



USAID
FROM THE AMERICAN PEOPLE

SUAAHARA
Building Strong & Smart Families



Government of Nepal
Ministry of Health & Population

Women's Empowerment in Agriculture & Child Nutritional Status in Rural Nepal: A Cross-Sectional Analysis

*Dr. Kenda Cunningham
Nutrition Innovation Lab Symposium
Kathmandu, Nov 2014*

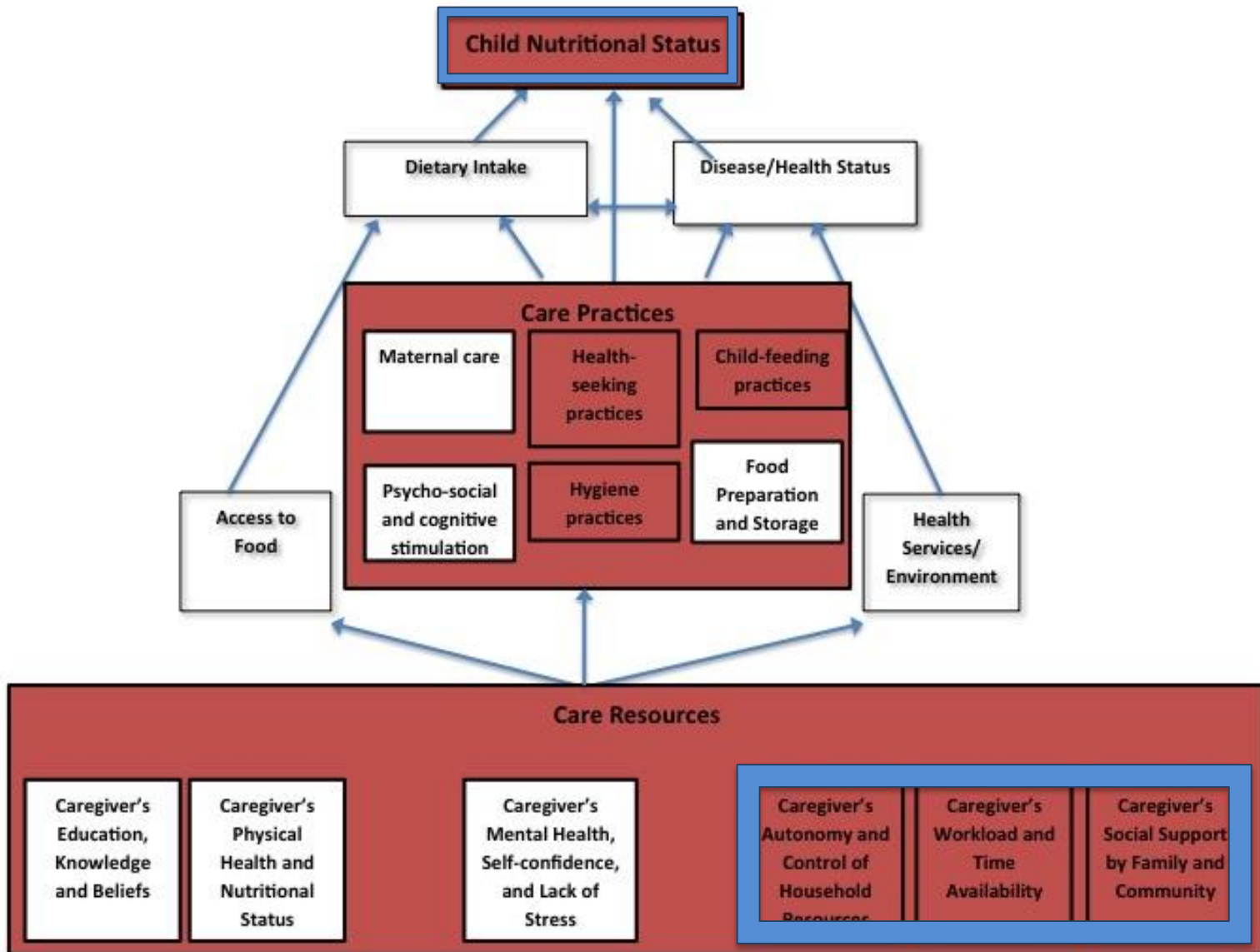


Outline

- Conceptual framework
- Existing evidence
- Study objectives & design
- Measurement
- Results
- Conclusions



Conceptual



Source: Authors construction based on Care Framework from Engle, P. L., Menon, P., & Haddad, L. (1997). Care and Nutrition: Concepts and Measurement.

Existing Evidence

Is there evidentiary support for women's empowerment as a determinant of child nutritional status in South Asia?

Literature Search:

Women's Empowerment: employment, authority, control, decision-making, power, leadership, autonomy

Nutritional Status: 0-5y anthropometry

Excluded: non-English, ; 1990, grey literature

Databases: 9

Results: **13 studies**

Key Findings:

1. All + associations, but inconsistent definitions and measurement methods for "empowerment"
2. ZERO studies on time/workload
3. ZERO studies specific to rural/agricultural contexts
4. ZERO studies including more than 1 aspect of women's empowerment



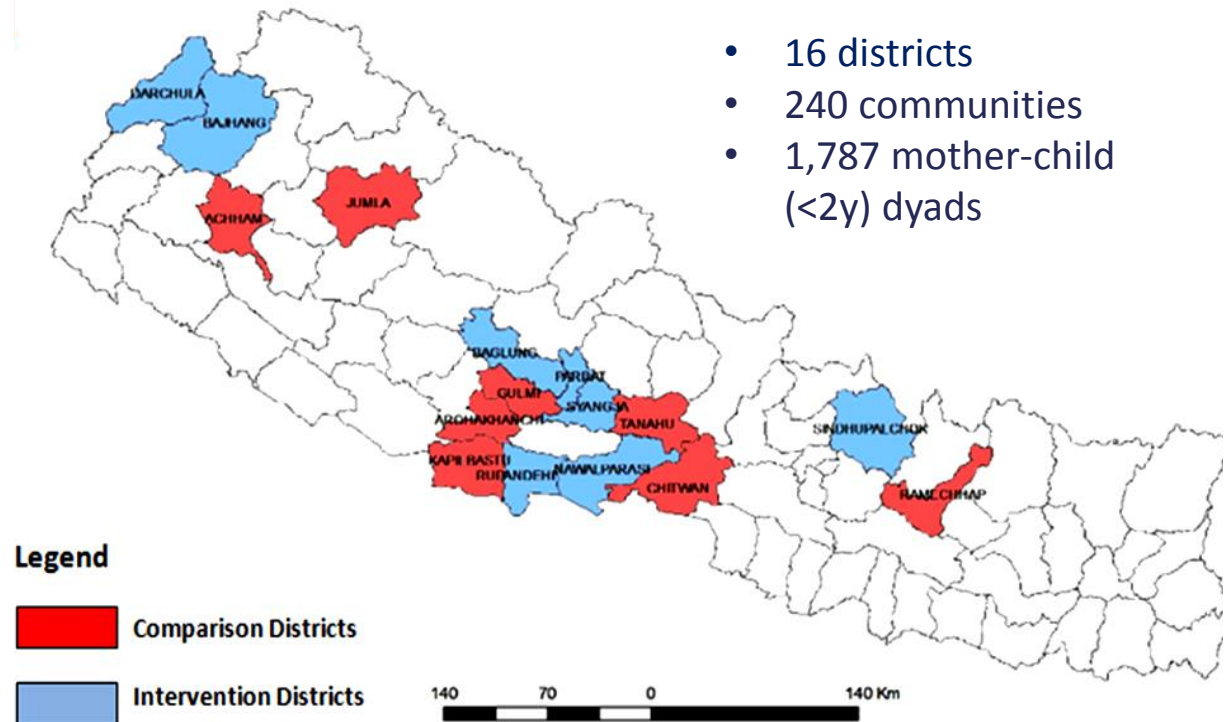
Study Objectives and Design

- **Objective:**

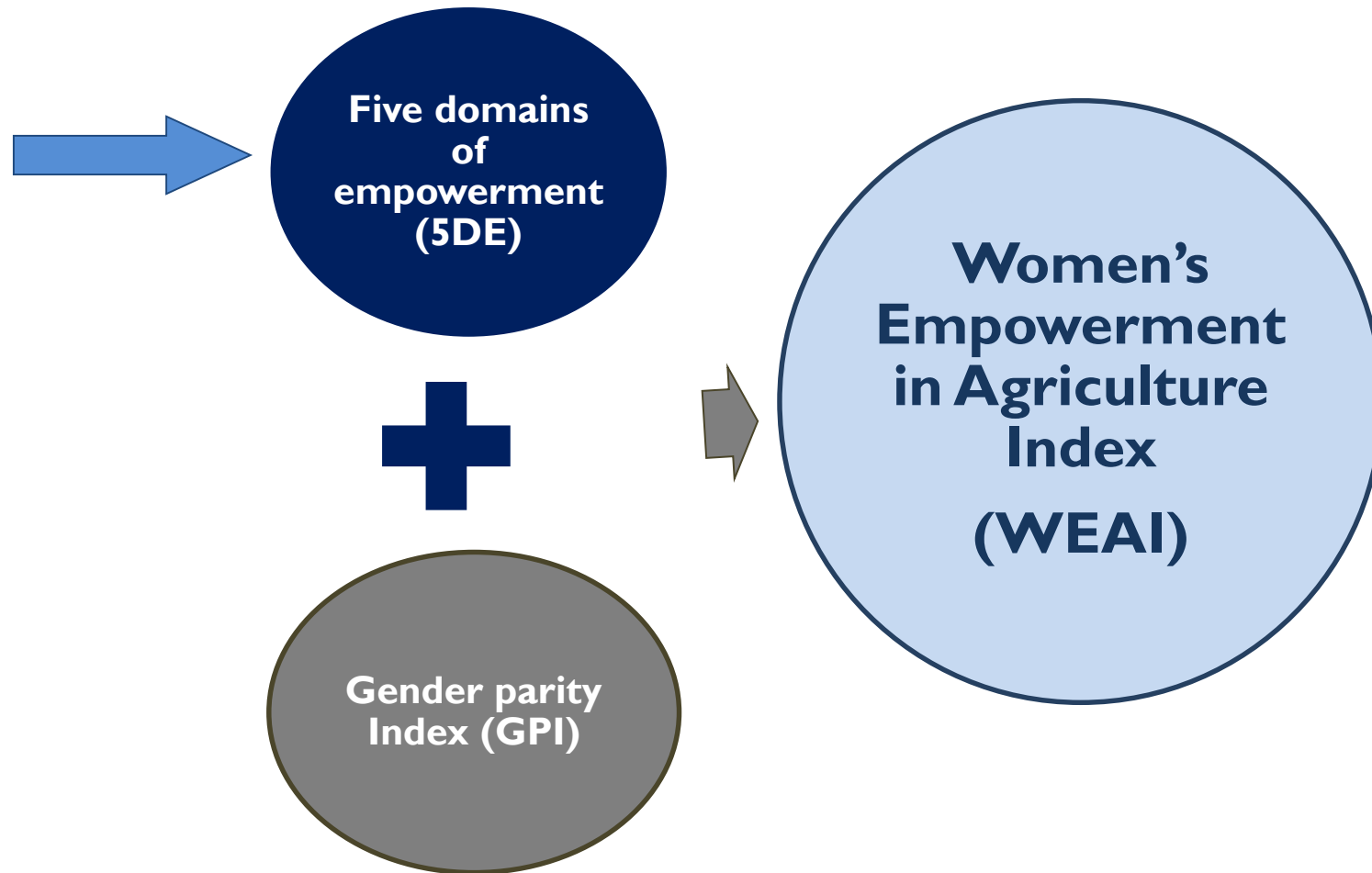
To examine the association of women's empowerment in agriculture and child (<2y) nutritional status in rural Nepal

- **Dataset:**

Suaahara cross-sectional baseline dataset; Data collection in June-Oct 2012; household interviews and anthropometry (maternal and child)

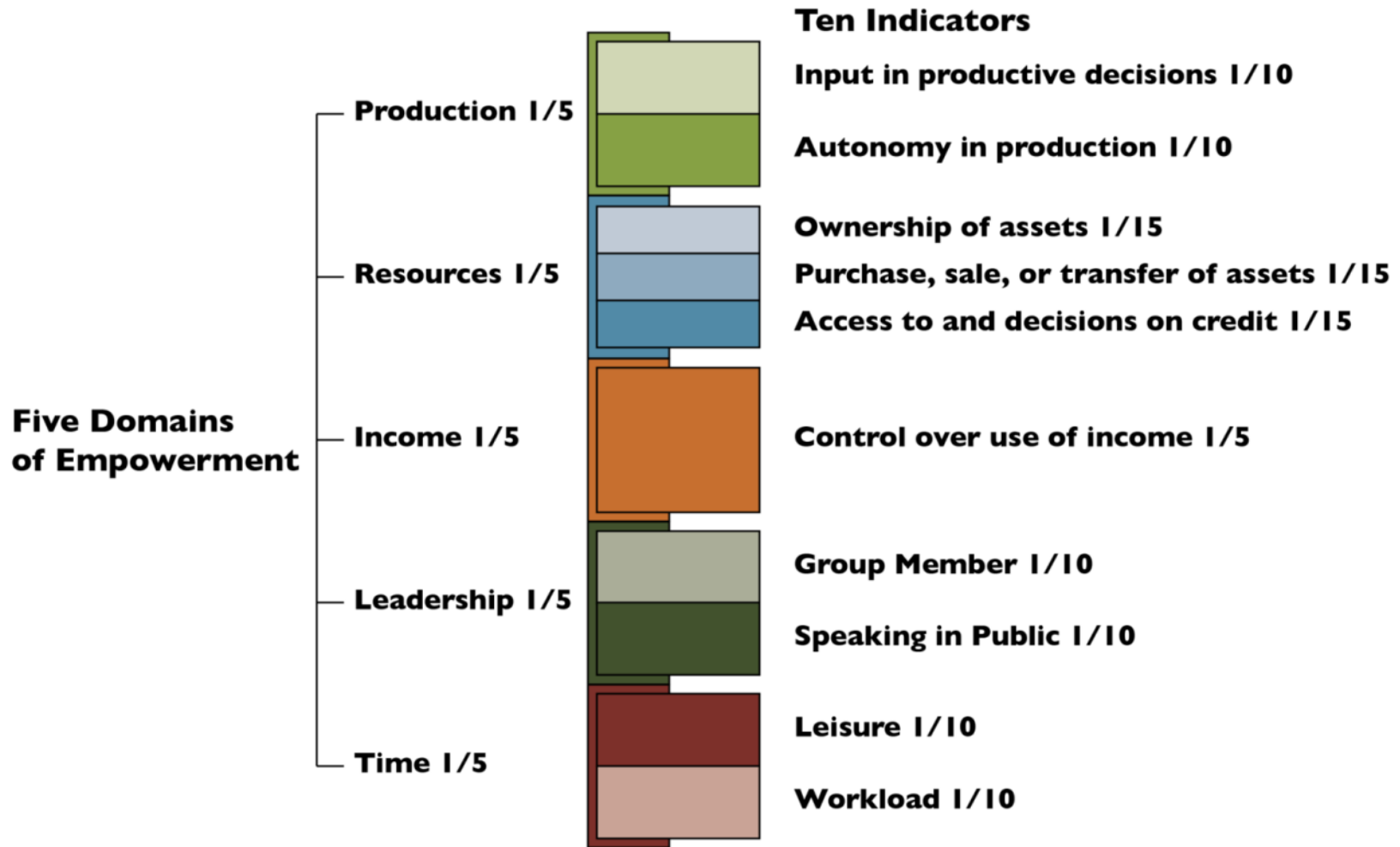


Measurement Tool: WEAI



Source: USAID. OPHI. IFPRI. 2012. Women's Empowerment In Agriculture Index.

Measurement Tool: 5DE



Methods: Data Analysis

OLS Linear Regressions

Primary outcome: child nutritional status

- Child (<2) LAZ (continuous)

Primary explanatory: women's empowerment in agriculture

- WEAI 5DE overall (binary)
- WEAI 5DE 10 indicators (binary)

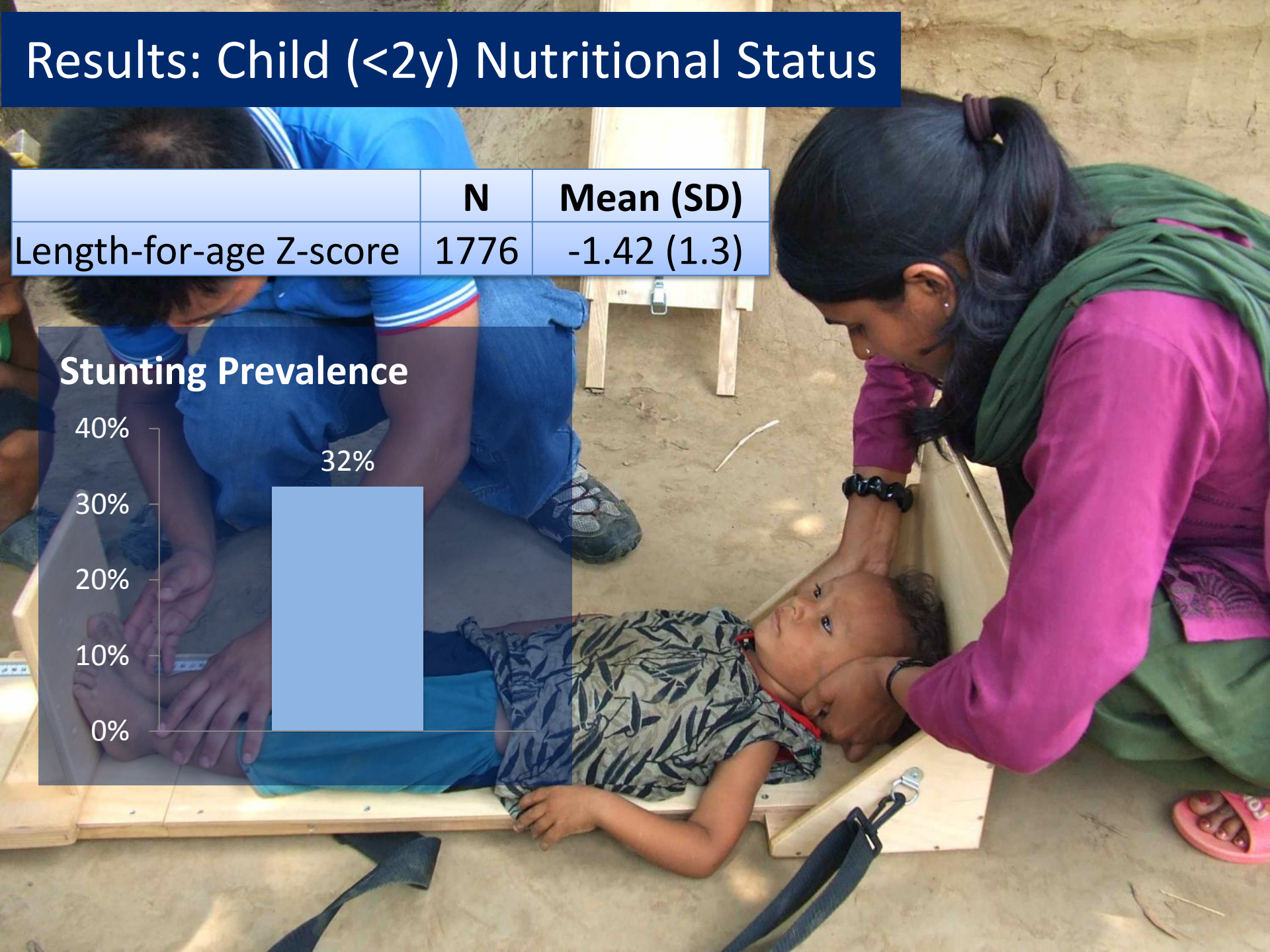
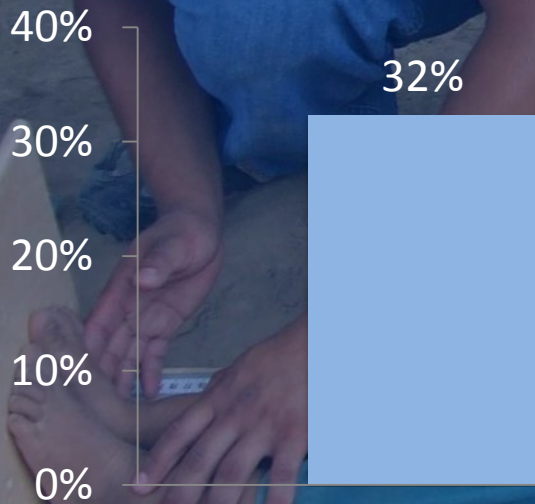
Confounding variables:

- Child: age (continuous), age squared (continuous), sex (binary)
- Maternal: age (continuous), height (continuous) education (categorical),
- Household: socio-economic status (categorical), no. of under 5s (binary), agro-ecological zone (categorical)
- Survey: district-level clustering

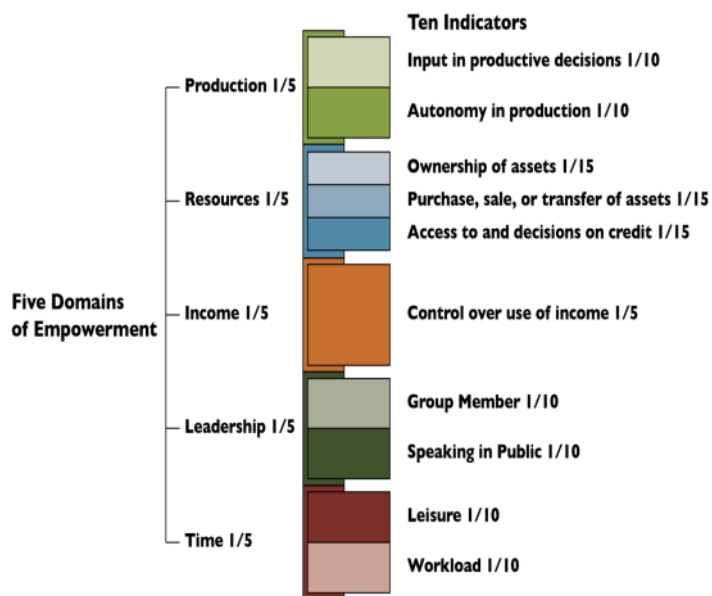
Results: Child (<2y) Nutritional Status

	N	Mean (SD)
Length-for-age Z-score	1776	-1.42 (1.3)

Stunting Prevalence



Results: WEAI 5DE



Women's Empowerment in Agriculture (N=1312) %

Overall WEAI 5DE 9.2

Indicators of WEAI 5DE

Production

Input into production decisions	79.2
Autonomy in production	31.3

Resources

Asset ownership	84.7
Rights over assets	56.9
Access to and decisions on credit	30.1

Income

Control over use of income	59.3
----------------------------	------

Leadership

Group membership	21.0
Speaking in public confidence	79.5

Time

Workload (<10.5 hours in paid and unpaid labour)	38.0
Leisure	83.4

Results: WEAI 5DE & Child (<2y) Nutritional Status

WEAI 5DE	Final Model (N=1306)	
	β	(95% CI)
Overall	0.19*	(0.01, 0.36)
Dimensions		
Input into productive decisions	0.11	(-0.07, 0.29)
Autonomy in production decisions	0.10*	(0.00, 0.20)
Ownership of assets	0.00	(-0.34, 0.35)
Right to purchase, sale, or transfer agricultural assets	-0.02	(-0.16, 0.13)
Access to and decision-making power regarding credit	0.19*	(0.03, 0.34)
Control over use of income	0.13	(-0.03, 0.29)
Group membership	0.06	(-0.12, 0.24)
Comfortable speaking in public	0.06	(-0.10, 0.23)
Workload (<10.5 of 24 hours in paid and unpaid labor)	-0.07	(-0.23, 0.10)
Satisfaction with time for leisure activities	0.27**	(0.11, 0.43)

Note: * p < 0.05, **p < 0.001

Conclusions



- Consistent with literature that women's empowerment and child nutritional status are associated.
- Results are exclusively about women's empowerment in agriculture but can be compared to other measures of women's empowerment.
- Indicators are not monotonic: different aspects of women's empowerment in agriculture influence child nutritional status in different ways; some are and others aren't associated; and also differs by nutritional outcome (results not shown).

Co-authors:

- Elaine Ferguson, LSHTM
- George Ploubidis, IoE
- Purnima Menon, IFPRI
- Suneetha Kadiyala, LSHTM
- Ricardo Uauy, LSHTM
- Marie Ruel, IFPRI

Collaborators:

- New Era
- USAID
- Suaahara



THANK YOU!



USAID
FROM THE AMERICAN PEOPLE

SUAAHARA
Building Strong & Smart Families



Government of Nepal
Ministry of Health & Population