

Supplementary Material

Supplementary Table S1: Data collection items

Identifying questions			
House address and community? Free response Do Aboriginal and/or Torres Strait Islander people live in this household? Yes, No, Undisclosed			
Human health	Animal health	Environmental health	One Health concept
<p>How many people live in the household? 1-10+ people</p> <p>How many bedrooms does the household have? 1-5+ bedrooms Don't know</p> <p>Is the household crowded? Yes a lot Yes a fair bit Yes a little bit No Don't know</p>	<p>Animal health assessments: Species (dog or cat) Breed Size Sex Age group Desexing status Body condition score Hair score Tick and flea score Other problems Treatments delivered</p>	<p>Do you have any concerns with your household environment? If yes, what? Water supply/quality Containing animals (fencing) Yard maintenance (grass) Animal mess (carcasses/faeces) Waste management (rubbish) Washing and hygiene facilities Pests (rodents, insects, parasites) Wild animals (horses) Power supply/electricity Other (free response)</p>	<p>Do animals affect the health of people living in your household? Yes a lot Yes a fair bit Yes a little bit No Don't know</p> <p>If yes, how? Itchy animals make people itchy Sick animals make people sick Injury from animals (bites, scratches) Affects wellbeing (sad when animals are sick or injured) Don't know Other (free response)</p>
<p>Are you worried about the health of your animals? Yes a lot Yes a fair bit Yes a little bit No Don't know</p> <p>If yes, what are your concerns? Disease Injury Too many animals Can't access animal health care Don't know Other (free response)</p>	<p>Does the community need animal health care? If yes, what? Vet based in community Vet visiting the community Animal medicines available Community animal health workers Regular and ongoing program Don't need animal health care Controlling wild animals Don't know Other (free response)</p>		<p>Does the environment affect the health of people living in your household? Yes a lot Yes a fair bit Yes a little bit No Don't know</p> <p>If yes, how? Impacts of wild animals (horses, pigs etc.) Affects health of people Affects health of dogs and cats Weather events (storms, fires, floods) Impact of climate change Don't know Other (free response)</p>

Supplementary Table S2: Exposure and outcome variables

Human health (exposures)		Environmental health (exposures)		Animal health (outcomes)	
<i>Variable</i>	<i>Options</i>	<i>Variable</i>	<i>Options</i>	<i>Variable</i>	<i>Options</i>
Household crowding	>2 people per bedroom per household (crowded) ≤2 people per bedroom per household (not crowded)	Household environmental concerns	Concerns with household environment (at least one concern) No concerns (no)	Body condition score (BCS)	Unhealthy BCS (thin BCS 1-3 and overweight BCS 7-9) Healthy BCS (BCS 4-6)
Perceived crowding	Crowded (yes to feels crowded) Not crowded (no)	Animal crowding	Animal crowding (>4 animals per household) No animal crowding (1-4 animals per household)	Hair score	Unhealthy hair score (hair score 2-6) Healthy hair score (hair score 1)
Concerns for animal health	Concerns for animal health (yes to has concerns) No concerns (no)	Animal breeding	Breeding (puppies and/or kittens present) No breeding (no litters)	Tick and flea score	Unhealthy tick and flea score (tick and flea score 2-4) Healthy tick and flea score (tick and flea score 1)

Supplementary Table S3: Fisher's exact test

Healthy BCS				
	Unhealthy BCS O (E)*	Healthy BCS O (E)*	Total	Fisher's exact test (p-value)
Human health exposures				
>2 people per bedroom per household	1 (0.8)	5 (5.2)	6	1.00
≤2 people per bedroom per household	6 (6.2)	42 (41.8)	48	
Total	7	47	54	
Perceived crowding	1 (1.7)	12 (11.3)	13	1.00
No crowding	6 (5.3)	35 (35.7)	41	
Total	7	47	54	
Concerns for animal health	5 (3.8)	25 (26.2)	30	0.44
No concerns	2 (3.2)	23 (21.8)	25	
Total	7	48	55	
Environmental health exposures				
Household concerns	7 (6.3)	43 (43.8)	50	1.00
No concerns	0 (0.8)	6 (5.3)	6	
Total	7	49	56	
Animal crowding	1 (2.0)	15 (14.0)	16	0.66
No animal crowding	6 (5.0)	34 (35.0)	40	
Total	7	49	56	
Animal breeding	0 (1.0)	8 (7.0)	8	0.58
No breeding	7 (6.0)	41 (42.0)	48	
Total	7	49	56	
Healthy hair score				
	Unhealthy hair score O (E)*	Healthy hair score O (E)*	Total	Fisher's exact test (p-value)
Human health exposures				
>2 people per bedroom per household	3 (1.0)	3 (5.0)	6	0.05
≤2 people per bedroom per household	5 (7.0)	36 (34.0)	41	
Total	8	39	47	
Perceived crowding	2 (1.9)	9 (9.1)	11	1.00
No crowding	6 (6.1)	30 (29.9)	36	
Total	8	39	47	
Concerns for animal health	5 (4.5)	22 (22.5)	27	1.00
No concerns	3 (3.5)	18 (17.5)	21	

Total	8	40	48	
Environmental health exposures				
Household concerns	7 (7.0)	36 (36.0)	43	1.00
No concerns	1 (1.0)	5 (5.0)	6	
Total	8	41	49	
Animal crowding	2 (2.4)	13 (12.6)	15	1.00
No animal crowding	6 (5.6)	28 (28.4)	34	
Total	8	41	49	
Animal breeding	1 (1.3)	7 (6.7)	8	1.00
No breeding	7 (6.7)	34 (34.3)	41	
Total	8	41	49	
Healthy tick and flea scores				
	Unhealthy tick and flea score O (E)*	Healthy tick and flea score O (E)*	Total	Fisher's exact test (p-value)
Human health exposures				
>2 people per bedroom per household	2 (1.4)	3 (3.6)	5	0.60
≤2 people per bedroom per household	10 (10.6)	29 (28.4)	39	
Total	12	32	44	
Perceived crowding	2 (2.7)	8 (7.3)	10	0.70
No crowding	10 (9.3)	24 (24.7)	34	
Total	12	32	44	
Concerns for animal health	9 (6.4)	15 (17.6)	24	0.10
No concerns	3 (5.6)	18 (15.4)	21	
Total	12	33	45	
Environmental health exposures				
Household concerns	12 (11.3)	28 (28.7)	40	0.66
No concerns	1 (1.7)	5 (4.3)	6	
Total	13	33	46	
Animal crowding	2 (4.0)	12 (10.0)	14	0.29
No animal crowding	11 (9.0)	21 (23.0)	32	
Total	13	33	46	
Animal breeding	2 (2.3)	6 (5.7)	8	1.00
No breeding	11 (10.7)	27 (27.3)	38	
Total	13	33	46	

* O: Observed frequency; E: Expected frequency

Supplementary Table S4: One Health at household level

Questions	Number (N)	Percentage (%)
Do Aboriginal and/or Torres Strait Islander people live in this household?		
Yes	81	98.8
No	1	1.2
Missing	0	0.0
Total	82	100.0
<i>One Health concept</i>		
Do animals affect the health of people living in your household?		
No	38	46.3
Yes	34	41.5
Don't know	1	1.2
Missing	9	11.0
Total	82	100.0
If yes, how? (can choose multiple options)		
Itchy animals make people itchy	9	11.0
Sick animals make people sick	12	14.6
Injury from animals (bites, scratches	4	4.9
Affects wellbeing (sad when animals are sick or injured)	13	15.8
Other (comments)	26	31.7
Does the environment affect the health of people living in your household?		
No	24	29.3
Yes	19	23.2
Don't know	3	3.7
Missing	36	43.9
Total	82	100.0
If yes, how? (can choose multiple options)		
Impacts of wild animals (horses, pigs etc.)	3	3.7
Affects health of people	6	7.3
Affects health of dogs and cats	1	1.2
Impact of climate change	3	3.7
Don't know	2	2.4
Other (comments)	17	20.7
<i>Human Health</i>		
How many people live in the household?		
1-2	16	19.5
3-4	26	31.7
5-6	17	20.7
7-8	13	15.8
9+	9	11.0
Missing	1	1.2
Total	82	100.0
How many bedrooms does the household have?		
1	1	1.2
2	13	15.8
3	22	26.8
4	32	39.0
5+	10	12.2
Don't know	1	1.2

Missing	3	3.7
Total	82	100.0
Crowding		
Not crowded (≤ 2 people per bedroom per household)	68	82.9
Crowded (> 2 people per bedroom per household)	11	13.4
Missing	3	3.7
Total	82	100.0
Is the household crowded?		
No	61	74.4
Yes	17	20.7
Don't know	1	1.2
Missing	3	3.7
Total	82	100.0
Are you worried about the health of your animals?		
No	37	45.1
Yes	43	52.4
Missing	2	2.4
Total	82	100.0
If yes, what are your concerns? (can choose multiple options)		
Disease	25	30.5
Injury	9	11.0
Too many animals	5	6.1
Other (comments)	38	46.3
Environmental health		
Do you have any concerns with your household environment?		
Yes	71	86.6
No	11	13.4
Total	82	100.0
If yes, what? (can choose multiple options)		
Water and power supply/quality	7	8.5
Containing animals (fencing)	47	57.3
Yard and rubbish management	4	4.9
Animal mess (carcasses/faeces)	11	13.4
Washing and hygiene facilities	1	1.2
Pests (rodents, insects, parasites)	52	63.4
Wild animals (horses)	24	29.3
Other (comments)	61	74.4
Household owns cats and dogs		
Yes	67	81.7
No	15	18.3
Total	82	100.0
Cats and dogs per house		
0	15	18.3
1-4	48	58.5
5-8	14	17.1
9-12	5	6.1
Total	82	100.0
Litters present		
Puppies or kittens present	8	11.9

No litters	59	88.1
Total	67*	100.0
Animal health		
Body condition score household average		
Thin (BCS 1-3)	3	4.5
Ideal (BCS4-6)	49	73.1
Overweight (BCS 7-9)	4	6.0
Missing	11	16.4
Total*	67*	100.0
Hair score household average		
No hair loss (full coat)	41	61.2
Up to 20% hair loss	8	11.9
Missing	18	26.9
Total*	67*	100.0
Tick score household average		
No ticks	35	52.2
Mild ticks	9	13.4
Moderate ticks	1	1.5
Missing	22	32.8
Total*	67*	99.9
Flea score household average		
No fleas	36	53.7
Mild fleas	7	10.5
Missing	24	35.8
Total*	67*	100.0
Does the community need animal health care? If yes, what? (can choose multiple options)		
Vet based in community	12	14.6
Vet visiting the community	33	40.2
Animal medicines available	42	51.2
Community animal health workers	5	6.1
Regular and ongoing program	26	31.7
Don't need animal health care	2	2.4
Controlling wild animals	3	3.7
Don't know	2	2.4
Other (comments)	66	80.5

* Households with no animals excluded