents only one component of total treatment cost. In many contexts, logistics, staffing, supervision, visit frequency, and system overhead account for a substantial share of the total cost per child treated.

This Grand Challenge seeks innovations that can substantially increase the number of children treated per dollar spent by reducing the total cost per child treated, without changing the ex-factory price of RUTF or substituting RUTF with an alternative product.

This initiative is designed as an idea-sourcing and proof-of-concept mechanism to identify transformative, system-level innovations.

The Challenge

We seek innovative approaches capable of achieving a 20 - 30% or greater reduction in the total cost per child successfully treated for SAM in Sub-Saharan Africa and South Asia.

We recognize that reductions may result from a single breakthrough innovation or from a combination of product, logistics, protocol, and delivery efficiencies that collectively achieve meaningful cost reduction.

Solutions must:

- Provide a validated pathway to a 20% - 30% or greater reduction in total cost per child treated.
- Include a transparent cost model with clear assumptions, key drivers, and sensitivity analyses.
- Demonstrate proof-of-concept feasibility (e.g., modeling, simulation, pilot data).
- Present a credible pathway to normative and/or regulatory acceptance, where relevant.
- Show a clear scalability pathway and explain why cost reductions are durable at scale.

Proposals must articulate a clear theory of change linking the innovation to specific reductions in cost components and demonstrate how these reductions are achieved and sustained.

Focus Areas

This call targets system-level levers that reduce the total cost of treating a child for SAM by 20% - 30% or greater, independent of reducing the RUTF unit price.

Applicants may propose innovations under one or more of the following focus areas:

Focus Area	Potential Approaches	Required Deliverables
Logistics and Distribution Optimization Logistics and distribution (transport, storage, losses, inefficiencies) often represent a significant share of total SAM treatment cost.	• Redesigned distribution networks reducing transport frequency or distance • Community- or facility-linked delivery models reducing parallel systems • Consolidated deliveries across other programs (e.g., immunization, MDAs, REACH) • Inventory optimization tools to reduce stockouts • Warehousing solutions • Storage optimization for shelf life and efficiency • Loss-reduction strategies (spoilage, leakage, diversion) • Digital demand forecasting tools • Route optimization or fleet management systems	• Identification of targeted logistics / warehousing cost components • Clear causal pathway to a 20% - 30% or greater reduction in total cost per child treated • Analytical or pilot feasibility evidence • Contextual assumptions (e.g., emergency vs. non-emergency settings)

Treatment Protocols and Regimen Design Treatment protocols influence cost through product consumption, visit frequency, duration of care, and monitoring intensity. This call seeks novel protocol concepts that go beyond existing simplified treatment approaches	• Adaptive dosage or duration based on child response • Regimens reducing total RUTF consumption without compromising outcomes • Dynamic or phased treatment models • New admission, discharge, or monitoring criteria • Simplified or adaptive monitoring approaches • Point-of-care diagnostics guiding intensity • Digital or analytical decision-support tools • Regimen-level cost-effectiveness modeling and scenario analysis Proposals relying solely on already widely adopted simplified protocols will be considered nonresponsive.	• Clear differentiation from existing simplified protocols • Identification of affected cost drivers (e.g., RUTF use, visits, duration) • Analytical rationale demonstrating plausible 20% - 30% or greater cost reduction • Proof-of-concept evidence (modeling, retrospective analysis, simulations) • Discussion of safety assumptions
Program Delivery Models Delivery models significantly affect total treatment cost, especially through staffing, visit schedules, supervision, and system overhead.	• Community-based or decentralized care models • Task-shifting to community health workers or volunteers • Reduced-touchpoint or simplified monitoring strategies • Integrated service delivery models • Alignment with routine health systems to reduce parallel structures	• Description of how the delivery model differs from current practice • Identification of affected delivery cost drivers • Modeling or evidence supporting plausible 20% - 30% or greater cost reduction • Discussion of quality and safety safeguards

Complicated (In-patient) SAM Care Optimization Concepts that reduce the cost of inpatient/complicated SAM care while maintaining or improving clinical outcomes. (In many settings, 10–20% of children with SAM require inpatient management due to medical complications, yet inpatient care can represent a disproportionately large share of total treatment costs.)	• Innovations reducing length of stay without compromising safety • Clinical pathway optimization • Resource-efficient stabilization models • Integrated inpatient–outpatient transition strategies • Cost-efficient therapeutic, monitoring, or staffing models	• Clear identification of inpatient cost drivers affected • Cost model demonstrating plausible 20–30% or greater reduction in total cost per child successfully treated • Evidence supporting clinical safety assumptions • Consideration of scalability and normative alignment

Cross-Cutting Requirements

Successful proposals must provide:

- Cost Reduction Analysis and Proof of Concept
    - Clear articulation of the cost components affected (e.g., logistics, staff time, visits, supervision)
    - A baseline cost decomposition and explanation of how the proposed innovation changes the cost structure
    - A transparent and credible cost model quantifying a 20% - 30% or greater reduction in total cost per child treated
    - Proof-of-concept evidence supporting feasibility (e.g., modeling, pilot data, simulations)

  All proposals must include a cost model clearly aligned with the proposed operational or technical innovation.
- For the purposes of this call, “cost per child treated” refers at minimum to the cost per child successfully discharged according to standard SAM program exit criteria.
    - Proposals must clearly describe safeguards to ensure that cost reductions do not compromise clinical outcomes, quality of care, or safety standards.
- Data Sharing and Transparency
    - Commitment to share relevant data (with appropriate safeguards) to support replication and policy processes
    - Contribution to cross-project learning where possible
- Environmental Considerations
    - Brief discussion of environmental implications (e.g., energy use, waste, system efficiencies) and how these are managed

- Responsible Use of AI and Digital Technologies (if applicable)
    - Clear articulation of data privacy and security safeguards
    - Consideration of explainability and usability for nonexpert users in LMIC contexts

Funding Structure

For any of the Focus Areas we will consider proposals under two funding options. Please consider which is most relevant to your proposal.

- **Option A:** We will consider several proposals for awards of **up to $500,000 USD** for each project, with a grant term of **up to 18 months**. Application budgets should be commensurate with the scope of work proposed.
- **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, nongovernmental organizations with strong technical capacity, for-profit entities / private sector companies (subject to global access requirements), and consortia combining scientific, manufacturing, and implementation expertise. 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 a 20% - 30% or greater reduction in total cost per child treated.
- Include a transparent and credible cost model.
- Show proof-of-concept feasibility.
- Clearly articulate affected cost components and durable savings.
- Present a credible pathway to scalability.
- Address real-world adoption constraints and data availability.

We will not fund proposals that:

- Fund clinical trials or definitive efficacy studies.
- Scale or geographically expand existing simplified protocols.
- Support routine implementation or business-as-usual operations.
- Replicate existing approaches without step-change potential.
- Lack a plausible pathway to a 20% - 30% or greater cost reduction.