



2015 KUUJJUAQ DOG SURVEY

Short report

A study led by the Université de Montréal, in partnership with:

Nunavik Research Center - Makivik Corporation

Municipality of Kuujuaq

Kativik Regional Government

Nunavik Regional Board of Health and Social Services

Université du Québec à Montréal

Université du Québec en Abitibi Témiscamingue

École nationale vétérinaire, agroalimentaire et de l'alimentation Nantes-Atlantique

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More information at www.vetnunavik.ca

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A total of 67 volunteers participated in the study. Women represented 64.2% and JBNQA beneficiaries 52.2% of the participants. The lifetime spent in Nunavik varied greatly among participants, from 6 months to 60 years. Most of participants (76.1%) owned only one dog, and the maximum of dog owned by a single owner was 13 (a musher), for a total of 105 owned dogs reported by participants (Table 1).

Table 1. Description of participants

Demographic characteristics of participants (n=67)	Proportions (%)
Sex	
Men	35.8
Women	64.2
Participant Status	
JBNQA beneficiaries	52.2
JBNQA non beneficiaries	48.8
Lifetime spent in Nunavik	
Mean	21.4 years
Minimum	0.5 year
Maximum	60 years
Number of dogs per home	
1	76.1
2	16.4
3-13	7.5

Dog Demography and Nutrition

Among the 105 dogs in the study, 45.7% were female, and 73.3% were mainly used as companion (Table 2). The average dog age was 3 years old, with a significant difference between dogs owned by JBNQA beneficiaries (average=2.9 years) and other residents (average=4.6 years). 46.3% of the participants keep their dog mostly outdoors, and among the respondents who let their dog outside at least half of the day, 93% declared that they keep it on a chain. On the other hand, 78% declared that they let their dog free sometimes, and 40.3% let them free at least once a day. 35.9% of the dogs were spayed or neutered. The proportion was higher in female dogs with 52.1% vs male 21.8%. The proportion of spayed or neutered dogs was also lower in dogs owned by JBNQA beneficiaries with 14.1% in comparison to other residents(68.3%). Regarding the first choice of food, the three most frequently food categories reported by the participants were commercial dog food (67.2%), wild meat (11.9%), and food scraps (10.5%), with significant differences between JBNQA beneficiaries and other residents (Table 2).

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Table 2. Descriptive Analysis of the Surveyed Dog Population

	Proportions (%)
Sex (n=105)	
Male	54.3
Female	45.7
Mean age (n=105)	
Total dog population	3.3 years
Dogs owned by JBNQA beneficiaries	2.9 years
Dogs owned by JBNQA non beneficiaries	4.6 years
Main purpose (n=105)	
Companion	73.3
Sled	22.9
Guard dog	2.9
Main habitat of dogs (n=67)	
Mostly outside	46.3
Mostly inside	34.3
Both outside and inside	19.4
First choice of food (n=67)	
Commercial dog food	
Total dog population	67.2
Dogs owned by JBNQA beneficiaries	45.7
Dogs owned by JBNQA non beneficiaries	90.6
Wild meat (country food)	
Total dog population	11.9
Dogs owned by JBNQA beneficiaries	20.0
Dogs owned by JBNQA non beneficiaries	3.1
Food scraps	
Total dog population	10.5
Dogs owned by JBNQA beneficiaries	20.0
Dogs owned by JBNQA non beneficiaries	0
Spayed/neutered (n=105)	
Total dog population	35.9
By sex: Only male dogs	21.8
Only female dogs	52.1
By owner: Dogs owned by JBNQA beneficiaries	14.1
Dogs owned by JBNQA non beneficiaries	68.3

Dog health

65.7% of participants reported that one of their dogs had been injured or sick in the past (Table 3). A higher proportion of non-beneficiaries reported health problems vs. beneficiaries (87.5% vs 45.7%). the most frequent category of health problem reported was wounds following dog fights (42.2%), followed by gastrointestinal problems such as vomiting or diarrhea (24.4%),

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skin or teeth problems(15.6%), parasites (12.0%), porcupine quills (11.1%) and injuries from car accidents (11.1%)(Table 3).

Table 3. Main Dog Health Problems

	Proportions (%)
Reported that their dog has been injured or sick	65.7
JBNQA beneficiaries	45.7
JBNQA non beneficiaries	87.5
Main types of health problem reported	
Dog fight/wound	42,2
Vomiting/diarrhea	24,4
Skin/teeth problems	15,6
Parasites	12,0
Porcupine quills	11,1
Hit by car	11,1

In the total dog population, 76.2% were vaccinated against rabies and 77.1% were vaccinated against other diseases. The proportions of dogs that were treated against parasites at least once in their life was significantly lower among dogs owned by JBNQA beneficiaries when compared to other residents (29.7% vs 63.4%). All participants answered that it was important for them that their dog be vaccinated. The main reason mentioned was to protect their dog's health (reported by 85.1% of the participants), followed by prevention of rabies (32.8%) and for public health protection (20.9%).

Table 4. Preventive Treatments of Dogs and Importance of Vaccination

	Proportions (%)
Vaccinated against rabies	
Total dog population	76.2
Vaccinated against other diseases	77.1
Treated against parasites	42.9
JBNQA beneficiaries	29.7
JBNQA non beneficiaries	63.4
Why is it important for you that your dog	
Animal health	85.1
Prevention of rabies	32.8
Public health	20.9

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Veterinary services

A lower proportion of JBNQA beneficiaries reported that they had consulted a veterinarian for their dog before the survey when compared to other residents (47.7% vs 87.5%). Among the participants who reported the use of veterinary services, a greater proportion of JBNQA beneficiaries mentioned the use of services in Nunavik when compared to other residents (68.8% vs 28.6%), and the opposite situation was observed for use of veterinary services outside Nunavik (56.3% of JBNQA beneficiaries vs 92.9% of other residents). 67.2% of the participants had heard of the veterinary long distance services offered by the University of Montreal (with no significant difference between beneficiaries and others), 21 had used it (46.7% of those who heard about it) and 13 reported that the service had helped them with their situation (61.9% of those who used it) .

Table 5. Use of Veterinary Services

	Proportions
Reported the consultation of a veterinarian for their dog	
Total of participants	65.7
JBNQA beneficiaries	45.7
JBNQA non beneficiaries	87.5
In or outside Nunavik (n=44)	
In Nunavik	43.2
JBNQA beneficiaries	68.8
JBNQA non beneficiaries	28.6
Outside Nunavik	79.5
JBNQA beneficiaries	56.3
JBNQA non beneficiaries	92.9

62.9% of participants who are JBNQA beneficiaries declared that they would get their dog spayed or neutered if the service was available in Kuujjuaq (Table 6). This proportion is significantly higher in non-beneficiaries participants (84.4%). 88.9% of the participants who would potentially use the service would be willing to pay for the service. The amount that they would be willing to pay varied between participants and between JBNQA beneficiaries and other residents (Table 6). Regarding the types of veterinary services that the respondents would like to have available in Kuujjuaq, the two most frequently reported were emergency services (reported by 35.8% of the participants) and spay/neutering services (reported by 32.8% of the participants) (with no differences between groups).

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Table 6. Willingness to Use and Pay for Spay\Neuter Services in Kuujjuaq

Would you get your dog spayed or neutered if the service was available?	Proportions (%)
Yes	73.1
JBNQA beneficiaries	62.9
JBNQA non beneficiaries	84.4
No	14.9
JBNQA beneficiaries	25.7
JBNQA non beneficiaries	3.1
Don't know	11.9
JBNQA beneficiaries	11.4
JBNQA non beneficiaries	12.5
<hr/>	
Would you be willing to pay for this service?	
Yes	88.9
No	3.7
Don't know	7.4
<hr/>	
How much would you pay to have your dog spayed or neutered?	
Between 0 and 100\$	34.4
JBNQA beneficiaries	53.3
JBNQA non beneficiaries	17.6
Between 100 and 200\$	21.9
JBNQA beneficiaries	20.0
JBNQA non beneficiaries	23.5
More than 200\$	43.8
JBNQA beneficiaries	26.7
JBNQA non beneficiaries	58.8

Interactions with Wildlife

Interactions (playing, chasing or fighting) with other dogs were reported by 86.6% of participants, and these were mostly everyday (51.7% of this subgroup). Interactions with raven were also frequently reported (52.2% of participants, and this was reported as happening every day for 42.2% of this subgroup). Interactions with porcupines were observed by 19.4% of participants, but this was a unique event for most of the participants. Interactions with foxes, bears or wolves were reported by a few participants, but observed only rarely (Table 7).

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Table 7. Observed Interactions with Other Animal Species (n=67)

Animal species	Proportions (%)
Other dogs	86.6
Ravens	52.2
Porcupines	19.4
Red foxes	9.0
Bears	6.0
White foxes	4.5
Wolves	4.5
Other (rabbits, squirrels, birds, muskox)	33.8

Human Health Risk Related to Dogs

Twenty-seven participants (40.3%) reported that they, or a member of their family, had been bitten or scratched by a dog in Nunavik, among which 22 are JBNQA beneficiaries, a proportion significantly higher than the other residents (62.9% vs 15.6%) (Table 8). The most frequent reported behavior toward a dog bite or a dog scratch was to go to the hospital, followed by killing the dog (20.9%), treating the wound themselves (16.4%) and verifying the vaccination status of the dog (9.0%). 20.9% of the participants mentioned explicitly the risk of rabies in their open answer (proportion was lower in JBNQA beneficiary subgroup with 11.4% vs 31.2% with other residents) (Table 8).

Table 8. Dog Attacks and Respondents Behavior Following a Dog Bite or Scratch (n=67)

	Proportions (%)
Reported dog bite or scratch on themselves or a member of their family	40.3
JBNQA beneficiaries	62.9
JBNQA non beneficiaries	15.6
Reported that themselves or a member of their family have been frightened or chased by a dog ¹	52.2
Participant behavior toward a dog bite or scratch	
Go to the hospital	70.1
Kill the dog	20.9
Treatment of the wound (cleaning, washing, disinfection)	16.4
Verify the dogs vaccination status	9.0
Reported rabies explicitly in their answer	
Total participants	20.9
JBNQA beneficiaries	11.4
JBNQA non beneficiaries	31.2

¹Based on history if a bite has happened before, and on intention, when not.

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Perceptions of Dogs

Among eight perceptions statements that were evaluated in the survey, four were positive statements about dogs. For these statements, the general levels of agreement were high, and the proportions of participants who were strongly in agreement with the statement varied from 67.7 to 86.6% (Table 9). Among these four statements, the only statistical difference between the proportions of participants ‘strongly agree’ between JBNQA beneficiaries and other residents was found for ‘Dogs are important for Inuit’ (figure 1, Table 9).

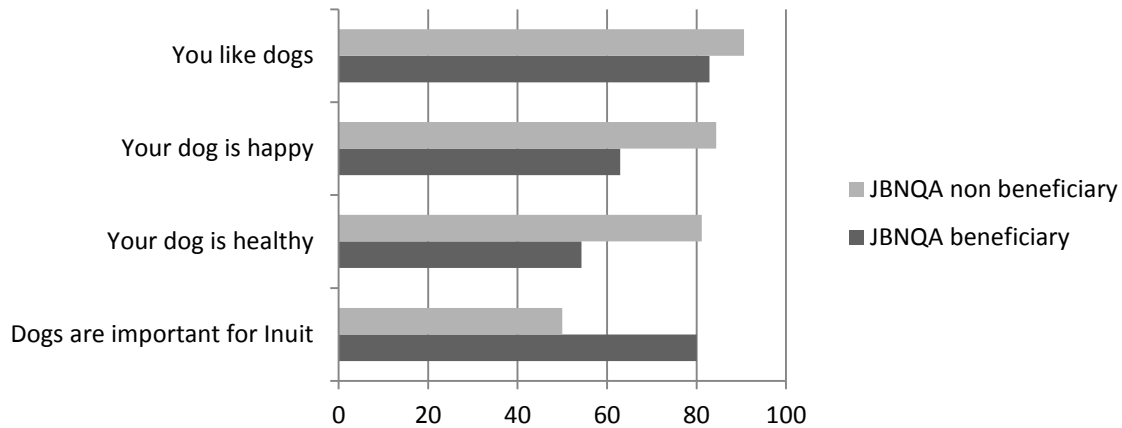


Figure 1. Proportions of participants ‘strongly agree’ with four different positive statements about dogs, by participant’s status

Regarding the four other statements which were negative perceptions of dogs, the distribution of answers was more spread out between agreement categories, except for ‘you are afraid of dogs’ for which a clear majority of participants strongly disagreed (59.7%) (Figure 2). For the statement ‘When a dog bites someone, it should be killed’, a significantly higher proportion of participants strongly agreed among JBNQA beneficiaries vs other residents (42.9% vs 9.4%). This difference was also present for ‘There are too many dogs in my communities’, with 45.7% who strongly agree vs 15.9% among others (Table 9).

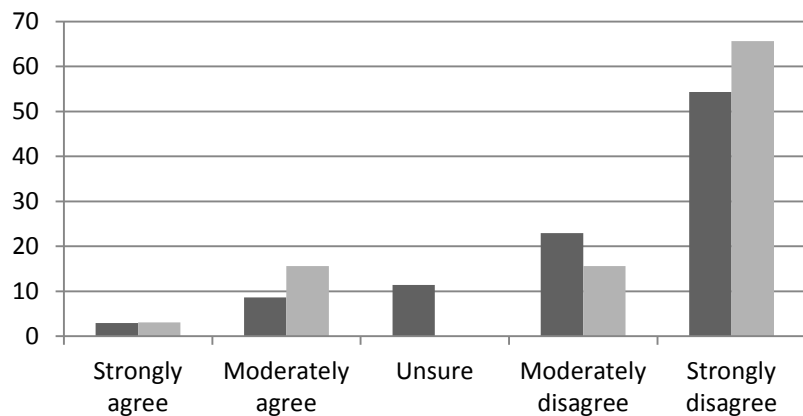
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Table 9. Level of Agreement with Different Perception Statements Related to Dogs

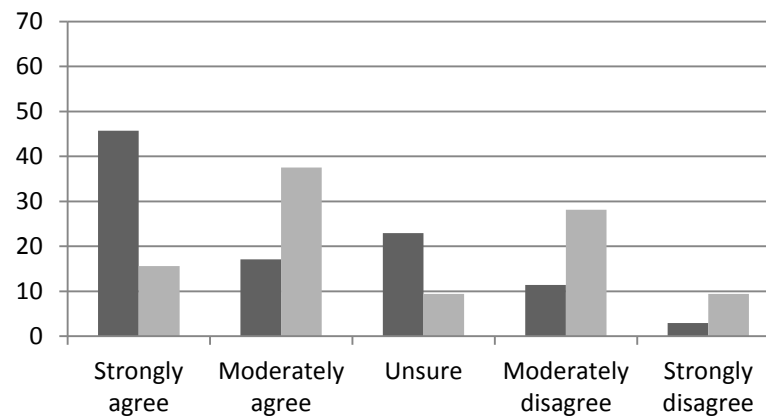
	Strongly agree (%)	Moderately agree (%)	Unsure (%)	Moderately disagree (%)	Strongly disagree (%)
Your dog is happy					
Total	73.1	26.9	0	0	0
JBNQA beneficiaries	62.9	37.1	0	0	0
JBNQA non beneficiaries	84.4	15.6	0	0	0
Your dog is healthy					
Total	67.2	28.4	4.5	0	0
JBNQA beneficiaries	54.3	37.1	8.6	0	0
JBNQA non beneficiaries	81.2	18.8	0	0	0
Your like dogs					
Total	86.6	10.5	1.5	1.5	0
JBNQA beneficiaries	82.9	14.3	2.9	0	0
JBNQA non beneficiaries	90.6	6.2	0	3.1	0
Dogs are important for Inuit					
Total	65.7	23.9	9.0	0	1.5
JBNQA beneficiaries	80**	11.4	5.7	0	2.9
JBNQA non beneficiaries	50**	37.5	12.5	0	0
You are afraid of dogs					
Total	3.0	11.9	6.0	19.4	59.7
JBNQA beneficiaries	2.9	8.6	11.4	22.9	54.3
JBNQA non beneficiaries	3.1	15.6	0	15.6	65.6
When a dog bites someone, he should be killed					
Total	26.9	19.4	29.9	19.4	4.5
JBNQA beneficiaries	42.9	22.9	28.6	5.7	0
JBNQA non beneficiaries	9.4	15.6	31.25	34.4	9.4
There are too many dogs in the community					
Total	31.3	26.9	16.4	19.4	6.0
JBNQA beneficiaries	45.7	17.1	22.9	11.4	2.9
JBNQA non beneficiaries	15.6	37.5	9.4	28.1	9.4
Dogs can make you sick					
Total	23.9	13.4	20.9	14.9	26.9
JBNQA beneficiaries	25.7	14.3	25.7	14.3	20
JBNQA non beneficiaries	21.9	12.5	15.6	15.6	34.4

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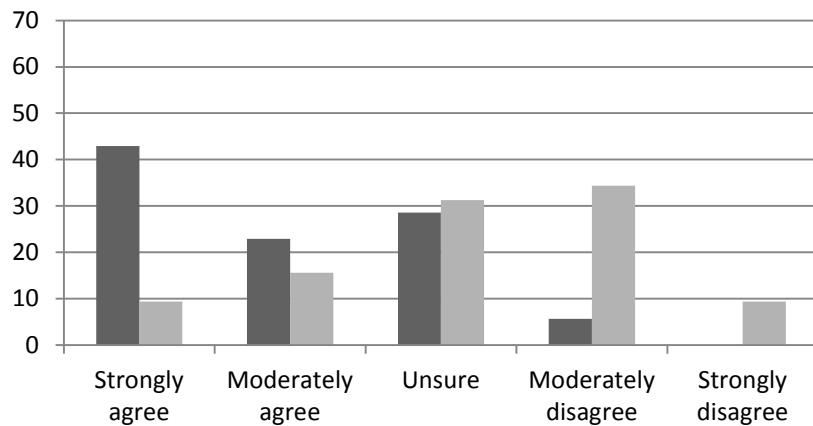
A) You are afraid of dogs



B) There are too many dogs in my community



C) When a dog bites someone, it should be killed



D) Dogs can make you sick

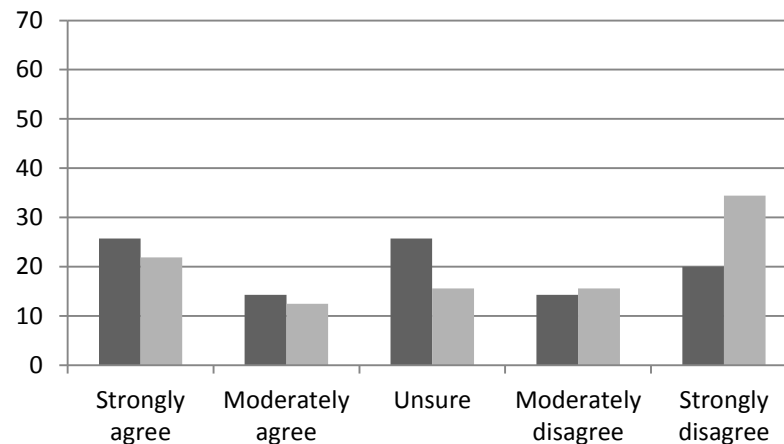


Figure 2. Distribution of the level of agreement to four negative statements about dogs, by participant's status (dark grey: JBNQA beneficiaries, light grey: non-beneficiaries).

