

Determinants of farmers' preference for alternative animal health service providers in Kenya: A proportional hazard application

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Outline

Introduction

Problem statement

Methods

Some Results



Introduction

- **Kenya has a great variety of AnGR**
- **Livestock disease - major hindrance to increased livestock productivity**
- **Liberalization of the economy in early 1990s:**
 - **Many entrants into the veterinary services market including:**
 - **Animal health assistants**

Introduction...

- **Rationale for liberalization: to reduce State involvement in sectors/activities for which it did not have comparative advantage**
- **Results:**
 - **Success in high agricultural potential areas**
 - **Failure in the ASALs due to market failure – unique characteristics of aridity, remoteness, high poverty & insecurity – high transaction costs**

statement

- **Liberalization of veterinary services meant farmers had 6 main animal health services providers to choose from:**
 - **Public vets**
 - **Private vets**
 - **AHAs**
 - **CBAHWs**
 - **Village pharmacies**
 - **Ethnovet practitioners**

Methods

- A proportional hazard model (PHM) used
- PHM evaluates effect of time-to-event outcomes on a set of covariates

- $$h_{ik}(t, X_t) = h_{ik}(t) * \exp(X_t \beta_i)$$

- Where:

$h_{ik}(t)$ = i th individual's hazard function
for choosing the k th alternative at time t

X_t = characteristics of chooser & the
choice

β = unknown parameters

CHOICE = β_1 AGE + β_2 SEX + β_3 EDUC + β_4 TLU + β_5 OFFINC + β_6 LANDTOT + β_7 WTHSTAT + β_8 DISTANCE + β_9 EXPEND

Some Results

Variable	DF	Parameter estimate	Standard error	Chi-square	Hazard ratio
CBAHWs	1	3.433***	1.129	9.242	30.982
VETs	1	2.128*	1.120	3.608	8.400
AHAs	0	0	-	-	-
AGECBAHW	1	-0.032*	0.017	3.374	0.969
AGEVET	1	-0.014	0.017	0.690	0.986
AGEAHA	0	0	-	-	-
SEXCBAHW	1	-0.156	0.599	0.068	0.855
SEXVET	1	-0.994*	0.570	3.048	0.370
SEXAHA	0	0	-	-	-
EDUCCBAHW	1	-0.851*	0.473	3.237	0.427
EDUCVET	1	-0.401	0.491	0.668	0.669

Thank you

