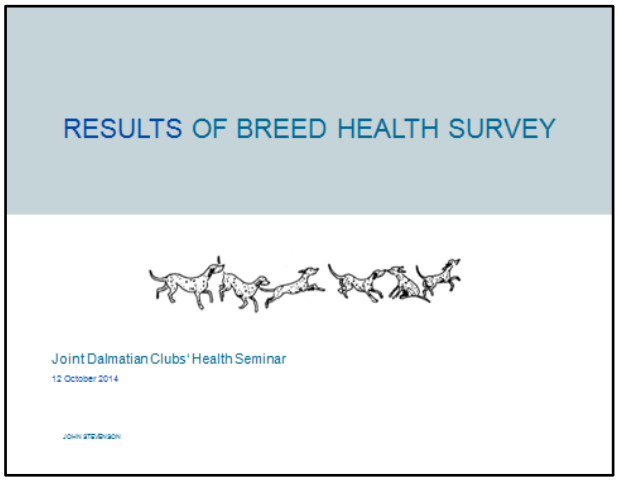
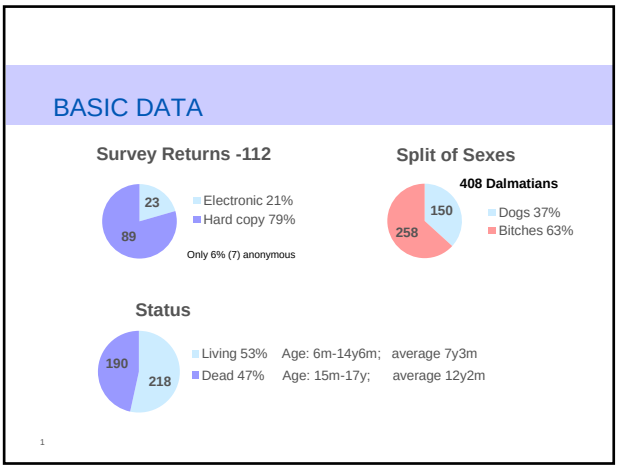


The last UK Dalmatian Breed Health Survey was conducted in 2004 as part of an all-breeds survey carried out under the auspices of the Kennel Club and the British Small Animal Veterinary Association. The results of that survey with regard to Dalmatians is available at http://www.thekennelclub.org.uk/media/16394/dalmatian.pdf After such a time lapse, therefore, it was an appropriate to conduct a further survey.

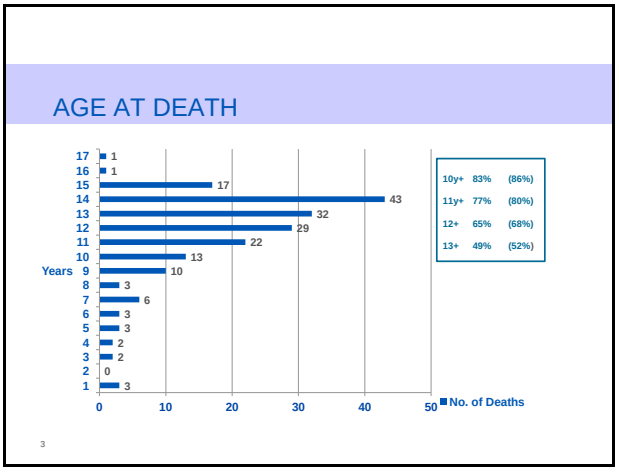
The purpose of any health survey is not to be able to say that '*x% of Dalmatians suffer from disease a, and that y% suffer from disease b*'. There are always factors in **any** survey which can, and generally do, give rise to biased or skewed results, and conclusions like these are dangerous ones to draw. The true benefits of surveying health come from periodically repeating the survey in order to monitor trends (for better or worse) in recognised conditions, whilst at the same time being watchful for 'new' diseases or conditions that might appear and which might not have been associated previously with Dalmatians.

Accordingly, this first survey was directed at those diseases generally associated with Dalmatians or which might be suspected (anecdotally, perhaps) of having a higher than average incidence compared with breeds generally. The over-riding objective was to establish a 'base line' for these conditions, against which changes could be monitored. In order to capture a 'generation' of data (roughly), the survey covered Dalmatians which had been living at any time between 01 Jan 2000 and 30 Apr 2014.



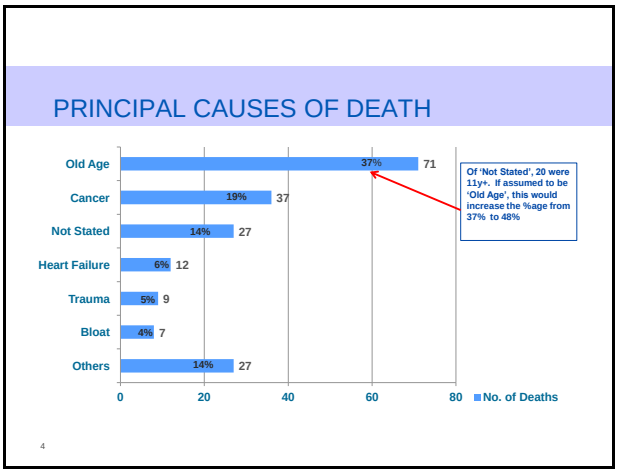
The survey was made available to UK Dalmatian Breed Club Members via the members' section of the British Dalmatian Club website, or via a dedicated email address. Disappointingly, the response was exceptionally poor, despite repeated appeals, until a hard copy mailing was provided. It was somewhat surprising that respondents apparently preferred the tried and trusted paper method!

The above slide shows a breakdown of the basic demographic data. Whilst the opportunity was available for the survey to be returned anonymously, only 7 were returned in that manner. The survey return rate equated to approximately 28%, which compares quite favourably with that for the 2004 survey (30.6%), and covered 408 Dalmatians of which 218 were living and 190 had died.



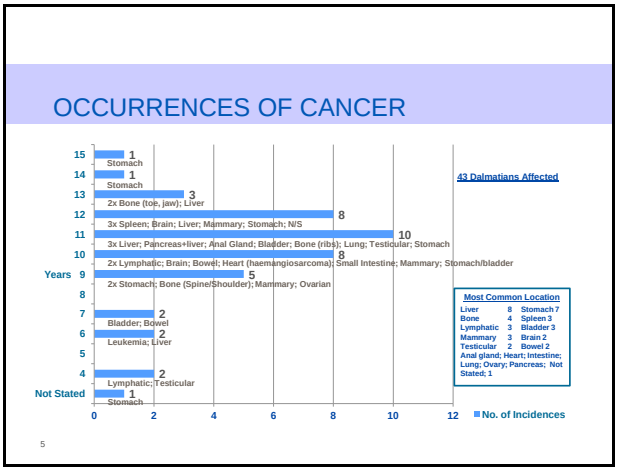
The above chart for 'age at death' is rather pleasing in what it illustrates. Essentially, Dalmatians are a long-lived breed and, impliedly, essentially a healthy one also!

65% of Dalmatians died at an age of 12+, and 49% at 13+. If traumatic deaths (e.g. road traffic accidents) are eliminated, (and reasonably so, as they do not represent death due to deteriorating or ill health), then these percentages rise to almost 70% for deaths at 12+and over 50% for 13+.



The four principal causes of death remain the same as they were in the 2004 survey. Clearly the most common cause of death is 'old age' and issues to it. Many respondents qualified their response in this category with comments like 'went off legs', 'unable to stand', 'general debility', 'incontinence', and so on.

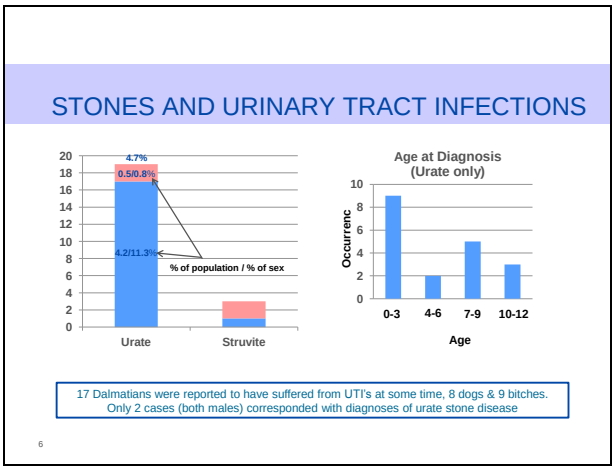
No actual cause of death was recorded for 27 Dalmatians (14% of deaths). One can understand that some Dalmatians will have died without a known cause. However, 20 of the 27 Dalmatians in this category died at 11+ years. It is surely not unreasonable that some of these deaths might equally have fallen into the 'old age' category. If these 20 are added in, then the proportion of deaths due to old age would rise to 48% - almost half of all deaths. There is not a truly sound basis for this conclusion, however, and it would probably be more appropriate to conclude that the incidence of death due to old age lies between the two figures of 37% and 48%.



The above chart correlates age and numbers, when cancer was diagnosed, and records also the affected organ.

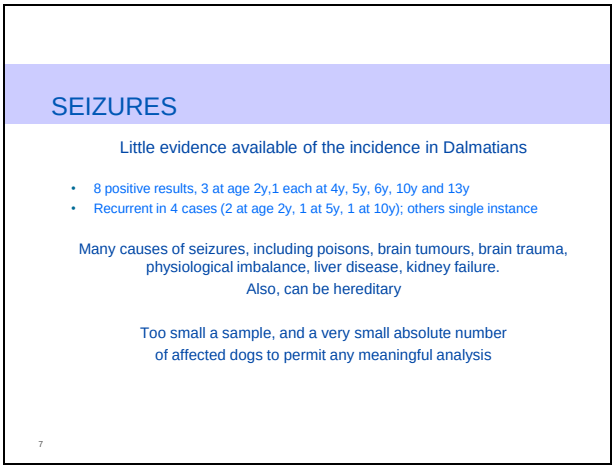
It will be noted that whilst 37 deaths have been attributable to cancers (see previous chart), 43 Dalmatians have been affected with the disease. 4 Dalmatians subsequently died of other unrelated conditions (related to old age), having suffered from testicular (x2), mammary (x1) and bone (toe) (x1) cancers. Perhaps it was the case that these were successfully treated by surgery – certainly that applies to two of the cases, one testicular and the bone cancer incident, (both affected Dalmatians owned by the author), which were respectively treated successfully by castration and amputation.

That also means that 2 Dalmatians have suffered from cancers, and are still living.

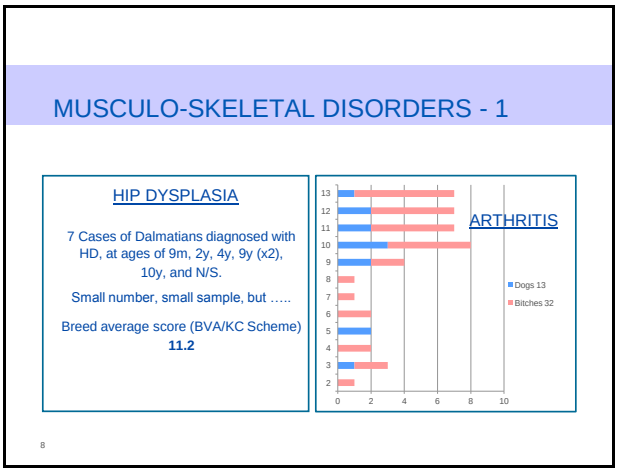


The overall reported incidence of 4.7% compares with an estimated figure of between 1.1-3.5% from the 2004 data (minimum and maximum estimates derived from epidemiologist analysis). Not surprisingly, the prevalence of the condition in males is higher than that in females, but it should be noted that bitches can and do form urate stones, though at a significantly lower frequency.

Of the incidences of urinary tract infections, only two cases coincided with a diagnosis of urate stones. Accordingly, UTI's appear not necessarily to be a reliable early warning or symptom of possible stone formation. It had been anticipated that there might have been a more frequent correlation between the two conditions.



Although there have been cases of canine seizures in Dalmatians, the number of positive returns numbered only 8, which is far too small a number to warrant any more detailed analysis. Of the reported cases, which first occurred at ages varying from 2y to 13y, half led to recurrent seizures whilst the other 4 constituted one-off events. The latter can be induced by transitory effects, including poisoning, one of these cases having been diagnosed as such.



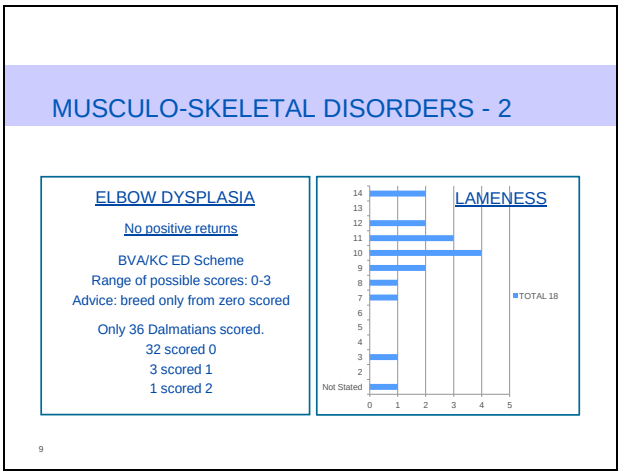
HD

Routine scoring of Dalmatians for HD under the KC/BVA Scheme does not take place currently in the UK. Up to early 2014 just 193 Dalmatians had been scored. Scores range from 0 to 96 (maximum 106) with a breed average of 11.2. Given that the second highest score is 32, the score of 96 is an exceptional case. If this exceptional case is discounted, then the Breed average to date would be 10.8, so its impact on the Breed average is relatively small. The Dalmatian affected with this high score enjoys a good quality of life, thanks largely to its owner's management of the dog's condition. It is hoped (anticipated) that the owner will record these experiences to assist others in the future who might be unfortunate to have a Dalmatian which suffers from the effects of HD.

7 cases of diagnosis of HD were reported in the survey. Though on the one hand this is a small number, the condition can be a debilitating one which should be taken seriously. The consensus of attendees at the Seminar was that more consideration should be given to scoring hips.

Arthritis

45 Incidences (11%) of diagnoses of arthritis were reported. The majority of these affected Dalmatians in later in life, but it should not be overlooked that younger dogs were affected by the condition, one as young as 2y.

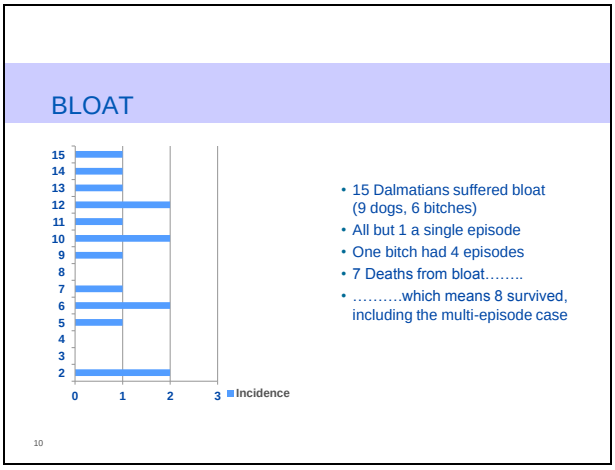


ED

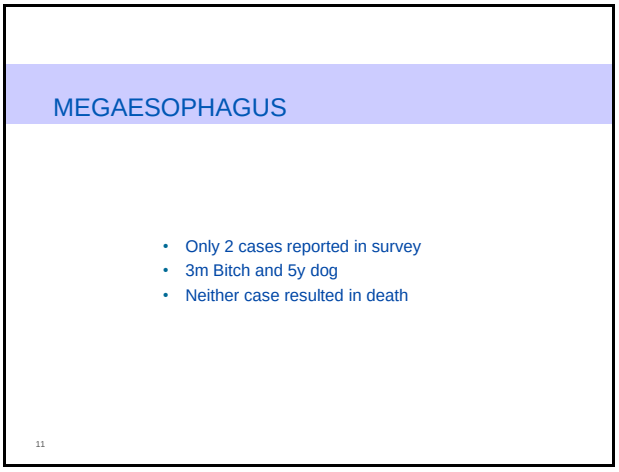
Elbow dysplasia is not commonly associated with Dalmatians, which probably explains why only 36 Dalmatians have been scored since the inception of the KC/BVA Scheme. Of those 2 Dalmatians have scored 1 whilst one has scored 2 (the maximum). Recognising that the condition tends to worsen with time, the BVA advice is that only dogs with a score of zero should be bred from.

Lameness (recurrent)

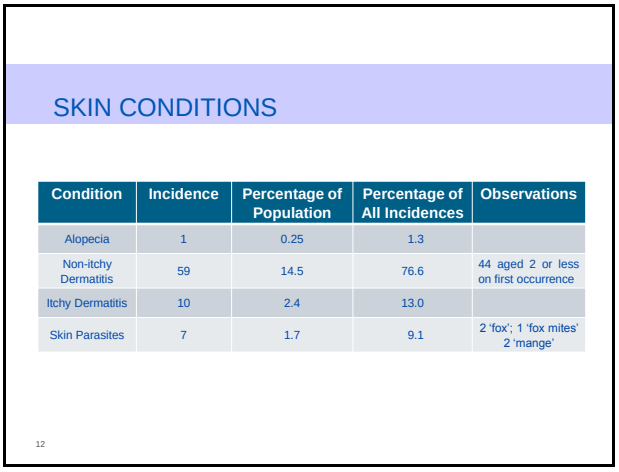
This data was collected for statistical purposes only, in order to obtain an indication as to how common was the condition. More detailed conclusions could only be considered with further information relating to cause (where known). Nonetheless, it is interesting to observe that, with one exception, the majority of cases occur in mid- to later age.



Without question, bloat (gastric torsion) is a life-threatening event, requiring speedy action. Indeed, 7 of the 15 reported cases resulted in death. Rapid intervention (which of course requires that the owner happens to be present at the initiation of the event) enables the condition to be controlled and rectified, often via surgical intervention. Statistics show that surgical intervention decreases significantly the risk of a recurrence.

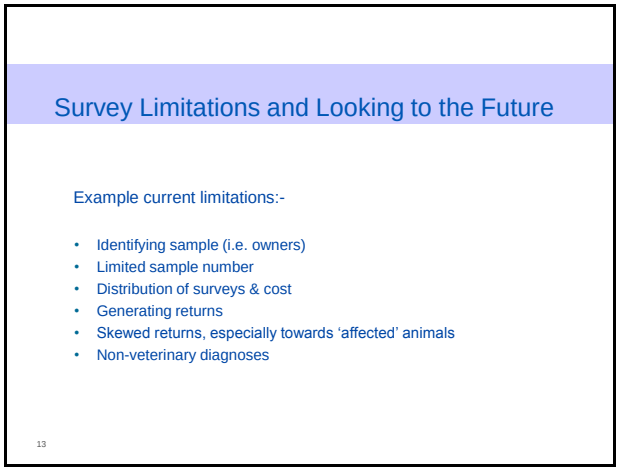


Only 2 incidences were reported. The condition is more usually seen in very young dogs, so it is interesting to see that one instance related to a 5y bitch. If these statistics are representative of the breed as a whole, then they are encouragingly very low.



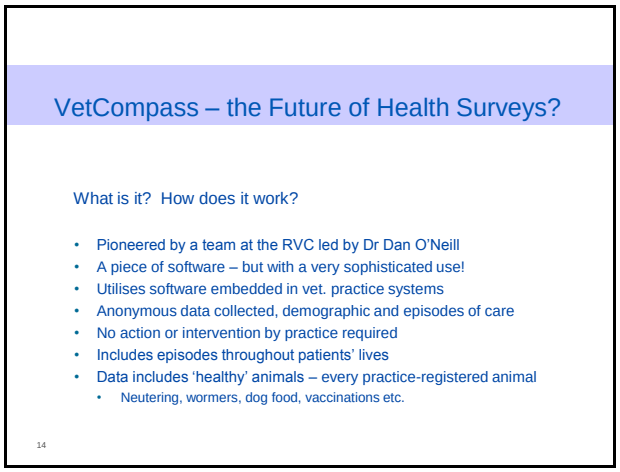
In parallel to the 2004 survey, an analysis was made of the incidence of conditions and diseases resulting in insurance claims. In this respect, it transpired that the most common disease was 'skin conditions'. The information in the slide above was sought in order to obtain an indication of the level of these instances which might have been nothing more than non-itchy dermatitis, or what many Dalmatian breeders and owners would commonly refer to as 'Dally Rash'. Experienced owners would normally not seek veterinary intervention for such a condition, recognising that it generally passes with time, and does not cause the dog any irritation or other distress.

The current data indicate that ¾ of all cases were for 'non-itchy dermatitis', which first occurred in 75% of cases at age 2y or less.

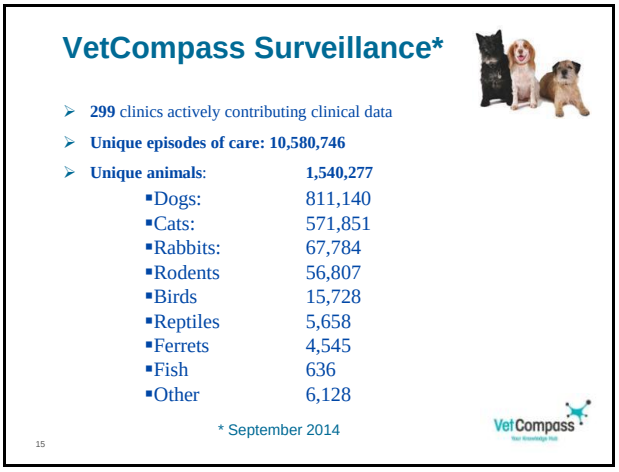


The first problem presented by traditionally survey is to identify the sample i.e. the owners to whom the survey can be directed. In this regard, the only group which could be identified readily were Breed Club Members, whose contact details are known and available within the Clubs. Whatever method of distribution is chosen, the sample size will be relatively small compared to the Dalmatian population, and the number of responses smaller still. In addition, it is human nature that responses will be forthcoming more often from owners of dogs which have suffered one or more incidences of ill health, whilst those with 'healthy' Dalmatians do not necessarily trouble to respond. This inevitably results in skewed returns, which limits the ability to accurately estimate incidence levels. Yet without a true incidence level, one cannot appreciate the importance and seriousness of a given condition within the breed. For this reason, and as stated earlier, surveys should be repeated at intervals, and trends monitored. A limitation of surveys, normally, is that a not insignificant part of the returns is based upon owners' self-diagnoses. There is nothing wrong with this, though one must accept the degree of subjectivity involved.

All this, however, might change dramatically in the future with the advent of **VetCompass**.

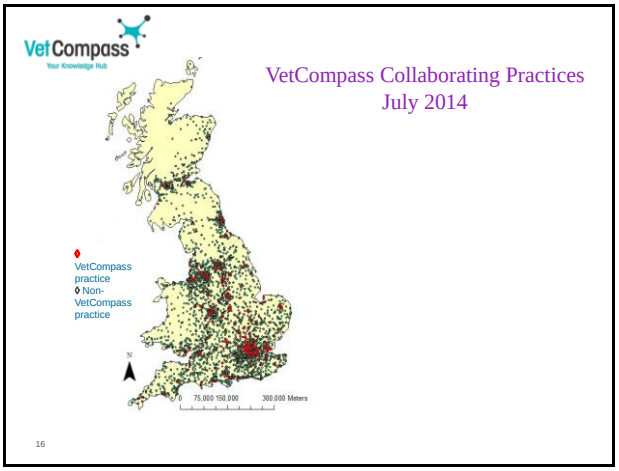


The VetCompass concept utilises a software programme embedded in the IT systems of veterinary practices, which collects and records data relating to all registered patients. The data is rendered anonymous yet traceable to the individual owner/animal during collection. The data includes demographic and care episode information, and importantly records this information for healthy animals also (hence the data is not biased in any way), and for all animals over their entire lifetime. If the animal is permanently identified (microchipped), then the system will even detect transfers to another veterinary practice! An added immediate benefit is that the concept benefits from statistics which are entirely based upon veterinary diagnoses.



Slide kindly provided by Dr Dan O'Neill. © D O'Neill

For such a relatively new concept, VetCompass is already in use in over 300 practices today in the UK, and is also being introduced into Australia and the USA. As can be seen above, the resource of patients already includes in excess of 800,000 dogs. As a 'taster' of the scope of information available and the potential of VetCompass, some simple demographic data show that these include over 3100 Dalmatians, ranking them at position 41 in terms of breed popularity, (No.1 being Crossbreeds and No.2 Labradors, and interestingly just below Patterdale Terriers which are at No. 39!). The sample of Dalmatians had an overall median weight for those aged over 1.5yr of 29.9 Kg, and median weights of 32.0 Kg for dogs and 27.5 Kg for bitches.



Slide kindly provided by Dr Dan O'Neill. © D O'Neill

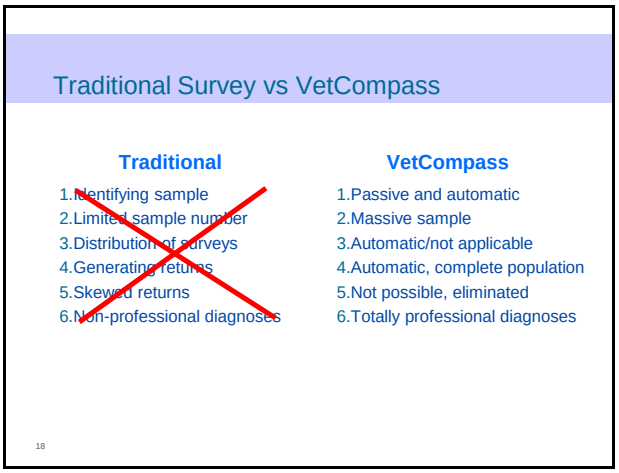
Though the database of VetCompass information is already very large, it presently covers a relatively small proportion of UK veterinary practices. As it inevitably spreads more widely, it will result in an even larger sample size and an even higher degree of confidence in the results of statistically analyses derived from it, which are in any event far superior to anything currently available.

Data shared: VetCompass

Identifier	Demographic	Clinical
Group ID	Species	Date of care
Clinic ID	Breed	Clinical Exam text
Vet ID	Sex	Temperature
Owner ID	Neutered	Owner - Symptom
Animal ID	Date of birth	Vet - Presenting sign
Visit ID	Colour	Vet - VeNom diagnosis
Microchip number	Weight	Treatment
Partial postcode	Insured Yes/No	After 11 pm
	Deceased date	Discharge status

Slide kindly provided by Dr Dan O'Neill. © D O'Neill

The above slide illustrates the extensive range of data and information which is collected by VetCompass, and gives an indication of the scope of types of analysis of demographic and care episode data which are possible. This will provide a vital tool to understanding in greater detail not only the conditions and diseases which affect Dalmatians, but their true and accurate prevalence in the breed. This in turn will enable a health strategy to be drawn up in order to seek to mitigate their occurrence.



Put quite simply, VetCompass overcomes and eliminates **all** the limitations of traditional 'voluntary' surveys. It provides a true interpretation of incidence levels which are derived from a very large and representative (unbiased) sample.

VetCompass is surely the future of canine health survey information.

John Stevenson