

INTRODUCTION

Makerere University has embarked on workforce capacity enhancement using a one health education approach. Through partnership and collaboration with Uganda government ministries and the National Task Force, university students have been attached to on-going disease outbreaks to build outbreak investigation and rapid response skills in real time.

In July, 2016 the Ministry of Health was notified of an aflatoxicosis disease outbreak. Three cases were fatal and one alive presenting with hemorrhagic manifestations in Bukomansimbi district (153km from the capital Kampala). The National Task Force dispatched a multidisciplinary team to determine the type of Aflatoxins causing mortalities and its source.

The team consisted of personnel from the Uganda National Health Laboratory Systems, Uganda Virus Research Institute, National Toxicology Laboratory, Medical Doctors from Bukomansimbi Health Center IV and Veterinarians. The United Nations Children Fund joined the team to support social mobilization and provide psycho-social support to affected families. Fellows from the CDC Field Epidemiology Training Program and One Health Central Eastern Africa (OHCEA) Graduate Fellowship also participated.

METHODS

The graduate fellows were involved in sample collection and submission to the designated laboratory in Masaka district for storage.

- ▶ From the human health sector, whole blood samples were collected from the Cases and Controls. While from the animal sector, samples of milk and beef from vendors were collected.
- ▶ Fellows administered a questionnaire to establish risk factors associated with the outbreak.
- ▶ A Matched/Case control study to identify modes of exposure was conducted

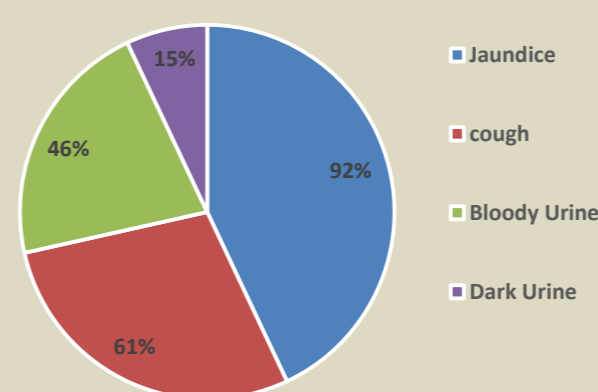
RESULTS

Table 1: Cases of Aflatoxicosis in 4 sub counties in Bukomansimbi District

Sub-county (in the District)	No. of cases	Sub-County population	Attack rate (/1000)
Kibinge	6	7608	3.9
Kitanda	2	7970	2.5
Butenga	2	4340	2.3
Bukomansimbi Town Council	1	5711	1.8

- ▶ Aflatoxins M1 and M2 were detected in blood samples taken from cases.
- ▶ Amongst all the sub counties in the district, the Attack rate was highest in Kibinge (6/7608).
- ▶ Milk and meat samples collected were contaminated with aflatoxins indicating these animal products as the source of the disease
- ▶ Jaundice was the most exhibited sign

Frequency of manifested signs



Frequency of foods consumed (n=10)



CONCLUDING REMARKS

- ▶ Fellows benefited from being part of participation in the multidisciplinary team dispatched to respond to the Aflatoxicosis outbreak that was zoonotic in nature
- ▶ Among the skills gained include; technical skills like sample collection, scientific reporting. One the other hand soft skills appreciation of team work, culture and gender concerns, leadership community engagement enabled them gather information from the community

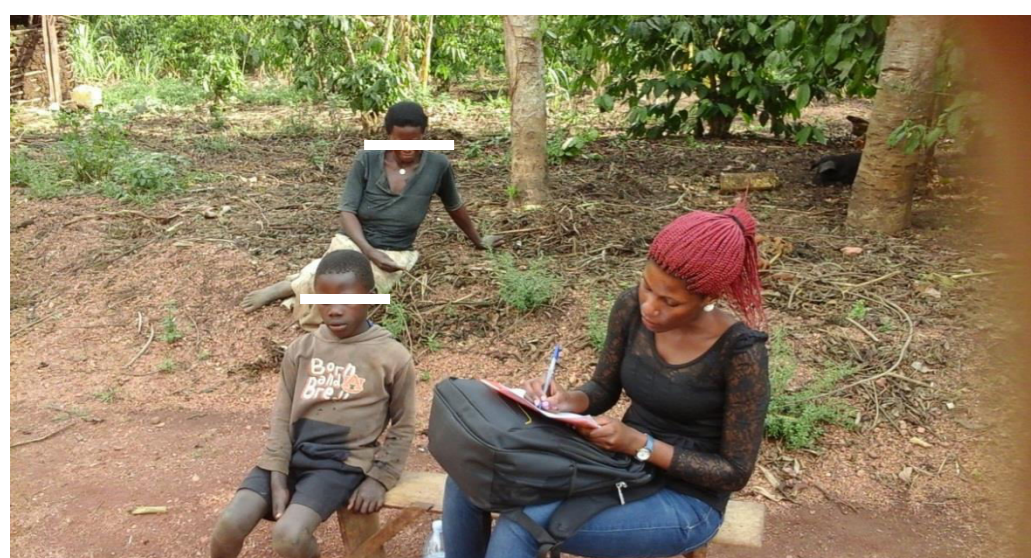


Figure 1: OHCEA Fellow collecting information from cases in Butenga sub-country



Figure 2: Butenga Health Center IV where the cases of Aflatoxicosis in Bukomansimbi District were managed

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