



Why WASH Matters For improved child health and nutrition

A Workshop Focusing on Behavior Change Approaches for Improving Water, Sanitation and Hygiene

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What is WASHplus??

- USAID's mechanism for supporting global and countrylevel environmental health programming
- In Bangladesh, WASHplus is 4 year USAID activity with WaterAid as primary implementing partner, working through partner NGOs
 - 1. Increase access to safe water and sanitation
 - 2. Improve local government and community governance
 - 3. Advance evidence-based programming guidance for integrating WASH into nutrition for improved child growth.
- FHI360 leads objective 3, and provides overarching guidance in behavior change.





Session 1:

Introductions





Participant Introductions

- Name
- NGO
- Position
- One CHANGE you've be working on OR accomplished over the past year (giving up smoking/betal leaf, rising early etc.)







- Review why WASH matters for the growth of infants and young children;
- Strengthen skills supporting improvements in WASH-related behaviors;
- Apply a small doable action approach to changing WASH behaviors;
- Share 'best practice' behavior change strategies;
- Apply key approaches to participant organizations 'hygiene promotion' activities
- Develop 'next steps' for their WASH BC activities.





WASH is the common acronym for WAter, Sanitation and Hygiene?

WASH is:

- Necessary quantities of safe, potable drinking water
- Wide spread community sanitation with latrines that meet minimum standards
- Consistent and correct handwashing at critical timese
- Food hygiene
- Behavior change, not just hardware coverage and not just education





Session 3: WASH and Nutrition "101" The Basics



Supportive Environments for Healthy Communities Of Diarrheal Deaths Attributed to Undernutrition

Diarrhea: 9% of all child deaths

Undernutrition contributed to 73% of these deaths



Shaded area indicates contribution of undernutrition to each cause of death



1. What percentage of child deaths caused by diarrhea are preventable through WASH related interventions?

POP QUIZ!!!!!!!

a. 0%-30%
b. 31%-60%
c. 61%-80%
d. over 80%



Wash How often does a child die from a watersupportive Environments for Healthy Communities related illness?

A child dies every **20 seconds** from waterrelated illness

• Since the start of this training 95 children have died!!!!!







WASH Return on Investment

 \$1 invested in WASH will contacted \$8 in better health and increased productivity









Why SHIKHA emphasis on handwashing







PLoS Med, 2011;8(6): e1001052.





Prevalence of Diarrhea among children < 5 years by observed Handwashing before preparing food SHEWA-B, Rural Bangladesh None 12.5% Water 8.3% Water + Soap 6.9% Mean diarrhea p 15% 10% 5% 0% 10 11 12 2 9 10 11 12 2 3 8 9 8 1 5 7 1 3 6 2007 2008 2009

Month

PLoS Med, 2011;8(6): e1001052.

Safe Feces Disposal

Focus on WASH behaviors for Diarrhea Disease Reduction....

30% ++

Safe Storage & Treatment of Water

30-50%

21%











What is THE RELATIONSHIP BETWEEN diarrhea AND undernutrition





Connecting WASH and Nutrition



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



Supportive Environments for Healthy Communities Of Diarrheal Deaths Attributed to Undernutrition

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Shaded area indicates contribution of undernutrition to each cause of death

wash Link between WASH and nutrition

Supportive Environmen



Two most common standards of growth: wasting and stunting

Figure 11 Trends in Nutritional Status of Children Under Five, 2004-2011



Percent



- Stunting is low height (or length) for age.
- It is a measure of CHRONIC undernutrition over time.
- In Bangladesh, 4 out of 10 children are stunted.





Impact of stunting

• Personal life

• Work or professional life



washplus

GROWING UP

A young child who does not get enough food and nutrients cannot grow properly. This condition is called 'stunting'. Stunting can already start in the womb of a malnourished mother.

EDUCATION

Stunted children often have irreversible developmental problems. Their potential is limited and they often do less well in school if they have access to education.

PROFESSIONAL LIFE

As a result, stunted children have fewer professional opportunities later in life and earn less, perpetuating poverty in their families.

VICIOUS CYCLE

Low income, lack of healthcare and reduced access to proper nutrition will continue to impact the health of their children.

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





Most damage occurs during complementary feeding age





- In Bangladesh, the most dramatic decline in growth the most stunting -- happens between 3-15 months ...
- What else happens during that time?
 - The introduction of complementary foods and water, and the infants wandering and putting things in their mouths.... All risky for fecal contamination!!





We know from re-analyzing data from big national studies from around the world, that there is a STRONG LINK between stunted children and open defecation.



That's why Bangladesh, for instance, has LESS STUNTING than it's richer neighbor India... because people USE latrines more often.



Washplus Supportive Environments for Healthy Communities Much of excess stunting- global trends



fraction of households in a country who defecate openly without latrine or toilet



Source: Each data point is a collapsed DHS survey round (country-year), proportional to population. Spears (2012) www.riceinstitute.org #13

Washplus Open defecation accounts for Supportive Environments for Healthy Commuch of excess stunting- Bangladesh DHS 2011





What is causing all this stunting?

- Cause #1: Malnourished Mother
- Cause #2: Poor Diet
- (inadequate COMPLEMENTARY for
- Cause #3: Diarrhea





- We have just seen the role of
- Relation among diarrhea, malnutrition, handwashing...... open defecation
 Whqat we called the vicious circle . . . There are something else happening......





However:

Evidence exists that the effect of WASH interventions on linear growth is <u>independent of its effect on diarrhea</u>.

In several studies, WASH had a bigger effect on growth than it did on diarrhea

.... there is something else going on...



plen from Cornell U Division of Nutritional Sciences, Laura Smith . R Stoltzfus, F Ngure, B Reid, G Pelto, M Mbuya, A Prendergast, J Humphrey



Cause #4: 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

des stolen from cornell U Division of Nutritional Sciences, Laura Smith . R Stoltzfus, F Ngure, B Reid, G Pelto, M Mbuya, A Prendergast, J Humphrey



<u>Most frequent:</u> 38 times in 6 hours 75% visibly dirty



<u>Dirtiest</u> Soil (3 ate avg 11 bites) chicken faeces, stones



Slides stolen from Cornell U Division of Nutritional Sciences, Laura Smith . R Stoltzfus, F Ngure, B Reid, G Pelto, M Mbuya, A Prendergast, J Humphrey

If allowed, toddlers consume poultry feces

Peruvian shantytown families:

Households who owned free-range poultry:

• Average ingestion of poultry feces by toddlers per 12-hour observation period was 3.9 times

– Marquis GM et al., Am J Public Health 1990

Rural Zimbabwe:

- Not selected for poultry ownership:
 - 3 of 7 toddlers directly ate chicken feces during a 6-hour observation period.
 - Ngure F et al., submitted, 2012


))			
	% HH with E coli + sample	E coil/ Per gram	Average E Coli Per Day
Infant Food	0%	0	0
Drinking Water	54%	2	800
Soil in Iaundry area	60-80%	70	1,400
Chicken feces	100%	10,000,000	10,000,000

Clearly, kids must stop eating dirt and chicken poop!



To reduce DD,to reduce stunting, we need ot get FECES out of the environment... Out of water, off hands, out of the food we eat ... Break the cycle of 'oral-fecal' contamination...







Session 4: Exercise

Breaking the Contamination Cycle

- Groups of three
- Identify our 'tools' for breaking the cycle

To reduce diarrhea we need to remove feces from our environment.

How can we break the cycle of 'oral-fecal' contamination...





Primary Prevention

The F-Diagram





Safe Feces Disposal

Safe Storage & Treatment of Water



Focus on WASH behaviors for Diarrhea Disease Reduction....



Handwashing



What influences behavior

Hygiene Behavior Change: More Than Messages, More than Promotion





What do we mean by behavior change





Who plays cricket?? What kind of people??

What do we need for cricket?? What (else) influences the behavior of playing cricket or not??







অর্জনে তোমরা গর্জনে সারা বাংলাদে

নতুন কিছু করো

গহ বাঘ

বাংলালিংক আরসাকিব এবার হবে নতুন কিছু _{এরপর স্বপু} ভাঙবেনা। দ্যাম্প ভাঙবে

ভিজিটি: 👔 /RobiFanz অথবা www.robi.com.bd

ফিরে এসে দেখিয়ে দিতে রবি **বন্ধ সিম** চালু করলেই

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বিম্বারিত ভিতরের পাতায়

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এছাড়া মাত্র ¹.১৮ বা ¹.৬৮ রিচার্জে বিবি-রবি আর্দ্রা প্রয়মা মের্জেল লয়ন

ক্লত ২ংগ্র- ক্লিকন এল প্রতি সেবে জ্রলে উঠন আপন শক্তিতে

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গ্রামীণফোন-এর

উপেন্ডেবল ইন্টারনেট নেটওয়ার্ক

ডায়াল *5000#



Key Factors:

Some Common Determinants of Behavior

- Knowledge
- Perceived risk
- Perceived consequences
- Self-efficacy
- Perceived social norms
- Attitudes
- Intentions



- Access to products
- Availability & quality of services
- Policy
- Skills
- Culture and traditions







A few words on knowledge influencing behavior Knowledge on when to wash hands





Evidence of HW after defecation (knowledge rose from 19-59%)



16%



The BEHAVE Framework

PRIORITY AUDIENCE

In order to help:



FACTORS

we will focus on:

ACTIVITIES

through:

Some specific audience segment

Do a particular feasible (yet effective) behavior a few "behavioral determinants" most influential in changing ...

that particular behavior ...

... for that audience

Focused activities addressing those factors





The BEHAVE Framework

PRIORITY AUDIENCE

In order to help:





we will focus on:



through:

Youths

Play cricket regularly/weekly

- Know the rules
- Skills
- Field
- Self-efficacy
- Social norma

- Friendship cricket match
- Cricket STARs in billboard and TV ad
- Sponsor for cricket match
- Organizing regular match
- Booklets on how to play cricket





3 powerful behavioral determinants

Perceived consequences = FUN!

Skills, self-efficacy, barriers = EASY!

Perceived social norms = **POPULAR!**





ENJOY LUNCH !!!

Don't forget to WASH your hands !!!





Session 6:

Supportive Environments for Healthy Communities





Consistent & Correct Handwashing







Consistent and Correct Handwashing

- Have 2 volunteers to demonstrate correct handwashing
- Group watches and critiques
- Review correct washing
- Critical times for handwashing
- How many times a day does a family of 5 need to wash?? (Hand out packet)





Steps of correct handwashing

7 STEPS TO HANDWASHING

Rub palms together

Rub the back of both hands

Interlace fingers and rub hands together Interlock fingers and rub the back of fingers of both hands Rub thumb in a rotating manner followed by the area between index finger and thumb for both hands



Rub fingertips on palm for both hands



Rub both wrists in a rotating manner.



Source: internet

wash plus Critical times for handwashing

Supportive Environments for Healthy Communities How many times a day does a family of 5 need to wash??



After defecation

- After cleaning a baby's bottom
- Before preparing food/cooking
- Before eating/feeding a baby / breastfeeding
- After cleaning/ handling dung



The BEHAVE Framework

PRIORITY AUDIENCE

In order to help:

young

children



cooking and feeding

Increasing access to

soap and water for

washing

What else???

HW

campaign promoting

and popularizing



Think of your activities as 'the right tool for the job'

- You need to have a strategy to see the changes you want to see..
- That is based in science, theory and experience
- And as outreach workers, you need to understand that the activities you are carry out are tools, and selected as the right tool for the job... because they address the factors MOST influential to the behaviors you want to promote.





Making tippy tap



HOW TO MAKE OTHER TYPES OF TIPPY TAPS

somp on the fixed poles.

Pour water in the bottle.

scap on the fixed poles.

Pour water in the bottle.

the tip.

Group work – tippy tap

1 Mineral water bottle

1.



Fix poles. Hang bottle and washing

mineral water bottle lid and one on the bottle to allow in air.

Mineral water bottle





Hang bottle and washing Fix string for hanging.

Make a hole at bottom of the mineral water bottle

Tin Can



Take an empty tin, turn over

and make around ten holes.

3



Hang soap and the tin on-

at the neck of the

bottle.

the wooden poles.

Four a cup of water in

Hollow tube on: Gourd or Jerrycan or Mineral water bottle



bottom of the container.



In the hole.



Fix plugin cover for the (cen, straw, casing) tube before you pourwater in the container.



The the bottle facing down to

allow water flow

Loosen lid to allow water

flow and tighten lid to stop-

water flow.

Wesh hands with flowing.

water from the tio.

To start water flow, remove container lid. To stop water flow, put tight the container lid.

Note: The tippy tap can be hanged or tied to a tree, pole or shelf. Ensure that a soak pit is put in place for the different handwashing facilities.













- Serve as a reminder
- It's convenient
- Allow for handwashing with flowing water in the absence of running water
- Allow for "proper wash" with MUCH LESS WATER
 - Estimates range but proper wash ½ liter to 1 liter w/o
 - 40 50 ml with TT (about 1/10 -1/4)
- Allow for the flow of water to be regulated, to minimize the amount of water required to wash hands thoroughly
- Encourage that soap is "at hand" whenever handwashing takes place



Promoting and sustaining handwashing behavior

- For habits to be formed, the behavior needs to be repeated in a stable context (*Verplanken and Wood, 2006*)
- Cue to action helps remind and reinforce





Safe Storage & Treatment of Water



How do we change the key practices?



Handwashing



Session 7

Small doable actions to improve wash practices





- Identify, promote and facilitate improved behaviors that....
 - Have significant positive impact on health
 - Are feasible to achieve, (people willingand able to make changes)
- Conduct Behavior Analysis
 - Documents actual
 - Explores the desired
 - Identifies Feasible
- Use research to identify motivators & barriers
 - Searches for what's 'fun, easy and popular'







- Construct a continuum
- Identify feasible incremental steps that move people from a current hygiene practice toward the ideal practice
- Identify existing hygiene and sanitation good practices to be reinforced or modified
- Identify practices to be improved and negotiate the options with family member





Hand Washing

Current Practices Needing Improvement

- Hand washing with just water
- "Dip" hand washing from communal bowl
- No systematic hand washing after cleaning the potty or after defecation
- No systematic hand washing before eating/cooking, before/after caring for sick





Hand Washing (continued)

Small Doable Actions

- Use tippy tap to assure running water for handwashing
- Create hand washing station next to cooking area and next to latrine
- When soap is not available, use ash for hand washing—rub hands together, rinse, and air drying.





Using a tippy tap

Washissing areas in our hands when we wash Supportive Environments for Healthy Communities Our hands with soap



Reference: Taylor LJ, SRN, SCM, An evaluation of Handwashing Techniques, Nursing Times, January 1978








Session 8 Safe feces disposal





Safe feces disposal

- Bangladesh has high water access, but practices can keep it safe, or make it unfit to drink
- Let's now look at latrines... very high coverage, but are people using them, and are they keeping feces from the environment, and from our food and drink.



Is this a hygienic latrine?







Latrine photo-1



And this??







How about this?













Latrine photo-4



Is this a good latrine?









- Good superstructure
- Lined pit with
 - concrete rings
- Concrete Slab
- Water seal

Washenough just to have a latrine.....

Supportive Environments for Healthy Communities





Washponly having latrine is not enough

- We have to encourage people to raise the latrine platform
- Raise the latrine installed at lower level
- The top ring should be fully covered by soil
- Excreta should not be come out or leak from the latrine pit
- Construction should be encouraged based on the place and users financial capacity different types of latrine such as sand enveloped, double-pit or stair latrine





Seal the spaces between rings by cement and sand

Raise the plinth putting soil around the pit

Stacking soil around the pit and build up stair cases to ease access











expert. But!... You can:

- assess sanitation practice as part of HH visits
- encourage community to make small improvements in latrine....
- connect with Community Development Forum or other government or NGO WASH specialists
- link with local sanitation entrepreneurs





wasff he BEHAVE Framework

Supportive Environments for Healthy Communities



All villagers

Stop open defecation and defecate only in a hygienic latrine a few "behavioral determinants" most influential in changing ...

that particular behavior ...

... for that audience

Focused activities addressing those factors







Current Infant and Child Disposal Practices in Bangladesh



Percentage of children aged under 3 by household's type of sanitation Facility, Bangladesh



MICS 2006

Note: Although it looks like the large bracket should add to 24%, this is due to rounding



- Even among households with improved sanitation, the feces of more than half of children is not safely disposed
- Almost all children living in households practicing open defecation have unsafe feces disposal
- Younger children's feces are more likely to be left in the open
- Poorer children's feces are even more likely to be left in the open than those better off





- Document CURRENT household practices for handling child feces by age cohort.
- Prioritize riskiest of practices
- Work with mothers to identify a few 'small doable actions' for each of these risky behaviors that will make it easier for mothers to manage child feces, but that still get them out of the environment.
- Test these with mothers, over time, for effectiveness and feasibility





Working in teams of 3... SMALL DOABLE ACTIONS

FOR SAFELY DISPOSING OF CHILD FECES



- Take 30 minutes to write down CURRENT household practices for handling child feces. Write the range of practices.
- Think of a few 'small doable actions' that will make it easier for mothers to manage child feces, but that still get them out of the environment.
- What is an 'easy win', a small doable action, a 'low hanging fruit.. Something you could do right away?
- What is challenging, and how could you overcome this?















GROUP EXERCISE Small Doable Actions for Safe Feces Disposal 20 minutes

4 groups

- * 6 months and under
- * 7-12 months
- * 13- 24 months
- * 2 -5 years

List

Current pooping practice Current cleaning practice

Brainstorm Small doable actions to improve



Debrief Supportive Environmental The Doable Actions for Safe Feces Disposal

CURRENT PRACTICE	CLEANING	SMALL DOABLE ACTION
		TO IMPROVE
INFAN I	Cleaned the helpy	
	Cleaned the baby	
Diaper/ Pamper/ Cloth/rag (soft)		Use the trowel/hoe, take it to the tollet
Rubber /Plastic sheet (under katha)	Water to clean him completely	Plastic sheeting
	Soap	Plastic pants
When they know, they stand them up	Anticeptic (savlon) just one	
Use the trowel/hoe, take it to the toilet	Put the baby	
	Clean themselves/sari /camis	
	Then took feces toilet	
	Few admitted toss in ditch, bush, garbage	
	pit	
	Really insistent NOT in pond, not in	
	garden	
	Throw into water body that they don't	
	drink (e.g. canal)	
TODDLER (but we need a name)		
SOme said as of 6 months start using	Take it to the latrine	
potty		
Like the potty, use it like a toy	Put water	
They just know When kid has to go	Dump it	
They talk to them	Brush	
They make noises they tell stories	Detergent powder, clean it, dry it	
Some were duck, some weren't	Others Tube well, clean it with soap	







Recommended SDAs *for infants and young children*

- Review
- Discuss





Roll of 'enabling products' Repurposing household items



WASH Benefits and icddr,b showed re-purposed household items help safe disposal of child poo, and shows "access to enabling technologies is a factor influencing safe child feces disposal.



Icddr,b & Luby (2013)



Poo's final address in the latrine





Close of Day 1









Recap Day 1

Review of Day 2 objectives





Negotiating small doable actions to improve WASH practices

- Assess the current WASH practices in households What they are doing (handwashing or after handling human feces)
- Identify the existing WASH practices, recognize and appreciate and strengthen the process
- Pick one or two WASH practices and discuss for improvements
- Ask for discussion:
 - What makes the small doable actions difficult to perform?
 - What can make the SDAs easy?
 - Who approves from the household to spend time on certain practices?
- Encourage the possible change to solve existing problems through partnership.





GROUP ACTIVITY: Negotiating Small Doable Actions to Improve WASH Practices

Break into groups of three. From the list below assign each group with two of the small doable actions for handwashing to negotiate in a role play.

- 1. Wash both YOUR hands and 15 months old BABY's hands before feeding your fifteen month old
- 2. Create a handwashing station next to the cooking area
- 3. Keep soap, ash, or cleansing agent next to the tippy tap
- 4. Wash your hands after cleaning your baby's bottom
- 5. Use a tippy tap to conserve water
- 6. Dispose of children's feces into a latrine
- 7. Make your latrine child-friendly and encourage him/her to use a latrine
- 8. Repair a leaky latrine
- 9. Install a water seal in your latrine

O. Stop dipping your hand to remove extra water from pitcher

DEBRIEF:

Wastplus Supportive Environments for Healthy Communities Negotiating Small Doable Actions

to Improve WASH Practices

- Discuss how is this different from how you current promote new IYCF behaviors?
- How is it similar??
- Highlight the difference between 'educating' and promoting vs.
 NEGOTIATING
- You serve as a facilitator and problem solver, not a preacher or teacher Bringing it back to the determinants....
- Information and awareness are RARELY key determinants of behavior change





Session 2:

Incorporating safe feces disposal management into SHIKHA outreach activity

SHIKHA major activities

Home visits Health forums mobilization Antenatal and postnatal visits Mass media and communication campaign





Session 3

into SHIKHA outreach activities

Group of 5 participants, brainstorm for 30 minutes. Each of you take 20 minutes and prepare individual workplan

Remember: Existing SHIKHA activities and resources What are the opportunities you can see are there in your existing scope of work, specially, to evaluate and improve safe child feces disposal practices.

Please BE SPECIFIC.

List the strengths and weaknesses/problems with current resources and what are the demands. Identify the ways to meet the demand and solve the problems.....




With approval from SHIKHA and BRAC the same training will be replicated among the PK and SS following the model

We have used many data and information which might not be essential to use during the training to the PK and SS

You will have a guide to lead the training session.





- Review why WASH matters for the growth of infants and young children;
- Links between diarrhea and undernutrition
- Links between stunting and open defecation
- Preventing diarrhea and stunting through WASH behaviors (handwashing, safe water and sanitation)
- Identify routes of fecal contamination and how to break the cycle (through WASH behaviors)
- How to influence WASH behaviors
- What influences behavior, behavioral determinants, key determinants of behavior change
- Apply a small doable action approach to changing WASH behaviors;
- Share 'best practice' behavior change strategies;
- Discuss how to improve WASH practices through small doable actions
- Develop 'next steps' for their WASH BC activities.





Training resources (required)

Training materials:

- Handout
- Worksheet
- Brochure
- Flip chart
- Powerpoint slides and photos saved in the flash drive
- Replication of PK and SS training
- Training guide





- We see your suggestions on how can we assist you to replicate the training. You have 30 minutes. Discuss in your group, take notes (WASHplus will collected your suggestions)
- Please keep in mind:
- Is it possible to organize the training at the Upazila level? Or do we need to go to Unionl level to conduct this training?
- In this training design there are many contents organized with power point slides, some lectures as well and participatory group work. Is it possible to follow the same methods to train the PK and SS??
- What do you suggest to increase the capacity in WASH and nutrition of outreach workers?
- WASHplus will provide the logistics and other materials (handouts, papers etc.). What more support you need to conduct the training among the PK and SS? Please remember the small doable actions !! This is not a WISH list !!!
- **WARP**uggestions are welcome.



Commitment and close of the training





Materials needed

- Materials for tippy tap handwashing stations
 - Bore, candles/matches/super big nails
 - Multiple empty water bottles, 1litre and 1/5 litre
- Masking tap, make many one inch pieces on reserve (put to the BACK of the flip chart stand)
- Multiple markers
- F Diagram photos, 6 SETS of each F picture
- Extra blank A4 paper
- Worksheets (list)

