



Analysis of the HWVA health survey 2015

Introduction

The HWVA wanted to follow up on the health survey conducted by the AHT in conjunction with the HWVA in 2010, in order to obtain updated data on breed health.

The survey was set up online with the opportunity for people to request paper copies. The survey was announced to the HWVA membership in the newsletter which is sent to the entire membership (261). It was also announced on the club website and on social media (Facebook). It was open to both members and non members, both in the UK or abroad, and people were encouraged to complete it whether or not their HWV have experienced health problems.

The questions within the survey were based on those in the previous survey, in order to give a better comparison. Several extra questions were added based on information received about health problems since the previous survey.

The survey was primarily conducted online to allow as much data to be collected electronically as possible, straight into a spreadsheet for analysis. This reduces the risk of errors transferring data between formats and enables easier sorting/analysis.

Response Rate

This was difficult to judge since the survey was freely available on the internet rather than sent out like the previous survey. Notification of the survey was sent out to 261 memberships and was completed by 181 individuals for a total of 330 dogs. In comparison the Kennel Club conducted a survey for all breeds at the end of 2014 and received responses for a total of 194 dogs (the HWVA received 70% more responses).

There were no requests for paper versions of the survey.

Limitations to accuracy

- Owners not wishing to disclose all information about their dogs or indeed not complete a survey at all.
- Conditions going unreported if deemed “not significant” or forgotten about.
- Bias to people being more likely to fill in the survey if they have experienced a health problem with a dog previously.
- Conditions incorrectly diagnosed by vet or owner.
- Inaccuracies could result due to being reported by owner rather than someone medical.
- Although most data is analysed electronically there is some human interpretation which could give rise to inaccuracies.



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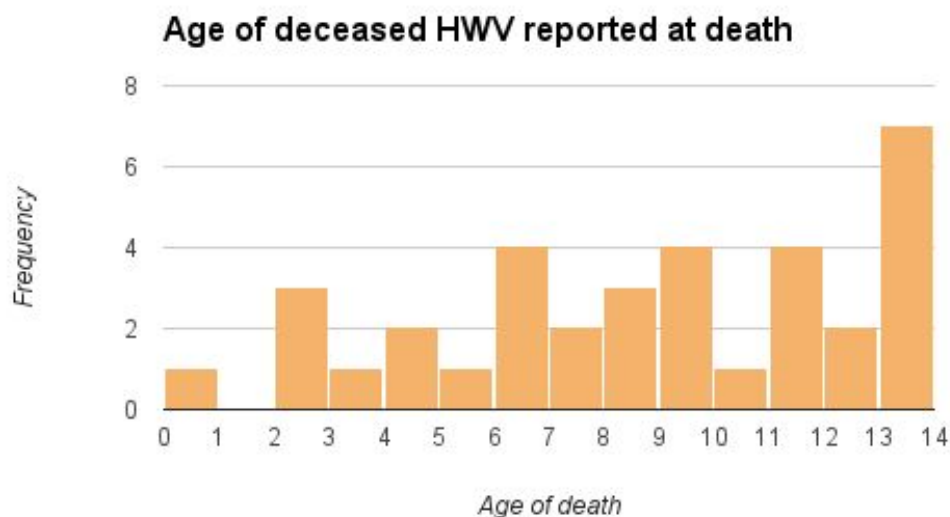
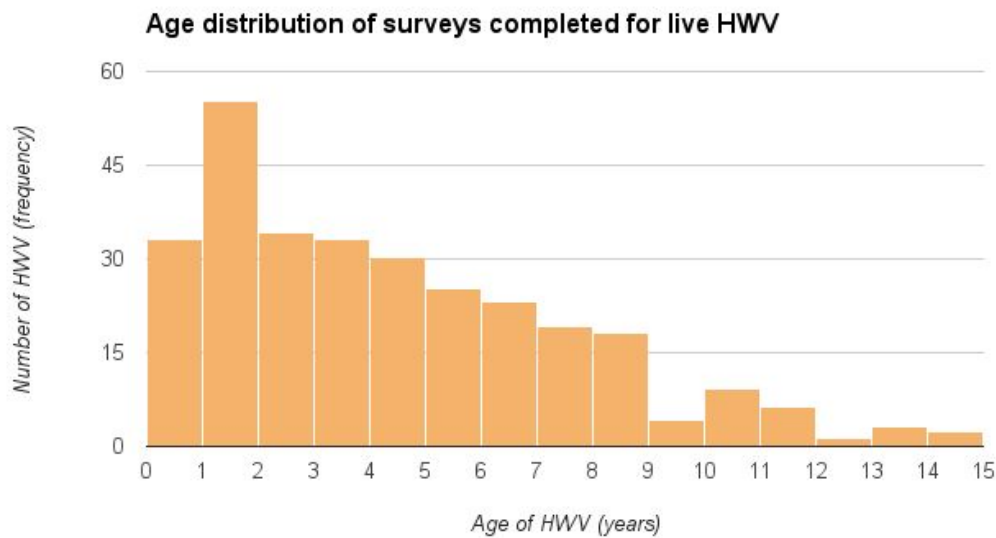
Section: General Information

Sex:

Responses were received for 177 females (54%), 153 males (46%). The last survey in 2010 produced responses for 145 (60%) females and 95 (40%) males.

Age:

Distribution of age for surveys filled in is displayed in graphs for responses for both live and deceased HWV. The median age of the dogs reported on was 4 years.



This data will be analysed further in a separate section



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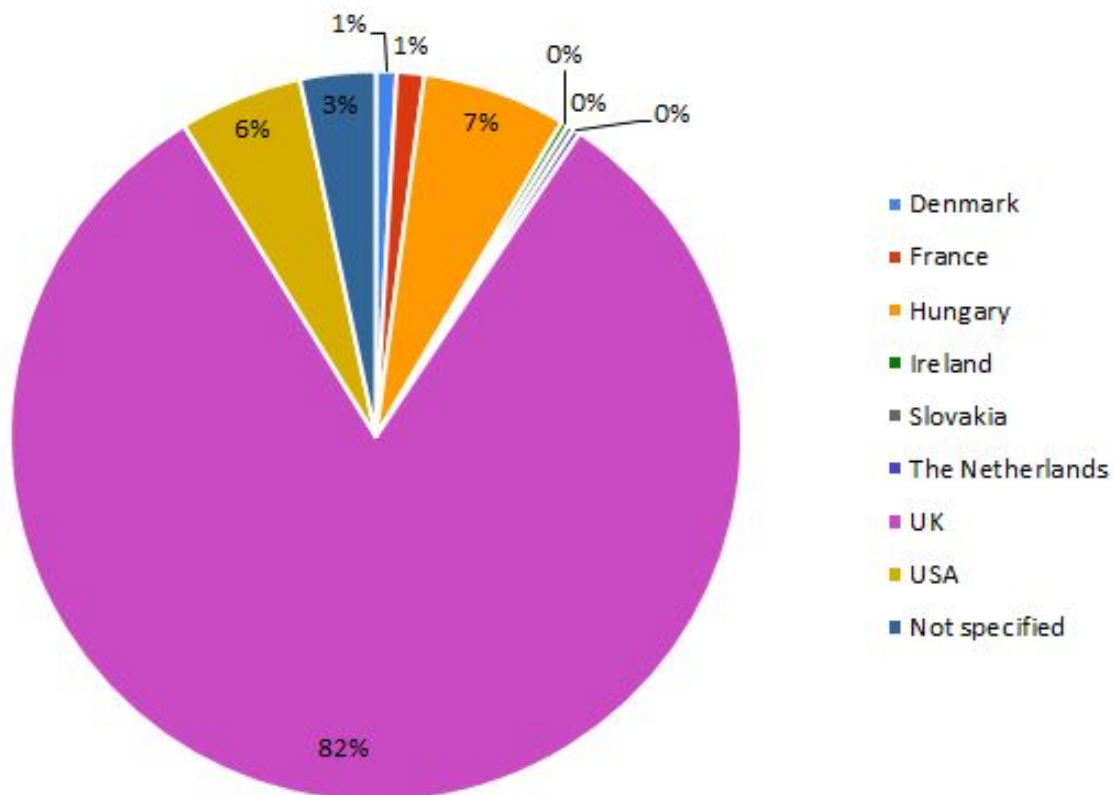
Place of birth

In order to glean as much information about the breed as possible the survey was open to HWV bred in any different country.

Place of birth of HWV

Denmark	3	The Netherlands	1
France	4	UK	270
Hungary	21	USA	18
Ireland	1	Not specified	11
Slovakia	1		

Distribution of place of birth of HWV in survey





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Is the HWV neutered?

	2015 Survey				2010 Survey		
Gender	Intact	Neutered	Total		Intact	Neutered	Total
Female	112 (63%)	65 (37%)	177 (54%)		109 (75%)	36 (25%)	145 (60%)
Male	103 (67%)	50 (33%)	153 (46%)		80 (84%)	15 (16%)	95 (40%)
Total	215 (65%)	115 (35%)	330		189 (79%)	51 (21%)	240

37% of females had been neutered and 31% of males. There are a slightly higher number of neutered HWV than in the previous HWVA/AHT survey 2010. A similar percentage of males to females had been neutered.

Age of neutering

Under 6 months	6 months - 1 year	1 year - 2 years	2 years - 5 years	over 5 years
1	29	37	28	20

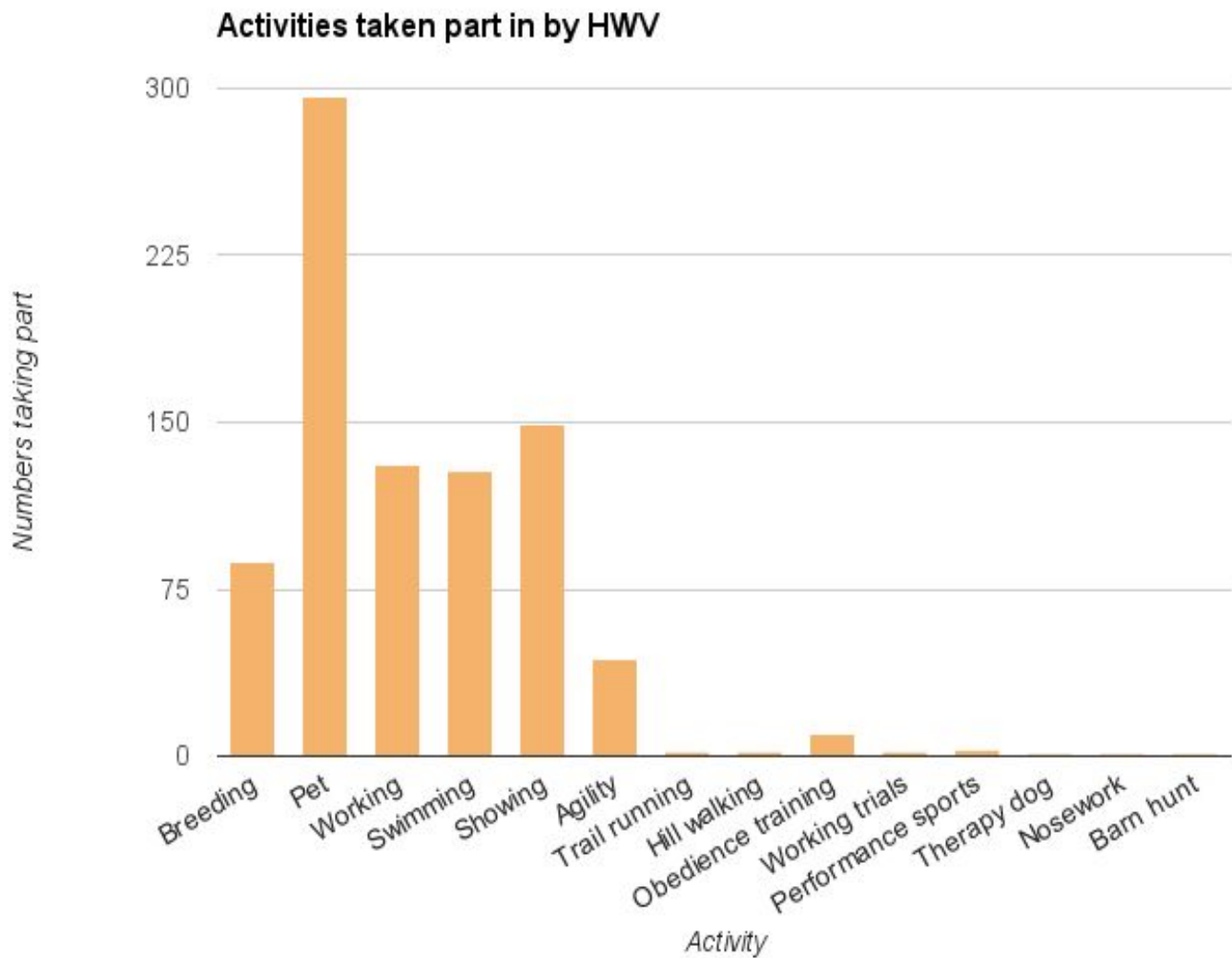
This puts the median age of neutering between 1 and 2 years.



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Section: Lifestyle

What activities the HWV were involved in



Where is the HWV kept?

Many answers were multiple. However, only 8 of the 330 (2%) appeared not to have regular access inside their owner's house.

Type of bedding

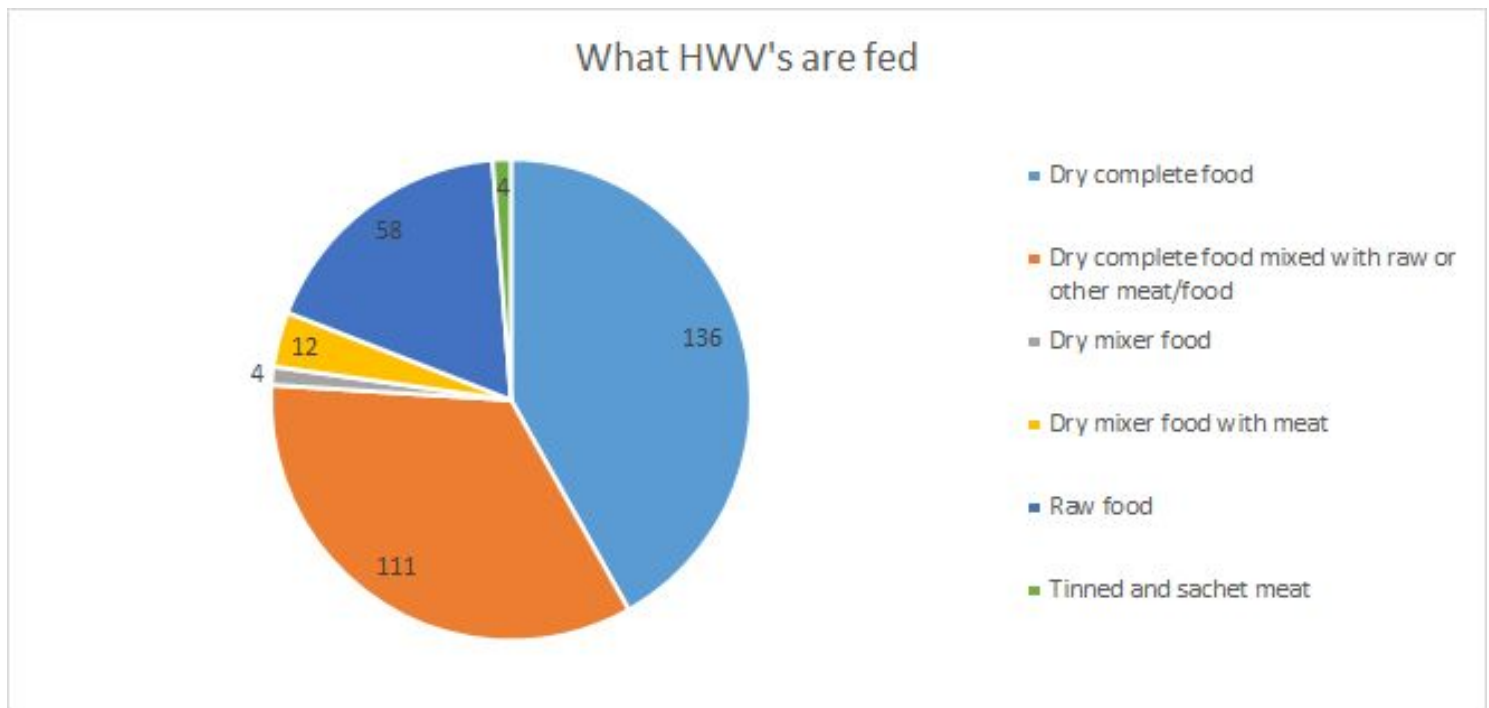
There was a large number of different answers to the question but the most popular types of bedding were vet bed and tuffie beds.



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What is the HWV fed?

Dry complete food	136	Dry mixer food with meat	12
Dry complete food mixed with raw or other meat/food	111	Raw food	58
Dry mixer food	4	Tinned and sachet meat	4





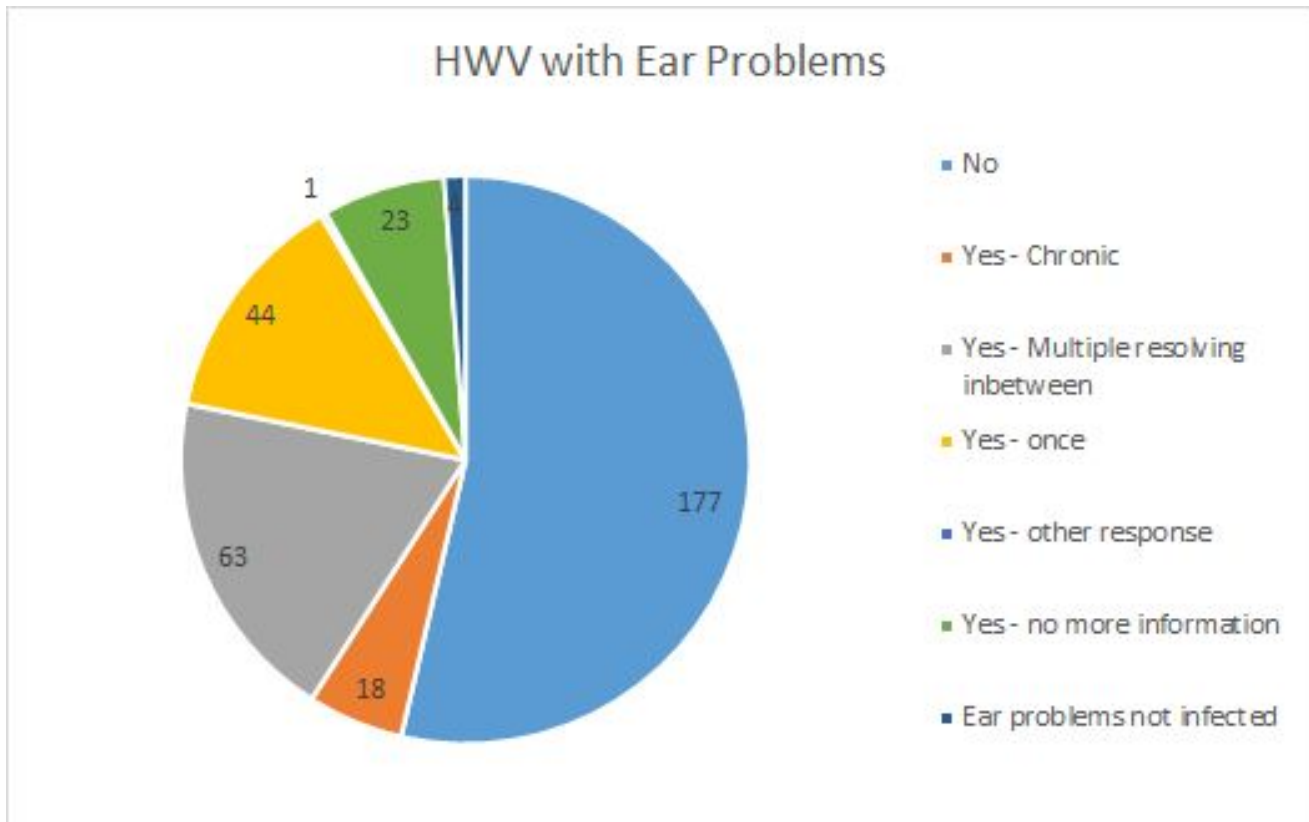
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Section: Dermatological (including aural) conditions

Ear Problems

Incidence of HWV Experiencing Ear Problems

No	177
Yes - Chronic	18
Yes - Multiple Resolving Inbetween Occurrences	63
Yes - Once	44
Yes - Other Response	1
Yes - No more information	23
Ear problems - not infectious (dry ear and waxy ears)	4

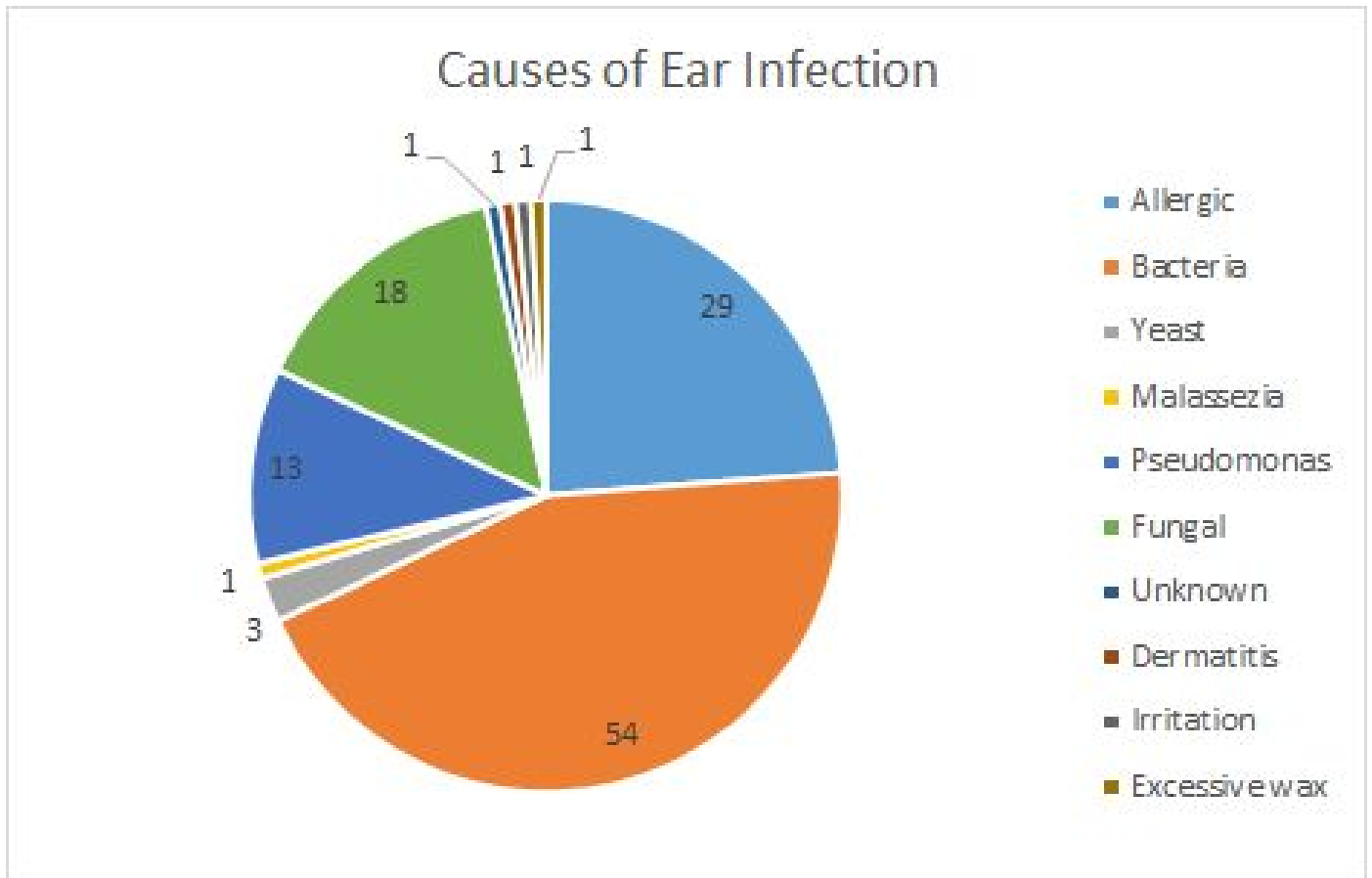




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Cause of ear infection

Allergic	29	Fungal	18
Bacteria	54	Unknown	1
Yeast	3	Dermatitis	1
Malassezia	1	Irritation	1
Pseudomonas	13	Excessive wax	1

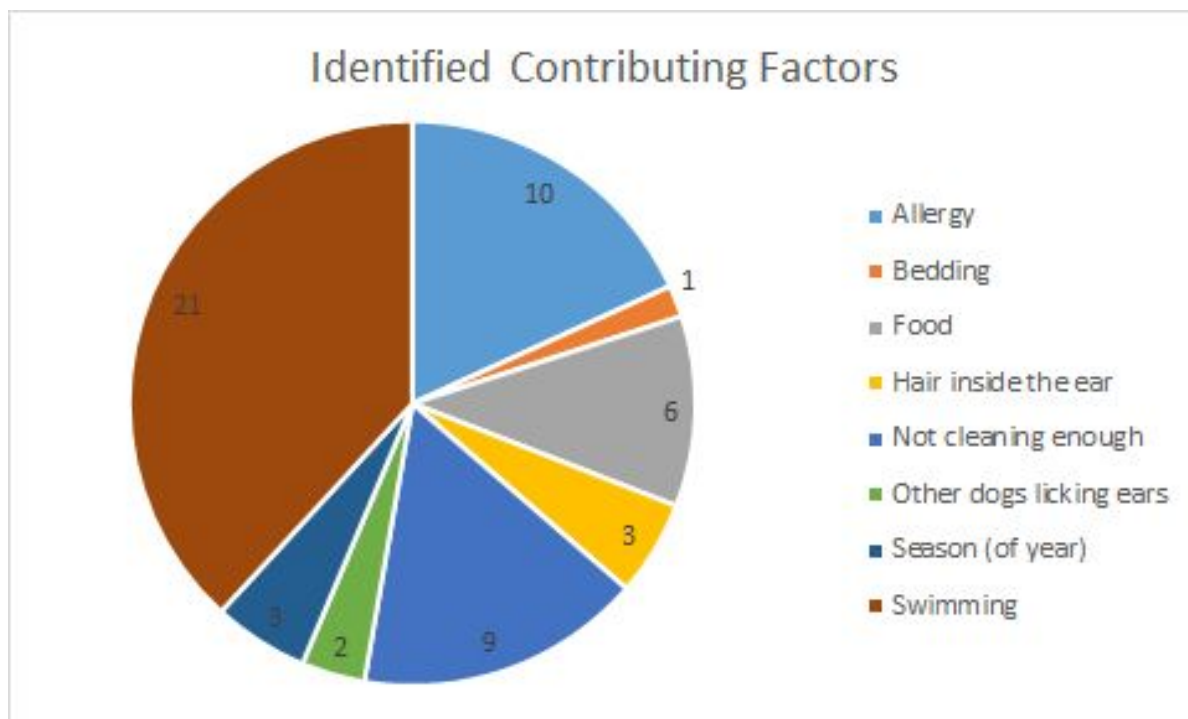




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Identified contributing factors

Allergy	10	Not cleaning enough	1
Bedding	1	Other dogs licking ears	6
Food	6	Season (of year)	2
Hair inside the ear	3	Swimming	10



153 (46%) of the HWV surveyed had experienced ear problems. This is obviously a high number and is notably higher than the 37% reported in the 2010 health survey. 81 (53% of the HWV reporting ear problems and 25% of those surveyed) of these HWV had either chronic or recurrent infections. 125 (38%) had reported the ear problem as ear infection comparing to 25.8% in the 2010 survey. This compares to the estimate of 18.9% prevalence in the general dog population in the 2004 KC Purebred dog health survey. 23 had not indicated what the ear problem was or how it resolved. Given ear problems are reported as a complication of atopy it may be that there is a link with this in some cases. However, this is certainly something within the breed to be aware of.

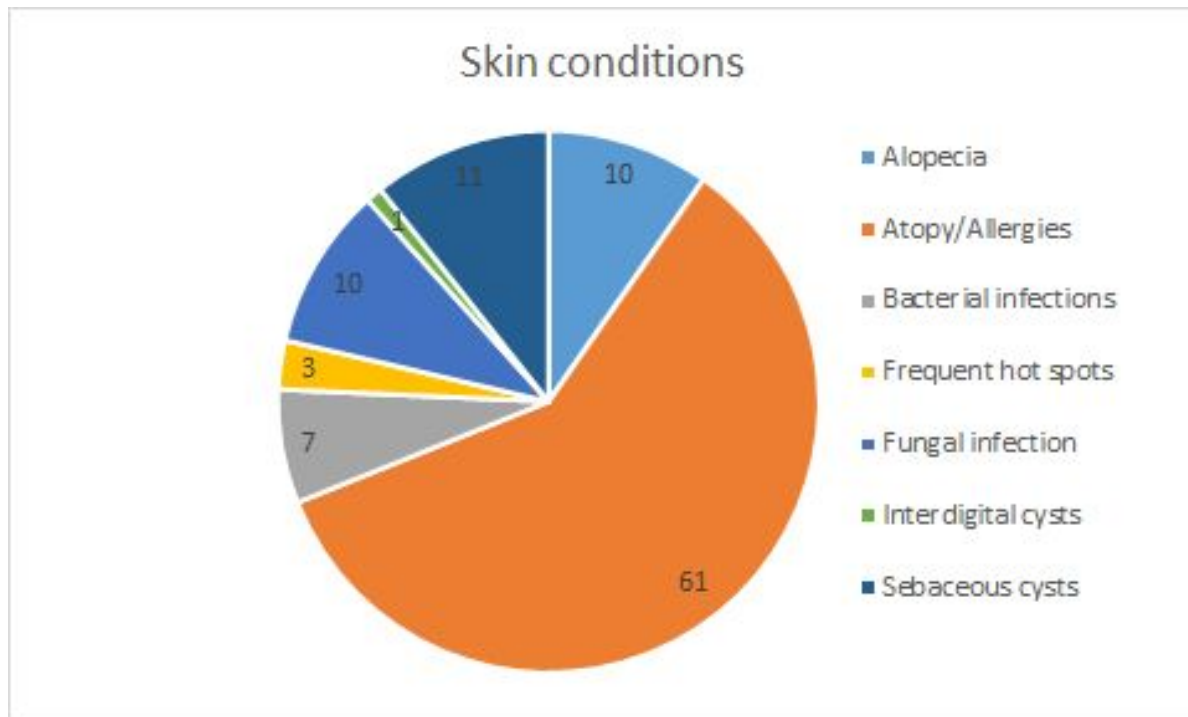


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Skin conditions

77 (23%) HWVs had one or more skin problems (253 none), 66 of these dogs having recurrent conditions. This compares to 29% in the 2010 health survey.

Alopecia	10	Fungal infection	10
Atopy/ Allergies	61	Interdigital cysts	1
Bacterial infections	7	Sebaceous cysts	11
Frequent hot spots	3		

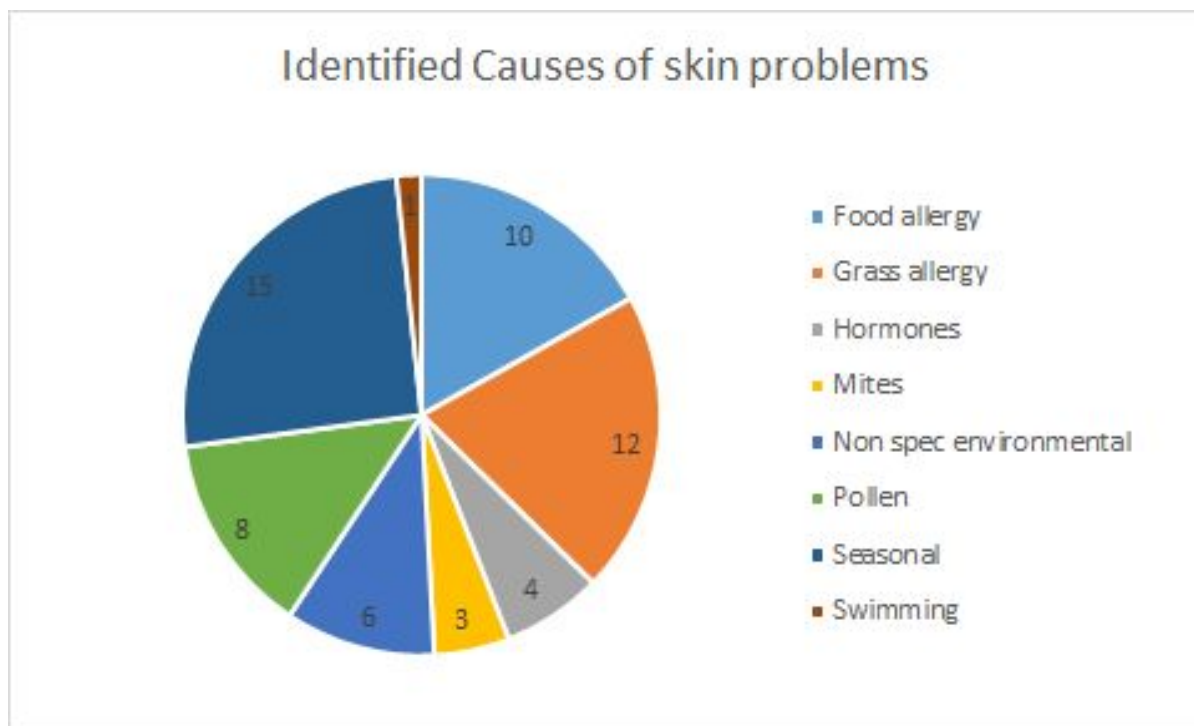




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Identified causes of skin problems

Food allergy	10	Non specific environmental	6
Grass allergy	12	Pollen	8
Hormones	4	Seasonal	15
Mites	3	Swimming	1



61 (18%) of dogs were reported as having allergic skin problems. Comparing this to the estimate that around 10% of all dogs, whatever the breed, are affected (Scott et al 1995, Lund et al 1999) it would appear that HWV are more predisposed to allergic problems than average. There is speculation that atopy is increasing in the canine population in general based on the fact that it is increasing in the human population. This is thought to be due to environmental rather than genetic factors. (Hillier and Griffin 2001)

Canine atopy is likely to be a polygenic condition (Shaw et al 2004) but no genes have yet been identified. In a study of guide dogs the heritability of atopy appears to be 0.47. In the study by Shaw et al in 2004, an analysis of the incidence of atopy in the labrador retriever pointed towards this being an inherited condition.



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Parents	Incidence of atopy in offspring
Both atopic	up to 65% atopic offspring
One atopic parent	21% to 57% atopic offspring
Neither parent atopic	11% atopic offspring

This is clearly a complicated condition to deal with. The fairly subjective nature of its diagnosis and variation in the severity of its impact on the dog, coupled with the inability to pinpoint the responsible genes makes studying and analysing the condition difficult.

With regard to breeding recommendations, common sense would dictate that it would be wise to avoid using clearly atopic dogs in a breeding program.

It has been suggested that dogs living inside are more susceptible to dermatological problems than those living out. Unfortunately the number of HWV living mostly outside was too low to provide results with any confidence to prove this theory, however, from these figures it wouldn't suggest there is much difference between a dog living in and out to a dog living inside most of the time. It is worth noting that only 2 of the 8 HWV that spent most of their time outside were based in the UK.

Dermatological or aural problems	Spending most of time inside	Spending time inside and outside	Spending most of time outside	Total
No	117 (35% of total) (52% of HWV spending most of time inside)	54 (16% of total) (56% of HWV spending most of time inside and outside)	7 (2% of total) (87.5% of HWV spending most of time outside)	178
Yes	108 (33% of total) (48% of HWV spending most of time inside)	43 (13% of total) (44% of HWV spending most of time inside and outside)	1 (<1% of total) (12.5% of HWV spending most of time outside)	152
Total	225	97	8	330



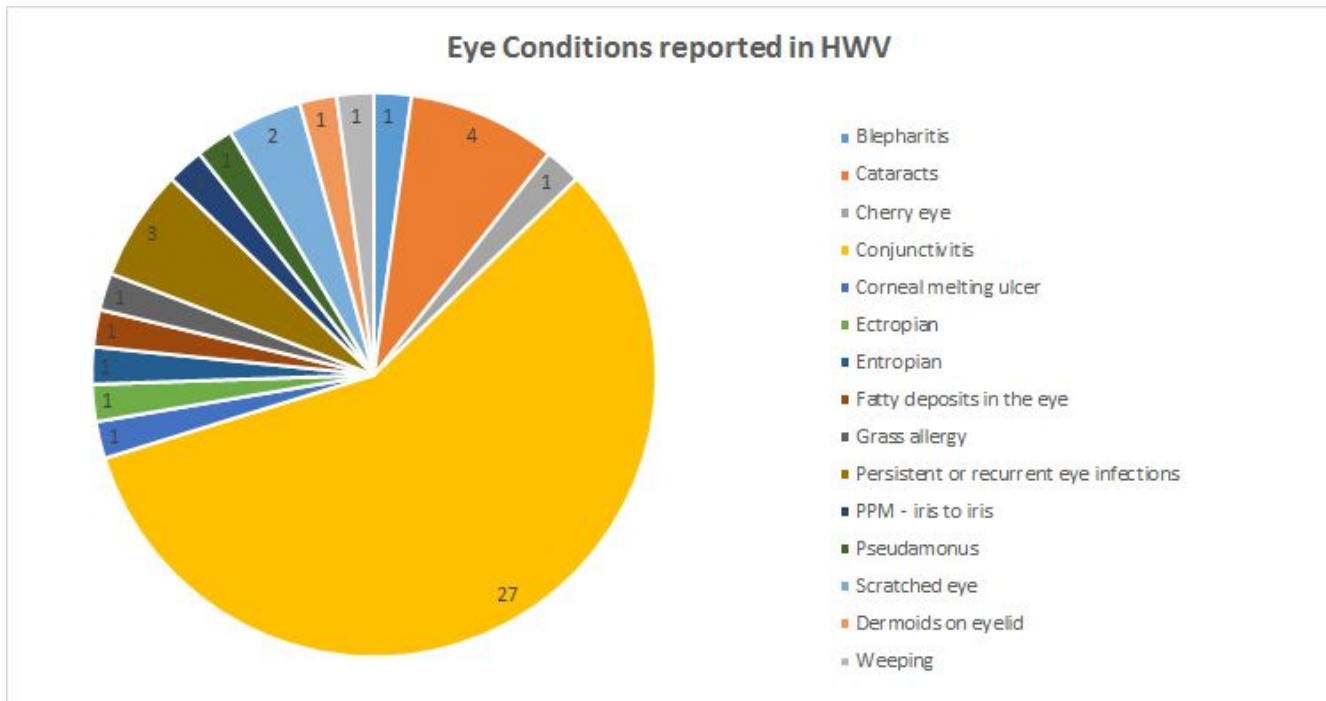
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Section - Ocular Conditions

Eye Conditions reported in HWV

45 (13.6%) HWV had had between them 47 eye problems. Interestingly of the four dogs with cataract only one was from the UK.

Blepharitis	1	Grass allergy	1
Cataracts	4	Persistent or recurrent eye infections	3
Cherry eye	1	PPM - iris to iris	1
Conjunctivitis	27	Pseudomonas	1
Corneal melting ulcer	1	Scratched eye	2
Ectropion	1	Dermoids on eyelid	1
Entropion	1	Weeping	1
Fatty deposits in the eye	1		



Conjunctivitis is also recognised as being a complication of atopy so again there may be a link with this.



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Section - Mobility

Hip Scoring

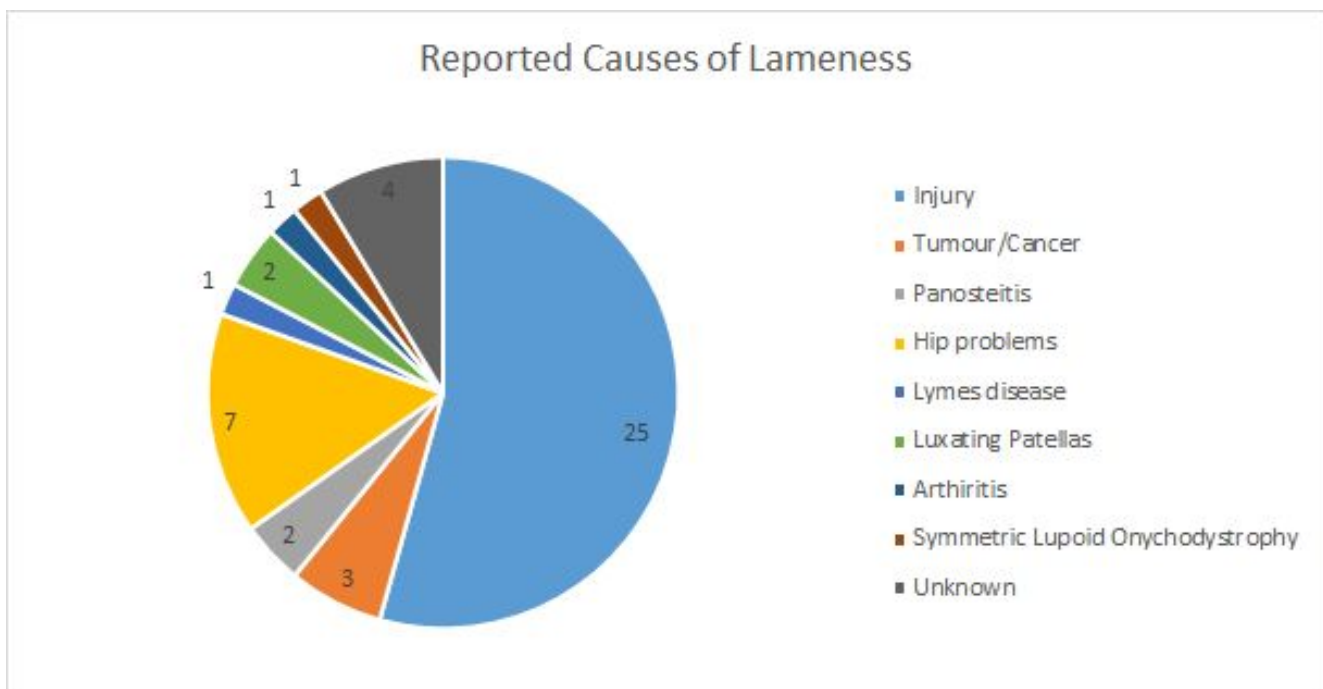
135 dogs had been hip scored. With a mean average of 10.59 in the UK scored dogs*.

* scoring methods from other countries often don't give a numerical value so couldn't be used for this figure.

Lameness

56 dogs were reported as suffering from lameness. One reported as no but listed a cut pad as a cause of lameness. 45 people reported causes of lameness (1 dog had 2 reasons given). One of the reported cases of hip problems occurred when the dog was 12.5 years old.

Injury	25	Luxating Patellas	2
Tumour/Cancer	3	Arthritis	1
Panosteitis	2	Symmetric Lupoid Onychodystrophy	1
Hip problems (hip dysplasia 6)	7	Unknown	4
Lymes disease	1		





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Section - Systemic Conditions

Food Allergy/Intolerance

48 (14.5%) dogs were reported as having experienced food allergy/intolerance.

Polymyositis

1 dog was reported as suffering from Polymyositis.

Epilepsy

10 (3%) dogs were reported as having epilepsy. 8 cases were idiopathic, 1 acquired from a tumour and 1 not specified. This figure is inline with the incidence of epilepsy in the general dog population often quoted, estimated at 0.5 to 5.7%. (Koestner, Cunningham) but higher than the estimate of 0.62% in the study by Kearsley-Fleet et al in 2013. Whilst it would seem reasonable to suggest this isn't a particular problem in the breed, it would be wise to adopt what is accepted as best practice and not breed from dogs with or dogs closely related to those with epilepsy.

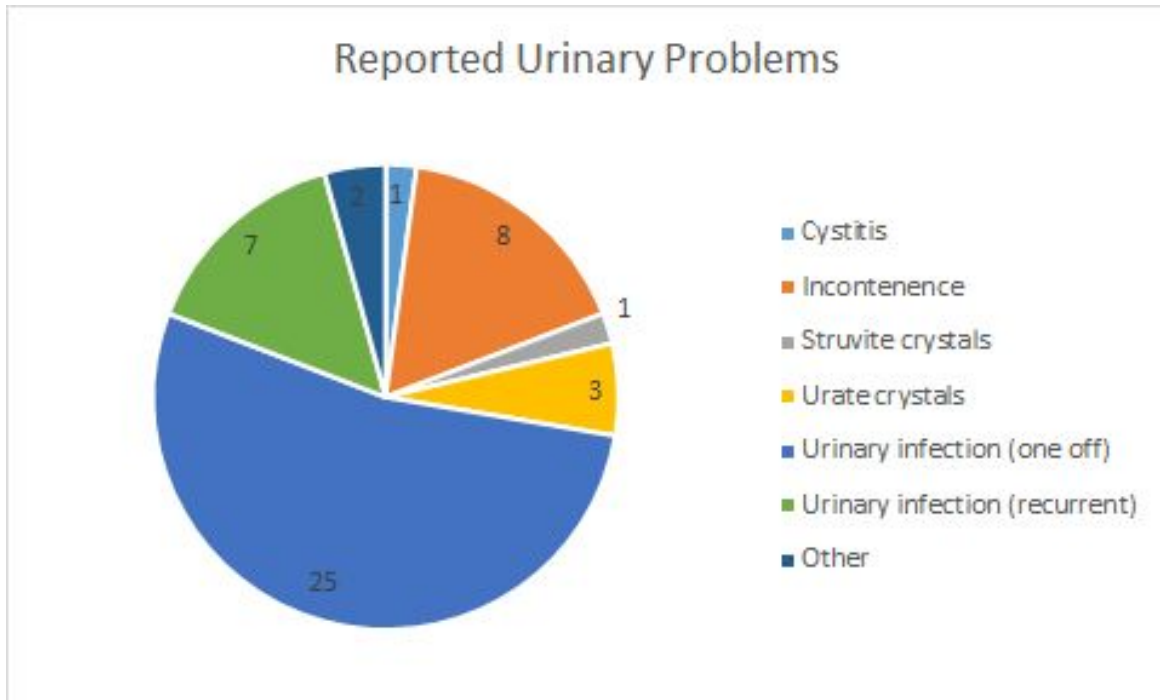
Urinary Problems Reported in HWV

41 (12%) HWVs were reported to have suffered urinary problems. 6 of them reporting 2 conditions.

Cystitis	1	Urinary infection (one off)	25
Incontinence	8	Urinary infection (recurrent)	7
Struvite crystals	1	Other	2
Urate crystals	3		



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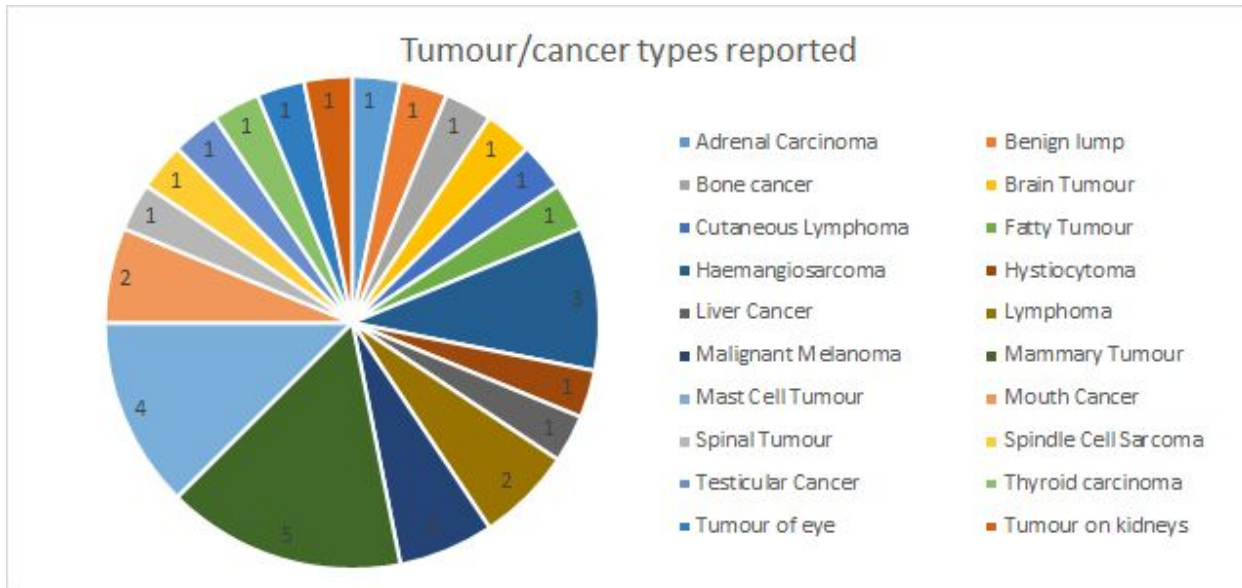
Cancer/Tumours

36 (11%) HWVs were reported to have had cancer/tumours diagnosed. 2 of these had reported 2 types of cancer. 6 didn't specify the type of cancer. 18 incidences of cancer weren't treated and 17 were (rest unspecified), 1 dog had treatment on one form of cancer but not the other.

Adrenal Carcinoma	1	Malignant Melanoma	2
Benign lump	1	Mammary Tumour	5
Bone cancer	1	Mast Cell Tumour	4
Brain Tumour	1	Mouth Cancer	2
Cutaneous Lymphoma	1	Spinal Tumour	1
Fatty Tumour	1	Spindle Cell Sarcoma	1
Hemangiosarcoma	3	Testicular Cancer	1
Histiocytoma	1	Thyroid carcinoma	1
Liver Cancer	1	Tumour of eye	1
Lymphoma	2	Tumour on kidneys	1



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As can be seen there are quite a range of different tumours seen with no apparent predisposition to certain types.

Other reported systemic conditions

Benign bone lump	1	Pancreatitis	1
Bilious Vomiting Syndrome	1	Prostate issues	1
Cardiac murmur	5	Symmetrical lupoid onychodystrophy	1
Colitis/IBS	3	Tail damage	1
Cysts	2	Thrombocytopenia	1
Hernia	1	Undiagnosed skin sensitivity	2
Iris cyst	1	Vaccination reactions	1
Isolated seizure(s)	4	Vaginal hyperplasia	1
Lid fold pyoderma	1	Vaginal prolapse	1
Masticatory myositis	1	Ventricular septal defect	1
Osteomyelitis	1		

There doesn't appear to be other systemic conditions which HWV are susceptible to.



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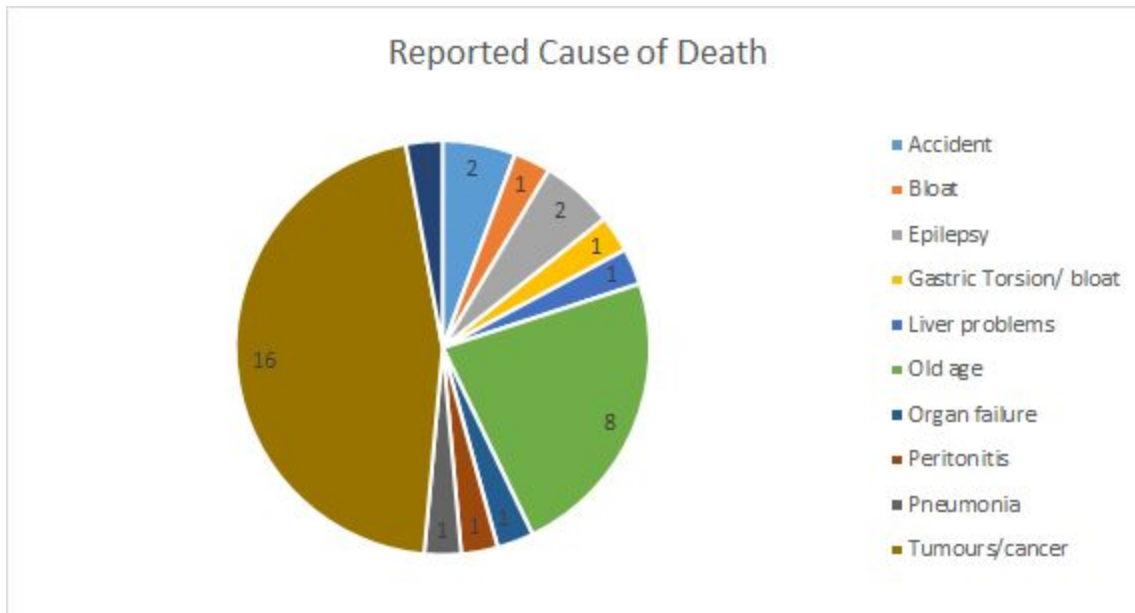
Section - Mortality

35 (10.6%) HWVs were reported as deceased.

The median average of their age of death is 9 years old. The oldest age of death was 13 (for 8 HWV).

Cause of death:

Accident	2	Organ failure	1
Bloat	1	Peritonitis	1
Epilepsy	2	Pneumonia	1
Gastric Torsion/ bloat	1	Tumours/cancer	16
Liver problems	1	Pain	1
Old age	8		



The most common cause of death clearly being Tumours/Cancer (46%). The median average age of those dying by cancer is 9, the same as for the breed overall. The 2010 health survey reported 55% of deaths being due to cancer. The median age for cause of death being listed as “old age” was 13.



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Comparison of top causes of death to 2010 survey

2015 survey		2010 survey	
Cancer	46%	Cancer	55%
Old Age	23%	Old Age	10%
Accident	6%	GDV (bloat)	10%
Epilepsy	6%	Cardiac	7%

Top 10 causes of death in the KC Purebred Health Survey 2004 for all breeds

	Cause	% affected
1	Cancer	27%
2	Old Age	17.8%
3	Cardiac	11.1%
4	Urologic	4.9%
5	Combinations	4.6%
6	Neurologic	4.2%
7	Gastrointestinal	4.2%
8	Cerebrovascular	3.8%
9	Trauma	2.4%
10	Hepatic	2.1%

The top two causes were the same as for HWV with the figures being a lot higher for the HWV. However, HWV don't seem to perhaps be as prone to other causes of death eg cardiac. The median age for morbidity to cancer for HWV is the same as the median life expectancy of the breed. In the Purebred survey the median life expectancy for any breed is 11 years 3 months as opposed to the median age of death due to cancer being slightly higher at nearly 13 years.

The question with regard to cancer is possibly are HWV more prone to cancer or less prone to other factors, causing the cancer mortality figure to be higher than all breeds. There doesn't seem to be a predisposition to a certain type of cancer from the data.



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Conclusions

In general the data from the survey provides a similar picture to that which was formed from the 2010 AHT/HWVA health survey.

The top conditions affecting HWV are listed below.

Condition	% affected
Ear problems	46%
Skin Conditions	23%
Lameness *	17%
Food Allergy/ intolerance	15%
Eye Problems	14%
Urinary Problems	12%
Cancer	11%
Epilepsy	3%

*over half the cases of lameness were caused by injury

Once again we see skin/ear problems topping the list, with the incidence of ear problems increasing. Unfortunately there seems to be an upward trend of these cases in the general dog population. Having a complicated genetic inheritance and a huge range in the severity of the symptoms these are difficult problems to deal with. However, increased awareness and careful selection of dogs for breeding programs may help reduce the occurrence.

Regular monitoring by the breed club and by breeders is important to identify a change in incidence or the emergence of new problems.

Follow up and repeat surveys will be made easier by the development of technology solutions to facilitate this.

Our thanks to the HWV owners that have taken the time to fill in the survey to give us all a better idea about breed health.