Health & performance of pony club horses

A report for the Rural Industries Research and Development Corporation

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Foreword

The Australian Pony Club (PC) movement has been a favourite pastime for young Australians since the 1940’s, and nurtured budding equestrians towards Olympic Equestrian Gold Medallists. The pony club movement is the largest association of riders in the world, with members in over 20 countries.

In contrast to the multimillion-dollar thoroughbred industry, the pony club association is a non-profit organisation. With an estimated 80,000 horses, pony clubs form a considerable part of the Australian pleasure horse population. Compared to their much-studied thoroughbred counterparts, pony club horses have unfortunately not benefited from research investment. While our knowledge of health and performance in racehorses is considerable, there is little formal knowledge of pony club horses.

This report details the first of three phases of a study, that aims to help pony clubs manage their horses for optimal health and performance (H&P). The investigators addressed the relevance of this research to pony clubs in the following ways:

- Obtaining approval/endorsement/input for this study at all levels of the Australian Pony Club Association
- Study design in 3 interdependent phases (eg phase 2 depends on phase 1 etc)
- Involving members of pony club directly in the research process as participants in all phases
- Dedicating stage 1 and 3 to qualitative social inquiry to ensure that pony clubs guide the direction of the research

It was realised, that researchers’ views on horse health issues could differ from those of horse owners. In fact, what horse owners think horse health means is largely unknown. During this first phase, the investigators sought to find out, and ask members of rural and metropolitan pony clubs about horse health and performance (H&P). These perspectives of horse H&P are critical in guiding this research towards tangible outcomes for the pony club industry.

The first stage of this project was mostly funded from industry revenue, with matching funds from the Federal Government. Funds were also obtained from a Charles Sturt University Seed Grant.

This report, a new addition to RIRDC’s diverse range of over 600 research publications, forms part of our Horse R&D program, which aims to identify and support epidemiologically related projects, and those involving collaborative work between discipline areas and institutions.

Most of our publications are available for viewing, downloading or purchasing online through our website:

- downloads at www.rirdc.gov.au/reports/Index.htm
- purchases at www.rirdc.gov.au/eshop

Peter Core
Managing Director
Rural Industries Research and Development Corporation
Acknowledgments

The researchers thank Pat Bazeley and Frank Vanclay for their generous advice on qualitative research and critical comments on study design.

In particular, we wish to thank the pony clubs of Zone 1 in Brisbane (Samford Golden Valley, Redlands, and Gumdale) and Zone 12 in Wagga Wagga (Lake Albert, Bidgee, Wagga District, Junee, The Rock, Coolamon, Marrar and Barmedman), who gave up time on their weekends to participate in the interviews.

The authors acknowledge the assistance of the State offices of Pony Club for accessing their membership records for us.

We also thank Roma Brideoake, National Executive Director of the Australian Pony Club Association, for her support of this project and sharing her knowledge of the background of pony clubs in Australia.

Thanks also go to numerous colleagues, who proof read the document or provided support in other ways, including Chris Baldock, Ian Gray, David Buckley, Ted Wolfe, Peter Cregan, Jim Pratley, Martin Sillence and Gavin Ash.

Thanks also to Kerry Cullis, statistician, for helping us prepare for data collection and analysis in phase 2 of the current study.
## Contents

Foreword ................................................................................................................................. iii
Acknowledgments ................................................................................................................ iv
Executive Summary ............................................................................................................... vii
1. Introduction...........................................................................................................................1
   1.1 Background ................................................................................................................. 1
   1.2 Gaps in our knowledge ............................................................................................ 1
   1.3 Aims ............................................................................................................................ 1
   1.4 Benefits ....................................................................................................................... 2
2. Methods................................................................................................................................4
   2.1 Study design ............................................................................................................... 4
   2.2 Study Population ........................................................................................................ 4
   2.3 Time Budget .............................................................................................................. 5
   2.4 Milestones .................................................................................................................. 6
3. Current progress ..................................................................................................................7
   3.1 Phase 1 .................................................................................................................... 7
   3.2 Phase 2 .................................................................................................................... 7
4. Implications so far ................................................................................................................7
5. Recommendations ...............................................................................................................8
   5.1 General considerations ............................................................................................... 8
   5.2 Creating positive and sustainable change: A major research and development need of the horse industry ................................................. 8
   5.3 Further recommendations for research and development in the pony club industry .. 8
6. Appendix 1: Details of Phase 1 ............................................................................................9
7. Appendix 2: Study plan for phase 2: A prospective longitudinal study of health and performance in pony club horses .................................................................................25
8. Bibliography / References ..................................................................................................30
List of Tables

Table 1.4.1  Outputs, i.e. activities, products and services, from the current study ..........3
Table 1.4.2  Outcomes, i.e. the end result of our activities, products and services ..........3
Table 2.1:  Combining qualitative and quantitative methods in three sequential phases....4
Table 2.2.1:  Units of interest in each study phase .........................................................4
Table 2.3.1:  GANT chart ....................................................................................................5
Table 2.4.1:  Milestones in the current study ......................................................................6
Table 6.1.1:  Aims of phase 1 .............................................................................................9
Table 6.2.3.1: Questions asked on 4 main topics during the in-depth interview ............10
Table 6.3.8.1: Hypotheses induced by the information gathered in phase 1 ...............20
Table 7.6.1:  Data collected about the nutrition, housing and status of health of enrolled horses .............................................................................................................28
Table 7.7.1:  A sample page of the monthly event diary kept by each family .................28

List of Figures

Figure 6.3.8.1: Putative risk factors for sub-optimal health in pony club horses .............21
Figure 6.3.8.2: Putative risk factors for poor performance in pony club horses .............21
Executive Summary

Background

Research and development has traditionally followed a top-down model, in which researchers have decided — generally following some industry consultation — on a problem, researched it and then sought to extend the solution to the relevant industry body. This researcher-driven approach is an effective method to create outputs (such as an increase in knowledge or a new vaccine), however, it generally does not result in either sustained or positive change in target communities. There is increasing concern, both in Australia and elsewhere, about the poor level of medium to long-term adoption of outputs from this type of research.

The current project represents a substantial shift from the traditional top-down approach to research and development. Using a mix of methodologies, we are seeking — in partnership with local Pony Clubs — to achieve sustainable and positive improvement in the health and performance of Pony Club horses. Consequently, our focus is on:

• outputs (activities, products and services), such as an improved understanding of real-world risk factors for Pony Club horses; and also

• outcomes (the end-result of our activities, products and services), namely, a measurable improvement in Pony Club horse health and performance as a result of our close partnership with Pony Club members during the research and development process, which will substantially enhance the creation — and adoption — of relevant and appropriate outputs.

The study is being conducted in three phases. In the first phase, we have conducted detailed sociological research with Pony Club members to establish what owners consider are important attributes for horse health and performance. Using this information, in the second phase we will study a group of horses to more clearly understand these and other health problems affecting Pony Club horses. In the third phase, we will work with Pony Clubs to establish extension programs to remedy these problems.

The commercial benefits are considerable. Virtually all research conducted in Australia is on thoroughbred horses and has little applicability to the general horse population and their owners because their needs are not met or unknown. This project will give valuable insights into the problems of the general horse population and deliver solutions to them by communicating with their owners. The use of both social research techniques and traditional veterinary epidemiology, besides being a world first, gives information essential for communicating with horse owners.

Methodology

The project uses a mixed method approach — that is, a combination of traditional quantitative and newer qualitative methods. Many people are unfamiliar with these qualitative techniques used in phase 1 (in-depth interviews) and phase 3 (focus groups). In-depth interviews are a scientific way of having a ‘yarn’ with horse owners before starting a labour intensive and expensive study. In other words, we have informed ourselves so that money and resources are not wasted on the wrong issues in phase 2. Similarly, focus groups, are a scientific way of ensuring, that statistical results from the quantitative phase 2 (likely to be meaningless to the horse owners) are discussed with the stakeholders and result in meaningful and practical extension programs for the industry.

Numbers and statistical analyses cannot guarantee that horse people will adopt any of the recommendations we make. In agriculture this problem is recognised and methods such as qualitative research are used to improve understanding of problems and adoption rates over a range of industries.
and situations. Equine researchers need to examine and adapt these qualitative techniques so that the ‘people component’ of the adoption equation can be addressed.

**Results**

Phase 1 has been completed successfully. The results, a series of 32 in-depth interviews with pony club members, have already produced valuable information on how riders view their horse, what are the problems they perceive and where they get their information. This information is essential and has directed the development of the study design for phase 2.

Phase 1 results revealed that the pony club horses are part of the family and loved dearly by their riders. A willing, bombproof all-rounder was what parents wanted for their children; misbehaviour was a major problem, because it could jeopardise the children’s safety, or affect how the horse performed. Parents and riders wanted to know more about feeding and how the horse’s body functioned. Owners had dramatic memories of colic and laminitis and wanted to avoid these diseases at all costs.

When owners were stuck with a problem they sought advice from a friend or horse person. Because they cost money, veterinarians were not contacted unless the problem was serious. Riders learnt about horses at pony club and through reading books. Often they were confused about the different sources of information available, and which was the right advice to take. Most horse reference books are written for adults, and young children find them difficult to read.

Everybody dealt with a farrier, whom they often asked for advice. Many people used chiropractors, when they needed a back expert for their horse. Owners wanted to know more about teeth, and horse dentists were called to rasp teeth on a regular basis.

**Implications for phase 2 & 3**

As a result of phase 1, we understand more about how owners view their horses, the problems they perceive and how they seek information. In stage 2 we will use the outcomes from stage 1 to frame the main topics for the epidemiological study. This involves collecting data about how pony club horses are managed day-to-day. Thus the study will concentrate on all aspects of feeding, disease occurrence, horse behaviour, and level of health care provided, with special attention on laminitis. In stage 3 members of pony clubs will make important decisions about practical ways of solving horse health problems and delivering this information in ways that suit pony clubs. In particular, we will offer better solutions for preventing laminitis, and at the same time avoiding the dangerous practice of starving fat ponies. It is especially important that the recommendations are effective and easy to implement, and that they reach the wider population of pony club horse owners.

**Implications for the pony clubs**

Phase 1 outcomes already have important implications for the Australian pony club industry. From listening to riders and parents, we have learnt that pony club horses and their owners are unique. Pony club horses are a collection of animals of different breed, size, age, ability and horse experience of their owners. Pony club horses are kept for fun and leisure riding by young children and also as sport horses for more advanced riders. There is no financial motivation in any of these activities.

It is clear from phase 1, that for pony club members to learn and improve care of their horses, they need easy to understand information. Our results so far suggest that the whole pony club industry would benefit from this. There is also an opportunity for veterinarians in this and that is to learn about the needs of pony clubs – we would say take a more educational approach – by providing practical advice about keeping horses healthy, rather than waiting for animals to show symptoms. The prerequisite for making these changes is achieved in phase 2, that is, to generate knowledge about
disease occurrence and horse management. Finally, in phase 3, we will reintroduce the horse owners – by asking them to evaluate the practicalities and relevance of what we learnt, before producing educational materials and recommendations to the industry.

**Addressing adoption and positive, sustainable change in communities**

The issue of adoption has been ignored for too long in equine research. A major barrier to adoption is the continued focus on specific issues such as individual diseases rather than dealing with broad industry problems such as health awareness and disease prevention. The strength of the current study lies in its broad aims through the mixed method (qualitative and quantitative) approach. This approach allows us to tackle community issues (like education) head on and pave the way for successful and ongoing adoption.

Ongoing adoption in the equine industry can only happen through changing attitudes and building on the enthusiasm of owners. To do this, researchers will achieve better results if they broaden their view of the horse world by including the social component in their work as well as an appreciation of community needs. Our study is unique, as it addresses what the horse industry needs most at present: positive and sustainable change in the horse owner community through identifying information and educational opportunities to improve horse health and performance.

**At a glance**

**Outputs (activities, products & services)**

- An understanding of how horse owners view their horses and learn
- Improved understanding of the diseases that affect the pony club horse population
- A model of mixed methods in equine research
- A method for extending the research results
- Involving rural Australia in research

**Outcomes (the end result of our activities, products & services)**

- Positive and sustainable change in the horse owner community
- Improved adoption of results by horse owners
- Improved health of pony club horses
- Extension of benefits to other sectors of the horse industry
1. Introduction

1.1 Background

The Australian Pony Club (PC) movement has been a favourite pastime for young Australians since the 1940’s, and nurtured budding equestrians towards Olympic Equestrian Gold Medallists. The pony club movement is the largest association of riders in the world, with members in over 20 countries (PCAV, 1999). Pony Clubs are widely recognised as the grass roots for most other equestrian endeavours in this country, including racing, eventing, showjumping, dressage, polocrosse, western pleasure and others (Brideoake, pers. Comm.). It follows that the horse knowledge gained at PC is likely to impact on horse management and welfare in other sectors of the industry.

Research and development has traditionally followed a top-down model, in which researchers have decided – generally following some industry consultation – on a problem, researched it and then sought to extend the solution to the relevant industry body. This researcher-driven approach is an effective method to create outputs (such as an increase in knowledge or a new vaccine), however, it generally does not result in either sustained or positive change in target communities. There is increasing concern, both in Australia and elsewhere, about the poor level of medium to long-term adoption of outputs from this type of research (Dunn, et al. 1998).

1.2 Gaps in our knowledge

Pleasure horses present different challenges than those of their well-studied counterparts – race horses (Kaneene, et al. 1997).

It is suspected that traditional horse management practices prevail in the horse owner community and are often not consistent with ‘best practice’ (Ramey 1995). Phase 1 of the current study revealed, that many pony club horses are purchased by first time owners with little or no prior knowledge of horses (appendix 6). Both these factors could pose an increased risk of health problems to horses. But these are suspicions, and factual information on how these horses are currently managed for health and performance does not exist.

The need for education and training for the Australian Horse industry was recently highlighted by Howey (1999), and through a workshop conducted by the RIRDC (1999) entitled “How well are we meeting the knowledge, learning and training needs of the Australian Horse Industry?” However, the effectiveness of this workshop in enhancing learning possibilities of horse owners has not been evaluated.

To add to the challenge, little is known about how horse owners learn and what motivates them to make decisions about their horses’ welfare. In contrast, these issues have been extensively addressed in agriculture. Knowledge about how farmers learn has proven critical to improving the dissemination of new information to the agricultural industry (Bamberry et al. 1997). Such insights into social issues are needed in the horse industry before we can implement positive and sustainable improvements to horse health.

Traditional veterinary research methods are unable to provide equine researchers with an understanding of the attitudes and perceptions of horse owners towards horse health. Qualitative methods (Babbie 1998, Patton 1990) are ideal for gathering such non-numerical information, and are used extensively in Australian agriculture (Bamberry, et al. 1997; Vanclay, pers comm.). In the agricultural industry they have resulted in higher rates of adoption. It is likely that such benefits could also be achieved in the equine industry. To date, however, such methods have not been used in equine research.

1.3 Aims
Using a mix of methodologies (Tashakkori 1998), we are seeking – in partnership with local Pony Clubs – to achieve sustainable and positive improvement in the health and performance of Pony Club horses. Consequently, our focus is on:

- outputs (activities, products and services), such as an improved understanding of real-world risk factors for Pony Club horses; and also

- outcomes (the end-result of our activities, products and services), namely, a measurable improvement in Pony Club horse health and performance as a result of our close partnership with Pony Club members during the research and development process, which will substantially enhance the creation – and adoption – of relevant and appropriate outputs.

### 1.3.1 Overall study aim

- to develop a rapport with the industry and improve the health of pony club horses through simple strategies aimed at problem prevention.

#### 1.3.1.1 Aims for phase 1

- to explore & gain an understanding of horse health issues of importance to horse owners
- to identify key issues relating to horse health that are of importance to horse owners
- to use this information to improve study design and implementation of phase 2

#### 1.3.1.2 Aims for phase 2

- to provide baseline information about horse health and disease incidence
- to provide baseline information about the day to day management of pony club horses
- to identify real world risk factors for important diseases and problems affecting pony club horses
- to identify how these risk factors could be modified to prevent important diseases

#### 1.3.1.3 Aims for phase 3

- to discuss opportunities for disease prevention in horses in partnership with pony clubs based on the results from phase 2
- to identify practical solutions to important disease problems
- to develop extension programs aimed at disease prevention
- to formulate future research and development needs for the pony club industry

### 1.4 Benefits

#### 1.4.1 General points

The commercial benefits of studying pony club horses are considerable. Virtually all research conducted in Australia is on racing thoroughbred horses. This thoroughbred-focussed research has little applicability to the general horse population and their owners because their needs are not met or unknown. This project will give valuable insights into the problems of the general horse population and deliver solutions to them by communicating with their owners.

The use of both social research techniques and traditional veterinary epidemiology, besides being a world first, gives information essential for educating horse owners and through this, improving horse health.
By far the most important aspect of this project is that we create positive change in the pony club community, by focussing on outputs and outcomes (table 1.4.1 and 1.4.2 below). This positive change is essential for long term adoption of recommended horse health practices.

1.4.2 Outputs and outcomes

The table below summarises the outputs and outcomes we will deliver following completion of all three phases:

Table 1.4.1 Outputs, i.e. activities, products and services, from the current study

<table>
<thead>
<tr>
<th>Outputs (activities, products &amp; services)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• An understanding of how horse owners view their horses and learn</td>
</tr>
<tr>
<td>• Improved understanding of the diseases that affect the pony club horse population</td>
</tr>
<tr>
<td>• A model of mixed methods in equine research</td>
</tr>
<tr>
<td>• A method for extending research results to horse owners</td>
</tr>
<tr>
<td>• Involving rural Australia in research</td>
</tr>
</tbody>
</table>

Table 1.4.2 Outcomes, i.e. the end result of our activities, products and services

<table>
<thead>
<tr>
<th>Outcomes (the end result of our activities, products &amp; services)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Positive and sustainable change in the horse owner community</td>
</tr>
<tr>
<td>• Improved adoption of results by horse owners</td>
</tr>
<tr>
<td>• Improved health of pony club horses</td>
</tr>
<tr>
<td>• Extension of benefits to other sectors of the Australian horse industry</td>
</tr>
</tbody>
</table>
2. Methods

2.1 Study design

This study uses a mixed methods approach to address our objectives (table 2.1). Mixed methods have been described in relation to human social and behavioural research (Tashakkori & Teddlie 1998). Mixed methods means that traditional quantitative methods (involving numbers and statistics) are combined with qualitative methods (capturing peoples’ personal perspectives and experiences, ie non numerical).

Table 2.1: Combining qualitative and quantitative methods in three sequential phases

<table>
<thead>
<tr>
<th>Phase of study</th>
<th>Method used</th>
<th>Details of method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Qualitative method</td>
<td>In-depth personal interviews</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Quantitative method</td>
<td>Epidemiological study design</td>
</tr>
<tr>
<td>Phase 3</td>
<td>Qualitative method</td>
<td>Focus groups</td>
</tr>
</tbody>
</table>

Details of phase 1 and phase 2 are provided in the appendix 6 and 7 respectively.

2.2 Study Population

The population of interest is the Australian pony club horse population and their owners. The different phases require specific sampling techniques to select our participants. These are detailed in the appendix. The table below summarises the various units of interest in each phase of study.

Table 2.2.1: Units of interest in each study phase

<table>
<thead>
<tr>
<th>Phase of study</th>
<th>Study units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>Individual riders with their parents</td>
</tr>
<tr>
<td>Phase 2</td>
<td>Individual pony club horses</td>
</tr>
<tr>
<td>Phase 3</td>
<td>Groups of parents, riders and officials</td>
</tr>
</tbody>
</table>
## 2.3 Time Budget

*Table 2.3.1: GANT chart*

<table>
<thead>
<tr>
<th>Task</th>
<th>Year 1*</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Prerequisite Tasks</th>
<th>Constraints/Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Plan phase 2</td>
<td></td>
<td></td>
<td></td>
<td>Results from in-depth interviews</td>
<td>Travel to UQ necessary to finalise study design and data collection with Dr More.</td>
</tr>
<tr>
<td>2 Conduct phase 2</td>
<td></td>
<td>Task 1</td>
<td></td>
<td></td>
<td>Again PC support is critical in terms of participants for this phase.</td>
</tr>
<tr>
<td>3 Analyse phase 2</td>
<td></td>
<td>Task 2</td>
<td></td>
<td></td>
<td>Travel to UQ necessary to discuss data analysis.</td>
</tr>
<tr>
<td>4 Plan, conduct and analyse phase 3</td>
<td></td>
<td>Task 1, 2, 3</td>
<td></td>
<td></td>
<td>This phase again relies on volunteers.</td>
</tr>
<tr>
<td>5 Commence communication of outcomes</td>
<td></td>
<td>Task 4</td>
<td></td>
<td></td>
<td>Phase 4 is a long term process, and will not be completed within the time lines of this project</td>
</tr>
</tbody>
</table>

* Year in which RIRDC funding is being applied for.
## 2.4 Milestones

*Table 2.4.1: Milestones in the current study*

<table>
<thead>
<tr>
<th>Task</th>
<th>Milestone</th>
<th>Reporting Date</th>
<th>Performance Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Plan phase 2</td>
<td>Complete study design by Oct 2000</td>
<td>Nov 30, 2000</td>
<td>Data collection sheets and software prepared for data entry</td>
</tr>
<tr>
<td></td>
<td>Data collection sheets and software prepared for data entry</td>
<td></td>
<td>Data collected and recorded in EpiInfo, version 6</td>
</tr>
<tr>
<td>3. Analyse phase 2</td>
<td>Complete statistical analysis by Apr 2002</td>
<td>Nov 30, 2002</td>
<td>Statistical analysis complete</td>
</tr>
<tr>
<td>4. Plan, conduct &amp; analyse phase 3</td>
<td>Complete analysis of group discussions by Jul 2002</td>
<td>Nov 30, 2002</td>
<td>Transcripts of group discussions, and analysis complete</td>
</tr>
<tr>
<td>5. Plan &amp; commence dissemination</td>
<td>Complete planning by Oct 2002</td>
<td>Nov 30, 2002</td>
<td>Recommendations for communication complete</td>
</tr>
</tbody>
</table>
3. Current progress

3.1 Phase 1

Phase 1 has been successfully completed. Details are presented in appendix 6.

3.2 Phase 2

Planning for phase 2 has been completed. Continuation of this study hinges on further financial assistance. The detailed study plan for this next phase can be found in appendix 7.

4. Implications so far

During the planning stages in 1998, we found that people at the national and state level of PC were very sceptical about the likely benefits of research in general. Pony clubs had previously been contacted by ‘researchers’, who collected information, but never provided any explanation or feedback. We must replace this scepticism with trust in the research process. We have gone a considerable way toward achieving this through regular contact with all levels of the pony club organisation. This is an important first step to creating positive and sustainable change in the pony club community.

The work to date (phase 1) has provided valuable insights from the owners’ perspective into H&P of PC horses. These insights differed from what we as researchers expected. As a result, we are now able to strategically plan the next phase to yield information that is needed, rather than what we think is needed. Thus inappropriate assumptions about pony club horses based on the researchers’ views can be avoided and study success can be maximised.

The major impact of our results from phase 1 on the industry therefore, is that we are creating positive change in the pony club community and improving the horses’ health as a result of this.
5. Recommendations

5.1 General considerations

It is clear from phase 1, that the pony club movement has unique research and development needs, quite different to those of racing thoroughbred horses. These differences may relate to the purposes for which the horses in either industry sector are kept. In contrast to their racing counterparts, pony club horses are kept for fun and leisure riding by young children at pony clubs, and also as sport horses for more advanced riders. There is little or no financial incentive involved. Furthermore pony club horses are a diverse population of varying breeds, age, ability, back ground and relevant experience of their owners!

5.2 Creating positive and sustainable change: A major research and development need of the horse industry

As a result of phase 1 it is clear to us that without a change in attitudes we will not have successful adoption. To move closer to creating this change:

- Researchers and funding bodies must recognise the importance of the Australian pleasure horse population, of which pony clubs are a part
- Researchers and funding bodies must establish and continue a close working relationship with the owners of the horses. We have learnt that participants unfamiliar with research need to be taught and take some time to develop a sense of ownership. Genuine interest by the investigators is critical to this process. This takes time!
- Horse owners and pony club officials must develop trust in the research process

5.3 Further recommendations for research and development in the pony club industry

Based on phase 1 we need to:

- Continue to build lasting relations with pony club communities
- Continue phase 2 & 3 so we can deliver tangible outcomes of benefit to pony clubs

Based on phase 1 equine veterinarians need to:

- Change their approach to horse health, to one, which targets prevention.
- Improve their communication with the owners of pony club horses, so that they are called upon as ‘health experts’ not just ‘disease experts’.

Based on phase 1 future research needs to:

- Critically evaluate alternative therapies in horses, especially chiropractic and other manipulative therapies. Introducing an industry standard seems critical.
6. Appendix 1 - Details of Phase 1

6.1 Aims

Table 6.1.1: Aims of phase 1

<table>
<thead>
<tr>
<th>Aims</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Explore perceptions about horse health &amp; performance (H&amp;P) amongst pony club (PC) members, using semi-structured personal interviews.</td>
</tr>
<tr>
<td>2. Gain an understanding of issues relating to horse H&amp;P of importance to members of rural pony clubs (Wagga Wagga) and members of metropolitan pony clubs (Brisbane).</td>
</tr>
<tr>
<td>3. Identify key H&amp;P issues of importance to members of PC, to enable improved planning and study design of phase 2 (quantitative epidemiological) based on this information.</td>
</tr>
<tr>
<td>4. To make a start in effecting positive and sustainable change in pony club communities, and paving the way for successful adoption.</td>
</tr>
</tbody>
</table>

6.2 Materials and Methods

In this first phase, we have conducted detailed sociological research with Pony Club members to establish what owners consider are important attributes for horse health and performance. Using this information, in the second phase we will study a group of horses to more clearly understand these and other health problems affecting Pony Club horses (appendix 7). In the third phase, we will work with Pony Clubs to establish extension programs to remedy these problems.

6.2.1 Study population

Participants belonging to eight pony clubs in zone 12 of NSW and three clubs in zone 1 of Qld were included. A total of 32 in-depth interviews were conducted (24 analysed). To obtain a diverse participant sample from each club, participants were selected by a pony club official, who was familiar with their horse involvement. Selection criteria were based on verbal instructions by the investigator and included the length of time participants had been a member of the pony club, and the presence or absence of an active background with horses. Participants constituted one or both parents and their child (-ren), who was an active member of pony club. All participants were volunteers.

6.2.2 Sample Size

The sample size for this study was not predetermined due to the nature of the inquiry. Sampling was stopped when data was repeated itself, and no new information was gathered, but not before all selected pony clubs had been visited and interviewed. (I.e. sample size was determined by data content rather than the number of interviews. It also means that participants could be chosen because of the extra data they may generate; this being called purposeful sampling (Patton 1990).

6.2.3 In-depth interviews

All interviews were conducted on pony club grounds in a setting that was familiar to participants and conducive to talking about horses. Interviews were tape-recorded and lasted between 20 minutes and 40 minutes each, and written notes were also taken. The questions used in the interviews (see table 1) were open-ended, and commenced with a ‘how’ or ‘what’ to encourage elaboration. The questions were tested on owners of pleasure horses in a pilot study conducted by (Clegg unpublished)) and have been modified further.
The investigator commenced the interviews by asking the same question ‘How did you get involved with horses?’ From then on each interview was allowed to take a different direction being guided by participant responses. Interviews were gradually phased out to finish when the investigator was confident that all the topics of interest had been covered. The last question asked was usually ‘Do you have any general comments relating to H&P?’ Four main topics were explored during questioning: background with horses, value of horse to owner, horse health & performance, and pony club.

Table 6.2.3.1: Questions asked on 4 main topics during the in-depth interview

**Interview Questions**

**Topic 1: Background with horses**
- Tell me how you got involved with horses?
- Tell me about the horse(s) you have now.

**Topic 2: Value of the horse**
- What was important in deciding to acquire this horse? Or, How did you choose this horse? Or, What do you like about your horse?

**Topic 3: Horse Health & Performance**
- How do you keep your horse(s)? Or ‘How do you ensure you horse’s health?’
- What does horse health mean to you? What’s a healthy horse?
- How do you know if something’s wrong with your horse?
- What do you do when there is a problem?
- How do you go about finding out about horses?
- What kind of health problems have your horses had?
- What does horse performance mean to you? And, If your horse performs well, what does he do?
- What would you like to get out of this study? Or what do you wish you knew more about in terms of horse health & performance?

**Topic 4: Pony Club**
- What do you tell your friends about pony club?
- How does pony club help you with your horse(s)?
- What do you (parent) get out of pony club?

**6.2.4 Data Processing & Analysis**

The first step in data processing was to become familiar with the information collected. This involved repeated listening to taped recordings and reviewing written notes where necessary. This ensured that key issues were not missed and that misinterpretation was avoided. Taped interviews were then transcribed word for word by a professional word processor to yield an accurate written record of what was said. The author proofed each transcript against the original tape recording. The author’s written notes taken during the interview were used to perform crosschecks on interview transcripts and fill in gaps where technical problems with tape recordings had occurred. As the author became familiar with the data, new key issues started emerging, and insights gained during the actual interview were either corroborated or refuted. There is a large degree of overlap between data processing and analysis.

Analysis of the transcribed data was based on the methods of (Patton 1990) and (Babbie 1998), and commenced with a familiarisation process. This involved writing a description of what the owners of
pony club horses said, letting the data speak for itself and being careful not to add interpretations. Analysed data were then focused by the question topics, which were:

1. the owners’ background with horses,
2. the value of the horse to the owner,
3. horse health & performance, and
4. the role of pony club in H&P.

The analysis used is descriptive analysis, which is important to provide the researcher with a feel for the owner’s perspective on H&P in pony club horses. It also gave the analyst an opportunity to describe the range of responses for each topic. For example for topic 1, ‘some participants had no background with horses, while others had a family tradition’. It can be seen that this is both descriptive and informative with no interpretation necessary.

Our study used a descriptive process called cross case analysis∗ (Patton 1990). Essentially this involves finding patterns in what was said, and similarities and dissimilarities (Babbie 1998). For example, all responses to the above question ‘what does horse health mean to you?’ were reviewed and then a descriptive picture was generated in writing, taking care to reflect the range of responses, as well as conveying general topic content and finally focussing on key issues. An example of this process can be seen in the results section under ‘the healthy horse’ title. The next stage of the process was to write a draft. The analyst then returned to the raw data (taped recordings) for refamiliarisation and checking and at the same time being detached from the analysed data. This rigour was necessary to ensure validity (truthfulness) of our data.

We further ensured validity of our results by providing pony clubs and officials with a summary report of the outcomes for feedback.

6.2.5 Identifying key issues

The analyst identified ‘key issues’ by noting themes that recurred and were common to different interviews (i.e., a pattern was emerging for a particular topic). The explanation here is that a pattern that established understanding was emerging for particular questions or topics in the interviews. The importance of the issue to horse owners was inferred from their voluntary answers, and that the issue was common to several participants from different clubs. Methodologically it is important to note that questions were strictly open ended and neutral, such as ‘what does horse health mean to you?’ Leading questions such as ‘do you think horse health is important?’, or emotive questions such as ‘don’t you hate colic?’, were avoided.

Counting words and representing key issues numerically was not performed for several reasons. First, the interviews were not designed for numerical analysis. Second, numerical analysis would result in misrepresentation of the data. If we counted the word colic, (eg ‘we have never had a horse with colic’, and ‘our last horse died with colic, it was awful’ and ‘he had a twist in the gut and was in so much pain’) we would overestimate with the first statement, be correct with number 2 and miss the third.

∗ Cross case analysis means grouping together answers from different people to common questions, or analysing different perspectives on central issues
6.3 Results

The analysed data is presented under four main topics:

1. Experience and background with horses
2. Value of the horse to its owners
3. Horse health and performance
4. Pony club related topics

You will note that the results are descriptive and make sense without interpretation by the investigator. They are supported by participants’ quotes where relevant. Subtopics were formed during analysis, to provide a sharper picture of topics and issues participants mentioned repeatedly.

6.3.1 Experience and Background with Horses

There was a range of responses in this category, reflecting the diversity of participants’ background and experience. Often one or both parents had grown up with horses and their children naturally continued this involvement with horses. One mum said of her 12 year old daughter, “She was virtually born into the horse game…My father was an old brumby chaser in the mountains.” In several cases they even joined the same pony club as their parents had.

Other participants had no previous experience with horses and first became involved in pony club activities through their children. They had found out about pony club through a friend who was already a member of a local club. One mum, who’d owned horses for years said, “I really only got involved in pony club because [my daughter] wants to do it. The boys were never interested.”

An instructor said, “We have a few people here that the kids have wanted horses. And maybe their children are 12 and the parents don’t know anything. And that’s just the way they’ve been brought up.”

The odd parent admitted to being a little frightened of horses. It was rare to find a rider who was member of a pony club against his or her will and who was not really enjoying it.

6.3.2 Value of the Horse to parents and riders

6.3.2.1 The role of the horse

The horses were always considered to be part of the family and a dear companion to their riders. A girl, selected for the NSW State Championships in showjumping, said,

I love having my horse because my horse is a good mate. I tell him everything and he just stands and listens … I love caring for him, … everyone loves him, I love him…I love hearing, you know, your horse is beautiful…you get to show them off all the time.

She also said,

He was a man’s horse [when we first bought him] so he loves women and he loves the attention…and he loves a good bath and a scratch (and mum added, “and he’s responding to it”). And he’s only just started to whinny and things like that, … and he loves the attention. He’s very smart at opening gates…

6.3.2.2 Horse characteristics

When asked about their horses, the riders’ reply usually included the name of the horse and its colour first. Breed was virtually never mentioned unless asked for. Age was often mentioned. Much more important to parents seemed the temperament of the horse and this information was always volunteered. Parents preferred a quiet, safe and trustworthy horse and one the children could handle.
One parent said about their horse, “He was quiet and educated and didn’t do anything wrong.” A young girl said she liked her horse “…because he wasn’t cranky all the time.”

The riders generally preferred horses that did specific things for them such as trotting over cavaletti poles, canter on command, jumping or sporting. The son of the zone 12 president said, “He’s a good showjumper and all rounder…” and Dad intervened with “…but he was quiet and reliable.” Another young girl described her horse, “She’s a big chestnut and she’s got a little triangle sock on her and the rest of them are white socks.” An experienced rider said of her mare, “I like how she is a good dressage horse. She hardly plays up. And she looks ok.

6.3.2.3 Choosing the right horse

The choice of a horse for purchase often hinged on a friend’s advice or someone who was considered a good horse person. A horse bought for a young child was usually known to be suitably quiet and proven at pony club. Such quiet horses were often old, and could be difficult to find. One probationary instructor mum said of finding a suitable horse for pony club,

That is very difficult, there’s just not enough around. Usually people, um word of mouth or in the paper, horse dealers is always somewhere people usually go to have a look. There’s a lot of people saying horses are suitable for kids, … but they quite often look at just the size, nothing else. And we’ve had a few come through here [local pony club] that have had to go through a couple [of horses] before they’ve got something suitable. And it’s very discouraging for the kids.

The first pony a child would start pony club on seemed to have the qualities described above. One mum, who had been a member of the same pony club as a young girl said, “Buddy was her first little horse, we were given him. He was well into his thirties, they used to just ride him around. They [the kids] got him when they were three and we started coming up here [to pony club] when they were five or six.”

As riders progressed in pony club, their demands on the horse appeared to change. This trend often became apparent when parents were asked about the suitability of a horse for pony club activities.

I think, with pony club it depends on the child, too. If you’ve got a little one it doesn’t matter so much what the pony looks like – as long as it’s sound and quiet and suits that child; they’re not out there to win. As they get older, I think the kids pick a certain discipline out and they want a horse that would suit that discipline. …But I like and all rounder horse.

Another mum comments on her daughter’s new horse, ”For Christmas last year we bought Pippie…At the right price and colour [palomino]. Unfortunately she was a mare…I don’t like mares. They come in season, they’re piggy, they can be arrogant sometimes. They’ve just got a mood of their own.”

Size of the horse seemed important to parents and riders. One mum said, “Well she started off on a pony and she went onto a galloway [small horse, but taller than a pony]…My eldest daughter, well, she’s on a Thoroughbred … A lot of them go from ponies up to Thoroughbreds. A lot of them like getting into jumping and dressage, things where they need more Thoroughbreds … they’re bigger and faster…”

6.3.3 Horse Health

6.3.3.1 The healthy horse

Most participants had something to say about horse health. Although it appeared, that they had never actually given horse health as such much thought. What horse health meant was obvious to most participants. Hesitating, one mum admits, “I’m sort of stuck for an answer there.” To others it meant looking after the horse and that the horse wasn’t sick. Everyone agreed that the healthy horse should have bright eyes, shiny coat and a good appetite, good body condition and normal behaviour. One mum said, “Well, the horse’s health is important, because … if it’s not fit, you can’t do much with it. As we’ve found out with our big horse [injured and lame].” Another mum said, “…but, um, well they’re healthy. Their coats are shiny, their eyes are bright, em, they run away when we try and catch them. They eat everything we give them.” An instructor said, “Horse health … probably the way the
horse is kept, the condition of the horse, the way you look after the horse.” One mum, who is enrolled in a tertiary Equine Science degree and a student with the author, said,

I don’t think enough people know about what they should be doing. There’s too many mixed messages coming from different sectors. And I don’t think that a lot of horses are getting the care that they should be getting. Has to be an overall thing and the people don’t realise that they think just feeding it is virtually all that needs to be done for horse health. And hopefully with pony club a lot more people will get a few more messages. I don’t know that the instructors really get enough information themselves or enough training along the lines of health. …A lot of the direction with instructors tends to be more the riding side and not enough emphasis is put on the horse’s health.

One participant said, “What does someone in your position [the author] consider a horse in good health might be totally different from what we see every day of the week.”

Participants were asked, how they knew their horses were healthy. When something was wrong ‘they just knew’ because the horse wasn’t himself. Other participants mentioned more specific signs of illness such as change in temperament, coughing, skinny body condition, off its feed, poor coat. A 10 years old girl said, “My horse’s got a cold. I know that cos she’s got white stuff in her nose.” Mum corrected her by saying, “That’s only just because it’s cold weather, darling. He only gets that a little bit in the morning…” A 6 years old girl said she knew her horse was sick, “[When he was] off colour.”

6.3.3.2 Horse health problems

In response to asking about the kind of problems they had encountered with their horses participants varied in their answers. One mum and 10 years old daughter responded together,

Yeah, founder. When we originally got him on the central coast he foundered once when he was only three and then we were able to keep it in check. On the north coast we only had the Kikuyu grass and didn’t seem to fatten and have a problem. …but as soon as we came down here [Southern NSW] with the change in the season of rain and the different grasses he just foundered in the middle of winter on the grass. …So we keep him locked in a smaller paddock at night and regulate his feed.

Another mum from a different club said, “A lot of ponies get founder here, especially with the spring grass…[Laminitis and founder are] a major problem of ponies around here.”

Colic was another problem mentioned frequently, usually in association with severe signs of disease, the great degree of pain the horse was in and also the death of a horse.

6.3.3.3 Prepurchase examinations (Vet checks)

Soundness of the horse in question was not mentioned often. Pre purchase examinations of horses came up when discussing soundness on only two occasions. One participant involved was unsure however what such an examination involved. The participant, an instructor said,

“I’ve never actually had a vet check. I’d recommend anyone to get one that’s not into horses…you can pick it [soundness problems] up yourself, a lot of it. …But you can get caught out. The best of us can get caught out.” She also mentioned,

I think that’s probably not a bad idea [a vet check], but see if you can find a fault first. And it depends entirely on the price of a horse, too…if you’re gonna spend a few hundred dollars, well you could probably sell it again [laughs]. If you’re in small town, too, people generally know people and you can find out whether they’re pretty genuine people or not. …But not everyone’s out there that’s pretty genuine.

Another participant with a background in horses said of her recent experience of purchasing an unsound horse, “I was going to have her vet checked, but my stupidity – I took the person for being of good character … why would they want to rip me off?” One mum with a horse background reflected about purchasing their new horse, “Well, learning now, after the Equine Study [Goulbourn Ovens Tafe Course] I should have looked into her health and fitness and bone structure a lot more… [Then again] with health and bones structure there couldn’t have been anything wrong, cos she was a baby [2 years old].
6.3.3.4 Routine health care

Routine health care of teeth, feet and drenching for worms came up in virtually every interview. A mum, whose father is the zone chief instructor said,

“Well, … I think it is every three to four months they get a drench whether they need it or not. And, um, we have the farrier when … they’re in showing and stuff like that they’re always shod and [we] make sure their feet are quite well. Because the creamy horse has been foundered before.”

6.3.3.5 Seeking advice on horse health related matters

When looking for advice on horse health related issues, participants mostly asked other horse people first for advice. One mum with horse experience said what she would do in case of health problems, “In a really desperate sort of situation, I’d ring the vet. After I’d have probably talked to [a friend]. But work out sort of on my own [first].” The zone president said, “Fix some things myself, things I think I can do. That doesn’t always work. [We get the vet] only for very serious things…You have to prompt [the vets] to get the info.”

The quality of advice was judged by how well the adviser’s own horses looked. It was also possible that advice was judged as ‘right’ if it confirmed something they had heard elsewhere, it sounded ‘right’ or was something that had worked for others. Sometimes it could be difficult to decide on which advice to take as everybody has a different opinion, and there are a lot of opinions out there. The odd participants chose to ring their veterinarian for advice. The farrier was often mentioned as a source of advice, especially with problems concerning founder and feet in general. An instructor said, “I’ve had the farrier to her [lame horse], cos he was cheaper [than the vet] …and probably knows as much as the vet.” The same instructor later said about knowing if a person was knowledgeable about horses,

“They’ve generally been around horses all their lives too. And they’ve generally been ones in pony club. Generally they say the same things that you’re thinking anyway. So it just reassures you.”

Some pony clubs had occasionally invited the farrier or the horse dentist to give informative talks to the riders. However, several participants mentioned the lack of theory provided by pony club, and that they should produce a book about horse health or perhaps write an informative article in the pony club newsletter. One dad said of learning about horse health at pony club, “What I’d like more here, over at [another pony club] dentist people come. We’ve never had it here. They don’t cover the health side of things real well.”

Many participants mentioned books and horse magazines as a source of advice as well as listening to ‘the old blokes’. A dad with three girls said, “I read a lot.” One mum said of her eight years old daughter, “She’s had every horse book out of the school library.”

Several participants had a regular adviser whom they relied on for information. Such an adviser could be ‘Wendy’, or ‘the neighbour’, or old Jack Heath, who appeared to have developed a trusting relationship with the participants. Common sense with animals was referred to often when asked about health problems.

6.3.3.6 Horse health professionals

Participants were familiar and often mentioned professionals, such as chiropractors, dentists, farriers and veterinarians in a variety of contexts. A parent said, “I call a vet, farrier or chiropractor, depending on the nature of the problem.” One parent, an experienced showjumper, called a chiropractor when, “Horse is not lame, but sore somewhere, not bending properly or, just sore. Sore in a hind leg or muscular problem, sore in the back…”

In one situation a chiropractor was always consulted first because he did not charge in case no treatment was required. The veterinarian on the other hand always charged for a visit. Veterinarians
were sometimes mentioned in context with ‘disasters’ such as death from blocked bowel, or liver failure and banging its head on a steel post from Patterson’s Curse poisoning or too expensive. One young rider said, “…but the vet didn’t really know what it was.” Involving a veterinarian appeared more difficult for members of one Pony Club, who had no access to a local veterinarian. In fact most participants would see if they could do something about a problem first before consulting either a friend, horse person and often as a last resort, it seemed, a veterinarian. An instructor said,

It would depend how bad it is. If something was wrong, and I was unsure…I’d ring up a friend, that I know is pretty knowledgeable, just for a back up, or another opinion. I don’t get the vet out until last resort. Unless I think I need the vet, only because they get very expensive. Or the farrier, if I think it [the problem] might be something to do with the hoof that he could fix. …But always double check with a friend, I think!

There were, however, some participants who said they would ring the vet for advice first and also as soon as a problem occurred. One participant said, “You don’t know what you don’t know until you ask”.

6.3.3.7 Learning about horse health

Certain participants did not think they needed any information. They had been in the horse game for so long, that they had accumulated considerable experience. They also said there were so many people to ask about things, there was no excuse for not doing things properly. Learning about horses as you go seemed an acceptable way to ensure horse health. One participant felt differently. She said,

“Well, through doing my course [BAppSc (Equine)]. Well, actually a lot of the reason I’m doing the course is because I just, even though I’ve been with horses so long, there are major, major gaps in my knowledge.”

Feeding horses was consistently mentioned in one way or another and also as something participants wanted to know more about. Advice on feeding varied and this could be confusing to parents starting out with horses. One mum without previous horse experience said,

…somebody mentioned bran was good to put weight on [the horse] and then when I read about it, it said, bran can also act as a laxative. And I said to Amy, …that would be no good. As fast as you feed it, it’d be going out again. …I think I read that pollard is good. So we had her [the horse] on pollard for a little while… Then we heard, that pollard can make them cough and get into the lungs a bit. So she’s gone off the pollard again. And through where we buy our stockfeed, through asking, I know coprice is very good, but makes them a bit hot. We’ve now got onto this – I’m not sure what it’s called – a greeny sort of substance. And that’s put the weight on [the horse]. But it doesn’t make her hot, so that she misbehaves.

Several participants were interested in fitness related issues such as how to train horses for fitness, how to condition horses, more about the pressure on limbs during eventing, how to train muscles. One mum said,

How to get a horse fit. What’s the right way of going about it. Not too quickly. ….We know we have to warm them up. We know we have to cool them down. Teaching the kids more about that, too. Because sometimes kids only bring their horses to pony club, they ride, ride, ride, ride. [Then] take them home and forget about them for the next two weeks. And then jump back on them … if you’ve got a horse that’s a bit inclined to tie up, …that’s the best way to tie a horse up…and the parents too. You can’t treat them as a convenience to use. They have to learn about the proper way of care and maintenance of their horses.

There was also much interest in teeth and laminitis (founder). One parent said, “We’re very wary of founder. It’s very painful, like gout in humans. It ruins a horse.” A ten years old girl said, “A few ponies at pony club have founder.” The president of one club commented on her experience with founder, “Founder is a big problem…[you have to get the horses] off the green clover…the neck goes all hard and they go stiff in their legs.”

Another theme that recurred was how to look after old horses. One mum said, ‘I would like to know more about] the best thing to do for older horses. A lot of pony club horse seem to be old.”
Drenching horses was mentioned frequently in association with health of the horse, but less in the context of wanting to know more about... However, different drenches and which ones to use when and why was raised by one participant.

Other health problems mentioned reflected a recent experience and were often only mentioned during one interview. These included colic, oestrus behaviour in riding mares, monitoring health and interpreting heart rate and rectal temperature data, natural horse care, and the effects of apple cider vinegar on arthritis.

One mum said, “I half may be on the topic of colic and etc because it is a recent thing that’s happened, and, you know, its something that’s fresh in my mind... I don’t want anyone else to have to go through it, because it’s just quite a cruel thing. And whether my ignorance caused any of it – I don’t think so. But it’s always in the back of your mind that maybe you were the cause.”

Frequent reference was made to sore backs and horse ‘getting cranky when tightening saddle girths, and dipping their backs when the rider mounts up. One parent with horse experience said, “...not riding it [the horse] properly will hurt its back.”

6.3.3.8 The cost of keeping horses

The cost of keeping horses was occasionally mentioned. In one case the rider decided what was needed for the horse and mum paid for it. Either rider or parent could make decisions about horse health. One mum said, “That’s where the money comes in. Whether it’s a vet bill, whether it’s a feed bill, whether [my daughter] needs more gear…” Another mum, belonging to a small club in a rural town 40 km out of Wagga Wagga said,

Money is a big thing too. Some kids just don’t have the opportunities [to go on with horses past pony club]. It’s very expensive, riding … We’re lucky we live on a farm. In a lot of towns there’s just not the little paddocks around that used to be [for keeping horses] … now people build houses … there’s just not the room. People charge a fair bit of agistment. Plus by the time you find a paddock, buy a horse, horse float, and all the gear. ... Pony club fees are cheap, but I’d hate to start from scratch. ... That turns a lot of people off. ...There’s not near the number of kids riding that did back when I used to ride. ...Everyone’s so busy.

6.3.4 Horse Performance

6.3.4.1 The well performing horse

Participants had nowhere near as much to comment about horse performance as they did about horse health. Performance generally meant that the horse was forward moving and willing, and could do the things asked of him. A horse was performing well so long as the horse did as he was told and kept the rider happy. An eight years old girl said, “[He performs well if] he doesn’t go doing naughty things and he’s behaving very well.” One mum said, “Behaving at pony club gymkhanas and shows.” Another rider said, “...[the horses] don’t perform well when they haven’t been ridden for a while and don’t listen to you.” An experienced rider said, “Sometimes she [the horse] can be a fair little pig...she wouldn’t work properly.” An experienced rider said about performance, “…whether the horse is fit enough to do what you ask them to do...Whether you’ve trained it up enough.” An instructor said, “It depends on the discipline. And it would have to be performance that would look good for that discipline, whether it’s one-day-eventing, they would have to be more fitter than this show on Friday.” One 12 year old girl, who had grown up with horses said, “I don’t know what it [performance] means.” One mum commented, “Well, pony club horses really don’t have a hard life.” Some participants were also asked what a horse did when it performed well. Similar to responses about horse performance, participants felt a horse performed well, when it did as asked by the rider. One ten years old girl said, “He doesn’t muck up and put his head down all the time. And he trots when I ask him to and canter and slows down when I pull on reigns and all that.”

Other participants could not think of anything when the word performance was mentioned. When the word achievement was used to follow up on performance, participants often related that back to their
achievements at becoming more knowledgeable about horses or riding. One mum responded, “Well [my daughter’s] learning to jump a little bit. She’s learnt to ride a lot better on her [the horse].” The 6 years old daughter interrupts, ‘I learnt to ride by myself. I don’t need anyone to lead me any more.” It was often stressed that winning ribbons at competitions wasn’t everything. One 5 years old girl commented that achievement meant, “How to look after them [the horses].” Dad added, “…a sense of responsibility.” Many parents said, “Confidence [with horses]!” when asked about their children’s achievements.

6.3.5 Pony Club related matters

6.3.5.1 Fun and support

The riders commented consistently on how much fun Pony Club is, the friends they make and on the many different activities available. An experienced rider said, “It’s fun. We do a lot of things.” Mum added, “…You’ve met a lot of people.” Another mum said,

…Plus discipline, you have to do what you’re told. It’s like school on horseback. And the encouragement too, for the kids. Especially the kids that don’t have the money to go to a show or gymkhana or don’t have floats. They encourage everybody…And you can ride up on the hairiest, ugliest looking thing and nobody says anything awful to you. Because that’s what pony club is about. …basically, … fun and learning horsemanship.

One girl, who had been at pony club for 2 years, said, “I like the way how people are kind and … how they look after you. They help you learn other things to join in and they make it fun for you.” One parent said, “[Pony club is] a good place for children to learn to get on with each other and to take losing as well as winning.” The parents and riders also commented that pony club had boosted their confidence with horses and riding ability. Safety was a major issue at pony club.

6.3.5.2 Social aspects

Pony club also is a social gathering opportunity for parents. One mum said, “The social side’s good. …It’s just a great hobby, I love it. And I go to the meetings and I’m vice president of the club. … It gives you more confidence too, as a parent too.”

Parents also mentioned the social skills their kids acquired by being an active member of a pony club. Most of the pony club riders were girls and the attending adult was usually mum.

One mum said of her son, ”He went for quite a few years [to pony club], but there wasn’t a lot of boys. He … enjoyed the sporting side. But he didn’t like the flat work very much, which a lot of boys don’t.” Another mum said, ‘Football and motorbikes … I think the trouble is there’s not many boys [in pony club] they probably think it’s more a girl …”

One mum on the other hand didn’t get a lot out of it. She found it tiring to be the only available instructor in the club, a probationary one at that, and had 10 kids of different abilities to cater for. One 12 years old girl said, when asked how long she could see herself at pony club, “Till it gets a bit boring…I’m a bit old.” Mum agreed,

6.3.5.3 How long do they stay at pony club?

“[My daughter] is at that stage where she can’t go any further at pony club. She needs either to get into the actual gymkhanas, which at this stage we can’t do because we haven’t got a vehicle to tow the float. She’s learnt as much as she can learn at this stage at pony club. Or go to other pony club days and see what other pony clubs do.”

Another mum commented, “My oldest daughter …she’s sort of done year 12 last year, and she sort of doesn’t have time to ride now.” Another mum commented, “Well usually girls, by the time they get to 15 or 16 they either stay with horses or they go boy crazy.”
6.3.5.4 Other benefits of pony club

Some participants wished pony club received wider publicity and attracted more members. One participant said pony club had brought her closer to her daughter, others said it kept the kids off the streets. Others still saw Pony club as a sporting activity.

One parent said, “I hope she [my daughter] gets our of pony club what I got out of it when I was young. That was probably the best years of my life with pony club.” One mum said of her involvement in pony club,

I never wanted to be an instructor to start off with. But they find the need now. The families are drifting away as the children get older and go off and do something else. So they need fresh parents to come through and partake. And by doing that and obviously having a little bit of knowledge of horses, you can pass it on to children.

One mum said, “Pony club’s a cheap way to for children learning to ride. You don’t have expensive [private] lessons… They pay the annual fee [about $25] and the kids get all the lessons for the whole year.”

6.3.5.5 Horse health instruction

Participants commented in general that pony club helped their children with riding and horsemanship but when asked what it taught about horse health, ‘not much’ was the general impression. Some participants mentioned they learnt what to feed it and to name the parts of a horse. Few participants were aware of the publication ‘Riding’, specifically written for riders.

6.3.6 Outcomes desired by participants

Participants were asked what they wanted to gain from the study. Responses in this group included to learn more about horse health, what we can do to prevent things from happening, just to learn and have fun participating, more about ‘how a horse functions’, feedback from Yvette Brockwell’s’ Honours project (Charles Sturt University), blood sampling and injections, monitoring how their new young horse would change over the study period. One probationary instructor mum said of what she wanted to learn more about, “Probably actually in the [horse’s] body itself. How does the lungs work, how does the stomach work. The bone structure of a horse, what can break down easier…but that’s probably not health, but sort of on that track.” One mum said, “A good medical book for pony club, you know, one that kids can relate to. A lot of the books are too advanced for kids on feeding and veterinary. Something that eight onwards can understand.” Producing a video or a TV show on horse care was also mentioned as a possible outcome.

By the end of the interview, some participants became reflective in their attitude towards horse health. “I think horse health is something no one knows a lot about really”, said one parent.

One dad commented, “We didn’t know anything about horses and took advice from a bloke [next door] who’d been around horses all his life, knew about them, but as it turned out that wasn’t the case…He mixed a concoction and the horse dropped dead the next day.”

6.3.7 Regional differences

The investigators observed some differences between responses from the Brisbane and Wagga Wagga clubs. Skin disease was an important health problem in subtropical Brisbane, but not in temperate Wagga Wagga. Queensland itch, rain scald, and tick infestation were key issues in Brisbane.

More emphasis was placed on competitiveness in young riders in metropolitan Brisbane but less in rural Wagga Wagga.

i Ms Brockwell conducted a cross sectional study in the Wagga Wagga district in 1997 to characterise the internal parasite burdens of 500 pleasure horses. This study involved many pony club horses.
Two of the clubs in Brisbane stood out for the close working relationships participants had with their veterinarians. The veterinarians here were held in high regard, and performed annual vet checks and vaccinations on pony club horses. Participants enjoyed having veterinarians explain things to them. For one club, the veterinarian had visited pony club on 4 occasions the previous year and given health related talks. Participants seemed well informed about laminitis and referred to informative handouts from the University of Queensland.

**6.3.8 Hypotheses generated by the investigators**

An important outcome of qualitative research is the *induction* of ideas or hypotheses. This is different to quantitative research, where hypotheses are proved or disproved (*deduction*). From the results of phase 1 we have induced ideas about H&P in PC horses (table 2). These will be tested further in a subsequent study.

In addition to the hypotheses in table 2, we have represented our ideas as causal webs (figure 1 & 2). These are diagrams showing the complex interactions of factors likely to determine a certain outcome. The outcomes *we* are interested in phase 2 of this study are horse health and horse performance. The factors shown in boxes are those we think *may* predispose pony club horses to sub-optimal health and poor performance, *based on results from phase 1*. These factors will be tested in phase 2.

*Table 6.3.8.1: Hypotheses induced by the information gathered in phase 1*

<table>
<thead>
<tr>
<th>Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pony club owners learn about horses by trial and error</td>
</tr>
<tr>
<td>2. The veterinarian is seen as an animal disease expert, not an animal health expert</td>
</tr>
<tr>
<td>3. Veterinarians have minimal impact on H&amp;P of pony club horses due to 2 above, but could potentially have a large influence.</td>
</tr>
<tr>
<td>4. The PC horse is a friend to its rider. It is not kept for financial gain.</td>
</tr>
<tr>
<td>5. The performance of a PC horse is defined as its ability to perform the tasks asked of it.</td>
</tr>
<tr>
<td>6. Poor performance means a horse misbehaves when being asked to respond to riders’ commands.</td>
</tr>
<tr>
<td>7. Horse health is defined as the administration of basic health care to a horse. This includes nutrition, routine vaccination, foot care, and teeth care.</td>
</tr>
<tr>
<td>8. Body condition is an important indicator of horse H&amp;P</td>
</tr>
<tr>
<td>9. Horse temperament and appearance are the most important purchase criteria, surpassing soundness.</td>
</tr>
<tr>
<td>10. Horse temperament is the most important key issue affecting the owners of PC horses, followed by nutrition, foot care, dental care, laminitis and back problems.</td>
</tr>
<tr>
<td>11. Owners of pony club horses are generally eager to learn, but are confused by the many different opinions offered on horse health matters</td>
</tr>
</tbody>
</table>
Figure 6.3.8.1: Putative risk factors for sub-optimal health in pony club horses

The risk factors highlighted will be measured in phase 2 as they are believed to represent key factors in determining an outcome of sub-optimal horse health. This choice was largely based on results of phase 1.

Figure 6.3.8.2: Putative risk factors for poor performance in pony club horses
The risk factors highlighted will be measured during phase 2, as they are believed to be important in determining an outcome of poor performance in pony club horses. This choice was based on ideas generated during interviews with participants. Note that ‘misbehaviour’ appeared the single most important factor ‘when a horse didn’t perform well’, and will be used as a surrogate measure for poor performance in pony club horses. (Note, that sub-optimal health is also a cause for poor performance, but is considered separately at this stage).
6.4 Discussion

The in-depth interviews have delivered outcomes that would be impossible to achieve with traditional methods. We realise that researchers trained in quantitative methods can initially be somewhat uncomfortable with qualitative data, and to enable full appreciation of the results, some discussion of our methodology used is necessary.

It is important to realise that research rigour, and issues of reliability and repeatability apply here as they do in quantitative research.

6.4.1 Sample size

Our study used a purposeful sampling approach (Patton 1990). This means that the number of interviews to be conducted was not statistically determined, but was governed by the data that emerged. This means that the interviewer needs to be aware of new and repeated data, interview by interview, so that when no new data emerges (some disciplines call this ‘closure’) the sample is complete. Putting this a different way, once responses from different participants to central issues repeated themselves, this was taken as an indication that the breadth of that particular issue had been adequately explored.

The number of interviews conducted was also governed by the number of pony clubs in Zone 12 of NSW and the number of clubs who volunteered in Brisbane. Members from all 8 Wagga Wagga clubs were visited to detect differences between clubs. The number of volunteers present on a given pony club rally day also affected who was interviewed. Although participation meant missing out on pony club activities, we believe this was a fair trade off as people enjoyed the experience.

6.4.2 In-depth interviews

From listening to participants we gained a wealth of information about horse health related topics, which was relevant to our aims for this study. The first question (‘tell me how you got involved with horses’) usually resulted in a steady flow of information. Interviews were of a conversational style, as participants ‘told the stories from their perspective’. Comments from the investigator were restricted to in-depth explorations (called ‘probes’) of issues already mentioned by the participants (eg, ‘…you mentioned the chiropractor - could you please elaborate?’) and asking the preset questions when an opportunity presented itself. This technique avoids asking leading questions and minimises other researcher-induced influences on participant responses. Considerable interviewing skills are required to achieve this and ensure validity and repeatability of data collected.

For readers unfamiliar with in-depth interviewing, it is worth mentioning that the conversational process is intentionally subjective so that it enhances the quality of data obtained. However, the interviewer must also maintain a neutral tone and response in the conversation to minimise response bias – meaning that all care is taken not to convey a personal opinion type reaction to any answer. Overall, the method ensures that all topics are covered, the data is rich and reliable. This happens when the flow of conversation is determined by the person being interviewed. This process is also called semi-structured interviewing: the structure being to make sure that all questions are covered (albeit covertly), but that opportunities for unexpected information to be revealed is also enhanced.

Horse terms (jargon) were used when appropriate because this was the language that participants understood, but care was also taken no to let this familiarity bias the response. The risk was that had participants known that the interviewer was a veterinarian, they may have changed or even withheld responses. In qualitative research this is a real risk and Patton (1990) cautions researchers to minimise ‘participant reactivity’ in the interview process. The recommended approach is to use the ‘naïve interviewer style’ where the interviewer plays the uninformed role instead of wearing their real life hat. Were this not done, it is likely that otherwise much of the information collected about veterinarians would not have emerged. Based on the researcher’s experience, the number of interviews conducted on any one day was limited to four. When more were attempted, it became increasingly
difficult to remember which questions had been asked of which participant. This problem was exacerbated by the free flowing nature of the interviews.

As a final discussion point, organising, conducting and analysing the interviews took nearly a year. Over that time the investigator developed a close rapport with members of pony clubs. This augurs well for phase 2 – the epidemiological process that will involve detailed quantitative measurements of pastures, diet, housing, health care, exercise, as well as requiring close cooperation of owners and riders. Thus phase 1 and phase 2 are complementary – each needing the other to provide the whole picture of pony club horse health and performance.

6.4.3 Key issues of importance to horse owners

Participants used a variety of terms to describe key issues. For instance the theme ‘nutrition’, encompasses words participant used such as feed, eating, lock him up in spring, diet, body condition, and grass, clover, oats, seaweed meal etc. Similarly, founder was used instead of the technical term laminitis. The theme dental care embraced terms such as teeth, dentist, problems chewing etc. Foot care meant feet, farrier, shoeing, and trimming, back problems meant biting when saddled, sore but not lame, sore back, and chiropractor.

Horse behaviour has not previously been identified as an important issue in terms of horse health (Kaneene; Ross, and Miller 1997). This is not surprising, because the use of structured questionnaires used frequently in other studies, limits participant responses. The kind of information obtained from in-depth interviews is ‘richer’ in detail than that obtained from a structured questionnaire. Qualitative research methods (such as in-depth interviews) appear valuable in ‘setting the scene’ for and enriching quantitative epidemiological research. They are also better able to deal with unexpected information.

The key issues mentioned, eg colic, invariably reflected a problem that participants had actually encountered, or involved an activity they were familiar with (eg shoeing, feeding, teeth rasping). As such, responses by participants did not involve speculation on what could be an important health issue, and this strengthens the validity of the data. However, the need for prior exposure of participants to a problem before realising it is a ‘key issue’ raises concerns. It may be difficult to convince horse owners of the importance of a health problem unless they have had personal experience with it. This has enormous implications for extension of knowledge to horse owners, but also for research design.

It is self evident from the results, that the pony club industry is unique and certainly different from the racehorse industry. ‘Wastage’ in the thoroughbred industry results from economic loss due to lameness or respiratory disease, and minimising economic loss is a major aim in this industry (Bailey 1998). Financial gain is not an incentive in the pony club industry, but enjoyment, fun, filling in spare time, making friends, and perhaps winning a ribbon are. Most pony club horses are not athletes, and spend much of their time in paddocks.

Due to this difference in demand on the horse, any health or performance problems are likely to reflect the manner in which these horses are kept. For example, we were surprised to find so much emphasis on horse behaviour (temperament), which was an important purchase criterion as well as an indicator of horse performance. This clearly demonstrates a need for well mannered, safe, sociable and willing horses for pony club activities. At the same time, it is quite different to the thoroughbred industry, where difficult to handle or even dangerous horses are tolerated (eg, breeding stallions) as long as there is substantial financial gain.

Other health problems such as laminitis and sore backs and colic have highlighted a need to target preventative measures. The mention of feeding, general foot care and dental care has highlighted, that basic management needs addressing.
7. Appendix 2 - Study plan for phase 2:
A prospective longitudinal study of health and performance in pony club horses

7.1 Overall Objective
To assess H&P of PC horses and to identify constraints and opportunities to solve key industry problems with the involvement of PC communities.

7.1.1 Sub-Objectives

1. To identify and define objective measures of optimal H&P, relevant to the PC setting and using the information from phase 1.

2. To assess H&P in a defined cohort of PC horses in Zone 12 of NSW over a 12 months period using a monthly veterinary examination and detailed records kept by participants.

3. To measure key variables related to the general care of each horse and identify risk factors for sub optimal H&P using statistical analysis.

4. To determine opportunities for improving horse H&P through measuring the effect that modifying risk factors has on optimal H&P.

7.2 Study Design
Phase 2 constitutes a prospective longitudinal study.

7.3 Study population & unit of interest
The study population for the current research includes all the pony club horses in Zone 12 of NSW. The unit of interest is the individual horse.

7.4 A representative sample
Multistage sampling (table 8.4.1), which is random in the enrolment of individual participating families, will be used to obtain our defined cohort of pony club horses.

7.5 Enrolling of participating families and the horse cohort
The primary sampling stage was undertaken to select a regional unit of the pony club organisation. The second stage of sampling was undertaken to select participating families. The third stage of sampling was undertaken to select our pony club horse cohort.

7.5.1 Second Stage of Sampling: Selection of participating families
A family was eligible to participate if it met the following criteria. The family surname had to be listed on the active year 2000 membership list for zone 12 pony clubs. The family had to have at least one child, who was an active riding member of one of the 7 eligible clubs. It was possible for more than one child per family to be an active riding member. An eligible family also had to own, lease or have exclusive access to one or more horses for the purpose of pony club. Families were enrolled by telephone.
A participating family was defined as one, who met the eligibility criteria and agreed to participate at the time of enrolment. Selection of families was based on the list of surnames on the active year 2000 membership list for zone 12 pony clubs. Computer generated random numbers were used to select 50 families from this list. The number of families selected from each of the 7 clubs was chosen in proportion to the total members in that club and in the zone.

### 7.5.2 Third Stage of Sampling: Selection of pony club horses

Eligibility was defined as a horse that was owned, leased or exclusively cared for by that family for pony club purposes. A horse was ineligible if it was cared for and / or regularly ridden by someone outside the family and / or used regularly for purposes other than pony club. If a family purchased a replacement horse for its child(ren) that met eligibility criteria, then this horse was eligible as a late enrolment. Eligible horses were enrolled at the time of the investigators first visit.

**Table 7.4.1: Summary of the multistage sampling process for the defined pony club horse cohort of phase 2 of the current study.**

<table>
<thead>
<tr>
<th>Stage of sampling</th>
<th>Sampling technique</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Stage of Sampling: Individual Pony Clubs</td>
<td>Convenience, located within 50 km radius of central Wagga Wagga</td>
<td>Wagga District PC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lake Albert PC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bidgee PC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Junee PC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The Rock PC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Marrar PC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coolamon PC</td>
</tr>
<tr>
<td>Second Stage of Sampling: Families (surnames)</td>
<td>Random sample, using the current Zone 12 membership list for 2000</td>
<td>50 Eligible families</td>
</tr>
<tr>
<td>Third Stage of Sampling: Horses</td>
<td>Based on eligibility criteria</td>
<td>Horses whose principal purpose is ridden pony club activity, and that are not involved in regular riding activities by someone outside the family and / or for purposes other than pony club.</td>
</tr>
</tbody>
</table>

### 7.6 Data collection

#### 7.6.1 Dependent (Outcome) Variables

The dependent variables were horse health and horse performance. We developed case definitions for a healthy horse, a well performing horse, and a sick horse.

1. **A healthy horse** was defined as having a condition score of >2 and <4, was bright, alert and responsive, and was free of clinical signs of disease.

2. **A well performing horse** was defined as one able to be ridden by its usual rider for purposes of pony club without showing clinical signs of disease and / or without misbehaving.

3. **A sick horse** was defined as one, which was reported to show clinical signs for 2 or more consecutive days. These signs could be observed by the family or by veterinary examination. Clinical signs for the purpose of this study referred to signs of abnormality that could be detected by a lay person. Signs included lameness (visually detectable gait abnormality or reluctance to move), respiratory signs (coughing, nasal discharge), skin complaint (hair loss, growths, skin
lacerations, pruritus, scab formation), gastrointestinal signs (colic, diarrhoea), sore back (aggressive behaviour during saddling and grooming, sinking when rider mounts, pain on palpation).

The dependent variables were measured in the following manner. The condition score of the horse was visually assessed, based on a scale of 1-5 (Huntington 1991). Clinical signs observed by the family were followed up with the attending professional where possible or at the monthly visit. Absence of clinical signs was determined by veterinary examination or by clarification of owner diary entries. Suspicion of a sore back was followed up at the monthly visit to check for a pain response to palpation (Martin 1999). Misbehaviour occurred if the horse bucked, reared, pigrooted, bolted, bit or kicked the rider or other horses during the period of saddling up, riding, and removing tack.

7.6.2 Independent Variables

The independent variables included experience with horses, diet, housing, exercise, and general care provided.

Experience with horses was determined by the level of current parent involvement with horses (passive supporting children, active riding, instructor), and the duration of the rider’s involvement with pony club.

Diet was assessed in two parts: pasture and supplemental feeding. Pasture assessments included stocking rate (number of horses per hectare), composition (200 visual observations to give an estimate of % grass, clover, weed, dead and bare), and available biomass (average kgDM/ha based on dried cuts from 3-5 representative 0.5m x 0.5m areas of the paddock). Supplemental feeding was assessed based on the quantity in kilograms (using hanging scales\(^1\)) and quality of the last feed and the frequency of feeding (no. days / week), as well as an estimate of the % daily energy contribution from the supplement to the total daily requirement for the horse. Daily requirements were calculated using the following formula: for horses weighing between 200-600 kg: DE = 1.4 + 0.03 BW(National Research Council 1989). Where DE is the digestible energy in Mcal / day, and BW the animal’s live weight measured on portable electronic scales\(^{ii}\).

Housing was determined at the monthly visit, based on family recall of the most recent 7 days. Housing was measured as the number of days the horse had access to pasture, the average daily hours spent in a stable and the number of days / week where part or all of the day was spent in a stable.

General care provided was determined by monthly diary recordings of the family. We assessed general care by the frequency of routine health procedures (foot care, dental care, vaccination, deworming, and routine veterinary checks).

\(^1\) Salter Weigh-Tronix, Model 235-6S
\(^{ii}\) Ruddweigh, KM3 Basic indicator with G3 split lightweight platform for horses
Table 7.6.1: Data collected about the nutrition, housing and status of health of enrolled horses

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement</th>
<th>Recording</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition (pasture composition)</td>
<td>200 visual estimates using a ‘wingdinger’ thrown randomly on the pasture grazed by the horse over the previous month</td>
<td>% grass, legume, weed, dead, bare</td>
</tr>
<tr>
<td>Nutrition (available pasture biomass)</td>
<td>50 x 50 cm quadrat placed in 3-5 representative positions on available pasture species, which are cut close to ground level with electric clippers, then oven dried at 60-70°C for 2 days. Dry weight is then converted to kg/DM/ha.</td>
<td>Kg/DM/ha of available pasture</td>
</tr>
<tr>
<td>Nutrition (supplementary feed)</td>
<td>Weighing all separate components in a feed that represents what the horse is usually fed per day</td>
<td>Daily consumption in Kg and DE of concentrates and roughage</td>
</tr>
<tr>
<td>Housing (pasture and stabling)</td>
<td>Questioning family</td>
<td>Time (h) spent in a stable / day, no of days spent in a stable / week, days / week access to pasture</td>
</tr>
<tr>
<td>Horse health</td>
<td>Visual assessment of body condition</td>
<td>Scale of 1-5</td>
</tr>
<tr>
<td>Horse body weight</td>
<td>Weighing animal on portable electronic live weight scales</td>
<td>Kg of Bodyweight</td>
</tr>
<tr>
<td>Health Status</td>
<td>Visual veterinary examination</td>
<td>Presence/absence of clinical signs referable to body system dysfunction</td>
</tr>
</tbody>
</table>

7.7 At the first visit

The first visit was scheduled at the time of telephone enrolment of each family. Eligible horses were enrolled at the time of the first visit according to the eligibility criteria stated above. The visit was conducted during daylight hours. At the first visit, families were trained to use the diary (table 7.7.1).

Table 7.7.1: A sample page of the monthly event diary kept by each family

<table>
<thead>
<tr>
<th>Event</th>
<th>Mon</th>
<th>Tues</th>
<th>Wed</th>
<th>Thurs</th>
<th>Fri</th>
<th>Sat</th>
<th>Sun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riding (pleasure, schooling, competition): Hours per activity: Misbehaviour:</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feeding (yes/no): List feed stuffs: &amp; amount (eg 2 scoops or a handful):</td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Sickness (what and which days)</td>
<td>Cough</td>
<td>lame</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Visits (vet, farrier, dentist, chiropractor)</td>
<td>V</td>
<td>F</td>
<td></td>
<td></td>
<td>C</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Care (vaccination, deworming, teeth, foot care)</td>
<td>V</td>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
7.7.1 Data collected about the family

At the first visit demographic details of the family was obtained. This involved a questionnaire detailing age, sex, current level of involvement with horses (passive, riding, or instructing for parents), and age of first starting to ride and of first joining pony club (for the child). This information was only collected once.

7.7.2 Data collected at the time of horse enrolment

At the time of the first visit, details about eligible horses were collected and included horse age, sex, breed, size, colour and purchase date (if known). Details of horses enrolled late, were collected at the time of late enrolment, which was at a subsequent visit. This information was also only obtained once.

7.7.3 Data collected at the first and each subsequent visit

At the first and each subsequent visit, details of the horse’s housing, nutrition, and status of health (table 3) were recorded onto field sheets, using the family diary. Details about events in the previous month were not collected at the first visit.

7.8 Subsequent visits

At every subsequent visit the parent involved with pony club activities needed to be present. It was desirable that the child(ren) involved was also present for all visits. Following the first visit, 11 subsequent visits were each arranged by telephone and scheduled at monthly intervals. A monthly interval corresponded to a date that could lie 7 days either side of the ideal monthly date. At the start of each subsequent visit, diary entries kept by each family were clarified and recorded. Diary entries included events relating to exercising the horse, visits from horse health professionals, health care provided, supplements fed, and health problems observed (table 2).

Following diary clarification, a visual veterinary inspection was carried out and a brief inspection for lameness at the trot. Clinical signs prompted more in depth examination including palpation, and measuring vital signs, where considered appropriate to allow categorising the presenting complaint for analysis. Body condition was scored at this stage and the horse weighed.

Next an average feed (based on diary recordings) was weighed in its individual constituents.

Next the paddock area was measured in meters, using a Trumeter distance wheel, followed by visual assessment of pasture composition. All data was recorded at the time of measurement. During these paddock assessments the pasture was observed carefully to ensure familiarity for selecting 3-5 representative pasture areas for pasture cuts for the biomass determination.

7.9 Data management & analysis

Data from field records and owner diaries will be managed using the relational database capabilities of EPI INFO version 6, and analysed using SPSS 9.0 for windows. Data analyses will be conducted descriptively (Martin; Meek, and Willeberg 1987), and also using a range of inferential multivariable statistical methods (Altman 1991), including logistic regression and survival analysis.
8. Bibliography / References


