

Owner perceptions of working equid health and disease in Ethiopia – a Participatory Situation Analysis.

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Introduction

Working equids play a major role in the lives of the Ethiopian population. Ethiopia has the largest population of working horses, mules and donkeys in Africa, with the majority of the population dependent on traditional subsistence agricultural production. These working equids suffer from low productivity as a result of prevalent parasitic and infectious diseases, low nutritional standards and poor management practices (Yilma *et al* 1990).

Aim

The aim of this study was to use participatory approaches to identify and prioritise the disease and health concerns for working equids in Ethiopia.

Method

In February & March 2008 a Participatory Situation Analysis (PSA) was conducted in the Amhara and Oromia regions of Ethiopia. Sixteen sites were selected in a range of agro-ecological zones (Fig.1). 8 urban towns with predominantly cart horse owners and 8 rural villages with predominantly donkey owners. Sites were classed as exposed (previously exposed to an equine veterinary NGO or equine education programme) or non-exposed (those with no previous exposure).

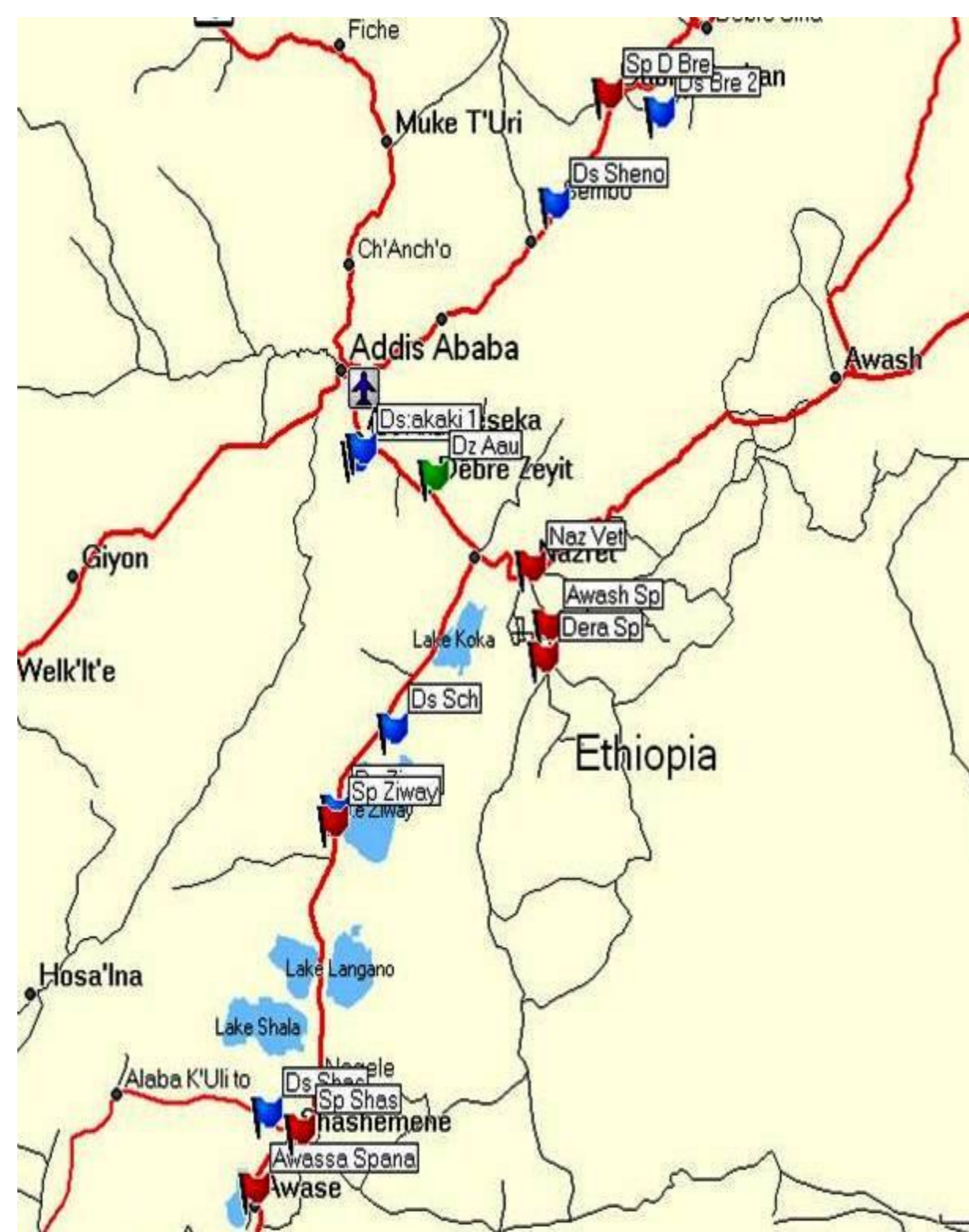


Figure 1. Location of urban (carthorse owners; red flags) and rural (donkey owners; blue flag) study sites .

Using a locally trained animal health worker as a facilitator and translator (Fig 2.) a range of participatory approaches were used, including open discussion, ranking and matrices (Fig 3.). Information was gathered from groups of owners regarding their knowledge on the health issues and diseases that affected their equids. Owners' perceptions of prevalence, morbidity and mortality of the volunteered diseases as well as information regarding the socio-economic impact of these diseases and health concerns were obtained.



Figure 2. PSA being conducted with rural donkey owners

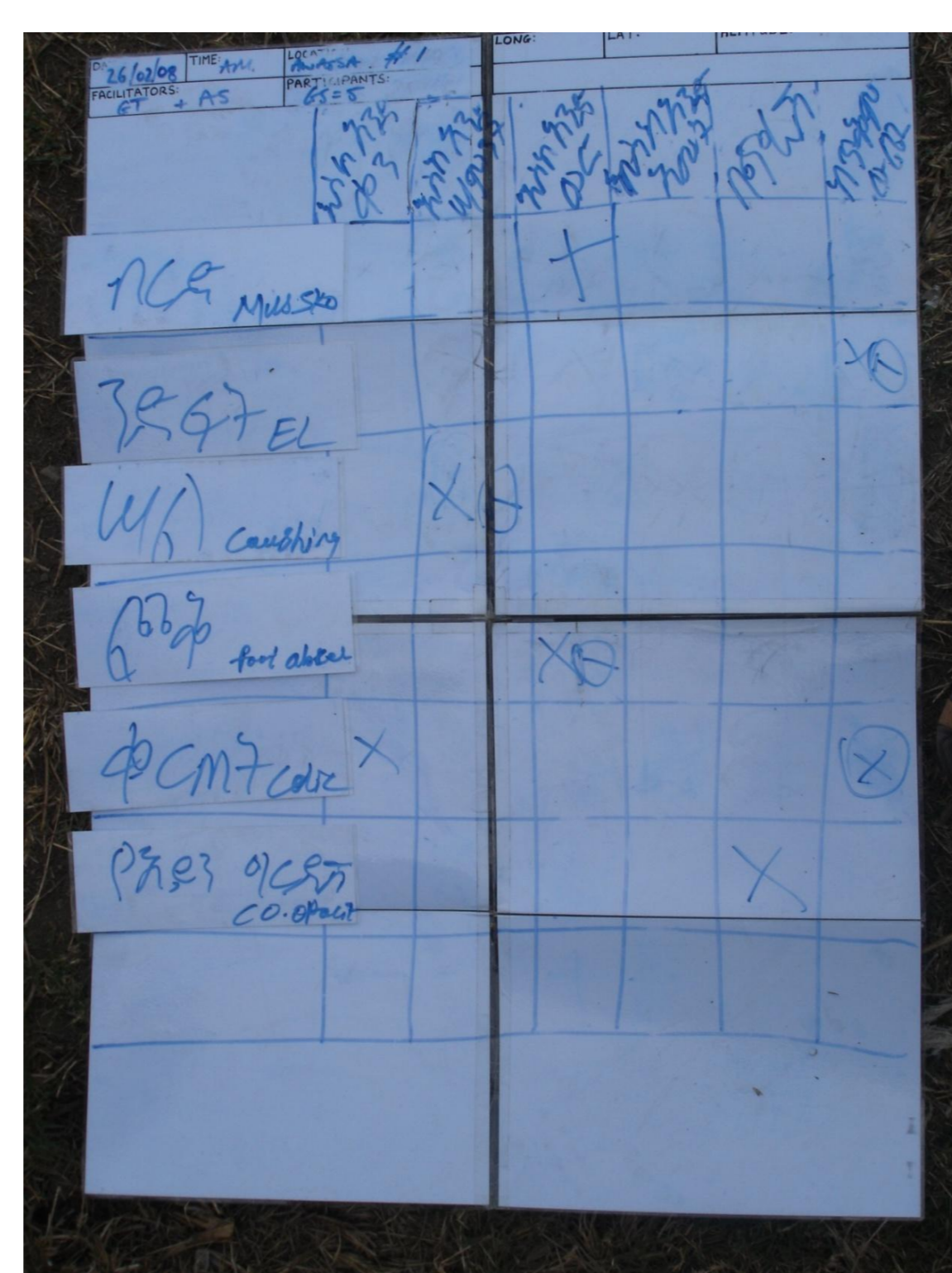


Figure 3. Matrix board used for disease ranking and assessing impact on work.

Results

Forty separate disease "entities" were described by horse and donkey owners. Donkey owners ranked nasal discharge, coughing and sarcoids as the most common diseases of their animals (Table 1). Horse owners ranked Epizootic Lymphangitis (EL), colic and a musculoskeletal entity to be the most common (Table 2).

Donkey Rankings					
Unexposed and Exposed		Exposed		Unexposed	
Disease	Rank	Disease	Rank	Disease	Rank
Nasal Dis.	1	Nasal Dis.	1	Wound	1=
Coughing	2	Coughing	2	Wart	1=
Wart	3	Worm	3=	Nasal Dis.	3=
Wound	4	Bloating	3=	Coughing	3=
Colic	5=	Wart	3=	No Urination	5
Worm	5=	Dog Disease	3=		
Bloating	5=				
Dog Disease	5=				

Table 1. Donkey Conditions

Horse Rankings					
Unexposed and Exposed		Exposed		Unexposed	
Disease	Rank	Disease	Rank	Disease	Rank
EZL	1	EZL	1=	MS	1=
Colic	2	Coughing	1=	EZL	1=
MS	3=	Colic	3	Colic	3
Coughing	3=	MS	4=	S/D Disease	4
Wound - UL	5	Foot Abscess	4=	Coughing	5=
		Worm	4=	Wound - UL	5=
		Wound - UL	4=	Anthrax	5=
				Gum Down	5=
				Nasal Dis.	5=
				Swelling - eye	5=
				S. Leg/lame	5=

Table 2. Horse Conditions

Abbreviations	
Nasal Dis.	Nasal Discharge
Wart	Sarcoid
Worm	Helminthiasis
Dog Disease	Rabies
EZL	Epizootic Lymphangitis
MS	Musculoskeletal "entity"
Wound - UL	Wound on Upper Lip
S/D Disease	Sun/Day Disease
Gum Down	Wound on upper lip leading to a flap of "gum" being displaced.
Swelling - eye	Swelling above eye (AHS)
S. Leg/lame	Swollen Leg/Lameness

Work impact scores (WIS) were created to interpret the impact of the various conditions on the owners' horse/donkeys ability to work (Table 3). The average WIS for the 3 most common horse conditions was 2.8 (Fig. 4) whilst the average WIS for the 3 most common donkey conditions was 1.8 (Fig. 5).

WIS	Time off Work
0	Never off work
1	Up to 1 day
2	Up to 1 week
3	Up to 1 month
4	> 1 month
5	Out of work

Table 3. WIS

Work Impact Score: Horse Conditions

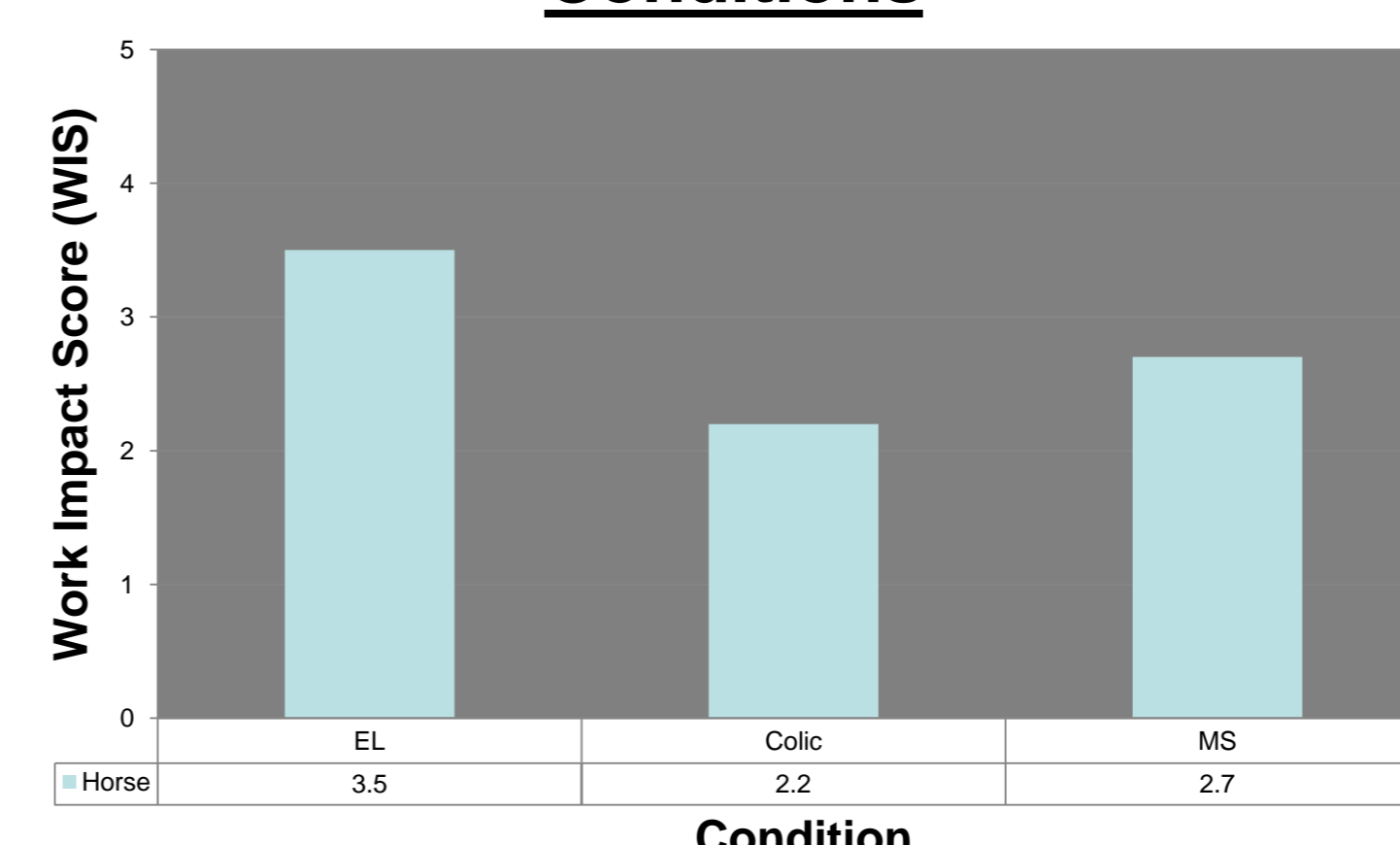


Figure 4. Horse Work Impact Scores

Work Impact Score: Donkey Conditions

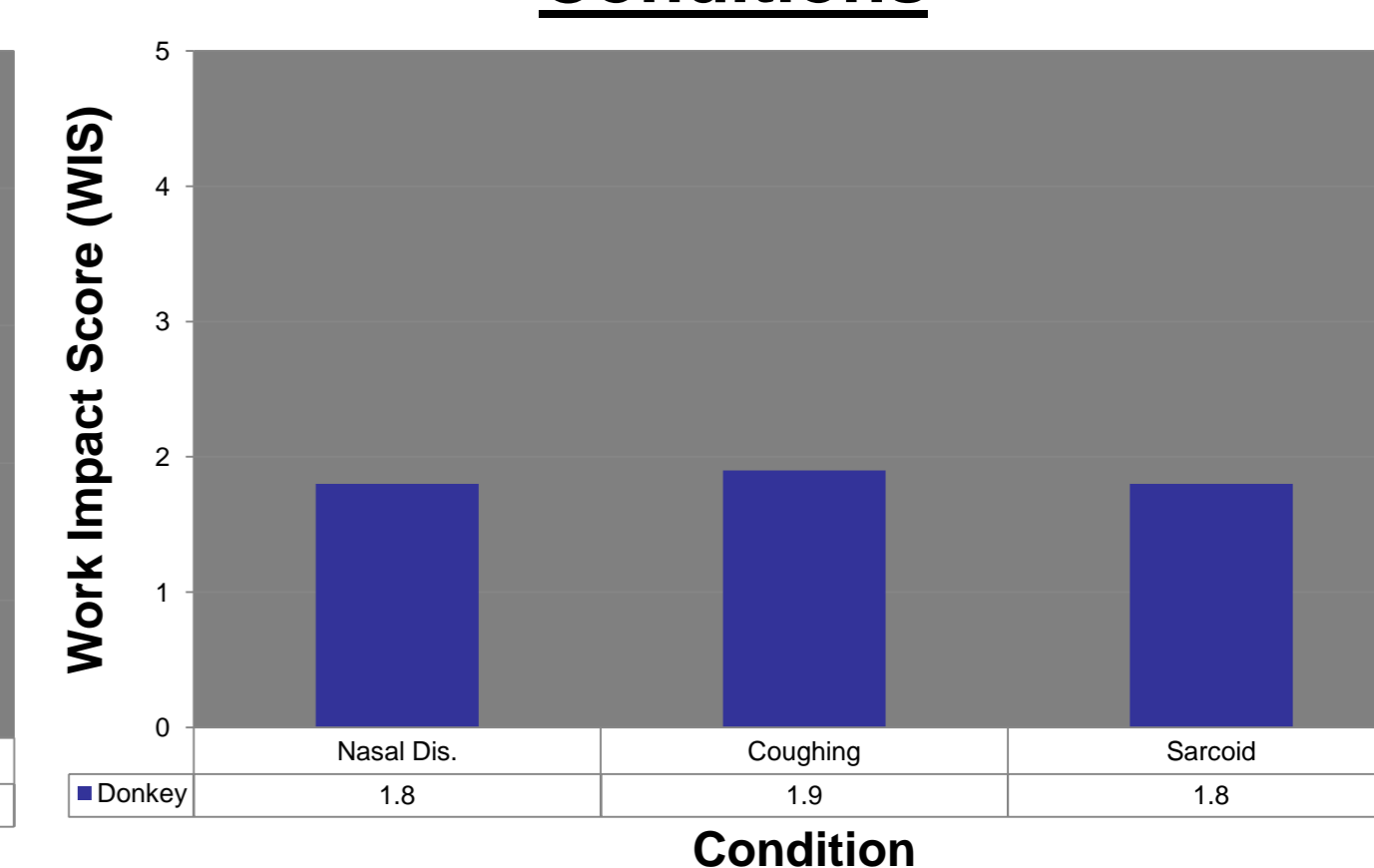


Figure 5. Donkey Work Impact Scores

The average WIS varied between horse and donkey owners. The conditions that horse owners perceive to afflict their animals have a greater impact on working ability compared to the conditions that donkey owners perceive to affect their animals.

These differences in WIS may be explained by the individual disease/health conditions and the differences in the intended use of horses and donkeys.

The data gathered during this PSA will be triangulated with published literature and clinical records in order to ascertain an accurate picture of the disease and health concerns afflicting working equids in Ethiopia.

Conclusions

This PSA has led to an increased knowledge regarding owner perceptions of the important health and disease concerns that affect working equids. Information gathered during this PSA will be used alongside other data sources, to inform decisions regarding the targeting of diseases and health concerns. This is of benefit to veterinarians, government and NGO's in identifying areas requiring the education of equid owners and also those requiring further research.

References

Yilma, J.M., Gebreab, F.A., Svendsen, E.D. and Mohammed, A. (1990) Health Problems of Working Donkeys in Debre Zeit and Menagesha Regions of Ethiopia. In: *Donkeys, Mules and Horses in Tropical Agricultural Development*, Eds: D. Fielding and R.A. Pearson