

Evaluating the Early Childhood Stimulation Program

March 2014

Issue 1

Team Members

Impact Evaluation

Dr. Marjorie Chinen, AIR

Dr. Julia Lane, AIR

Dr. Jena Hamadani,
International Center for Di-
arrheal Diseases Bangladesh
(icddr,b)

Dr. Najmul Hossain,
Data International (DI)

Dr. Minhaj Mahmud,
Bangladesh Institute of De-
velopment Studies (BIDS)

World Bank Task Team

Leaders

Dr. Ayesha Avawda

Dr. Nkosi Mbuya

Save the Children Team

Dr. Ivelina Borisova

Ms. Roxana Khanom



Community Clinic, Satkania Upazila
The CCs are the platform of the program implementation, and serve as the main location for administration of the Bayley's and anthropometric measurements (see page 2 for description of these data collection instruments).

American Institutes for Research (AIR) has been contracted by the World Bank's Strategic Impact Evaluation Fund (SIEF) to lead the evaluation of the Save the Children Early Childhood Stimulation Program. AIR's research proposal was selected from more than 300 proposals to receive the SIEF funds.

Description of the Program- Save the Children's Early Stimulation Program promotes positive stimulation practices among mothers of children ages 0–3 years. Community clinics in rural Bangladesh are the platform for the intervention. Trained health personnel—Health Assistants (HAs), Family Welfare Assistants (FWAs) and Community Health Care Providers (CHCPs)—deliver messages on early childhood stimulation practices to households in the communities. These messages are integrated with a comprehensive nutrition package delivered through the Bangladesh National Nutrition Service (NNS).

Research Design- The evaluation is a two-year clustered randomized controlled trial, conducted from 2013 through 2015. This type of trial is the most powerful research design available for drawing conclusions about an intervention's impacts on specific outcomes.

The evaluation will examine outcomes in households in two sets of community clinics. The intervention group will receive the program's early stimulation messages, and a control group will operate as usual. Households with children between 3-18 months within each of these community clinics' catchment areas have been selected at random. The study is being conducted in Satkania (Chittagong), Muladi (Barisal), and Kulaura (Moulvibazar) Upazilas. The four evaluation goals are listed below.

Objective 1: Document Intervention Results. Document the 2-year impact of an early childhood stimulation program targeting mothers on child development outcomes (Bayley's Cognitive and Language Scales of Infant Development), child nutrition outcomes, and maternal behavior in rural areas of Bangladesh.

Objective 2: Understand the Intervention Process. Describe the mechanism through which the program affects child outcomes. Examine the fidelity with which the programs can be implemented.

Objective 3: Determine Approach Scalability. Estimate the benefits of the intervention relative to the costs to inform national and international policy and program development. Integrate with the NNS platform to investigate the potential of scaling the program in concert with the extension of the NNS.

Objective 4: Build Local Capacity and Inform Policy. Use impact evaluation techniques in close collaboration with the government of Bangladesh, Save the Children, and national-level research and program institutions. Reach local networks of subject matter experts, through the evaluation team's technical advisory board. Participate in regular workshops to inform national-level policy and program changes affecting young children in Bangladesh.



The Data Collector is administering the Bayley test.

Messages for Mothers and Caregivers

- Care during pregnancy (for pregnant women): Your baby's brain is already developing—eat nutritious food and take good care of yourself to help your baby grow well. Prepare for baby's arrival by making a rattle or other appropriate toy.
- Love and affection: Give your child affection every day and show your love to your child by smiling, hugging, and praising him/her.
- Play and games: Play games with your child every day, and let him or her play with different playthings around the house.
- Talking and communicating: Talk with your child while doing household work every day and respond to your child's sounds and attempts to talk. Teach him/her new words, songs, and stories.
- Positive discipline: Practice gentle discipline and praise your child for good behaviors.
- Health and hygiene: Wash your hands and help your child practice hand washing with soap.
- Share messages: Share your knowledge with others in the household and the community as often as possible.

Advisory Board

The Advisory Board consists of Bangladeshi child development and nutrition specialists. AIR collaborated with the World Bank and Save the Children to hand-pick these experts prior to instrument development and fieldwork.

The group has already contributed invaluable feedback into both design and implementation, and will continue to provide guidance to the research team for the remainder of the study.

They meet quarterly during the data collection phases, and every 6 months in between. They will also review reports, perform community outreach, and provide ad hoc advice to the researchers when requested.

Members:

Ms. Mahmuda Akhter,
ICHD
Dr. Jena Hamadani,
iccd,r,b
Dr. Baren Mandal,
RCHCIB
Dr. Makhduma Nargis,
RCHCIB
Dr. Md. Lutfur Rahman,
IPHN
Dr. S. M Mustafizur
Rahman,
NNS

About the NNS

The National Nutrition Service (NNS) is a key component of the recently enacted national Health Population Nutrition Sector Development Plan (HPNSDP), which guides government programs from 2011 to 2016.

The purpose of the NNS is to address malnutrition by mainstreaming nutrition within government services. They have developed a nutrition training package that will be used to train community clinic service providers on how to implement nutrition counseling and services at the community level based on government-approved IYCF (Infant Young and Child Feeding) training guidelines.

A key component of the NNS package is the community-based promotion of positive nutrition practices. This includes: exclusive breastfeeding for children up to six months, appropriate complementary feeding practices for children from six months to two years of age, screening for malnutrition, and appropriate referral to healthcare facilities for treatment. Health workers will also provide micro-nutrient supplements.

Project Timeline

June 2013 - October 2013	Instrument Development
18 July 2013	BMRC Approval
20 August 2013	1st Advisory Group Meeting
26 July - 07 October 2013	Data Collector Trainings
10 October 2013	MOU Signed
31 October - 16 January 2014	Baseline Data Collection
March 2014	Program Launching Ceremony
February-March 2014	Save the Children Training and Program Roll-out
April 2014 - June 2015	Monitoring Program
October 2015 - December 2015	Endline Data Collection

Baseline Instruments

Household survey: The household survey is administered to the mothers of every household. Information collected includes: child health and nutrition, stimulation knowledge, responsive feeding and decision making. Household amenities are also captured.

Anthropometric measures: All children in the sample have height and weight measurements collected.

Bayley test: Enumerators administer the 3rd Version of Bayley Scales of Infant and Toddler Development to children in the study sample. This test consists of a series of developmental play tasks that are scored to determine the child's relative performance with children in the same age cohorts.

Service Provider survey: Health Assistants, Family Welfare Assistants, and Community Health Care Providers provide program knowledge, information on delivery mechanisms, and keep track of workload to help evaluators identify potential program delivery issues.

Administrator survey: District level health personnel provide information on the inner workings of community clinics and the service providers that these personnel manage.

Non-Compliance survey: Basic household characteristics are collected for households that refuse to be included in the study.

Study Updates

Data collection was completed in January 2014. Data International, Dr. Jena Hamadani's team of child development experts from icddr, b, and Dr. Minhaj Mahmud from Bangladesh Institute of Development Studies provided excellent field oversight and guidance.

The data-collection team engaged the community by locating households through local service providers, meeting with community leaders, and discussing the roles and relationship of health administrators to the community clinics. The results have been excellent: **99% of households with eligible children have agreed to participate in the survey!** The main challenge encountered has been the imprecision of some of the Health Assistant records, which has created problems locating some of the sampled households. Hartals (shutdowns) and strikes have also created transportation obstacles due to scarcity of vehicles. In response, DI extended data collection through January instead of December. Community members were also enlisted to help find household members.

The study is using a test of cognitive development named the Bayley Scales of Infant and Toddler Development, which is considered the "gold standard" for assessing infants. This direct and comprehensive assessment has been well-validated in Bangladesh and accurately indicates how children are developing. Dr. Jena Hamadani led a very extensive and rigorous training of data collectors, including in-classroom theoretical discussions, practical demonstrations, and several weeks of test practicing and observation. The training also included intra and inter-rater reliability checks to ensure data collection quality.



From left: 1. MOU signing with government officials and Save the Children 2. Commencement ceremony from Bayley/Anthropometric Training

About AIR

Founded in 1946 as a non-partisan not-for-profit organization, AIR is recognized around the world as a leader in behavioral and social science research and evidence-based technical assistance.

AIR's staff members have expertise in such fields as education, psychology, sociology, economics, psychometrics, statistics, public health, software design, graphic design, and communications.

AIR conducts rigorous quantitative and qualitative research that identifies effective programs and resources and also provides technical assistance to translate reliable evidence into effective action.

AIR's International Development, Evaluation, and Research (IDER) program is improving the quality of life in developing regions by using rigorous research and evaluation to enhance education and social development. Our partners range from the U.S. Agency for International Development and the World Bank to local governments and ministries of education and health.

For more information visit www.air.org.