

African Horse Sickness

Impact on the UK Horse Industry

The potential effects on businesses, horses and horse owners

Keith Allison
Nick Taylor
Martin Upton
Tony Wilsmore

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Veterinary Epidemiology and Economics Research Unit

Correspondence: k.allison@reading.ac.uk

Overview and summary of the findings

African horse sickness (AHS) is a highly fatal and infectious disease and as many as 90% of horses die within one week of infection. It is endemic in sub-Saharan Africa and has spread to Europe twice in the 20th century; the last outbreak was recorded in Spain in 1990. AHS is spread principally by midges (*Culicoides*) of the same species that transmit bluetongue virus in cattle. It should be noted that there are many unknowns relating to the various scenarios for AHS, which makes prediction of the size and impact of an incursion very difficult. The current official risk of the disease entering the UK is low.

This report is an overview assessment of the potential financial and social impacts of an outbreak of AHS on the equine industry in the UK, which are likely to be substantially different to those relating to agricultural animals. It considers a worst case scenario in which, despite control measures such as movement restrictions, the disease quickly spreads.

The popularity of riding and keeping horses continues to grow. There are approximately 4.3m riders in the UK, with over 2 million of these riding at least once a month. Horse riders represent all sections of the socio-economic spectrum and the equine sector consists of large scale commercial activities associated with racing and other sporting activities, as well as with people riding purely for pleasure. The UK is represented in high profile international equine sporting events with approximately 2000 horses travelling abroad to compete each year.

The sector has an estimated total economic impact of over £7billion (BHIC 2009; BETA 2009; BHA 2009) per annum. There are many thousands of businesses active in the sector which provides an estimated 70,000 full time jobs (BHA 2009; BEF 2009; BHS 2009; BETA 2009). For the purposes of this study the horse sector has been divided into three groups 1) racing, 2) horse sports such as eventing, show jumping and dressage and 3) leisure riding. There are complex relationships between some aspects of these sectors, best estimates have been made where necessary in order to complete this overview in the time available.

In the event of isolated cases of AHS in the UK, where spread is successfully restricted by control measures or unfavourable climatic conditions, it is feasible that the economic and social effect on the British horse industry will be minimal; however, in the event of widespread disease, the introduction of movement restrictions within protection zones around disease outbreaks could have a potentially devastating effect. It is estimated that over half the economic impact of the sector could be wiped out in one to two years, with irreparable damage caused to racing and major setbacks to the various sporting disciplines such as three day eventing, show jumping and dressage.

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1. Background

This rapid initial overview assessment, commissioned by the Government / Industry AHS Working Group, provides supporting information for a Statutory Impact Assessment (SIA) of proposed AHS control legislation, laid out in EC Council Directive 92/35/EEC¹, which Defra is legally required to provide as part of the public consultation process. The SIA is due to be finalised by the end of 2009. This review is of the potential economic and social impact of the proposed AHS control legislation across all disciplines of the equine sector.

Although the risk of AHS reaching the UK is currently officially stated as 'low', there are concerns about the increasing risk caused through the possibility of infected equines being illegally imported into the UK. The EC tripartite agreement, which allows horses to be moved between UK, France and Ireland, for breeding and production without an Intra-Trade Animal Health Certificate (ITAC) is also seen to contribute to the risk of the disease entering the UK (THT 2009).

The UK has an entirely susceptible horse population and if midges became infected it could spread very quickly. Vaccines are currently used against AHS in sub-Saharan Africa, where the disease is endemic and there is a stockpile available for potential use in the EU, but these are currently considered to be an unattractive proposition for the UK, mainly because of the risk of the live vaccine reverting to virulence and spreading the disease. Production of an effective and safe vaccine is feasible in principle, but time scales for introduction are difficult to predict. Slaughter of infected animals with movement controls and reduction of exposure to midges would currently be the main policy option to slow the spread of disease.

In the agricultural sector, the economic and social impact of animal movement restrictions is comparatively well understood through experience in controlling other highly infectious diseases. The factors which influence the economic and social environment in the equine industry are significantly different from agriculture; data on the horse sector which can inform movement control policies will avoid the introduction of measures that have a potentially more serious impact than the disease itself.

2. Epidemiology of AHS

African horse sickness is a highly fatal and infectious disease, which affects horses, mules, donkeys and certain other non-domestic species. It is caused by an Orbivirus, and there are nine strains of the virus. The virus is normally (and for the purposes of this study) transmitted between horses via an insect vector (*Culicoides spp*). Therefore the disease is not directly contagious between horses. Recent outbreaks in Spain were probably related to imports of infected zebras from Africa.

The spread of disease is influenced by climatic conditions which favour the survival of vector insects including warm, moist weather and high rainfall, as well as spread by wind dispersal.

¹ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:31992L0035:EN:NOT>

Virus replication within the insect vector requires a sustained minimum temperature. This explains why the disease does not persist in countries with colder climates (MELLOR 1998).

The clinical signs seen are different depending on what form of the disease is present.

- In the most acute form, which has a short incubation period of only three to five days, affected horses have a high fever, severely laboured breathing, coughing and profuse discharge from the nostrils. The mortality rate is very high with up to 95% of horses dying within a week.
- In the cardiac form of the disease, which has an incubation period of from seven to fourteen days, swellings are present over the head and eyelids, lips, cheeks and under the jaw. The mortality rate is around 60% and death results from heart failure.
- The mixed form of the disease is a combination of the above two types. It has an incubation period of from five to seven days and the disease shows itself initially by mild respiratory signs followed by the typical swellings of the cardiac form.
- Horse sickness fever is the mildest form, characterised by a fever with low temperatures in the morning rising to a high peak in the afternoon.
- Blood samples from horses showing high temperatures can be taken to diagnose the disease and cases can be confirmed positive or negative within 24 hours.

3. Research framework

The focus of this work is on the potential economic cost and social impact, relating to horses ridden in the racing, sport horse or leisure sectors caused by the control measures under the EU directive 92/35/EEC. Certain assumptions have been made reflecting a worse case scenario:

3.1. Assumptions

3.1.1. Outbreak scenario

- Disease most likely to occur in the South of England
- Rapid spread by large numbers of vectors (*Culicoides spp.*) – sufficient to trigger full control measures.
- At least a twelve months impact

3.1.2. Control measures:

- Vaccination will not be used. Although vaccination is advocated in the EC directive, Defra are unwilling to use any of the currently available vaccines in UK. The impact assessment will not include the use of vaccination.

- The following scenarios have been considered with regard to the potential effect of movement restrictions for at least 12 months:
 1. Total movement ban - animal restricted to the home holding.
 2. No movement of equines into or out of a 100km protection zone established around the outbreak, or into or out of a surveillance zone of 50km established around the protection zone. *Controlled movement allowed within these two zones but no gatherings allowed.*
 3. As 2. but gatherings allowed
- Veterinary and associated costs not to be included

4. Work Plan / output

Given the short timescale and limited budget, this work is of an exploratory, scoping nature. The objective is to describe as far as possible the breadth and variety of potential impacts resulting from AHS control measures, and as far as possible to gather information on likely economic costs and wider social impact. In particular, the factors affecting the magnitude of impact, along with any uncertainty and innate variability, are described.

Information gathering is through:

- Semi-structured interviews involving key informants (10.1) representing the various commercial sectors of the equine industry and case studies.
- A small number of semi structured interviews with some individual stake holders (10.3)

5. The Equine Industry in the UK

The horse sector produces an estimated turnover of £7billion and has many other intangible benefits (BHIC 2009). It is complex, consisting of numerous discrete disciplines, many of which are interrelated and interdependent. Some disciplines are organised by central regulating bodies, which may or may not have easily accessible relevant information, others may be totally unregulated and opaque.

Once a beast of burden, the role of the horse has evolved – its primary use is now recreation and sport. There are 1million² ridden horses in the UK, with 2.1m people from all sections of the social spectrum riding regularly (BETA 2006). Consequently rural society has seen the birth of a new element: the “Equine Sector”. Since the 1950s many organisations have been created to support this sector.

² Estimates vary between 600,000 and 1.2M, depending on source

The equestrian industry is diverse involving many separate sport disciplines and organizations and gathering accurate information is challenging. However the industry has been concentrating effort in this area over the last 10 years and there are now several sources of increasingly reliable data. Between 1996 and 2002 the network structure of the sector in England and Wales was transformed. The British Horse Industry Confederation was created to formalise the sector's relationship with Government. Defra (Department for Environment, Food and Rural Affairs) created a "Minister for the Horse" and forged links with other interested parties. Subsequently, the inception of the National Equine Database and Strategy for the Horse Industry in England and Wales marked a new era, as the Government and the sector began to work collaboratively.

Accounting for the number of horses in the UK and where they are located, has always been difficult. An estimated half of the c1m horses in the UK are kept at a livery yard, where there may typically be 10-40 horses (BHS 2009; YH 2009). There are an estimated 1000 riding schools, the locations of these are known by the local authority in which they operate, (BHS 2009) and an estimated 10,000 livery yards, the location of the majority of these being unknown (BHS 2009).

From 1st July 2009, UK law requires all horses to have a passport issued through an approved Passport Issuing Organisation and all foals born after this date must also be micro-chipped. It is the intention that, through this mechanism, all horses in the UK will be registered and traceable on a National Equine Database (NED).

Currently there are 1.3 million horses on the NED, however the data it contains should be used with caution. It is estimated that 25% of horses in the UK don't currently have a valid passport and some horses may be dead and the deaths may not have been registered (BEF 2006). Currently identification is a visual check and horses are often moved illegally by using documents for a different horse (micro chipping should eventually stop this practice) (IHL 2009). The passport regulations do not require stipulation of the exact location of the horse because 'keeper information' is not a required field.

The only known database that contains information of where equines are actually kept is Weatherby's database, which requires racehorse owners to inform them where their horses are kept. Weatherby's also hold boarding stud addresses for broodmares or standing location studs for stallions. This is to record where the horse is physically located and/or where the registration paperwork should be sent if this is different from the owner's address. For example the owner may live in London but keep mares in Newmarket. It is not however compulsory to record the physical location of breeding stock so these records are not complete. Race horses are a comparatively small proportion of the horse population of the UK (c.15,000 in training)

6. Social factors and attitudes

As companion animals, horses provide many social benefits including riding them for pleasure. The physical and mental welfare of the horse ranks very highly amongst riders and daily exercise routines are seen as key aspects in keeping the horse physically fit (BHS

2009; IHL 2009). Whilst financial reward is a factor in some sectors, the main motivation for keeping horses is a passion for equestrianism and maintaining the physical performance of the horse in the riding activities taken part in. These and other factors relating to the differences between various aspects relating to horses and agricultural animals are given in Figure 1.

Figure 1. Horse values and owner attitudes; comparisons with agricultural animals

	Agricultural animals	Horses
Travel	<ul style="list-style-type: none"> • Occasional change of owner • Occasional change of grazing • To slaughter 	<ul style="list-style-type: none"> • Occasional change of owner • Occasional change of grazing • Regular travel to competitions /events
Emotional attachment to individual animal	<ul style="list-style-type: none"> • Low 	<ul style="list-style-type: none"> • High (as with other companion species)
Drivers	<ul style="list-style-type: none"> • Production of food in a humane context 	<ul style="list-style-type: none"> • The physical performance of the horse in the riding activities taken part in. • Passion for equestrianism
Value	<ul style="list-style-type: none"> • Beef – £1.52 per kilo live weight (Defra stats 2009) 	<ul style="list-style-type: none"> • The average selling price of riding horses (c1m in UK) is £2,150 (excluding the c.15000 race horses in the UK and other high value breeding animals) (BETA 2006)

Opinion from horse owners and other key informants (IHL 2009; CSRC 2009) indicated that reference to a ‘slaughter policy’ being imposed for AHS is interpreted by many as compulsory indiscriminate slaughter of all contact animals, rather than those which are infected or present clinical symptoms. In view of this, some owners may be inclined to move their horses away from an outbreak area in an attempt to protect them from infection. These findings indicate the importance of clear communication of control policies to horse owners.

Movement restrictions have the potential to affect the welfare of horses; if such restrictions prevent owners from keeping their horse fit through regular exercise and competition, horse prices are likely to plummet, as there will be no market and people will find it difficult to justify keeping them. When this happens the animal may fall into the hands of people who are well meaning and enthusiastic, but may not have the resources or knowledge required to provide proper care for the horse; and this can continue through successive owners until the animal becomes neglected (THT 2009; ISPCA 2009).

In livery yards, where it is estimated that half of the c1m horses in the UK are kept, there may typically be 20-40 horses. In these holdings horses are housed in adjacent stalls (boxes) in an environment where *Culicoides spp.* is likely to thrive. Potential to restrict the spread of the disease by controlling free movement of the vector in these situations will be

limited, but it is generally felt that most horse owners will probably do their best in line with current Defra recommendations (IHL 2009; BHS 2009; YH 2009).

Although racing involves comparatively less horses than other sectors (c. 15,000 racehorses in training) it is the second largest spectator sport with 6 million people attending race meetings per year. It is estimated that 25% of the country's population watch horse racing on television (BHIC 2009; BHRA 2009). Other high profile equine sports attract large numbers of spectators at various events across the country. There are estimated to be around 13,000 horses taking part in eventing, 19,000 in show jumping and 10,000 in dressage (BE 2009; BSJA 2009; BD 2009)¹. There are 34,000 members of British Riding Clubs, which organise competitions throughout the country (BHS 2009).

The annual equine sporting events in the various disciplines such as eventing show jumping and dressage attracts large crowds; Badminton for example usually has around 250,000 spectators over three days. Britain has an enviable reputation for producing horses and riders successful at an international level in these sports and UK's hosting of the 2012 Olympic Games will provide an opportunity for raising the profile of British Riding in the UK.

7. Implications of movement control within various industry sectors.

The implications of movement controls are given below for the three sectors, 1) racing, 2) horse sports, and 3), leisure riding. Key financial contributions for each are given (Figures 2 and 3), however it has not been possible to separate horse sports and leisure riding. The knock on effects of movement controls to various businesses are considered (7.4) but it should be recognised that this is a very brief overview of only a few examples.

The potential effect of the various movement control scenarios within the main sectors can be seen in Figure 4. An overview of some normal sports horse movements can be seen in Figure 5.

7.1. Racing:

One of Britain's most prestigious sports, racing has an economic impact of around £3bn per year. There are approximately 1,500 race meetings held annually at Britain's 60 racecourses, with over 90,000 runners competing in some 9,000 races (BHRA 2009). There are over 15,000 horses in training and over 18,000 registered individual owners, with thousands more involved in partnerships and ownership clubs.

Their activity generates around £300m in taxation revenue for Government, and over £11 bn is bet on races each year, with bookmakers generating in excess £1bn in profit from the sport. In addition £400m of capital investment (covering racecourses as well as trainer's facilities) has been made in the sport since 2002. Racing provides around 18,000 direct full time jobs and supports a further 70,000 indirect full-time jobs (BHIC 2009).

The racing sector is heavily dependant on longer distance travel to race meetings. If horses cannot travel to the key meetings at Newmarket, Ascot, Cheltenham, York, Epsom and Doncaster, the races would not necessarily be run. The effect of this would be that the interdependent network of national and international race meetings will collapse through lack of revenue as it will be no longer economically viable to keep horses race-fit and pay training fees. There are associated welfare implications in this scenario; the current recession in Ireland has caused an increasing number of abandoned horses due to the large number of surplus racehorse on the market with little value (ISPCA, 2009).

The longer term effect on the horse racing industry is that, within 18 months to two years, British Racing, which has been built up through this network over 250 + years, will be irreparably damaged (BHA 2009). The potential economic and social consequences of this can be seen from an analysis of key measures and cash flows (Figure 2) which are presented as aggregates. It is expected that key race meetings in the South of England would be affected first; given more time, a more detailed quantitative analysis could be made, which would enable a forecast of the likely financial impacts on both regional and local areas over time.

These figures exclude the significant cost of acquiring race horses sold through the two principle auction firms in the UK, Tattersall's and Doncaster Bloodstock sales. The total aggregate sales from both these for 2008 are in excess of £167m and £36m respectively. This makes the race horse bloodstock sales industry worth in excess of £203m per year.

Figure 2 . Key measures of Horseracing in Britain*

Total economic impact of British Racing	£3.39bn			
Core British Racing Industry Expenditure	£1.05bn			
British Racing's capital expenditure	£106m			
British Racings tax contribution	£325m			
Core industry employment (FTE)		18,600		
British betting industry's gross win on British race meetings	£1.05bn			
Average number of horses in training			15,000	
Number of race horse owners				9,539
Total racecourse attendances				5.7m

* Source: (BHA 2009)

Figure 2A . Racing's key cash flows*

Race day	£141m	Total Inflows	British Racing Industry	Total Outflows	Prize money	£106m
Catering	£129m				Wages net	£266m
Media	£84m				Capital exp.	£88m

Other commercial	£107m	£1,130m	Racecourses BHA HBLB Jockey Club Racetech Weatherbys Owners Trainers Breeders Jockeys	£1,138m	Caterers	£70m
Gross owners operating spend	£347m				Other operating Expenses	£342m
Owners horse purchases	£182m				Horse costs Veterinary Feed Farriers Transport Other	£100m
Levy receipts	£99m				Payments to financiers	£15m
Financiers	£38m				Interest	£20m
Interest	£4m				Dividends	£5m
			Taxation		£144m	
		Net movement (£8m*)				

* Source: (BHA 2009)

7.2. Horse sports

Horse sports represent around 30%³ of the horse population of Britain: the expenditure within this sector is in excess of £1bn pa. Most of this is direct spending on keeping horses and riding lessons plus the value of indirect expenditure on associated products by and for the rider. (BHA 2009; BEF 2009; BHS 2009; BETA 2009).

It is likely that the high profile / high value equestrian sports including eventing, show jumping and dressage would be most affected as movement restrictions would halt the regular national and international competitions, which involve longer distance travel and are an integral part of these sports (4). In the short term, horses would be severely set back in their progression to higher level events, and if this continued, within two years whole sections of the sport together, with their associated revenue generation, would collapse because of the lack of the competitive structure. (BE 2009; BSJA 2009; BD 2009)

7.3. Leisure riding

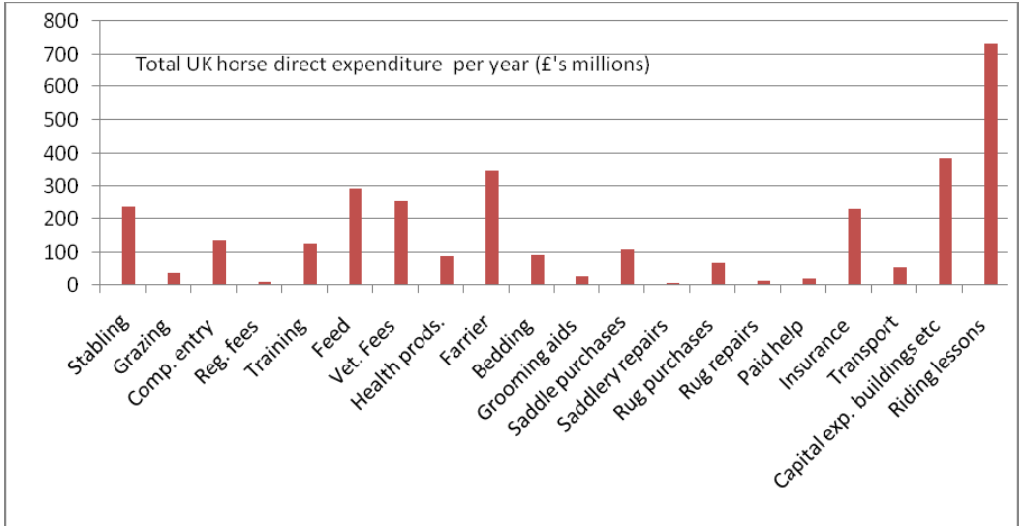
Leisure riding activities represent around 70% of the horse population in Britain; the expenditure of this sector is around £3bn of inputs. If horses were not restricted to their holdings, so allowing regular exercise, it seems likely that they could be kept fit and this sector could be minimally affected in terms of revenue generation. It also seems feasible that if gatherings were permitted under licence, many local shows and events could still take place, which would in theory also preserve some aspects of the competition networks within the various sporting disciplines. The likelihood of this however depends on how Defra

³ Approximate figure many riders take part in several disciplines

interprets the EC legislation with regard to licensing of movement, in that travelling to gatherings may be unattractive to owners if it were too restrictive.

Figure 3. Expenditure of horse sports and leisure riding combined – direct

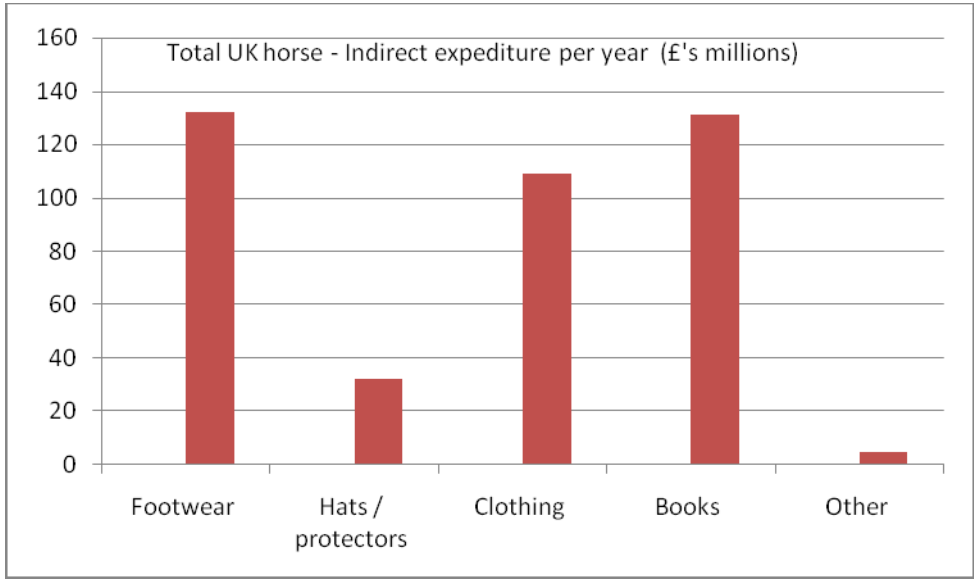
Direct expenditure for one year = £3.2bn



Source: BETA 2006

Figure 3.A. Expenditure of horse sports and leisure riding combined – indirect

Indirect expenditure for one year = £409m



Source: BETA 2006

7.4. Knock on effects: associated businesses

In addition to the direct and indirect expenditure in the horse sports and leisure sectors, there is a considerable contribution to the equine industry through associated businesses which are linked to the various disciplines. Many of these are inter-related and have been difficult to profile adequately in the time available for this project. Some of these are given below with comments on each, together with stake holder profiles from semi-structures interviews from different sectors (10.3)

- **Events and shows**

There are hundreds of gatherings around the country to take part in events and shows related to the various disciplines, involving typically up to 300 riders or more and substantial amount would be lost due to the cancellation of these. They range in size and importance and some of the performance horse events can be profiled through the respective organising bodies (Fig 5). There are forty-plus high profile annual national events, attracting hundreds of riders and thousands of visitors from across the UK and abroad. It is estimated that the amount of money handled at three day events alone is £3m pounds (BEF 2009; BHS 2009, BE 2009, BSJA 2009, BD 2009)

- **Professional and showing yards**

There are many professional yards linked to high performance disciplines such as eventing and show jumping, which rely for their income on the national competition network continuing in its present form. These businesses vary in size of up to a turnover of £1m per year.

- **Tack shops**

The majority of horse riders (75%) buy goods from specialist outlets (tack shops) to an annual value of £1.1bn. An estimated 20% of the total (excluding feed sales) is done by attending shows and competitions throughout the country.

- **Farriers**

There are 2400 registered farriers in the UK. All ridden horses require the regular services of a farrier.

Figure 4. Potential effect of movement restrictions for at least one year by sector

1. Total movement ban - animal restricted to the home holding.
2. No movement of equines into or out of a 100km protection zone established around the outbreak, or into or out of a surveillance zone of 50km established around the protection zone. *Controlled movement allowed within these two zones but no gatherings allowed.*
3. As 2. but gatherings allowed

Sector	1. Total movement ban – horses restricted to holding	2. No movement into or out of protection zones – controlled movement allowed in zones but no gatherings	3. As 2, but gatherings allowed
Racing Horses normally competing at race meetings nationally	<ul style="list-style-type: none"> • Could not attend key race meetings • Total collapse of racing industry within 18 months <p><i>Horses could be kept fit but would lose their value as unable to compete</i></p>	<ul style="list-style-type: none"> • Could not attend key race meetings • Total collapse of racing industry within 18 months <p><i>Horses could be kept fit but would lose their value as unable to compete</i></p>	<ul style="list-style-type: none"> • Could not attend key race meetings • Total collapse of racing industry within 18 months <p><i>Horses could be kept fit but would lose their value as unable to compete</i></p>
Horse sports Horses normally competing in show jumping, eventing and dressage etc. nationally	<ul style="list-style-type: none"> • Could not attend key competitions • Sports severely damaged within 18 month with possible total collapse <p><i>Horses could not be kept fit and would lose their value as unable to compete Owners would be distressed as fitness is key element of equestrianism.</i></p>	<ul style="list-style-type: none"> • Could not attend key competitions • Sports severely damaged within 18 months with possible total collapse <p><i>Horses could be kept fit but would lose their value as unable to compete</i></p>	<ul style="list-style-type: none"> • Could not attend key competitions • Sports severely damaged within 18 months with possible total collapse <p><i>Horses could be kept fit but would lose their value as unable to compete</i></p>
Leisure riding Horses ridden mainly for leisure / competing at local events	<ul style="list-style-type: none"> • Could probably not keep horse fit <p><i>Owners would be distressed as fitness is key element of equestrianism</i></p>	<ul style="list-style-type: none"> • Could not compete in local events <p><i>Owners and horses would be relatively unaffected – many do not normally take part in local events and the rest would probably be happy not doing so for the time being.</i></p>	<ul style="list-style-type: none"> • Could compete in local events within protection zones <p><i>Owners and horses would be relatively unaffected – they could keep the horse fit and take part in local events if they wished</i></p>

Figure 5. Normal horse movements: main horse sports⁴

Riding discipline	Affiliation (see annex)	Number of horses taking part (estimates)	National gatherings (involving travel more than 100km)	Locations: information available at:
Race meetings	British Horseracing Authority	17K	1,423 Gatherings	http://www.britishhorseracing.com
Eventing fixtures	British Eventing	13K	212 Gatherings	http://www.britisheventing.com
	None Affiliated	No data	No data	
Show jumping fixtures	British Showjumping Association	19K		http://www.bsja.co.uk
	None Affiliated	No data	No data	
Dressage fixtures	British Dressage	10K	900 Gatherings	http://www.britishdressage.co.uk
	None Affiliated	No data	No data	

8. Discussion of results

This rapid overview considers the effects of different movement restriction scenarios from the perspective of the various horse sports and leisure riding activities. The mainly descriptive report has been produced using qualitative research methodology, including semi-structured interviews with key informants, a small number of stake holder profiles and examination of industry data and other documents.

There are complex relationships between some aspects of the various sectors, many of which are opaque, and the potential for duplication of various elements is recognised. Best estimates have been made where necessary in order to complete this overview in the time available. Whilst we believe the study has achieved its main objectives, a further study could

⁴ Time constraints have limited data collection; Large numbers of riders also take part in mainly local non-affiliated competitions

provide more detailed information on how an outbreak of AHS would affect each sector within different disease scenarios and time frames.

In the event of isolated cases of AHS in the UK, where spread is successfully restricted by control measures it is feasible that the economic and social effect on the British horse industry will be minimal. However, in the event of widespread disease, the introduction of movement restrictions within protection zones around disease outbreaks could have a potentially devastating effect on the industry which contributes an estimated £7bn per year.

Its impact will be felt most acutely in the horse racing and horse sports sectors which hold qualifying events at various dedicated venues across the country, many of which are key to the competition framework and consequent survival of the respective discipline. The effect of movement restrictions on any sport would depend on where and when they were imposed.

Horseracing: Racing is one of Britain's most prestigious sports and the second most popular spectator sport, with around six million race goers per year. There are approximately 15,000 racehorses in training with 1,500 race meetings held annually at Britain's 60 racecourses. The economic impact of racing is at least £3billion per year.

Impact of movement restrictions: It is estimated that if movement restrictions prevented the key race meetings, in 18 months to two years, British Racing, which has been built up through this network over 250 + years, will be irreparably damaged.

Horse sports: Performance sports which have a total economic impact of around £1bn, hold qualifying events at various dedicated venues across the country; many of these are key to the competition framework and consequent survival of the respective discipline. The effect of movement restrictions on any sport would depend on where and when they were imposed. The demise of each of these over time will probably differ and this is more difficult to estimate at this stage.

Impact of movement restrictions: In the short term, horses would be severely set back in their progression to higher level events, and if this continued, within two years whole sections of the sport, together with their associated revenue generation, would collapse because of the lack of the competitive structure

Pleasure riding: Horses ridden mainly for leisure / competing at local events involving as estimated as making an annual contribution of £3bn.

Impact of movement restrictions: If gatherings were allowed within protection zones, or at least did not restrict horses to their holdings, so preventing regular exercise, this sector would be relatively unaffected, as would be the revenue generation.

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IHL (2009) Interviews during August 2009 with owners who have horses at livery

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NES (2006) *National Equestrian Survey*. British Equestrian Trades Association, Stockeld Park, Wetherby, West Yorkshire

THT (2009) The Horse Trust, Home of Rest for Horses, Speen, Princes Risborough, HP27 PP

YH (2009) Your Horse Magazine, Bushfield House, Orton Centre, Peterborough, PE2 5UW

10. Appendix.

10.1. Key informants

10.1.1. Equestrian organisations

British Dressage

Stoneleigh Park
Kenilworth
Warwickshire
CV8 2RJ

The governing body for the sport of dressage in the UK
Over 4,000 members, 10,000 registered horses, running 2,000 days of competition per year.

British Driving Society

BDS Executive Secretary
83 New Road, Helmingham
Stowmarket
Suffolk
IP14 6EA

The governing body for the sport of carriage driving in the UK
Over 6000 members

British Equestrian Federation

Stoneleigh Park
Kenilworth
Warwickshire
CV8 2RH

National governing body for horse sports in the UK, affiliated to the Federation Equestre Internationale (FEI), the international governing body of equestrian sports.

British Endurance Riding

National Agricultural Centre
Stoneleigh Park

Kenilworth
Warwickshire
CV8 2RP

The governing body for the sport of Endurance (Competitive Long Distance) Riding Great Britain.

Over 2000 members

British Equestrian Trade Association

Stockeld Park,
Wetherby,
West Yorkshire,
LS22 4AW

Trade body consisting of over 600 members covering retailers, manufacturers, importers, distributors, agents, dealers, and a wide range of companies offering services to the industry

British Equine Veterinary Association

Mulberry House,
31 Market Street,
Fordham, Ely,
Cambridgeshire,
CB7 5LQ

Professional body of veterinary surgeons with an interest in equine health and welfare

British Eventing

Stoneleigh Park
KenilworthWarwickshire
CV8 2RN

The governing body for the sport of eventing in the UK.

Over 10,000 members

British Horse Racing Authority

75 High Holborn
London
WC1V 6LS

The governing and regulatory body for Horseracing.

British Horse Industry Confederation

c/o British Horseracing Authority
151 Shaftesbury Ave

An umbrella body representing the British Horseracing Authority (BHA), The British Equestrian Federation (BEF) and the Thoroughbred Breeders' Association (TBA), the British Horse Society (BHS) the British Equestrian Trade Association (BETA) and the British Equine Veterinary Association (BEVA).

British Horse Society

Stoneleigh Deer Park
Kenilworth,
Warwickshire
CV8 2XZ

Represents the interests of the 4.3 million people in the UK who ride or who drive horse-drawn vehicles. Has Affiliated Riding Clubs and an Affiliated Bridleway Association.

British Show Jumping Association

National Agricultural Centre
Kenilworth, Warwickshire
CV8 2LR, UK

The governing body for the sport of Show Jumping in the UK.
Over 19,000 members, manages more than 4,200 shows each year providing 4,350 days of show jumping per year.

Irish Society for the Prevention of Cruelty to Animals

ISPCA Head Office
National Animal Centre,
Derryglogher Lodge,
Keenagh,
Co. Longford,
Ireland,

The Horse Trust

Home of Rest for Horses
Speen
Princes Risborough
HP27 0PP

World Horse Welfare

Anne Colvin House
Ada Cole Avenue
Snetterton
Norfolk
NR16 2LR

10.1.2. Horse owners

Owners with horses at livery yards
Owners with horses not at livery yards
Owners taking part in competition riding
Owners involved in leisure riding
Owners involved in hunting
Professional riders with eventing horses
Professional riders with show jumping horses
Professional riders with dressage horses

10.1.3. Equestrian magazines

Horse and Hound

IPC Media Limited
Blue Fin Building
110 Southwark Street
London
SE1 0SU.

Circulation: 257.000 copies weekly

Horse and Rider

DJ Murphy Publishers Ltd
Headley House
Headley Road
Grayshott, Surrey
GU26 6TU

Circulation: 40,000 copies monthly

Your Horse

Bushfield House,
Orton Centre,
Peterborough
PE2 5UW

Circulation: 40,000 copies monthly

10.1.4. Equestrian businesses

4.1. Showing centres
4.2. Eventing Yards
4.3. Showing Yards

- 4.4. Dressage yards
- 4.5. Riding schools and centres
- 4.6. Livery yards
- 4.7. Horse transport

10.1.5. Email respondents

Personal views from seven horse owners responding to an article in the equine press about this study:

Article:

Research into African Horse Sickness – what if it came to the UK?

African horse sickness (AHS) is a highly fatal and infectious disease, which affects horses, mules and donkeys. The disease is present (endemic) in sub-Saharan Africa. In EU countries, Council Directive 92/35/EEC of 29 April 1992, lays down control rules and measures to combat African horse sickness in Member States, which will be transposed into law in the UK in the near future.

How do you feel about this?

As part of the public consultation process, researchers are asking horse owners what impact movement restrictions would have on their riding activities. The question is 'How would you and your horse be affected if you could not travel away from the area that you normally exercise in for a period of say twelve months (i.e you could not take you horse to shows, events, and other 'gatherings')

1. How would you be affected if you could not travel away from the area that you normally exercise in for a period of, say, 12 months?
2. How would you be affected if I could not take your horse to shows, events or other gatherings?
3. What riding disciplines do you normally take part in each year?
4. Would a movement restriction mean I would have sell my horse?

To get as much information on this possible it would be very helpful if you could email your comments to Keith Allison – k.allison@reading.ac.uk. before 31st August please. Just a few lines outlining your normal riding discipline(s) and what effect such restrictions imposed for twelve months would have on you and your horse.

Responses:

1.

Hi

With regard to the above;

I participate in dressage, cross country riding (hacking) Fun rides etc

My thoughts are that should the UK ever have such a disease we should have restrictions in place to protect the equine world and preserve our animals. I do not wish to see the UK's population of equines wiped out.

2.

Dear Keith

I'm not sure of the exact parameters of your survey as the brief info on HHO referred to 'foot and mouth-style restrictions' and I know little about African horse sickness, so am using foot and mouth as a comparison. I rarely compete but am thinking from the viewpoint of a leisure rider and someone bringing on young horses.

1. During foot and mouth we had no manege and were largely restricted to roadwork. Dangers of increased road use are an obvious result - a campaign to inform drivers would have been helpful. BHS and Defra support needed; local media could also be helpful in this respect.

2. Fit horses had to be let down and ensuring the more exuberant ones got enough exercise was a safety issue. We at least were able to turn out - some people were not so lucky.

3. Horses kept adjacent to cattle and sheep were unable to leave their premises. Being unable to ride for a length of time would be frustrating for everyone: riders who own their own land could at least turn their horses away, but for those renting yard space it might not be financially viable.

4. Restrictions can mean young horses miss a big chunk of their education, with potential knock-on effects for behaviour and handling. Would also affect people making their living this way.

Hope this is some use

I look forward to reading about your research

3.

I own 2 horses, 1 retired and turned away, 1 PN/PC eventer. I am also a recently qualified veterinary surgeon working in Lincolnshire.

Movement restrictions would obviously prevent me competing and training however if they proved to be an effective way of preventing the spread of disease this would be a small price to pay. Depending on the timing this may also have a significant financial impact as I usually turn my horse away when I'm too busy to keep her in work, as this is not at my usual livery yard I would not be able to do this and would have to pay full livery instead.

Do we know how effective the movement restrictions have been with bluetongue? Surely the priority is to prevent the importation of an infected horse into Europe and educate horse owners about symptoms and vector control. Obviously AHS would have a huge economic not to mention social and emotional impact on the equestrian community. We need to keep it out but have realistic procedures, effective vaccines and quick diagnostic tests in place to deal with the consequences of an outbreak.

4.

I read about your research in Horse & Hound.

I have 2 horses, and I use them for riding club and for hunting. I ride every day, and when not having lessons, hunting or doing riding club activities, I keep the horses fit by hacking. Often we could be out for 2 hours on a hack, and cover a route of up to 5 miles.

Our hunting area has South Bristol as its most northerly boundary (Barrow Gurney) the Mendip Hills to the east, the coast by Weston super Mare to the west and Bridgwater to the south, so it is quite a big area.

Standard foot & mouth restrictions mean that we can only ride on roads, and dedicated horse arenas, and to be honest, disapproval from the local community (rural) stopped a lot of my friends riding at all, even on the roads, during the 2001 outbreak, despite the fact that riding on roads is not prohibited by the usual f&m regulations.

If similar regulations were to apply in the event of an AHS outbreak, we would probably restrict our riding to a short road trip to a local riding arena, where we could work the horses.

There would be no hunting. Hunt staff would be severely financially affected, as there would be no income at all. This would also have a knock on effect, impacting on local vets, farriers and others who service hunting.

It is possible that people would not want to take their horses anywhere, for fear of picking up AHS (is it spread by contact, or just by mosquitoes?) Even if this was an ungrounded fear, it may have an effect and mean that riding club events are cancelled.

Riding clubs are voluntary associations, but insurance etc still has to be paid, and if there were no events to raise funds, there would be no money to pay the insurance, and ultimately, therefore, no riding club.

One of my horses is quite happy working in an arena, but the other is much happier out hunting, and his nose would be significantly out of joint if there was no hacking even. I might even be tempted not to ride him at all during such a time.

I personally would not need financially to put my horses down if they could not be ridden for a protracted length of time, but there are people who would do that if there was no purpose for keeping the horse.

I hope that this is of use for your research. If there are any particular questions that you would like answers to, I would be happy to help out.

5.

I look after 14 horses which are in 3 separate locations. Two of our fields are about 3 miles away each from the main unit. We only have a couple of acres at the main unit where the stables are. As the horses are broodmares and young stock, our farriers and vets prefer them to be stabled when they are doing things to them (safer) and therefore the horses regularly travel to the main unit and back to their fields. We also regularly take the mares away to the vets which is about 12 miles away. Obviously being unable to travel would affect us especially in bad weather when the farrier cannot trim their feet in the field. Injections from the vet when foals are in the fields is also difficult when they know what's going on. Much easier when they are travelled to the main unit and stabled.

We also sell some of the foals which requires travelling them. We rely on this income to support the other horses. We also try to take our mares to gradings and shows again to increase the value of our stock.

We use AI so our mares don't have to travel to stud and have also installed stocks on our main unit. However, our mares cannot stay at the main unit for long periods of time due to insufficient grazing. They are usually only here for foaling and until the foal is old enough to travel.

6.

Hi,

As a "happy hacker" the regulations about not being able to go to shows etc outside my area wouldnt affect me.

Hi there

It wouldn't affect my riding if movement restrictions were imposed as I would just give my horse time off from competitions and just hack him out but I help out with a stud that breed Welsh Mountain ponies and Cobs which we sell on either as foals once weaned or we keep them til they are 4, break them in quietly then sell them on.

Obviously, if the horses cannot be sold outside the area then we are left with a large number of ponies that will be expensive to keep through colder, wetter months with little or no financial income to support this additional cost.

I hope this helps.

7.

Hi Keith,

I saw in Horse & Hound that you wanted information. I work full time in a non-horsey job, and have one horse on full livery - about 10 mins drive away from where I live.

1. How would I be affected if you could not travel away from the area that you normally exercise in for a period of, say, 12 months?

Unsure of the definition of "area you normally exercise in". I could cope with having to stay on the yard / in the fields owned by the livery yard if I really had to, but would have to be inventive to avoid being bored (me & the horse). It would restrict our progress and I would probably ride a little less often, but I would be able to keep her fit and would probably set myself new goals of improving her dressage. If the "area" was (say) a 4 mile radius of the yard, I would be able to add some hacking ... though the roads are incredibly busy round us. The main impact would be on not being able to get to shows and other events that provide us with variety and a challenge. But I'd rather be restricted in my movement than have to face culling - or infection that could be avoided.

My other concern would be about whether we would still get deliveries of feed / hay / bedding, and visits by vets / farriers / riding instructors.

2. How would you be affected if you could not take your horse to shows, events or other gatherings?

Disappointed - as this is what gives a focus to the exercising and schooling. But would find a way round this (as above). And if I really wanted to ride elsewhere I'd just have to go to a trekking centre and hire a horse.

Would probably decide to save up the entry fees I would have spent and spend them on a "catch up" treat once we got going again - like a holiday away with the horse.

3. What riding disciplines do you normally take part in each year?

Dressage (Trailblazers - hope to qualify for national finals next year), local riding club shows, TREC, pleasure rides, meeting friends for hacks, plan to start some Trailblazers showjumping, XC schooling

4. Would a movement restriction mean you would have sell your horse?

No.

Hope this information is helpful - good luck with your research project. And (as a former graduate) best wishes to Reading!

10.2. Key documents consulted

British Horse Industry Federation: strategy for the horse industry, 2005

British Equestrian Federation Strategic Plan, 2007

National Equestrian Survey (BETA) 2005/6

British Horse Society Online Survey, 2008

10.3. Stake holder profiles / semi structured interviews⁵

Riding school/ livery yard: 31st July 2009

- T/O £1.3M – one of the largest in the UK
- 44 staff
- Wages bill – £500K
- Catchment area within 25 - 30 miles
- Events - £100K – people come in to holding to compete
- 200 acre holding – horses exercise in that area
- If shows were stopped on holding the estimated loss would be £250K over one year they would then have to lay off three or four teaching staff.

Show Jumping Centre: 22nd Sept 2009

- Turnover – £2.6m
- Employed staff – 15 full time staff (7 office and 8 grounds men) and 8 part time.
- During the show season a further 60 casual staff.
- Income is concentrated in two weeks during which two major national and international show jumping events are held – The Royal International and The Derby
- 5000 horse come and go to the site during the two weeks from all over the country and abroad
- If show fortnight had to be cancelled they would be bankrupt

Riding Centre: 17th Aug 2009

- Turnover of centre - £1M per annum some of larger events turnover £100K
- Investment in centre - £6M
- 10 full time staff
- 100 – 700 visitors per event from all over the country
- If horses could move within protection zones they could probably keep going for a few months but this would not be sustainable (they would go bankrupt)
- Small events involve local horses from within 40-50 miles radius

Horse Transport Company: 28th Sept 2009

⁵ Main points – recordings on file

- Transports 500-800 horses abroad per year to FEI competitions / events
- Horses belonging to competitors are stabled at various locations through the UK
- Company turnover – £1.5m per annum
- Three full time staff
- Also sub contracts work to grooms, vehicle hire companies, food companies and vets
- If restrictions prevented exports they would not survive

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Alliance and Leicester



British Equestrian Federation



British Equestrian Trade Association



The British Equine Veterinary Association



The British Horse Racing Authority



The British Horse Society



The Donkey Sanctuary



The Horse Trust



The National Farmers Union



South East Insurance Brokers



World Horse Welfare