



# Evidence-Based Interventions for MNCH in Cambodia

## PROJECT DATES

September 2010 – September 2014

## PROJECT BUDGET

USAID contribution: \$1,747,485

IRD contribution: \$531,374

## LOCATION

Boribo Operational District, Kampong Chhnang Province, Cambodia

## CONTEXT

Cambodia's overall infant and under-5 mortality ratios are high (45 per 1,000 live births and 54 per 1,000 live births, respectively), and poor nutritional status of women and children is common. In Kampong Chhnang Province, in the central part of the country, under-nutrition and under-5 mortality are higher than national levels. In 2010, Boribo Operational District was largely underserved by health-sector NGOs. At the same time, national guidelines for management of malnutrition were being piloted and maternal nutrition, protein/caloric malnutrition, and growth monitoring were considered to be neglected areas. ENRICH worked to address these gaps in Boribo. (Data source: [Cambodia Demographic and Health Survey 2010](#))



*Cambodia Kampong Chhnang locator map by NordNordWest (derivative work: Kmusser; via Wikimedia Commons)*

## BENEFICIARY POPULATION

Total population in the project area: 106,166  
49,732 women of reproductive age (15–49 years)  
12,847 newborns and children 0–59 months

## PROJECT AT A GLANCE

	Maternal	Newborn	Child
Household	✓	✓	✓
Community	✓	✓	✓
Facility	✓		
District			
National			

## Project Approach

The ENRICH project addressed gaps in maternal and child health in one underserved district of central Cambodia, in line with the government's Health Strategic Plan and USAID/Cambodia's maternal and child health objectives. Working within local norms and primarily at the household and community level, while engaging Ministry of Health personnel as partners, ENRICH used evidence-based interventions to improve women's and children's nutrition, family care practices, and access to essential maternal and newborn care.

The central strategy was the Positive Deviance/Hearth approach. Using Positive Deviance Inquiry, a method of identifying atypical behaviors with beneficial outcomes, ENRICH sought out families with successful feeding practices and helped them share their practices with families with malnourished children. That work helped shape the "Hearth" intervention, in which project-trained volunteers led community members in intensive feeding sessions, growth monitoring, referrals, and home-based counseling to reduce child malnutrition. Multi-channel behavior change communications (BCC) provided effective messaging to support positive changes, particularly among fathers.

DESIRED OUTCOME	MAIN ACTIVITIES AND SELECTED OUTPUTS
Reduce prevalence of child malnutrition	<ul style="list-style-type: none"> <li>✓ 388 mass-media events to share BCC messages</li> <li>✓ <a href="#">Positive Deviance Inquiry</a>* and Hearth nutritional rehabilitation conducted in 30 villages (8 rounds/village)</li> <li>✓ 132 village health volunteers, monks, and elders trained on infant and young child feeding</li> </ul>
Reduce burden of diarrheal diseases in children	<ul style="list-style-type: none"> <li>✓ 2,736 events and fathers' groups held to share key messages</li> <li>✓ 15 trainers trained on diarrhea, hygiene/sanitation, home-based management of diarrhea, and zinc tablets</li> <li>✓ 813 village health volunteers trained in solar water disinfection</li> </ul>
Improve pregnancy and newborn outcomes	<ul style="list-style-type: none"> <li>✓ 914 village health volunteers and health facility staff trained to provide counseling on maternal nutrition</li> <li>✓ <a href="#">HemoCue</a> system to monitor maternal anemia implemented with 547 mothers in 5 health centers</li> </ul>
Improve timing and spacing of pregnancies	<ul style="list-style-type: none"> <li>✓ 154 village health volunteers and health facility staff members trained to provide counseling on birth spacing and use of contraceptives</li> </ul>

## Partnerships

ENRICH worked through existing local structures (village health volunteers, health centers, and faith-based groups). Three local partners worked alongside IRD to help manage the project. Village elders and monks were trained to incorporate health messages into regular community meetings.

The project used a family-centered approach to target mothers and fathers with behavior change messages and education. IRD also facilitated partnerships between the community and Ministry of Health personnel who (along with local Commune Council members) were involved in training and supervising village health volunteers.



# EVIDENCE-BASED INTERVENTIONS FOR MNCH IN CAMBODIA

## An Effective Method for Behavior Change

The Positive Deviance/Hearth approach effectively engaged communities to make changes that improved child nutrition and encouraged whole-family involvement in maternal and child health. ENRICH worked alongside local partners and adjusted its approaches in real time to meet communities' needs. Formative research with fathers enabled the project to craft messages that resonated with them, thereby integrating the whole family into changes that fostered better maternal and child health.

## Key Findings

The project evaluation used data from knowledge, practice, and coverage surveys with mothers/caregivers of children 0 to 35 months at baseline (2011; n=250) and endline (2014; n=450); focus-group discussions; key informant interviews; and reviews of project documents.

- **Child Malnutrition.** As a result of Hearth feeding rounds, 84 percent with severe malnutrition improved their nutrition status. The proportion of underweight children under 2 years also decreased, although there was no change among children under 3 (Figure 1).
- **Stunting.** Stunting (low height for age) decreased for children 0 to 35 months in the project area (Figure 1), and appears related to project-related improvements in general nutrition leading to growth.
- **Feeding Practices.** Minimum appropriate feeding practices for children 6 to 23 months improved from 59.7 percent at baseline to 67.9 percent at endline. Community members reported that they would continue group (Hearth) feeding after the project.
- **Maternal/Newborn Care.** Mothers reported gains in knowledge and changes in behavior. The project evaluation found no significant improvements in average maternal weight gain, but anemia was lower

at 36 to 38 weeks' gestation. Mothers accepted the use of HemoCue for anemia diagnosis/monitoring.

- **Whole-Family Involvement.** Parents said they were better able to care for their children. Fathers' involvement in childcare and feeding increased from 51 to 94 percent. Knowledge of birth spacing and contraceptive use also increased, and fathers reported positive attitudes toward family planning.

## Lessons Learned

- **Building Trust.** All activities emphasized respect for cultural norms. Adult learning strategies increased ownership of behavior change messages. Focus group discussions indicated that message saturation through mass media, small groups, and individual household counseling was successful in encouraging behavior change, such as men's involvement in childcare.
- **Responsiveness to the Community.** Although Hearth sessions focused on malnourished children, ENRICH opened the sessions to all children in the project's initial stages, in response to mothers' preferences and requests.
- **Mobilizing Fathers.** Formative research was conducted with fathers to develop BCC messages that were congruent with their motivations and needs. Mobilizing fathers to increase their involvement in childcare was an important achievement.

## Contact for More Information

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Figure 1. Child Nutrition

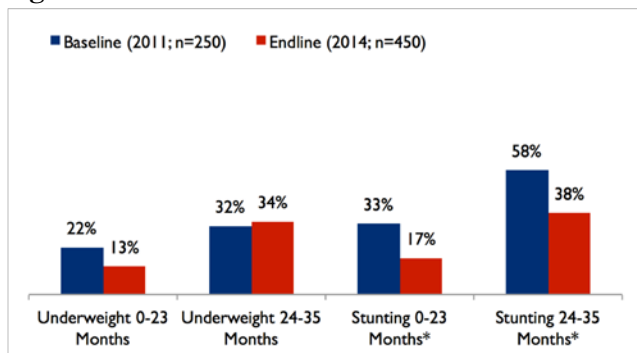
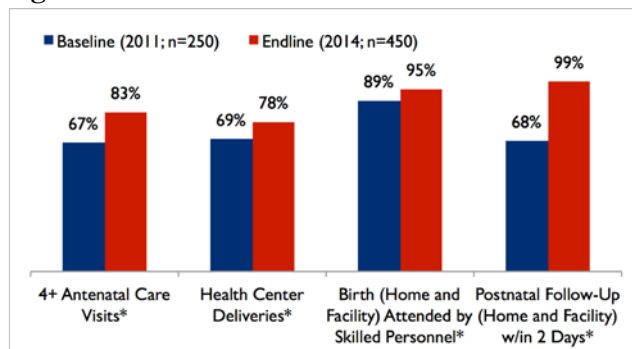


Figure 2. Maternal and Newborn Care



\* indicates statistical significance at  $p < 0.05$