

How qualitative studies and gender analysis can add value to the assessment of dietary exposure to aflatoxins in Kenya

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Introduction



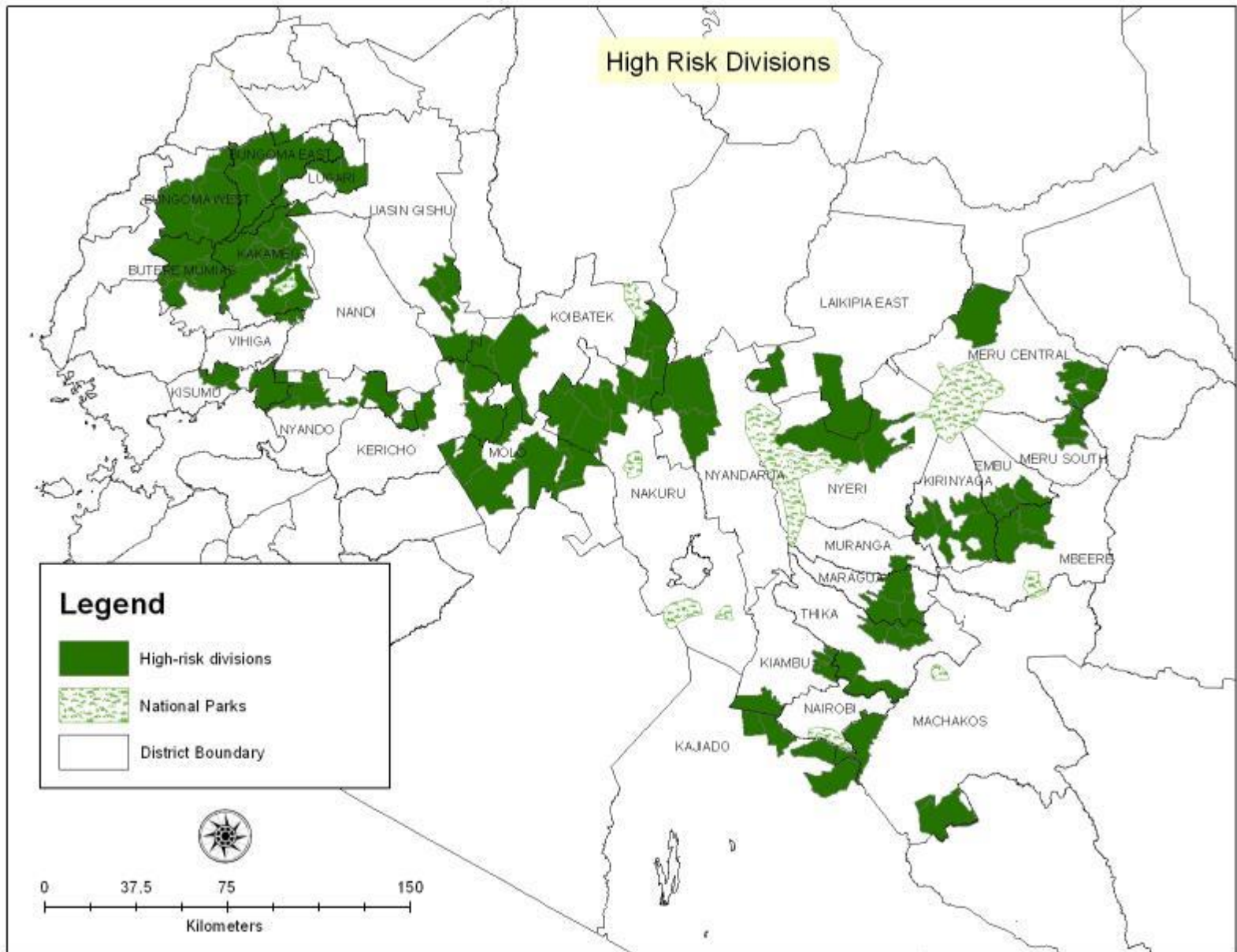
- **Mycotoxins are produced by fungi and are common in Africa**
- **They contaminate staple foods maize, groundnuts, sorghum.**
- **Consumption of high amounts of toxins can kill, and chronic consumption is a causal factor for liver cancer.**
- **If cattle eat mouldy feed, mycotoxins can be transferred to milk.**
- **In developing countries no stringent regulatory policies are in force to control levels of mycotoxins in food.**
- **Food production, processing and consumption is influenced by gender. Yet, there is little research on gender and mycotoxins.**
- **We report on a qualitative study to assess knowledge, attitude and practice of women and men with regard to mycotoxins.**

Methods



- **Strata selected using risk maps based on risk factors** (prevalence, farming systems, dairy cattle density, use of commercial feeds, informal milk markets).
- **Strata categorized as:**
 - high risk + historical outbreak (HR/HO)
 - High risk + no historical outbreaks (HR/NO)
 - low risk with historical outbreaks (LR/HO)
- **3 districts randomly selected per strata**
- **3 villages randomly selected per district**
- **2 sex-disaggregated FGD per village**
- **Total study sample of 405 participants: 206 Women, 199 Men**
- **The focus group discussion tool was pre-tested in Githunguri district, Kiambu county.**

Risk map



Method of FGD



Findings- Risky practices



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- The main factor that determines whether to feed maize to animals or sell it as animal feed is spoilage.
- *What is done with mouldy feed?*
 - The presence of mould on human and animal feed did not motivate its destruction; it was fed animals, mostly chickens.
- *Are commercial feeds given?*
 - Cattle were given commercial feeds regularly but in low quantities. They are expensive but increase milk production. Other studies have shown they may be contaminated with moulds.

Findings- Mitigating practices



- **Cleaning stores in preparation for new harvest.**
- **Proper drying of maize.**
- **Use of pesticides for prevention of spoilage in storage.**

Findings- How to tell maize is spoilt



	Risk + History		Risk + no history		Low risk + no history		Total (Rank)
	M	W	M	W	M	W	
Grain colour changes/ observation	8	7	6	3	7	10	41 (1)
See holes by weevils and weevils	9	4	6	6	5	4	34 (2)
Rotting of grain	5	4	1	2	4	2	18 (3)
Smell (bad)	0	3	2	1	1	7	14 (4)
Bitter taste of maize flour/ Githeri	0	1	4	1	2	2	10 (5)
Mouldy (black soot on ear when forming cob on farm)	1	2	2	2	0	3	10 (5)

Findings- Reasons why maize spoils



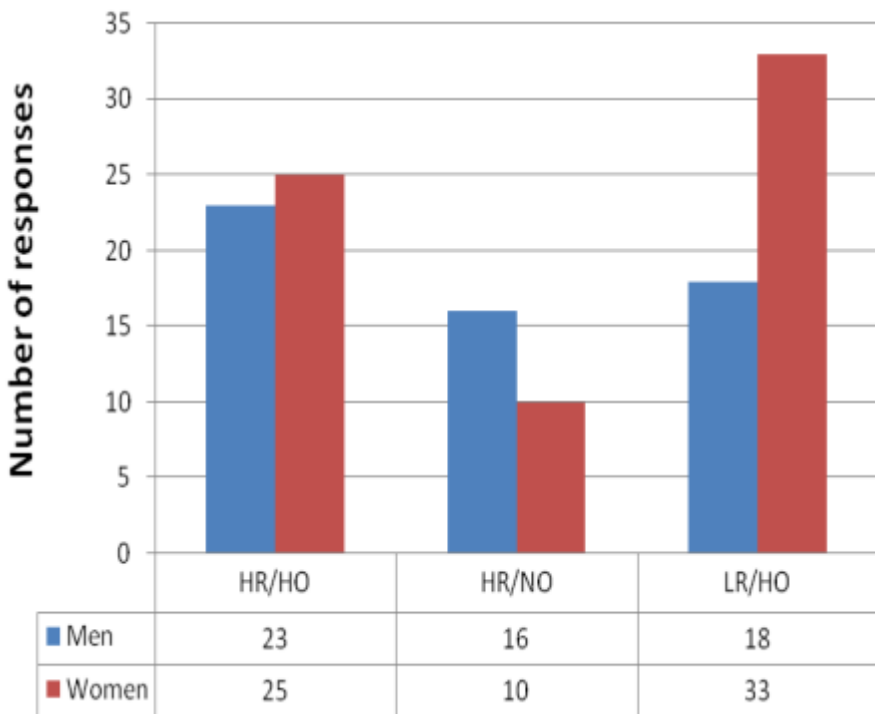
	Risk + History		Risk + no history		Low risk + no history		Total (Rank)
	M	W	M	W	M	W	
Weevils/ other insects post – harvest	19	11	16	22	27	14	109 (1)
Damage by animals	10	2	7	7	26	12	64 (2)
Improper drying post-harvest	0	10	4	5	2	22	43 (3)
Too much rain during harvest season	7	7	8	4	5	8	39 (4)
Drought/ shortage of rain	7	5	6	4	5	6	33 (5)

Unique gender differences in the KAP of study participants

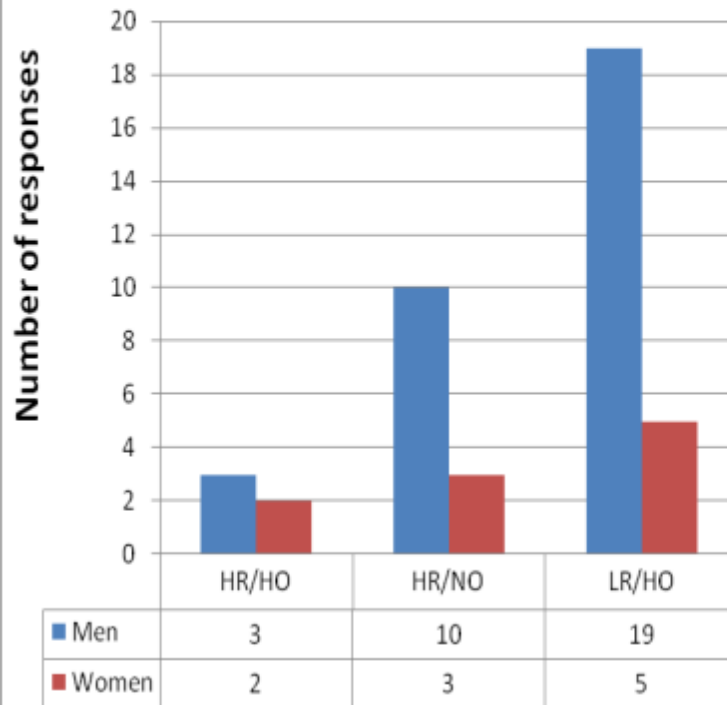


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Number one step taken to enhance safety of meat and milk is hygiene in handling



Number two step taken to enhance safety of meat and milk is treatment of animals

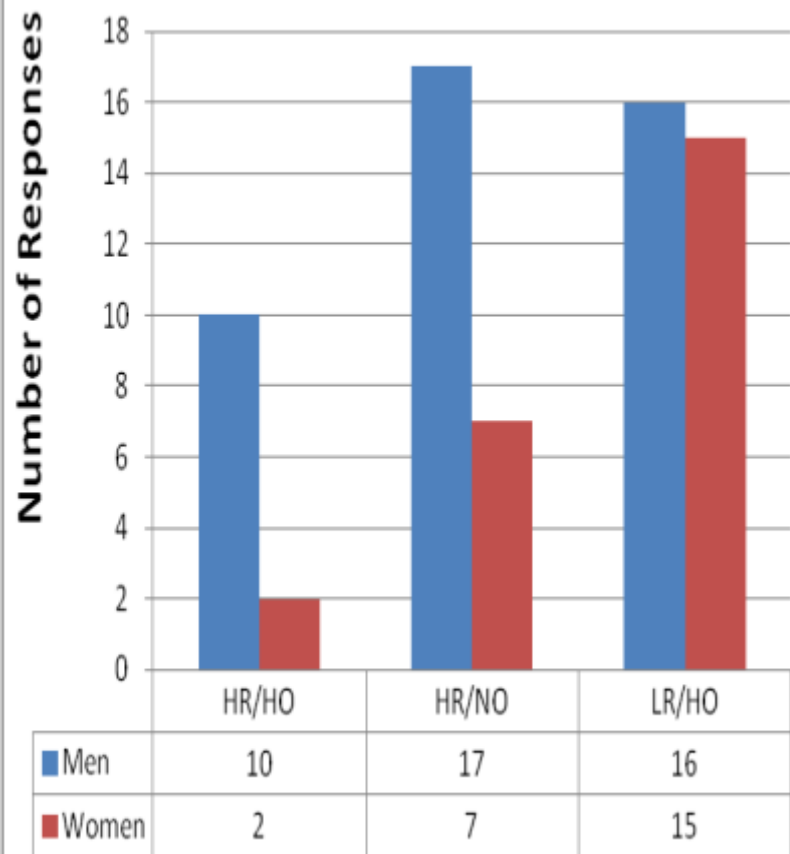


Unique gender differences in the KAP of study participants

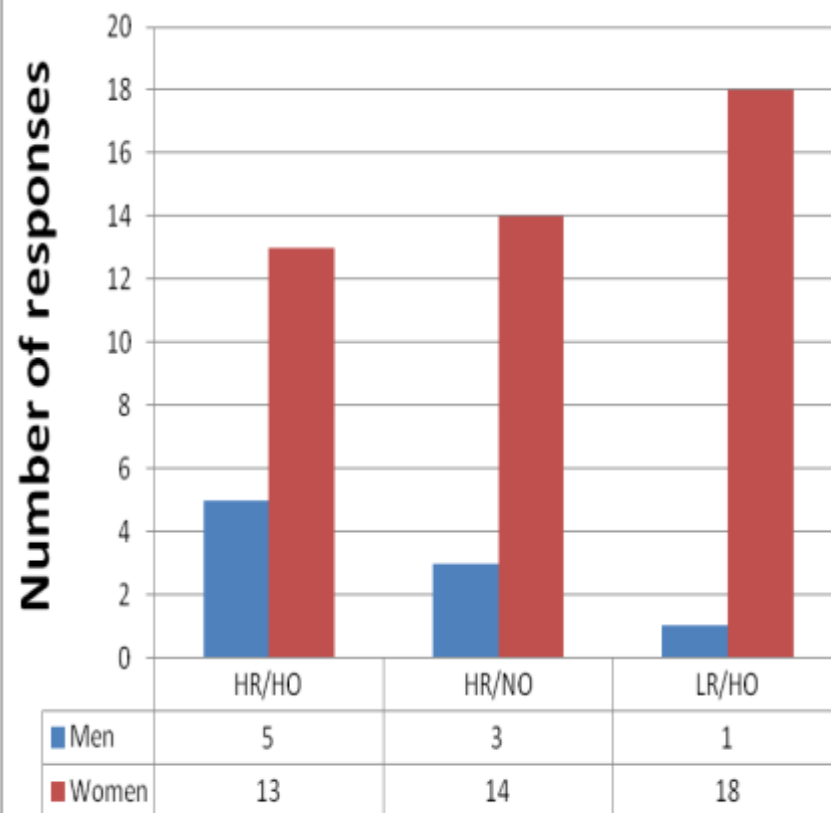


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Know Types of Moulds



Observation as main source of information on moulds



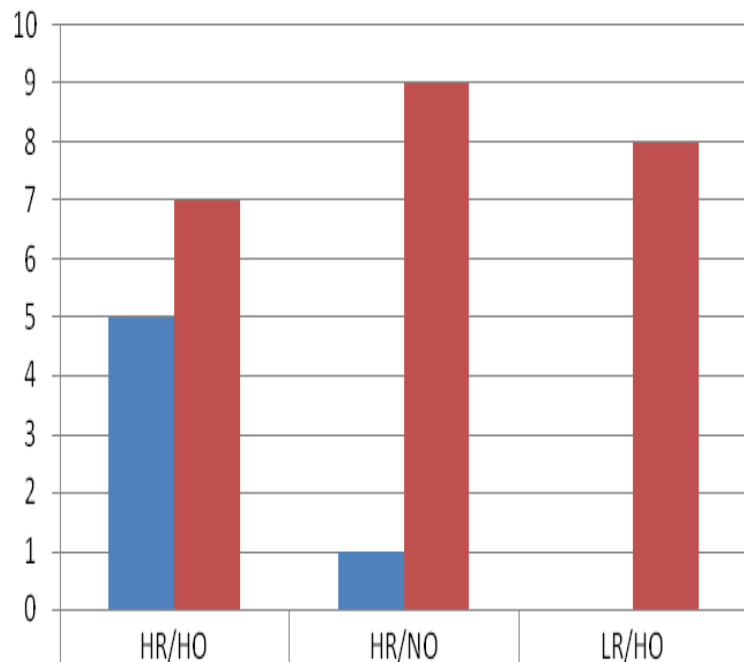
Unique gender differences in the KAP of study participants



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Woman decides what to feed cows

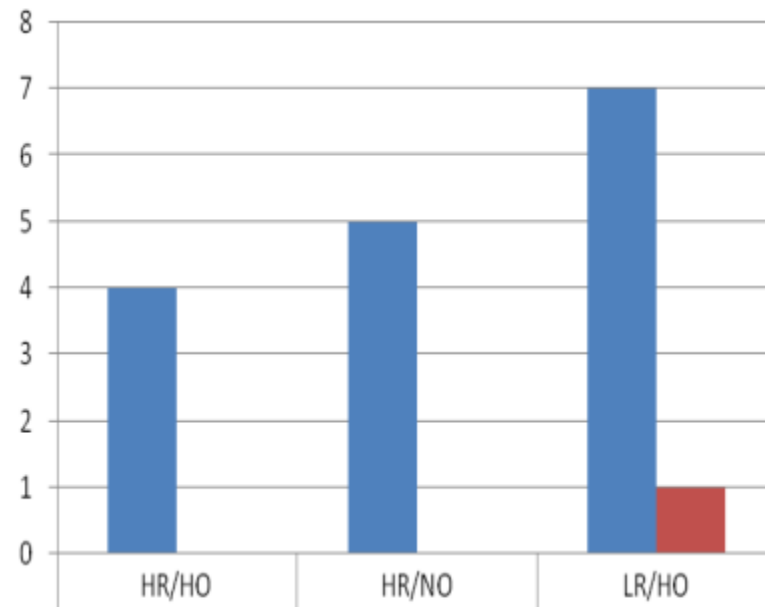
Number of responses



Men	5	1	0
Women	7	9	8

Man decides what to feed cows

Number of responses



Men	4	5	7
Women	0	0	1

Discussion



- **No substantive differences between risk strata**
- **Some important differences between women & men**
 - **Women probably play greater role in deciding what to feed cattle (==women are important risk managers).**
 - **Women are more dependent on observation for knowledge of moulds (== women have fewer sources of knowledge).**
 - **Men had greater involvement treatment of cattle diseases.**
 - **Women more likely to report improper drying of maize as contributing to spoiling/ moulding (== women more likely to be grain handlers).**
- **Men and women may disagree which gender has responsibility.**

Conclusions from the study



- The study was an assessment of the risk of exposure to mycotoxins where risk is defined as the total component of behavior, knowledge and attitude.
- Small-scale dairy farmers have several practices that increase risk of exposure to mycotoxins in both humans and livestock.
- The groups that have knowledge are not always the same that implement risk mitigation practices. This information is helpful in designing research projects in order to get the full picture of what happens on the ground.
- This study shows that gender analysis and qualitative studies can make important contributions to risk analysis for ‘One Health’ problems.

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THANK YOU ALL

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