

# Presentation Title: Diets

Presentation Subtitle: Nutritional Supplements & SBCC

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# Effectiveness of specialized nutritious foods, social and behavior change communication interventions to prevent stunting among children in Badakhshan Province, Afghanistan

## Collaborators

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World Food Programme, Afghanistan

Aga Khan Foundation, Afghanistan

Aga Khan Health Services, Afghanistan

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AGA KHAN FOUNDATION



Aga Khan Health Services



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THE AGA KHAN UNIVERSITY



World Food Programme

## Background

- Over the years, there has been some progress in reducing stunting in Afghanistan, the prevalence remains high with half of the provinces experiencing rates above the WHO alert threshold.
- The World Food Programme (WFP) Afghanistan, in collaboration with the Public Nutrition Department, MoPH Afghanistan, AKHS and AKF, Afghanistan implemented the Stunting Prevention Programme in two districts of Badakhshan, Afghanistan during 2021-2022.
- The Aga Khan University (AKU) evaluated the programme through robust research methodologies including a quasi-experimental pre-post evaluation with a control group utilizing

## Study Design & Timeline

- Formative Research: October-December 2020
- Baseline Survey: October-December 2020
- Process Evaluation: February 2021 to June 2022
- Endline Survey: July and August 2022

# Study Area

- **Two provinces of Afghanistan**
- Intervention Area: Badakhshan (Shuhada & Shahri Buzurg)
- Control Area: Takhar (Rustaq & Woorsaj)

# Intervention Package & Activities

- 1. Super Cereal:** PLW received 7.5 kg super cereal per month (250g/day).
- 2. LNS-MQ/Wawamum:** Children 6-23 months of age received 30 sachets of LNS-MQ per month (50g/day).
- 3. SBCC messages** were delivered through one-to-one sessions, parent's groups and community sessions.
- 4. Community mobilization:** Opinion leaders such as community and religious leaders were identified and engaged in the implementation of the programme.
- 5. Food demonstrations/local recipe development:** These food demonstrations were focus on dietary diversity using local foods.

## Study Outcomes

### **Primary Outcome**

- Reduction in the prevalence of stunting among children < 2 years of age.

### **Secondary Outcomes**

- Reduction in the prevalence of wasting and underweight in children < 2 years.
- Improvement in IYCF practices

# Impact on Child Nutritional Status among Children < 2 Years in Control and Intervention Groups by DiD Estimates

	Intervention		Control		Unadjusted Difference in difference in % (95% CIs) <sup>a</sup>	P-Value	Adjusted Difference in difference in % (95% CIs) <sup>a,b</sup>	P-Value
	Baseline	Endline	Baseline	Endline				
<b>Stunting</b>	418 (28.6)	383 (24.2)	327 (22.3)	372 (23.5)	-5.7 (-10,-1.3)	0.010	-5.0 (-9.9, -0.2)	0.041
<b>Wasting</b>	121 (8.4)	82 (5.2)	207 (14.2)	190 (12.1)	-1.1 (-4.1,1.9)	0.455	-1.7 (-5.1,1.6)	0.315
<b>Underweight</b>	217 (14.9)	211 (15.2)	222 (15.1)	309 (19.3)	5.8 (-9.5,2.2)	0.002	-4.6 (-8.6,0.5)	0.028

a. Unadjusted and adjusted difference in difference were obtained from mixed linear regression models with an interaction between study area (intervention vs control) and time (endline vs baseline).

b. Multivariable models adjusted for child gender, age, maternal age, education, skilled birth attendant, facility births, ICF practices, maternal BMI and household characteristics



## Impact of intervention on IYCF practices by DiD estimates

IYCF practices	Intervention		Control		DiD (%)	P-Value
	Baseline	Endline	Baseline	Endline		
Early initiation of breastfeeding (within 1 hr)	759 (52.0)	1,172 (73.2)	1,294 (88.2)	1,442 (89.9)	19.60	<0.001
Exclusive breastfeeding under 6 months	198 (82.2)	292 (87.4)	274 (80.4)	250 (74.6)	11.00	0.014
Continued breastfeeding at 1 year	263 (93.3)	277 (96.9)	258 (95.6)	285 (97.9)	1.20	0.607
Introduction of solid, semi-solid or soft foods	136 (52.9)	157 (61.3)	121 (51.5)	116 (52.3)	7.60	0.232
Minimum meal frequency	354 (29.0)	898 (70.9)	342 (30.4)	625 (49.3)	23.00	<0.001
Minimum acceptable diet	61 (5.0)	250 (19.7)	63 (5.6)	92 (7.2)	13.10	<0.001
Minimum dietary diversity	236 (19.3)	302 (23.8)	79 (7.0)	127 (10.0)	1.50	0.459
Children ever breastfeed	1,358 (93.0)	1,568 (97.9)	1,435 (97.8)	1,573 (98.1)	4.70	<0.001
Continued breastfeeding at 2 years	94 (87.0)	116 (85.3)	116 (85.3)	211 (92.1)	-8.60	0.114

# Compliance to SNF during Feb 2021 - June 2022

	Endline Survey	
	Intervention	Control
	N=1601	N=1604
<b>Super Cereal to PLW</b>		
- Number of Months Received: Mean $\pm$ SD	7.9 $\pm$ 3.6	2.5 $\pm$ 1.4
- Number of Months Used: Mean $\pm$ SD	6.3 $\pm$ 3.8	1.8 $\pm$ 1.3
<b>LNS to children during 6-23 months of age</b>		
- Number of Months Received: Mean $\pm$ SD	7.1 $\pm$ 4.2	2.5 $\pm$ 2.5
- Number of Months Used: Mean $\pm$ SD	4.9 $\pm$ 4.3	1.1 $\pm$ 1.1

## Exposure to 6 key SBCC messages during Feb 2021 - June 2022

Key SBCC messages on;	Endline Survey	
	Intervention	Control
	N=1601	N=1604
Eat at least five different food groups every day during your pregnancy and lactation period: Mean Number $\pm$ SD	4.4 $\pm$ 2.7	2.5 $\pm$ 1.9
Use of 250 g or 2 cups of Super Cereal during your pregnancy and lactation period and avoid sharing with family/others: Mean Number $\pm$ SD	6.6 $\pm$ 3.8	2.2 $\pm$ 1.6
Initiate breastmilk to newborn within 1 h of birth, continue exclusive breastfeeding until 6 months of age and introduce age-appropriate complementary foods at 6 months along with breastfeeding up to 2 years of age: Mean Number $\pm$ SD	4.4 $\pm$ 2.6	2.4 $\pm$ 1.8
Give variety of foods every day between 2-4 times for your child aged 6-23 months: Mean Number $\pm$ SD	4.0 $\pm$ 2.4	2.1 $\pm$ 1.3
Give one sachet of LNS to your child every day from 6-23 months and avoid sharing with other children: Mean Number $\pm$ SD	6.1 $\pm$ 3.8	2.0 $\pm$ 1.3
Hand washing with soap before preparing food, before eating, before feeding a child, after handling feces/diapers or using the	5.2 $\pm$ 2.0	2.0 $\pm$ 2.5

## Conclusion & Way forward

- Provision of SNF in combination with SBCC during the first 1,000 days of life were associated with improvements in key study outcomes including reductions in stunting and underweight and improvements in IYCF practices among children < 2 years of age.
- Findings from this study have important implications for policy development and the development of other programmes to prevent undernutrition during the first 1,000 days of life.

**Thanks**