National Equine Health Survey (NEHS) 2014

Report prepared by: Professor Josh Slater (Royal Veterinary College and BEVA)

Date: 29.7.14, updated 19.8.14

Headlines

- Dramatic increase in participation with three times as many people taking part and more than double the number of horses included in the survey. For the first time NEHS has crossed the 10,000 horse target.
- Laminitis prevalence almost doubled from previous years (prevalence in NEHS 2010-13 = 4%, prevalence in NEHS 2014 = 7.1%). There was a near doubling of the number of new cases of laminitis in 2014 (43% were first occurrences in 2014 compared to a quarter (25%) being first occurrences in 2013).
- Lameness was again the most common disease recorded, affecting 1 in 5 horses. The most common reason for lameness was degenerative joint disease (‘arthritis’), affecting 14% of horses. Joint disease outstripped foot lameness by a factor of 3:1.
- PPID (Equine Cushing’s Disease) almost doubled from 2013 (5.6% compared to 3.3%; 170% increase)
- Other trends reinforced: skin diseases remain very common along with wounds; sarcomas continue to be the most common skin tumour but melanoma is also a prevalent problem; grass sickness is not common and, as expected, myopathies (tying up) are not common in the NEHS (mainly leisure horse) population.
- Back problems (suspected or confirmed) continue to be recorded at high frequency.
- First estimate of the prevalence of atypical myopathy in the UK (0.1% in 2013-14).
- Prevalence of obesity remains lower than expected from the literature. More horses were recorded as overweight than in previous years but the NEHS prevalence remains lower than in published surveys. With more than 50% of owners using weigh tapes and >90% monitoring fat scores, albeit mainly by eye, the prevalence of obesity recorded in NEHS appears valid. The discrepancy between NEHS estimates of obesity and other estimates should be investigated further.
- Ragwort was not a significant problem. Three quarters of NEHS respondents said they either had no ragwort on their properties (45% of respondents) or only had to spend less than 1 hour each week (30% of respondents) on ragwort control. Less than 5% of respondents sought advice from their vet on ragwort control, suggesting vets could be playing a bigger role in providing preventive health advice.

Summary

- The sixth NEHS survey ran in May 2014. As with the previous pilots run between 2010-13, the survey was led by the Blue Cross, was conducted on-line and was open to respondents to complete for one week
The format of the survey was similar to previous years with owner-reported syndromic surveillance capturing a snapshot of the spectrum of problems noted by owners for each horse under their care on the day they chose to complete the survey.

Similar disease syndrome descriptors were used as in previous years with some refinements to improve accuracy of data return; for 2014 the syndrome descriptors were grouped into broad categories (eye problems, respiratory problems, internal medical problems, dental problems, lameness and laminitis, skin problems and back problems) to facilitate completion of the survey by respondents.

32 disease syndrome descriptors covering the presenting signs for common diseases and the major body systems were used.

Three descriptors were included to capture data on owners’ perceptions of fat score (condition score): overweight (score > 3.5), ideal/normal weight (score 2.5-3.5); underweight (score < 2.5).

New for 2014, questions were asked about whether respondents measured their horse’s weight, and if so, how. Questions also asked how fat scoring (condition scoring) was done, whether respondents used the 5 or 9 point scales or whether they used visual assessment.

Also new for 2014, questions were included about strategic anthelmintic use for cyathostomin control over the winter of 2013 and which anthelmintic had been used.

Atypical myopathy was another new question for 2014 with respondents were asked to record the number of confirmed Atypical Myopathy cases they had had in the previous year.

2014 saw a dramatic increase in the number of people taking part and the number of health records returned. Returns were made by 3,675 respondents, a three fold increase from 2013, for 11,002 horses, a 2.3 fold increase from 2013 (the number of respondents in 2012 was 1,246 respondents; the number of horses returned was 4,730).

The large majority of horses (88%) were kept either in livery yards or private yards (Fig 1), with only 0.7% kept by equine welfare charities. These data are important because they suggest that the distribution of horses in NEHS 2014 were representative of the general UK horse population and that the disease syndromes recorded can therefore be taken as broadly representative of the national herd.

37% of horses were used for leisure/recreational use. 18% used mainly for equestrianism (eventing, dressage and show jumping), 6% used for showing. 0.2% of returns were made from the racing sector (Fig. 2).

Broad geographical coverage of the UK was achieved, again an important point when extrapolating NEHS data to the national herd.

There was a normal distribution of ages of animals included in the surveys (Fig. 3) with ages being recorded for almost all returns (99.6%).

These points suggest that NEHS 2014 collected data that were valid and representative of the majority of the UK horse industry in the three key areas of age, type of use and geographical distribution.

A major difference in the 2014 survey, presumably reflecting the greater participation from the non-charity sector, was that 63% of horses were returned as being healthy (ie they did not have any of the disease syndromes at the time of survey) (Fig. 4). This compares to 62% of horses recorded as having one or more of the syndromes surveyed in 2013.

The trends seen in NEHS surveys 2010-13 were also seen in the 2014 survey with the results of the 2014 NEHS survey being broadly similar to previous NEHS surveys, reinforcing the value of NEHS and the
validity of data collected directly from the owner/keeper (‘straight from the horse’s mouth’) and suggesting once again that consistent and reliable data can be collected using the syndromic approach employed by NEHS.

- **Highlights from the horse and pony data include (Figs 5 and 6):**
  - Laminitis had a higher prevalence than in previous years (7.1%) with 43% of these recorded as first episodes and 67% as recurrent episodes. This contrasts with the 2013 NEHS data of 4.4% overall prevalence of laminitis (25% first occurrences and 75% recurrent episodes. The overall prevalence in NEHS 2010-12 was 3.6%).
  - Lameness was again the most prevalent syndrome recorded (18.5% of returns; 18.6% in 2013 and 13.8% in NEHS 2010-12), with foot lameness recorded in 4.6% of returns (3.8% of horses in 2013 and 4.5% in NEHS 2010-12). Degenerative joint disease was again the most prevalent cause of lameness (13.9% of returns; 14.8% of returns in 2013). The normal age distribution of returns and the small proportion of returns being made by equine welfare charities suggests that this finding was not a result of disproportionately high number of old horses or horse kept by equine welfare charities.
  - Skin diseases were frequently reported again (18.3% of returns) with mud fever recorded in 7.7% of returns and sweet itch recorded in 7.8%. 2.8% of returns recorded external parasites (skin diseases were recorded in 14.6% of returns in 2013 and 15.2% in NEHS 2010-12). Sarcoids were again a prevalent tumour (5.6%; 2.8% in NEHS 2013 and 3.25% in NEHS 2010-12) reinforcing previous NEHS surveys and the published data. Once again melanoma was frequently recorded (2%; 1% in NEHS 2013 and 1.9% in NEHS 2010-12), reinforcing previous observations that this is a common equine skin tumour whose importance should not be overlooked.
  - Wounds were again frequently reported (3.9%; 1.4% in NEHS 2013 and 3.6% in NEHS 2010-12), reinforcing this as a common problem encountered by horse owners.
  - Colic remained common with an overall prevalence of 4.1% (2.1% in NEHS 2013 and 5.6% in NEHS 2010-12). As in previous years, and in line with published data, the majority of colics were medical with a ratio of medical to surgical colics of 6:1. This was the same ratio recorded in 2013 and similar to NEHS 2010-12 (7:1).
  - Respiratory diseases were again frequently recorded with an overall prevalence of 7.1% (5% in NEHS 2010-13). The majority of horses (96%) were affected by allergic respiratory disease (6.9% of returns; 4.2% in NEHS 2013 and 3.6% in NEHS 2010-12). Infectious respiratory disease was reported at the same frequency as in previous years (0.3%; 0.3% in NEHS 2013 and 0.5% in NEHS 2010-12).
  - Equine Grass Sickness continued to have a low prevalence (0.2%), very similar to previous years (0.1%; 0.15% in NEHS 2010-12) and myopathies (tying-up) also had a relatively low prevalence (0.6%), again similar to previous years (0.3% in 2013; 0.4% in in NEHS 2010-12).
  - New for 2014, data were collected on the number of veterinary-confirmed cases of Atypical Myopathy that had occurred over the past year. 13 confirmed cases were recorded, producing an approximate prevalence of 0.1% in the population of horses taking part in NEHS 2014.
Confirmed or suspected PPID (equine Cushing’s disease) was again reported frequently (5.6%; 3.3% in 2013) which may reflect greater awareness of this disease and increased surveillance by vets and owners.

Equine Metabolic Syndrome was recorded in 2.1% of return (0.9% in NEHS 2013), again reflecting the proportion of horses recorded as being overweight 16.9% (7.8% in NEHS 2013). This relatively low figure is interesting figure and is different from figures suggested in the published literature. It is not clear whether this is due to surveying of different populations and which is more representative of the general UK horse population but it is the case that lower than expected prevalences of obesity and EMS have been recorded in all NEHS surveys.

Back problems were again commonly recorded (7.7%; 5% and 3% in NEHS 2010-12).

Headshaking was recorded in 2.2% of returns (1% in 2013 and 1.5% in NEHS 2010-12).

Stereotypies were recorded in 1.2% of horses (4.1% in NEHS 2010-12).

Eye problems were again frequently recorded (3.4%; 2.6% in 2013) with uveitis (0.6%) and cataract (1%) more frequently recorded than corneal disease (0.3%), reflecting data from previous NEHS surveys.

More horses were recorded as being overweight (fat score > 3.5) than in previous surveys (16.9%; 7.8% in NEHS 2013 and 7.5% in NEHS 2010-12) with the majority of horses being recorded as ideal/normal weight and less than 5% (3.8%; 4.1% in 2013) recorded as being underweight (fat score < 2.5) (Fig. 7). New data were obtained on how respondents monitor fat score and weight. Just over half of respondents (59%) monitored weight with 85% of these using weigh tapes. Two thirds of people fat score by eye only and one third fat score using a scoring system, with almost all (84%) people conducting fat scoring doing so using the five point system.

It is interesting that more horses were recorded as overweight this year, and this reflects the higher number of returns made for EMS compared to previous years. However, as in previous years the overall prevalence of obesity is lower in the NEHS returns than in published surveys. The difference may reflect differences in owner perceptions of fat (condition) score or difficulties in owners performing scoring accurately and the fact that the majority of respondents fat score by eye only might support this argument. However, with 94% of respondents being aware of fat scoring and over half using weigh tapes to monitor weight, the 2014 NEHS data suggest that owners are actively engaged with weight management. This repeated difference between NEHS survey results and the data previously published should be investigated further.

The large majority (81%) of respondents intended to treat their horses for cyathostomins over the winter of 2013. Of these 32% could not recall which product they had used. Of the respondents who could recall which product they had used, 71% had used moxidectin 18% had used ivermectin, 10% had used fenbendazole and 2% other products (Figs. 8 & 9). One in five treatments (20%) given, therefore, used products that did not have a marketing authorisation for treatment of encysted cyathostomin larvae and a further 10% used fenbendazole a product for which cyathostomin resistance has been documented.
Almost half (45%) of respondents recorded that they did not have ragwort on their property with a further 30% spending less than 1 hour each week on ragwort control. Assuming this means that ragwort was not a major problem on these properties, taken together these data suggest that ragwort is not a significant problem on around three quarters of equestrian properties. For advice on how to control ragwort, the internet or farmers/grassland professionals were the most commonly sought sources of advice with only 5% of respondents saying they would ask their vet for advice.

The relatively small number of donkey returns (181) makes interpretation difficult; however, broadly similar trends were seen as in horses and ponies in all categories.

Figures

Fig. 1. Where horses were kept
Fig. 2. Main activity

[Diagram showing the main activities with percentages for each activity.]

- Services: 37.1%
- Vaulting: 11.6%
- Racing: 11.1%
- RDA/therapy centre: 10.4%
- Polo: 9.0%
- Western: 6.1%
- Endurance: 4.9%
- Driving: 3.8%
- Hunting: 2.7%
- Pony Club: 1.7%
- Stud: 1.6%
- Eventing: 1.4%
- Riding Club: 0.7%
- Showjumping: 0.5%
- Showing: 0.4%
- Dressage: 0.3%
- Other: 0.2%
- Not ridden: 0.1%
- Leisure: 0.0%
Fig. 3. Age distribution of NEHS returns

![Age distribution (n=10,959 horses)](image)

Fig. 4. Proportion of healthy horses

![Proportion of healthy horses (n=10,391 survey returns)](image)
Fig. 5 Prevalence of disease syndromes recorded in NEHS returns

Fig. 6. Ranked prevalence of disease syndromes recorded in NEHS returns
Fig. 7. Fat scores

Body condition score (fat score; n=10089 horses)

- 388 (4%)
- 7996 (79%)
- 1705 (17%)

Over weight
Correct weight
Under weight

Fig. 8. Proportion of respondents carrying out cyathostomin treatments (winter 2013)

Number of respondents carrying out cyathostomin treatment during winter 2013 (n= 3402)

- 2768 (81%)
- 634 (19%)

No
Yes
Fig. 9. Treatments used for cyathostomins during winter 2013

Antelmintics used for treatment of cyathostomins during winter 2013 (% of treatments given)

- Moxidectin: 71%
- Fenbendazole: 10%
- Ivermectin: 18%
- Others: 2%