

School-Based Strategies for Nutrition, Water, Sanitation and Hygiene (NWASH)

Eva Monterrosa

Senior Scientific Manager, *Sight and Life* Foundation

Arvind Betigeri

Project Manager, Rice Fortification, PATH

Location

> Karnataka, India

Setting

> 2,316 schools in three districts in Karnataka

Target audience

> Students from grades 1–10; 450,000 children

Duration

> March 2015–December 2016

Project context

The nutritional status of school-going children is influenced by their intake of nutrients but also by any nutrient losses resulting from infectious diseases they may be carrying. “Feed the Future Through Fortified Rice” uses two strategies to improve nutritional status among school-going children: **1)** provide missing nutrients through fortified rice served at lunch meals, and **2)** prevent nutrient losses through deworming and WASH education at schools.

In collaboration with our project partners, *Sight and Life* provided technical leadership in nutrition and WASH education at schools.

Partners and our roles and responsibilities

PATH Project leadership along with technical expertise in rice fortification, monitoring and evaluation.

Sight and Life

Technical expertise in behavior intervention, working in partnership with PATH and Karuna Trust to design this component.

Akshaya Patra

Provision of a hot, midday meal containing fortified rice.

Karuna Trust

Support to Akshaya Patra in implementing the nutrition and WASH intervention as well as administration of deworming tablets at the school. Karuna Trust trains teachers and helps schools take ownership of the intervention.

Goal

To motivate and persuade children to engage in healthy eating and washing their hands with soap, as well as safe water use and good sanitation practices.

Project outcomes

This project aims to influence behaviors, attitudes, and motivations for:

- ✓ Washing hands with soap before meals, after toilet use, after play, and after handling garbage;
- ✓ Drinking water only from safe sources;
- ✓ Using the toilet (no open defecation or urination);
- ✓ Flushing the toilet with water after use;
- ✓ Keeping school tidy and free of garbage; and
- ✓ Eating vegetables and healthy snacks (fruit and milk).

Project Description

The intervention was developed in three phases over a period of 18 months.

Phase 1: Exploratory phase

This phase lasted a week and was used to establish a basic understanding of the physical, social/normative, and biological factors that were driving eating and hygiene practices at school.

TABLE 1: Intervention summary

	Objective	Intervention	Description	Grades
1	Create hygiene habits	Peer role models & cues to action (situational cues)	Modeling behavior. Rhymes and short messages are delivered by peer models. Attractive signs and essential tools for toilet use and hand-washing placed at key spots to remind children of the behaviors.	1–8
2	Create positive attitudes (via positive experiences) to sanitation and good nutrition	Games (learn by having fun)	Ten games on topics that deal with nutrition and WASH.	1–5
		Helper crews	Helper crew teams keep the school tidy. Cleanliness chart tracks how well teams are meeting their cleanliness goals.	3–5
3	Leadership and local solutions to improve sanitation and healthy eating	Problem-based learning	Students work in teams to solve issues that are a barrier to reaching good WASH and healthy-eating habits.	6–8



Karuna Trust Facilitators, Dharwad District, Karnataka, November 2015



Cleanliness chart used with Strategy 2 of the WASH and nutrition intervention

Phase 2: Formative phase

Drawing on the initial phase and review of the literature, we developed an ethnographic study that explored hygiene and sanitation through the lens of “cleanliness” in school environments. To examine eating practices, we explored the children’s preferences for, and attitudes towards, foods available during school hours – vegetables as part of the midday meal, milk, and snacks. We also looked at social influence in more detail to understand to what extent peers could facilitate or inhibit healthy behaviors. We interviewed children aged 10 and above. We conducted in-depth interviews, using methods such as card sort, attitude scales, and open-ended questions. In our focus group discussions (FGD) with the students, we used ranking and scoring activities to uncover situational and behavioral cues, and students’ expectations regarding cleanliness. In addition, we conducted separate FGDs with parents and teachers to understand their expectations regarding healthy eating and WASH.

Phase 3: Design and implementation pilot

Drawing on the insights from the formative phase, we developed three strategies to cover the various developmental phases of children ages 6–15. Taken together, the strategies aim to create positive experiences and to motivate children through situational cues, play, and peer modeling.

Each of these strategies was vetted by Karnataka teachers via FGD and was then further refined in workshops. Once the design elements and key components for each strategy had been agreed upon, an implementation pilot was implemented in 52 schools over eight weeks during the first quarter of 2016.

Feedback from this pilot resulted in further refinement of the program design and implementation plan.

Evaluation of implementation and outcomes

As of November 1, 2016, the nutrition and WASH intervention is being implemented in three districts: Dharwad, Bellary and Bangalore. PATH is responsible for managing an independent outcome evaluation of the overall project in these three districts, with the aim of determining the effect of fortified rice on school performance and of the nutrition and WASH intervention on attitudes and behaviors.

Acknowledgements.

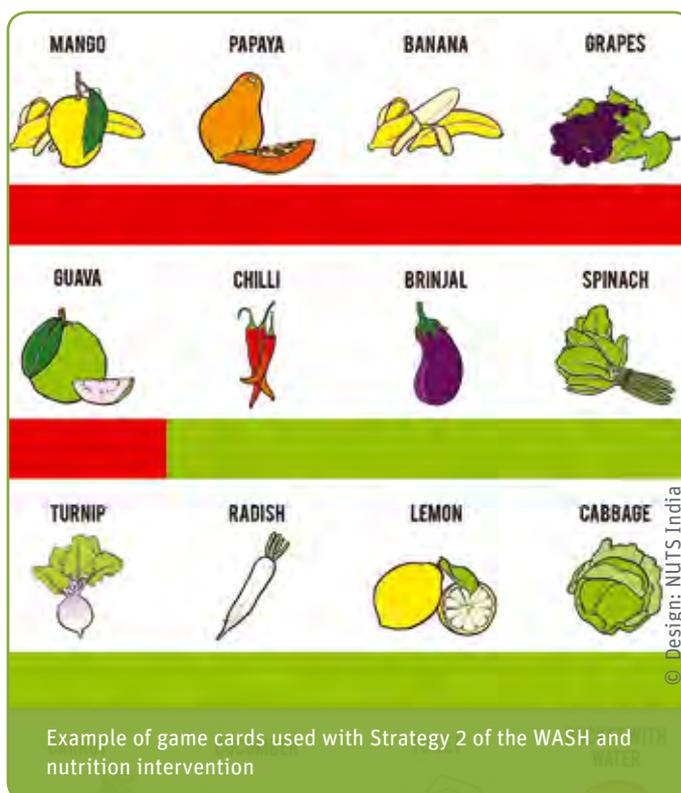
We would like to give special acknowledgement to the Karuna Trust Facilitators for training the teachers and for facilitating the adoption and uptake of the interventions in the schools. In particular, we thank the Karuna Trust Project Coordinators Manoj Puttur and Anusha Purushotham for leading the facilitators in this task.

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Correspondence: Dr Eva Monterrosa,

Senior Scientific Manager, *Sight and Life* Foundation,
PO Box 2116, CH-4002 Basel, Switzerland

Email: eva.monterrosa@sightandlife.org



Example of game cards used with Strategy 2 of the WASH and nutrition intervention