



**THE KENNEL CLUB  
DOG HEALTH**

**Boxer**

**Pedigree Breed Health Survey**

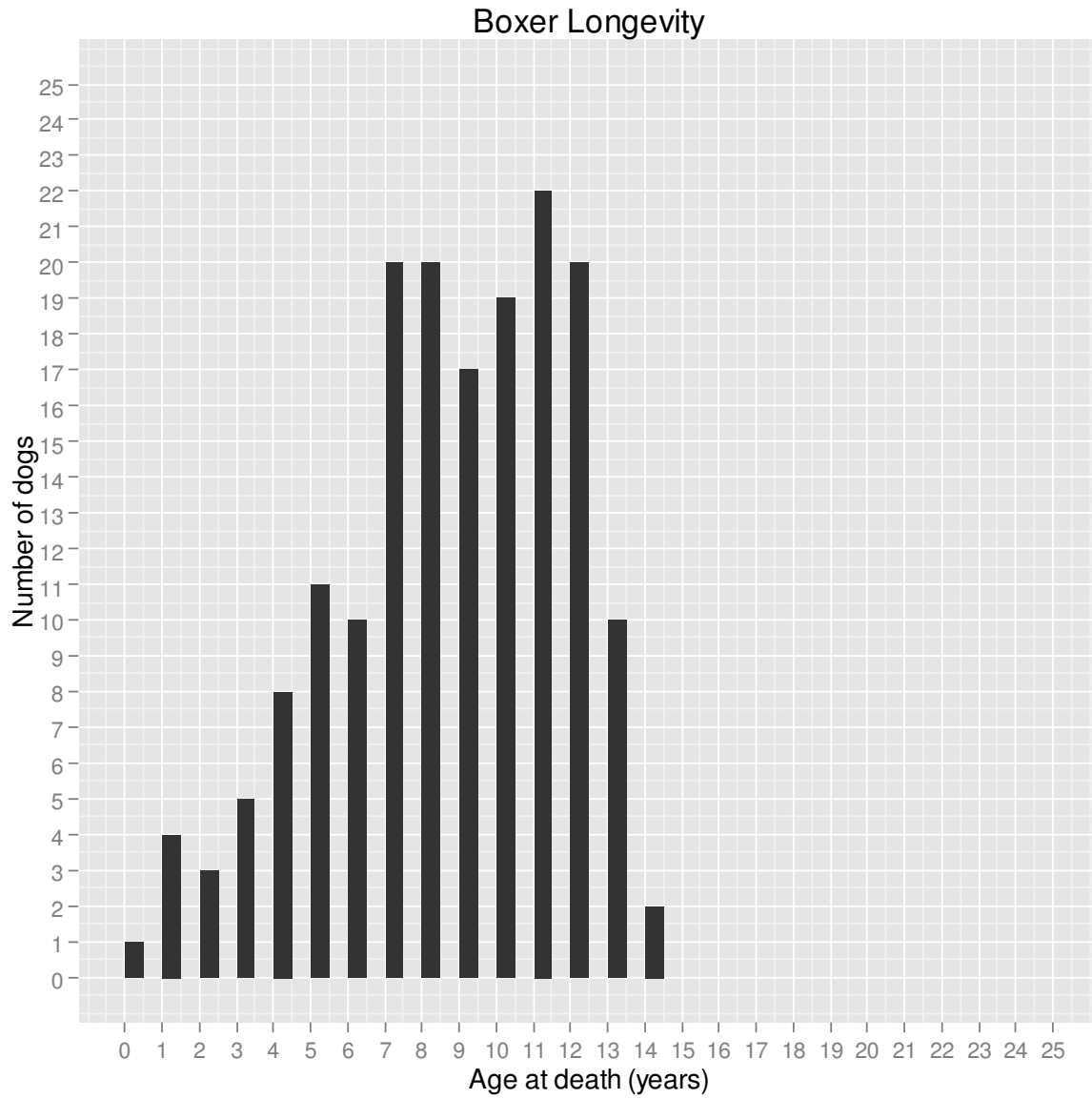
Forms were received representing 724 living dogs & 172 deceased dogs.

**Mortality results**

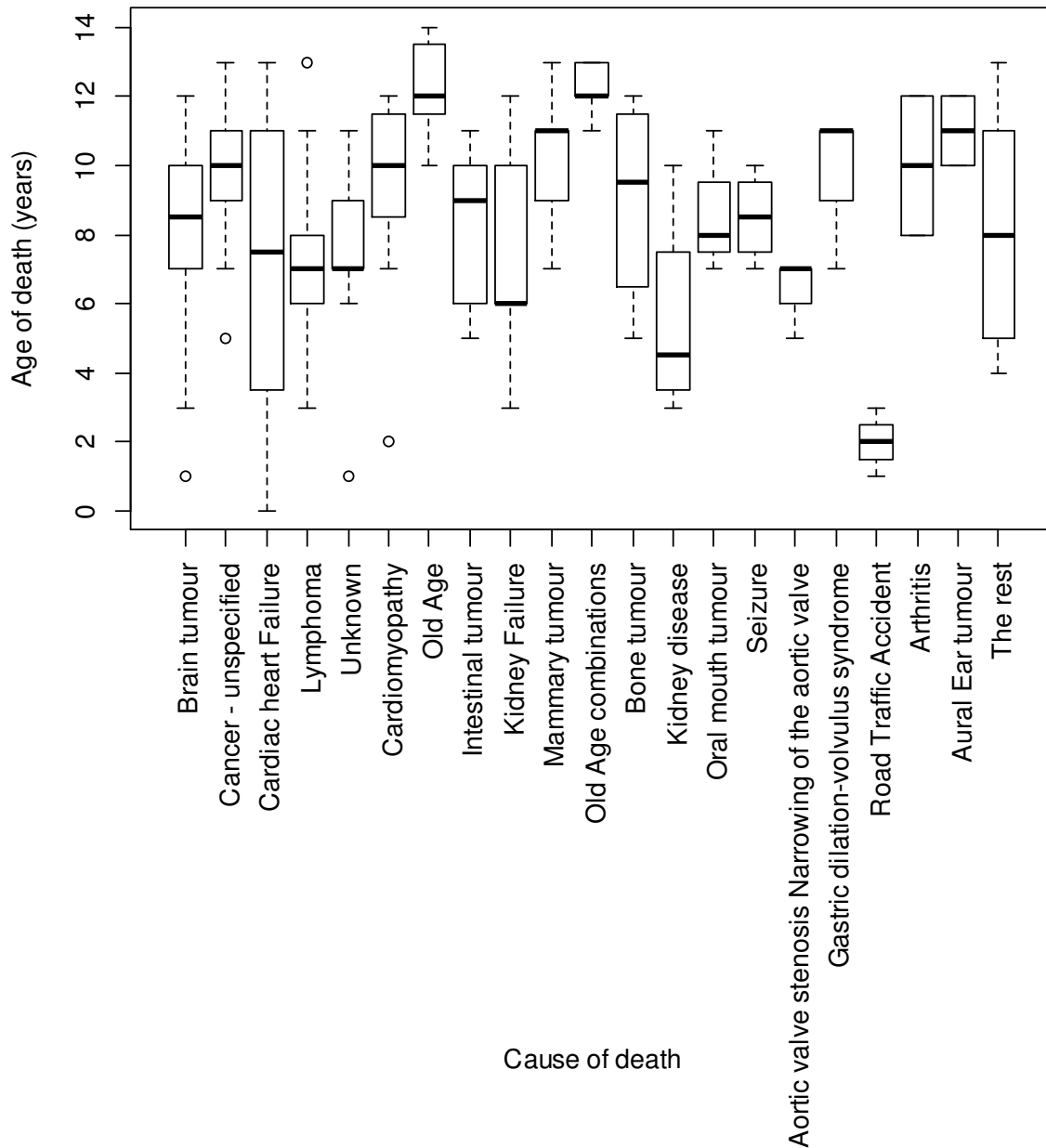
A total of 172 deaths were reported, representing 3.06% of all deaths reported in the Pedigree Breed Health survey. The median longevity for the Boxer was 9 years (Figure 1). Table 1 shows the causes of death for the breed. Age at death is presented for the most common causes in Figure 2.

**Table 1** The twenty most common causes of death/reasons for euthanasia (N = 172 deceased dogs).

<b>Cause of death</b>	<b>Number of cases</b>	<b>Proportion (%)</b>
Brain tumour	26	15.12
Cancer - unspecified	21	12.21
Cardiac (heart) Failure	12	6.98
Lymphoma	11	6.40
Unknown	9	5.23
Cardiomyopathy	7	4.07
Old Age	7	4.07
Intestinal tumour	5	2.91
Kidney Failure	5	2.91
Mammary tumour	5	2.91
Old Age combinations	5	2.91
Bone tumour	4	2.33
Kidney disease	4	2.33
Oral mouth tumour	4	2.33
Seizure	4	2.33
Aortic valve stenosis Narrowing of the aortic valve	3	1.74
Gastric dilation-volvulus syndrome GDV Bloat	3	1.74
Road Traffic Accident	3	1.74
Arthritis	2	1.16
Aural Ear tumour	2	1.16



**Figure 1:** Histogram of the longevity for 172 reported deaths: overall median age at death was 9 years (minimum= 0 years, maximum= 14 years); mean age at death was 8.46 years



**Figure 2:** Box and whisker plot of age at death in years for the twenty most common causes of death (N=172). The solid line within each box represents the median age of death from the condition. The box represents 50% of the dogs and the whiskers represent 95% of the dogs for each condition. The circles (o) represent possible outliers

## **Morbidity results**

The 724 live Boxers represented 1.68% of total dogs in the survey. The median age of live dogs for the breed was 4 years (Table 2). Of the 724 Boxer which the survey covers, 333 had reported no conditions and 391 reported affected by at least one condition (min = 1 condition(s), max = 12 conditions), giving a total of 911 incidents of conditions.

The gender, neuter status and age of neutering summary statistics for Boxer's are shown in Table 3. There were 617 dogs with responses for Body Condition displayed in Table 4.

The median age the dogs were first affected by a condition was 3 years (min = 0 years, max= 12 years, Figure 3). The ages for the most common conditions is displayed in Figure 4. Table 5 shows the frequency of occurrence of all reported disease conditions for the Boxer.

**Table 2:** The summary statistics for the dogs' current age when survey was completed

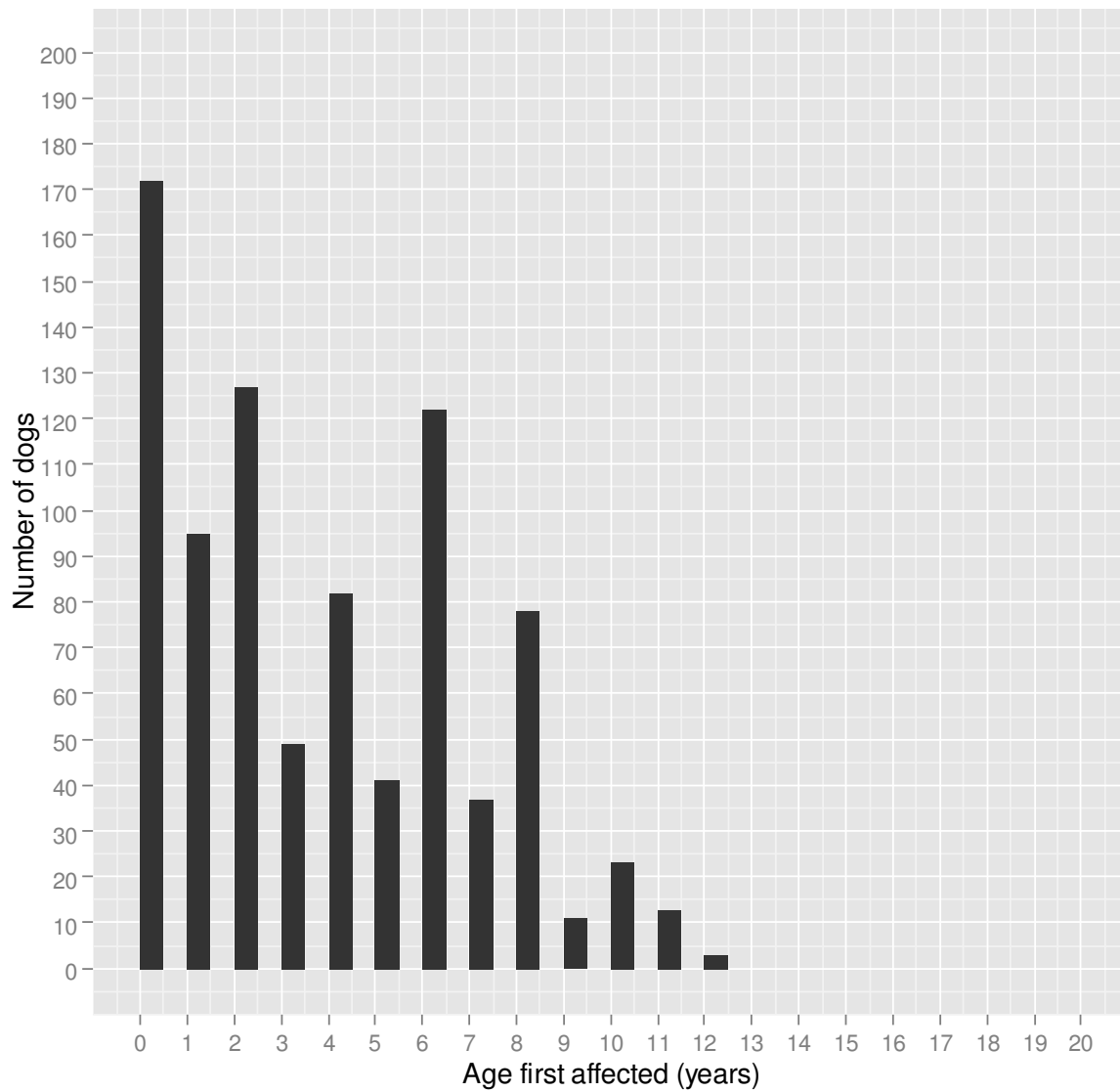
<b>Number of Dogs</b>	<b>Mean age (years)</b>	<b>Median age (years)</b>	<b>Min age (years)</b>	<b>Max age (years)</b>
724	4.64	4	0	15

**Table 3:** Gender, neuter status and age summary statistics for dogs where gender and neuter status was reported

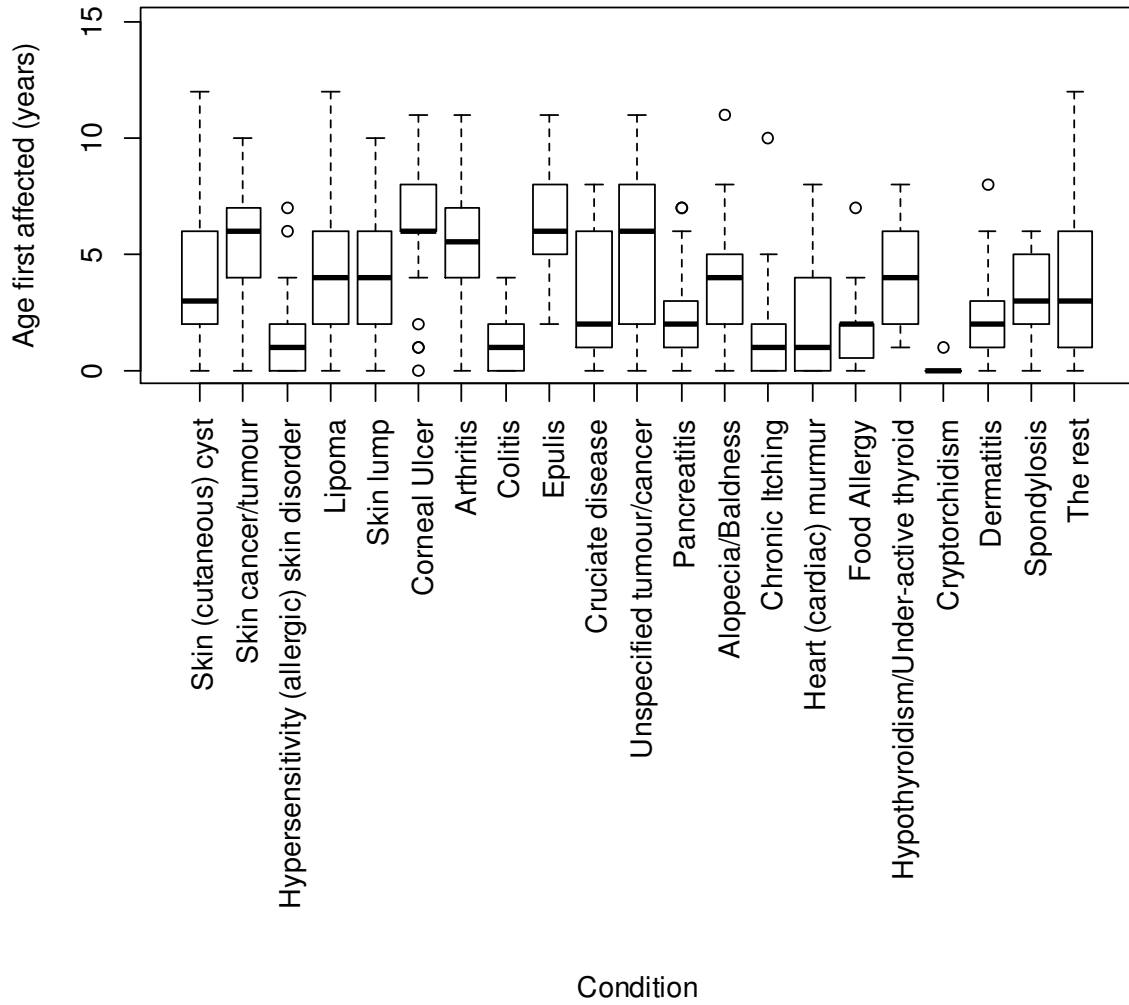
<b>Sex</b>	<b>Neuter status</b>	<b>Age known</b>	<b>Count</b>	<b>Mean age neutered (years)</b>	<b>Median age neutered (years)</b>	<b>Min age neutered (years)</b>	<b>Max age neutered (years)</b>
Female	Neutered	Yes	232	1.47	1	0	8
Female	Neutered	No	3	NA	NA	NA	NA
Female	Not neutered	No	123	NA	NA	NA	NA
Female	Unknown	No	11	NA	NA	NA	NA
Male	Neutered	Yes	176	0.99	1	0	6
Male	Neutered	No	1	NA	NA	NA	NA
Male	Not neutered	No	161	NA	NA	NA	NA
Male	Unknown	No	17	NA	NA	NA	NA

**Table 4:** The body condition comment and the age of the dog when this comment was made

<b>Body condition</b>	<b>Count</b>	<b>Mean age comment made (years)</b>	<b>Median age comment made (years)</b>	<b>Min age comment made (years)</b>	<b>Max age comment made (years)</b>
No comment was made by vet	24	4.21	4	0	11
Normal	548	3.93	4	0	12
Somewhat overweight	26	6.12	6	0	10
Somewhat underweight	16	3.19	2	0	12
very overweight	1	2.00	2	2	2
Very underweight	2	6.00	6	2	10



**Figure 3:** Histogram showing frequency of known age at diagnosis for the disease conditions reported



**Figure 4:** Box and whisker plot of age at diagnosis in years for the most common disease conditions in descending order. The solid line within each box represents the median age at diagnosis from the condition. The box represents 50% of the dogs and the whiskers represent 95% of the dogs for each condition. The circles (o) represent possible outliers

**Table 5:** The most commonly reported disease conditions in descending order for the breed (N = 724 live dogs)

Condition	Number of cases of disease	Proportion (%)	Prevalence (%)
Skin (cutaneous) cyst	49	5.38	6.77
Skin cancer/tumour	48	5.27	6.63
Hypersensitivity (allergic) skin disorder	42	4.61	5.80
Lipoma	39	4.28	5.39
Skin lump	37	4.06	5.11
Corneal Ulcer	36	3.95	4.97
Arthritis	32	3.51	4.42
Colitis	30	3.29	4.14
Epulis	26	2.85	3.59
Cruciate disease	25	2.74	3.45
Unspecified tumour/cancer	23	2.52	3.18
Alopecia/Baldness	21	2.31	2.90
Chronic Itching	21	2.31	2.90
Pancreatitis	21	2.31	2.90
Heart (cardiac) murmur	18	1.98	2.49
Food Allergy	17	1.87	2.35
Cryptorchidism	15	1.65	2.07
Dermatitis	15	1.65	2.07
Hypothyroidism/Under-active thyroid	15	1.65	2.07
Otitis media	13	1.43	1.80

Proportion of morbidity as %= N/911 disease conditions, prevalence %= N/724 live dogs

### **Summary**

From the dogs surveyed, most Boxers were affected by a disease condition (54.01%). The most commonly reported disease condition in live dogs was skin (cutaneous) cyst. The most commonly reported cause of death was brain tumour.