

How do human choices influence the feeding of their dogs?

Dr Wanda McCormick



Background

- Vegan Society (2016) stated 540,000 vegan (less than 1%), 1,684,000 meat-free (2.5%) in UK.
- Dogs are a subspecies of the grey wolf but up to 100,000 years of domestication has caused changes to digestive system.
- Up to 5 times better at digesting starch (Axelsson *et al.*, 2013) with different microbiome (Lyu *et al.*, 2018).
- Very limited published work on meat-free diets for dogs.
- Kienzle & Engelhard (1999) - 86 vegetarian dogs in Germany, Switzerland and Belgium; over 50% of the dogs were fed diets deficient in protein, essential amino acids, calcium, zinc and vitamins D and B12.
- Dodd *et al.* (2019) – 3673 pet owners in Canada; 1.6% fed vegan diets (all bar 1 vegan themselves).

Objectives

- To identify the types of dog diets being fed in the UK (according to primary protein source grouping).
- To determine if human diet type influenced the diets being fed to dogs in the UK.
- To explore the reasons owners in the UK give for choosing their dog's diet type.

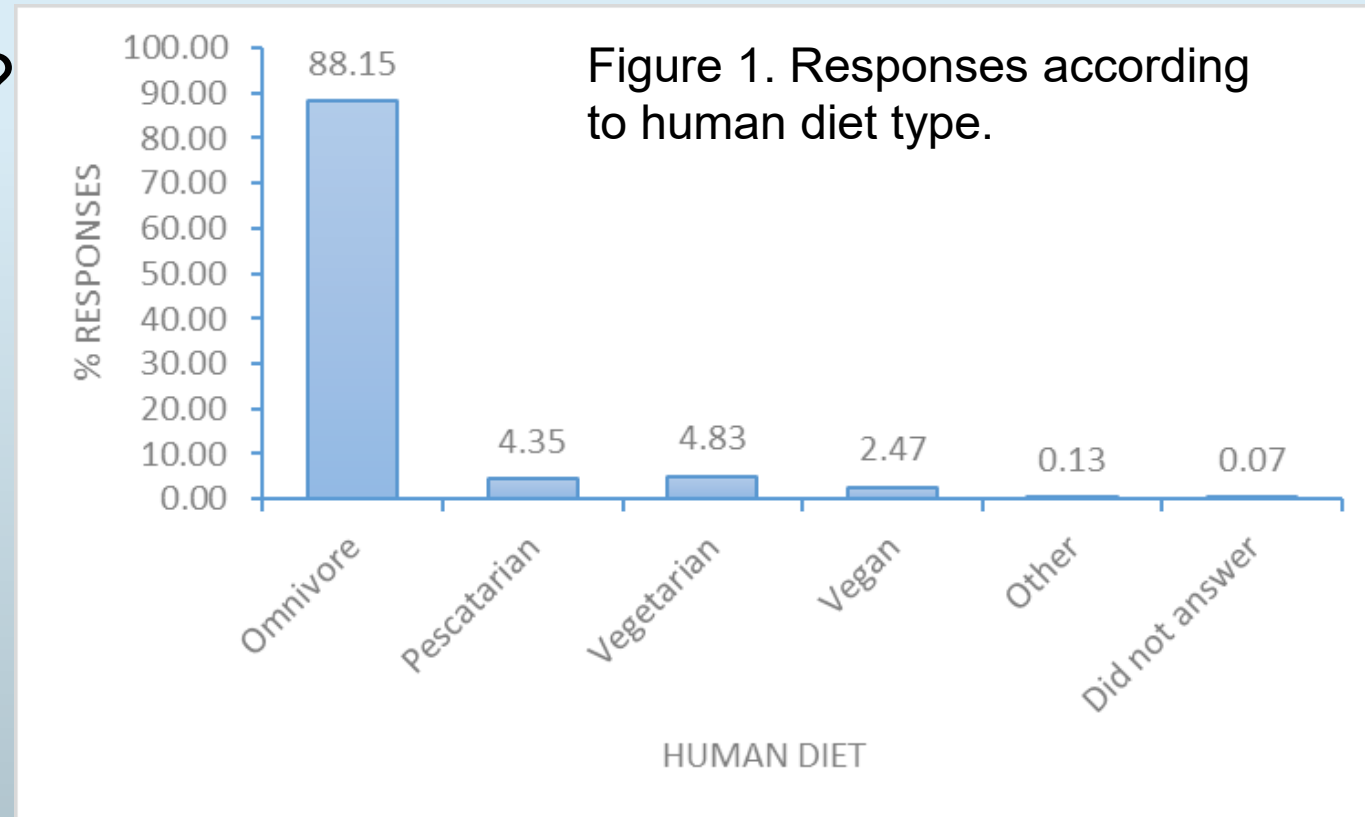
Methods

- Questionnaire produced using Qualtrics, run past small pilot group, and approved by UoN Faculty Ethics Committee and BBC.
- 6 questions:
 - How would you describe YOUR diet?
 - What is the breed of your dog?
 - What is the age of your dog in years?
 - What type of diet do you normally feed your DOG?
 - How do you normally source most of your dog's diet?
 - Why did you decide to feed your DOG this way?
- Distributed widely via social media and promoted by the BBC's The ONE Show.
- Available from 26/3/19 to 29/4/19.
- Data coded in Excel and analysed in SPSS.



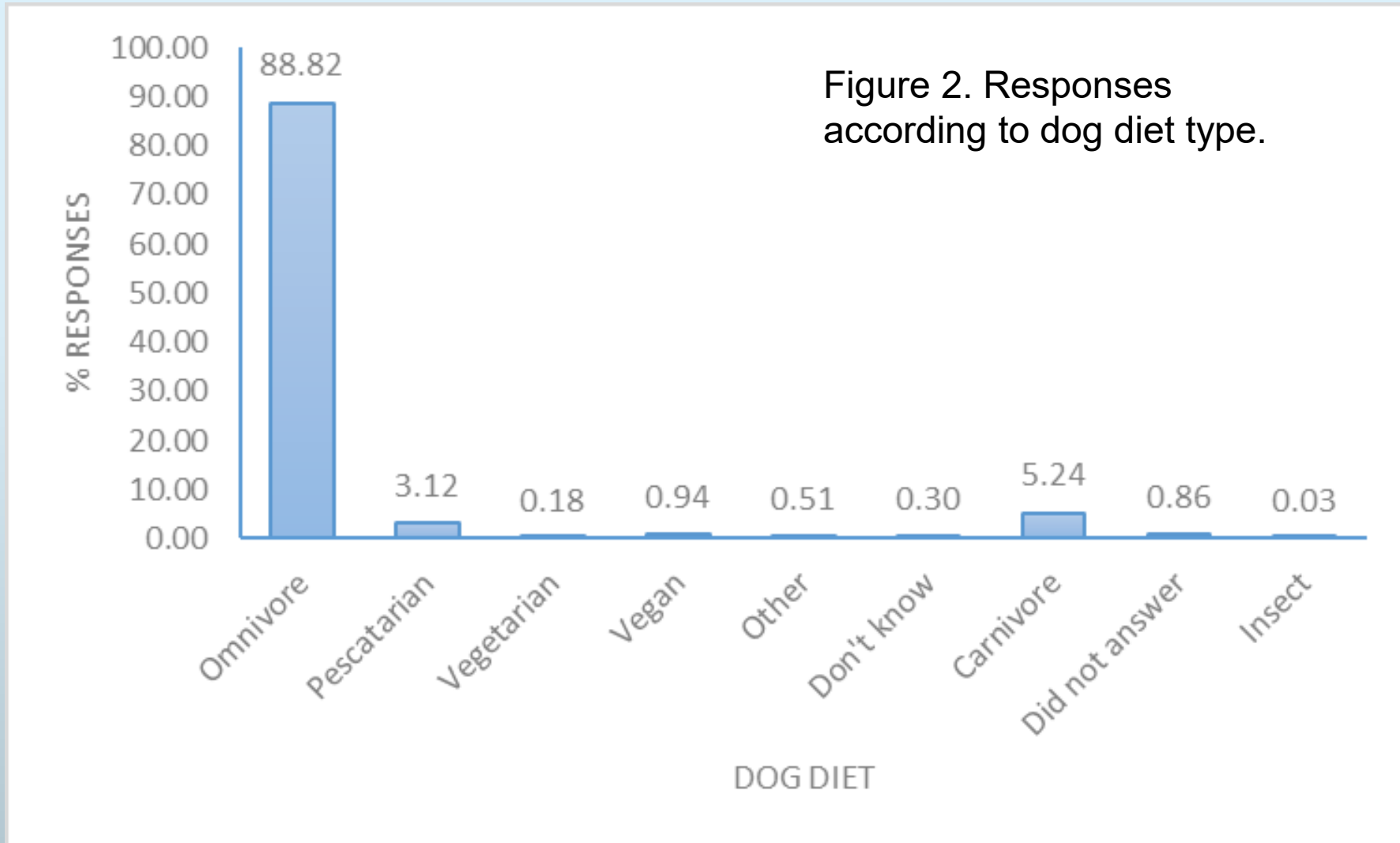
Results

- 36535 responses – cleaned according to consent questions, and any not completing dog diet questions, coding checked.
- n=33562
- More vegans / vegetarians?
- Flexitarian
- Chickens
- Paleo
- Facultative carnivore
- Errors – dog diets



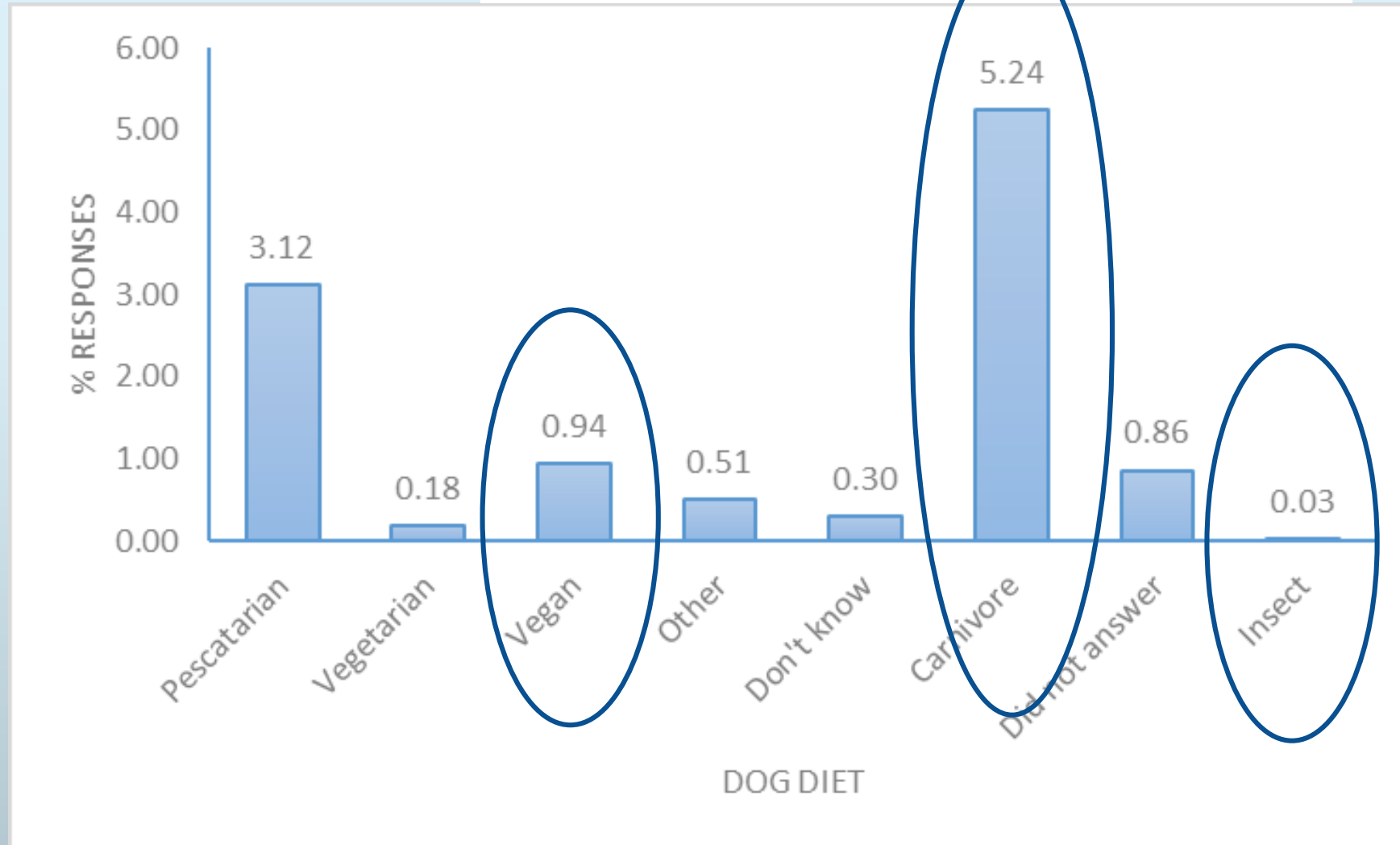
Dog diets

Raw?



Dog diets

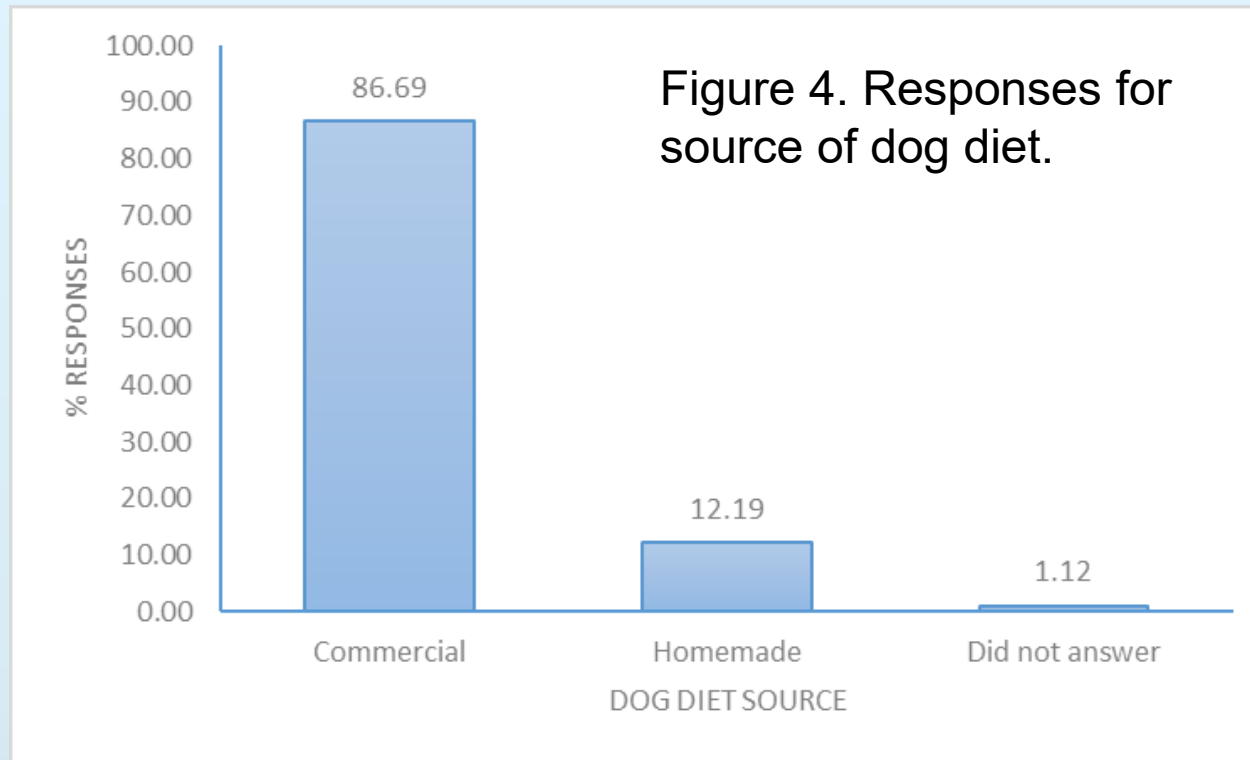
Figure 3. Responses according to dog diet type (omnivore diets removed).



Prey model raw / SARF / BARF?

9 people – only 3 months

Dog diets



- Relatively high proportion of homemade diets.
- Stockman *et al.* (2013) – online recipes (maintenance); most would not meet NRC requirements, more deficiencies if written by non-vets.
- Oliveira *et al.* (2014) – even those prescribed by vets are often not adhered to.

Human choice influences

- Highly significant association between owner diet and dog diet source, owner diet and dog diet, and dog diet and diet source ($P < 0.001$ for all).
- 11.7% omnivore owners feed homemade vs 20.7% vegan owners.
- Of 2450 meat-free (vegetarian and vegan) owners, only 314 dogs were fed meat-free.
- 1% vegetarian owners fed their dogs as vegetarian but 33% vegan owners fed their dogs as vegan.
- Vegan dog diets twice as likely to be homemade as typical omnivore diets but fully carnivore ones actually three times more likely to be homemade (11.2%, 22.3%, 34.5%).

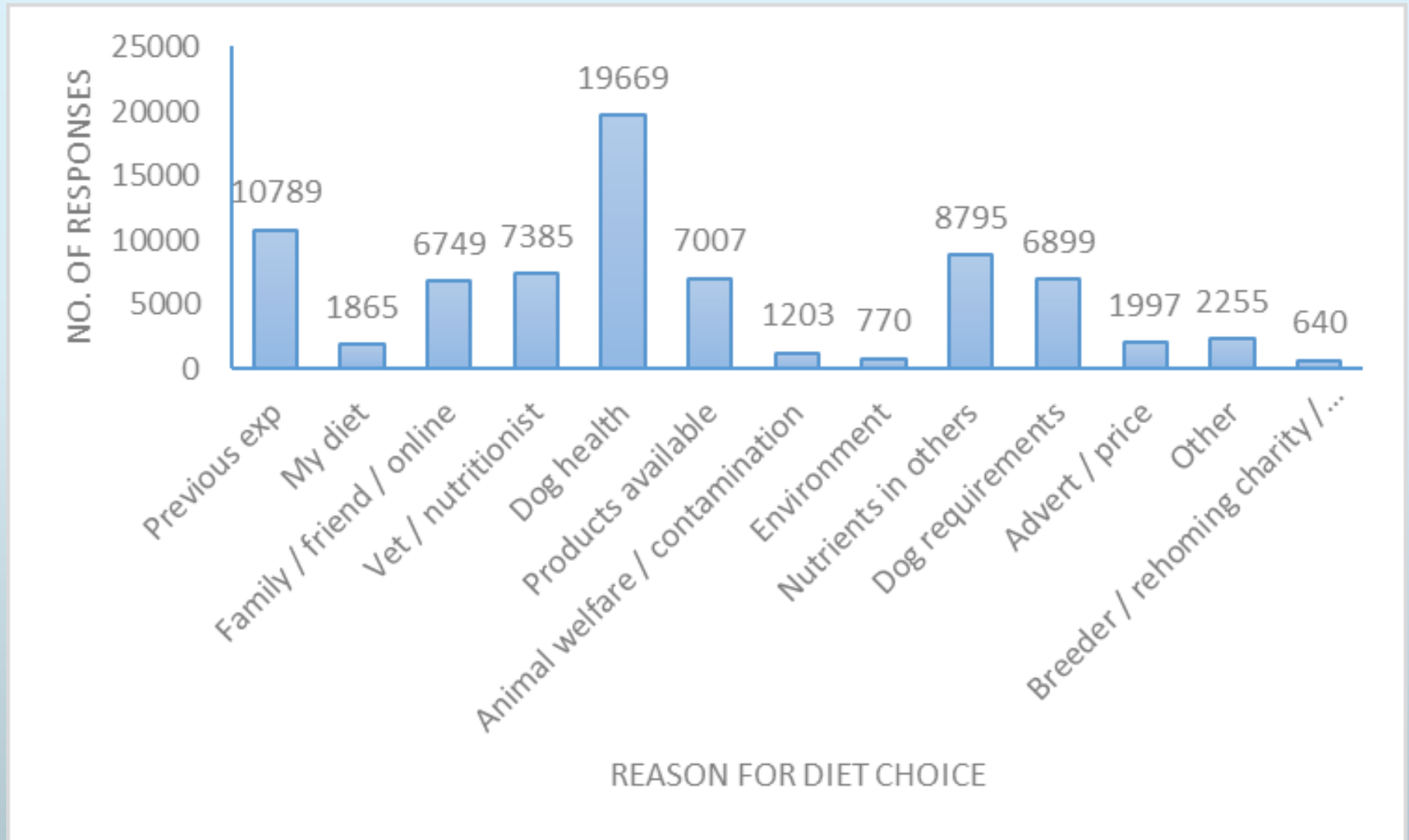
What makes people choose?

Figure 5. Reasons for people choosing their dog's diet.

Dog's health a priority.

More people stated concerns about other diets than based upon vet advice.

'Expert' opinion of breeders / rehoming charities.



What about dog health?

- Clearly important to owners!
- Interesting changes happening around complete vegan diets...
- Greatest concern about homemade diets – 12.19% = 4090 owners.
- Information available is essential – need to consider human aspects of diet choice much more, especially around social media.

What next?

- 443 respondents specifically stated diet choice based upon food allergy / intolerance sensitivity. (Many more mentioned grain-free, etc... but without identifying an identified need).
- Diet intolerances very commonly discussed but very little published evidence.
- Some companies now promoting genetic testing but not validated (and possibly discredited).
- Likely most owners are diagnosing this problem but complicated by many things – full range of nutrients in diet, storage mites, etc...

Acknowledgements

- A huge thank you to Screenhouse Productions and the BBC's The ONE Show.
- All of the owners and their dogs!

