



# Social protection and sustainable poverty reduction

## Evidence from Bangladesh

**(Preliminary results)**

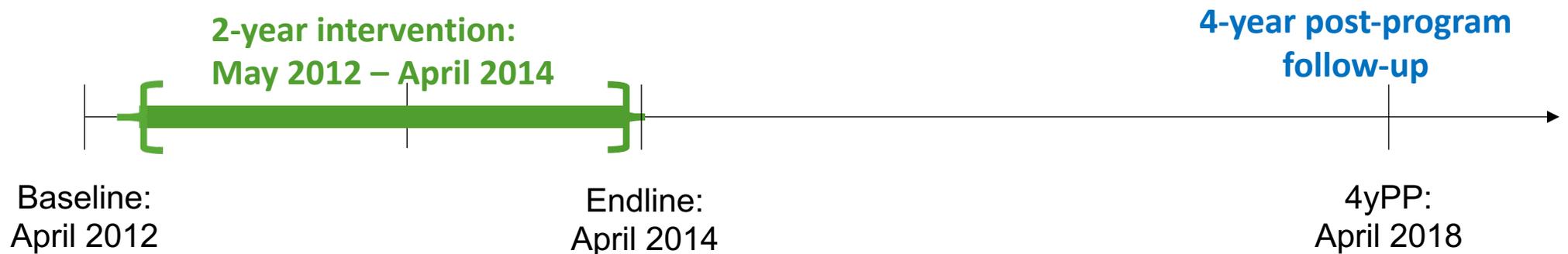
Akhter Ahmed (IFPRI), Melissa Hidrobo (IFPRI),  
John Hoddinott (Cornell & IFPRI), Bastien Koch (IFPRI),  
Shalini Roy (IFPRI), Salauddin Tauseef (University of Manchester)

December 3, 2020

# Motivation

- Social protection programs – particularly cash and food transfers – are very effective in **reducing poverty in the short-term**
- What happens **after these programs end**? Can poverty reduction be sustained?
- **Evidence is limited** but has not been promising

*We look at this in the context of two randomized control trials in Bangladesh...*



# Transfer Modality Research Initiative (TMRI) – World Food Program & IFPRI

- **Randomized control trials** in 2 regions of Bangladesh
- Targeted mothers of young children in poor rural households
- Provided **cash or food transfers** – with or without **group-based nutrition training**

North *	
Control	
Cash	
Food	
Cash+Training	

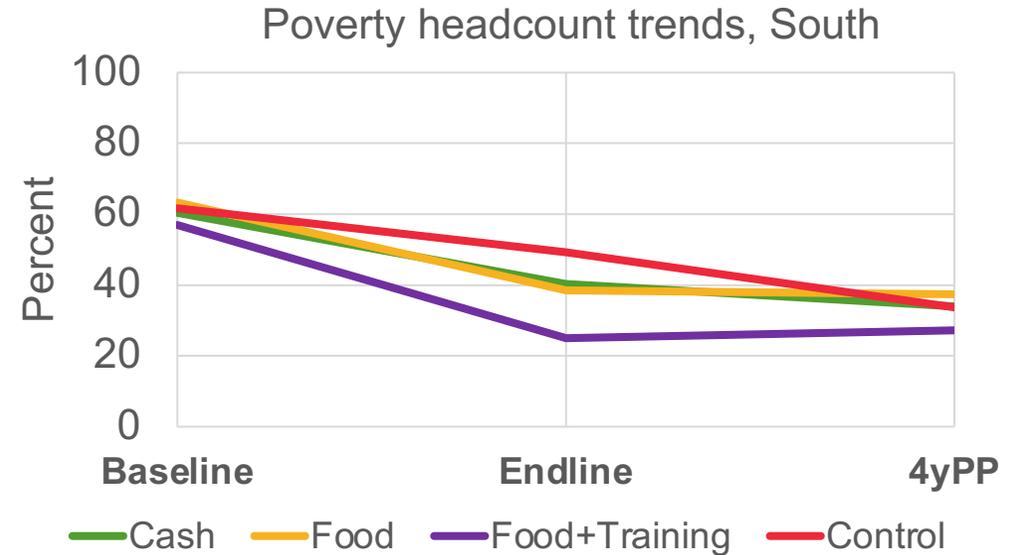
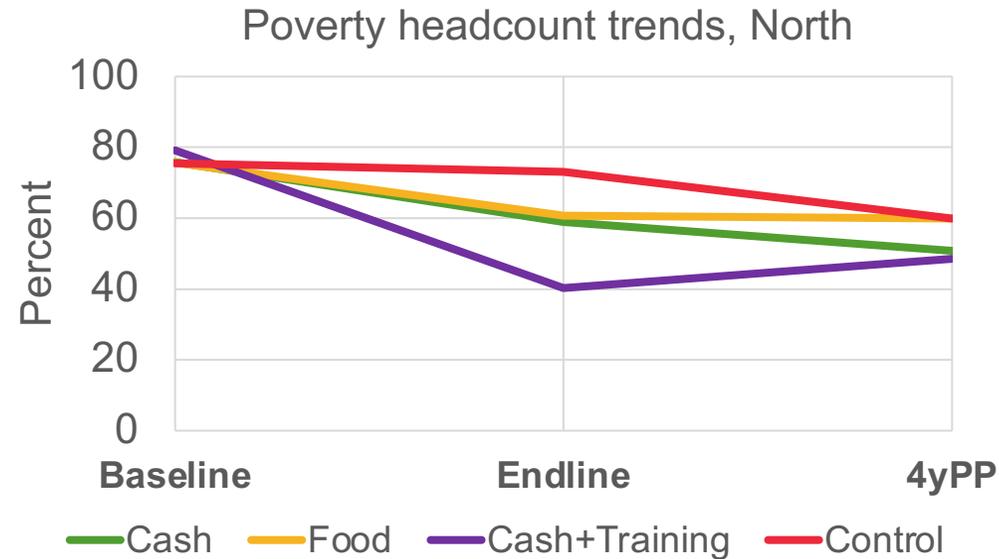
South *	
Control	
Cash	
Food	
Food+Training	

\* arms studied in this analysis



Photo credit: Aminul Khandaker, IFPRI-Dhaka

# How did TMRI affect poverty? All treatments ↓ poverty headcount at EL (more with training), only Cash and Cash+Training in North do at 4yPP



North		
<i>Impacts at...</i>	<i>Endline</i>	<i>4yPP</i>
<b>Cash</b>	<b>-0.14 ***</b>	<b>-0.09 **</b>
<b>Food</b>	<b>-0.12 ***</b>	-0.00
<b>Cash+Training</b>	<b>-0.34 ***</b>	<b>-0.12 ***</b>

South		
<i>Impacts at...</i>	<i>Endline</i>	<i>4yPP</i>
<b>Cash</b>	<b>-0.09 **</b>	0.00
<b>Food</b>	<b>-0.11 ***</b>	0.03
<b>Food+Training</b>	<b>-0.23 ***</b>	-0.06

# Did TMRI sustain poverty reduction? Strongest impacts on “moving and staying out” and chronic poverty from transfers with training

## Transition categories

	BL	EL	4yPP
Chronic poor (PPP)	Red	Red	Red
Moved out after project (PPN)	Red	Red	Green
Transient nonpoor (PNP)	Red	White	Red
<b>Moved out during and stayed out (PNN)</b>	Red	Green	Green
Fell into during and stayed poor (NPP)	Green	Red	Red
Transient poor (NPN)	Green	Red	Green
Fell into after (NNP)	Green	Green	Red
Never poor (NNN)	Green	Green	Green

Significant ↑ in “**moving and staying out**” from  
 \* **Cash, Food, and Cash+Training** – in the North  
 \* **Food+Training** – in the South

### Chronic poverty (Calvo-Dercon 2007):

weighted sum of poverty indicator across rounds, with later rounds given more weight (0 to 2.5725)

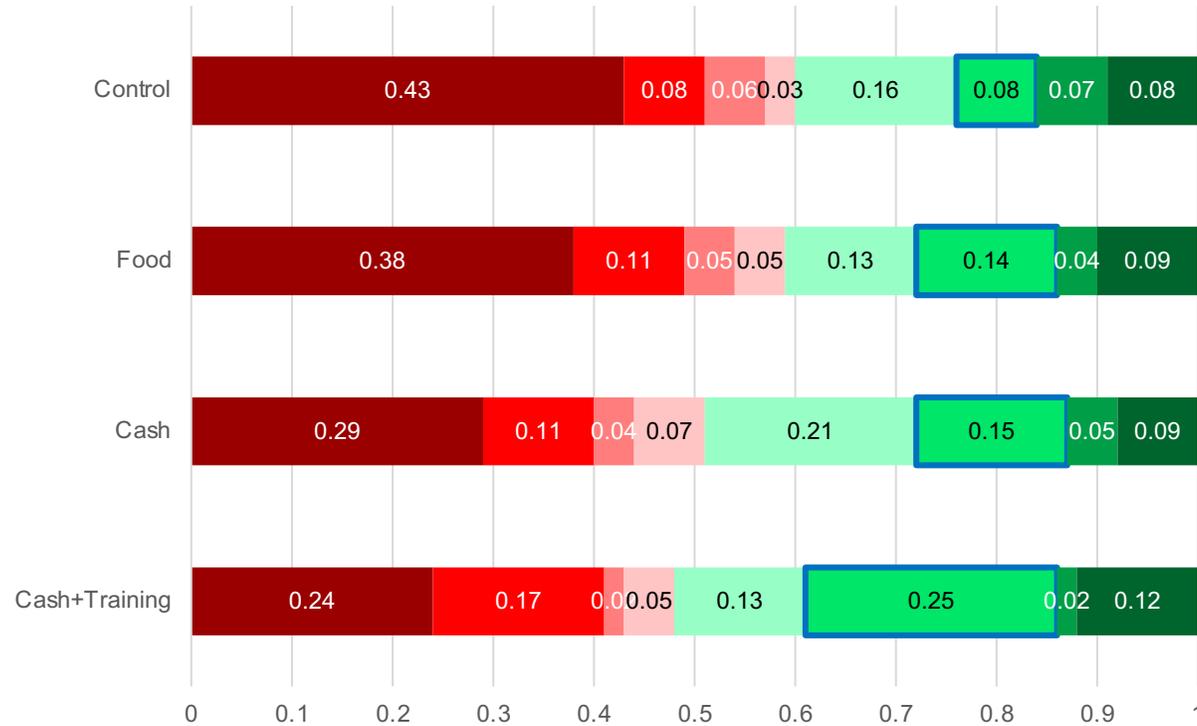
	North	South
<i>Impacts of...</i>		
<b>Cash</b>	<b>-0.21 ***</b>	<b>Cash -0.08</b>
<b>Food</b>	<b>-0.10</b>	<b>Food -0.04</b>
<b>Cash+Training</b>	<b>-0.37 ***</b>	<b>Food+Training -0.31 ***</b>

## Initial conclusions

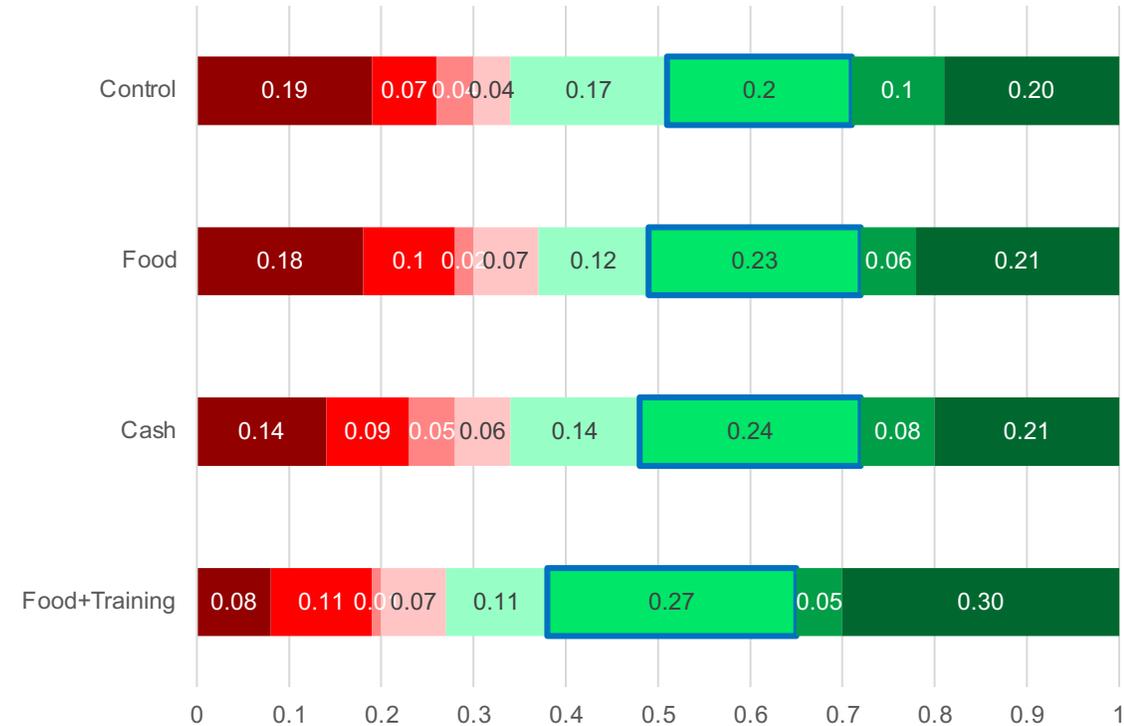
- In our study settings, we find that **twining transfers with group-based training led to sustained reductions in poverty**
- **Cash transfers alone also had sustained effects, but these were smaller than treatments with combined training – and appear to be context-specific**
- **Food transfers alone did not appear to have sustained impacts**
  
- Our understanding of **mechanisms is work in progress** – currently investigating
  1. poverty traps (physical capital, human capital, psychological)
  2. sustained changes in preferences

# Appendix 1: Poverty transitions

## North



## South



■ Chronic poor (PPP)

■ Fell into during project and stayed poor (NPP)

■ Moved out after project (PPN)

■ Transient poor (NPN)

■ Transient nonpoor (PNP)

■ Fell into after project (NNP)

■ Moved out during and stayed out (PNN)

■ Never poor (NNN)

## Appendix 2: Chronic poverty

- How should we weight different numbers of spells of poverty experienced at different times?
- Calvo and Dercon (2007): aggregate measure of poverty for a household over a time period consisting of  $T$  spells

$$CD = \sum_{t=1}^T P_T \beta^{T-t}$$

where  $P_T = 1$  if poor in time period  $T$ ,  $\beta$  is the weight assigned to poverty status, and  $\beta > 0$ .

- Here  $T=3$ , we set  $\beta=0.85$  (more weight on poverty spells in later rounds)
- Thus chronic poverty ranges from 0 if never poor (NNN) to 2.5725 if always poor (PPP)
  - e.g., PPP household: CD score of 2.5725 (BL  $\rightarrow$  0.7225; EL  $\rightarrow$  0.85; 4yPP  $\rightarrow$  1)

# Nigeria NASSP Livelihood Pilot Impact Evaluation

Kehinde Ajayi  
Thomas Bossuroy  
Ayodele Fashogbon  
Markus Goldstein  
Naira Kalra  
Oyebola Okunogbe



New Directions in Graduation Research  
December 3, 2020



# NASSP Livelihood Package

Nigeria National Social Safety Nets Project (NASSP)

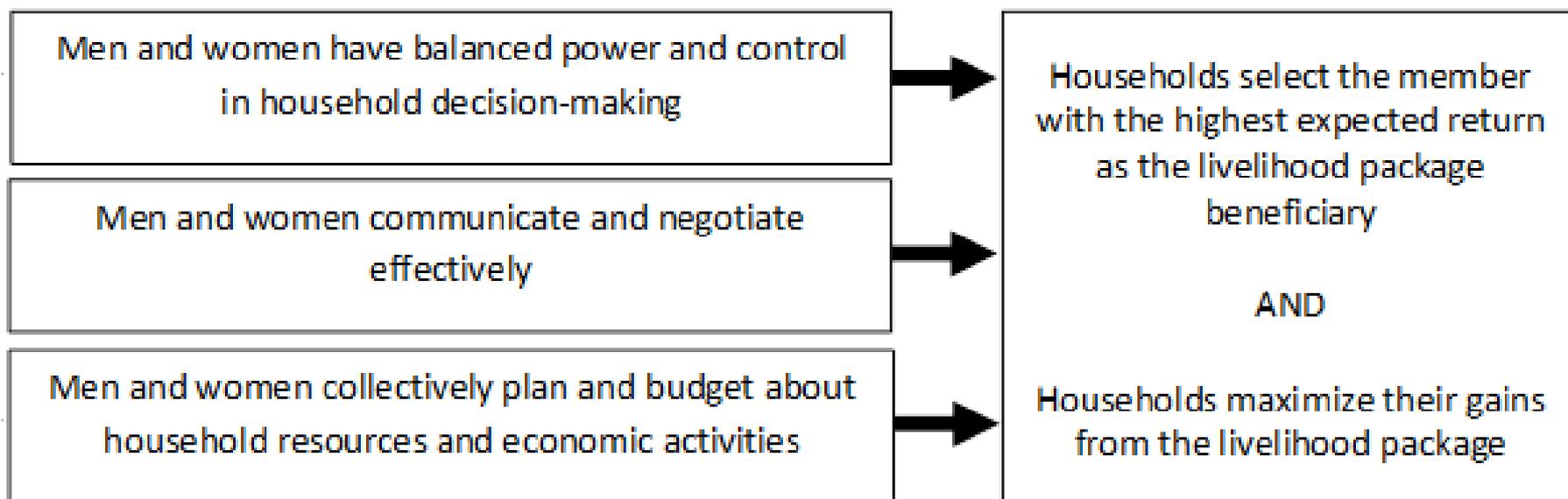




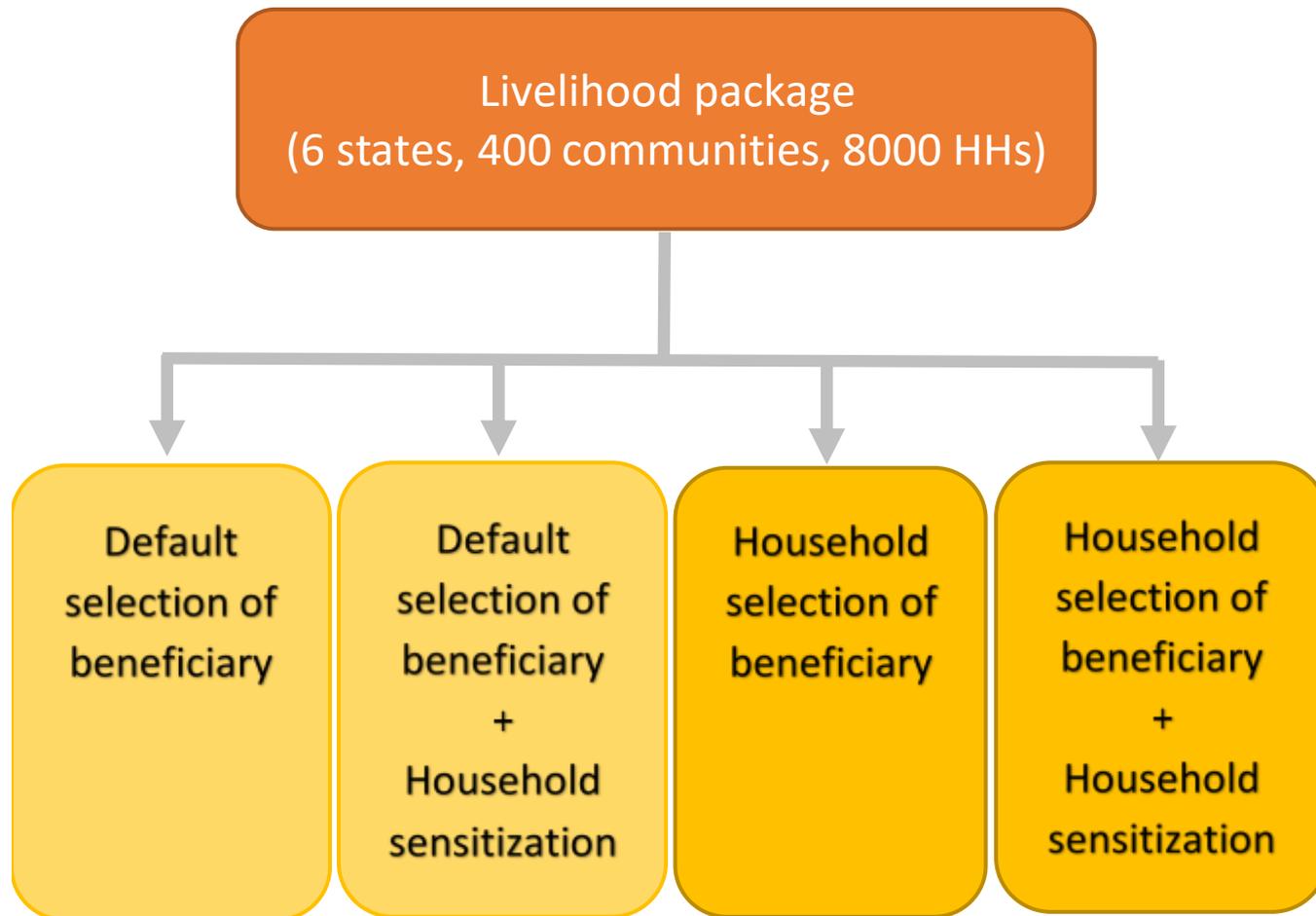
## Key Questions

- **What is the most effective way to select the livelihood beneficiary?**
  - A. Default selection of caregiver
  - B. Household selection based on program criteria
- **What are the effects of a household sensitization intervention?**

# Theory of change – Household sensitization



# Research Design



# Thank you

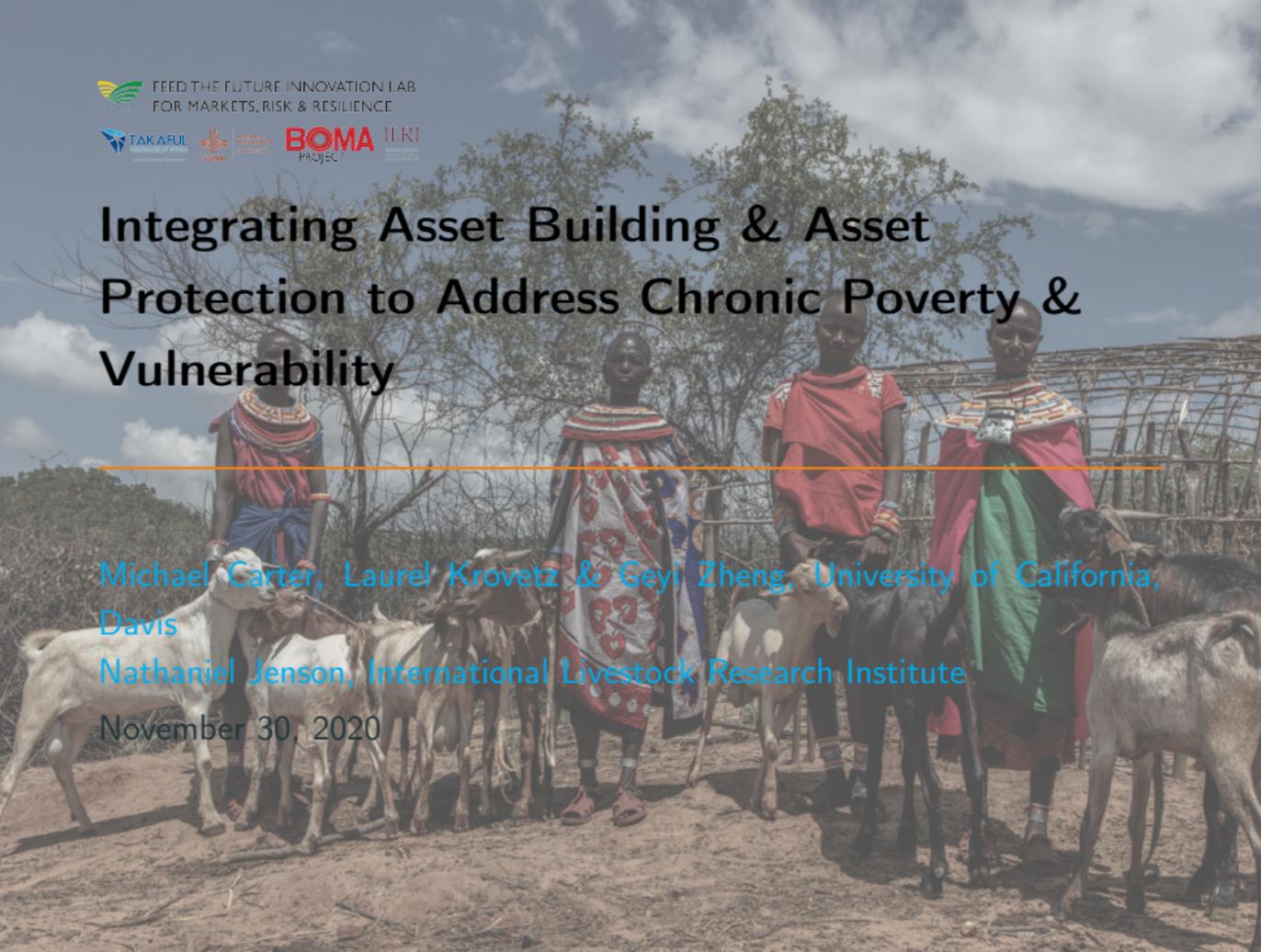
Africa Gender Innovation Lab

<http://www.worldbank.org/en/programs/africa-gender-innovation-lab>

Nigeria NASSP Project

<https://projects.worldbank.org/en/projects-operations/project-detail/P151488>

Contact: [kajayi@worldbank.org](mailto:kajayi@worldbank.org)



FEED THE FUTURE INNOVATION LAB  
FOR MARKETS, RISK & RESILIENCE

TAKARUL  
ILRI  
BOMA PROJECT

# Integrating Asset Building & Asset Protection to Address Chronic Poverty & Vulnerability

---

Michael Carter, Laurel Krovetz & Geyi Zheng, University of California, Davis

Nathaniel Jensen, International Livestock Research Institute

November 30, 2020

# The Asset Building & Protection Agenda

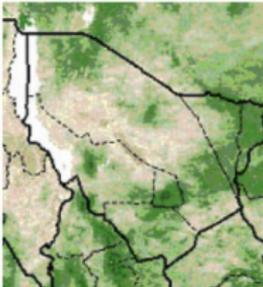


- Unresolved issues in the literature on graduation programs that build tangible and psychological assets
  - *Longevity & Heterogeneity of Impacts*, especially in a highly risk-prone environment like the pastoralist regions of the Sahel
    - 3 Insights from multi-equilibrium poverty trap models
  - *Program Cost*: Can cost of graduation programs be lowered if we exploit the fact that psychological assets are non-rival goods that can potentially be shared across social networks (especially since psychological asset building as expensive as physical asset transfer)

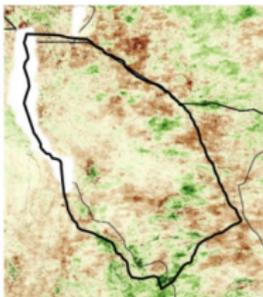
# The Asset Building & Protection Agenda

- This project augments the asset building of a graduation program with the asset protection of index insurance:

Normal year (May 2007)



Drought year (May 2009)



- Test for long-term synergies by combining BOMA Project's REAP graduation program with Index-based Livestock Insurance/Takaful in northern Kenya
- Test to see if poverty dynamics can be fundamentally altered if also use insurance to brake the downfall of “vulnerable non-poor”
- Also test the spillover of psychological assets through social networks
  - Test impacts on psychological assets and economic outcomes for non-treated
  - Measurement of psychological assets allows to test hypotheses about impact heterogeneity (see Juan on Peru)

# Research Design & Timeline

- Across 88 manyattas (“villages”), used BOMA’s targeting to create following treatment groups with individual randomizations:

Poor (REAP eligible, n=1,503)				Vulnerable (REAP ineligible, n=372)			
		IBLI				IBLI	
		No	Yes			No	Yes
REAP	No	407	405	REAP	No	186	186
	Yes	350	341		Yes	0	0

- Saturation Design to allow analysis of spillovers:

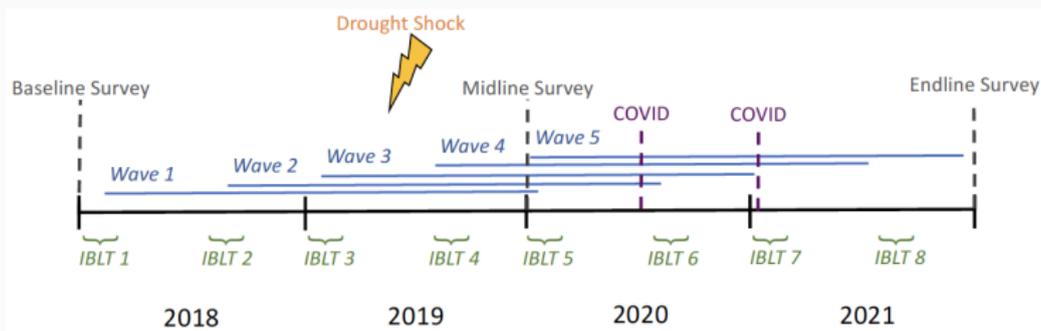
Saturation*	<5%	5-10%	10-15%	15-20%	20-25%	25-30%	30-35%	35-40%
# Manyattas	6	18	23	17	16	4	2	2
% Manyattas	7	20	26	19	18	5	2	2

\*Number of REAP-treated women per-adult woman in the manyatta at midline

- Encouragement design successful in boosting insurance uptake (47% compliance)

# Research Design & Timeline

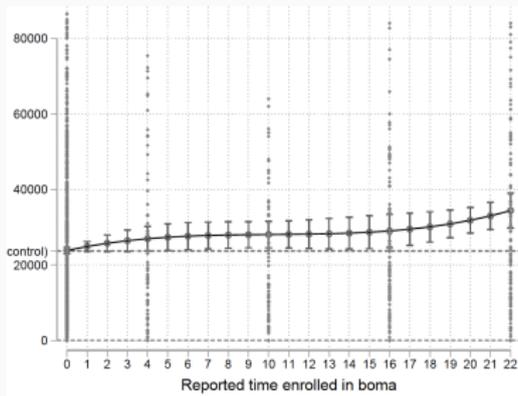
- Randomized rollout to allow duration or continuous treatment analysis



- Natural experiment in mid-2019 that created large-payoffs—while the shock hit almost all study households, put wave 3 households under stress just as they were receiving their business grants.

# Initial Results

- For longest enrolled treatment wave finding average impacts of 30%, 250% & 600% in household cash income, business assets and savings



- Heterogeneity visible in actual data points. Conditional quantile effects reveals that impacts are about 4 times higher in top 5 quantiles
- Interaction of baseline depression indicator (CES-D > 12) shows that depression reduces impacts by some 60%
- Small but significant impact of BOMA on CES-D depression score
- Still analyzing the impact of shocks and if insurance mitigates them

# The Impact of Psychological Asset Building on the Effectiveness of Peru's *Haku Wiñay*.

Juan Sebastian Correa <sup>1</sup> Michael R. Carter <sup>1</sup> Ursula Aldana <sup>2</sup>

<sup>1</sup> University of California, Davis

<sup>2</sup> Institute of Peruvian Studies (IEP)

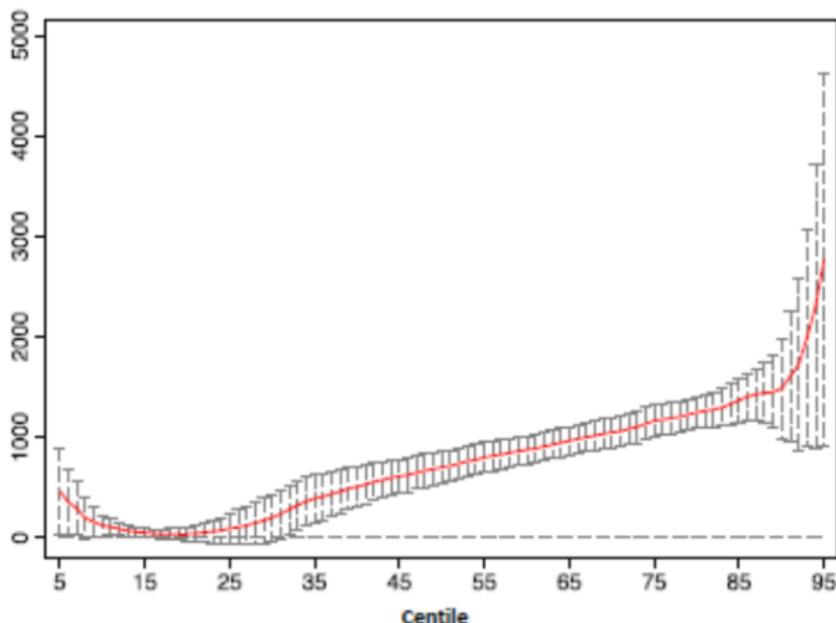
December 3, 2020

## Graduation programs:

- ① Heterogeneous effects (Banerjee et al. 2015, Bandiera et al. 2017)
  - ② Multifaceted: disentangle relative importance of each separate module.
- ① Can psychological differences explain some of the observed heterogeneity?
    - Peru's *Haku Wiñay*, no explicit life-skills module
    - Finding: Effect on income is three times larger if initial index reflecting the believe of having control over one's life is above median
  - ② How important is the life-skills coaching module?
    - Peru's *Haku Wiñay* (HW), experimentaly introduce to a random sub-sample of HW beneficiaries.
    - Finding: Additional life-skills module changes index by half a standard deviation. Midline results, no impact on income because of timing.

# Heterogeneities in graduation programs

- Bandiera et al. (2016) find heterogeneous effects after 4 years: value of productive assets for the 95th percentile is USD 3000. Value for the 1st-30th percentiles is 0.



# Poverty, psychology, and complementarities between physical and psychological assets

- Source of heterogeneity
  - Ability
  - Shock exposure (see Michael on Kenya)
  - Psychological attributes
- Ample evidence of the effects of poverty on psychological wellbeing (Mullainathan 2013, Haushofer and Fehr 2014, Wuepper and Lybbert 2017)
- Barrett, Carter and Chavas (2018) theoretical case for complementarities between transfers of tangible and psychological assets.

$$y_i = \alpha_i f(k_i)$$

- Peru's *Haku Wiñay*, all components minus life's skills coaching.
- Discontinuity in the probability of village assignment to *Haku Wiñay*
  - Identify the heterogeneous effects of the program on income based on initial psychological levels.
- Randomize sample of selected villages into additional life-skills coaching module (Partial population model (Baird et al 2018))
  - Identify the psychological effects of additional module on coaching beneficiaries and possible spillovers.
- Midline results, unable to see effects of coaching on income.

# Summary and discussion

- Findings:
  - ① Can psychological differences explain some of the observed heterogeneity?
    - ITT= USD 800, annual income
    - Effect of *Haku Wiñay* on income is 3 times larger for households with initial level of index reflecting the believe of having control over one's life above median.
  - ② How important is the life-skills coaching module?
    - Additional life-skills module changes index by half a standard deviation.
    - No evidence of spillover effects.
    - Too soon to see the effect on income
    - Evidence of life-skills module on agricultural practices
- Poverty alleviation programs aiming at exclusively relaxing material constraints may be missing an opportunity to enhance the economic effects
- Midline results. Endline results should allow us to confirm this.
- Discussion:
  - Are the changes in the psychological variables permanent?
  - Effect of COVID-19