Overview

The Challenge
Globally, 1 in 3 children under 5 are not growing well due to malnutrition and 1 in 2 suffers from hidden hunger, undermining the capacity of millions of children to grow and develop to their full potential.**

Poor quality diets drive malnutrition and almost half of all children are not eating a balanced diet with fruit, vegetables, eggs, dairy, fish and meat during the complementary feeding period (from 6 - 23 months). In many cases, children depend on just a few staples, such as grains and tubers, which can lead to micronutrient deficiencies. For example, vitamin A deficiency is the main cause of blindness in children, and iodine deficiency can reduce a child’s intellectual capacity and harm his or her ability to learn.

Challenges are often related to economic factors inhibiting access, but also rooted in a lack of knowledge on the right amount, frequency, and diversity of food needed for children.

As a response, UNICEF’s Infant and Young Child Feeding (IYCF) counselling packages have been used to train communities to improve nutrition practices. However, sessions are often conducted without utensils such as bowls, plates, or spoons to illustrate quantity and quality – tools a caregiver can take with them to continue the good nutrition practices at home.

The Response
UNICEF and partners are developing a Complementary Feeding Bowl as a practical, frugal innovation*** to ensure good feeding practices continue in the home. Building from research performed at Emory University, UNICEF is building on the evidence to innovate a new bowl fit for programming. The project includes the development of two products:

1. A complementary feeding bowl with nutritional diversity messages included in the design to address food quality, and demarcations by age group within the bowl to address food quantity.

2. A slotted spoon to ensure that the first semi-solid food after exclusive breast feeding is the right consistency, energy-dense and not watered down.

The Impact
Prototypes of the bowl have been tested in five countries which have all indicated positive results. The concept was well received by community members and mothers, with reports indicating increases in meal frequency and quantity and thickness of food.

UNICEF is working closely with programming countries to further understand the needs while communicating those needs to the product manufacturers.

When fully scaled, this innovation has the potential to reach 23 million caregivers in more than 40 countries.

Key Figures

** Challenge *

- 29% of children under 5 are not growing well due to malnutrition.
- 52% of children are not eating a balanced diet.
- 200 million children under 5 suffer from stunting or wasting.
- 340 million children suffer from hidden hunger.

** Response **

- 23 million caregivers in more than 40 countries receive counselling through IYCF programmes, who can potentially benefit from the project.
- 5 countries have tested the prototypes, where positive results have been communicated.

* State of the World’s Children, 2019
** Hidden Hunger is a form of malnutrition where a person has deficiencies of essential vitamins and minerals.
*** Frugal innovations are simple products or services that are dramatically lower in cost, outperform alternatives and can be scaled up through adoption by people who do not need special expertise or equipment.
Key Features

The final product will be made from a high quality material with a smooth finish, ability to withstand temperatures up to 70°C, and last for at least 24 months. The material will be able to endure regular usage and exposure to frequent washing while allowing for easy cleaning to prevent bacteria buildup. The design will include messages, or “cues for action,” on dietary diversity, breastfeeding, and handwashing.

Key Results

Prototypes of the bowl and spoon have been used and tested in different countries. Results from field reports have been positive, for example:

- In India (2013), results suggested that the tool has the potential to positively impact both maternal and child dietary practices.
- In Kenya (2014), the studies indicated that mothers liked the bowl and spillover effects were observed where mothers shared the new knowledge with other mothers.
- In Malawi (2015, 2016), cluster randomized trials took place with a control group receiving only nutrition education and the intervention group receiving nutrition education and the bowl/spoon toolkits. The study found that meal volumes increased significantly in the intervention group.
- In Tanzania (2017), the majority of mothers reported changes in their child’s diet since they started using the feeding toolkit, including increases in quantity of the food the child ate and positive changes in the child’s health.
- In Ethiopia (2018, 2019), initial findings from the ‘Healthy Mother, Healthy Child’ project show significant improvements in portion size, minimum dietary diversity and thickness.

Next Steps

The project has thus far undergone extensive research to understand what has already been done, what is currently being done, and what more needs to be done to ensure high quality products are developed and scaled globally. Next steps will involve activities to manufacture, test, distribute and scale the project, including:

- Working with manufacturers globally, regionally, and locally to produce bowl and spoon prototypes based on specifications and feedback from programme staff, and nutrition and supply experts.
- Pilot the products in countries to generate evidence alongside IYCF programmes, including with the First Foods For Young Children Videos to understand how they perform in the field and what improvements need to be made, including in food insecure settings to understand how it could be programmed as part of social protection interventions.
- Initiating a Nutrition Innovation Network to share learnings on proven nutrition innovations and support scaling efforts of the Complementary Feeding Bowl.

For more information contact:

UNICEF Product Innovation Website
https://www.unicef.org/innovation/productinnovation

Margit Bach
Nutrition Innovation Project Manager,
Product Innovation Centre
UNICEF Supply Division
Tel. +45 +4545335809
Email: mbach@unicef.org

Published by UNICEF in early 2020, the “Improving Young Children’s Diets During the Complementary Feeding Period” programme guidance highlights the determinants and drivers of poor diets in young children, describes the most recent evidence on improving complementary foods and feeding, and presents action frameworks to improve young children’s diets using a systems approach, supporting global efforts to improve young children’s diets, in all contexts.

It is available here: https://www.unesco.org/en/news-events/recent-news?idnews=2030