# Hungarian Wirehaired Vizsla Health Survey 2021 – OVERALL HEALTH SUMMARY

The top three categories of diagnosis for health conditions reported in the survey were ear (39.8%, 957 of 2,406 dogs included in the survey), skin and/ or coat (30.9%, 743 of 2,406), and digestive (13.7%, 330 of 2,406) (Table 1). To put these figures into perspective, in a recent VetCompass study, of 22,333 dogs under veterinary care at 784 veterinary clinics during 2016, the most prevalent grouped-level disorders across breeds were dental (14.1%, 95% CI: 13.64–14.56), skin (12.6%, 95% CI: 12.15–13.02) and enteropathy (10.4%, 95% CI: 10.04–10.84) (O'Neill et al, 2021).

Table 1: Top 3 categories of diagnosis for health conditions reported in the survey

Body system	Number affected	Prevalence
Ear	957	39.8%
Skin and/or Coat	743	30.9%
Digestive	330	13.7%

The most frequently reported specific conditions were frequent ear infections (350 cases), excessive ear wax (292 cases), environmental allergies (271 cases), infrequent ear infections (240 cases), otitis externa (170 cases), dermatitis (162 cases), dietary allergies (122 cases), epilepsy (109 cases) and unknown allergies (109 cases) (Table 2).

Table 2: Top specific health conditions reported in the survey

Specific condition	Number affected	Prevalence
Frequent ear infections	350	14.5%
Excessive ear wax	292	12.1%
Environmental allergies	271	11.3%
Infrequent ear infections	240	10.0%
Otitis externa	170	7.1%
Dermatitis	162	6.7%
Dietary allergies	122	5.1%
Epilepsy	109	4.5%
Unknown allergies	109	4.5%

# **Hungarian Wirehaired Vizsla Health Survey 2021**

The Hungarian Wirehaired Vizsla 2021 health survey ran from 19/04/2021 to 02/08/2021. After removing all unusable responses (for example, respondents did not consent to the Hungarian Wirehaired Vizsla Association and The Kennel Club using the data for research purposes) a total of 2,406 individual responses remained.

Of 2,394 dogs included in the survey, 2,168 (90.6%) were Kennel Club registered and 149 (6.2%) were not Kennel Club registered.

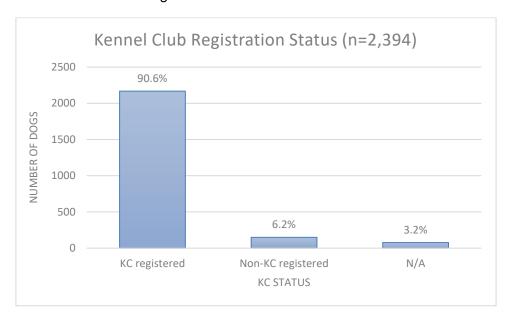


Figure 1: KC registration status of HWV included in the survey

Of 2,168 Kennel Club registered dogs included in the survey, 2,068 (95.4%) were born in the UK and 100 (4.6%) were imported.

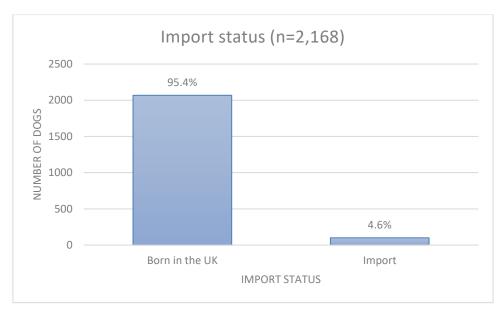


Figure 2: Number of imported HWV included in the survey

Figure 3 shows where the owners got their Hungarian Wirehaired Vizsla from, with the majority being from a breeder (91.3%, 2,185 of 2,394).

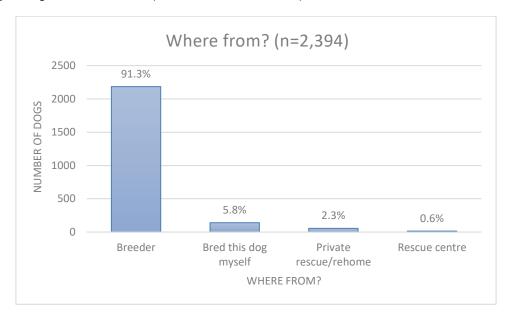


Figure 3: Where the HWV included in the survey were from, as reported in the survey

The median age of live dogs included in the survey was four years (min= less than one year old, max= more than 15 years old). Figure 4 shows a full breakdown of the dogs' ages in years.

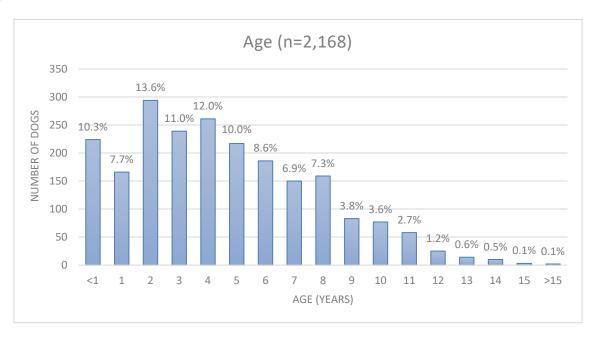


Figure 4: Age of live HWV included in the survey

Of 2,406 dogs, 1,266 (52.6%) were male and 1,140 (47.4%) were female. When asked the neutered status of their dog, out of 2,400 dogs, 1,266 (52.8%) were entire and 1,134 (47.3%) were neutered. Results are shown in Table 3.

Table 3: Sex and neutered status of HWV included in the survey

Sex	Neutered Status		Total	
	Entire	Neutered	Unknown	
Male	720 (56.9%)	545 (43.0%)	1 (0.1%)	1,266
Female	546 (47.9%	589 (51.7%)	5 (0.4%)	1,140
Total	1,266	1,134	6	2,406

The majority of the Hungarian Wirehaired Vizsla included in the survey were russet gold (69.3%, 1,667 of 2,406). A full breakdown of responses by colour are shown in Figure 5.

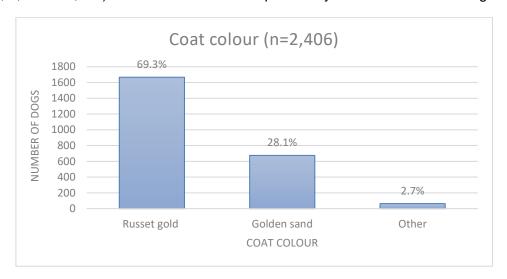


Figure 5: Colour of HWV included in the survey, as reported by their owners

The most common colours specified under 'other' were a mixture of russet gold and golden sand (n=17), red (n=6), and ginger (n=5).

Owners were asked to select the description(s) that best described their dog's coat texture. The majority of the Hungarian Wirehaired Vizsla included in the survey had a medium coat length (49.9%, 1,013 of 2,032). A full breakdown of responses by coat length are shown in Figure 6.

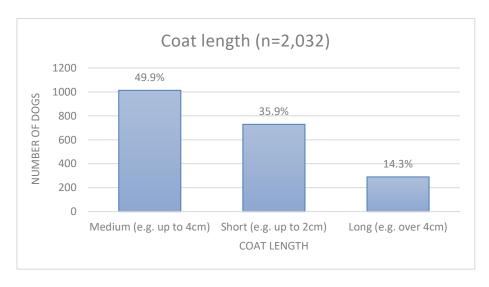


Figure 6: Coat length of HWV included in the survey, as reported by their owners

The majority of the Hungarian Wirehaired Vizsla included in the survey had a wiry coat (76.4%, 1,700 of 2,226). A full breakdown of responses by coat texture are shown in Figure 7.

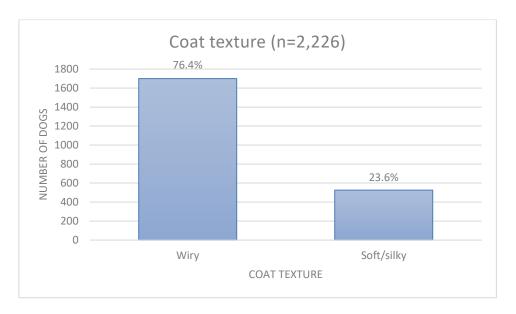


Figure 7: Coat texture of HWV included in the survey, as reported by their owners

The majority of the Hungarian Wirehaired Vizsla included in the survey had a thick coat (70.2%, 570 of 812). A full breakdown of responses by coat thickness are shown in Figure 8.

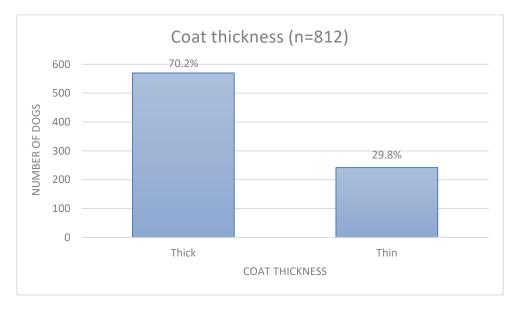


Figure 8: Coat thickness of HWV included in the survey, as reported by their owners

# **Lifestyle**

Figure 9 shows where the Hungarian Wirehaired Vizsla included in the survey were housed during the day and during the night, as reported by their owners. The majority of Hungarian Wirehaired Vizsla were housed indoors during both the day (53.4%, 1,218 of 2,279) and the night (95.9%, 2,165 of 2,258).

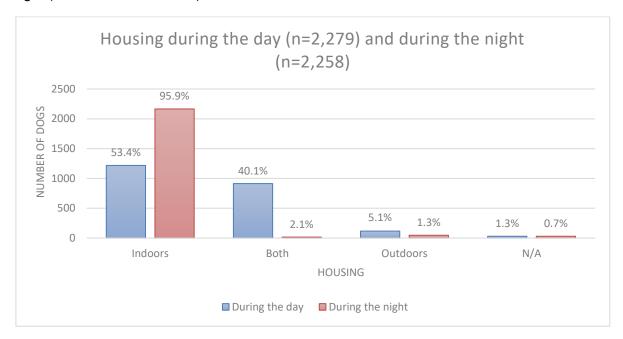


Figure 9: Housing during the day and during the night, as reported in the survey

Figure 10 shows what type of bedding material the Hungarian Wirehaired Vizsla included in the survey usually sleep on, as reported by their owners. The majority of Hungarian Wirehaired Vizsla sleep on synthetic fibre (73.4%, 1,739 of 2,368).

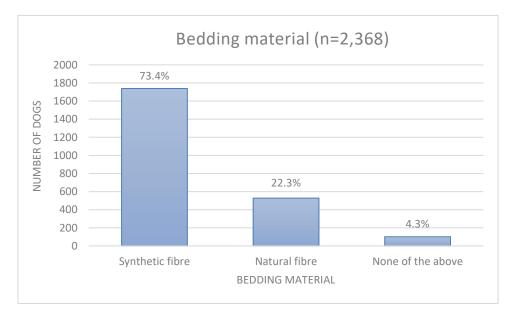
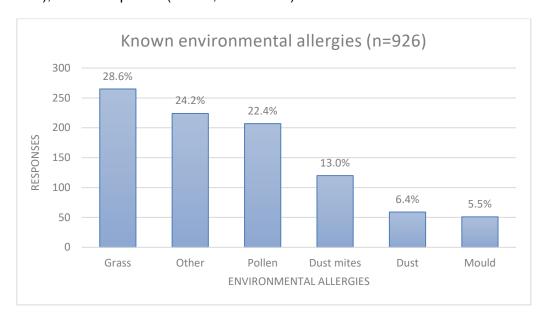


Figure 10: Usual bedding material, as reported in the survey

When asked if their dog has any known environmental allergies, 1,861 owners reported no known environmental allergy. However, 509 dogs were reported to have at least one

environmental allergy. Figure 11 shows the environmental allergies reported in the survey, the most frequently reported being 'grass' (28.6%, 265 of 926), followed by 'other' (24.2%, 224 of 926), and then 'pollen' (22.4%, 207 of 926).



**Figure 11**: Known environmental allergies for the HWV included in the survey, as reported by their owners

The most common answers to "other" for known environmental allergies not already listed in the survey were: grass pollen (n=12), storage mites (n=12), and trees (n=12).

Owners were asked to select the types of food that they feed their Hungarian Wirehaired Vizsla. The most frequently selected food type was grain-free kibble (28.3%, 1,098 of 3,884), followed by grain-inclusive kibble (16.8%, 652 of 3,884), and then tinned meat (12.9%, 501 of 3,884). A full breakdown of the selected food types are shown in Figure 12.

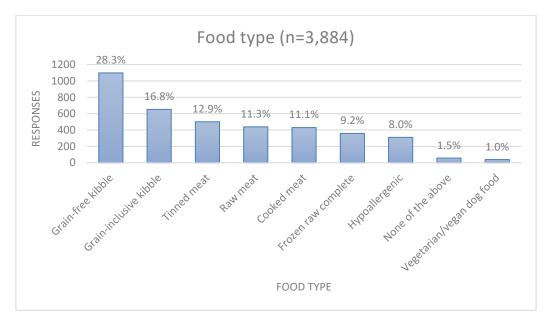


Figure 12: Types of food given to the HWV included in the survey

Owners were asked to select the types of meat that they feed their Hungarian Wirehaired Vizsla. The most frequently selected meat was chicken (17.8%, 1,456 of 8,181), followed by fish (14.9%, 1,215 of 8,181), and then beef (14.0%, 1,148 of 8,181). A full breakdown of the selected meat types are shown in Figure 13.

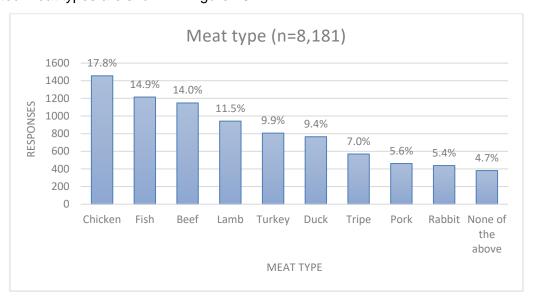


Figure 13: Types of meat given to the HWV included in the survey

When asked if their dog has any known dietary allergies, 1,917 owners reported no known dietary allergy. However, 421 dogs were reported to have at least one dietary allergy. Figure 14 shows the dietary allergies reported in the survey, the most frequently reported being 'chicken' (19.6%, 188 of 961), followed by 'wheat' (17.3%, 166 of 961), and then 'other' (16.2%, 156 of 961).

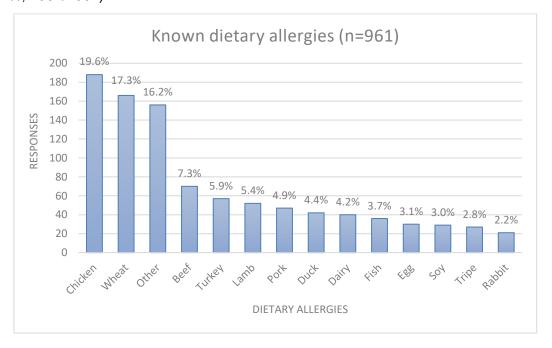


Figure 14: Known dietary allergies, as reported in the survey

The most common answers to "other" for known dietary allergies not already listed in the survey were: corn (n=14), peas (n=14), potatoes (n=12) and barley (n=12).

# **Health**

The survey investigated the number of dogs affected by specific conditions within different categories: 'Cancer', 'Digestive', 'Ear', 'Eye', 'Heart', 'Hormonal', 'Immunological', 'Kidney and/ or Bladder', 'Muscle, Bone or Joint', 'Neurological and/or Spinal', 'Reproductive', and 'Skin and/ or Coat'. Within each of these categories, the respondents were given a choice of specific conditions, the choices of "not known" and "other" were also given.

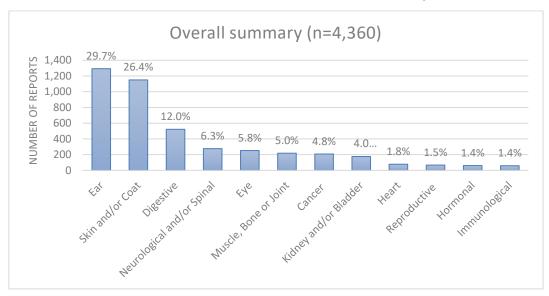


Figure 15: Overall summary of HWV conditions by category reported in the survey

The data collected from this survey represents the total number of conditions selected by respondents about their dog. One dog might be affected by more than one condition (e.g. one dog may be affected by both food and environmental allergies) therefore the data often shows more conditions reported per category than number of dogs in that category.

The total number of specific conditions reported in this survey was 4,360. Out of the 4,360 specific conditions reported 29.7% were for 'Ear', 26.4% were for 'Skin and/or Coat', 12.0% were for 'Digestive', 6.3% were for 'Neurological and/ or Spinal', and 5.8% were for 'Eye'. The results for each category are given in Table 4.

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Table 4: Overall summary	of HWV conditions reported in the survey

Body system	Number of reports	Percentage
Ear	1,293	29.7%
Skin and/or Coat	1,150	26.4%
Digestive	522	12.0%
Neurological and/or Spinal	276	6.3%
Eye	252	5.8%
Muscle, Bone or Joint	218	5.0%
Cancer	208	4.8%
Kidney and/or Bladder	176	4.0%
Heart	78	1.8%
Reproductive	67	1.5%
Hormonal	61	1.4%
Immunological	59	1.4%
TOTAL	4,360	

## **Ear Conditions**

When asked if their dog has ever suffered from an ear condition(s), out of the 2,130 responses, 957 (44.9%) answered "Yes" and 1,173 (55.1%) answered "No". The overall prevalence for ear conditions (39.8%, 957 of 2,406) reported in this survey is greater than the overall prevalence reported in the 2010 Breed Health Survey (36%, 87 of 240) (Evans et al, 2010). Please note that the 2010 Breed Health Survey asked for owners to report conditions which required veterinary treatment, whereas the current survey did not specify this.

The median age that affected dogs started to experience the clinical signs associated with their ear condition(s) was two years of age (min: less than one year, max: 12 years).

The total number of individual ear conditions reported was 1,293. Of these, the most commonly reported condition was frequent ear infections, which affected 27.1% of the affected study sample (350 of 1,293). This was followed by excessive ear wax (22.6%), infrequent ear infections (18.6%), otitis externa (13.1%) and otitis media (8.0%). Table 5 shows the total number and percentage of dogs affected by each reported ear condition in descending order.

**Table 5:** Number and percentage of HWV affected by each specific ear condition, as reported in the survey

Specific condition	Number affected	Percentage
Frequent ear infections	350	27.1%
Excessive ear wax	292	22.6%
Infrequent ear infections (e.g. one off)	240	18.6%
Otitis externa	170	13.1%
Otitis media	104	8.0%
Not known	87	6.7%
Other	47	3.6%
Congenital deafness	3	0.2%
TOTAL	1,293	_

The most common answers to "other" for ear conditions not already listed in the survey were: pseudomonas (n=15), ear mites (n=10), dirty/ waxy/ yeasty ears (n=9), and inflamed/irritated ears (n=4).

#### Skin and/or Coat Conditions

When asked if their dog has ever suffered from a skin and/ or coat condition(s), out of the 2,286 responses, 743 (32.5%) answered "Yes" and 1,543 (67.5%) answered "No". The overall prevalence for skin and/or coat conditions (30.9%, 743 of 2,406) reported in this survey is greater than the overall prevalence reported in the 2010 Breed Health Survey (28.8%, 69 of 240) (Evans et al, 2010). Again, the 2010 Breed Health Survey asked for owners to report conditions which required veterinary treatment which this survey did not.

The results from this survey suggest that males are more likely to be affected by skin and/ or coat conditions than females (p < 0.01, OR 1.29 (95% CI 1.08-1.54)), and neutered dogs (for

both sexes) are significantly more likely to be affected by skin and/ or coat conditions than entire dogs (p < 0.001, OR 2.38 (95% CI 1.99-2.85)).

Please note that associations between neuter status and condition are heavily affected by age. This is because dogs are generally neutered earlier in life and the proportion of neutered dogs rises with age. In addition, it is unknown whether the condition preceded or followed the procedure for each individual neutered dog.

The median age that affected dogs started to experience the clinical signs associated with their skin and/or coat condition(s) was two years of age (min: less than one year, max: 13 years).

Figure 16 shows the clinical signs seen in the affected dogs, as reported by their owners. The most frequently reported clinical sign was 'itching/ chewing' (19.7%, 384 of 1,946), followed by 'redness' (19.0%, 370 of 1,946), and then 'rash' (18.2%, 355 of 1,946).

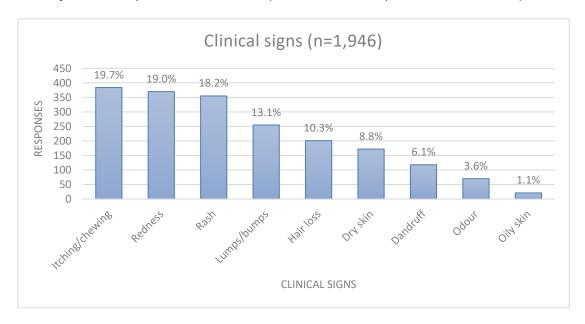


Figure 16: Clinical signs of skin and/or coat conditions, as reported in the survey

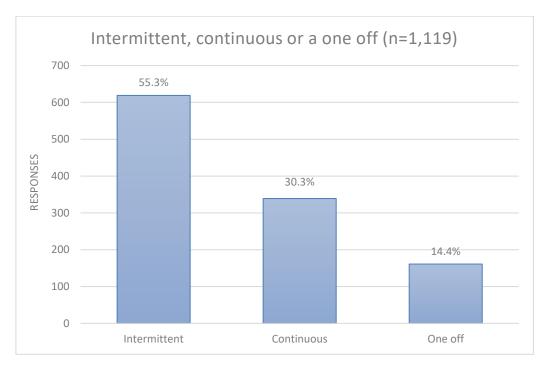
The total number of individual skin and/ or coat conditions reported was 1,150. Of these, the most commonly reported condition was environmental allergies, which affected 23.6% of the study sample (271 of 1,150). This was followed by dermatitis (14.1%), dietary allergies (10.6%), unknown allergies (9.5%) and hair loss (7.6%). Table 6 shows the total number and percentage of dogs affected by each reported skin and/or coat condition in descending order.

**Table 6:** Number and percentage of HWV affected by each specific skin and/or coat condition, as reported in the survey

Specific condition	Number affected	Percentage
Allergies (environmental)	271	23.6%
Dermatitis	162	14.1%
Allergies (dietary)	122	10.6%
Allergies - unknown	109	9.5%
Hair loss	87	7.6%
Not known	85	7.4%
Other	81	7.0%
Lipoma	70	6.1%
Skin cysts	57	5.0%
Pyoderma	47	4.1%
Histiocytoma	29	2.5%
Pyotraumatic dermatitis	26	2.3%
Demodectic/sarcoptic mange	4	0.3%
TOTAL	1,150	

The most common answers to "other" for skin and/ or coat conditions not already listed in the survey were: infection (n=6), spots/ sores (n=6), dandruff/ dryness/ scabbing (n=5), and redness/ rash (n=4).

Figure 17 shows whether the skin and/or coat conditions were continuous, intermittent or a one off.



**Figure 17:** Number of skin and/or coat conditions that were continuous, intermittent or a one off, as reported in the survey

# **Digestive Conditions**

When asked if their dog has ever suffered from a digestive condition(s), out of the 2,143 responses, 330 (15.4%) answered "Yes" and 1,813 (84.6%) answered "No".

The median age that affected dogs started to experience the clinical signs associated with their digestive condition(s) was two years of age (min: less than one year, max: 12 years).

The total number of individual digestive conditions was 522. Of these, the most commonly reported condition was chronic diarrhoea, which affected 20.1% of the study sample (105 of 522). This was followed by food allergies/ intolerance (18.0%), gastroenteritis (8.4%), pancreatitis (8.4%), and not known (8.0%). Table 7 shows the total number and percentage of dogs affected by each reported digestive condition in descending order.

**Table 7:** Number and percentage of HWV affected by each specific digestive condition, as reported in the survey

Specific condition	Number affected	Percentage
Chronic diarrhoea	105	20.1%
Food allergies/intolerance	94	18.0%
Gastroenteritis	44	8.4%
Pancreatitis	44	8.4%
Not known	42	8.0%
Other	36	6.9%
Chronic vomiting	33	6.3%
Colitis	32	6.1%
Impacted anal glands	26	5.0%
Flatulence	22	4.2%
Regurgitation	18	3.4%
IBD	14	2.7%
Gastric dilatation volvulus (GDV)/bloat	6	1.1%
Constipation	4	0.8%
Cleft palate	1	0.2%
Inguinal hernia	1	0.2%
TOTAL	522	

The most common answers to "other" for digestive conditions not already listed in the survey were: giardia/ campylobacter (n=6), diarrhoea/ occasional diarrhoea (n=6), intussusception (n=4), and vomiting/ occasional vomiting (n=4).

# **Neurological and/or Spinal Conditions**

When asked their dog has ever suffered from a neurological and/or spinal condition(s), out of the 2,305 responses, 215 (9.3%) answered "Yes" and 2,090 (90.7%) answered "No".

The median age that affected dogs started to experience the clinical signs associated with their neurological and/or spinal condition(s) was two years of age (min: less than one year, max: 13 years).

The total number of individual neurological and/or spinal conditions reported was 276. Of these, the most commonly reported condition was epilepsy, which affected 39.5% of the study sample (109 of 276). This was followed by seizures/ fitting (29.0%), other (10.1%), not known (8.7%), and degenerative myelopathy (DM) (2.5%). Table 8 shows the total number and percentage of dogs affected by each reported neurological and/or spinal condition in descending order.

**Table 8:** Number and percentage of HWV affected by each specific neurological and/or spinal condition, as reported in the survey

Specific condition	Number affected	Percentage
Epilepsy	109	39.5%
Seizures/fitting	80	29.0%
Other	28	10.1%
Not known	24	8.7%
DM	7	2.5%
Lumbosacral stenosis	5	1.8%
Vestibular disease	5	1.8%
Idiopathic head tremors	4	1.4%
Spondylosis deformans	3	1.1%
SRMA	3	1.1%
Discospondylitis	2	0.7%
GAN	2	0.7%
IVDD	2	0.7%
Sensory neuropathy	1	0.4%
Stroke	1	0.4%
TOTAL	276	

The most common answers to "other" for neurological and/or spinal conditions not already listed in the survey were: lumbosacral transitional vertebrae (n=3), brain tumour (n=2), and pain/ weakness in hindlimb(s) (n=2).

The results from this survey suggest that males are significantly more likely to be affected by epilepsy than females (p < 0.01, OR 1.87 (95% CI 1.23-2.84)).

## Muscle, Bone or Joint Conditions

When asked if their dog has ever suffered from a muscle, bone or joint condition(s), out of the 2,076 responses, 206 (9.9%) answered "Yes" and 1,870 (90.1%) answered "No".

The median age that affected dogs started to experience the clinical signs associated with their muscle, bone or joint condition(s) was four years of age (min: less than one year, max: 14 years).

The total number of individual muscle, bone or joint conditions reported was 218. Of these, the most commonly reported condition was arthritis, which affected 30.3% of the study sample (66 of 218). This was followed by other (26.1%), hip dysplasia (17.4%), not known

(8.3%), and elbow dysplasia (4.6%). Table 9 shows the total number and percentage of dogs affected by each reported muscle, bone or joint condition in descending order.

**Table 9:** Number and percentage of HWV affected by each specific muscle, bone or joint condition, as reported in the survey

Specific condition	Number affected	Percentage
Arthritis	66	30.3%
Other	57	26.1%
Hip dysplasia	38	17.4%
Not known	18	8.3%
Elbow dysplasia	10	4.6%
Chronic lameness	9	4.1%
CCLR	9	4.1%
Fractured bone	4	1.8%
OCD of the hock	2	0.9%
Carpal laxity syndrome	1	0.5%
OCD (unknown)	1	0.5%
OCD of the shoulder	1	0.5%
OCD of the elbow	1	0.5%
Patellar luxation	1	0.5%
TOTAL	218	

The most common answers to "other" for muscle, bone or joint conditions not already listed in the survey were: lameness/ intermittent lameness (n=10), ligament/ tendon damage (n=5), short ulna syndrome/ ulna deformity (n=4), and stiff joints (n=3).

# **Eye Conditions**

When asked if their dog has ever suffered from an eye condition(s), out of the 2,099 responses, 235 (11.2%) answered "Yes" and 1,864 (88.8%) answered "No". The overall prevalence for eye conditions (9.8%, 235 of 2,406) reported in this survey is slightly lower than the overall prevalence reported in the 2010 Breed Health Survey (10.0%, 24 of 240) (Evans et al, 2010).

The median age that affected dogs started to experience the clinical signs associated with their eye condition(s) was one year of age (min: less than one year, max: 12 years).

The total number of individual eye conditions reported was 252. Of these, the most commonly reported condition was other, which affected 41.3% of the study sample (104 of 252). This was followed by not known (14.7%), entropion (7.5%), corneal ulcer (6.3%), and blocked tear duct (6.0%). Table 10 shows the total number and percentage of dogs affected by each reported eye condition in descending order.

**Table 10:** Number and percentage of HWV affected by each specific eye condition, as reported in the survey

Specific condition	Number affected	Percentage
Other	104	41.3%
Not known	37	14.7%
Entropion	19	7.5%
Corneal ulcer	16	6.3%
Blocked tear duct	15	6.0%
Ectropion	13	5.2%
Keratoconjunctivitis sicca	13	5.2%
Cataract	9	3.6%
Prolapsed gland	8	3.2%
Epiphora	6	2.4%
Loss of vision	5	2.0%
Distichiasis	2	0.8%
Pigmentary keratitis	2	0.8%
Corneal dystrophy	1	0.4%
Glaucoma	1	0.4%
PPM	1	0.4%
TOTAL	252	

The most common answers to "other" for eye conditions not already listed in the survey were: conjunctivitis/ infection (n=49), gunky eyes (n=14), sore/ red/ itchy eyes (n=5), third eyelid/ scrolled cartilage (n=4), allergies/ hay fever (n=4), and growth/ tumour (n=4).

## Cancer

When asked if any of their dogs have suffered from cancer, out of the 2,158 responses, 189 (8.8%) answered "Yes" and 1,969 (91.2%) answered "No".

The median age that affected dogs started to experience the clinical signs associated with their cancerous condition(s) was eight years of age (min: less than one year, max: 14 years).

The total number of individual cancers reported was 208. Of these, the most commonly reported type of cancer was other, which affected 20.2% of the study sample (42 of 208). This was followed by mast cell tumour (16.8%), melanoma (13.0%), splenic tumour (8.7%), and lymphoma (7.7%). Table 11 shows the total number and percentage of dogs affected by each cancerous condition in descending order.

**Table 11:** Number and percentage of HWV affected by each specific cancerous condition, as reported in the survey

Specific condition	Number affected	Percentage
Other	42	20.2%
Mast cell tumour	35	16.8%
Melanoma	27	13.0%
Splenic tumour	18	8.7%
Lymphoma	16	7.7%
Liver tumour	12	5.8%
Not known	10	4.8%
Osteosarcoma	10	4.8%
Vascular/ blood tumour	8	3.8%
Mammary tumour	7	3.4%
Brain tumour	6	2.9%
Testicular tumour	6	2.9%
Bladder tumour	5	2.4%
Kidney tumour	3	1.4%
Thyroid tumour	2	1.0%
Anal sac tumour	1	0.5%
TOTAL	208	

The most common answers to "other" for cancerous conditions not already listed in the survey were: hemangiosarcoma (n=4), eye cancer/ ring iris melanoma (n=4), prostate tumour (n=3), bowel tumour (n=3), and lung tumour (n=3),

# Kidney and/or Bladder Conditions

When asked if their dog has ever suffered from a kidney and/or bladder condition(s), out of the 2,080 responses, 150 (7.2%) answered "Yes" and 1,930 (92.8%) answered "No".

The median age that affected dogs started to experience the clinical signs associated with their kidney and/or bladder condition(s) was three years of age (min: less than one year, max: 14 years).

The total number of individual kidney and/or bladder conditions reported was 176. Of these, the most commonly reported condition was urinary tract infection (UTI), which affected 40.3% of the study sample (71 of 176). This was followed by urinary incontinence (22.2%), other (14.2%), urolithiasis (6.8%), and kidney failure (6.3%). Table 12 shows the total number and percentage of dogs affected by each reported kidney and/or bladder condition in descending order.

**Table 12:** Number and percentage of HWV affected by each specific kidney and/or bladder condition, as reported in the survey

Specific condition	Number affected	Percentage
UTI	71	40.3%
Urinary incontinence	39	22.2%
Other	25	14.2%
Urolithiasis	12	6.8%
Kidney failure	11	6.3%
Hyperuricosuria	8	4.5%
Not known	7	4.0%
Cystinuria	2	1.1%
Amyloidosis	1	0.6%
TOTAL	176	

The most common answers to "other" for kidney and/or bladder conditions not already listed in the survey were: urinary crystals (n=5), cystitis (n=3), tumour (n=3).

#### **Heart Conditions**

When asked if their dog has ever suffered from a heart condition(s), out of the 2,088 responses, 74 (3.5%) answered "Yes" and 2,014 (96.5%) answered "No".

The median age that affected dogs started to experience the clinical signs associated with their heart condition(s) was five years of age (min: less than one year, max: 13 years).

The total number of individual heart conditions reported was 78. Of these, the most commonly reported condition was heart murmur, which affected 60.3% of the study sample (47 of 78). This was followed by irregular heart rate and/or rhythm (7.7%), mitral valve degeneration (MVD) (7.7%), other (7.7%), and heart failure (6.4%). Table 13 shows the total number and percentage of dogs affected by each reported heart condition in descending order.

**Table 13:** Number and percentage of HWV affected by each specific heart condition, as reported in the survey

Specific condition	Number affected	Percentage
Heart murmur	47	60.3%
Irregular heart rate and/or rhythm	6	7.7%
MVD	6	7.7%
Other	6	7.7%
Heart failure	5	6.4%
DCM	3	3.8%
Aortic stenosis/subaortic stenosis	2	2.6%
Myocarditis/Endocarditis	2	2.6%
Not known	1	1.3%
TOTAL	78	

The answers to "other" for heart conditions not already listed in the survey were: aneurism of the vena cava (n=1), enlarged heart (n=1), hemangiosarcoma in the heart (n=1), heart issues caused by medication – unspecified (n=1), patent ductus arteriosus (n=1), tumour (n=1), and ventricular septal defect (n=1).

# **Reproductive Conditions**

When asked if their dog has every suffered from a reproductive condition(s), out of the 2,058 responses, 58 (2.8%) answered "Yes" and 2,000 (97.2%) answered "No".

The median age that affected dogs started to experience the clinical signs associated with their reproductive condition(s) was two years of age (min: less than one year, max: 12 years).

The total number of individual reproductive conditions reported was 67. Of these, 23.9% were for male conditions (16 out of 67), and 76.1% were for female conditions (51 out of 67).

Overall the most commonly reported reproductive condition across sexes was other, which affected 25.4% of the study sample (17 of 67). This was followed by pseudopregnancy (17.9%), enlarged prostate (11.9%), pyometra (11.9%), and irregular seasons (9.0%). Table 14 shows the total number and percentage of dogs affected by each reported reproductive condition.

**Table 14:** Number and percentage of HWV affected by each specific reproductive condition, as reported in the survey

	Specific condition	Number affected
Male conditions	Enlarged prostate	8 (50.0%)
	Not known	4 (25.0%)
	Cryptorchidism	3 (18.8%)
	Other	1 (6.3%)
	Total	16
Female conditions	Other	16 (31.4%)
	Pseudopregnancy	12 (23.5%)
	Pyometra	8 (15.7%)
	Irregular seasons	6 (11.8%)
	Mastitis	4 (7.8%)
	Fertility problems	3 (5.9%)
	Dystocia	1 (2.0%)
	Not known	1 (2.0%)
	Total	51
Total		67

The most common answers to "other" for reproductive conditions not already listed in the survey were: prolapsed uterus (n=5) and underdeveloped ovaries (n=2).

## **Hormonal Conditions**

When asked if any of their dogs have suffered from a hormonal condition(s), out of the 2,084 responses, 53 (2.5%) answered "Yes" and 2,031 (97.5%) answered "No".

The median age that affected dogs started to experience the clinical signs associated with their hormonal condition(s) was two years of age (min: less than one year, max: 11 years).

The total number of individual hormonal conditions reported was 61. Of these, the most commonly reported condition was other, which affected 54.1% of the study sample (33 of 61). This was followed by hypothyroidism (18.0%), not known (11.5%), Addison's disease (6.6%) and Cushing's disease (4.9%). Table 15 shows the total number and percentage of dogs affected by each reported hormonal condition in descending order.

**Table 15:** Number and percentage of HWV affected by each specific hormonal condition, as reported in the survey

Specific condition	Number affected	Percentage
Other	33	54.1%
Hypothyroidism	11	18.0%
Not known	7	11.5%
Addison's disease	4	6.6%
Cushing's disease	3	4.9%
Hyperthyroidism	2	3.3%
Diabetes	1	1.6%
TOTAL	61	

The most common answers to "other" for hormonal conditions not already listed in the survey were: phantom pregnancy (n=9), hair loss (n=5), enlarged prostate (n=3), and delayed season (n=3).

# **Immunological Conditions**

When asked if their dog has ever suffered from an immunological condition(s), out of the 2,171 responses, 61 (2.8%) answered "Yes" and 2,110 (97.2%) answered "No". The overall prevalence for immunological conditions (2.5%, 61 of 2,406) reported in this survey is lower than the overall prevalence reported in the 2010 Breed Health Survey (7.1%, 17 of 240) (Evans et al, 2010).

The median age that affected dogs started to experience the clinical signs associated with their immunological condition(s) was three years of age (min: less than one year, max: 10 years).

The total number of individual immunological conditions reported was 59. Of these, the most commonly reported condition was other, which affected 50.8% of the study sample (30 of 59). This was followed by autoimmune haemolytic anaemia (13.6%), not known (13.6%), masticatory myositis (10.2%) and immune-mediated thrombocytopenia (5.1%). Table 16

shows the total number and percentage of dogs affected by each reported immunological condition in descending order.

**Table 16:** Number and percentage of HWV affected by each specific immunological condition, as reported in the survey

Specific condition	Number affected	Percentage
Other	30	50.8%
Autoimmune haemolytic anaemia	8	13.6%
Not known	8	13.6%
Masticatory myositis	6	10.2%
Immune-mediated thrombocytopenia	3	5.1%
Immune-related arthritis	2	3.4%
MDR1	1	1.7%
Myasthenia gravis	1	1.7%
TOTAL	59	

The most common answers to "other" for immunological conditions not already listed in the survey were: autoimmune disease - unspecified (n=3), adverse reaction to vaccination (n=2), and infection/ inflammation of the ears (n=2).

# **Additional Conditions not listed in survey**

The respondents were provided with the opportunity to note any conditions not already covered by the previous questions. The conditions listed for more than one dog by category were:

# **Behavioural**

Nine reports of anxiety/ nervousness

Three reports of behavioural (unspecified)

Two reports of sensitivity to sounds

Two reports of aggression

#### Cancer

Two reports of histiocytoma

## **Dental**

Seven reports of malocclusion/ small lower jaw

Three reports of lingually displaced canines

# **Digestive**

Nine reports of blocked/ infected anal glands

#### Ear

Two reports of deafness

# **Immunological**

Four reports of an adverse reaction to vaccination/ worming treatment

Three reports of an adverse reaction to steroids/ penicillin/ antibiotics

Two reports of kennel cough

# Muscle, bone or joint

Twelve reports of tail injury/ 'happy tail'/ 'swimmers tail'

Three reports of injury

Two reports of claw damage

# Reproductive

Three reports of vaginitis

# Respiratory

Two reports of pneumonia

# Skin and/or Coat

Seven reports of lumps/ warts

Four reports of lip fold pyoderma/ dermatitis

Two reports of oesinophilic furunculos

Two reports of itchy paws

Two reports of mole removal

#### Other

Eleven reports of an umbilical hernia

Four reports of a hernia (unspecified)

Four reports of a ruptured spleen/spleen removal

Three reports of elevated liver enzymes

# **Death reports**

When asked if they were reporting for a dog that has sadly passed away, out of 2,052 responses, 215 (10.5%) answered "Yes", and 1,837 (89.5%) answered "No".

The median age at death was nine years and three months (min = three months, max = 15 years and six months).

Of 222 reported causes of death by organ system or category, the most frequently reported was cancerous (43.2%, 96 of 222), other (22.5%), neurological and/or spinal (12.6%), heart (5.0%), and kidney and/or bladder (4.5%). Table 17 shows the total number and percentage of causes of death by organ system or category in descending order.

**Table 17:** Number and percentage of causes of death by organ system or category, as reported in the survey

Organ system/ category	Number of dogs	Percentage
Cancerous	96	43.2%
Other	50	22.5%
Neurological and/or spinal	28	12.6%
Heart	11	5.0%
Kidney and/or bladder	10	4.5%
Liver	9	4.1%
Digestive	8	3.6%
Breathing	4	1.8%
Muscle, bone or joint	4	1.8%
Hormonal	2	0.9%
TOTAL	222	

The most common answers to "other" were: old age (n=6), internal rupture/ spleen rupture/ gastric rupture (n=6), epilepsy (n=4), hemangiosarcoma (n=3), and pancreas/ pancreatic cancer (n=3).

The common specific causes of death were epilepsy/ seizures/ fitting (n=19), splenic tumour/ cancer (n=9), tumour/ cancer (unspecified) (n=9), liver tumour cancer (n=8), and hemangiosarcoma (n=8).

In a final question, owners were asked to list and rank the top three health conditions in the breed that they are most concerned about (condition one being the most important and condition three being the least important). Table 18 shows a full breakdown of the results.

**Table 18:** Top health conditions in the HWV that owners are most concerned about, as reported in the survey

Condition 1	N	Condition 2	N	Condition 3	N
Epilepsy/ seizures/ fitting	89	Allergies	36	Allergies	18
Cancer	44	Cancer	28	Cancer	17
Skin conditions	13	Epilepsy	8	Skin conditions	15
Allergies	12	Skin conditions/ allergies	19	Epilepsy/ seizures	14
Autoimmune	39	Ear infection/ problem	16	Ear conditions	11
Hip dysplasia	4	Autoimmune conditions	5	Hip dysplasia	7
нии	4	Pseudomonas	5	vaccine intolerance	5
Ear conditions	3	Joint issues	4	Autoimmune conditions	4
Behaviour	2	Neurological conditions	4	Digestive issues	4
Digestive issues	2	Behaviour	3	Behaviour	3
Tumours/ lumps (unspecified)	2	Digestive	3	Neurological	3
Degenerative retinal syndrome	1	Hip dysplasia	3	Joint conditions	3
Eye conditions	1	Eye infection	2	Eyes	2
Heart failure	1	Heart (unspecified)	2	HUU	2
Hip issues (unspecified)	1	Heart murmurs	2	MMM	2
Joint conditions (unspecified)	1	HUU	2	Vomiting	1
Kidneys	1	Orthopaedic issues	2	Anal gland problems	1
Leishmaniosis	1	Short ulna syndrome	2	Arthritis	1
Urinary tract conditions	1	Anaemia	1	Dysplasia (unspecified)	1
Pancreatitis	1	Arthritis	1	Food sensitivity	1
		Cystitis	1	Oversized	1
		Elbow (unspecified)	1	Gastric	1
		Elbow Dysplasia	1	Hair loss	1
		Loss of wiry coat	1	Immune-mediated	1
		Pancreatitis	1	Kidney failure	1
		Polymyopathy	1	Lipomas	1
				Urinary issues	1
				Warts/ growths	1

# References

Evans, K., Adams, V., Sampson, J. (2010) Confidential health survey of the Hungarian Wirehaired Vizsla Association. *Health and Husbandry*.

O'Neill, D.G, James, H., Brodbelt, D.C., Church, D.B., Pegram, C. (2021) Prevalence of commonly diagnosed disorders in UK dogs under primary veterinary care: results and applications. *BMC Veterinary Research*. **17(69)**