Food Assistance & Complementary Activities:
Linking evidence to programming decisions

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Outline

I. Presentation
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II. Panel Discussion
   ▪ Judy Canahuati, Moderator
   ▪ Sally Abbott
   ▪ Nancy Aburto
   ▪ Jen Burns
   ▪ Kathryn Reider
   ▪ Adam Reinhart
   ▪ Heather Stobaugh
Types of USAID Food Assistance Interventions

* Cash or vouchers may be substituted for food
Types of USAID Complementary Activities

- Water & Sanitation
- Disaster Risk Reduction
- Agricultural Development
- Natural Resource Management
- Maternal, Child Health & Nutrition
- Training & Education
- Microfinance
Water, Sanitation, and Hygiene (WASH)
Water, Sanitation, and Hygiene (WASH)

- Repeated infections
- Chronic infections
- Environmental enteric dysfunction (EED)
  - Intestinal permeability
  - Bacterial translocation
  - Intestinal inflammation
- Altered gut microbiome
Water, Sanitation, and Hygiene (WASH)

- WASH, diarrhea, and soil-transmitted helminth infections
  - Impact on mortality and morbidity varies
  - WASH interventions to have protective benefits on diarrhea\(^1-^3\)
    - Prevent 58% of U5 diarrheal mortality\(^4\)
    - Reduce soil-transmitted helminth infection by \(1/3\)\(^5,^6\)

- WASH and nutrition outcomes
  - Generally less evidence and fewer rigorous trials
  - Associations between improved sanitation (open defecation) and water sources and stunting\(^7,^8\)

Water, Sanitation, and Hygiene (WASH)

• Clinical trials: WASH and Stunting
  ▪ 2013 Cochrane review: small effects on HAZ\textsuperscript{9}
  ▪ India and Indonesia: access to latrines no effect on HAZ\textsuperscript{10-12}
  ▪ India and Mali: CLTS improved linear growth\textsuperscript{13,14}
  ▪ Wash Benefits & SHINE Trials: no effect on linear growth or anemia\textsuperscript{15,16}

• WASH and Acute Malnutrition:
  ▪ Clean water container and non-shared water source associated with lower risk of acute malnutrition\textsuperscript{17}
  ▪ WASH indicators associated with relapse\textsuperscript{18}
  ▪ WASH during SAM treatment improved immediate recovery\textsuperscript{19}

Water, Sanitation, and Hygiene (WASH)

- Conclusions:
  - “Access” to latrines is not enough → improved uptake
  - Community-level interventions may have more promise
  - Sustainability of clean water, water management, and handwashing interventions
  - Need better evidence on which specific WASH interventions work for which specific pathogens
    - E.g. chlorination doesn’t kill cryptosporidium
    - E.g. campylobacter infection < 6 months
  - WASH interventions alone may not be enough to reverse the highly contaminated environment and address pathogen transmission
Maternal and Child Health and Nutrition
Maternal and Child Health and Nutrition

• Disease prevention and nutrition
  ▪ Malaria
    • Commonly seen with malnutrition\(^{20,21}\)
    • Niger: 55% of 2400 children admitted for SAM treatment were infected\(^{22}\)
    • Biological interaction remains unclear
  ▪ Zinc supplementation and albendazole (deworming)
    • Attenuate EED and linear growth\(^{23}\)
  ▪ Malawi: Zinc + albendazole + malaria prophylaxis/ITN + LNS
    • Little effect on reducing recurrent acute malnutrition, none specifically during peak malaria season\(^{24}\)

Maternal and Child Health and Nutrition

• Disease prevention and nutrition (cont.)
  ▪ Antibiotic (azithromycin) to children under two\textsuperscript{25}
    ▪ reduced mortality by 14%,
    ▪ as high as 18% reduction in Niger
  ▪ Antibiotic (azithromycin) to pregnant women\textsuperscript{26}
    ▪ Reduced stunting by 11-13 percentage pts < 36 mos
    ▪ Improved score on child development
    ▪ Reduced postneonatal morality
  ▪ Challenges:
    ▪ Anti-microbial resistance
    ▪ Cost, misuse, and access

\textsuperscript{25} Keneen et al., 2018; \textsuperscript{26} Hallamaa et al., 2018; Photo credit: USAID flickr
Maternal and Child Health and Nutrition

• Antenatal and Postnatal Care
  ▪ ANC visit(s) associated with decreased stunting and underweight
  ▪ Challenge: increase access and utilization

• Maternal Mental Health
  ▪ Positive and significant association between maternal depression and impaired child growth
  ▪ Possible mechanisms:
    ▪ Compromised parenting behavior
    ▪ Nonresponsive caregiving practices
    ▪ Lower likelihood/shorter duration of breastfeeding
  ▪ Uganda: Current RCT testing community-based treatment for maternal depression on maternal behaviors associated with child growth

Maternal and Child Health and Nutrition

- Family planning and nutrition
  - Increase birth spacing → reduce risk of stunting and underweight
  - Barriers to family planning/contraceptives
    - Influence by husbands and family members
    - Fear of side effects
    - Low socioeconomic status and proximity of clinics
  - Family planning integration with MIYCN
    - Education should go beyond women, to include men, community leaders, and healthcare providers
    - Community buy-in is critical
    - Messaging must be catered to be culturally sensitive

Agriculture Development and Natural Resource Management
Agricultural Development

- **Agricultural interventions and nutrition**
  
  "Concrete evidence of nutrition impact ‘is largely grounded in a limited number of highly heterogeneous…studies, most of which have significant methodological limitations.’”
  
  (Webb and Kennedy 2014)

- Empirical evidence for impact on nutrition is weak
  - Increased food production and consumption
  - Failed to translate consistently to improved anthropometry or micronutrient status
- Some statistically significant impacts on Vit A, not well documented
- Activities that promote ASF show mixed results
- Recent review\(^4\)
  - Higher quality studies in past few years
  - Improvement in dietary quality (diversity)
  - Still not much reduction in stunting

Agricultural Development

• Programmatic Recommendations
  ▪ Include component to empower women
  ▪ Incorporate WASH and micronutrient-fortified products
  ▪ Local level context, particularly markets and women’s empowerment
  ▪ Coordinate with other sectors
  ▪ Target vulnerable (e.g. smallholders, women, landless)
  ▪ Focus on improving high-quality diets

Bobby Neptune/USAID
Natural Resources Management

• Livestock Management
  - Source of ASF, but exposure to zoonotic diseases
  - Chad: livestock ownership → increased malnutrition
  - Zambia: livestock ownership → no associations with nutrition outcomes

• Aquaculture and Wild Fisheries
  - Improved diet diversity and increased ASF
  - Integrated agriculture-aquaculture → micronutrient consumption and nutrition status
  - Fish populations are declining due to poor management of fisheries
  - Predictions that 11% of global population will be micronutrient and fatty-acid deficiencies

42. Marshak et al., 2016; 43. Dumas et al 2018; 44. Roos et al., 2003; 45. Jahan et al., 2010; 46. Jahan and Pemsl, 2011; Photo credit: USAID/Cambodia HARVEST/Fintrac Inc.
Natural Resources Management

• Irrigation
  ▪ No conclusive evidence, depends on contexts
  ▪ Shift from nutrient-rich to cash-crops, negative correlation with malnutrition\textsuperscript{47}
  ▪ Improved HH dietary diversity and child nutrition among small and marginal farmers\textsuperscript{48-50}

• Forestry
  ▪ Forest cover positively correlated with diverse diet and less diarrhea\textsuperscript{51}

• Climate Change
  ▪ Projected decline in nutrient levels in food by 2050\textsuperscript{52}

\textsuperscript{47} Shively et al., 2012; 48. Hanji 2006; 49. Bhagowalia et al., 2012; 50. Alaofe et al., 2016; 51. Johnson, Jacob, and Brown 2013; 52. Beach et al., forthcoming; Photo credit: USAID/Tanzania
Disaster Risk Reduction (DRR)
Disaster Risk Reduction

• Prevention/Mitigation
  ▪ Incorporate disaster risk assessments and nutrition assessments
  ▪ Strengthen community health systems for early diagnosis, referrals and follow-up of acute malnutrition

• Preparedness
  ▪ Link nutrition actors to early warning systems
  ▪ Preposition stocks

• Response/Early Recovery
  ▪ Aim to build sustainable capacity in stakeholders
  ▪ Strengthen surveillance mechanisms
• Surge Model for CMAM

- Prepares the health system to detect and respond efficiently to spikes in MAM and SAM
- Trigger early action and community mobilization
- Pilot study shows improved coverage
- Need to demonstrate sustainability and value for money

Source: Concern Worldwide 2017
Thank you

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