

Evaluation of animal health care delivery systems in West Pokot and Turkana districts of Kenya

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Abstract:

In the 1970's, Kenya had appreciable access to international markets for livestock and livestock products, in the Middle East and European countries. The situation, however changed in the 1990's when Kenya was denied access as it was not able to meet the stringent Sanitary and Phytosanitary Standards set under the OIE-Codex Alimentarius-World Trade Organization and the importing countries. The purpose of the Sanitary and Phytosanitary measures is to make the public sector accountable custodians of food safety and manage the risks posed by the importation of animals and animal products. As a result, Kenya is increasingly coming under pressure to improve their delivery of veterinary services as a prerequisite for entering the competitive arena of international trade in livestock and livestock products while ensuring wholesome and quality products in the local markets. The present study determined, described and assessed the animal health care delivery systems in Turkana and Pokot Districts, with the main goal being to provide the necessary information to inform the strengthening of animal health service delivery systems within these and similar areas, and subsequently upgrade and revitalize the existing disease control system to acceptable standards for the control of economically important livestock diseases. The study also determined if and how the choice of veterinary delivery systems, among other factors, influenced pastoral household livestock-dependent incomes. The present study recommends policy, regulatory and institutional interventions that are essential if the problems related to animal health service delivery in pastoral household livestock-dependent incomes in the arid and semi arid lands (ASALS) in Kenya are to be sustainably addressed. Field surveys for collection of information were conducted using questionnaires. A check list was drawn up to socio-economic data for a number of variables which were used to determine factors affecting household income in the two districts. Descriptive and regression analyses were carried out for the data collected and a statistical model fitted. Data collected included information on household income (the continuous dependent variable), herd size, cost of delivery of veterinary services, household size, age of household head, level of education of household age, gender of household age, availability of credit to herders, availability and acceptability of veterinary services, and service demand (independent variables). Transformations and conversions of the data were done for more in-depth analysis. Results of the present study indicate that the delivery of animal health care services is under-resourced, often requiring staffing and transport reinforcement when specific delivery tasks are to be implemented. The challenging environment that includes long distances between centres, poor infrastructure, prolonged drought, limited communication, insecurity, high service delivery costs and frequent movement of the community and livestock is unfavourable for the delivery of conventional veterinary services by either the private or public sector. From the evidence available from the PRA study, group discussions and direct observations, animal health service delivery by CAHWs in its present form in the two districts, is not sustainable as it is heavily dependent on funding from the sponsoring NGOs which have no

exit strategy, is not supported by a reliable veterinary drug supply system, has poor returns on investment, is not backstopped by the public or private sector professional and has been severely affected by very high desertion rate (>75%) of the trained CAHWs. In addition, though provided with a harmonized training manual by KVB (2004), the CAHW animal health delivery system is not supported by the existing legal and policy framework. This study recommends that the adoption of pastoral field schools, and their domestication as an alternative animal health delivery system, be investigated alongside other proposals advanced to chart the way forward in animal health service delivery in the ASALs. Such action should be supported by the DVS recruiting veterinarians and animal health technicians specifically for the ASAL districts. While assessing the factors affecting household income, regression analysis was used to predict the dependent continuous variable from a number of independent variables. The squared multiple correlations (R^2) were determined. R^2 is a coefficient that tells how much the variance of dependent variable was accounted for by the joint predictive power of all the independent variables, and a coefficient of 50% is acceptable. The OLS output would also tell if the model allows one to predict a dependent variable at a rate better than chance. This is denoted by the overall F of the model. If the significance is 0.05 (or less), then the model is considered significant. In this study, the ordinary least squares (OLS) provided R^2 and the F values that were found to be too low to be of any significance. Because of the low R^2 in the OLS and the existence of heteroscedasticity caused by herd size, a form of weighting was applied to the data before running an OLS regression to obtain Weighted Least Squares (WLS) parameters. After weighting, amongst factors affecting household income in Turkana District, the level of education of household size, accessibility to and acceptability of animal health services, distance to veterinary clinics, time taken by the animal health service deliverer to respond to a herder's call and household size were found to significantly influence pastoral household income. In comparison, however, most factors did not show any level of significance in the West Pokot sample, except the acceptability and the cost of animal health service delivery. The findings of the present study indicated that despite efforts by the government to prioritize intensification of land use, upgrading the quality of livestock and providing appropriate support for the livestock sub-sector in pastoral areas including the target districts, the delivery of animal health services is neither effective nor efficient and thus in its present form, it cannot be relied on to increase pastoral incomes and enhance livelihoods. In addition the chronic shortage of technical and support staff, financial resources and vehicular mobility have continued to weigh heavily on the DVS's ability to provide quality services including emergency preparedness and response in the two districts. The situation in the ASALs is compounded by the existing policy and legal frameworks that have proven to be non-responsive and thus cannot be relied upon to address the prevailing and evolving animal disease dynamics and livestock production and marketing challenges. Unless these policy and legal constraints are adequately addressed it is unlikely that Kenya will regain its place in the international trade in livestock and livestock products. Greater integration of the private sector and beneficiary communities in various aspects of animal health service and input provision including outsourcing of the private practitioners and pastoral field schools to provide public good services is recommended. Such integration, however, requires the State to develop supportive policy, and legal frameworks and to provide adequate physical, financial and human resources.