Why WASH Matters For improved child nutrition, health & improved growth

=or=

Small Doable Actions Make a World of Change



Julia Rosenbaum
Faruqe Hussain
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USAID WASHplus *P*roject



What is WASHplus??

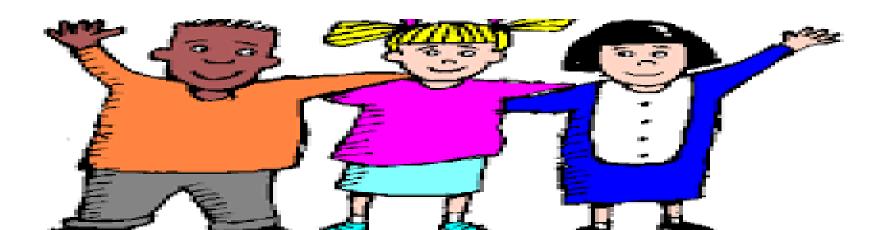
- USAID's mechanism for supporting global and countrylevel environmental health programming
- In Bangladesh, WASHplus is 4 year USAID activity with WaterAid as primary implementing partner, working through partner NGOs
 - 1. Increase access to safe water and sanitation
 - 2. Improve local government 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.





Brief Introductions

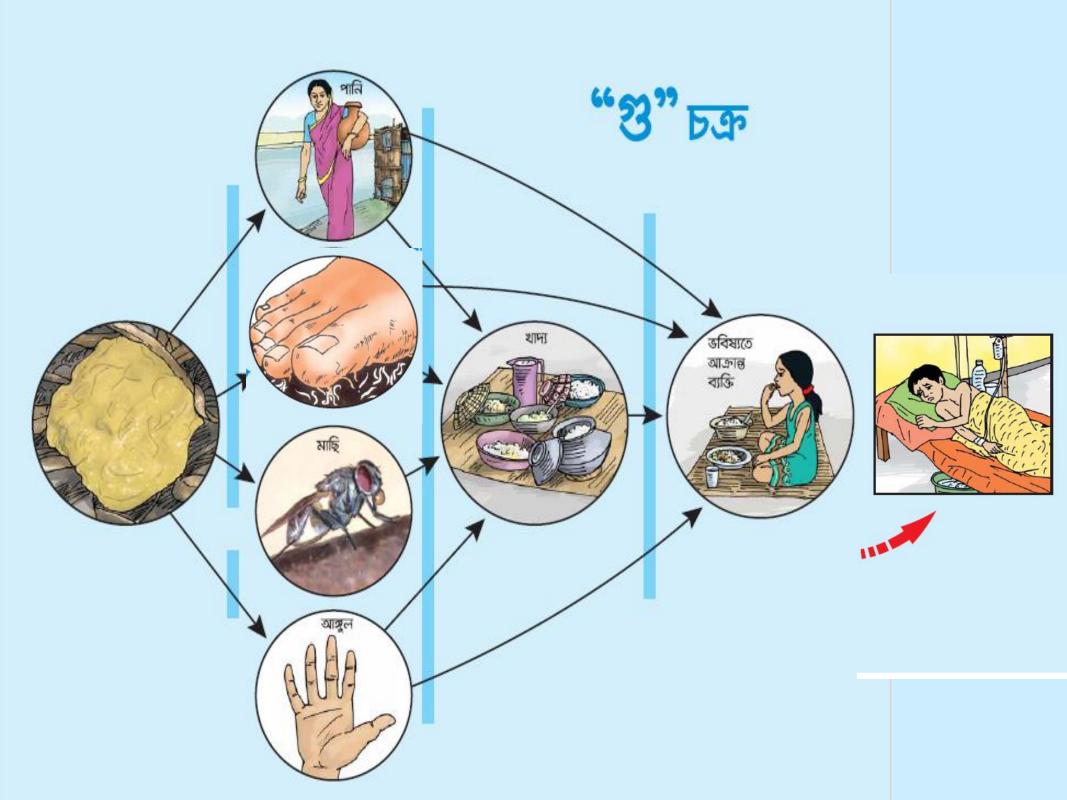
- Name
- Position
- Are you a 'health person"?
 - A child nutrition person??
 - A hardware person?
- One personal CHANGE you've be working on OR accomplished over the past year



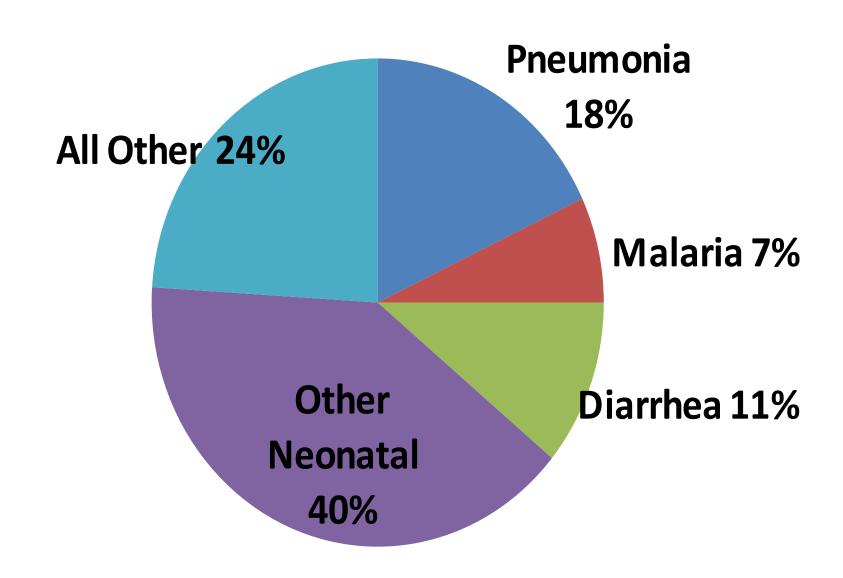


WASH and Nutrition "101" The Basics of Why WASH Matters for Child Growth





Causes of Mortality for Children Under 5



Source: State of the World's Children,

UNICEF 2012

POP QUIZ!!!!!!!

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

a. 0%-30%

b. 31%-60%

c. 61%-80%

d. over 80%



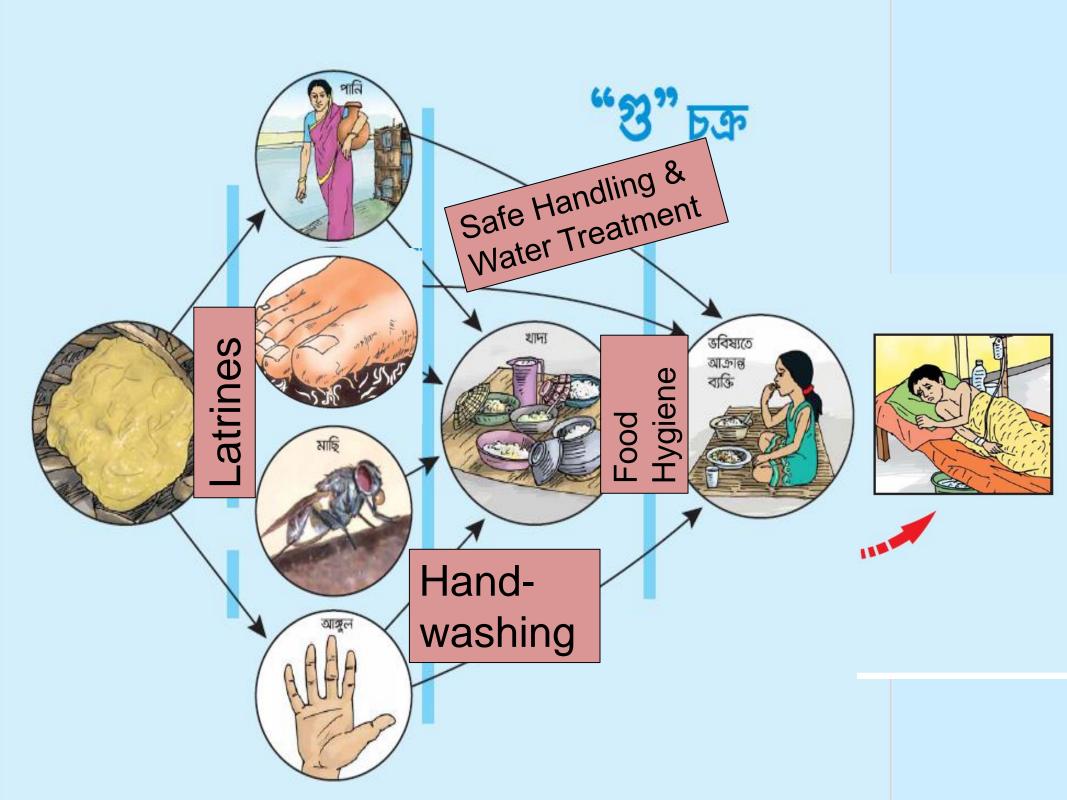
How often does a child die from a water-related illness?

A child dies every **20** seconds from water-related illness

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









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

Safe Storage & Treatment of Water









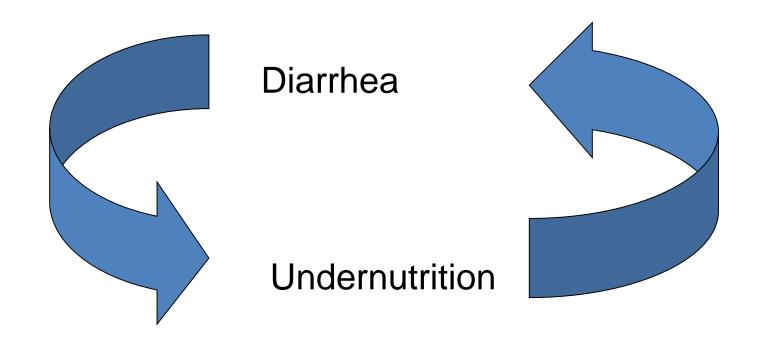








Connecting WASH and Nutrition



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

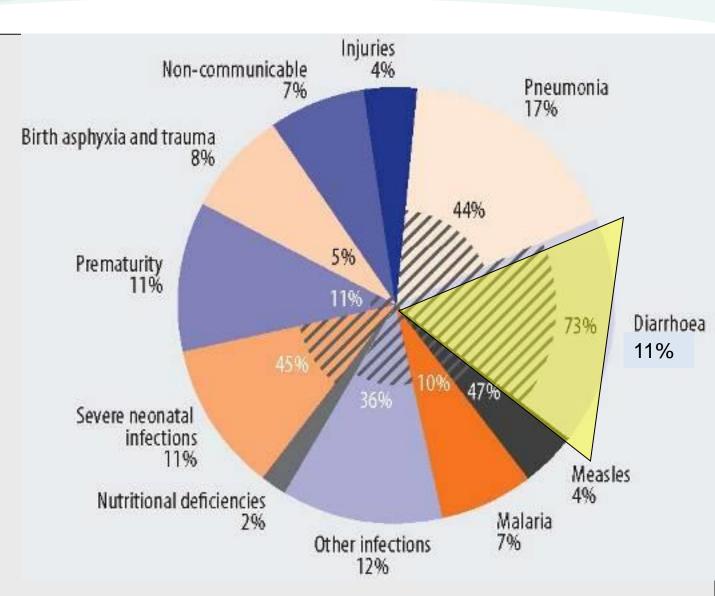




Percentage of Diarrheal Deaths Attributed to Undernutrition

Diarrhea: 11% of all child deaths

Undernutrition contributed to 73% of these deaths

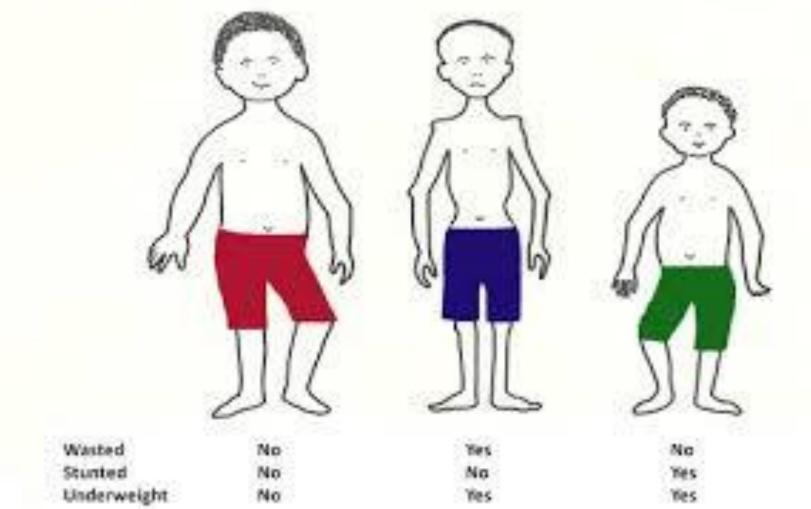


Shaded area indicates contribution of undernutrition to each cause of death





Connecting WASH and Nutrition



Two of the most common standards of growth: wasting and stunting

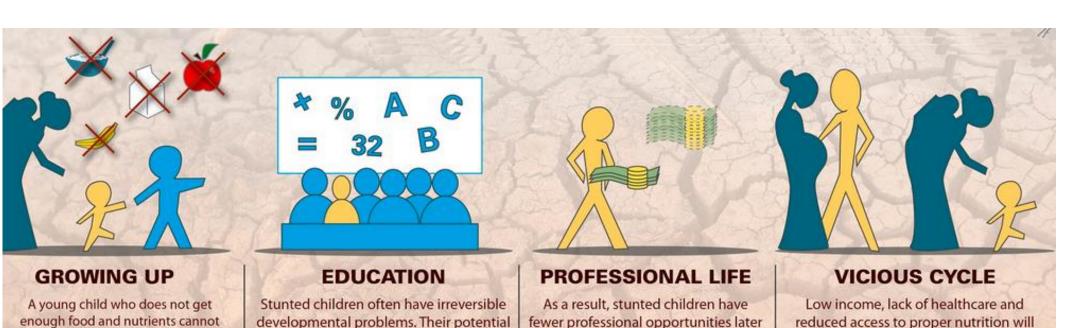




Stunting has lifelong implications...

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...



in life and earn less, perpetuating

poverty in their families.

continue to impact the health of their

children.

is limited and they often do less well in

school if they have access to education.



grow properly. This condition is called

'stunting'. Stunting can already start in

the womb of a malnourished mother.



- 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.

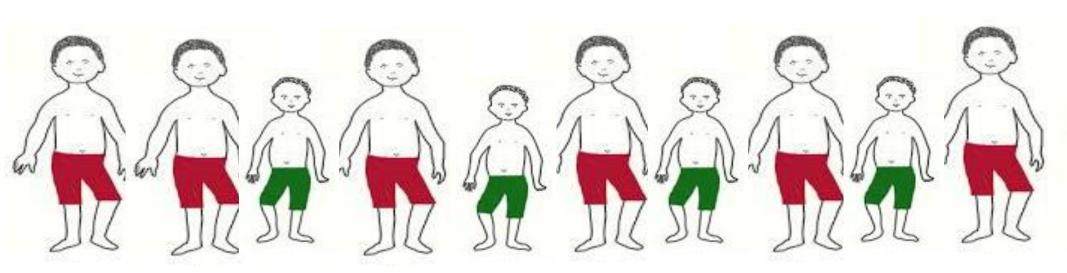
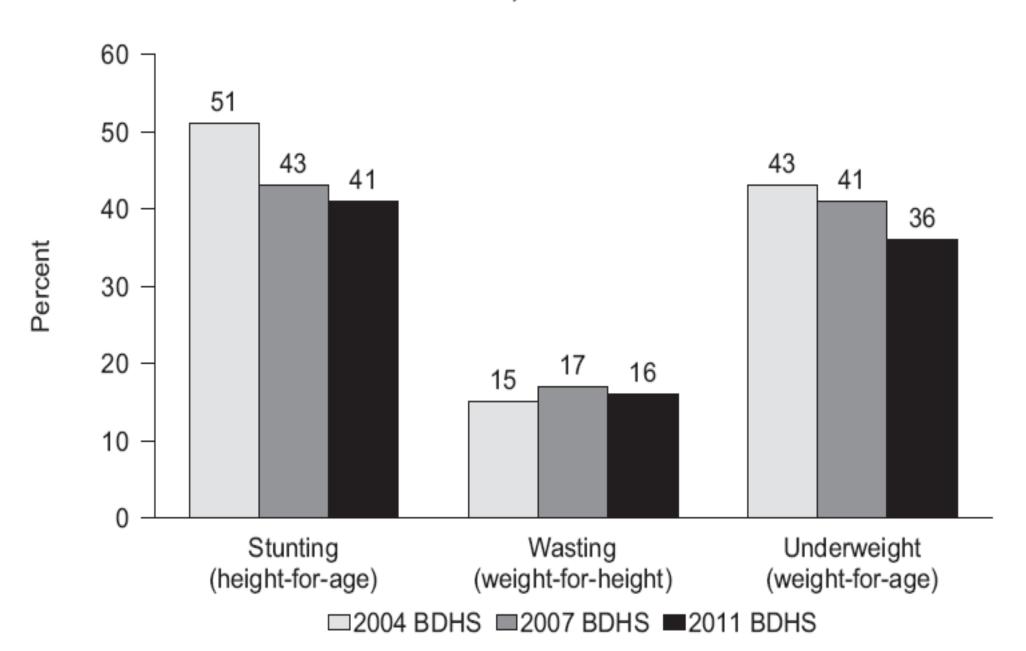


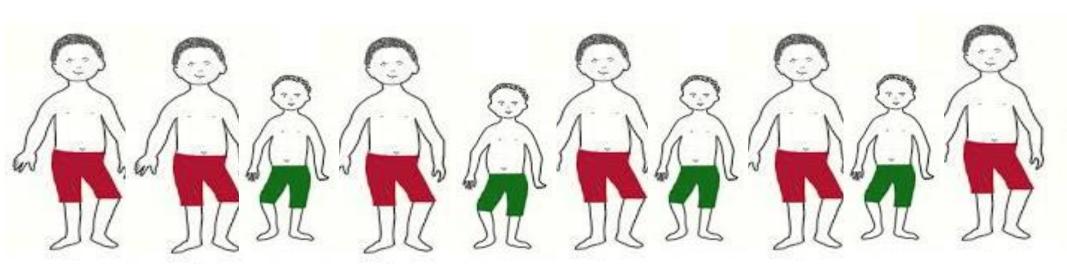
Figure 11 Trends in Nutritional Status of Children Under Five, 2004-2011

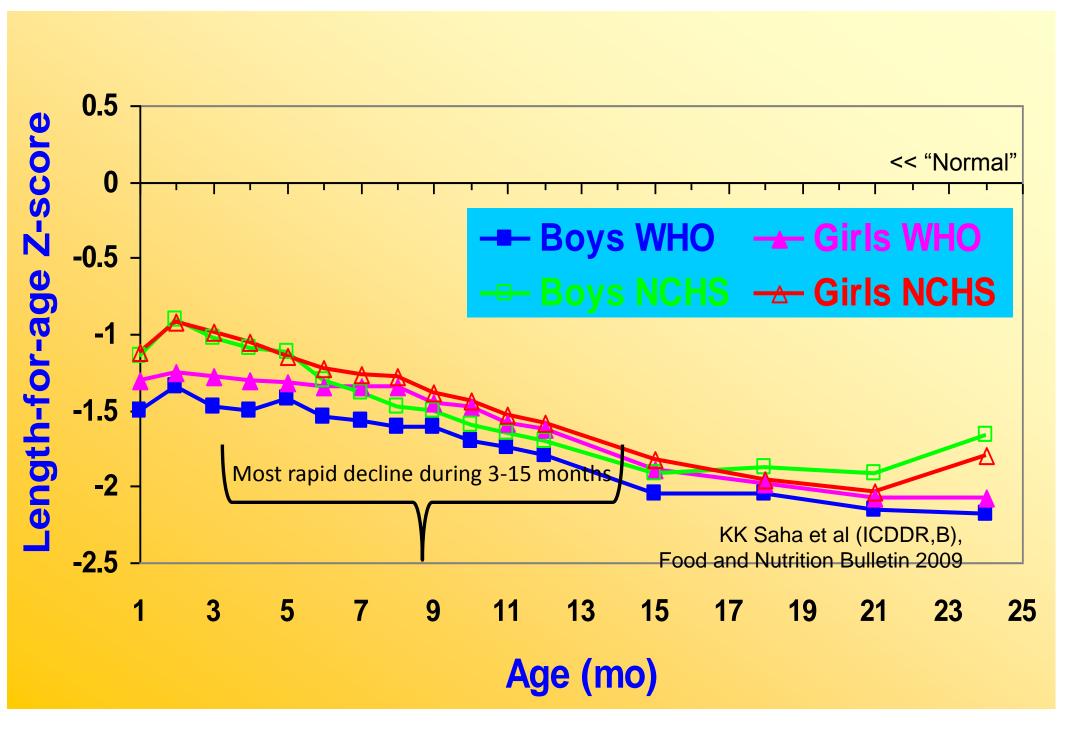




- In Bangladesh, the most dramatic decline in growth the most stunting -- happens between 3-15 months ...
- What else happens during that time?

The introduction of complementary foods and water, and the infants wandering and putting things in their mouths.... All risky for fecal contamination!!





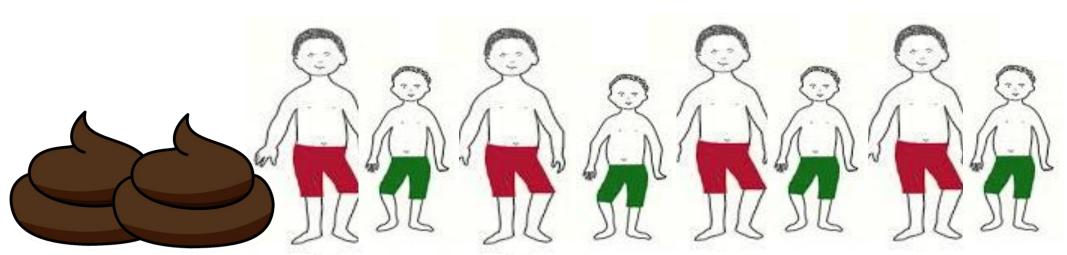
Most damage occurs during complementary feeding age



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.

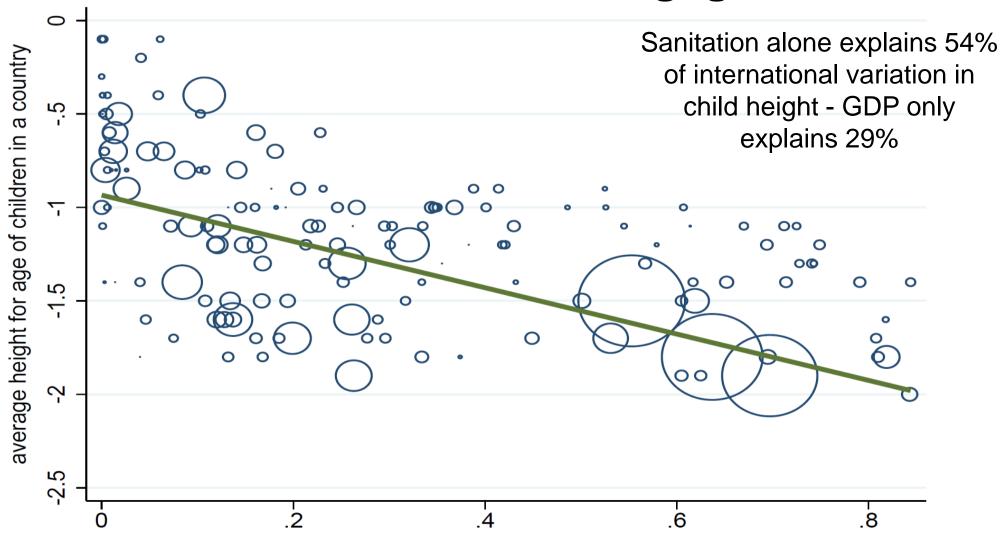
Using sanitation (or not) explains more than half the variation in child height – MORE THAN WEALTH & ECONOMIC GROWTH...

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





Open defecation accounts for much of excess stunting- global trends

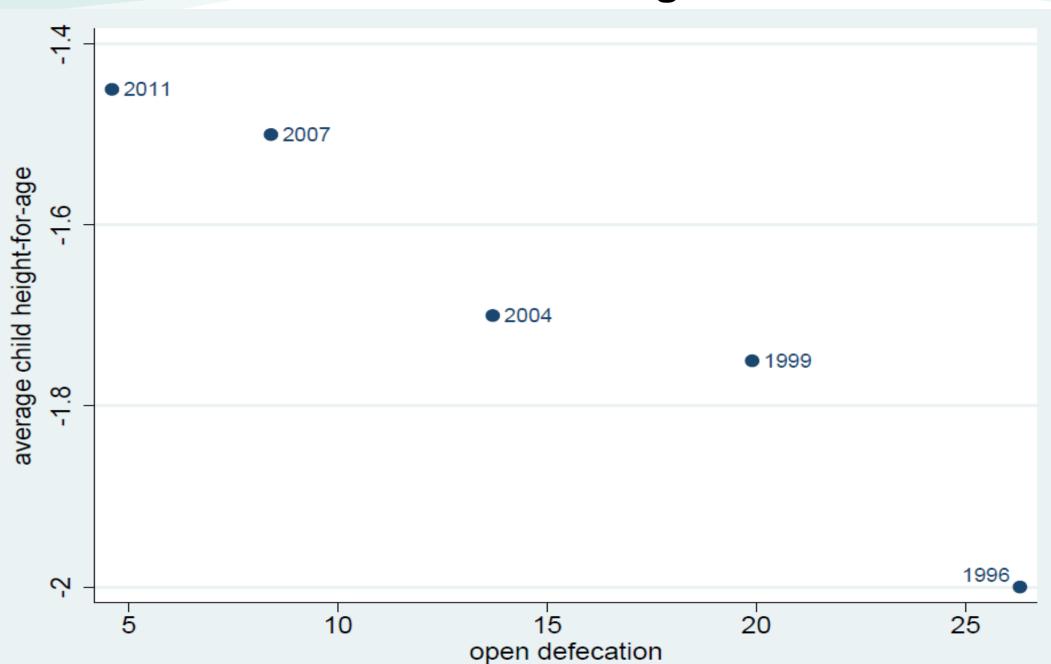


fraction of households in a country who defecate openly without latrine or toilet



Supportive Environments

Open defecation accounts for for Healthy Communities much of excess stunting- Bangladesh DHS 2011



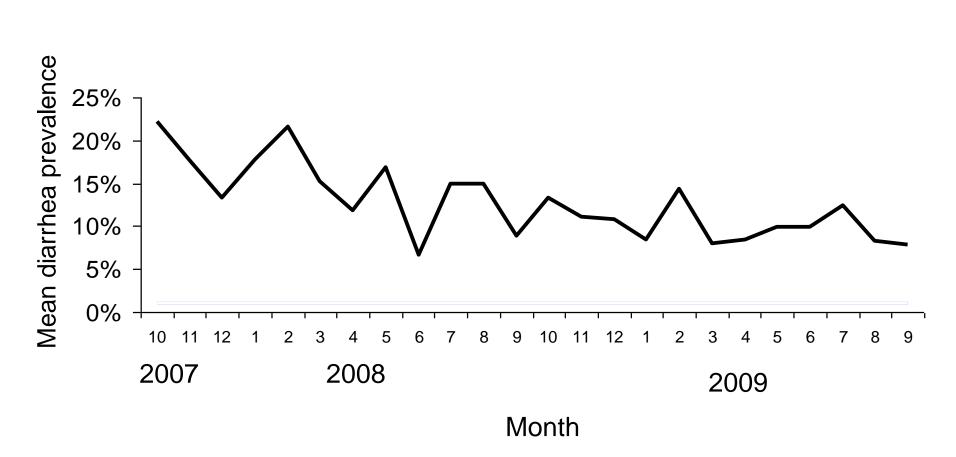


Prevalence of Diarrhea among children < 5 years by observed Handwashing before preparing food

SHEWA-B, Rural Bangladesh

— None

12.5%



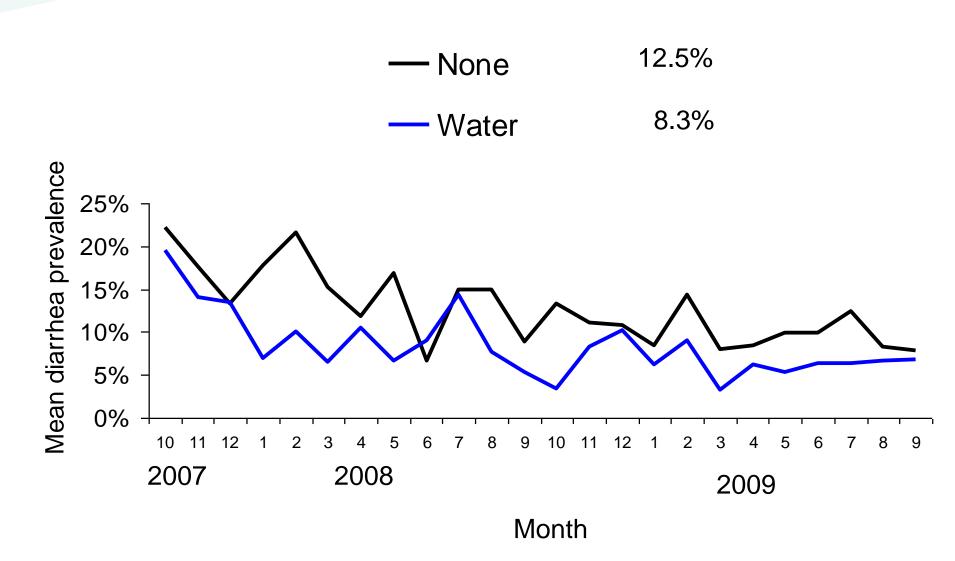


PLoS Med, 2011;8(6): e1001052.



Prevalence of Diarrhea among children < 5 years by observed Handwashing before preparing food

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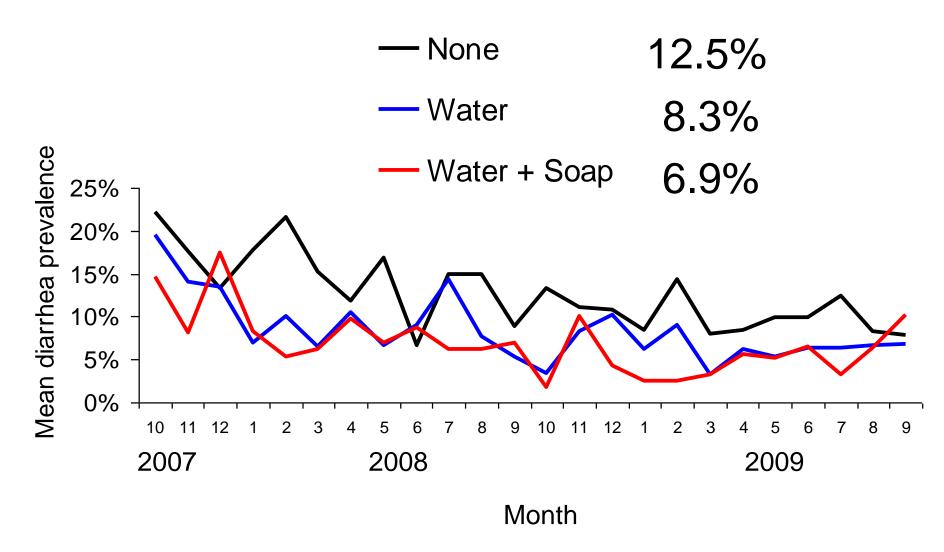
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Prevalence of Diarrhea among children < 5 years

by observed Handwashing before preparing food

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



What is causing all this stunting?

Cause #1: Malnourished Mother

Cause #2: Poor Diet

(inadequate weaning foods)

Cause #3: Diarrhea







However:

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

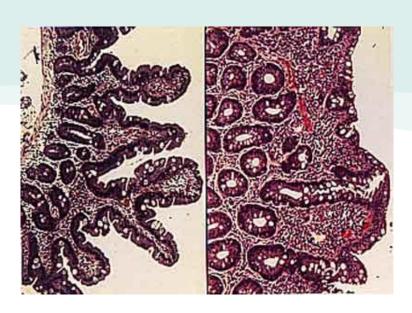
In several studies, WASH had a bigger effect on growth than it did on diarrhea

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



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



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

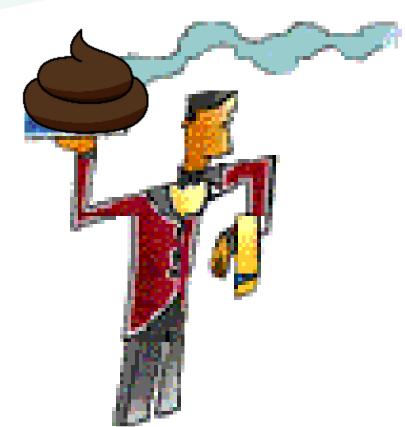
Most frequent: 38 times in 6 hours 75% visibly dirty



Dirtiest Soil (3 ate avg 11 bites) chicken faeces, stones







And eating feces directly – animal or human, is
10,000 to 100,000

MORE CONTAMINATED than dirty water, contaminated food, even soiled water in the laundry area. It's very damaging to our children — permanently

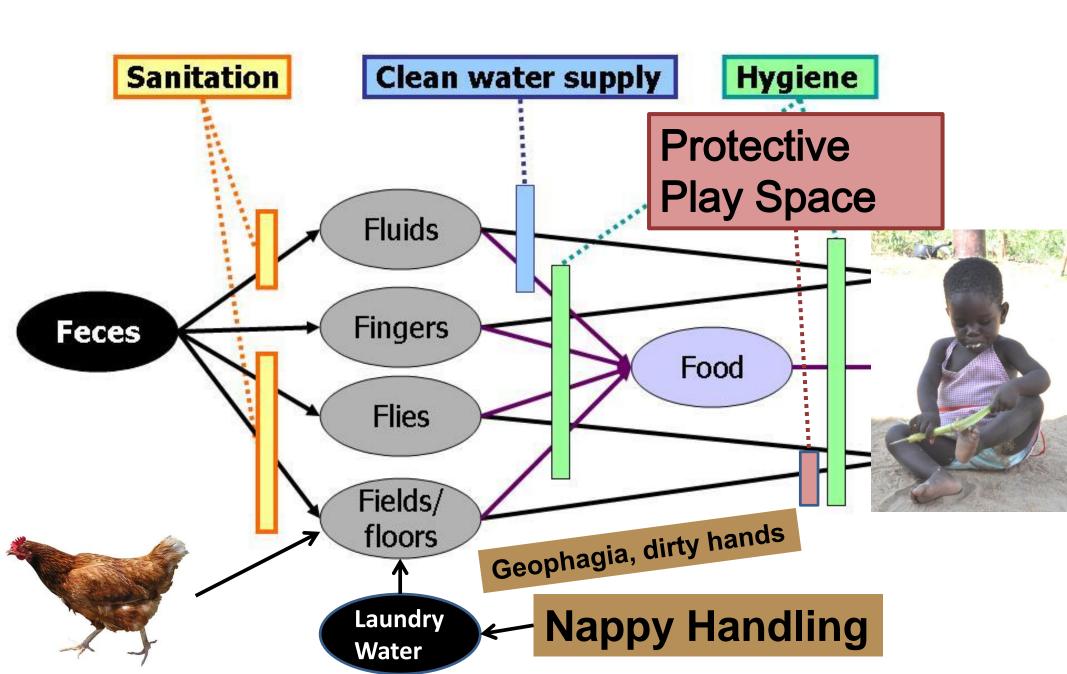




	% HH with E coli + sample	E coil/ Per gram	Average E Coli Per Day
Infant Food	0%	0	0
Drinking Water	54%	2	800
Soil in laundry area	60-80%	70	1,400
Chicken feces	100%	10,000,000	10,000,000

FROM THE AMERICAN PEOPLE

Routes of fecal disease transmission and protective barriers for babies!











What have been WaterAid's primary strategies for getting feces out of the environment??



What Influences Behaviors?

Hygiene Behavior Change: More Than Messages, More than Promotion





Access to Hardware & Services

Improved water supply
Sanitation platforms
Financial products (MF)
Fecal Sludge Removal
Household Technologies

- Soap
- Water containers
- Chlorine solution

Hygiene Promotion & Demand Creation

Communication methods
Social mobilization
Community participation
Social marketing

Sustained Improvements in Water Supply, Sanitation and Hygiene

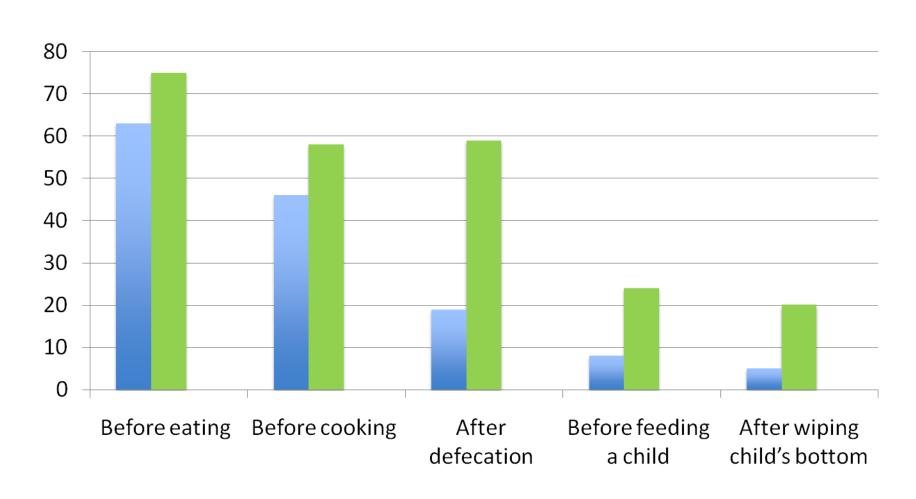
Enabling Environment

Supportive Policy , Tarriffs & Regulation
Institutions w/Needed Capacities
Coordinated G /NGO Planning
Financing and cost-recovery
Cross-sector & PP partnerships





Knowledge of When to Wash Hands







Exercise









Small Doable Actions for Behavior Change

- Identify, promote and facilitate improved behaviors that....
 - Have significant positive impact on health
 - Are **feasible** to achieve, (people both willing and able to make changes)









Small Doable Action Approach

- 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 without soap when soap is not available
- "Dip" hand washing from communal bowl
- No systematic hand washing after cleaning baby, the potty or after defecation
- No systematic hand washing before eating/cooking



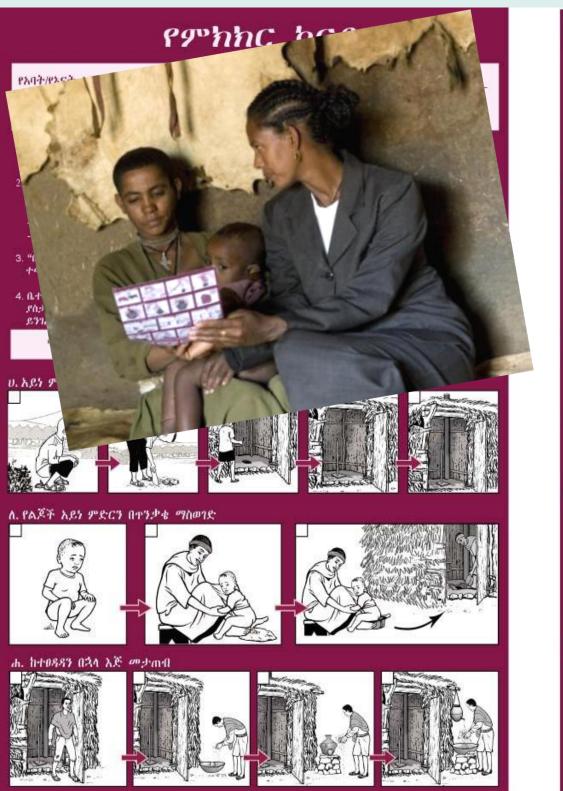
Hand Washing –Small Doable Actions

- Use tippy tap to provide RUNNING water
- Create hand washing station next to cooking and eating area
- Hang soap so convenient and economical
- When soap is not available, use ash for hand washing—rub hands together, rinse, and air drying.

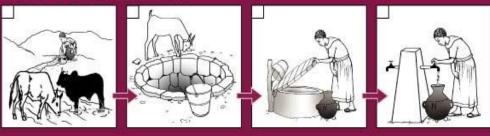












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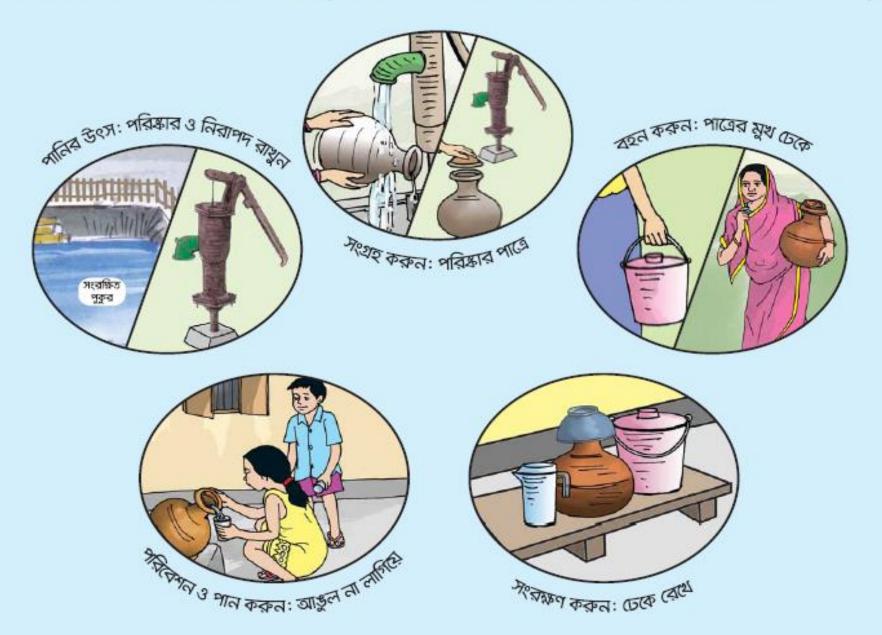
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নিরাপদ পানি পাওয়া ও পানি নিরাপদ রাখার উপায়



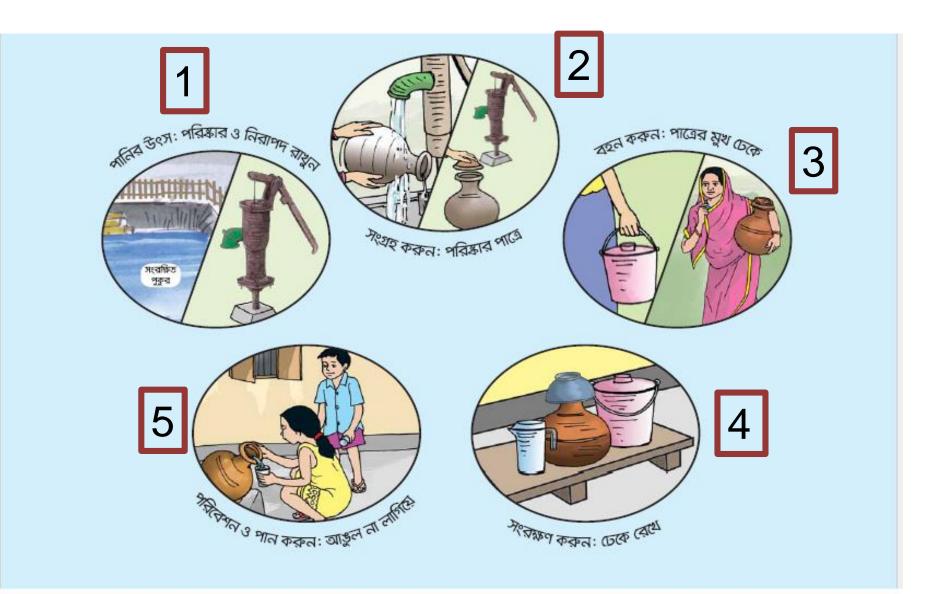


Five groups -15 minutes

Each group take 1 stop on WSP

Discuss current practice

Brainstorm a few SDAs for each





- 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.





এটা তো ভালো!



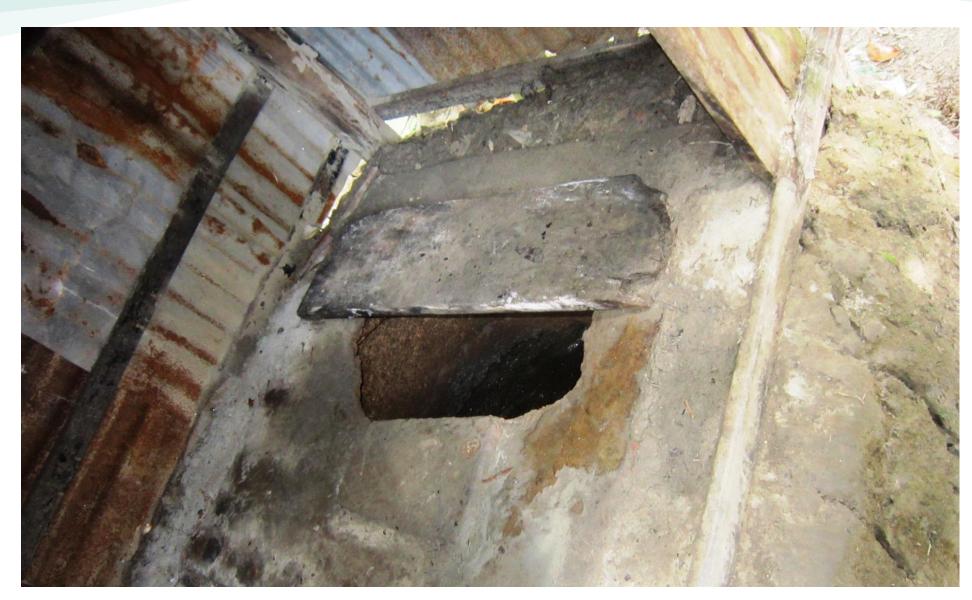




এটাই শেষ



এটা কি একটা ভালো ল্যাট্রিন?

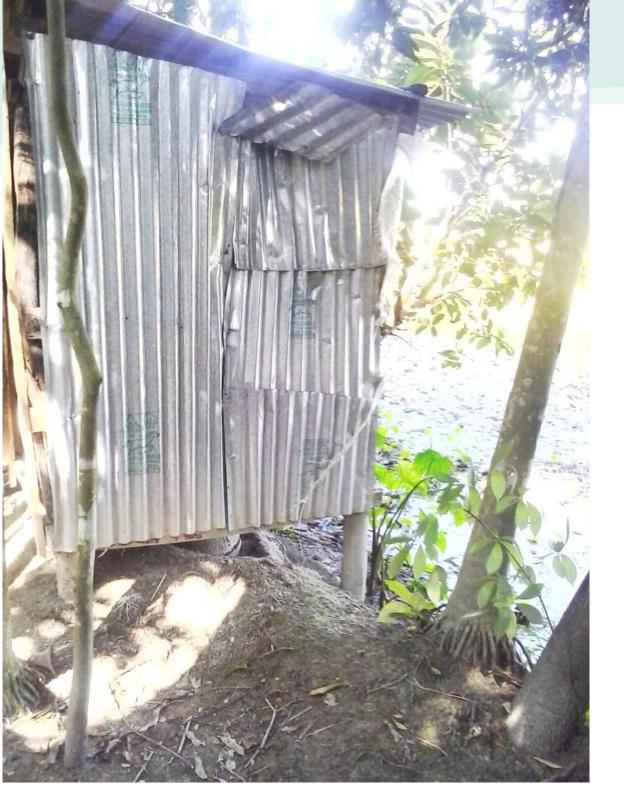






আর এটা?





আর এটা?



আর এটা?





এটা?

















শুধু একটা ল্যাট্রিন থাকাই না.....

- উৎসাহিত করতে হবে যেন বানানোর সময় ল্যাট্রিনের ভিত্ উঁচু করে বানানো হয়
- निर् नाष्ट्रिन छला उँरू कता इय
- ভূমির উপরের রিং যেন মাটিদিয়ে ঢেকে দেয়া হয়
- তায়গার অবস্থান ও ব্যাবহারকারীর সামর্থ্য বুঝে সেন্ড ইনভেলাপমেন্ট, টুইন পিট ও সিঁড়ি ল্যাট্রিন ব্যাবহারে উৎসাহিত করা



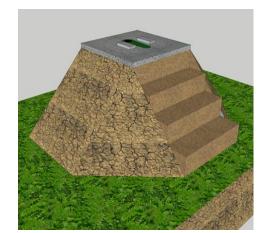


লিক বন্ধ করার উপায়

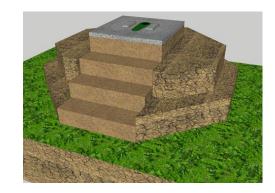
রিং এর সংযোগ গুলো সিমেন্ট দিয়ে বন্ধ
করা



রিং এর চারপাশ মাটি দিয়ে ঢিবির মত উঁচু
 করে দেয়া

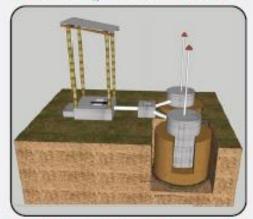


 রিং এর চারপাশ মাটি দিয়ে সিঁড়ির মত ধাপ ধাপ করে দেয়া





বালি বেষ্টিত টুইন অফসেট পিট ল্যাট্রিন



নিচের কাঠামো বনানোর আনুমানিক খরচ: ৪,৭৫০ টাকা আনুমানিক প্রয়োজনীয় স্থান: ১০'×৯'

সিঁড়ি ল্যাট্রিন



নিচের কঠিমো বসানোর আনুমানিক খরচ: ১৮,০০০ টাকা আনুমানিক প্ররোজনীর স্থান: ৫×৬

সেপ্টিক ল্যাট্রিন



নিচের কাঠামো বদানোর আনুমানিক খরচ: ৫,০০০ টাকা আনুমানিক প্রয়োজনীর স্থান: ৪'×১৬'

পিট থেকে ছিদ্রপথে মল চুয়ানো বক্সের পদ্ধতি



চিনি তৈরি করা



ধাপ তৈরি করে



সিমেকের আন্তরণ দিয়ে

স্যানিটেশন প্রযুক্তি নির্বাচন সহায়িকা আপনার পরিবারের ন্যার্ট্রন আপনি বেছে নিন



























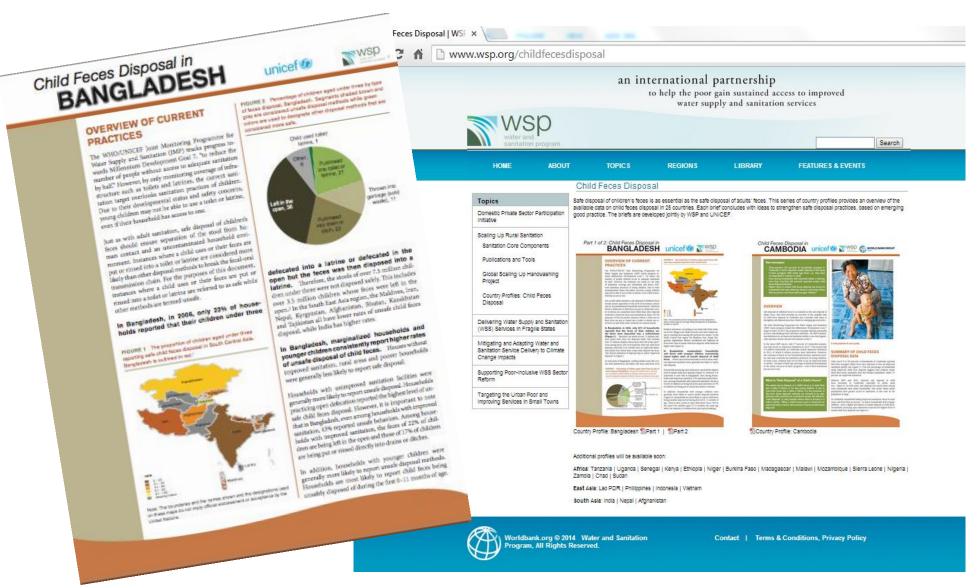




তার্যায়ের্মান বার্তারশে, বাটি ২৭/বি, হোচ ২৯, ব্রুপ ব, বারনি, চাকা ১২১০, বার্টারশে মেন: +চাণত ২ চাক্তব্যবদ, চাক্তব্যবহু ভারম্ভ +চাক্ত ২ ১৮চাক্তবাল www.extensid.org/banginatesh



www.wsp.org/childfecesdisposal





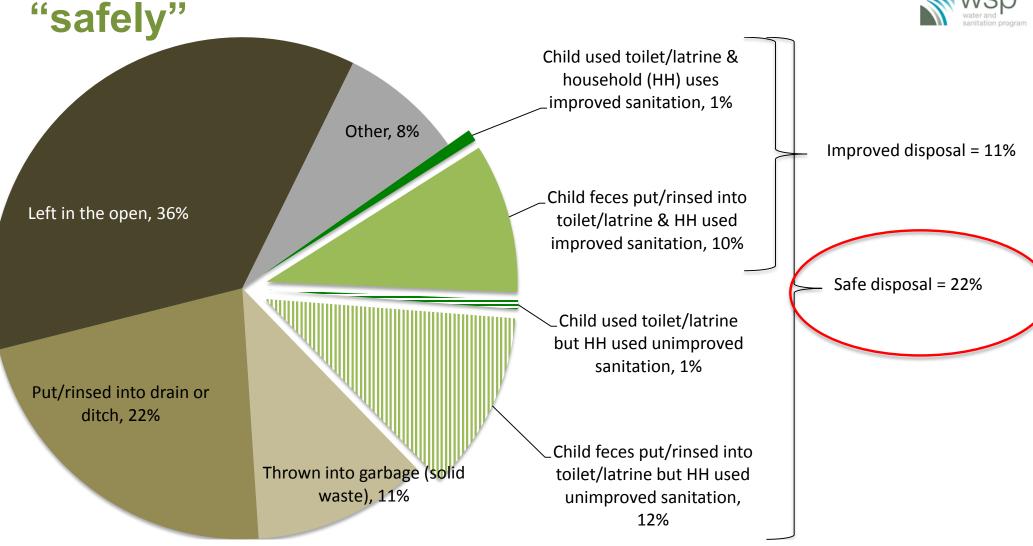




Only 22% of child feces is disposed of

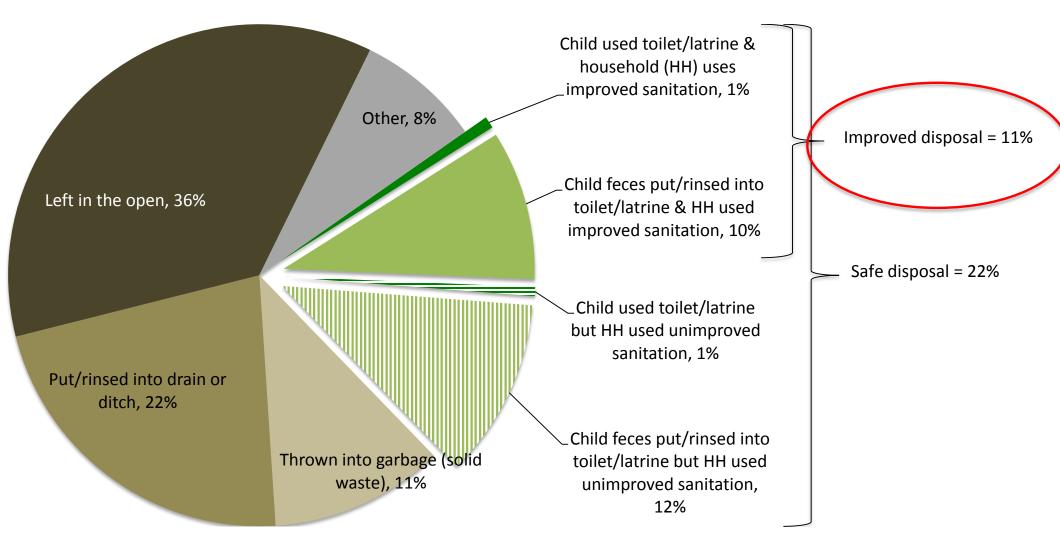






Percentage of children aged under 3 by household's type of sanitation Facility, Bangladesh

Only 11% of child feces is disposed of into an improved sanitation facility



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

Even among households with improved sanitation, the feces of 54% of children is not safely disposed of







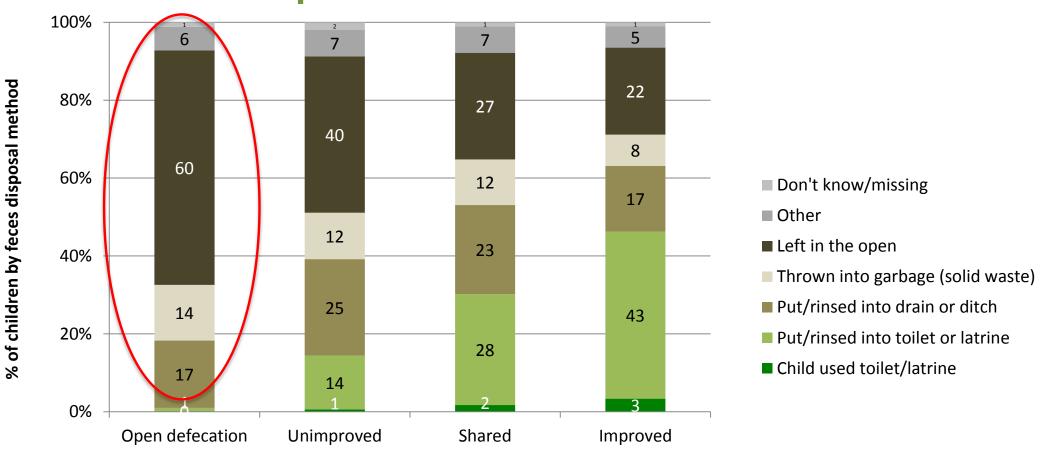
Type of sanitation facility used by household

Percentage of children aged under 3 by household's type of sanitation facility and type of child feces disposal, Bangladesh

Meanwhile almost all children living in households practicing open defecation have unsafe feces disposal







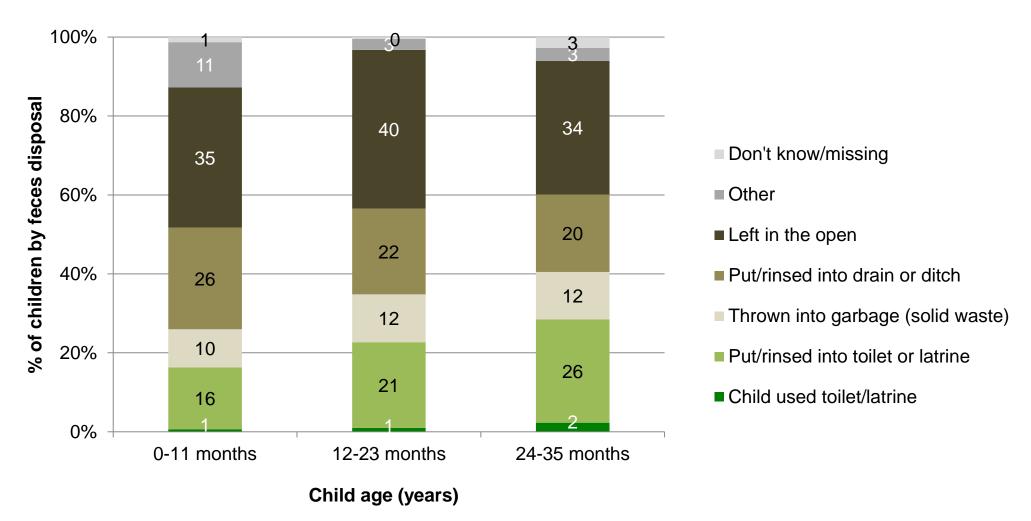
Type of sanitation facility used by household

Percentage of children aged under 3 by household's type of sanitation facility and type of child feces disposal, Bangladesh

Younger children's feces are more likely to be left in the open





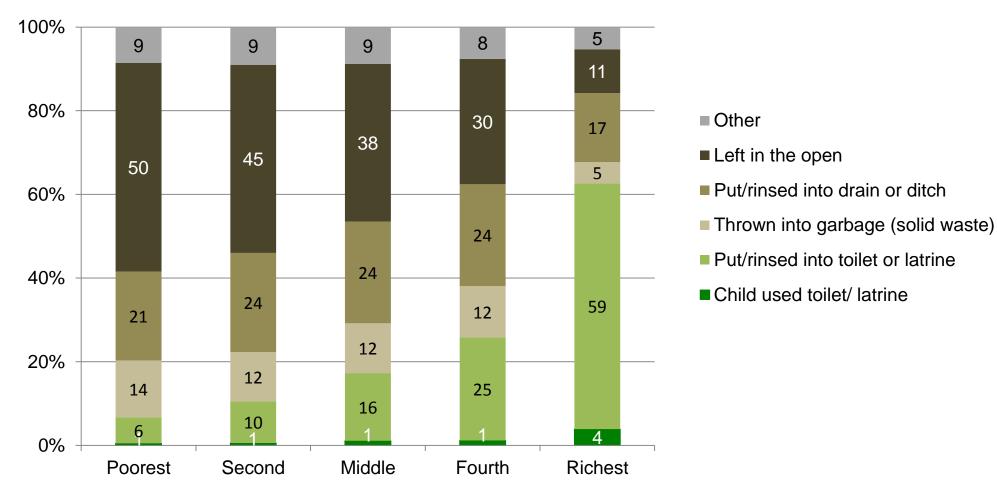


Percentage of children aged under three by type of feces disposal and type of child feces disposal, Bangladesh

Poorer children's feces are even more likely to be left in the open







Wealth quintile of child's household

Percentage of children aged under three by type of feces disposal and type of child feces disposal, Bangladesh



SMALL DOABLE ACTIONS FOR SAFELY DISPOSING OF CHILD FECES

- 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













GROUP EXERCISE

Small Doable Actions for Safe Feces Disposal 20 minutes

4 groups

- * Infant/Lap child under 6 months
- * Crawling baby 6- 12 months
- * Toddler under 3 years
- * Young child 3-6 years

List

Current pooping practice Current cleaning practice

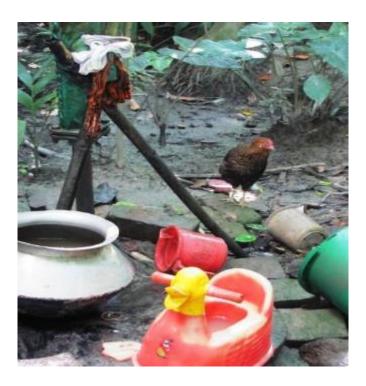
Brainstorm
Small doable actions to improve





Debrief Small Doable Actions for Safe Feces Disposal

CURRENT PRACTICE	CLEANING	SMALL DOABLE ACTION TO IMPROVE
INFANT		
Katha (old sari quilt)	Cleaned the baby	
Diaper/ Pamper/ Cloth/rag (soft)	Used the cloth	Use the trowel/hoe, take it to the toilet
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)	
TODDIED (but and a second		
TODDLER (but we need a name)		
SOme said as of 6 months start using potty	Take it to the latrine	
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	







Current WASHplus work with nutrition partners to focus on infant feces disposal

- All feces ends up in latrine*
- Goo's final address
- Role of enabling products and service
- Social norms
- Perception of risk
- Job Aids to promote small doable actions by age cohort
 - SDAs by age w slogan
 - Essential WASH Actions
 - Handwashing devices

Access to Hardware & Services

Improved water supply
Sanitation platforms
Financial products (MF)
Fecal Sludge Removal
Household Technologies

- Soap
- Water containers
- Chlorine solution

Hygiene Promotion & Demand Creation

Communication methods
Social mobilization
Community participation
Social marketing

Sustained Improvements in Water Supply, Sanitation and Hygiene

Enabling Environment

Supportive Policy , Tarriffs & Regulation
Institutions w/Needed Capacities
Coordinated G /NGO Planning
Financing and cost-recovery
Cross-sector & PP partnerships

Innovative research and intervention to address safe disposal of infant and child feces





WASH Benefits and icddr,b examined and re-purposed current products

Icddr,b & Luby (2013)



Current WASHplus work with nutrition partners to focus on infant feces disposal

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Thank you!