Animal welfare risk assessment during transport of pigs

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INTRODUCTION

Transport is a critical period for the welfare of the animals because they are exposed to a variety of stressors that may impair their ability to cope with the environment.

OBJECTIVE

To identify major risks affecting animal welfare in pigs transported less than 8h to the slaughterhouse during warm climatic conditions.

MATERIALS AND METHODS

A comprehensive list of potential hazards was developed and scored based on their: severity, duration, likelihood of adverse effect and probability of exposure. Five experts were asked to score the different factors and scoring was then discussed within the panel. The adverse effect of the hazards was evaluated taking into account the 12 criteria of animal welfare developed by the Welfare Quality® Project (Table 1). Hazard magnitude and risk were calculated as follows:

Magnitude = Severity score x [Duration (% of 1 month)/100]

Risk Estimate = Magnitude x (Likelihood of adverse effect/100) x (Probability of Exposure/100)

Table 1. Principles and criteria of animal welfare.

Principles	Criteria
Good feeding	1. Absence of prolonged hunger
	2. Absence of prolonged thirst
Good housing	3. Comfort around resting
	4. Thermal comfort
	5. Ease of locomotion
Good health	6. Absence of injuries
	7. Absence of disease
	8. Absence of other pain
Appropiate behaviour	9. Expression of social behaviours
	10. Expression of other behaviours
	11. Good human-animal relationship
	12. Positive emotional state

RESULTS

Figures 1 and 2 show the most important hazards associated to management and facilities during short transport of pigs to the slaughterhouse in warm conditions.

Figure 1.Management

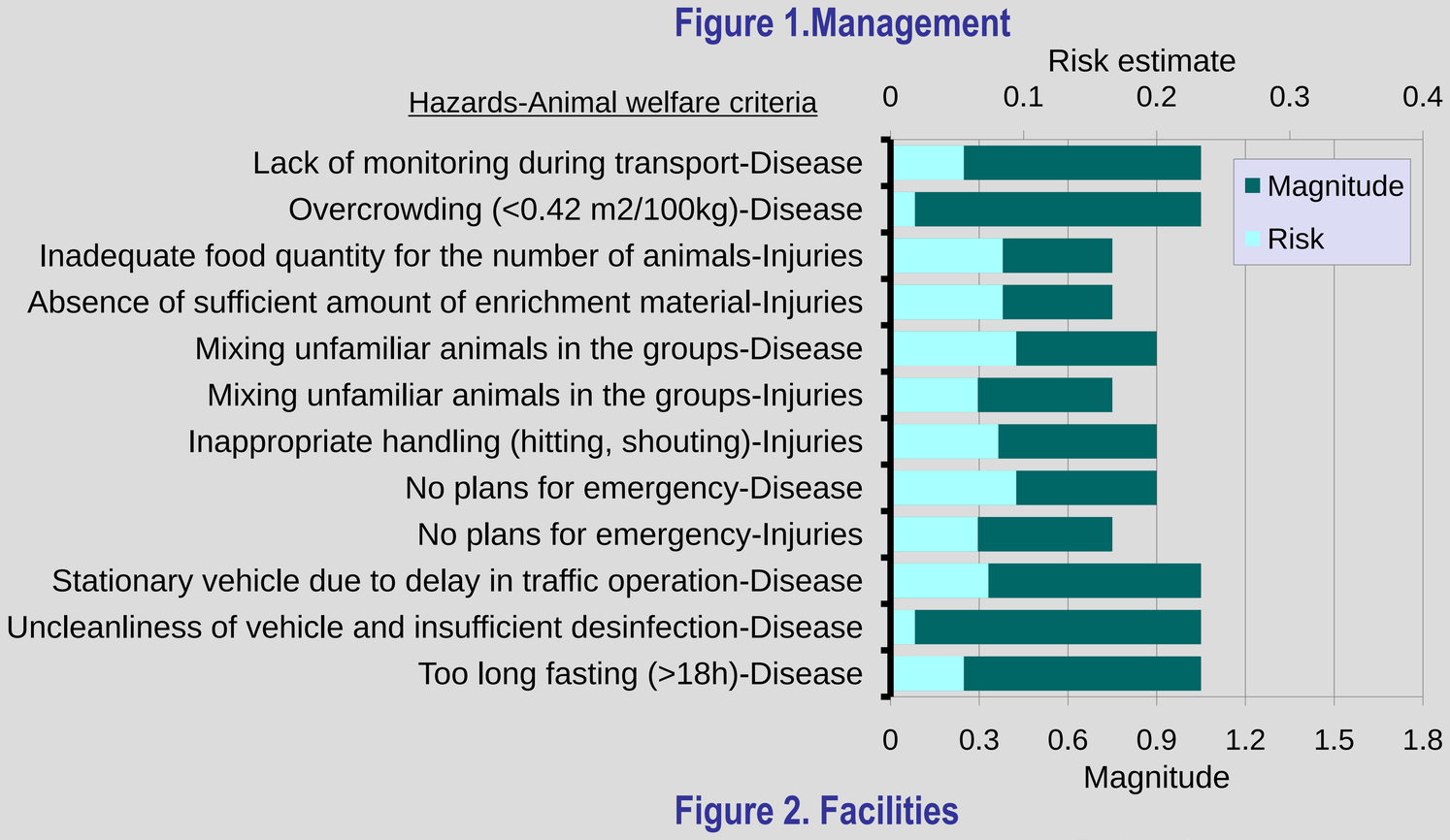
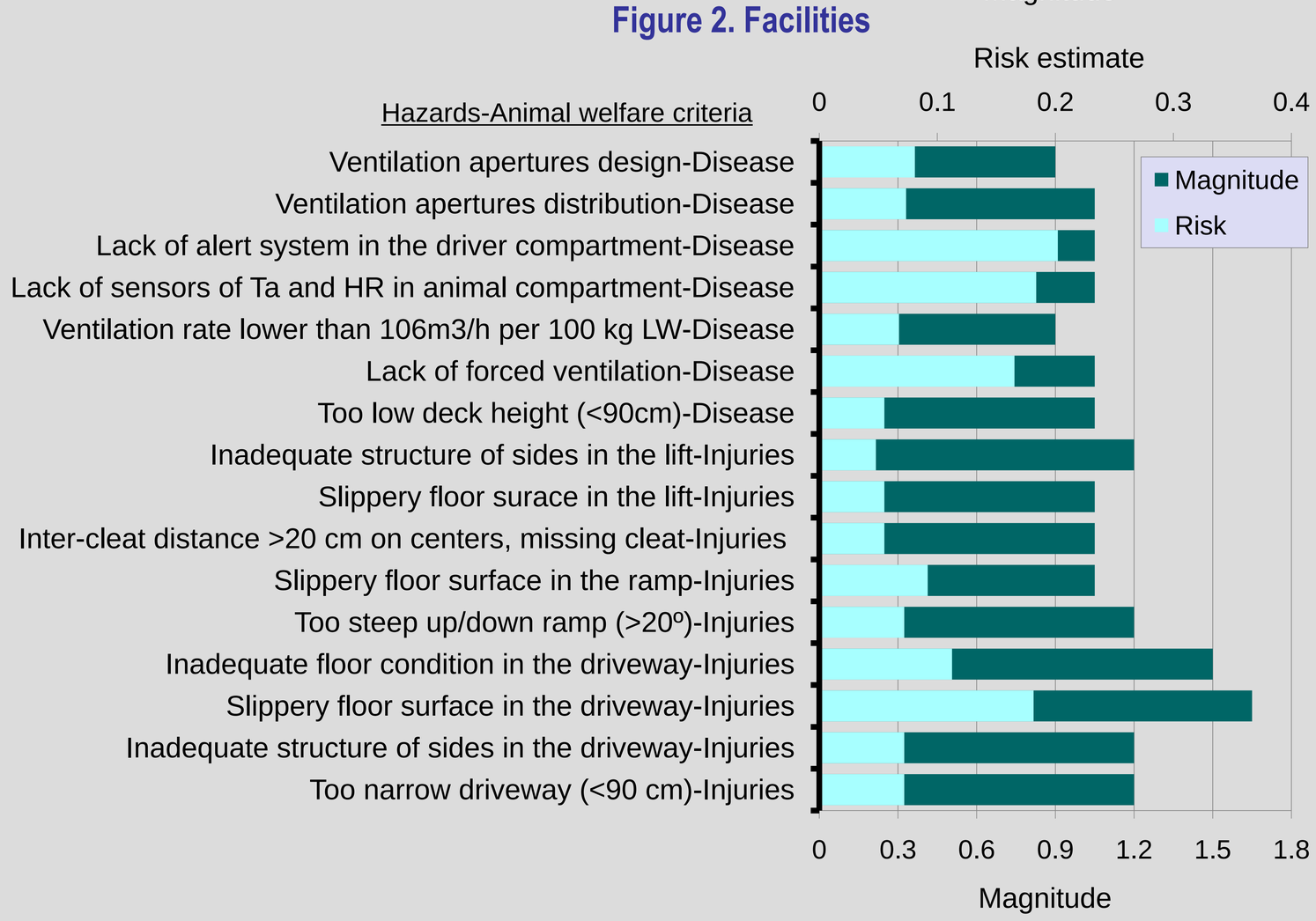


Figure 2. Facilities



CONCLUSIONS

- The hazards which affected the animal welfare criteria of absence of injuries and absence of disease had the higher magnitude and risk scores.
- More reliable data sources in animal welfare are needed for purposes of risk assessment.