



Intervention study to improve food hygiene behaviours in rural households of Malawi

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Introduction

- Evidence shows that **diarrhoeal disease** is higher in children after they start weaning
- Diarrhoea remains the **second leading** cause of death in children under 5 (WHO, 2017)
- Food is potentially more important than water in transmitting diarrhoea among children (WHO, 2015)



Introduction

- In Malawi, diarrhoea prevalence among under 5 remains high (22%) *DHS, 2016*
- Existing programs emphasize nutrition and WASH
- Few interventions focused on food hygiene or sustained WASH behaviour change at household level

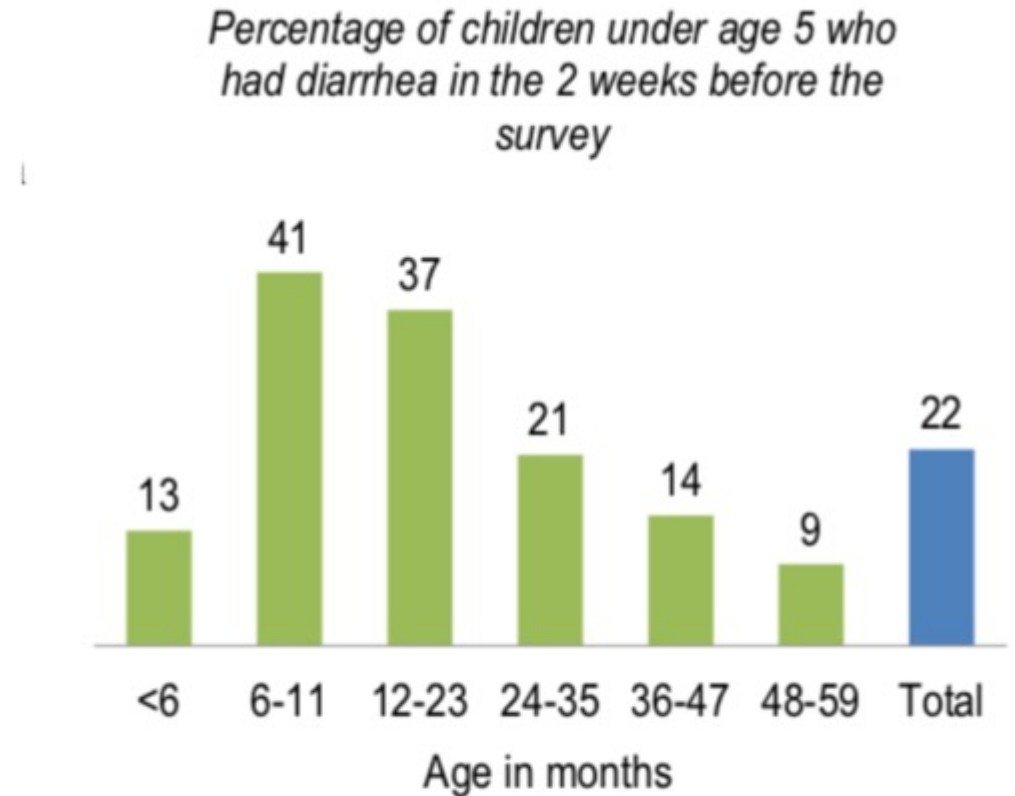
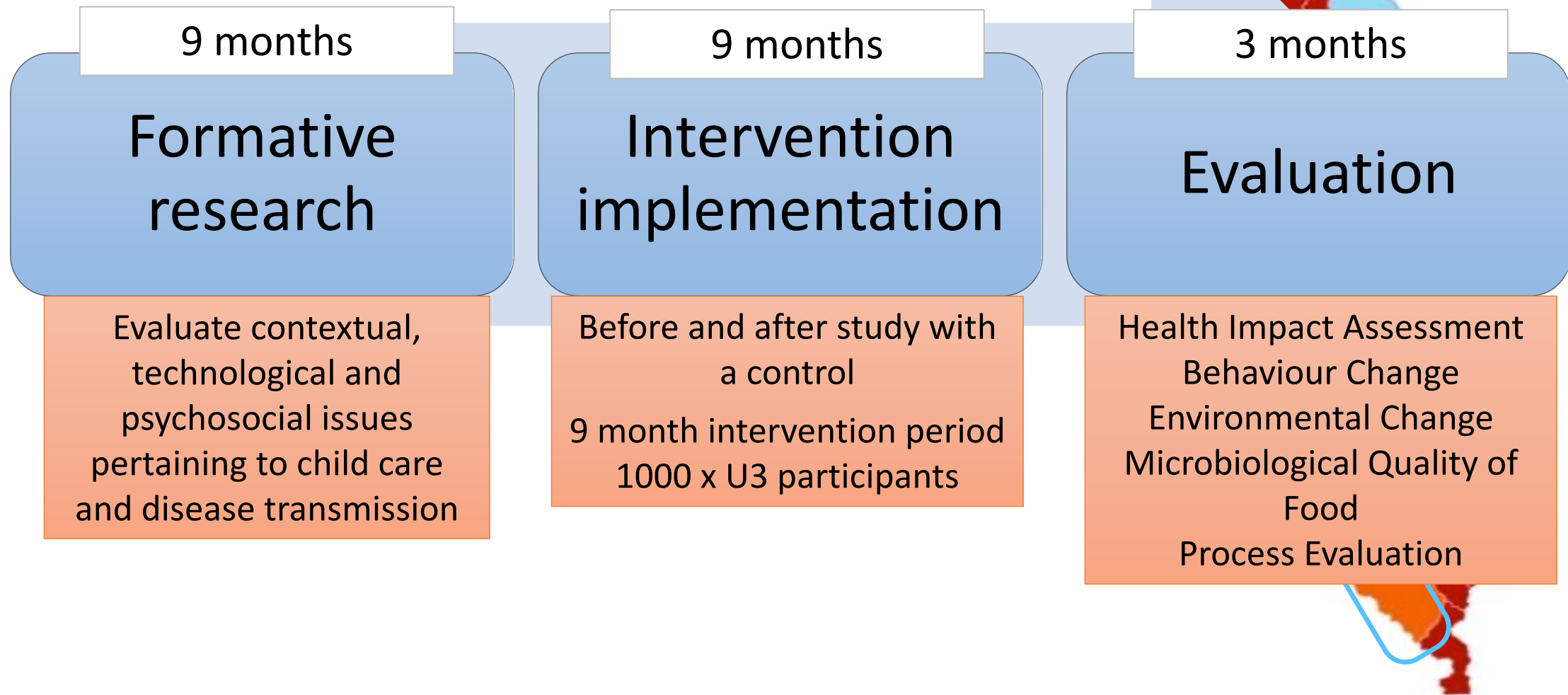


Figure 1: DHS data 2016 for diarrhoeal disease in Malawi under five population (NSO, 2016)

Study outline



Formative research findings

Identification of critical points



- Hand washing with soap
- Food safety and hygiene
- Faeces management
- Household water management

Contextual assessment



- Mothers as caregivers
- Homogeneity in diet
- Capacity of workers
- One health challenges
- Poverty as a barrier

Psychosocial factors



- Normative factors
- Ability factors
- Self regulation
- Communication

Intervention



Hand
Washing
With Soap
(7 weeks)

Food hygiene
(15 weeks)

Faeces
management
(5 weeks)

HH water
management
(4 weeks)

Behaviour centred design intervention based on RANAS model BCTs

- Cluster meetings
 - Reinforce normative elements and guided practice to strengthen self efficacy.
 - Role of utensils, livestock and hands in diarrhoea pathways
 - Paint game, Glo germ exercise
- Household level
 - Visits to enhance recommended behaviour.
- Memory aids and environmental prompts
 - Buntings – engage more people: descriptive norms
 - Handwashing with soap reminders: bracelets and bibs
- Intervention period:
 - February to October 2018

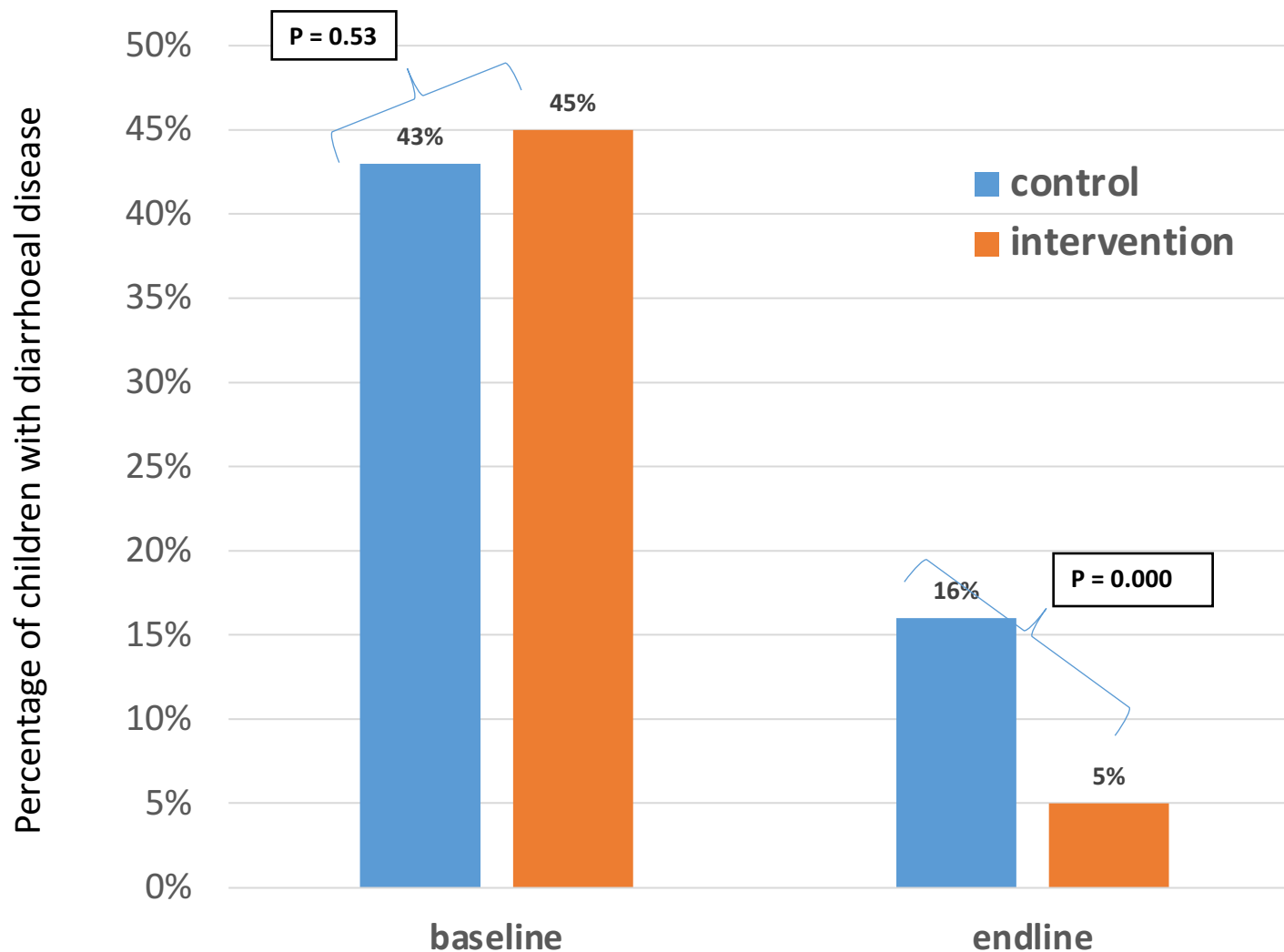


Evaluation Method

- Household survey
 - Intervention: 635
 - Control: 185
- Observations
 - Intervention: 56
 - Control: 31
- Comparison analysis
 - Bivariate analysis
 - Difference in difference logistic regression
- Evaluation period
 - November – December 2018

Outcome	Variable
Primary	Diarrhoeal disease
Secondary	Health <ul style="list-style-type: none">• Eye infections• Acute respiratory infections
	Behavioral factors and changes
	Changes in household environment
	Microbiological contamination of <ul style="list-style-type: none">• Food• Environment• Hands (critical times)• Stools (human & animal)
	Non-WASH benefits

Diarrhoeal disease prevalence



- Prevalence of self reported diarrhoeal disease in the two weeks prior to interview
- Significant reduction in diarrhoeal disease in under fives in intervention households

Observed hand washing at end line



Behavioural determinants for hand washing with soap

- Measurement of caregiver perceptions of risks, attitudes, norms, abilities and self regulation factors associated with hand washing with soap at critical times
- Significant differences between baseline and end line for:
 - Before child feeding (p value = 0.000)
 - After latrine use (p value = 0.000)
 - Before food preparation (p value = 0.000)
 - After changing a child's nappy (p value = 0.000)





Food hygiene practices at end line

Behaviour	Observed practices			Behavioral factors		
	Control	Intervention	P value	Control	Intervention	P value
Washing utensils with soap	70%	95%	0.008	3.65	4.07	0.00
Keeping utensils in a raised place	16%	98%	0.000	3.33	4.20	0.00
Reheating of leftover food before consumption	4%	24%	0.024	3.82	3.89	0.00
Feeding practices	88%	86%	0.77	3.74	4.35	0.02

Conclusion

- Behaviour centred initiatives based on contextual and psychosocial factors can improve food hygiene and WASH practices
- Improving WASH and food hygiene practices can lead to a significant reduction in diarrhoeal disease
- Further analysis is on going
- Long term sustained change still needs to be determined

