

Farmer-desired attributes for a peste des petits ruminants vaccination strategy: Insights from focus group discussions in Uganda



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Peter Lule^{1,2}, David Jakinda², Rose Nyikal², Jane Namatovu¹, Henry Kiara¹, Emily Ouma¹

¹International Livestock Research Institute

²University of Nairobi

Introduction

Peste des petits ruminants (PPR) is a highly contagious viral disease of small ruminants with a potential to cause mortality of up to 90%. The disease can be prevented through vaccination and confers a lifelong immunity to the animals. In Uganda, few studies have tackled preferences that would drive farmers to embrace vaccination of PPR as a disease prevention mechanism. The purpose of this study was to identify and rank attributes that would be desired by farmers. The identified attributes will be used to design a choice experiment study to assess farmers preferences for PPR vaccines. The preferred attributes will be used in the designing of an appropriate PPR vaccination strategy.

Methods

- A desk review and 16 sex disaggregated (8 male, 8 female) FGDs in Nakapiripirit, Serere and Isingiro were carried out to identify the attributes
- Two sex disaggregated FGDs (one male, one female) were conducted in Ngoma subcounty Nakaseke district to confirm relevance of the identified attributes and to identify additional ones preferred by farmers
- Pairwise ranking was used to gauge the most important attributes by the men and women groups
- The groups then discussed the different levels for the top attributes
- An orthogonal design of 36 scenarios was generated using Ngene software for the attributes and their levels



Findings

Table 1 : Scores for the pairwise ranking for men and women for important vaccine attributes

Attribute	Men	Women	Source
Quality of vaccine	7	6	FGD
Cold chain	5	5	Desk review
Personnel vaccinating	4	4	Desk review/FGD
Provision of certificate	4	3	Desk review/FGD
Distance	4	7	Desk review/FGD
Number of diseases	3	2	Desk review
Season	1	1	Key informants
Time of day for vaccination	0	0	Key informants/FGD

Table 2 : Attributes and their levels to be considered for the choice experiment

Attribute	Levels		
Time to vaccination site (minutes)	2	30	60
Quality assurance of vaccine	Guaranteed by local leader	Guaranteed by public animal health worker	Guaranteed by neighbor that has vaccinated
Proof of vaccination certificate	Given certificate	Not given certificate	
Personnel vaccinating	Public AHSP	Private AHSP	Community AHSP
Admin costs (UGX)	200	350	500
Price of vaccine per animal (UGX)	800	1000	1200

Table 3 : Example of a choice scenario for implementation in choice experiment in the main survey

Attribute	Option 1	Option 2	Option 3
Time to vaccination site	30 minutes	30 minutes	Not participate in Vaccination
Quality assurance of vaccine	Guaranteed by Public animal health service provider	Guaranteed by neighbor that has vaccinated	
Proof of vaccination	Given certificate	Given certificate	
Personnel vaccinating	Community animal health service provider	Community animal health service provider	
Administration costs	High (UGX 500)	Medium (UGX 350)	
Price of vaccine (per goat)	UGX 1000	UGX 1000	
Which vaccine would you prefer			

Conclusions & limitations

- Farmers need assurance on the efficacy of the vaccine.
- Distance to the vaccination site was a major factor especially for women
- Empirical evidence will be collected through a choice experiment to assess the most important attributes in Nakapiripirit, Serere and Isingiro from 450 households

Benefits from BUILD

- Trainings in NVIVO, Q-GIS, Systematic literature review, Spatial System Dynamic modeling
- CMAAE course units
- Peer learning platforms



Contribution to Uganda's livestock development agenda

- After completion of the choice experiments the government will have evidence if the farmers are willing to pay for the vaccine and what attributes can lead to increased uptake of the PPR vaccine

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Corresponding author Peter, Lule
P.Lule@cgiar.org
ILRI c/o Bioversity International
P.O. Box 24384, Kampala Uganda
+256 392 081 154/155



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