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The U.S. Government's Global Hunger & Food Security Initiative

Leveraging agriculture for nutrition impacts

Patrick Webb

6 August 2019

Photo credit: Name/Organization



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1982-1992 - NUTRITION CRSP

- To determine “relationships between energy (food) intake and important functions, including growth, psychological development, pregnancy and lactation.
- The basic study design was to observe individuals and their households at frequent intervals for one year.
- There were no nutritional or other interventions.”





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“TOP PRIORITIES FOR NUTRITION RESEARCH”

Conduct rigorously designed evaluations of holistic programs that include nutrition-specific and nutrition-sensitive interventions to assess effects on linear growth.

Gates Foundation (March 2010)

USAID anticipates “a research strategy that is both innovative and problem-solving and responds to the food and nutrition scientific needs, as well as capacity development requirements.”

USAID (Sep 2010)



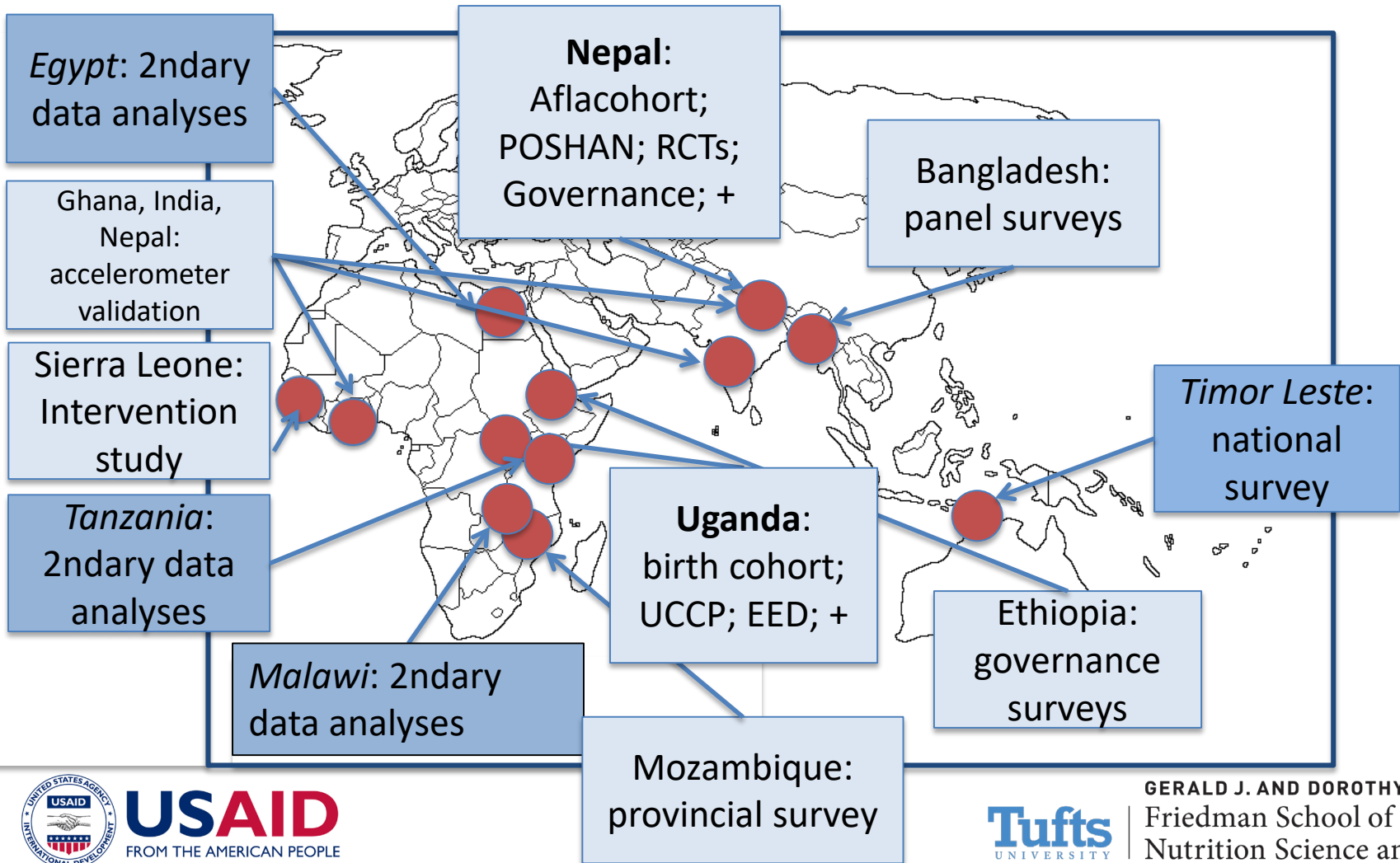
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NUTRITION INNOVATION LAB STUDY SITES/TYPES





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Since “Feed the Future activities primarily occur in “zones of influence”... attribution will always be difficult.”

Source: Elliott and Dunning (2016) *Assessing the US Feed the Future Initiative*.
Center for Global Development Paper 75, March 2016



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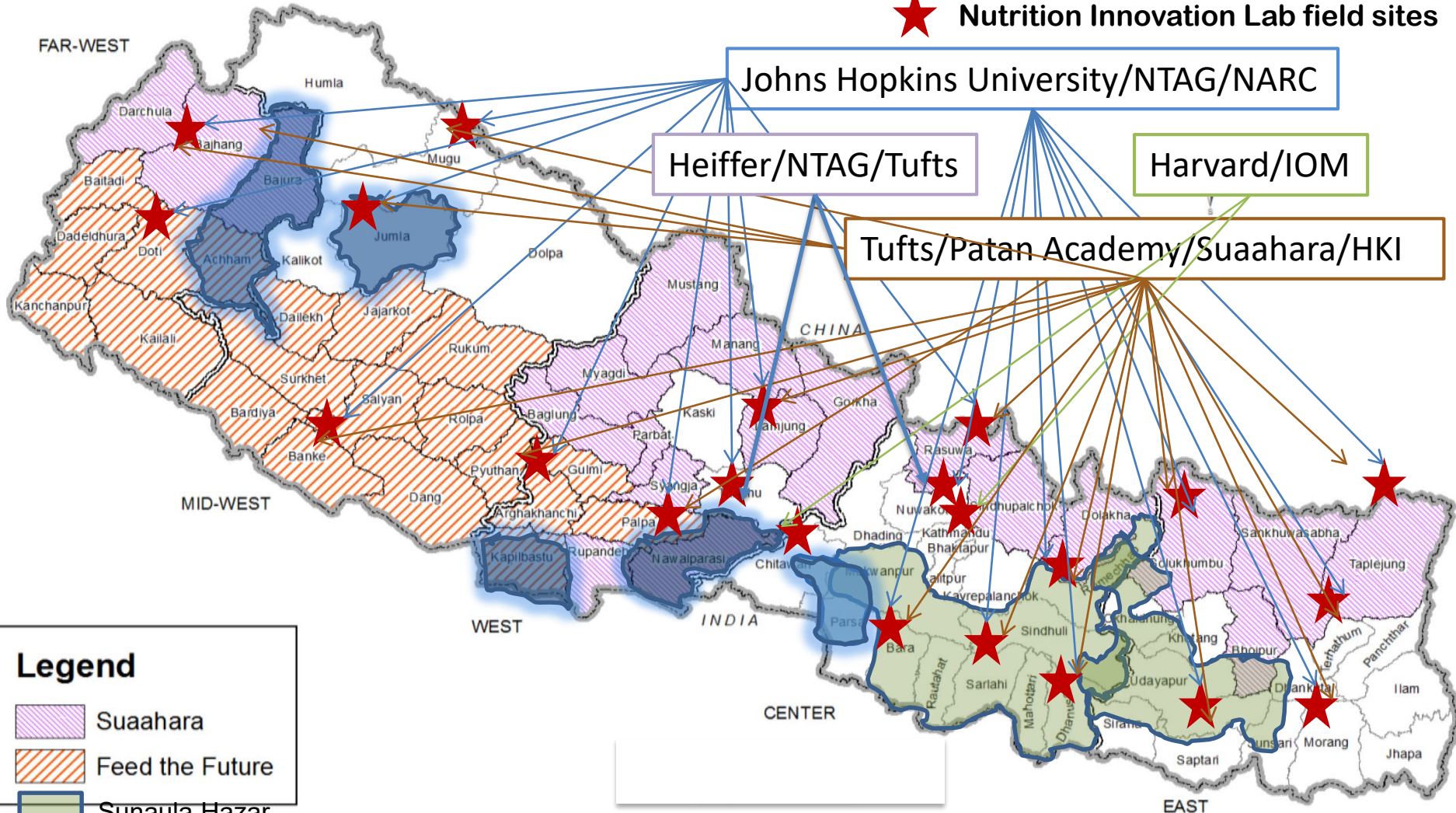
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

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★ Nutrition Innovation Lab field sites



Legend

-  Suaahara
-  Feed the Future
-  Sunaula Hazar
-  Multi-Sector Nutrition Plan

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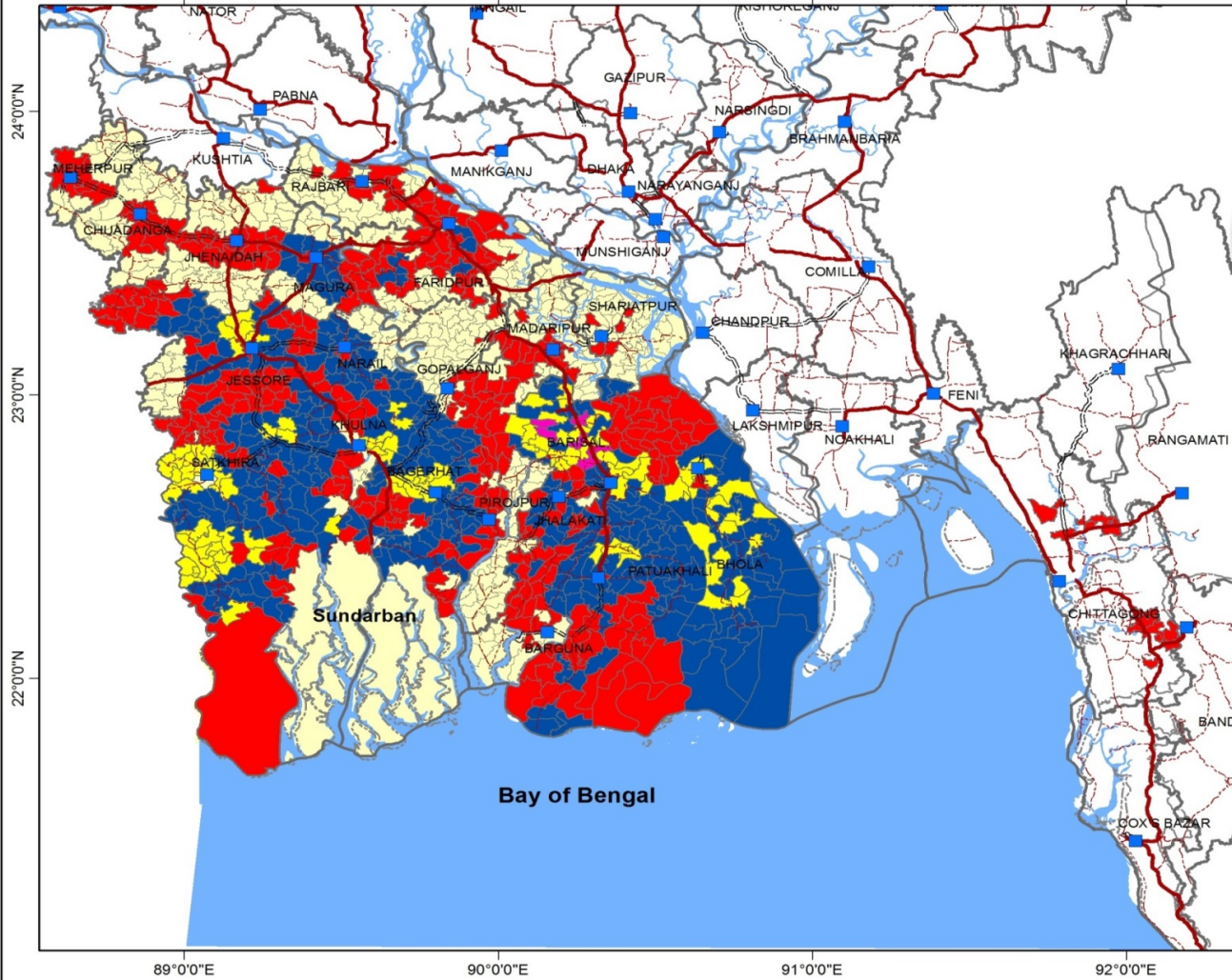
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Overlapping Working Areas (AIN, FAO, CIP, AESA, SHIKHA, SPRING Projects)



Legend

- District headquarters
- Feeder road
- Regional highway
- National highway
- 0 projects working area
- 1 project working area
- 2 projects working area
- 3 projects working area
- 4 projects working area
- District boundary
- River network

0 25 50 Kilometers
Scale 1:2,000,000

Map of Bangladesh

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Working areas

Bay of Bengal



ARE WE DELIVERING?

1. “*Conduct rigorously designed evaluations of holistic programs ...to assess effects on linear growth.*” (Gates)

- Can integrated programs *improve diets*?
- Does promoting production of nutrient-rich foods enhance both sales *and own-consumption*?
- Does this enhance quality of *child's diet*?
- Does child *anthropometry* improve?



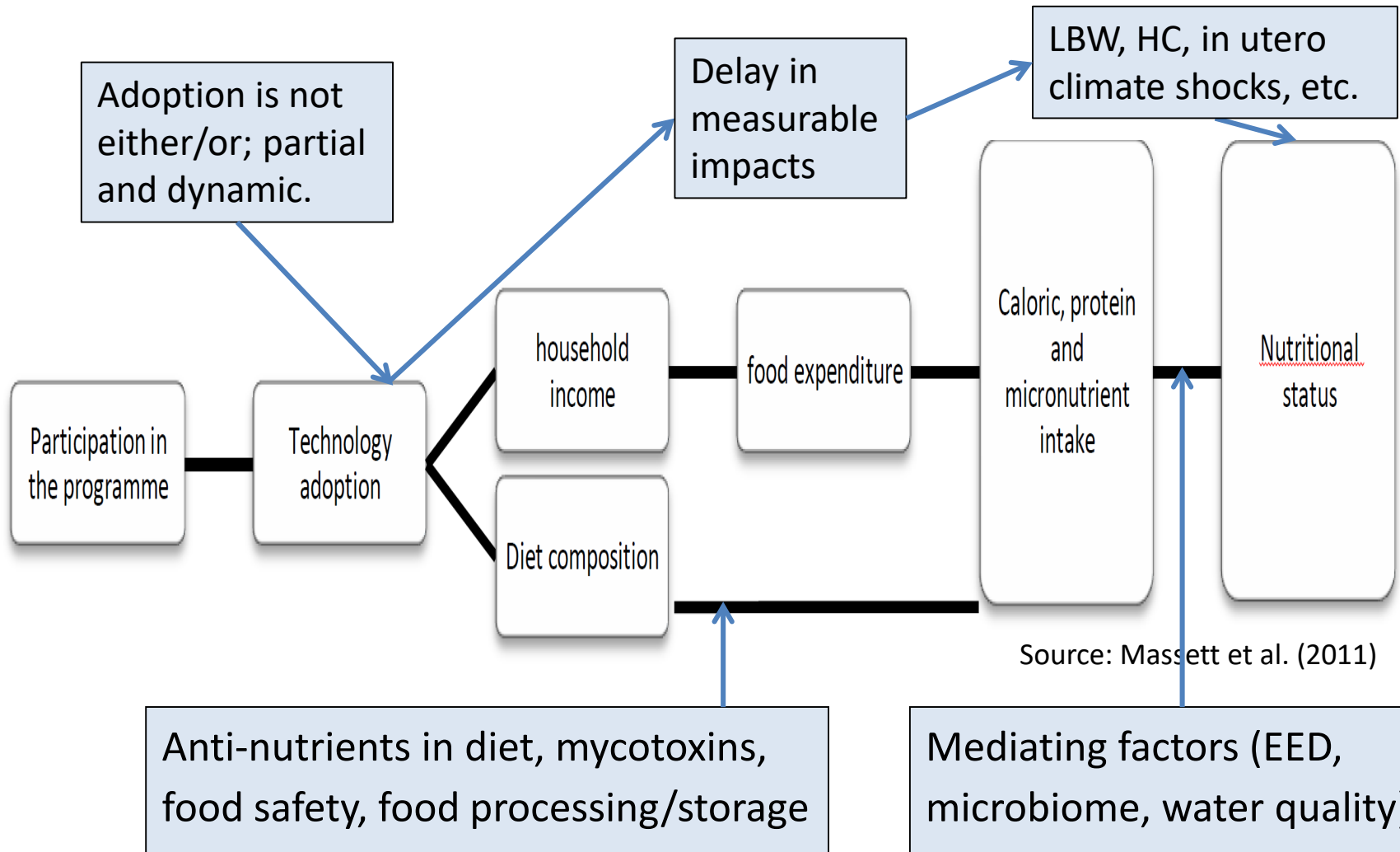
We need to calibrate expectations to program design...





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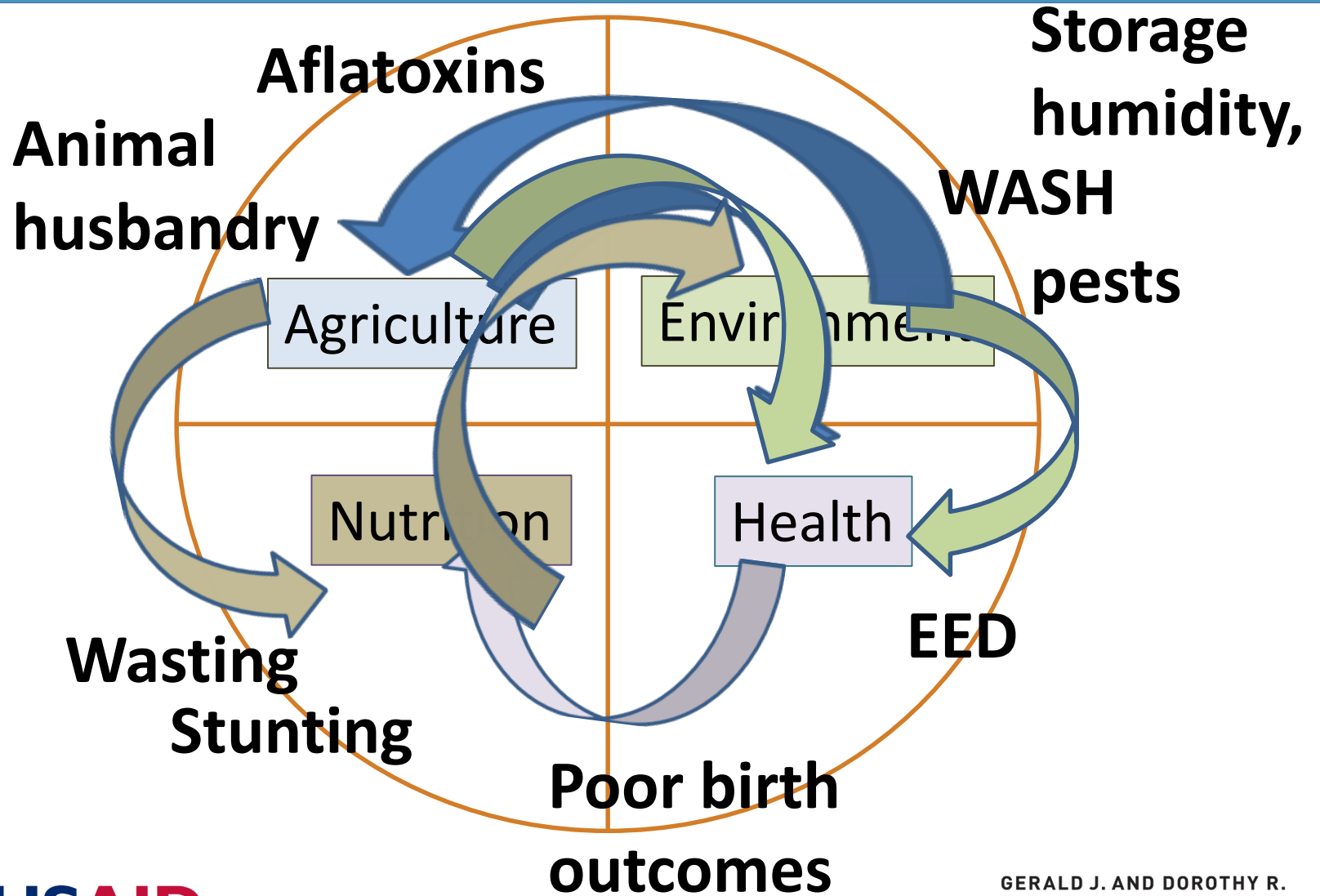


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DO KEY FOODS ENTER CHILD'S DIET IF OWN PRODUCED?

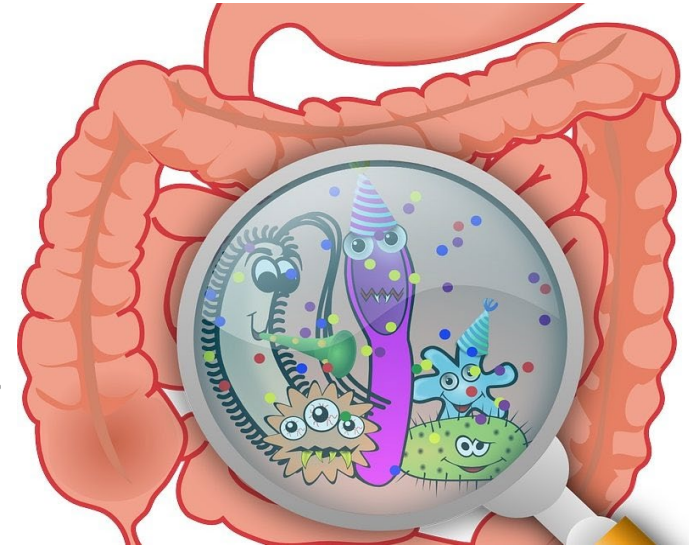
Production of:	6-11 mo. (cons.)	12-17 mo. (cons.)	18-23 mo. (cons.)	6-23 mo. (cons.)	24-59 mo. (cons.)
Vitamin A-rich F&V	0.71	0.61	1.24***	0.98***	0.45
Other F&V	1.16	0.50	0.73	0.56	1.08***
Meat	1.83	-1.76	0.87	0.12	0.21
Eggs	0.78	0.22	1.64***	1.32***	0.98***
Dairy	-1.71***	-0.49	0.98***	0.06	1.20***
Legumes, nuts & seeds	0.08	0.47	-0.36	0.03	0.63
Observations	396	399	800	1,635	4,343

... Only for some food groups, only for *older* children, only in poorer households, only when living far from markets.



“Leaky gut” (EED) = inflammation and loss of nutrients

- 385 children in Uganda 12-16m:
 - **80% moderate/severe EED**
- Infants stunted or wasted at 6-9m:
 - **Associated with higher EED later**
- Improved water source (WASH):
 - **Associated with lower EED ($P < 0.05$)**
- If goats/sheep inside home:
 - **Associated with higher EED ($P < 0.05$)**

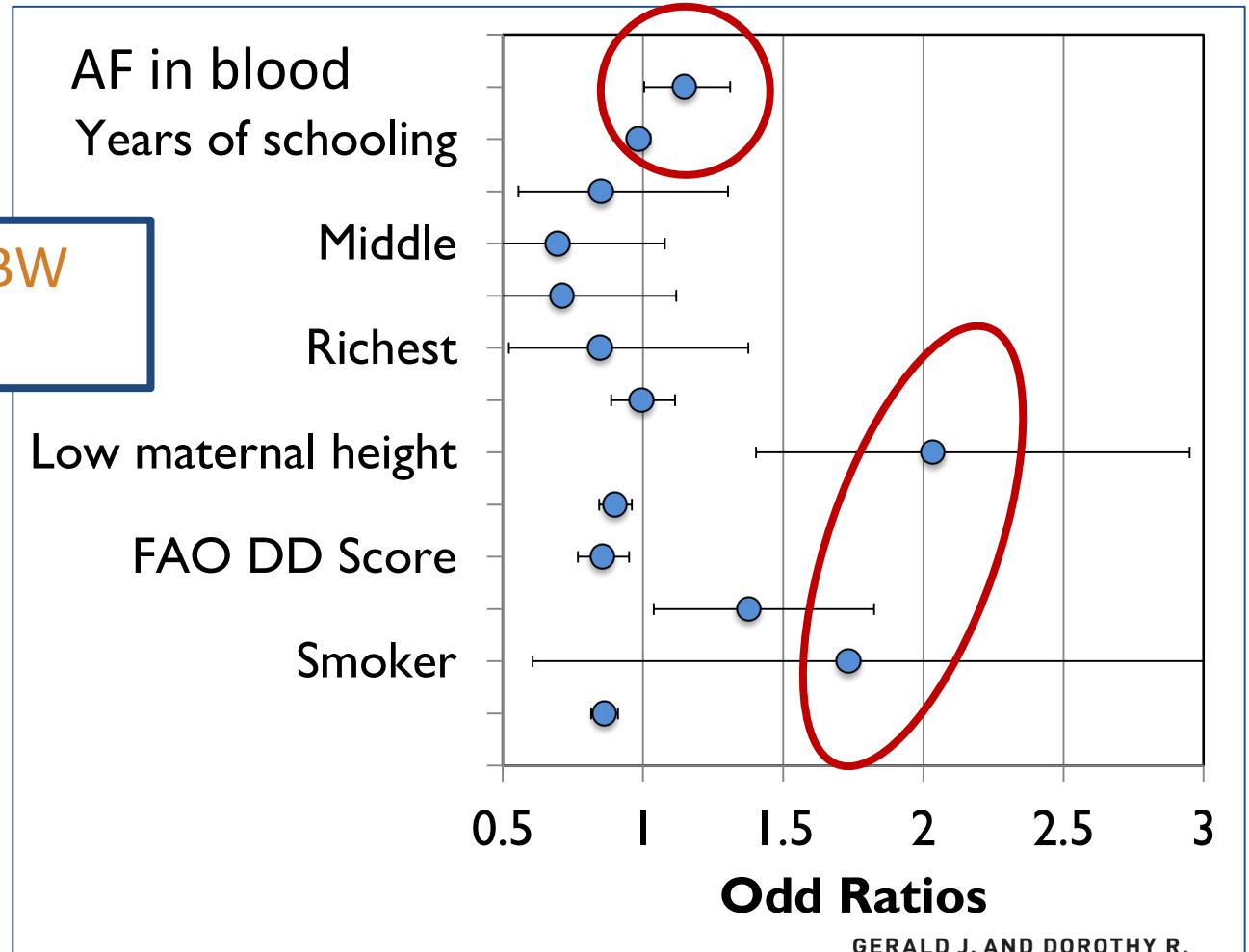




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Risk factors for LBW
(N= 1440)



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AG-TO-NUT STILL *VERY* RELEVANT; BUT IN NEW WAYS

1. Agriculture's role is far beyond home gardens. Key functions at **scale** via markets, resilience to shocks, timing of birth...
2. Agriculture's input to 6-24m outcomes *may* be limited; but still *key role* via **diet quality** (maternal and >24m), income.
We must calibrate expectations to program design.
3. Gains to diet quality must be amplified by neutralizing **confounding factors** (food-borne risks, biome, practices).
4. New **insights to be had at the intersection** of disciplines.



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Feed the Future Innovation Lab for Nutrition's Global and Local Partners

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SPRING
Strengthening Partnerships, Results, and Innovations in Nutrition Globally

WorldFish



The University of Georgia



AAHI Academy
Agriculture, Nutrition & Health Academy

LCIRAH
Leveraging Centers for Integrated Research on Agriculture and Health



UKaid
from the British people

inmana
Innovative Methods and Metrics for Agriculture and Nutrition Actions

fhi 360
THE SCIENCE OF IMPROVING LIVES

Save the Children

HEIFER INTERNATIONAL

NARC
Nepal Agricultural Research Council



Australian Government
Department of Foreign Affairs and Trade

Australian Aid

WFP

samrc
South African Medical Research Council

IFPRI

SUAAHARA
Building Strong & Smart Families



LANSA
Leveraging Agriculture for Nutrition in South Asia

CGIAR
RESEARCH PROGRAM ON Agriculture for Nutrition and Health
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