

LIFT-UP | Low Birthweight and Preterm Infant Feeding Trial and Supportive Care Package



Improving feeding and growth for small vulnerable newborns.

THE CHALLENGE

More than 35 million infants annually are born preterm, low birthweight, or small for their gestational age. These newborns face the highest risks of mortality, illness, feeding problems and poor growth, especially in low-resource settings. Evidence-based practices can help millions of babies survive and thrive — practices including earlier, more, and better breast milk feeding, Kangaroo Mother Care, and Water, Sanitation, and Hygiene (WASH). Although there are concrete steps clinicians, mothers, and families can take, these interventions don't reach everyone who should benefit.



OUR SOLUTION

Low Birthweight and Preterm Infant Feeding Trial and Supportive Care Package (LIFT-UP)

is a group of studies investigating ways to improve feeding for small vulnerable newborns in low-resource settings.

LIFT-UP includes two main components:

- Evaluating implementation of a **comprehensive support and counseling package** to improve practices in lactation, breast milk feeding, Kangaroo Mother Care, and safe hygiene (*India, Tanzania, Malawi*)
- Exploring the impact of using **human milk fortifier** to improve infant growth and health outcomes (*in India only*)



Feeding Support Package Plus (FSP+)

The FSP+ includes a training curriculum and implementation support to promote early initiation and maintenance of breast milk feeding for small vulnerable newborns. It promotes evidence-based practices in feeding — like expression to build milk supply and proper positioning for breastfeeding — Kangaroo Mother Care, and safe hygiene.

The **facility-based** package provides **training modules** for health workers, **visual aids** to help families learn important feeding and hygiene practices for their babies, **tracking logs** for lactation and feeding, and an **implementation guide** to help health facilities put these resources into practice. A complementary **transition-to-home package** helps set mothers and babies up for success at home after discharge.

The FSP+ was created using **human-centered design**. It was co-designed with the ultimate users of the tools — clinicians and community providers, mothers and families — and is being evaluated using an **adaptive implementation science** approach to ensure it is practical to use in the real world.



Fortification of Human Milk

At sites in India, LIFT-UP also includes a **randomized controlled trial (RCT)** of human milk fortification for very low birthweight or very preterm infants in the NICU. The trial, taking place in Karnataka and Telangana, assesses the efficacy and safety of standardized fortification for these infants. Fortifying breast milk with an additive to increase caloric intake can help give these particularly vulnerable infants the nutrition they need and set them up for survival and growth.

All babies in the study receive care that includes the FSP+ and standardized protocols for feeding and increasing milk supply. The intervention group additionally receives human milk fortifier according to a standard protocol. Babies are followed until three months of age to assess growth and other health outcomes.

The World Health Organization conditionally recommends fortification for very preterm/very low birthweight infants, but more evidence is needed in low-resource settings. This is the largest randomized trial of human milk fortifier use in this population to date and will contribute to closing this evidence gap.

IMPACT

Over the past 12 months, we have implemented and refined several models of the FSP+ in India, Tanzania, and Malawi, and have observed successful outcomes across all sites. With the FSP+, infants are more likely to be fed breast milk, initiate breast milk feeding earlier, and receive skin-to-skin care earlier and for longer duration. Mothers were also more likely to express breast milk. LIFT-UP has produced a package for frontline implementation that we will make freely available for adaptation to individual contexts and use, setting the stage for global scale.

LIFT-UP aims to close a critical know-do gap: there are feeding practices that we know can help small and vulnerable newborns survive and thrive, but they don't reach all who can benefit. Together with caregivers, health providers, and leadership, we can create and test user-friendly, targeted, and policy-relevant interventions for the most vulnerable infants.

