

Reporting livestock disease information in Zambia: constraints and challenges

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Abstract

A desk and field study was conducted to quantify the flow of veterinary information between the livestock owner and the various levels of the veterinary department in Zambia. The studies were conducted in the Eastern Province, a major livestock keeping area. Results from the survey indicate that, although information is exchanged, reporting to the highest level is erratic. The repercussions of such irregular reporting are discussed.

Keywords: Zambia, Animal health services, Livestock disease information, reporting

Résumé

Une étude de bureau et de terrain a été réalisée pour évaluer quantitativement le flux d'information vétérinaire entre le propriétaire de bétail et les divers niveaux du département vétérinaire en Zambie. Les études ont été conduites dans la Province Orientale, très importante zone d'élevage. Les résultats de l'enquête indiquent que, bien que l'information soit échangée, la transmission au niveau le plus élevé est irrégulière. Les répercussions d'une telle transmission irrégulière sont discutées.

Mots-clés : Zambie, Services de santé animale, Information sur les maladies du bétail, transmission d'information

Resumo

Estudos teórico e de campo foram conduzidos para quantificar o fluxo de informação veterinária entre os proprietários de gado e os vários níveis do departamento de veterinária na Zâmbia. Os estudos foram realizados na província do leste, a principal área de criação de gado deste país. Os resultados da pesquisa indicam que, embora haja troca de informação, esta chega de forma errática ao nível superior. A repercussão destes relatórios irregulares são discutidas.

Palavras-chave: Zâmbia, Serviços de Saúde Animal, Informação de doença do gado, Relatório

Introduction

The Zambian veterinary services are represented over 59 veterinary districts each consisting of a number of veterinary camps distributed over the nine political provinces. The veterinary reporting system implemented by the Zambian Department of Veterinary and Livestock Development (DVLVD) consists of an upward flow of information from the field to the veterinary headquarters followed by a feedback to each of the levels (Figure 1) at monthly intervals.

In the field, veterinary information generated by the livestock farmer is captured at the level of veterinary camp. This information is transmitted from the veterinary camp to the District Veterinary Office, the next level in the information flow. From the district, information is transmitted to the Provincial Livestock Epidemiology and Information Centre (PLEIC) which reports to the National Livestock Epidemiology and Information Centre (NALEIC) at the national headquarters of the Department of Veterinary and Livestock Development (DVLVD). The flow of information forms the basis for the animal disease control strategies. Furthermore, as a member of the international community, Zambia

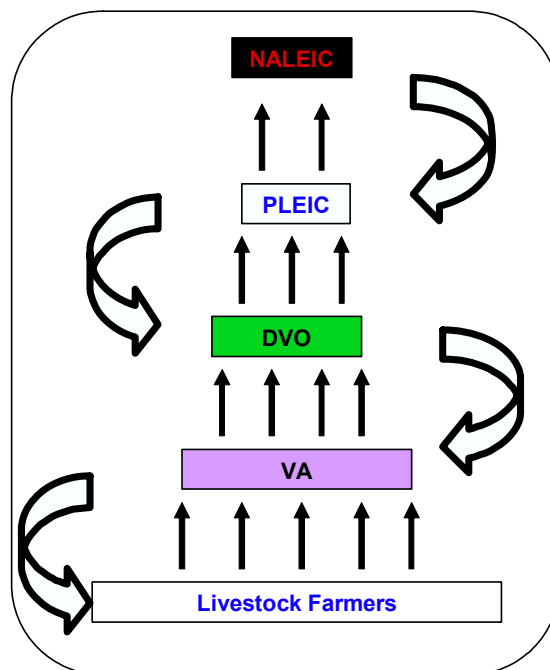


Figure 1: Theoretical flow and feedback of information in the Department of Veterinary and Livestock Development.

is obliged to report new epidemics and the control measures taken thereof through “prompt and comprehensive” international disease reporting. It is in this vein that the NALEIC regularly reports to the Office International des Epizooties (OIE) in Paris, France, the United Nations Food and Agriculture Organisation (FAO) in Rome, Italy, the African Union’s Inter-African Bureau for Animal Resources (IBAR) in Nairobi, Kenya and the Southern Africa Development Community (SADC) in Gaborone, Botswana.

To determine the frequency of veterinary reporting between the livestock owner and various management levels of the veterinary services a study was conducted.

Materials and Methods

Study Area

The study was undertaken in the Eastern Province of Zambia, an area comprising of 6 veterinary districts.

Agriculture is the major traditional economic activity, with most of the population practicing mixed farming. Farmers concentrate on cattle keeping and other small stock. The region is one of the most important livestock production areas in the country.

Study Design

The study consisted of a desk study and a field study. The desk study aimed at reviewing of existing information flow by studying the veterinary reports in the archives of the provincial and district DVLD registries in the Eastern Province of Zambia. Reports in the DVLD’s archives submitted by the provincial- and

district veterinary officers as well as those submitted by veterinary camp assistants during the period January 2003 to August 2004 were reviewed. The main purpose of this study was to obtain an insight into the frequency of the reporting, the composition of the reports and to appreciate the constraints and challenges of the veterinary information reporting system.

During the field study, structured questionnaires were administered to 50 randomly selected livestock farmers in Chipata and Petauke Districts. Questionnaires were also administered to 5 veterinary camp assistants and the DVOs of Chipata and Petauke.

- The livestock farmer questionnaire aimed at obtaining an overview of the farmer’s interactions with the veterinary assistant and to capture what the farmer normally reports to the veterinary assistant.
- The veterinary camp questionnaire intended to reflect the day-to-day operations of the veterinary camp assistant, what sort of data is collected and how they are channeled to the district.
- The DVO questionnaire aimed at establishing how the Districts were managing their respective veterinary camps and what type of support services they were offered by the District in the execution of their duties.

The purpose of the one-on-one interview with the NALEIC head was to determine the type of information captured by NALEIC and how this information is processed and analysed.

The data generated by the questionnaires were analysed using the statistical package STATA 7.0.

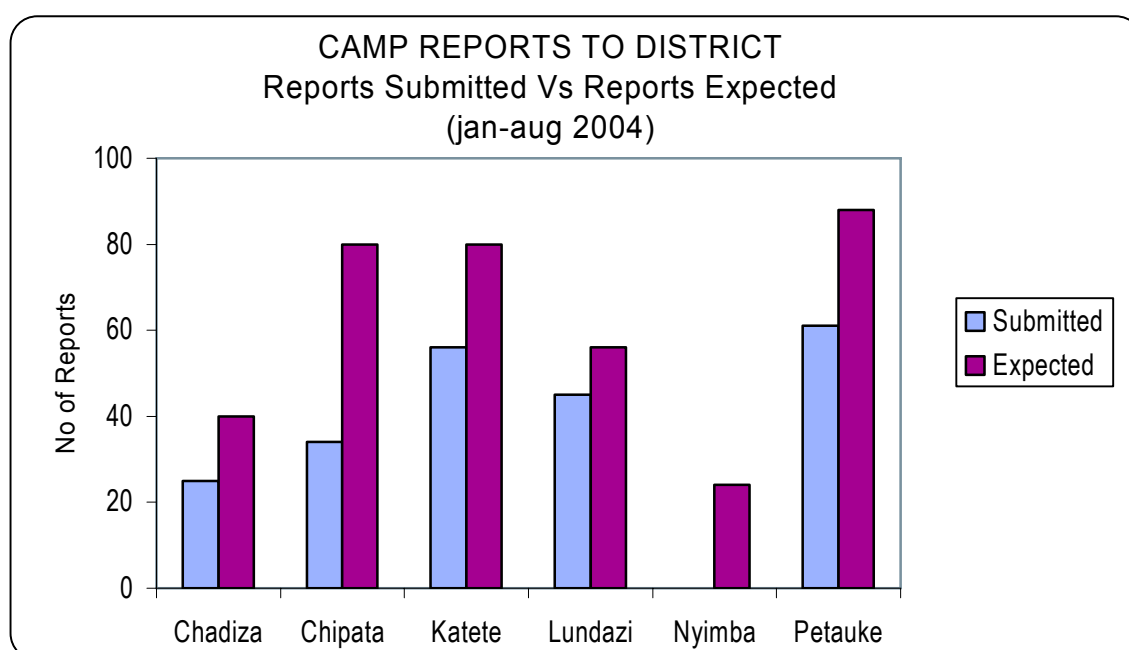


Figure 2: Observed and expected number of reports submitted by the veterinary camps between January and August 2004 to each of the districts.

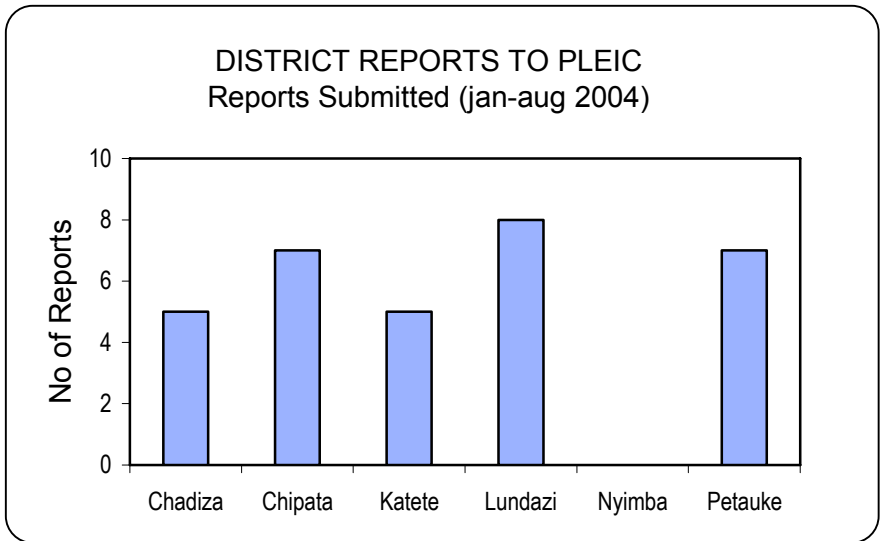


Figure 3: Total number of monthly reports submitted by the district to the Eastern PLEIC between January and August 2004.

Results

Frequency of reporting

Livestock farmers have the self-motivation to report disease information to their local veterinary camp assistant as they appreciate the importance of keeping the veterinary assistant informed of the status of their herd health. About 70% of all livestock owners that were interviewed report directly to a representative of the DVLD.

Reporting from the veterinary camps to the District is variable. In all Districts under study a substantial number of reports (for the period January – August 2004) has not been submitted (Figure 2). Substantial differences exist between the reporting frequency of the different Districts (Figure 2).

The rate of submission of camp reports between districts was highest for camps in Lundazi (80% or 45 reports out of the 56 expected) followed by those in Katete and Petauke (70%), Chadiza (62%) and then Chipata (42%). It was lowest for camps in Nyimba (0%).

The total number of monthly reports submitted (expected number is 8) to the Eastern PLEIC by each district in the Province between January – August 2004 also differed between Districts (Figure 3). Only one District (Lundazi) had submitted all its monthly reports at the moment of the study. Serious delays in report submission were observed in Chadiza, Katete and Nyimba Districts.

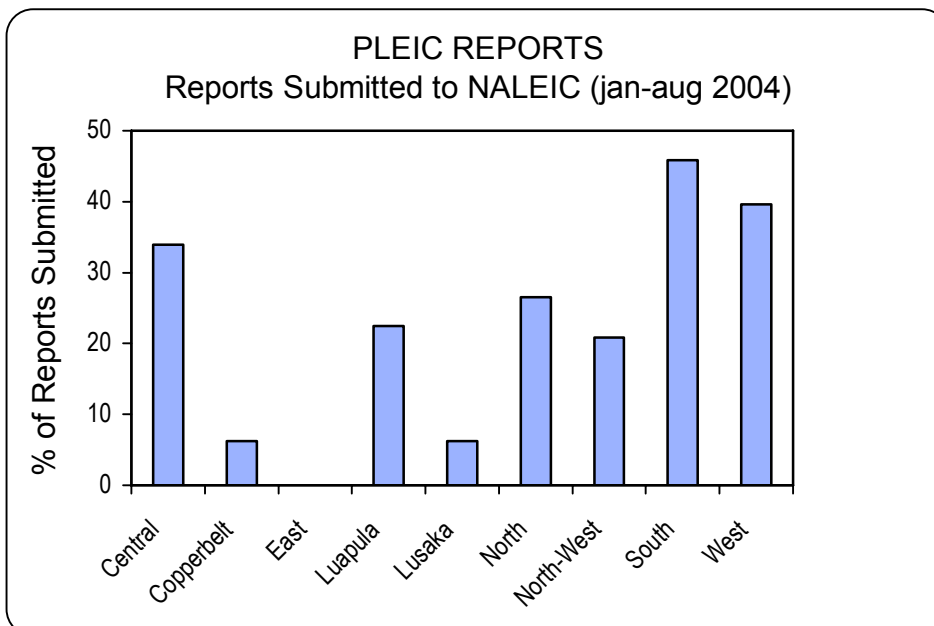


Figure 4: Proportion of the expected number of monthly reports submitted by each PLEIC to the NALEIC between January and August 2004.

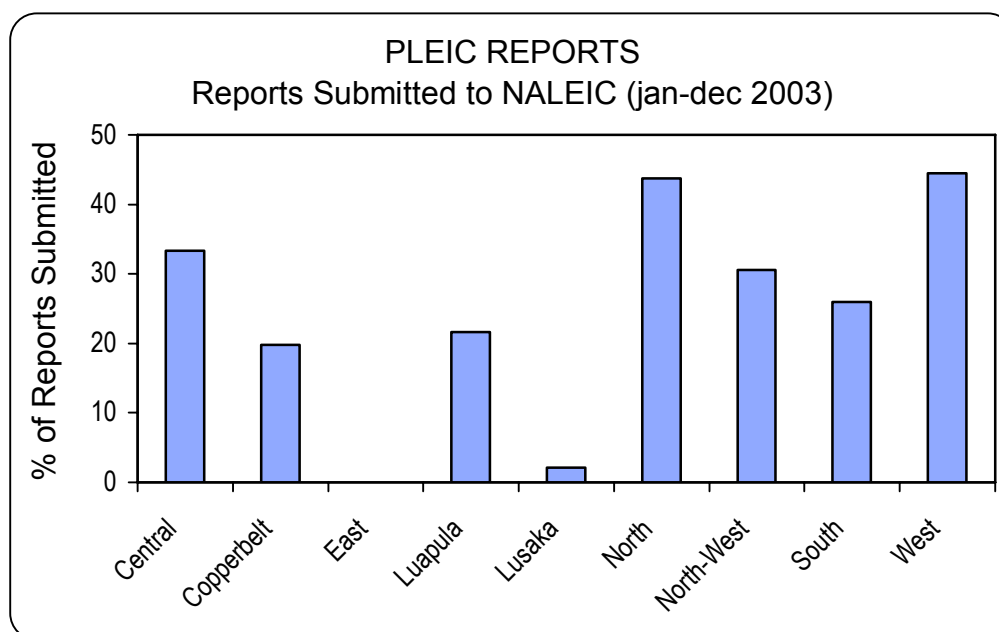


Figure 5: Proportion of the expected number of monthly reports submitted by each PLEIC to the NALEIC in 2003.

The rate of submission of district reports was highest for Lundazi (100% or 8 reports out of the 8 expected) followed by Chipata and Petauke (87%). It was low for Chadiza and Katete (62%) and lowest for Nyimba (0%). Each year the National Livestock Epidemiology and Information Centre (NALEIC) is expected to receive a total of 708 monthly reports from the 59 veterinary districts countrywide. The percentage of reports submitted by each PLEIC in the country to NALEIC in the period January – August 2004 is shown in Figure 4.

The percentage of reports submitted by each to NALEIC during the period January – December 2003 is shown in Figure 5.

Discussion

On average, the rate at which reports from veterinary camps are submitted to the district is 65% (i.e. 65% of the expected number). The rate of report submission from the districts to the PLEIC is 80%, and the rate of submission of reports from the PLEIC's to the NALEIC is only 21%. Hence, only about a tenth (11%) of the data generated at the ground level ever reach the NALEIC. Such low level of reporting from the field must have repercussions for the timely reporting of livestock disease information to the international

organizations. Since the activities of the DVLD are to a large extent guided by the information obtained and analysed by the NALEIC, decision making in the field of veterinary interventions must be difficult. Similar problems must be encountered when formulating an appropriate livestock sector development policy.

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