



“Safe and Nutritious Food: Ideal Family!”
Improving food hygiene behaviors in Bangladesh
through emotional drivers

Tarique Huda, PhD | ANH academy week 2019 | Hyderabad, India

Undernutrition

Undernutrition

- A major threat to child health and development
- Accounts for 45% of all child deaths

Possible Causes?

- Insufficient intake of nutritious food: **Quantity & Quality!**
 - Poor food hygiene practices
- repeated enteric infections and intestinal inflammation

Black, R.E., et al., Lancet, 2013. **382**(9890): p. 427-51.

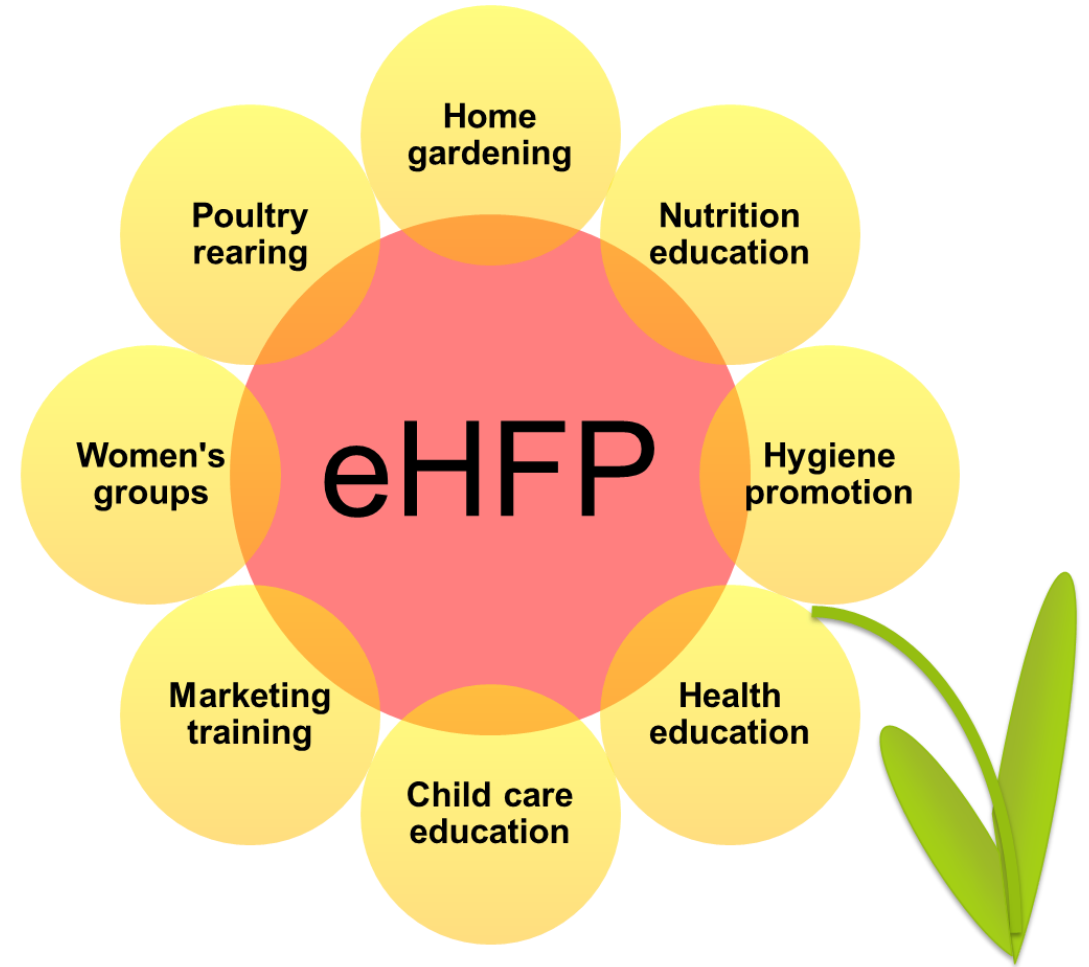
Schmidt, Charles W., Environmental Health Perspectives, 2014. **122**(11): p. A298-A303

Rationale for the study

- Microbial contamination of food has received relatively little attention in nutrition programs
- Adoption of food hygiene practices could reduce microbial food contamination but is challenging to achieve.
- **We aimed to design, implement, and evaluate an innovative food hygiene behavior change module within a nutrition-sensitive intervention in rural Bangladesh**
 - Process evaluation findings

Food hygiene intervention added-on to an existing trial (FAARM trial)

- Food and Agricultural Approaches to Reducing Malnutrition (FAARM) cluster-randomised trial (2015-2019)
 - Evaluating the impact of a **enhanced Homestead Food Production(eHFP)** program on child undernutrition
- Delivered to around 1300 young women and their children



FAARM intervention: enhanced Homestead Food Production (eHFP) program by HKI Bangladesh



Food Hygiene Intervention: Safe Nutritious Food- Ideal Family!

- Adopted the behavior-centered approach of a pilot study in Nepal
*“Trial of a Novel Intervention to Improve Multiple Food Hygiene Behaviors in Nepal”
(Gautam 2017)*
- The modules employed emotional drivers like nurture, disgust, pride
- Encouraged modification of behavior settings
- Included interactive, participatory, and fun activities
- Intervention period: 8 months (July 2017 to February 2018)
- Content: 4 household visits, 4 group events and 2 competitions



Food Hygiene Intervention: Safe Nutritious Food- Ideal Family!

before kitchen make-over



after kitchen make-over





Food Hygiene Intervention: Safe Nutritious Food- Ideal Family!



Photo credit: Shafinaz sobhan



6 key messages

Feed your child a variety of food

Exclusive breastfeeding up to 6 m.

Wash utensils with soap and water

Wash hands with soap and water

Store food safe and covered

Reheat stored food before eating

Food Hygiene Intervention: Two competitions



“clean kitchen”

1. clean and demarcated kitchen
2. handwashing station
3. separate area for animals/poultry
4. rubbish in a covered container



“ideal family”

the caregivers had to maintain five out of six food hygiene/feeding practices.

Methods: Data collection

- During the food hygiene intervention, the food hygiene promoters documented
 - household attendance
 - women's practice of behaviors
- During 3 of the 4 household the promoters conducted spot-checks and short observations
- To be considered for the winners of the competitions the participants had to exhibit these behaviors at all of the three observations

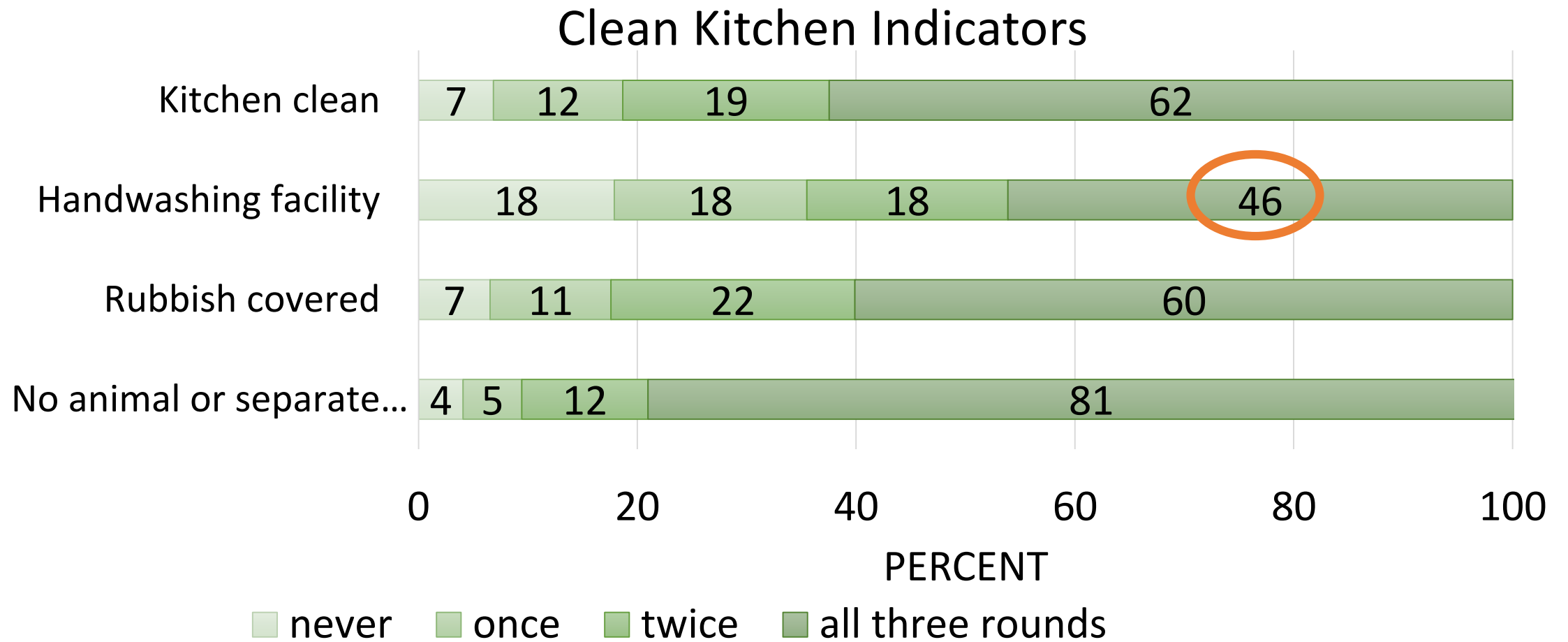
Results: Sample characteristics in 2015

Women's characteristics		N	%
Religion	Muslim	914	71
	Hindu	376	29
HH members	up to 5	472	37
	5-10	592	46
	more than 10	231	18
Women's education	No formal education	208	16
	Up to primary	582	45
	Beyond primary	512	39
Women with no children under 3 years		727	54
Age of youngest child (under 3 years)	0 - 6 months	86	14
	7 - 12 months	130	21
	13 - 24 months	196	32
	25 - 36 months	202	33

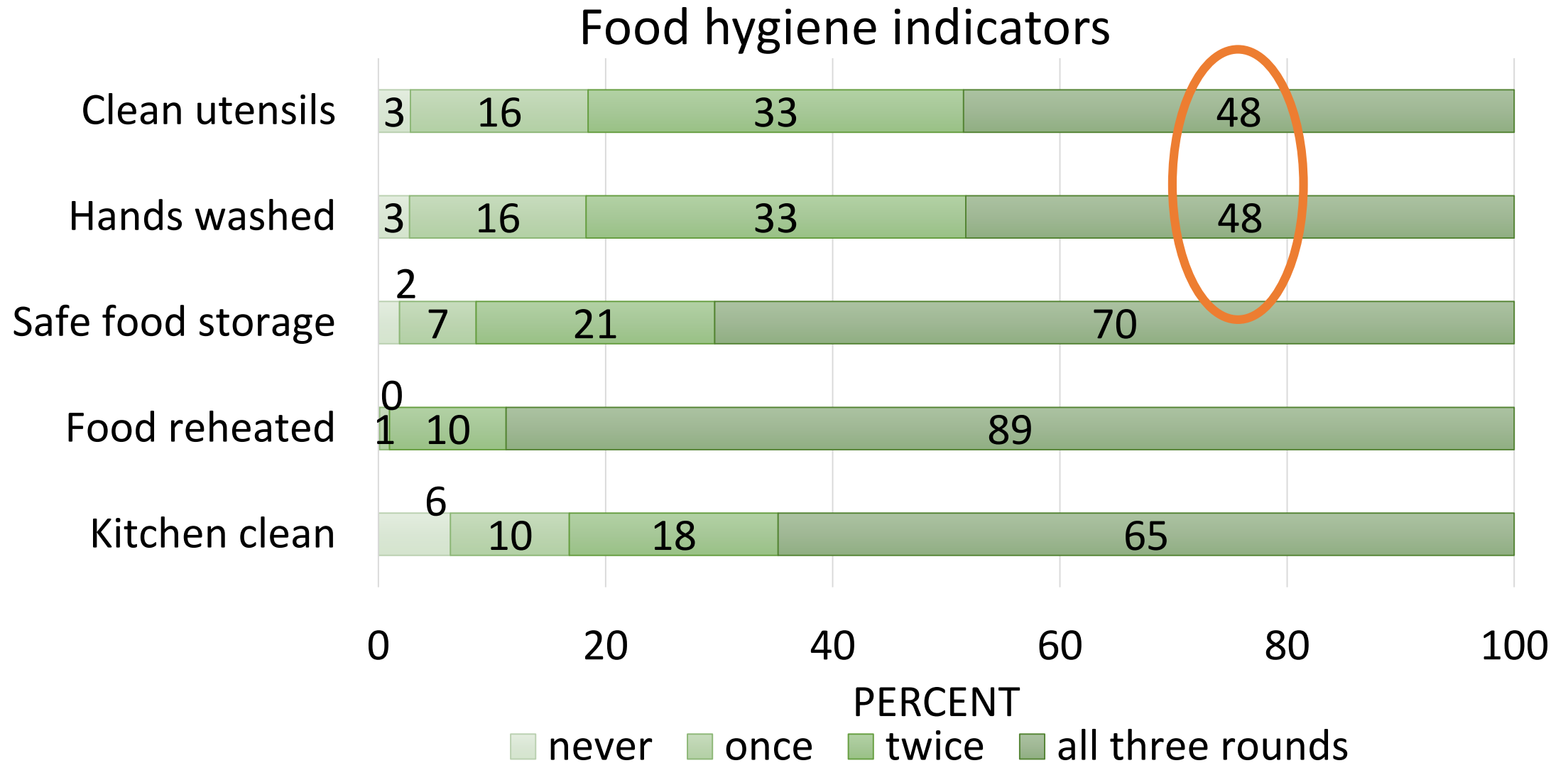
Results: Intervention uptake

Participation, Ideal Family and Clean Kitchen Winner				
		N	(%)	
Participation	low	99	12	
	medium	197	15	
	high	979	73	
Ideal family winner		496	39	
Clean kitchen winner		649	51	
Total		1275		

Results: Clean kitchen indicators over three rounds of assessment



Results: Food Hygiene indicators over three round of assessment



Results: Adjusted associations between degree of participation in the food hygiene intervention and winning a competition

Total N=125		ideal family		clean kitchen	
		OR	95% CI	OR	95% CI
Participation	low	Ref.		Ref.	
	medium	4.35	(2.13-8.88)	6.29	(3.00-13.19)
	high	11.05	(5.67-21.54)	18.13	(7.99-41.13)

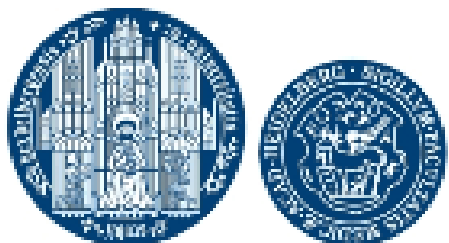
Variables adjusted for: religion, education, wealth, size of homestead land, number of children below 3 years, women's empowerment, ability to decide household matters, ability to communicate, social support and mobility

Conclusions

- The intervention was well attended and accepted
 - however, uptake of behaviors varied, suggesting that some behaviors were easier to adopt than others
- Lack of a facility for washing hands and utensils could be a potential barrier
 - Ensure enabling technologies are close to the kitchen
- Results from the full evaluation are forthcoming

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