

## The 'Generation Pup' puppy birth cohort: owner-reported canine health problems to age 12 months BRISTOL





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## **Summary:**

 Longitudinal data collected for 358 dogs revealed that owners were more likely to seek veterinary advice for dogs that were insured and if no other dogs were owned by the household. Health problems lasting longer (1-2 days or 3+ days) were more likely to result in veterinary advice than health problems lasting <1 day. The type of problem (vomiting/eye problem/skin problem) was not significantly associated with seeking veterinary advice.

## The 'Generation Pup' study:

- Owners of dogs living in the UK or Republic of Ireland (any breed or cross-breed, aged <16</li> weeks) are being recruited to the 'Generation Pup' study.
- Recruitment (via veterinary practices, social media, dog trainers, etc.) began in earnest in July 2017, with the aim of recruiting 10,000 dogs by 2021.
- By 3<sup>rd</sup> February 2019, 2,391 dogs had been recruited and 873 dogs had reached 12 months of age
- Data for this analysis were collected via owner-completed online questionnaires.
- (Additional data are collected from veterinary clinical notes, health cards completed by veterinary staff and from owner-submitted canine biological samples).
- Complete health data up to age 12 months were available for 366 (41.9%) dogs.
- 8 households had 2 registered dogs. One dog in each of these households was excluded at random, to avoid clustering at household level.
- Descriptive owner-reported canine health data are reported for 358 dogs.

Owner-reported canine health data from acquisition to age 12 months were compiled from a pre-defined list of health conditions that was included in surveys, completed by owners when dogs reached specific ages:

- <16 weeks (16w): Data from acquisition of puppy to 16 weeks of age: extracted from the 'Settling in', '12 week' and '16 week' surveys,</li> [Dog Name] has had...(tick all that apply)
- 6 months (6m): "In the last two months, [Dog Name] has had...(tick all that apply)
- 9 months (9m): "In the last three months, [Dog Name] has had...(tick all that apply)
- 12 months (12m): "In the last three months, [Dog Name] has had...(tick all that apply)

Free text responses for 'other' health conditions were also provided but were not included in this analysis.

Table 1: No. (%) of owner-reported canine health problems (from a pre-defined list), at any time point between acquisition and age 12 months for 358 dogs

acquisition and age 12 months for 330 augs							
	n	%					
Diarrhoea*	127	35.5					
Vomiting/sickness	94	26.3					
An eye problem	70	19.6					
A skin problem	66	18.4					
A lack of appetite	55	15.4					
An ear problem	54	15.1					
A cut/other small injury	48	13.4					
A cough or sneeze	47	13.1					
Lameness	45	12.6					
Lethargic	35	9.8					
A tooth/mouth problem	15	4.2					
A dog bite	11	3.1					
Fracture/break to leg	3	0.8					
Dislocation of a joint	0	0.0					
None of the above	81	22.6					

\*Diarrhoea data excluded duration of signs at age 9m & 12m, so were not included in subsequent analyses.

Excluding diarrhoea, the three most prevalent problems were included in a:-

## Multivariable logistic regression analysis

- Outcome variable: Veterinary advice sought (yes/no)
- Potential risk factors:
- Problem (vomiting/eye/skin)
- Duration of signs (<1 day, 1-2 days, 3+ days) Kennel Club registered dog (yes/no)
- Insured (yes/no)
- Household income (5 categories)
- Multi-dog household (yes/no)
- No dogs owned as an adult previously (yes/no)

Location of household (urban/semi-urban/rural/remote)



Survey

**Timeline** 





Table 2: No. (%) of owner-reported canine problems for 358 dogs at four time points (acquisition-16 weeks, 6 months, 9 months and 12 months of age)

		Vomiting/sickness n	An eye problem n	A skin problem n
	No time points	264	288	292
	All time points	1	0	0
	<16w only	16	10	15
	16w & 6m	4	1	3
	16w & 9m	6	2	0
	16w & 12m	3	0	1
	16w, 6m & 9m	1	0	0
	16w, 6m & 12m	1	0	0
	16w, 9m & 12m	1	0	0
	6m only	15	19	9
	6m & 9m	2	7	3
	6m, 9m & 12m	1	1	3
	6m & 12m	2	2	0
	9m only	23	11	14
	9m & 12m	6	4	3
	12m only	11	13	15

Multivariable logistic regression results:



	n (%) of cases	n (%) of controls	Odds Ratio	95% Confidence Intervals	P-value
Duration of signs					
<1 day	13 (27.7)	34 (72.3)	1.00		< 0.001
1-2 days	28 (68.3)	13 (31.7)	8.35	2.90-24.07	
3+ days	55 (87.3)	8 (12.7)	19.61	6.46-53.67	
Insured					
No	8 (38.1)	13 (61.9)	1.00		0.012
Yes	86 (68.8)	39 (31.2)	4.29	1.39-13.26	
Multi-dog household					
No	60 (71.4)	24 (28.6)	1.00		0.008
Yes	36 (53.7)	31 (46.3)	0.31	0.13-0.73	

**Conclusions:** 

Owners were more likely to seek veterinary advice:

for insured dogs.

- if no other dogs were owned by the household.
- as the duration of signs increased.

The type of problem (vomiting/eye problem/skin problem) was not significantly associated with seeking veterinary advice.

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