

Jumps Racing in New Zealand

The first stage of the wider project was examination the perception of the public and racing industry participants to fatalities in jumps racing. The primary finding was industry that industry participants see jumps racings and fatalities as part of a framework of minimizing risk to achieve acceptable risk. Conversely industry opponents see all risk with jumps racing as unacceptable risk. The level of commentary within the general media relating to jumps racing and fatalities, and particularly the rapid decrease in reporting of events in the general media, demonstrated that these events and racing *per se* did not feature prominently in the general public's psyche (Legg *et al.* 2019).

The second major component of the research project focused on the epidemiology of falls and fatalities in jumps racing. The incidence of falls in jumps racing was 49 /1,000 starts. Horse falls were greater in steeplechase races compared to hurdle races in New Zealand with an incidence rate ratio of 1.6. Horses were 31` - 4.4 times more likely to fall at the last three fences than the first three fences. Greater jockey age and experience were associated with a reduced rate of horse falls. A regulatory change enhancing discretionary ability of jockeys to pull up 'in-race' was associated with reduced horse falls (IRR 0.65; 95 % CI, 0.51 – 0.82; $P = 0.001$). This demonstrates that pragmatic rule changes within the industry can have a positive effect on reducing risk and improving equine welfare (Legg *et al.* 2022).

The recent introduction of the online recording system has resulted in greater quality of injury reporting. Prior to the introduction of this system there were some limitations in the ability to accurately identify the limb affected and the anatomical location (Gibson *et al.* 2022a; Gibson *et al.* 2022b). The historical variability in the detail of reporting injury data and the low frequency of jumps racing (~3% of all races) prevented the estimation of risk factors for specific injuries in New Zealand jumps racing.

In agreement with international data we found there was a greater incidence of fatality in jumps racing than with flat racing. The incidence was similar to values reported from the UK, but were lower than rates reported for Victoria, Australia. The majority of the fatalities were associated with the musculoskeletal system and fracture. The majority of these were due to horses falling (Gibson *et al in press*). There is a need to identify what are the characteristics that differ between a horse fall and a horse fall that results in a fatality.

Publications generated from this project

- Gibson, MJ, Legg, KA, Gee, EK, Rogers CW (2023 – in press) Risk factors for horse fatality in Thoroughbred jumps racing in New Zealand. *Journal of Equine Veterinary Science*. *In press*
- Legg, KA, Bolwell, CF, Gee, EK, Gibson, MJ, Rogers, CW (2022) Risk factors for horse falls in New Zealand Thoroughbred jumps racing. *The Veterinary Journal* **289**, 105915.
- Legg, KA, Breheny, M, Gee, EK, Rogers, CW (2019) Responding to Risk: Regulation or Prohibition? New Zealand Media Reporting of Thoroughbred Jumps Racing 2016-2018. *Animals* **9**,

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- Boden, L, Anderson, G, Charles, J, Morgan, K, Morton, J, Parkin, T, Slocombe, R, Clarke, A (2006) Risk of fatality and causes of death of Thoroughbred horses associated with racing in Victoria, Australia: 1989–2004. *Equine Veterinary Journal* **38**, 312-318.
- Gibson, MJ, Bolwell, CF, Gee, EK, Legg, KA, Rogers, CW (2022a) Race-Level Reporting of Incidents during Two Seasons (2015/16 to 2016/17) of Thoroughbred Flat Racing in New Zealand. *Animals* **12**, 1033.
- Gibson, MJ, Legg, KA, Gee, EK, Rogers, CW (2022b) Race-Level Reporting of Incidents Using an Online System during Three Seasons (2019/2020–2021/2022) of Thoroughbred Flat Racing in New Zealand. *Animals* **12**, 3028.
- Legg, KA, Bolwell, CF, Gee, EK, Gibson, MJ, Rogers, CW (2022) Risk factors for horse falls in New Zealand Thoroughbred jumps racing. *The Veterinary Journal* **289**, 105915.
- Legg, KA, Breheny, M, Gee, EK, Rogers, CW (2019) Responding to Risk: Regulation or Prohibition? New Zealand Media Reporting of Thoroughbred Jumps Racing 2016-2018. *Animals* **9**,