

PARTICIPATORY EPIDEMIOLOGY: APPROACHES, METHODS, EXPERIENCES Stephen Kimondiu Muli, Wilhelm Duehnen, Nicoletta Buono

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ABSTRACT

Participatory epidemiology (PE) is an evolving branch of veterinary epidemiology which uses a combination of practitioner communication skills and participatory methods to improve the involvement of animal keepers in the analysis of animal disease problems and design, implementation and evaluation of disease control programmes. PE relies on the widely accepted techniques of participatory rural appraisal and ethno-veterinary surveys supported by triangulation of data with conventional veterinary diagnostic methods. In an ongoing intervention by VSFG, PE approaches have been used in livestock disease surveillance to inform timely responses to livestock disease outbreaks as well as early warning for droughts based on deterioration of livestock body condition. This intervention has achieved its intended results through four key interventions; i) Training of Government veterinary officers (VOs) on Participatory Appraisal (PRA) tools to enhance data gathering from illiterate livestock keepers, ii) Selection and training of Community Disease Reporters (CDRs) from target communities on identification of notifiable livestock diseases as well as those of great economic importance, iii) Disease reporting by CDRs, iv) Passive disease surveillance through remote communication between CDRs and VOs as well as regular field visits by VOs through semi-structured interviews with livestock herders and active disease search in response to suspected disease outbreaks based on CDR reports. Participatory Epidemiology has undoubtedly gained popularity as the basis for carrying out targeted livestock vaccinations in response to livestock disease outbreaks as well as responding to other livestock health issues by the County Departments of veterinary services. The approach has also resulted in linkage between livestock keepers and animal health service providers thus enhancing response to livestock emergencies. This timely response has controlled disease outbreaks and reduced losses of productive livelihood assets. Finally with livestock diseases profiling mapping Marsabit County is using the information to develop more focused and effective disease control programmes.

INTERVENTIONS, OUTCOMES AND BENEFICIARIES

Core interventions . Training of government officers on Participatory Epidemiology Approaches Selection and training

Outcomes . Linkage between livestock keepers and

Beneficiaries 16 veterinary officers

FIELD VISITS BY GOVERNMENT VETERINARY OFFICERS







LESSONS LEARNED

*Linkage between veterinary officers and community disease reporters enhances disease reporting with subsequent timely response hence reducing losses due to controllable disease

«Routine field visits by veterinary officers improves awareness by livestock keepers on disease control and more effective conventional veterinary practices

Government veterinary officer interviewing livestock herders during a regular monthly visits Veterinary Officer holding a lamb with ORF

-Residents of Marsabit county largely practice nomadic pastoralism which warrants for working closely with livestock keepers to appraise diseases for effective service provision.

-Livestock is key livelihood asset for population living in Marsabit county and account for 80% of the population solely depending on livestock for their livelihood.

Disease control has direct impact on livestock productivity and subsequently impacting on livelihoods depended on livestock.

APPROACHES USED TO IMPROVING CONTROL OF LIVESTOCK DISEASE OUTBREAKS

 $_{\ast}$ Timely response to reported disease outbreaks reduces losses and spread of diseases to healthy herds

«Through Disease Surveillance, the county veterinary department in able to develop more focused and effective Animal Health service delivery programmes

«Participatory approaches give<u>s</u> livestock keepers an opportunity to share and explain ethno veterinary practices with veterinary officers which leads to decrease in ineffective or detrimental practices and maintains effective ones with clear guidance by veterinary officer.



Left: Vaccination of shoat against PPR in response to the reported outbreak at Nkobeleng village, Marsabit, Right: Proportional piling in Galasa village in North Horr Sub county, Marsabit

Disease reporting by Capacity CDRs and building of field visits VOs by VOs

> Disease surveillance & Response to outbreaks

Selection and capacity building of CDRs CDRs



MAIN CHALLENGES

Inadequate technical staff to support effective implementation of the PE model
Marsabit County still experiences erratic ethnic conflicts which hinders access to livestock keepers

Inadequate support by government veterinary department both at county and national levels

•Low awareness by livestock keepers on conventional methods of disease control hence poor reporting.

THE PROJECT

This work refers to an initiative implemented by a consortium of INGOs (OXFAM, VSFG, ACTED and Concern worldwide) from 2013 ongoing to 2016 funded by ECHO called "Strengthening Resilience of the population living in the Arid lands of Kenya through Emergency Preparedness and Early Response"

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