

National Equine Health Survey (NEHS) 2018

Data analysis prepared by Gemma Taylor

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

Date: 29.8.18

NEHS 2018 in numbers

- 5529 people took part (5235 in 2017; 5635 in 2016) and returned records for 13,873 horses (15,433 in 2017; 16,751 in 2016).
- 62% of horses were healthy (i.e. had no health problems recorded) and 38% of horses had one or more health problems recorded, compared to 59% & 41% in 2017, and 62% & 38% respectively in 2016.
- The most frequent general disease syndrome recorded was skin disease, accounting for one third of all problems reported.
- The 'Top Five' broad categories of disease syndromes recorded were skin problems (33% of all syndromes recorded; 31% in 2017), lameness including laminitis (29%; 23% in 2017), metabolic diseases (7.4%; 8.1%), respiratory disease (7%; 5.9% in 2017) and eye problems (6%; 7.6% in 2017).
- The Top Five individual disease syndromes recorded were proximal limb (non-foot) lameness (18.5% of all syndromes recorded; 11.7% in 2017), laminitis (5.4%; 6.5% in 2017), mud fever (6.7%; 6.1% in 2017), sweet itch (7.3%; 6.1% in 2017), and PPID ('Equine Cushing's Disease') (5.3%; 6.0% in 2017).
- Diseases of the foot, excluding laminitis, accounted for 18% of all lameness (22% in 2017; 31.9% in 2016) (5.4% of all syndromes reported; 5.1% in 2017; 10.5% in 2016).
- Laminitis was frequently reported with a prevalence of 5.3% of all syndromes (6.5% in 2017; 6.8% in 2016) (18.4% of all lameness; 28% in 2017 & 20.7% in 2016); 43% of laminitis cases were first episodes and 57% were repeat episodes (49% and 51% respectively in 2017; 42% and 58% respectively in 2016).
- Skin problems, including wounds and external parasites, were the most commonly reported (33%; 31.1% in 2017 & 25.5% in 2016) of all syndromes. Sweet itch and mud fever accounted for 42.7% of all skin diseases (39.3% in 2017; 53% in 2016) and 14% of all syndromes (12.2% in 2017; 13.6% in 2016).
- Sarcoids and melanoma were commonly reported (4.6% and 1.5% respectively of all syndromes; 5.3% and 1.9% in 2017; 5.1% and 1.7% in 2016). Wounds accounted for 9.3% (11.1% in 2017) of skin problems reported (3% of all syndromes; 3.5% in 2017), and pinworm (*Oxyuris equi*) for 1.7% of skin problems (5.2% in 2017) (0.6% of all syndromes; 1.6% in 2017).
- Aside from skin disease, the other most frequently reported general medical syndromes were metabolic diseases (7.4% of all syndromes reported; 8.1% in 2017), respiratory diseases (7.1%; 5.9% in 2017), eye diseases (6.25%; 7.6% in 2017) and gastrointestinal problems (6.6%; 7.5% in 2017).
- The two most commonly reported individual medical problems were PPID/Equine Cushing's Disease (5.3% of all syndromes; 6.0% in 2017 & 6.6% in 2016) and Equine Asthma/Recurrent Airway Obstruction/Heaves (4.9% of all syndromes; 5.0% in 2017 & 5.6% in 2016).

- As in previous years, infectious respiratory diseases were infrequently reported (1.5%; 0.9% in 2017 & 2016), with strangles the most frequently reported specific respiratory disease (28% of infectious disease returns; 17% in 2017 & 57% in 2016).
- Dental disease accounted for 1.6% of all syndromes reported (5.6% in 2017), with 55% receiving veterinary attention and 45% attention from an equine dental technician.
- Back problems were frequently reported (5.4% of all syndromes reported; 5.5% in 2017 and 5.5% in 2016).
- 67% of horses were recorded as having a body (fat) score of 3 with 17.8% recorded as being thin (score of 2 and under) and 15.5% recorded as overweight (greater than 3).

Survey method

- The tenth NEHS survey ran in May 2018. As in previous years, the survey was led by the Blue Cross, was conducted on-line and was open to respondents to complete for one week.
- The survey used the same format as previous years with owner-reported syndromic surveillance capturing a snap-shot of the spectrum of problems noted by owners for each horse under their care on the day they chose to complete the survey.
- The 2018 survey used the same broad disease syndrome descriptors to provide continuity of data with previous years.
- The disease 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 and a free text category to allow respondents to report other problems not listed in the syndrome descriptors. Within each broad category individual disease syndrome descriptors covering the presenting signs for common diseases and the major body systems were used.
- Owners were asked to report their horses' fat (body score) using the 0-5 scoring system by assigning their horse to one of six diagrams to remove descriptor bias.
- As in the surveys since 2014, a question was included on Atypical Myopathy with respondents asked to record the number of confirmed Atypical Myopathy cases they had had in the previous year.

Results (demographic information)

- 5529 people took part in the 2018 survey (5235 in 2017, 5635 in 2016, 4,951 in 2015; 3,675 in 2014 and 1,246 in 2012) maintaining a high level of participation.
- Records were returned for 13,873 horses (15,433 in 2017, 16,751 in 2016, 14,952 horses in 2015; 11,002 in 2014; and 4,730 in 2012)
- Most respondents kept or owned a single horse (48.9%; 40.3% in 2017, 39.6% in 2016), 26.8% kept or owned 2 horses (30.4% in 2017, 29.8% in 2016), 11% 3 horses (13.4% in 2017, 14.2% in 2016) and 13.3% (15.9% in 2017, 16.3% in 2016) of respondents returned records for more than 3 horses. These data are similar to previous years and reflect previous data from the National Equine Database records showing that the majority of UK horses and ponies are single ownership.
- Most horses (91.3%; 94% in 2017 & 90% in 2016) were kept in livery yards (49.9%; 47.2% in 2017 & 46.7% in 2016) or private yards (41.4%; 46.7% in 2017 & 43.3% in 2016). These are similar figures to last year, which suggests that NEHS continues to sample a population representative of the general UK horse and pony population. Only 0.5% of returns were from welfare charities (0.3% in 2017 & 2016) and 0.3% (0.3% in 2017 & 0.2% in 2016) from RDA establishments which suggests that data

from these sectors are not a source of bias in the overall dataset. Dealer yards made up just 0.04% of returns (0.04% in 2017 & 0.1% in 2016) and there were some sectors not represented.

- The most frequent activity horses were used for was leisure and hacking (38.5%; 38.2% in 2017; 36.8% in 2016; 37.4% in 2015 and 37% in 2014). 16.7% of horses were used for equestrianism (13.1% in 2017; 10.7% in 2016; 21.7% in 2015 and 18% in 2014), 3% were used for showing (3.8% in 2017; 4.1% in 2016), 4.1% were riding club horses (3.6% in 2017; 3.5% in 2016), 3.2% were pony club (2.1% in 2017, 2.5% in 2016) and 0.4% were from racing (0.2% in 2017, 1.2% in 2016).
- Broad geographical coverage of the UK was achieved, again an important point when extrapolating NEHS data to the national herd.
- The distribution of ages of animals included in the survey was similar to previous years and was normally distributed. As in previous years, the majority of animals (32.5%) were in the age range 5-10 years old suggesting that the NEHS dataset is broadly representative of the national equine population.
- Native ponies formed the biggest single breed/type group (32%; 33.7% in 2017, 36% in 2016). 15.5% (17.6% in 2017, 17% in 2016) of horses were recorded as Thoroughbred types, 12.4% (13.5% in 2017, 14% in 2016) were Warmbloods.
- Taken together, these results suggest that NEHS 2018, as with previous years, 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.
- As with the previous surveys, the majority 62% (59% in 2017; 62% in 2016; 64% in 2015; 63% in 2014 and 62% in 2013) of horses were returned as healthy, reinforcing a consistent overall picture that a snapshot of equine health is that around two thirds of horses are disease free at any particular time.

Results (disease syndrome information)

- For the broad categories of disease syndromes, skin problems were the most frequently reported (33% of all syndromes recorded), followed by lameness including laminitis (29%), metabolic diseases (7.4%), respiratory diseases (7%), and eye problems (6%). This continues trends in previous NEHS surveys with lameness and skin diseases being the two most frequently reported disease syndromes.
- The five most frequently reported individual disease syndromes were proximal limb (non-foot) lameness (18.5% of all syndromes recorded), laminitis (5.4%), mud fever (6.7%), sweet itch (7.3%), and PPID ('Equine Cushing's Disease') (5.3%).
- Other commonly-reported syndromes included back problems (5.4% of all syndromes reported; 5.5% in 2017; 5.5% in 2016); sarcoids (4.6%; 5.3% in 2017; 5.1% in 2016); equine asthma/recurrent airway obstruction/heaves (4.9%; 5.0% in 2017; 5.6% in 2016); wounds (3%; 3.5% in 2017; 3.0% in 2016); medical colic (2.8%; 3.2% in 2017; 3.6% in 2016); and equine gastric ulcer syndrome (2.6%; 3.0% in 2017; 2.7% in 2016).
- **Lameness**
 - Lameness (all causes) was the second largest category of problems reported (29%; 23.4% in 2017; 32.9% in 2016).
 - The prevalence of laminitis (first episodes and repeat episodes) was 5.4% of all syndromes reported (6.5% in 2017; 6.8% in 2016) and accounted for 18.4% of all lameness (28% in 2017; 20.7% in 2016). The overall prevalence of laminitis was similar to previous years).

- The incidence of first occurrences and repeat episodes of laminitis were similar (2.3% and 3.1% of all syndrome reports, respectively; 7.9% and 10.5% of all lameness, respectively). This is a similar finding to previous years.
 - Foot lameness not due to laminitis accounted for 4% of all syndromes reported (5.1% in 2017; 10.5% in 2016) (13.7% of all lameness; 22% in 2017; 31.9% in 2016).
 - Lameness due to problems in the more proximal limb accounted for 18.5% of all syndromes reported (11.7% in 2017; 15.6% in 2016), (63.2% of all lameness; 50.0% in 2017; 47.4% in 2016).
 - Overall, as in previous years, lameness due to problems in the limbs proximal to the foot were more common causes of lameness than problems in the foot (not including laminitis) (18.5% vs 5.4% of all syndromes reported; 11.7% vs 5.1% in 2017; 15.6% vs 10.5% in 2016).
- **Internal medical problems**
 - The overall prevalence of individual internal medical problems was similar to previous years with PPID ('Equine Cushing's Disease') the most prevalent syndrome reported (5.3% of all syndromes; 6.0% in 2017; 6.6% in 2016).
 - Gastrointestinal diseases accounted for 5.8% of all syndromes reported (7.5% in 2017; 5.9% in 2016). Equine gastric ulcer syndrome (EGUS) accounted for 2.6% of all syndromes (3.0% in 2017). Medical colic accounted for 2.8% of all syndromes reported (3.2% in 2017; 2.9% in 2016) and surgical colic for 0.4% of all syndromes (0.5% in 2017 & 2016). The ratio of medical (those which required medical intervention only) to surgical colics (those which required interventions other than medical management) was 6.5 medical: 1 surgical, a similar proportion to previous years.
 - Stereotypical behaviours were reported with a prevalence of 1.6% (1.2% in 2017; 1.4% in 2016) making them a relatively common problem.
 - Liver disease was reported with an overall prevalence of 0.7% of all syndromes (0.7% in 2017 & 2016), tying up and other muscle problems as 0.5% (0.5% in 2017 & 2016) and neurological problems as 0.5% (0.4% in 2017 & 2016).
 - Diseases with high impact such as Equine Grass Sickness (EGS) and Atypical Myopathy (AM) were reported with low frequency. EGS had an overall reported prevalence of 0.2% (0.1% in 2017 & 2016; 0.1% in 2015, 0.2% in 2014) and an approximate prevalence of AM of 0.3% (0.2% in 2017 & 2016; 0.4% in 2015 and 0.1% in 2014), although it should be noted that the AM are for a full year rather than the snapshot from the NEHS data collection week in May.
 - **Respiratory diseases**
 - Equine asthma/recurrent airway obstruction/heaves was again the most frequently recorded respiratory problem (4.9% of all syndromes reported; 5.0% in 2017; 5.6% in 2016) and accounted for 70% of all respiratory problems (84% in 2017; 79% in 2016). RAO/heaves equine asthma has been reported with high prevalence in each NEHS survey confirming the importance of this respiratory problem to the UK horse population.
 - Infectious respiratory disease was much less frequently reported (1.5% of all syndromes; 0.9% in 2017) with strangles accounting for 28% of all reported infectious respiratory disease (17% in 2017), 0.2% of all syndromes (0.2% in 2017;).

- **Skin diseases**
 - As in previous years, skin diseases were commonly reported and were the most frequently reported broad category of disease in 2018.
 - Sweet itch and mud fever were the most frequently reported individual syndromes accounting together for 42.3% of all skin disease (39.3% in 2017; 53.2% in 2016).
 - Sweet itch (7.3% of all returns) and mud fever (6.7%) were important individual skin diseases, as has been recorded in previous years.
 - Sarcoids were again frequently reported (4.6% of all returns), a similar figure to previous years (5.3% in 2017; 5.3% in 2016; 5.6% in 2015). Melanoma was reported in 1.5% of returns, again a similar figure to previous years (1.9% in 2017; 1.7% in 2016; 1.7% in 2015).
 - Wounds were again a commonly reported problem, accounting for 3% of all returns (3.5% in 2017; 3% in 2016; 4% in 2015 and 3.9% in 2014).
- **Eye diseases**
 - Ocular problems accounted for 6.3% of all syndromes returning (7.6% in 2017; 3.2% in 2016), reinforcing the importance of eye disease in the equine population.
 - Ocular discharge was the most common eye problem reported (55% of all ocular problems; 3.4% of all syndromes).
 - Cataract was frequently reported (12.9% of all ocular problems; 0.8% of all syndromes); uveitis was reported in 5.8% of all ocular problems (0.4% of all syndromes); corneal injury in 6.6% of all ocular problems (0.4% of all syndromes). These data are the same as for NEHS 2017 & 2016.
- **Back problems**
 - As in previous years, back problems were frequently reported and accounted for 5.4% of all returns (5.5% in 2017 & 2016; 7% in 2015, 7.7% in 2014).
- **Dental disease**
 - Dental disease accounted for 1.6% of overall syndromes (5.6% in 2017; 5.1% in 2016). 55% of horses with dental problems were treated by a veterinarian and 45% received attention from an equine dental technician.
- **Body score**
 - Consistent with previous years, respondents reported that the majority of horses had a body score (fat score) of 3 (66.8%). 17.8% were reported as being thin (score 2 and below) and 15.5% were reported as being overweight (over 3).
- **Donkeys**
 - Returns were made for 286 donkeys, the large majority of which (81%) were from private yards and most (52%) were kept as non-ridden companions.
 - 78% were healthy (i.e. had no health problems on the day of survey) and 22% had one or more disease syndromes recorded.
 - Similar to horses and ponies, lameness (26%) and skin diseases including external parasites(38%) were the most frequent syndromes reported.
 - The other most frequently recorded syndromes were laminitis (5.5%), mud fever (4.5%), sweet itch (7%), sarcoids (4.5%), wounds (5.5%) and asthma/heaves/recurrent airway obstruction (3.5%),

- PPID (1.5% of all syndromes) and metabolic syndrome (0.5%) were reported at lower frequency than for horses and ponies which may reflect true differences in disease prevalence or different attitudes to diagnostic testing.