

Mitigating Aflatoxin Exposure to Improve Child Growth in Eastern Kenya (MAICE)

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Presented at the second joint CGIAR meeting on mycotoxins, Naivasha, Kenya,
9-11 October 2013

Review of research questions

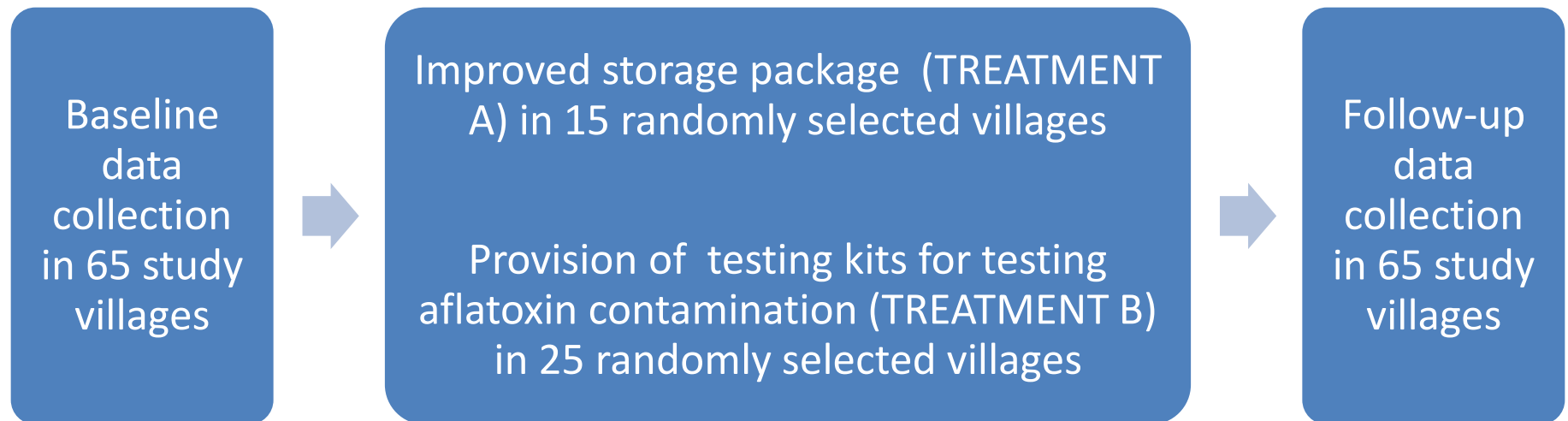
Question 1: Can improved post-harvest handling and storage reduce aflatoxin contamination in maize? For which households?

- Do we see differences for households in which women have more or less control over resources?

Question 2: Does long-run exposure to moderate levels of aflatoxin cause stunting in children?

Review of research methodology

- Inference from an observational study is difficult. Aflatoxin contamination is correlated with:
 - Household characteristics: poorer households have constraints in storing and therefore higher aflatoxin
 - Season characteristics: drought during flowering and rainfall at harvest reduces yields and increase aflatoxin
- Randomized control trial to identify *causal* relationship:
 - Improved storage and aflatoxin contamination
 - Aflatoxin contamination and stunting



Collaboration

- Erastus Kangethe, University of Nairobi: formative research, advice on research design and sensitization
- Mila Sell, MTT: formative research and gender analysis
- African Population and Health Research Center: sensitization, data collection
- ACDI-VOCA: design of training material, training and broader collaboration on aflatoxin and logistics
- CARITAS-Meru: maize swapping
- ILRI: ethical guidance, hosting project manager, maize tests
- University of Georgia: blood tests
- IFPRI: component management, research design, implementation and data analysis

Progress so far

- Sensitization work in all study villages (done)
 - Informed local government about the study
 - Village level meetings to explain the project and decide on result dissemination methods
- Training in ALL study villages on aflatoxin and how to reduce contamination (Partially done)
- Baseline data collection (ongoing)
 - We have so far interviewed about 1200 households and collected the same number of blood samples
 - The last wave of baseline is programmed for Dec 2013
- Swapping intervention (ongoing)
 - We started the first round of swapping in July
 - Swapping frequency has been changed to monthly instead of bi-monthly as originally planned.

Plans for 2013

- Complete baseline data collection (by Dec 2013)
- Complete 6 rounds of swapping (intervention B)
- Finalize the storage intervention package (by Nov 2013)
- Additional training and provision of storage technologies in treatment A villages (Dec 2013)
- Report on baseline data collection (waves 1 to 3) (Dec 2013)

Pictures- data collection



Pictures- swapping



Pictures- swapping

