

Additional file 3

Power calculations for the Generation Pup study.

Age of dogs (years)	Number of dogs estimated to leave the study, during the previous 12 months ^a	Number of dogs estimated to remain in the study	Number of dogs estimated to have data available for analysis, allowing for missing data ^b	Minimum Prevalence to detect OR $\geq$ 1.50 ^c 30% 20% 10%	Minimum Prevalence to detect OR $\geq$ 1.75 ^c 30% 20% 10%	Minimum Prevalence to detect OR $\geq$ 2.00 ^c 30% 20% 10%
Total number of dogs in cohort = 10,000						
1	1020	8980	3143	8.9 11.1 18.7	4.6 5.6 9.2	2.9 3.5 5.7
2	691	8289	2901	9.7 12.0 20.3	5.0 6.0 10.0	3.2 3.8 6.2
3	497	7791	2727	10.3 12.8 21.6	5.3 6.4 10.6	3.4 4.1 6.6
4	467	7324	2563	10.9 13.6 22.9	5.6 6.8 11.3	3.6 4.3 7.0
5	439	6884	2410	11.6 14.5 24.4	6.0 7.3 12.0	3.8 4.6 7.4
6	413	6471	2265	12.4 15.4 26.0	6.4 7.7 12.8	4.1 4.9 7.9
7	388	6083	2129	13.2 16.4 27.6	6.8 8.2 13.6	4.3 5.2 8.4
8	365	5718	2001	14.0 17.4 29.4	7.2 8.7 14.4	4.6 5.6 8.9
9	343	5375	1881	14.9 18.6 31.3	7.7 9.3 15.4	4.9 5.9 9.5
10	322	5052	1768	15.8 19.7 33.3	8.1 9.9 16.3	5.2 6.3 10.1
11	303	4749	1662	16.8 21.0 35.4	8.7 10.5 17.4	5.5 6.7 10.8
12	285	4464	1563	17.9 22.3 37.6	9.2 11.2 18.5	5.9 7.1 11.5

^a Based on conservative loss to follow up rates based on current data (Table 6) of 10.2% (231/2266) to age 12m and 7.7% (60/778) between age 12m and 2y and

assuming a reduced LTFU thereafter of 6% annually (based on reduced numbers of owners leaving the study through being disengaged, but with higher numbers of mortality as dogs age).

^b The number of dogs that could potentially be included in analyses for outcome data at different age timepoints has been calculated, assuming that 35% of remaining dogs have a complete dataset available for analysis.

^c <http://sampsiz.sourceforge.net/iface/s3.html#cc>