

Safety Initiatives and the Jockey





Dr. Peta Hitchens

Research Fellow in the Equine Orthopaedic Research Group University of Melbourne



Mutual benefits: By protecting horses' welfare we can improve jockey safety Dr Peta Lee Hitchens









The problem

- Hazards of horse racing are well known
- Racehorse fatality rates relatively stagnant
- Most common reason for jockey injury or fatality ¹
- Lack of and/or conflicting evidence base



Â	Æ	A	A	Ŕ	Æ	Æ	A	A	Ŕ	Â	Æ	Â	A	Ŕ	Â	Æ	Â	M	Ŕ	Æ	Æ	A		Ŕ	A	Æ	A	M	Â
	AR				AR.	Æ	A			AR	AR	A	M	A	AR.	AR	A			AR.	AR	A				AR	A		
Â		AR .	M	A	R				A	Â			M	A	A	Â	Æ	M		Â		A	M	A	Â		Æ	M	A
	M			R		M.			8		M.			A		1 M	Â		A		AM.			g		i M			A
	Æ		A	A		Æ	A	A	A	A	Æ	A	A	A	Æ	Æ	A	A	Â		Æ	A	1	A	A	Æ	A		Æ
	Æ	A			M	Æ	Æ			AR	AR	A.	M			Æ	A.			AR.	AR	A				Æ	A	M	
A			M		Â			M	M				ø	M			Æ	ø	M	Â		Æ	Ø	M	Â		Æ	M	A
	R		0	8		i Ma		0	A		ANS.			A	M	M		0	A		M.			A	M	M			8
A	Æ			Æ	A	Æ		~	A	Æ	Æ	A		Æ		Æ	A	A	A	A	Æ			A	A	Æ	A		Æ
	Æ				AR.	Æ	A	R			Æ	Æ			M	Æ				AR .	Æ				AR.	Æ	A		
Â		Æ	M		R		Æ	M		Â		A	M		A		Æ	M		Â		Æ	M		A		Æ	M	
	M			A		M			A		M			A	M	M			A		M			A		M		1	A
	Æ	A		Â		Æ	A		Æ		Æ	A		Â		Æ	A		<i>ش</i>		A	A		A		Æ			Æ
	AR				AR	AR				AR	Æ					Æ				M	Æ				AR.	Æ	A		A
			M	M	Â			R		Â		A	M		A			Ń					M		Â			M	M
	M		2	A		M			A		M.			A		M			A		M			A		£			A
A	Æ			Â	AR	Æ			Â.	AR	Æ	A		Æ	AA	Æ	A		Â	A	Æ			M	A	Æ	A		Ŵ
	Æ					Æ				AR .	Æ				M	AR					Æ					AR			
			R	m				M		Â			ø	M				M	m				M	m			Æ	M	
FAR						-			A		-					-					-				0-0		-		
ATA									Â.																1000000				17072237
																									0				
									Â																				
									A																				
					100.000					and the second second										and shares in the					5-4				
									Â.		1000					10000000000000000000000000000000000000	10000				10000000000000000000000000000000000000								
			0.012		1000			110000		0.00020	1000	1000	00000		120220	100122	100000	1000		01002230	1000							in an	
BAAN	M.N		\sim		BAAR	MIN		\sim	A	BAAR	N		N _A		BAR	M.M	AN	N *A	i _ î	BAAR	M	AN	\sim	1 - A	BAAA	MIN	AA	M¥4	

Background | Jockey fatalities

In Australia since 2014:

- 8 jockey and trackwork rider deaths
- 5 of them related to fatal racehorse injuries



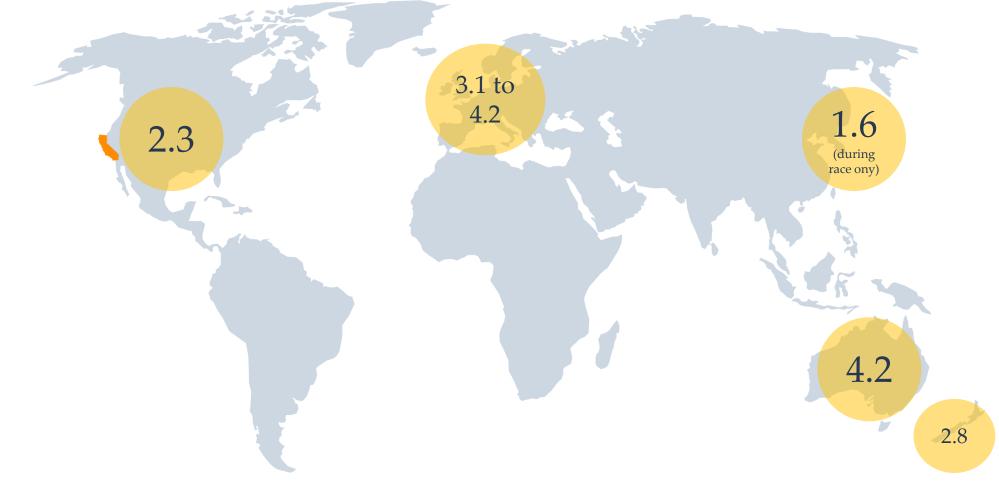
Background | Previous research

Research has determined:

- Incidence of jockey falls and injuries
- Risk factors for jockey falls and injuries (Australia)
- Association between racehorse fatality and jockey injury



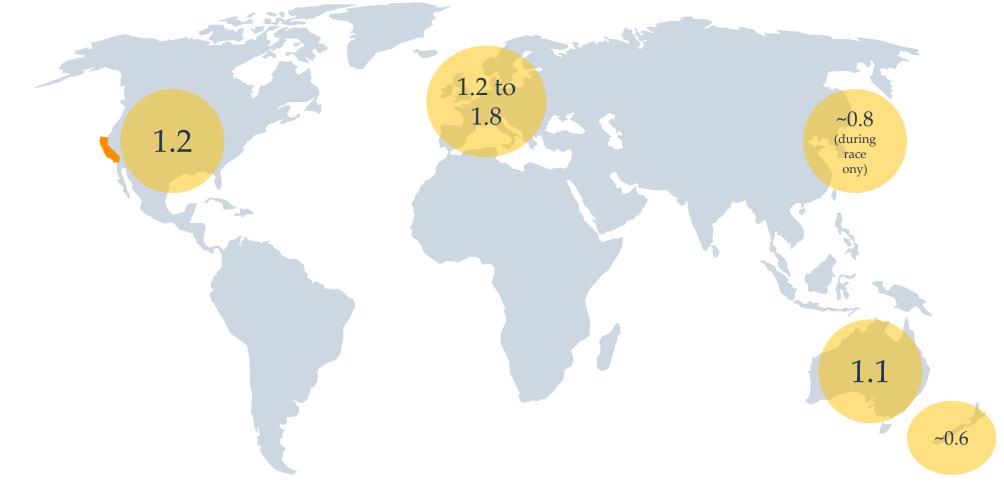
Jockey falls per 1000 flat race rides by country



Oikawa 2004; Turner et al. 2004; McCrory et al 2006; Hitchens et al. 2009, 2013; Bolwell et al. 2014



Jockey injuries per 1000 race rides by country



Oikawa 2004; Turner et al. 2004; McCrory et al 2006; Hitchens et al. 2009, 2013; Bolwell et al. 2014



Risk of jockey falls and injuries

Cumulative risk profile

Apprentice jockey

Inexperienced apprentice jockey (<250 race rides)

Riding a less accomplished (maiden) horse

Riding a less experienced horse (<5 race starts)

In a sprint race

On a dry fast turf track

Hitchens et al. 2010, 2012





When a racehorse comes down so does the jockey, thus we hypothesize that racehorse injuries are associated with jockey injuries **BUT**

We had not yet linked data on racehorse injuries with jockey injuries

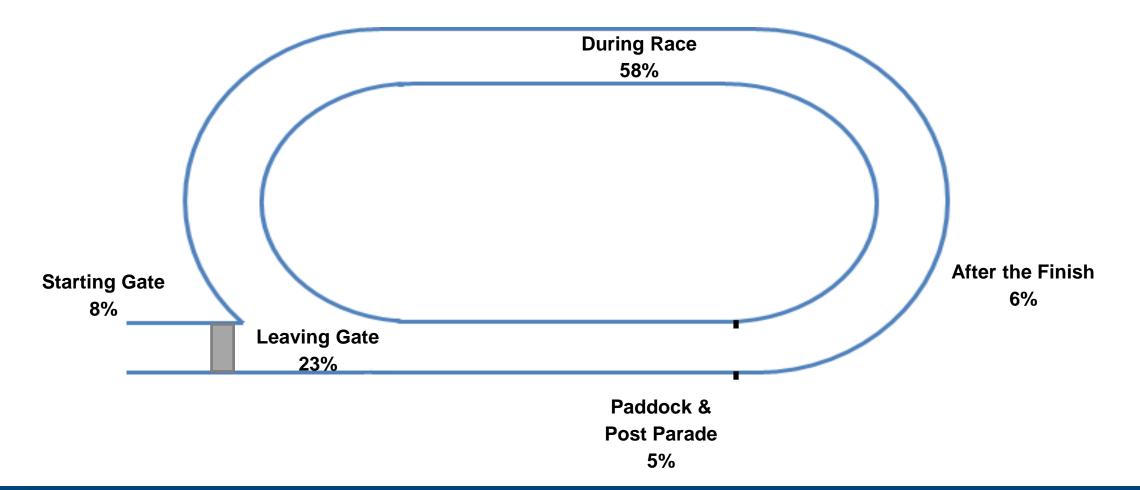


Methods | Data sources

- California Jockey Accident Database, 2007 to 2012
 - 325 injuries and 601 falls from 264,055 race rides
- Falls and injuries identified from jockey accident reports (Stewards)
- Racehorse fatality data from the CHRB Postmortem Examintion
 Program database

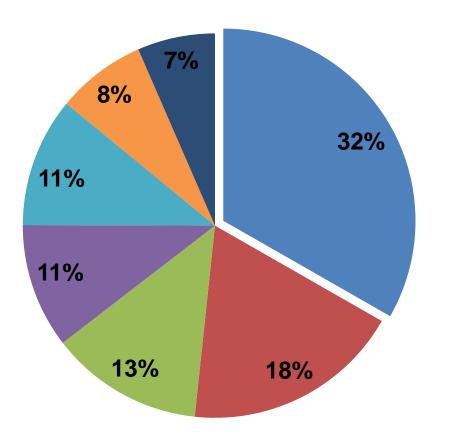


Results | Jockey fall location





Causes of jockey falls | racehorse fatality



Catastrophic injury/death of horse Horse behavior Stumbled Clipped heels Shifted ground abruptly Hampered by fallen horse Other/not specified

Hitchens et al. 2013



Results | Incidence of jockey injuries

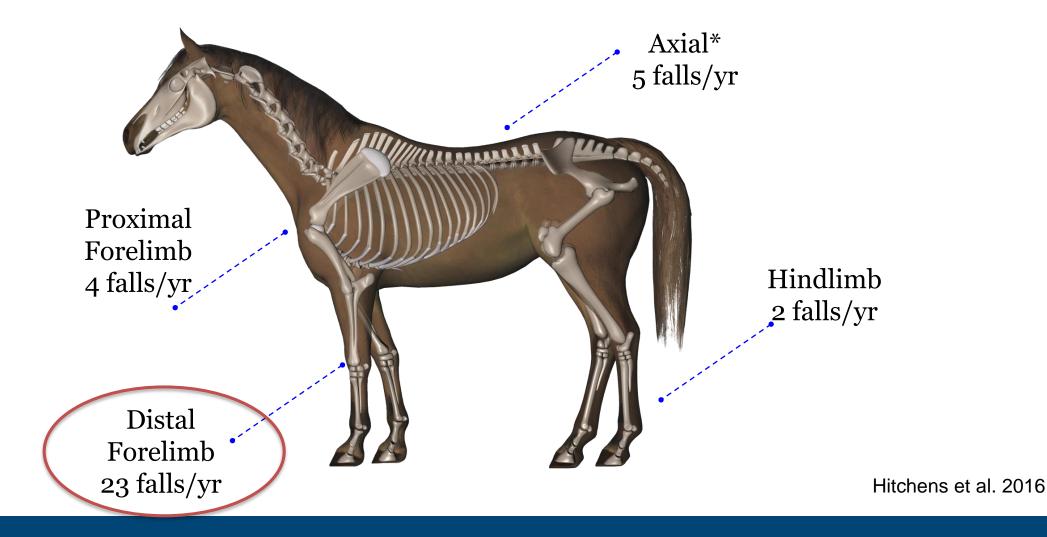
Of the jockey falls that were a direct result of racehorse

fatality, over 60% resulted in injury to the jockey



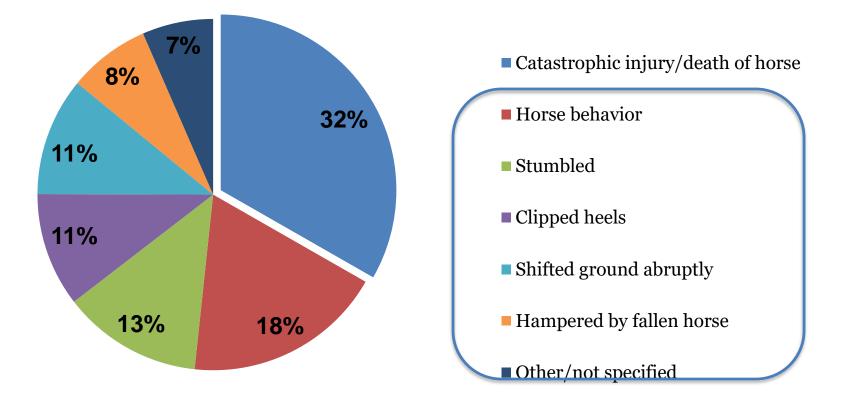


Jockey falls associated with racehorse injury



Note: Figures are for jockey falls in Thoroughbred and Quarter Horse racing in California from 2007 to 2012. * Axial includes pelvis, and cervical, lumbar and sacral spine.

Causes of jockey falls | other





Horse behaviour

- 97% of pre-race falls a result of horse behaviour
- Horse may also become injured if loose
- These types of falls are normally not as serious in nature

Hitchens et al. 2009, 2013, 2016



Results | Jockey injury costs

> USD 1 million/year

USD 19,635/claim

52 claims/year



Data for California, 2007 to 2012 Courtesy: FINISH LINE SELF INSURANCE GROUP



Results | Jockey injury costs

Claims that were a result of a horse that

broke down:

USD 103,439/claim

Data for California, 2007 to 2012 Courtesy: FINISH LINE SELF INSURANCE GROUP





Results | Exercise rider injury costs

USD 3.2 million/year

USD 28,206/claim

112 claims/year

Data for California, 2007 to 2012 Courtesy: FINISH LINE SELF INSURANCE GROUP



Conclusions

- Incidence of injuries is comparable across countries
- A number of readily modifiable risk factors
- High proportion of jockey falls and injuries caused by horse fatality
- Cost of jockey injuries associated with horse breakdown are high
- Tip of the iceberg
 - does not include injuries incurred during trackwork



Interventions

- Ensure horses are thoroughly acclimitized and educated
- Ensure horse and rider combinations are well suited
- Be vigilant when training a horse that is at higher risk than normal for injury
- Prevent the most common racehorse injuries and death, e.g., fetlock injuries
 - Training programs (avoid under or over-training)
 - Medication restrictions
 - Track management
- Standardised record keeping and regular analysis











Racing Victoria





Peta Hitchens U-Vet Equine Centre 250 Princes Hwy, Werribee phitchens@unimelb.edu.au



Equine Limb Injury Prevention Program