Establishing Causal Linkages between Agriculture, Nutrition and Health Interventions for Desired Outcomes in Uganda

Research work implemented by the Nutrition Collaborative Research Support Program (NCRSP)

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Outline

• Introduction
  – general background & motivation
  – the NCRSP team and the link with IFPRI

• Research agenda/context
  – the Community Connector
  – the approach
  – Results/anticipated results
INTRODUCTION
Introduction—background

• Agriculture is the main economic activity for majority of Ugandans, employing more than 80% of the rural population
  – food expenditures occupy the largest budget share of poor Ugandans

• To a bigger extent, Uganda has the potential to feed its population – providing both quality and quantity of foods necessary for a healthy population
  – sensible to think of agriculture as the critical avenue for interventions to improve incomes and food security

• However, food insecurity rates, undernutrition, stunting and underweight among children and women of bearing age remain rampant
Introduction– background

• For a long time, interventions to curb poverty, malnutrition and poor health have been initiated in developing countries.

• However, program implementation faces two major obstacles (among others):

1. Most interventions are never followed with robust impact/process studies to guide scaling-up or derive implementation lessons:
   - there is a general need for evidence-based strategies to this effect to alleviate poverty, hunger and malnutrition;
   - specifically, for enhanced nutrition and better livelihood strategies, evidence-based information systems and strategies are paramount.
Introduction—background

- Information on the cost, effectiveness and process of scaling up interventions is primarily vital for
  - policy makers,
  - donors and
  - practitioners, etc.
Introduction— background

2. Most program implementation has always been sectoral without addressing inter-linkages between agriculture, nutrition and health
   - development practitioners are sectoral specialists; are not well equipped with skills to program for outcomes that lie outside their field of expertise (Benson, 2011)
   - Even research efforts have been discrete;
     • specialist in one sector can hardly design studies together to address problems that might arise out of the multi-sectoral linkages
OUR MOTIVATION – CHANGE OF MINDSET
Our Motivation

• Increasingly, there are renewed calls for greater integration of agricultural, nutrition and health policy (IFPRI, 2011, USAID, 2010)

• Nutrition and health are considered critical inputs to achieving economic growth and poverty reduction (World Bank, 2006):
  
  “...malnutrition slows economic growth and perpetuates poverty...”
  “...agricultural development should proceed in a way that maximizes opportunities to improve health and nutrition (and vice-versa)...”
Our Motivation

• Studies show that better nutrition and health lead to greater labor productivity (e.g. Hoddinott et al, 2008)

  ‘...effects of poor nutrition can be long term, poor early childhood nutrition can affect productivity in the later years of life...’
  ‘...poor nutrition and health creates poverty traps—too poor to invest in themselves or other productive assets...,'
  ‘...aggravates vulnerability to fall below the poverty line...’ (Barrett, 2010; Pinstrup-Anderson, 2011)

• Since malnutrition, poor health and low productivity agriculture are recognized as mutually reinforcing states, there is a heightened interest in addressing these problems jointly (von Braun et al, 2010; Barrett, 2010)
Our Motivation

• This poses several challenges:

1. We need to initiate a system to identify these inter-sectoral approaches inter-linked outcomes

2. We need professionals with diverse backgrounds to be open-minded, willing to learn and adapt to the languages and/or methods and start working together operationally and strategically

3. We need to synchronize and refine different sets of methodologies for better outcomes—coherent and integrated ways/frameworks
THE NCRSP TEAM
The team – multidisciplinary in nature
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Makerere University College of Health Sciences
School of Public Health

College of Agricultural and Environmental Sciences
The team – multidisciplinary in nature

- Economists - Agricultural/Development Economists
- Health professionals – public health, epidemiologists, etc
- Statisticians/Biometricians
- Nutritionists and Food Science and Technology Specialists
- Social Scientists/Social workers, Geographers, etc.

→ IFPRI, reputed for providing evidence-based research products for a long time, finds a greater niche in this group
The team – our goal

Our goal is to:

“...generate rigorous, operationally-relevant research supporting rapid uptake of innovations and lessons learned by agents of change on the ground—leading to the achievement of clearly-defined outcomes in nutrition, health and agriculture.”
THE CHANGE AGENTS OF FOCUS
The change agents – the CC

- The Community Connector (CC) Program is USAID-Uganda’s flagship program to provide a comprehensive and multi-sectoral approach to poverty, food insecurity, and undernutrition in Uganda
  - CC integrates nutrition and agriculture/livelihood interventions, with a distinct emphasis on working with vulnerable populations at the household and community levels
  - the gender component is strong in the CC especially regarding food insecurity decision making and distribution and use of resources
  - In the coming months, CC will roll out different interventions across a number of districts in Uganda
The change agents – the CC

• The CC Program provides a good case-study for NCRSP to study and draw lessons for wider policy implications:

• for similar programs in different parts of Uganda

• For interventions in similar contexts – sub-Saharan Africa
OUR APPROACH
Our approach

- NCRSP will independently evaluate and document the status of agriculture, food security, health and nutrition outcomes in intervention areas over a 4-year period
  - the aim is to in order to inform and learn from the CC Project interventions districts proposed

- NCSRP will conduct cross-sectional surveys at least once a year in 6 districts implementing the CC Program
  >>> Kisoro, Kanungu, Agago, Pader, Nebbi and Dokolo

- 3 waves of data collection are proposed:
  - the baseline
  - the mid-term
  - end-term
Our approach

- NCRSP will identify and examine rigorously the linkages between outcomes of interest including:
  - production and productivity of selected nutrient-dense foods
  - agricultural input – output relations
  - poverty incidences
  - food security status and/or hunger levels
  - breastfeeding and complementary feeding practices
  - malnutrition levels: vitamin A, anemia, BMI, etc
  - prevalence of common diseases (diarrhea, measles, malaria, etc)
  - behavioral patterns: access and uptake of health services, etc.
  - gender dynamics, roles within the household
  - etc
Our approach

- Center of analysis
  - The household
    - The household head
    - Women of child-bearing/mothers or caregivers aged (15-49 years)
    - Children aged 0-23 months
- We shall randomly sample about 600 households in each district
  - carry out evaluations to inform CC and other related programs/projects in the country
Our approach

- What has been so far done:
  - compiled the necessary survey tools
  - tools have undergone through scientific review committees
  - human resources, institutions to help in the survey process are partly sourced
  - some of the necessary equipment is procured/sourced
ANTICIPATED RESULTS
Anticipated landmark results

• Provide scientific research
  – want to show the ‘how’ not just the ‘what’
    • define essential actions that link agriculture to nutrition and health
    • profile the process of change, explain how systems/sectors can be integrated for better welfare outcomes
    • want to fill knowledge gaps that meet national priorities

• Contribute to human resource and institutional capacity development
  – shall design, train and mentor individuals and institutions how to coherently implement and research on these inter-linkages using a variety of channels/methods
Anticipated landmark results

- Profile efforts that can improve nutrition through agriculture and food based programs based on rigorous analysis
  - translate knowledge from research to practice by documenting best practices, costs, processes and impacts
  - engage policy makers and planners to scale-up interventions that matter
  - promote new pilottable activities
Anticipated landmark results

- **Tangible products**
  - Published series of scientific articles
  - Policy Briefs
  - Resource books and manuals, etc
  - A network of specialists that can work in program implementation and research that cuts across sectors

- These should be publicly available for potential use but can also be disseminated through other forums (e.g. Workshops, Conferences, etc)
Thank you!
• Feed the Future’s purpose-driven research strategy

1. Advancing the productivity frontier
   ➢ Integrate use of technologies among poor farmers, address socio-behavioral factors and incentive structures/policy context related to technology adoption.

2. Transforming production systems
   ➢ Integrate research where malnutrition is concentrated

3. Enhanced food safety and nutrition
   ➢ Enhance dietary diversity, nutrient density of foods, reduce
     – postharvest losses, reduce contaminants in food supply
Household income

Food intake

Own consumption

Household production

Off-farm income

Labor productivity