

# Health and welfare of working horses in Lesotho: a baseline survey

Melissa Upjohn, Kate Shipton, <sup>1</sup>Thabo Lerotholi, <sup>2</sup>Gillian Attwood and Kristien Verheyen

Department of Veterinary Clinical Sciences, Royal Veterinary College, Hertfordshire AL9 7TA, UK;  
<sup>1</sup>PO Box 192 Matsieng, Lesotho; <sup>2</sup>Malealea Development Trust, PO Box 194 Motsekoa, Lesotho.

## Introduction

Although it can be assumed that animal charities operating in developing countries have a positive impact on the health and welfare of local animals and their owners, limited peer reviewed information is available on the benefits derived from the work of equine welfare charities.

Lesotho is a mountainous, independent kingdom located within South Africa. It is one of the world's poorest countries with GNI per capita US\$960<sup>1</sup> and home to an estimated equine population of ca 87,000 horses and 150,000 donkeys<sup>2</sup>.

In June 2007, a UK-based equine charity started training programmes in the country, aimed at improving local people's equine skills and knowledge to benefit horse welfare.



## Aim

To describe horse health, owner knowledge of equine healthcare and husbandry practices and condition of tack used on horses in Lesotho, prior to the start of training programmes by a UK-based equine charity.

## Materials and Methods

### Study design and period

Cross-sectional survey conducted between April and June 2007.

### Study area

Three regions in south-west and western Lesotho from which students on the training programmes were drawn.

### Sampling

Two-stage sampling procedure: random selection of horses within randomly selected villages using probability proportional to size approach.

Sample size estimates based on anticipated effects of the intervention programmes: 100-150 horses in each region needed.

### Data collection

Assessment of owner knowledge and husbandry practices through face-to-face administration of a pilot-tested questionnaire in local language.



Assessment of horse health using pre-tested protocol for physical examination and completion of standardised form by investigator.

Collection of blood and faecal samples.



Assessment of tack condition using pre-tested protocol and completion of standardised form by investigator.



## Results

**287 owners** were interviewed and **312 horses** examined. Horses were predominantly used for transport (79%), as police horses (9%), for tourism (5%), working fields (5%) and pulling a cart (3%).

### Diet and general health

Most owners (85%) fed their horse maize stalks; 23% fed lucerne. Yellow maize was the most common source of hard feed, fed by 49% of owners. Sixty-two per cent of owners believed their horse's diet was unbalanced.

"Not eating" was the most commonly cited sign of equine ill health (by 74% of owners) but signs of potentially serious disease (e.g. kicking at belly indicative of colic) were often not recognised as such. Thirty-one per cent of owners thought their horse was currently unhealthy.

On a scale of 0-5, mean body condition score was 2.5 (sd 0.8, range 0.5-4.5). Around 21% of horses had low red blood cell counts, 6% had pale mucous membranes and 4% showed signs of dehydration.

### Mouth- and teeth care

There was little awareness of how to look after a horse's mouth and 'checking regularly' was commonly reported as the only method to ensure equine oral health. The traditional practice of making gum incisions when horses were thought to have 'swollen gums' was carried out by 23% of owners. The vast majority of owners (97%) reported no current mouth or teeth problems in their horse. On clinical examination, 93% of horses had palpable molar points and injuries associated with poor biting were common.

### Foot care and lameness

Less than 10% of owners carried out simple procedures such as picking their horse's feet. Most (92%) described shoeing as a component of appropriate foot care; 24% of owners reported shoeing their horses and 54% of these did this themselves.

Upon examination, only 14% of horses were shod on one or more feet. Fifteen per cent of horses were lame and 26% had foot injuries.

### Parasite infestation

Almost all (94%) owners reported worming their horse; products used are shown in Figure 1. Most owners (59%) wormed their horse less than four times per year. Strongyle eggs were found in 88% of faecal samples, 48% of which showed evidence of heavy infestation (>1200epg); 22% contained *Parascaris equorum* eggs and 22% contained tapeworm eggs (*Anoplocephala perfoliata*).

Tick treatments were administered by 64% of owners, most commonly using pyrethroid products. Ticks were present in 59% of horses, 36% of which were moderately or heavily infested.

### Tack and associated problems

Most owners had access to a bridle (85%) and/or saddle (74%) but 58% of owners shared tack between horses. Only 4% of owners assessed tack fit before use, but knowledge of how to do this varied considerably.

60% of bridles, 45% of bits and 69% of saddles were ill-fitting; 61% of bridles, 50% of bits and 41% of saddles were in poor condition.

Non-limb wounds were found on 68% of horses, the majority of which appeared to be tack-associated and found on withers, spine or head (Figure 2). A pain response was elicited on palpation of thoracic, lumbar or sacral spine in 53% of horses.

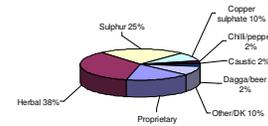


Figure 1: Endoparasite treatments used by Lesotho horse owners

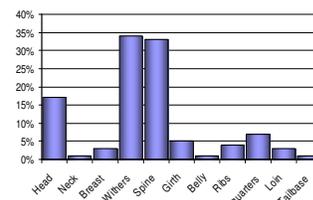


Figure 2: Proportions of horses in Lesotho with wounds at specified sites

## Conclusions

- Working horses in Lesotho have a wide range of physical problems, some of which could be addressed through owner education.
- Lesotho horse owners have variable equine healthcare husbandry knowledge.
- In the context of limited access to veterinary care and scarce resource availability, owner education and access to local equine trade skills is needed.
- Findings of this study will be used to inform and direct training programmes to maximise benefits to equine welfare, as well as serving as the baseline against which to monitor effects of intervention on the equine population.

### References

1. United Nations 2006
2. Lesotho Livestock Services Directorate, Ministry of Agriculture and Food Security Census, 2003