

Multi-sectoral approaches to improve child growth, through wash, nutrition, and early childhood development

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# Clean, Fed & Nurtured<sup>SM</sup>

Joining forces to promote child growth and development

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Webinar, January 8, 2015

CORE Group Nutrition and Social & Behavior Change Working Groups



# Objectives of today's session

*By the end of this webinar, participants will be able to:*

- Describe why integration of 3 sectors is useful for better child growth and development
- Join the community of practice
- Explore ways to integrate the 3 sectors in ongoing work



# What is Clean, Fed & Nurtured<sup>SM</sup>?

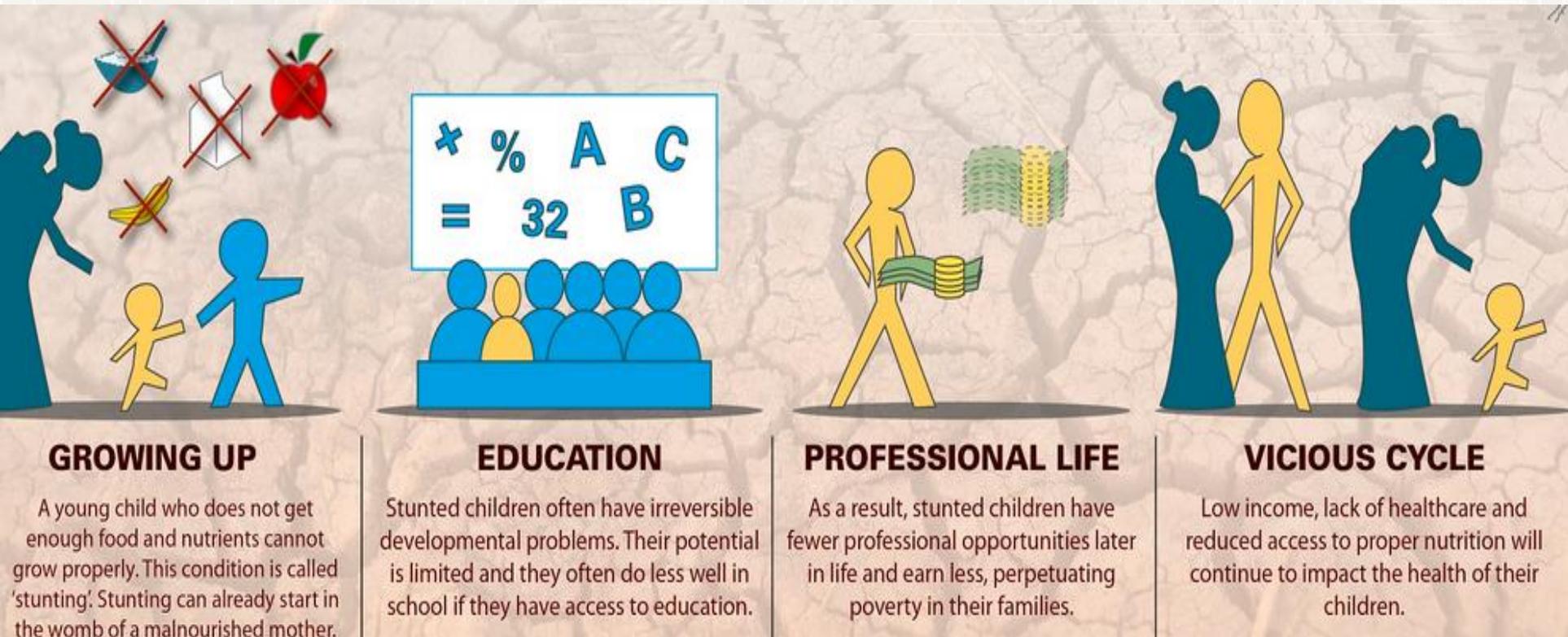
- Community of Practice focused on Integrated programming
  - Water, sanitation, hygiene (WASH)
  - Nutrition
  - Early childhood development (ECD)
- Goal
  - To promote thriving children



# Building the Case for Integration: The 3 Legged Stool



Stunting has lifelong implications...  
A stunted child will never learn or earn  
as much as if they'd been properly nourished...  
*And the damage can't be un-done...*



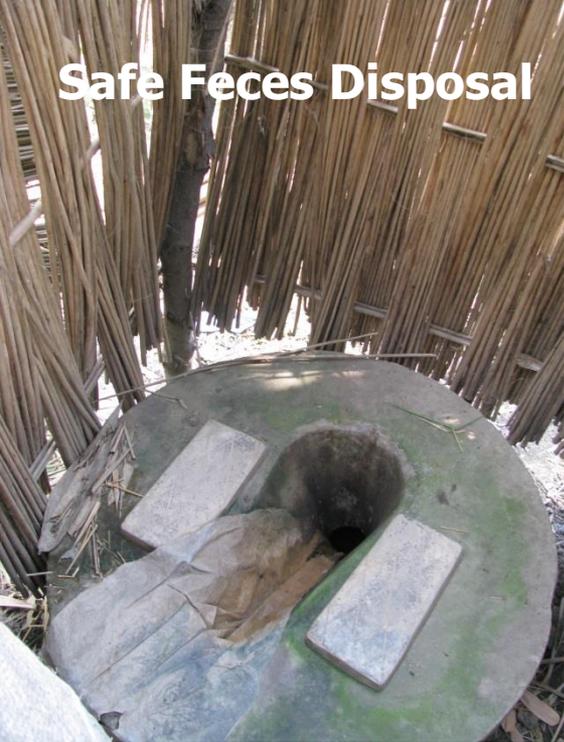
# What do we know about WASH + nutrition?



- Children with diarrhea tend to eat less
- With diarrhea, nutrients from food are not well-absorbed
- Undernourished children are more susceptible to diarrhea



**Safe Feces Disposal**



**30% ++**

# Review of the evidence

Focus on WASH behaviors for Diarrhea Disease Reduction...

**Safe Storage & Treatment of Water**

**30-50%**

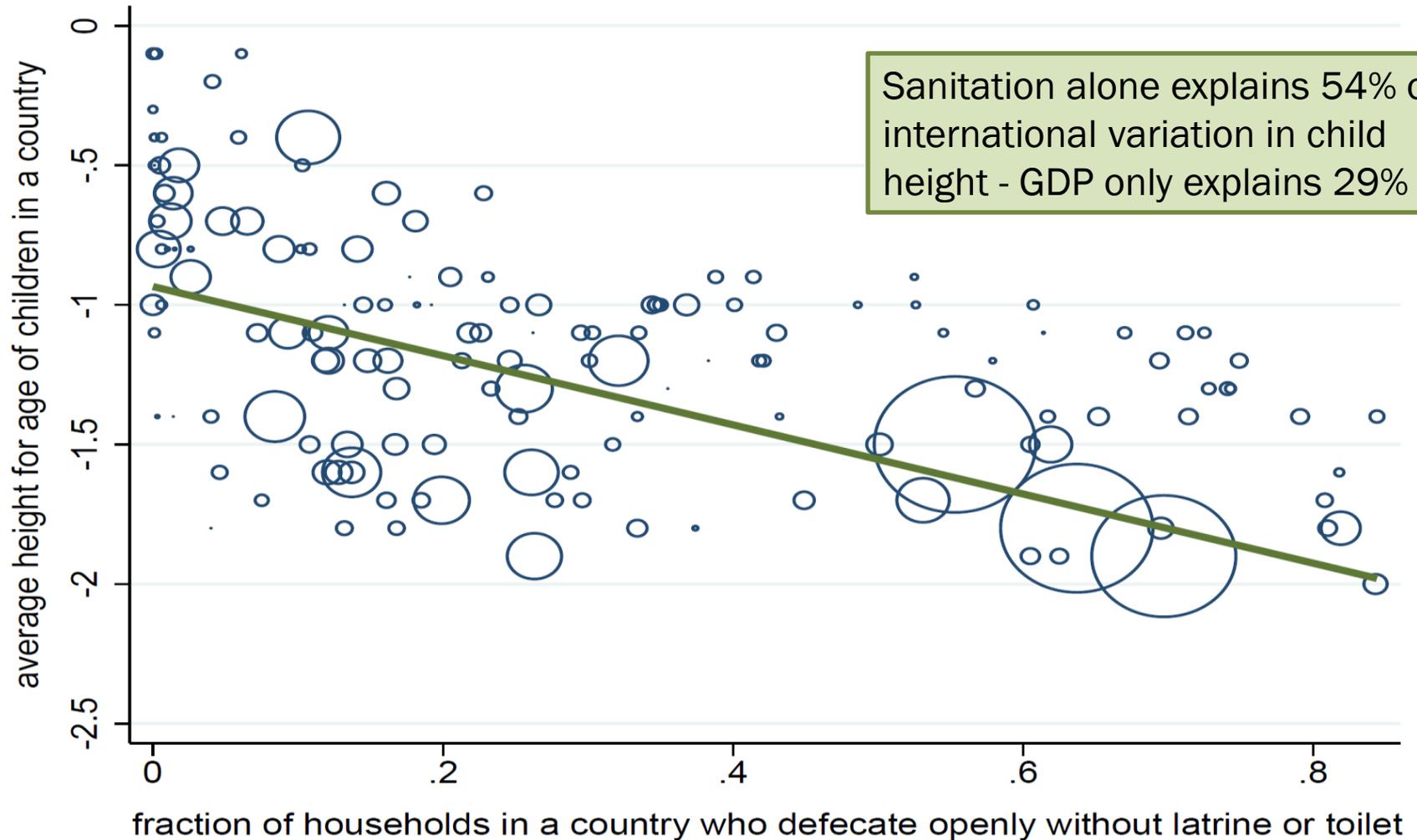


**Handwashing**

**43%**



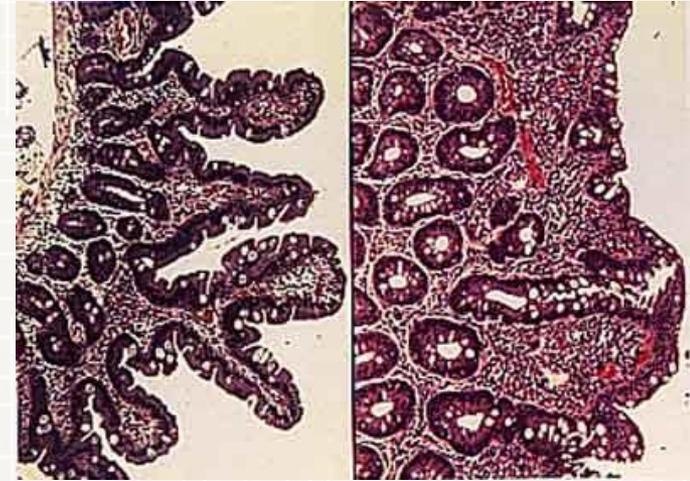
# Open defecation accounts for much of excess stunting



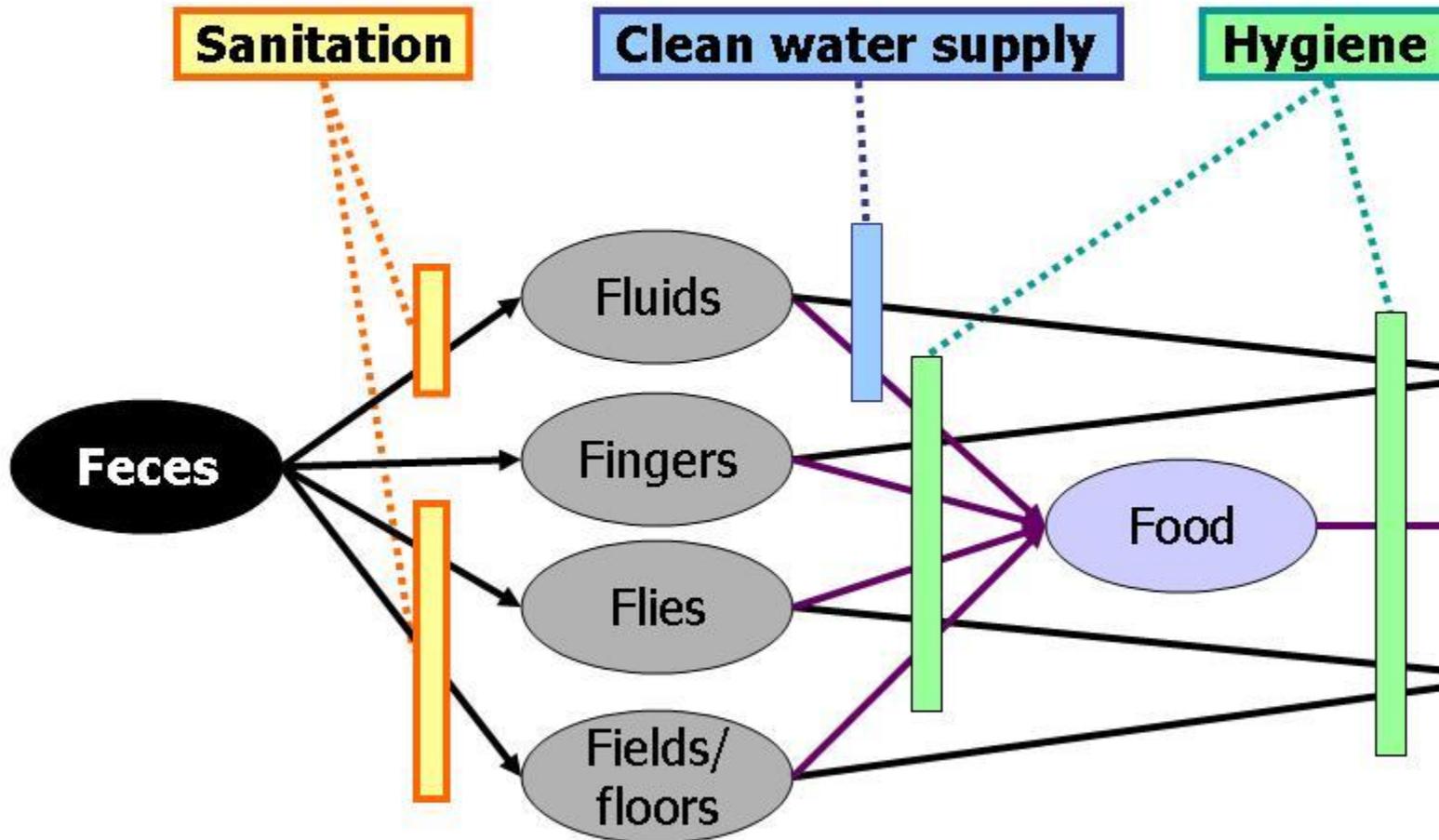
Source: Each data point is a collapsed DHS survey round (country-year), proportional to population. Spears (2012)

# The Environmental Enteropathy Hypothesis

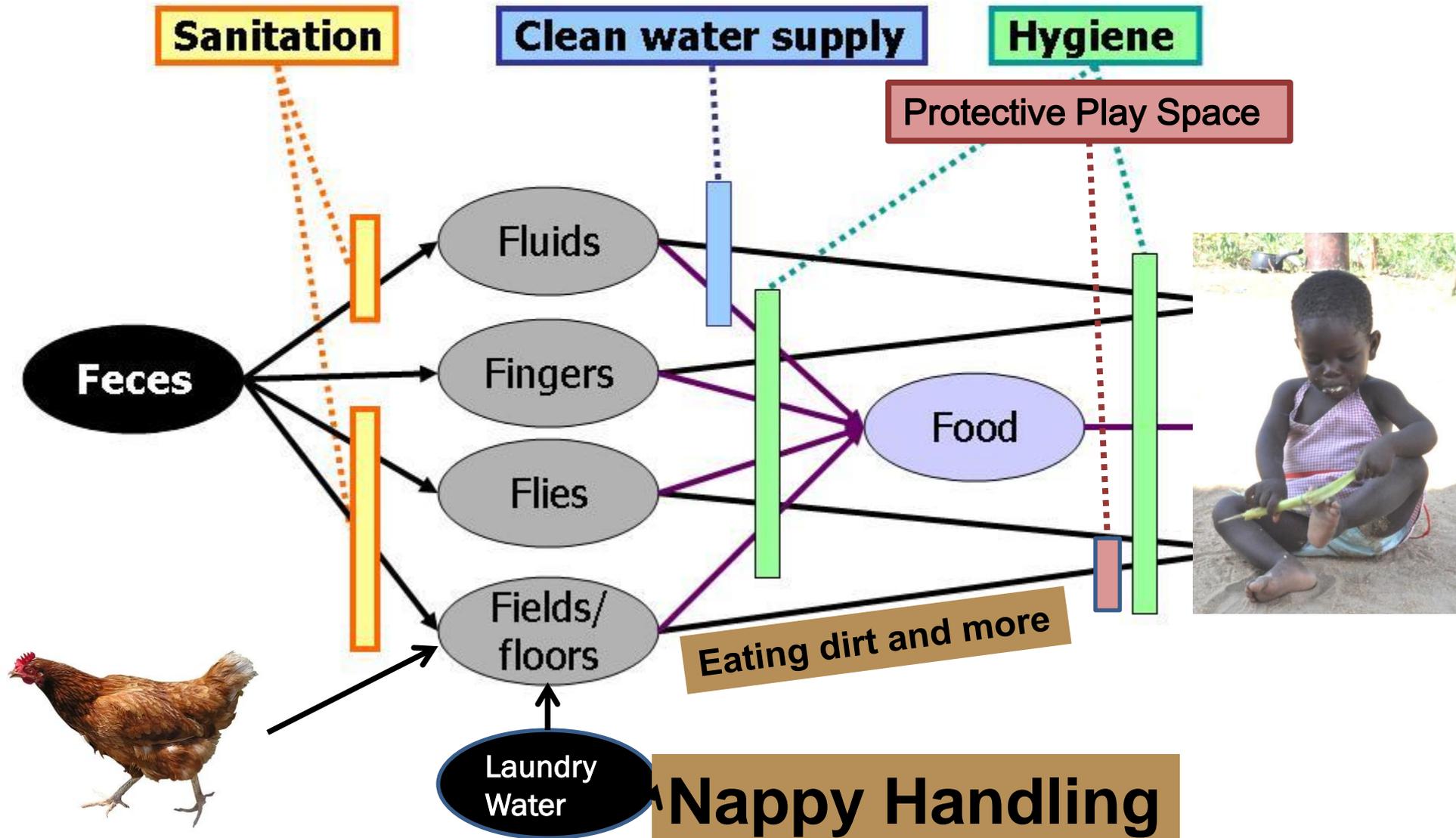
- A subclinical condition of the small intestine, called environmental enteropathy (EE)
- Characterized by:
  - Flattening of the villi of the gut, reducing its surface area
  - Thickening of the surface through which nutrients must be absorbed
  - Increased permeability to large molecules and cells (microbes)
- Likely causes:
  - Too many microbes in the gut
  - Effects of toxins on the gut



# Routes of fecal disease transmission and protective barriers



# Routes of fecal disease transmission and protective barriers

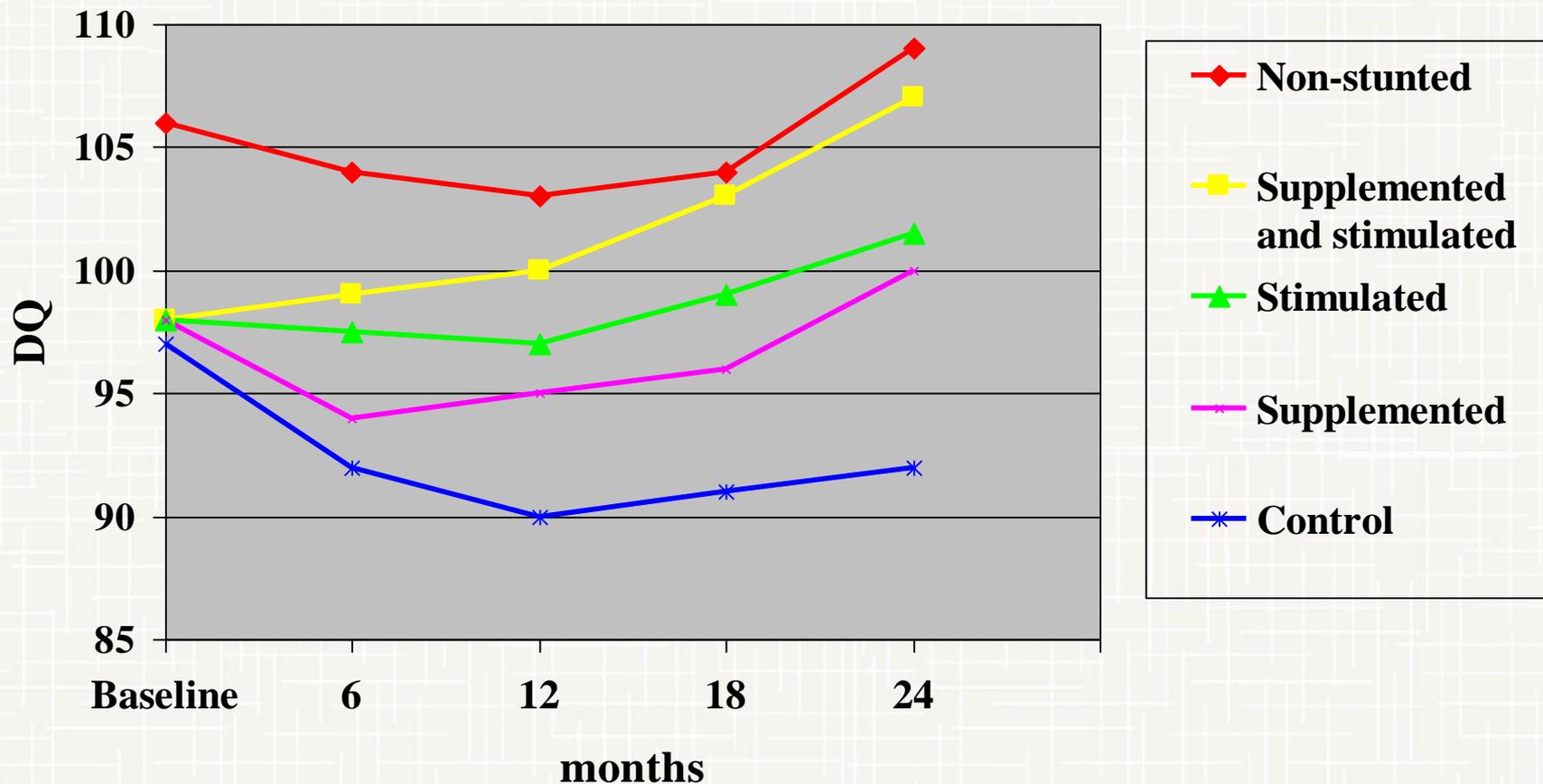


# What do we know about integrating nutrition + ECD?

- The evidence base is growing, but much remains unknown about the synergistic effects of combining ECD and nutrition interventions.
- The evidence for the direct effect of ECD interventions (early stimulation in the 0-3 years) on child development outcomes is quite strong and well documented.
- The evidence for the value added of ECD in terms of nutritional outcomes is not as strong, but we expect that early stimulation interventions enhance feeding practices and help mothers become more attuned to their children's needs.



# Increasing evidence for additive effect of stimulation and nutrition interventions



Source: S.M. Grantham-McGregor, et al. (1991). Nutritional supplementation, psychosocial stimulation, and mental development of stunted children: the Jamaican Study, in *The Lancet*, 338,1-5.

# Current efforts to build the evidence base

- Cost-benefit analysis
  - The need to have economic data (ROI) to advocate policy makers for national systems
  - Recent cost-benefit analyses of combined ECD and nutrition interventions from Nicaragua and Pakistan
- Relative impact of interventions with differing models
  - Timing
  - Intensity
  - Duration



# An example from Bangladesh

## Health inputs

- Antenatal care
- Basic health education (moms with children <5)
- Referrals
- Immunizations
- Prevention and treatment

## Nutrition inputs

- Screening for malnutrition
- Infant Young Child Feeding counseling
- Specific breastfeeding counseling
- Micro-nutrient supplementation
- Referrals
- Treatment of malnutrition at home
- Follow-up home visits

## ECD inputs

- Age appropriate Talk & Play Guidance
- Quality Interaction and responsive care
- Support for young mothers
- Responsive feeding

# Child Development Card in each household

## Pregnancy to Birth

### Language & Communication

Your baby can hear and recognize your voice. So talk to your child throughout the pregnancy.



Read paper, book loudly and listen music every day. Your baby will learn good habit after birth.



Your baby needs a harmonious family. Talk to your husband about raising your child jointly.



Husband and wife should jointly raise the child

### Learn through Play

Prepare a rattle and other colorful toys for your baby.



Take rest. It helps your baby to relax and grow peacefully.



Do some light physical exercise like walking regularly.

Fathers and other family members support the new mother

## 1-2 Years

### Language & Communication



Look at picture book with your child and ask simple questions to encourage them to talk (where is the ball, where is mama?, where is the bird?)



Tell your child stories, poems, and songs and encourage him to clap his hands and copy hand gestures



While doing housework, explain to your child what you are doing and introduce familiar new things and give simple instruction to follow (example please bring the spoon, or plate, or mug)

Read to your child everyday, tell traditional story often

### Learn through Play



Give your child things to stack up and put into containers and take out (blocks in a cup)



Give your child a variety of safe objects to play with - objects of different shapes, sizes and colors.

Make a toy box for the child with variety of safe objects they can play with and explore (example: cups, lids, small bottle with caps)

Make a toy box for the child with variety of safe objects

## Birth to 6 Months

### Language & Communication



Talk and sing to your child often; while changing his/her clothes, cleaning bottom, during feedings and even while doing household work

Even little babies can communicate. Get a conversation going by copying child's sounds and gestures



Frequently make eye contact and smile and laugh with your baby.



Show love and affection to your child everyday

### Learn through Play



Provide some colorful objects to the child to see and reach for. Sometimes slowly move colorful objects for your child to see and to reach for.



Provide ways for your child to see and touch different things (i.e. smooth and rough)



Create sounds using an object (example rattle) and slowly move it around and watch while baby follows where the sound is coming from.



Make time to play with your child every day

## 2-3 Years

### Language & Communication



Listen and patiently answer your child's questions no matter how silly they are.



Teach your child many new words like body parts, colors, animals and other things in nature.



Continue to read books to your child and talk about the pictures. Encourage your child to tell simple stories.

Encourage extended conversation, ask simple question

### Learn through Play



Help your child count, name and compare things (Example: count objects, introduce: small-large, less-more, long-short)



Provide choices or opportunities and encourage your child to draw in the sand or on the floor with a stick, tree branch or piece of chalk.



Invite your child to help you with simple household chores (Example: clean your plate/bowl, peel potatoes or peas) and engage in pretend games (example: kitchen play- cooking rice or curry or tea, grocery shopping at bazaar)

Encourage to play with peers, siblings

## 7-12 month

### Language & Communication



Respond to your child's sounds and gestures. This is how they learn to talk. Imitate his/her sounds or gestures.



Tell your child the name of people and things in and around the household and talk about those things (i.e. uncle, grandfather, pot, banana, goat, tree, bird)



Show your child picture book every day and talk about them.

Talk and imitate your child sounds, cues, and gestures

### Learn through Play

Give your child safe and clean household items to hold and bang (for example: metal pot and spoon).



Play games like peek-a-boo and hide objects (Example: favorite toys, blocks) under a cloth to find out



Sing songs with your babies that have hand motions that go along with the lyrics. Eventually, he/she will start to copy your gestures and sing along with you

Let the child play with different safe things around

## Child Development Card

The first three years of your child's life are the foundation for their intelligence, healthy growth and lifelong success:

Published by Shishu Jyoti Save the Children

Name of the Health Service Provider

Child's Name : \_\_\_\_\_ Boy  Girl

Date of Birth : \_\_\_\_\_

Mother's Name : \_\_\_\_\_

Father's Name : \_\_\_\_\_

Address : \_\_\_\_\_

Village : \_\_\_\_\_

Union : \_\_\_\_\_

Name of Community Clinic : \_\_\_\_\_

Upazilla : \_\_\_\_\_

Zilla : \_\_\_\_\_

Date of Card Distribution : \_\_\_\_\_



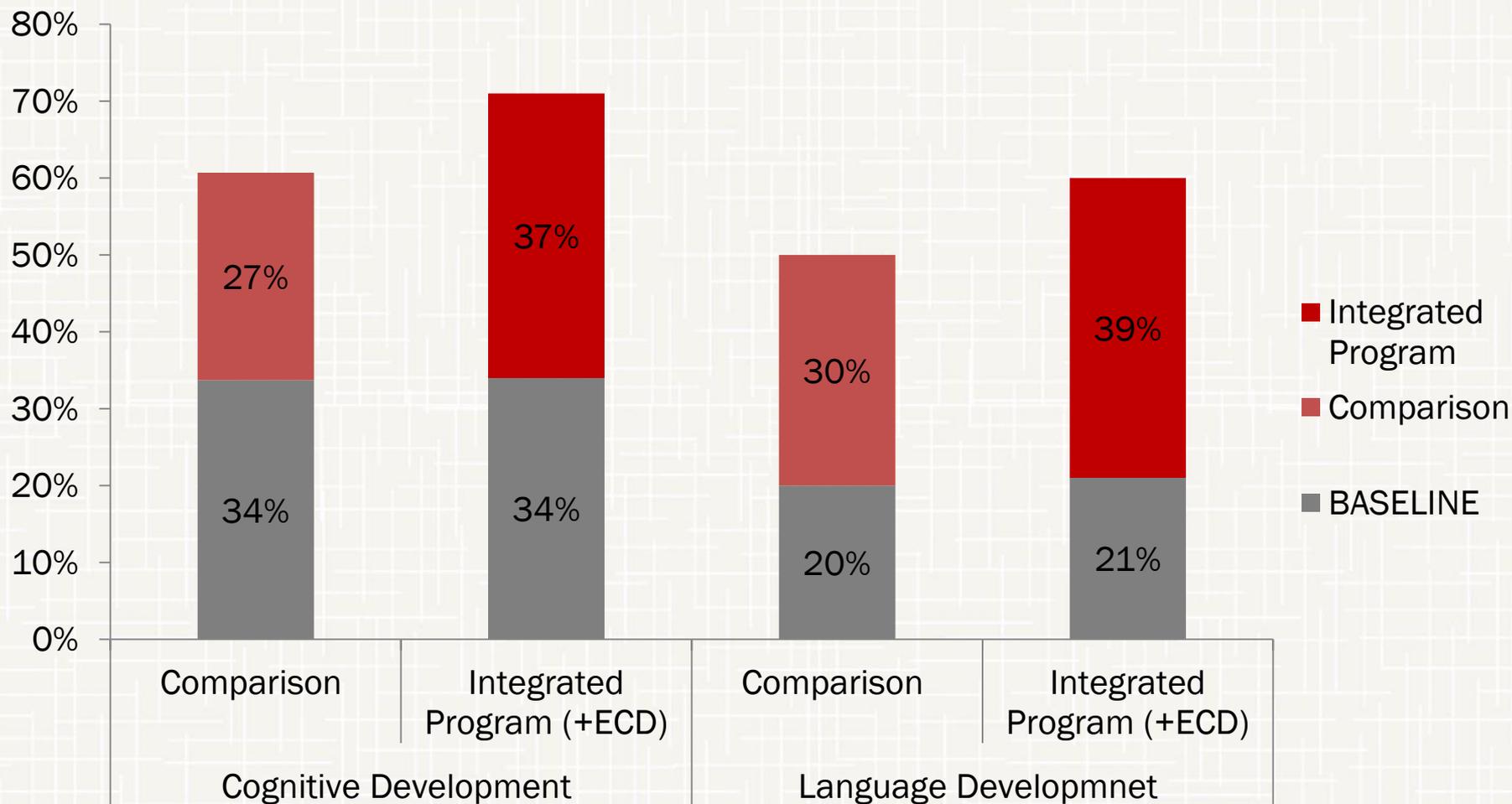
# Responsive feeding and handwashing

- Feed your child with patience and good humor
- Talk and interact with your child during a family meal.



# Significant impact on child outcomes in the pilot phase of the program; results from the scale up expected later this year

Effect size  $d= 1.52$ ,  $d= 1.04$



# Additional examples of combined interventions

## In Malawi

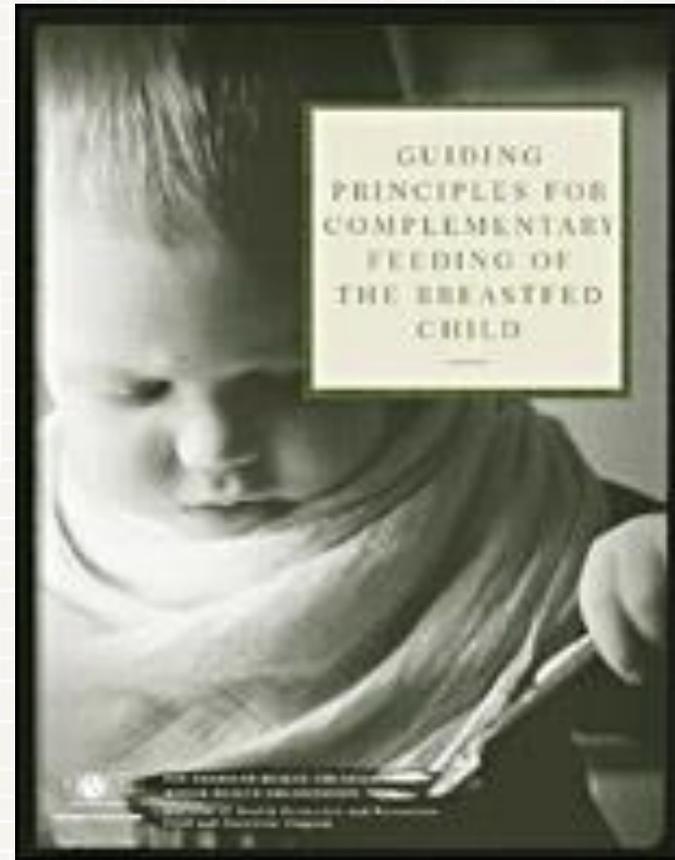
- A randomized trial, promoting ECD along with optimal feeding and care practices through community-based childcare centers (CBCCs) and parenting groups.
- Activities include direct supplementation through preschool meals, planning and preparation of meals for children within CBCCs; improving agricultural production of nutritious foods and food diversification by using CBCC gardens as a learning site for communities; and other strategies.

## In Mali

- Funding from World Bank SIEF
- Three elements: seasonal malaria chemoprevention, micronutrient powders, and parenting education
- Delivered through cross-sectoral village committees
- Aims to evaluate the longer term impact and cost effectiveness of the interventions in the first 1000 days of life on physical, cognitive, socio-emotional and language development.

# Making the case for three-way integration

Guiding principles for  
complementary  
feeding of the  
breastfed child  
-PAHO & WHO, 2003



# SHINE: Sanitation, Hygiene, Infant Nutrition Efficacy Project

- Clinical trial
  - Hypothesis: A major cause of child stunting and anemia is environmental enteropathy
    - WASH
    - Nutrition
    - Combined
- Playpens
  - Open door to addressing early stimulation?



# MAMA

## Mobile Alliance for Maternal Action



# Challenges of integration

- Challenges:
  - Staff motivation, workload
  - Coordination among agencies, organizations
  - Lack of common language and measurement, indicators
  - Funding by silo
  - Shaky evidence base
  - Overload for families

Adapted from: DiGirolamo, A. M., Stansbery, P. and Lung'aho, M. (2014), *Advantages and challenges of integration: opportunities for integrating early childhood development and nutrition programming*. *Annals of the New York Academy of Sciences*, 1308: 46–53. doi: 10.1111/nyas.12323



# Advantages of integration

- Advantages:
  - Hypothetical synergies for improved growth and development
  - Efficiency through use of same facilities, personnel
  - Increased access to services for most disadvantaged
  - Seamless approach is the way families raise a child

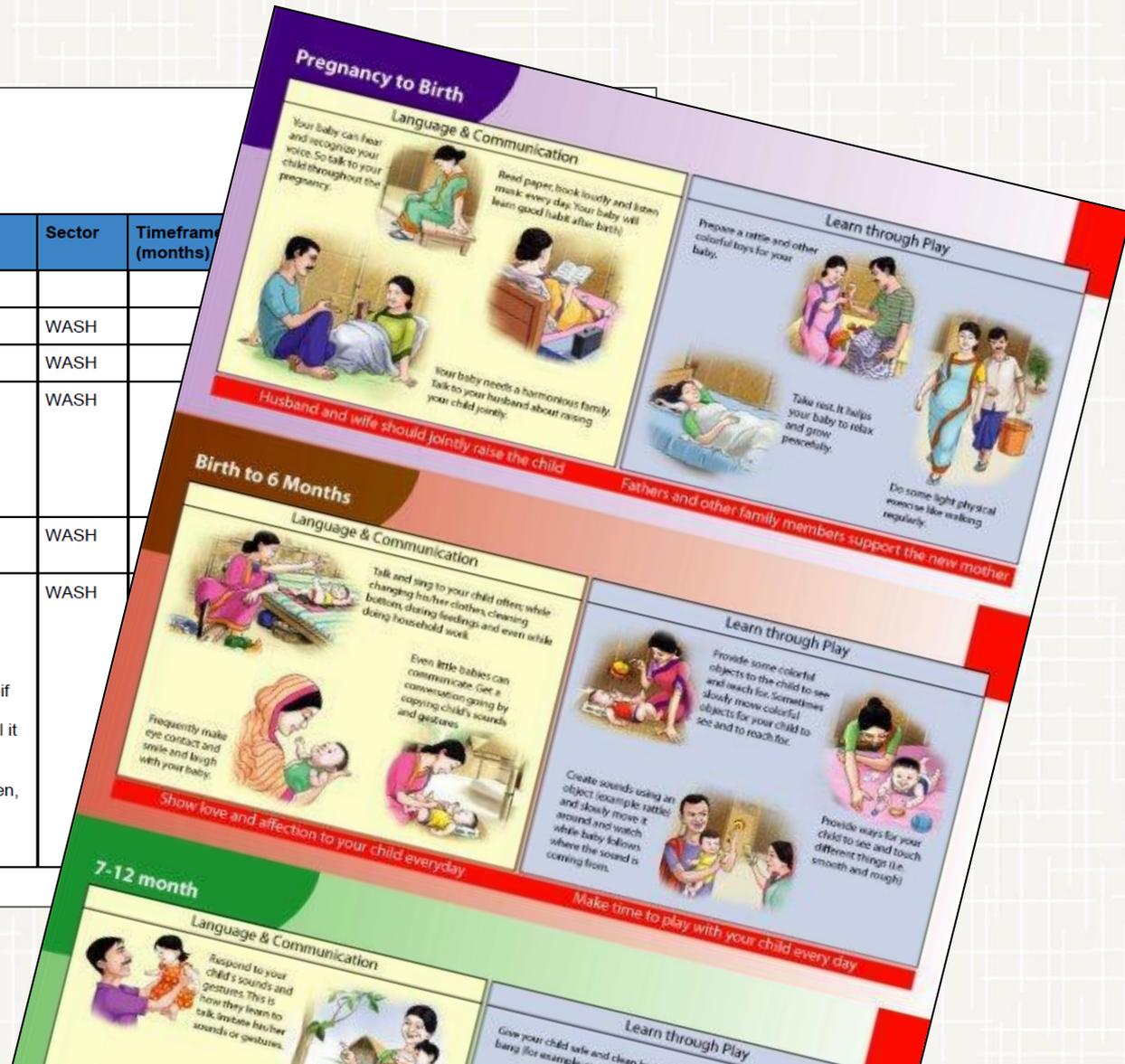
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# Short list of household behaviors

## PARENT AND CAREGIVER BEHAVIORS to promote growth and development

Row #	Parent/Caregiver Behaviors	Sector	Timeframe (months)
	<b>CLEAN</b>		
		WASH	
1	1. SAFE DISPOSAL OF INFANT FECES	WASH	
2	2. HANDWASHING AT CRITICAL TIMES a) after defecation b) before cooking c) before eating or feeding a child (including before breastfeeding) d) after house or animal chores	WASH	
3	3. SAFE HANDLING AND TREATMENT OF HOUSEHOLD WATER	WASH	
4	4. FOOD HYGIENE. Practice safe preparation and proper food handling by a) washing caregivers' and children's hands before food preparation and eating, b) covering foods c) storing foods only if unavoidable, in a cool place if possible d) reheat any foods stored more than one hour until it boils or until smoke rises for at least XXX, c) using clean utensils to prepare and serve food, d) using clean cups and bowls when feeding children, and e) avoiding the use of feeding bottles, which are difficult to keep clean	WASH	



# It all started when...

WASH



+

Nutrition



+

ECD



= Thriving babies



# What do we do?



# What do we do?

## Ask the experts!



# Consultative meeting

- **May 2-3, 2013**
  - Organized by initial planning group
    - FHI 360
    - Save the Children
- **Participants**
  - Practitioners
  - Researchers
- **Issues addressed**
  - Evidence and gaps in evidence
  - Field examples
  - Shared indicators
  - Short list of family-level behaviors
  - Commitments



# Since then...

CF&N Timeline				
<b>MAY 2013</b> <ul style="list-style-type: none"><li>• Consultative meeting</li><li>• Launched social media platforms</li></ul>	<b>JULY 2013</b> <ul style="list-style-type: none"><li>• Webinar on importance of cross-sectoral collaboration with Marie Ruel</li></ul>	<b>FEBRUARY 2014</b> <ul style="list-style-type: none"><li>• DC Launch: Annals of NYAS with Maureen Black</li></ul>	<b>JUNE 2014</b> <ul style="list-style-type: none"><li>• Brown bag on the WASH Benefits Project with Steve Luby</li></ul>	<b>JANUARY 2015</b> <ul style="list-style-type: none"><li>• Webinar with CORE Group</li></ul>

CF&N presence at various events (May 2013 – Present)



# We've also...

- Formalized the community of practice
  - Open to all, please join us!
- Service marked the name “Clean, Fed & Nurtured”
  - Super simple application



# What's next?



# Join us! Why?

- Technical knowledge leadership
- Collaboration for innovation
- Promotion and coalition building
- Two ways to participate:
  - General
  - Planning group member



# Stay connected!



[contact@cleanfednurtured.org](mailto:contact@cleanfednurtured.org)



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