

## **Endemic Disease Surveillance**

### **Background**

BEVA is guardian for Aim 2 (disease surveillance) and Aim 5 (medicines) of the Equine Health and Welfare Strategy. A central principle of Aim 2 is that knowledge of the disease status of the UK equid population is required to define health and welfare. Whilst Defra is responsible for surveillance of exotic equine diseases, it is not responsible for surveillance of endemic disease. The AHT/Defra/BEVA quarterly disease reports provide some information about infectious endemic diseases based on virological and microbiological sample submissions to the AHT and other diagnostic laboratories. There has, however, been no mechanism for surveillance of non-infectious equine diseases. This problem was discussed at the BEVA Horse Industry meeting in October 2007. The outcome of the discussion was that Kerstin Alford (Blue Cross) offered to organise and run a pilot scheme to carry out disease surveillance at several of the UK equine charities in the summer of 2008. Rosie Mogford took on the organisation of this scheme and did a fantastic job motivating and coordinating a pilot data collection exercise in May, June and July 2008. The results of this pilot survey are reported here for Council to discuss and consider how this pilot could be further developed.

### **Participants**

The pilot has been led by Kerstin Alford and Rosie Mogford from the Blue Cross. The four participating charities were Blue Cross, Horseworld, WHW and Redwings.

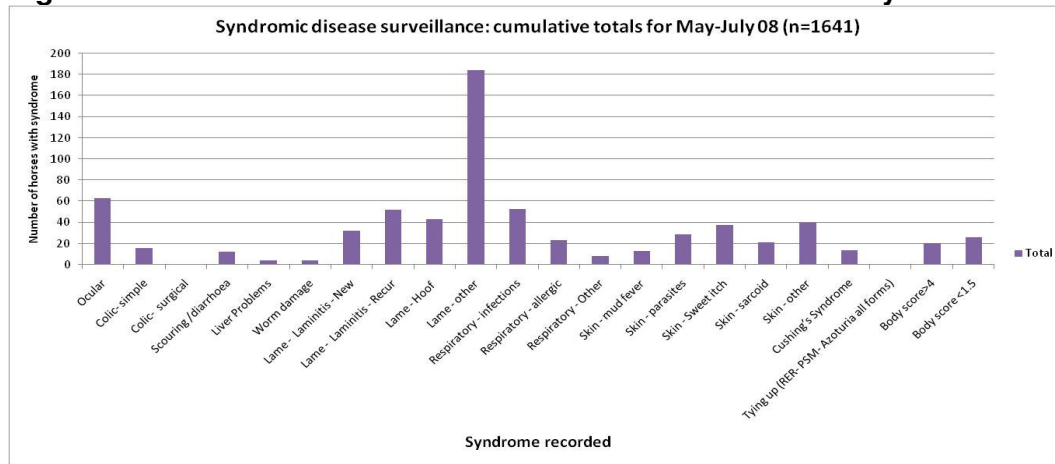
### **Study design**

Following discussion with BEVA (JS and JW) a simple, syndromic questionnaire was used to collect data from the four charities' records during May, June and July 2008. The questionnaire attempted to find a balance between collecting objective, precise, and detailed diagnostic information, which would have been difficult to collect since precise diagnoses are not always achieved in the field, and subjective, imprecise information which would have been easy to collect but would have had little value. The compromise was recording of fairly broad syndromes (e.g. colic, parasitism, skin disease etc) with some subdivisions (e.g. lameness: laminitis – new; laminitis – recurrent; foot – not laminitis; other causes of lameness).

### **Results**

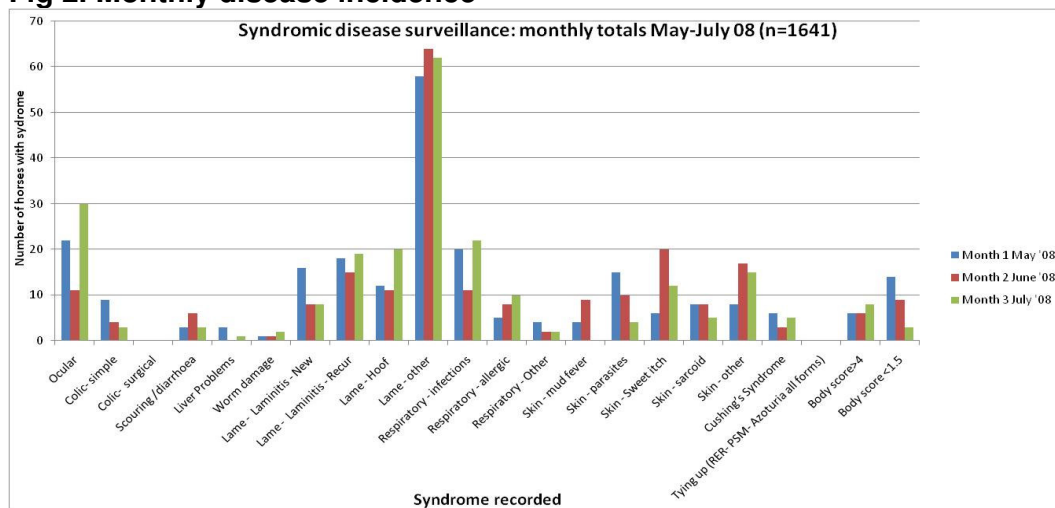
The raw data supplied by Rosie Mogford have been circulated electronically. A summary is presented here. Data were collected from 1641 horses (Horseworld n = 136; Blue Cross n = 119; Redwings n = 1070; WHW n = 316). Age data were supplied by Horseworld, Blue Cross and Redwings. As expected the average age of horses at Horseworld (11.3 y) and Blue Cross (11 y) was less than that at Redwings (28 y). Overall, the category 'Other causes of lameness' was the most frequently recorded syndrome and had the highest incidence of all syndromes at each of the four charities (Fig 1). Surgical colic and tying up was not recorded at any of the charities over the three month study period.

**Fig 1. Cumulative total number of horses with each disease syndrome**



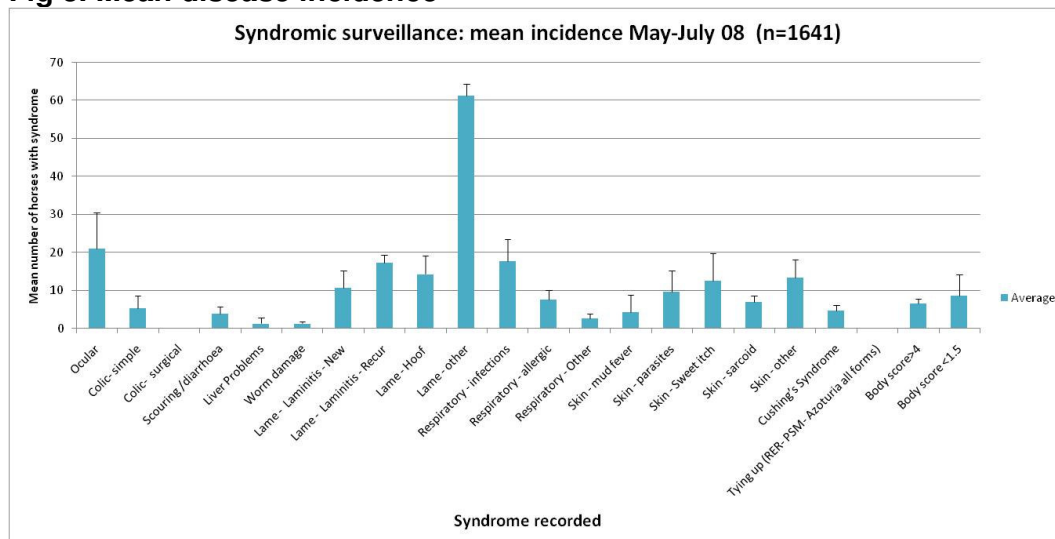
The monthly incidence of each disease syndrome was broadly similar (Fig 2).

**Fig 2. Monthly disease incidence**



The mean incidence (with standard deviation) of each disease syndrome is shown in Fig 3.

**Fig 3. Mean disease incidence**



## **Decision required by Council**

In my opinion this pilot scheme has been very successful and has not only demonstrated that it is possible to conduct a syndromic surveillance scheme using charity records but that the meaningful and useful data can be generated. This pilot forms an excellent platform from which a bigger scheme with wider participation could be organised.

BEVA will continue work with the Blue Cross to establish a larger consortium of equine charities and other organisations, possible agricultural colleges etc, contributing syndromic disease surveillance data to a larger, perpetual endemic disease surveillance scheme.

The data collected in this scheme will be included in the AHT/Defra/BEVA quarterly disease reports.

**Prepared by Professor Josh Slater, December 2008**