



LEVERAGING AGRICULTURE FOR IMPROVING NUTRITION & HEALTH

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Speaker Summary Note

Session: Learning from Evaluations

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Title: **Agricultural Research:
Extending evaluations to include nutrition and health outcomes**

Evaluation within the Agriculture, Health and Nutrition Nexus

- 1. Evaluation for results and for learning is now at center stage in development programs**
 - Pressure from donors and government auditors for accountability to show results against stated development goals—food security, poverty reduction, environmental sustainability etc
 - USAID's new Feed the Future will reserve 3 % of resources for evaluation
 - Also emphasis on evaluation for learning and scaling up
 - Finally, there has been a rigor revolution in evaluation, using randomized experiments and panel data
- 2. Strong culture of evaluation of agricultural research in the CGIAR**
 - Dozens of studies have demonstrated very high returns to investment in the CGIAR—a meta analysis shows that every dollar invested generates at least 9 dollars in benefits
 - However, narrow focus on economic returns until recently.
 - **But few studies of evaluation of CGIAR research within the agriculture, health and nutrition nexus**
 - Not easy
 - Impacts are very complex and in both directions. Many are unintended and indirect.
 - Impacts are often very long term (e.g., Finnish study on crop yields at birth and reproduction in the next generation).
 - Many impacts are hard to measure (e.g., micronutrient effects, pesticide poisoning)
- 3. Examples of CGIAR research**
 - **Nutrition:**
 - Bio-fortification and nutrition (Harvest Plus)
 - Presentation during this session. Evaluation of outcomes at local scale using rigorous methods
 - Global impacts crop genetic improvement on child malnutrition (Evenson and Rosegrant)
 - Macro-level modeling of nutritional impacts of CGIAR research—1965-2000 CGIAR research reduced child malnutrition by 15 million.
 - Included both direct effects on technology adopters as well as indirect effects especially through food prices.
 - **Pesticides:** 350,000 lives lost per year due to poisoning.

- IRRI research around 1990 showed that negative health effects of pesticides outweighed any positive yield effects
- Follow up study of impact of IRRI research on pesticide policies and regulation in the Philippines (Templeton).
- Excellent example of collaboration of an economist and medical doctor to assess effects of pesticides on human health and impacts of stronger regulation of pesticide use.
- Data collection on medical costs and days lost to work.
- Assessed two way impacts—agriculture on health and health on agriculture
- Later study in 1990 showed that modest investment in policy research led to changes in policy reduced pesticide use by over 80%--B/C analysis of 200:1
- Similar study by CIP on potatoes
- Note many impacts may be unintended and negative—very few studies look at these types of impacts
- SPIA call for proposals on agriculture and undernutrition just last week

Where to go from here

1. Evaluation must build on research to better understand the linkages
2. Data systems
 - a. Household panel data sets with better measures of health and nutrition,
 - b. Vast improvement needed in measures of undernutrition at country level.
3. Selective use of randomized control trials in some types of interventions especially for treatment effects on human health and nutrition
4. Models that better incorporate health and nutrition variables
5. Increase capacity in evaluation—dedicated units, specialized skills, sufficient resources.
 - Define reasonable expectations on what can be evaluated—comprehensive evaluation will not happen overnight but need to get started now.