

Descriptive epidemiology of international endurance rides in 48 countries (2008-2011)



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Introduction

Endurance is the fastest growing Federation Équestre Internationale (FEI) discipline.

No large scale epidemiological data exist that describe the discipline and results globally.

Anecdotal information suggests that elimination rates and winning speed have increased over the past few years, but no evidence based data support these hypotheses.

Objectives

To document the number of horses that started, completed and were eliminated for lameness and metabolic reasons from all FEI endurance rides of ≥ 100 km distance between 2008 and 2011.

Materials and Methods

Data were collected from the FEI website. The number of horses which started, the distance to be completed, the number of eliminations for lameness, metabolic or other reasons, the number of retired and disqualified horses and the winning speed were recorded for each ride. Data were analysed descriptively.

Results

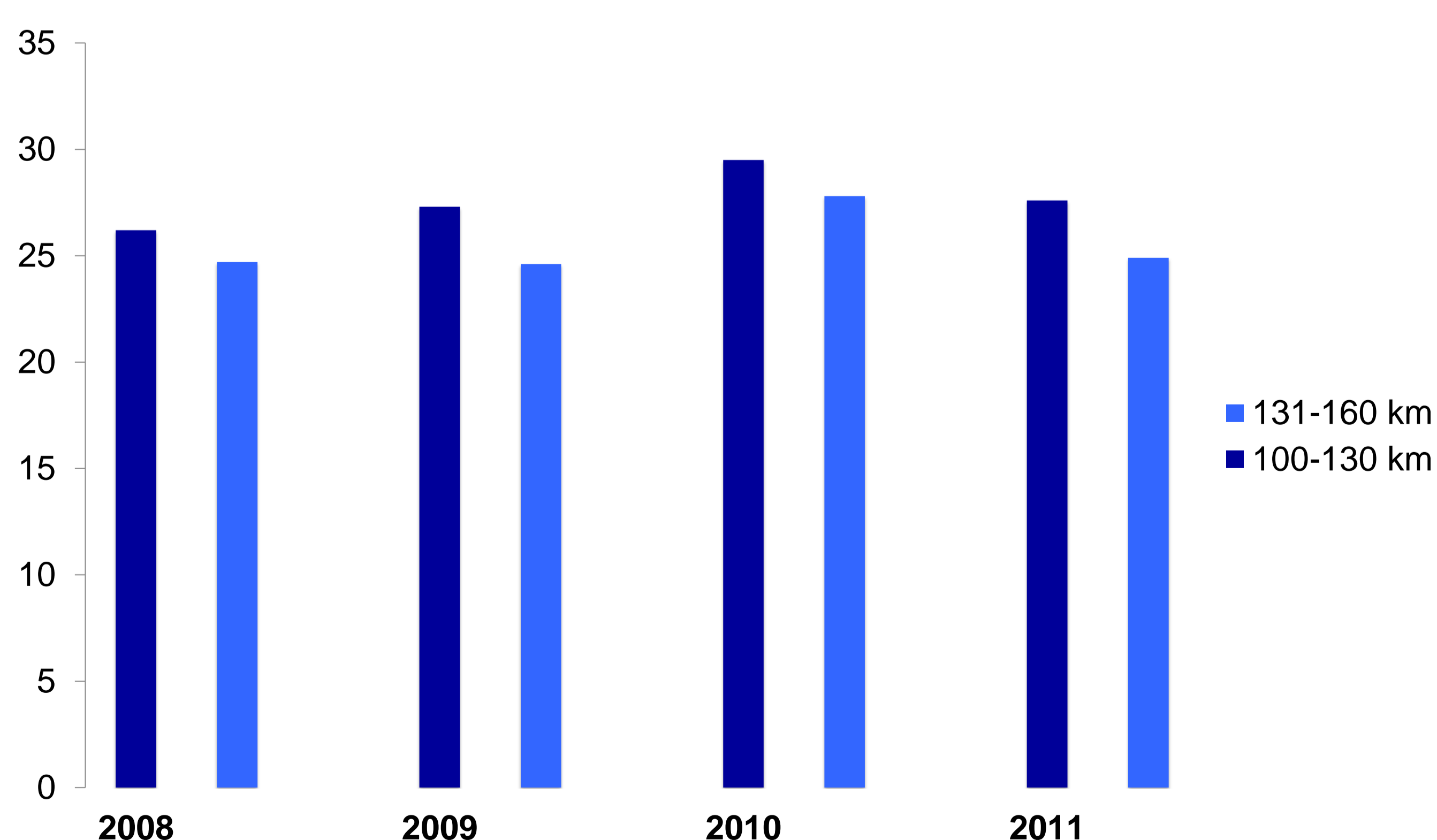
Data on 30,693 horse starts were recorded. The highest number of horse starts for the four-year period was recorded in the United Arab Emirates (UAE) (5913) and in France (5442). The greatest increase in the number of horses starts each year between 2008 and 2011 was seen in France (from 1025 to 1596).

Only approximately half of all started horses finished the ride successfully. However, there seems to be a slight increase in completion rates. In 2008 46.4% of horses completed the ride, the completion rate was 51.7% in 2009, 52.4% in 2010 and 51.7% in 2011.

There was a large range of winning speed amongst countries (10.2 km/hr [United States, 2008, 160 km] – 29.5 km/hr [UAE, 2010, 120 km]).

Figure 1.

Winning speed (km/hr) of Fédération Équestre Internationale endurance rides of ≥ 100 km distance in 2008-2011.



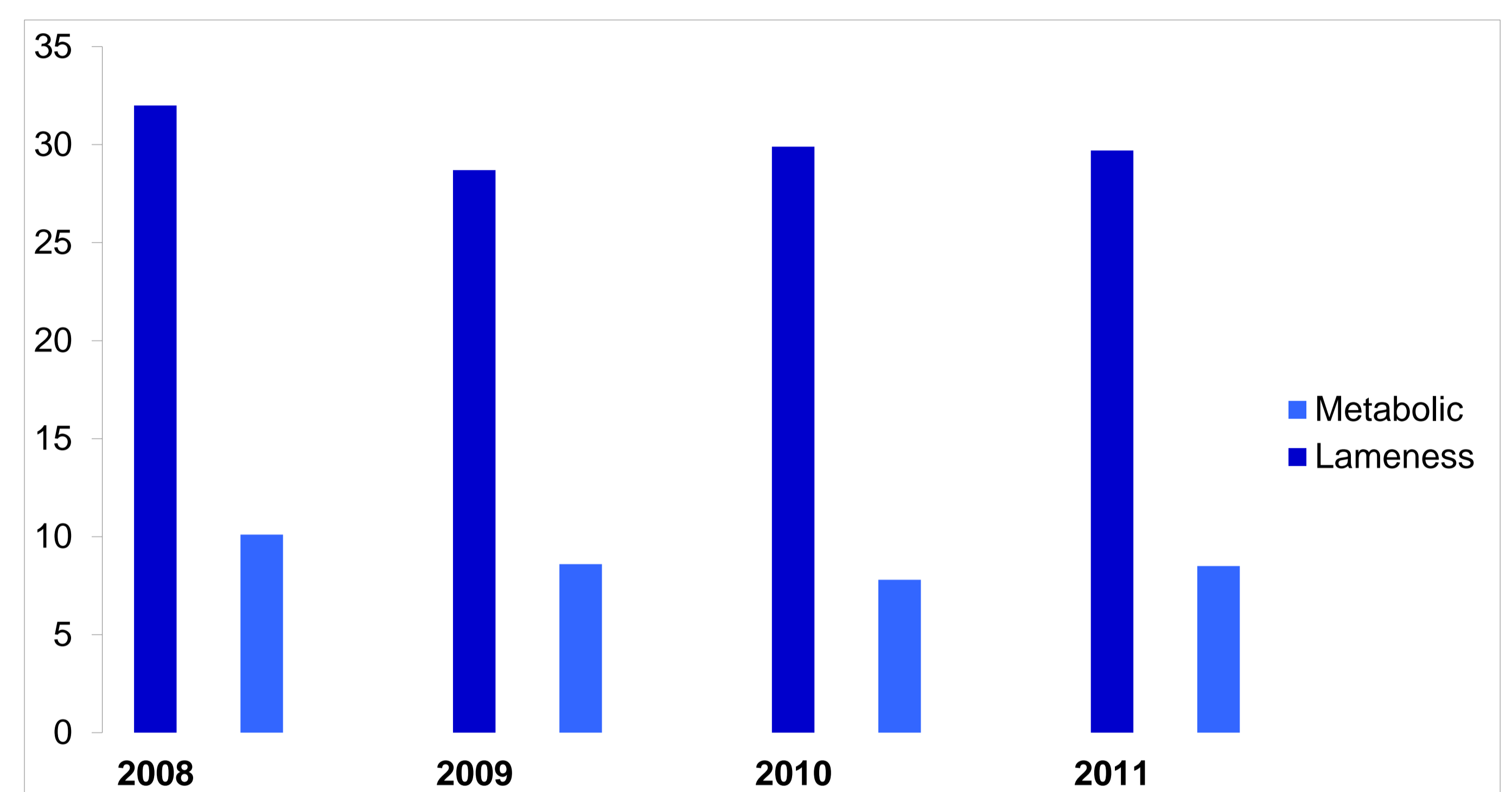
The most common reason for elimination was **lameness** globally; 30.0% of all horses that started were eliminated for lameness (range 28.7% [2009] – 32% [2008]). The highest elimination rate for lameness was recorded in Saudi Arabia (56.5%, 2010).

Metabolic eliminations were recorded for 8.7% of all started horses (range 7.8% [2010] – 10.1% [2008]). The highest elimination rate for metabolic reasons was recorded in Colombia (33.3%, 2008).

2.8% of horses were eliminated for other reasons (e.g., sore back) and 7.3% of horses were retired.

Figure 2.

Elimination rates (% of horses that started) for lameness and metabolic reasons from Fédération Équestre Internationale endurance rides of ≥ 100 km distance in 2008-2011.



Discussion

This is the first study providing descriptive data on endurance rides and results in all countries that run international competitions.

Lameness was the most common reason for elimination in all countries. Contrary to anecdotal belief, elimination rates have not increased over the past four years for either lameness or metabolic reasons.

There was a great range of winning speed amongst countries. However, contrary to belief of the endurance community, winning speeds have not increased continuously over the past few years.

Results provide material for detailed analyses to assess risk factors for eliminations for lameness and metabolic reasons globally.

Conclusions

- This is the largest scale epidemiological study describing international endurance rides.
- Results provide evidence for high elimination rates and a great range of winning speed amongst countries.
- This, together with the increasing popularity of the sport and potential welfare implications for eliminated horses, highlight the need for detailed statistical analysis of the presented data.

Acknowledgements

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