2

Ethnoveterinary question list

Barbara Grandin and John Young

• Introduction

This article focuses on the collection and use of ethnoveterinary data in the context of community-based animal health training programmes in Kenya. The programmes ranged from pastoral areas such as Samburu and Pokot, to settled farming in Meru and Machakos and were carried out by the Kenya Livestock Programme (KLP) of the Intermediate Technology Development Group (ITDG) in collaboration with various community-based NGOs. This article discusses the lessons learned in the programme to date and directions for the future.

• Data collection for the Kenyan livestock programme

The KLP has begun to identify a 'minimum data set' necessary to design and monitor the progress of community-based animal health (CBAH) programmes (Grandin et al., 1991). KLP has adopted a set of data collection techniques, which are flexible enough to be adapted to each project's requirements but standard enough to provide the minimum data and allow for comparisons across projects. These techniques include literature reviews, informal participant observation and discussions (e.g. with farmers, project personnel, government veterinary staff), as well as following more formal methods:

- *Wealth Ranking* to describe the differences between richer and poorer households, especially with regard to livestock keeping, problems, access to veterinary services, etc. (Grandin, 1988).

- *Progeny Histories* to provide basic information on offtake, fertility, mortality (cause, age, seasonality) over a longer time-frame than is normally covered in single interviews (Grandin, 1984; Young, 1987).

- *Ethnoveterinary Interviews* which provide information on both local people's disease nomenclature and symptoms, causes, traditional and modern treatments for various diseases.

- *Household-Level Data Collection* to elicit more information on producers' perceived problems and stated needs with regard to livestock production.

- *Participatory Rapid Appraisal* techniques including problem and success ranking, seasonal calendars, mapping and diagramming.

• The ethnoveterinary question list

The question list was first developed and implemented in Kenya Maasailand by Barbara Grandin and her assistant Elijah ole Timpaine in 1984. It can indicate the general level and depth of knowledge on animal diseases and provide a list of local disease and symptom names. It provides information on the animals affected, signs by which people recognise them, how they are caused, whether they are seen to be contagious and whether there is a well known and effective traditional or modern medicine. There are two main stages of data collection:

- Collecting background information; and,
- Implementing the question list.

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Stage One: collection of background information

General information

Knowledge of the following aspects of livestock production is required:

- *The local production system:* it is necessary to gain a basic understanding of the livestock production systems in the area. To ensure that representative informants are selected, particular attention should be paid to the division of labour within households e.g., who is responsible for, manages and treats sick animals. It is important to separate out cultural ideals of labour division from the actual situation.

- *Species of animal kept, breed differences and age divisions:* information is required on the local definitions of animal ages or other characteristics that are said to be strongly related to disease incidence and seasons of the year. This allows discussions on types of animals affected and seasonal occurrences to be more easily understood in ensuing interviews. This information is best collected specifically in the context of disease incidence since many languages, particularly pastoralists', have very elaborate terminology.

- *Local seasons of the year:* a basic understanding of the local seasons is useful as they often correlate with disease outbreaks.

Eliciting disease names

The second step for collecting background information involves the elicitation of all known livestock disease names in the language of the community. This works particularly well with a small group as the stories and ideas of one informant often spark the mind of another. However, there are several biases that should be avoided.

- *Seasonality:* producers are most likely to mention diseases of the current season. After those are elicited, ask specifically for diseases most prevalent in other seasons

and/or year round. Also, make sure that all species are mentioned, including equines and poultry.

- *Severity of disease:* producers are most likely to give the names of the most serious (i.e. fatal) diseases so make sure that chronic diseases and those which are not fatal, but may lead to production losses, are also recorded.

- *Incidence of disease:* it is useful to ask the group whether there are diseases that appear only periodically otherwise one might miss major epidemics that sweep through an area, or conditions that appear only in unusual climatic circumstances.

These biases can be dealt with after the initial listing of diseases. Researchers can prompt the group of farmers to name other diseases by reminding them that they are interested in chronic diseases, diseases of other seasons and so on.

The above information can be recorded on index cards. The back of each card is a useful place on which to write comments about the disease and the cards can be sorted and resorted to check for duplications. Cards also facilitate pulling the information together later. In the first interview the name of each disease can be written on an index card. These are checked later to avoid recording multiple names for the same disease or the same name (often a body part) referring to several, quite distinct syndromes.

In subsequent interviews the cards can be pulled out as each name is mentioned, and discrepancies checked. In some cases a group will have thought of a disease that previous groups have missed; in other cases, dialect or other differences (e.g. level of colloquialism) will be picked up. This helps the investigator to learn when there are different names for the same disease as well as the factors that lead people to use these different names.

Stage Two: implementing the ethnoveterinary question list

The second stage involves asking a list of questions about an individual disease. It can be asked of three or more informants, chosen to represent relevant diversity in the community

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(by age, gender, wealth, location etc.). In most circumstances it is best not to ask about more than two or three diseases at a single interview to avoid interview fatigue and hasty answers. It is not necessary to ask the same few informants about all the diseases.

If there are traditional healers in the area, it is useful to include several, in addition to ordinary producers, in order to have a basis for comparing generalists' with specialists' knowledge. By asking a number of different people it is possible to get a good idea of whether the information is in general circulation or restricted to specialists and whether there are consistent views or a multitude of different views.

It is important that the interviewer spends time explaining the data wanted and why, stressing the value of the knowledge of local people. At no time should the informant be interrupted with the comparisons with Western views or treatments.

The specific questions are on the whole straightforward; the questions can be asked at the particular depth required for the specific project. Farmers and pastoralists are usually quite happy to talk about their animals' health. Often the problem is having them tell you more than you can possibly absorb, rather than there being gaps in the information.

This type of ethnoveterinary information can also be collected informally just by talking to people and asking questions. However a fairly fixed question list, such as the one below, has the advantage of ensuring that all points are covered and that data both within and across sites is comparable:

The questions

Question 1.   What species, ages and sexes are affected?

It might be important to distinguish different breeds where there are local and cross-bred animals.

Question 2.   Is there seasonality or other timing to the appearance of the disease?

This question requires knowledge of the local calendar. Where seasons are not the only timing variable the answers often reflect the correlations that producers see between other events and the disease under discussion, although they do not necessarily see a causation. For example, the Maasai clearly recognise that malignant catarrh outbreaks follow the period when wildebeests migrate in Maasailand and calve down.

Question 3.   Does it usually affect one animal or a group of animals at the same time?

This is best asked broadly i.e, "*Can the disease spread from animal to animal. If so, how?*". Avoid technical terms such as contagious or infectious which may be limiting and not easily translated with accuracy. This question often leads naturally into a description of what people believe causes disease.

Question 4.   What causes the disease (may be natural, spiritual or both)?

This may pose difficulties if the animal keepers know the interviewer is a veterinarian and/or a foreigner; they are unlikely to admit to a belief in the spiritual causation since they know many outsiders believe these ideas to be backward.

Question 5.   Are there ways to prevent/avoid this disease?

Preventative measures are most commonly reported with contagious infectious and vector-borne diseases and often include isolating animals, avoiding certain pastures at certain times, hygiene, etc. Sometimes preventions are mentioned with treatments, especially when they involve traditional herbal or other remedies (or vaccinations).

Question 6.   Describe the main symptoms in their order of progression and timing if possible i.e, what is the first symptom seen, what is the second symptom seen, when etc. and what is the symptom, if any, that makes you decide it is this specific disease?

Here the skill and interest of the researcher is critical to ensure the proper recording of what

3

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is said and probing for more details. It is useful to indicate what is the definitive symptom since several diseases may have identical clinical signs. In Pokot producers were asked specifically *"Are there any similar diseases, if so, how do you tell them apart?"* in order to try to find out the key differentiating features.

Question 7. Are there any traditional treatments available? Basically, what are they? How are they obtained? What happens when used?

Details of treatments are not recorded at this stage but it is useful to note the main ingredient and/or action. There may be problems with informants providing information on traditional treatments if they fear this will preclude their gaining access to western drugs. Given its general nature the question may lead to superficial answers which is why Questions 10 and 11 have been added.

Question 8. Are there any modern treatments available? What are they? Where can they be obtained? What happens when used?

This provides useful information about the level of understanding of local people about western medicines including types, dosages, mode of application.

Question 9. What usually happens if the animal is not treated?

General outcome questions are very difficult to answer; *"Some die or some get better"* are common and reasonable answers as many other factors may intervene.

Question 10. When did you last have (or know of) an animal with this disease?

Question 11. What happened to it?

In agricultural areas where livestock numbers are low, to avoid numerous null answers this question can be changed to refer to the last time the farmer heard of an animal with the disease. These questions give an idea of the frequency with which a disease occurs in an area. It is useful to know how common a

disease is seen to be both for its potential impact on livestock production and to understand how well producers are likely to be acquainted with it.

The questions also serve as mini case studies of actual rather than ideal or generalized situations and often indicate deviations from the expected in terms of actions taken, outcome and sometimes reasons. For example, one producer replied that his animal was very old so he decided to slaughter it rather than waste time and money on trying to cure it.

Interviewer skills and the question list

As with any formal or informal data collection techniques the quality of the information depends on the quality of the interviewer and the relationship between the informant and the interviewer. Skills in administering the question list are critical. The decisions arising must be based on farmers' knowledge, not on the researcher's knowledge.

To accurately conduct interviews in the areas of indigenous technical knowledge the interviewers themselves must be reasonably knowledgeable about the area under discussion, have a well-developed vocabulary (or be willing to meticulously record vocabulary and definitions) and a clear understanding of the purpose of the questions. Otherwise they are likely to misunderstand replies, to filter out important information and/or to lump together points which the producer has disaggregated.

Interviewers using the ethnoveterinary question list should possess or be trained in the following attributes:

- Respect for local beliefs;
- A sound knowledge of animals, production and diseases;
- Knowledge of the indigenous vocabulary for animals, production and diseases;
- Knowledge of medicines and their dosages; and,
- Reasonable knowledge of animal health issues.

The translation and phrasing of questions is important. In the Samburu project, two pairs of assistants administered the household question

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4

list which asked when the household last had a sick animal. Despite pre-translation and review of the questionnaire, the two groups used different phrases for sickness. As a result, one pair was told only of animals with serious illness, while the other were told of both serious, mild and chronic illness.

If the assistant does not have a deep respect for local beliefs this will inevitably be conveyed in the interviews and producers are unlikely to give detailed responses, particularly to questions about causation and traditional treatment. The fact that enumerators, extension agents and so on are from the local area does not necessarily mean that they will have the requisite skills for studies of indigenous knowledge. The Maasai research assistant was successful mostly because he carefully recorded indigenous vocabulary and he pointed out and tried to resolve discrepancies at the time of interview.

- **Using data from the ethnoveterinary question list**

Using the information in training of animal health assistants

The information is useful at many stages: project design; implementation; and evaluation. At the most basic level it is impossible to even talk to livestock owners about animal diseases without knowing the local names of diseases and how producers talk about them. Beyond that there are three major decision areas where ethnoveterinary information can be helpful.

Deciding who to train: intermediaries or producers

The question list indicates the level of veterinary knowledge amongst farmers within a given area. In the Meru region of Kenya, primarily a cropping area, the question list indicated that there was a relatively low level of ethnoveterinary knowledge among local farmers; they often failed to recognise disease symptoms until the animal was very sick. Thus, individual farmers were selected and trained to recognise and treat common simple diseases so that they could provide a basic animal health service to their neighbours. This

decision flowed logically from the pre-existing levels of ethnoveterinary knowledge and cultural traditions about reliance on traditional animal health specialists.

In Pokot, a pastoral area, the same approach was not successful. On re-examination of the question lists responses showed a very high and consistent ethnoveterinary knowledge, so it was decided to provide training directly to the Pokot pastoralists. Here, there is a strong tradition of each household having the knowledge and skills to treat diseases and on the whole pastoralists wanted to be trained themselves, rather than rely on an intermediary for veterinary assistance, particularly of a routine nature.

The successful incorporation of women into either type of training requires an appreciation of both their traditional and their changing roles in livestock keeping, as well as certain cultural norms which could facilitate or hamper their freedom to move around the countryside.

Deciding what should be included in the training

It is important to know which diseases are common and which concern farmers so that subsequent training can address their particular needs and priorities. The results from the question list will help to clarify this. On the whole, people know more about the things that concern them most so the spread and depth of knowledge of a disease will indicate its importance.

It may be helpful to ask livestock keepers to rank the diseases (using their local names) according to various parameters. These parameters could include the most common, the most fatal, those causing the most loss of production, or those most easily treated. This can yield interesting information, which is sometimes significantly different to the perceptions of local government staff or traditional animals specialists. Table 1 presents information about cattle diseases collected from farmers, government staff and traditional healers in Meru. The information is compared, and although a certain level of agreement is seen, some perceptions differ markedly.

Table 1. Common cattle diseases reported by different groups in Meru[1]

Common local name	English names	Farmer groups	Traditional healers	Vets and health assistants
njoka	Helminthiasis (worms)	+++	+++	+++
nthiana	Anaplasmosis	+++	+	+++
mauri	Pneumonia	++	++	++
meetho	Conjunctivitis	++	+	+
ikai,itaa	Theileriosis (ECF)	+	++	+ (1984)
mutombo	Trypanosomiasis	++	-	+
kurema njau	Dystochia	+	++	-
ugere	Mange	++	-	-
nyongo	'Liver'	++	-	-
ikunguri	FMD	+	-	+ (1984)
kunguru	Gid	+	-	-

Code: +++ very common, ++ common, + uncommon, - not reported. The dates in parentheses represent the last outbreak of the disease recorded by the government veterinary service.

Deciding the approach to take

Training should be based on what people already know in terms of nomenclature, symptom recognition, appropriate drugs and dosage rates. The descriptions of the signs of the diseases, and which animals are commonly affected can be used to assess the degree of overlap between local disease entities and the etiological definition of the modern veterinary medicine. The general level of agreement and detail used by livestock keepers to differentiate the different diseases will determine the amount of additional training they need in disease diagnosis. Understanding how farmers think diseases are caused is important in training on disease prevention or routine treatments and it is important to know what and how much producers understand about drugs and dosage rates.

Current and future directions in the use of ethnoveterinary information in the Kenya livestock programme

The project hopes to breach the divide between traditional and modern treatments and to ensure that modern treatments are not needlessly recommended if there are equally efficacious local ones. As a first step the programme is beginning to investigate the reported efficacy of traditional treatments for the common simpler diseases.

Ranking of traditional treatments

In addition to the information collected through workshops and interviews traditional healers and farmers are asked to rank the diseases elicited in the background phase according to the efficacy of their traditional treatments. This uses a card sorting technique, as in wealth ranking. In Machakos, in a pretest of the technique, 29 diseases were ranked by two farmers (of varying ethnoveterinary skills)

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[1]Source: Young, 1987.

and a traditional healer. The knowledgeable farmer knew of traditional treatments for 25 of the diseases, the less knowledgeable farmer treatments for 12 and the healer 26. As one would expect the healer generally ranked traditional treatments more highly than the farmers, but overall there was fairly strong agreement on there being quite effective traditional treatments for five diseases and none for another 11. Other diseases were more ambiguously classified and require further study. It is hoped that such ranks will enable the programme to select several reportedly successful treatments for more in-depth study so that they can confidently be included in training.

Database

ITDG are building a database of ethnoveterinary knowledge and local names for animal disease using information collected from herders. This knowledge could provide the government veterinary department with information for monitoring diseases in the regions The Drought Contingency Unit could use disease incidence as an indication of drought and impending food shortages. The KLP hopes to use evidence of the sophistication of indigenous veterinary knowledge, alongside monitoring information indicating the effectiveness of the community-based animal health programmes, to encourage government and non-government programmes to take a similar perspective.

- **Barbara Grandin,** 32 Sturgiss Road, New Jersey 08824, USA and **John Young,** Intermediate Technology Development Group, Myson House, Railway Terrace, Rugby CV21 3HT, UK.

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