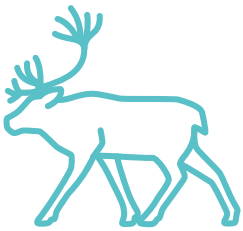
SUMMARY



HUNTING, FISHING, GATHERING, AMMUNITION USE AND PUBLIC HEALTH MESSAGING

QANUILIRPITAA? 2017

Nunavik Inuit Health Survey

Participation in hunting, fishing, and collecting activities and spending time on the land continue to be important activities that support Inuit health. Harvesting activities can positively influence food security, provide opportunities for physical activity and promote cultural identity and mental health. These same relationships are pathways of exposure to environmental contaminants, zoonotic diseases and exposures to weather and temperature extremes that can impact health. The *Qanuilirpitaa?* 2017 survey asked Nunavimmiut about their participation in land-based activities, animal preparation, their use and cleaning of firearms, ammunition use, and awareness and reactions to messages on important environmental health issues. Documenting changes in patterns of participation to land-based activities are important because of the significance these activities represent to individual and community-health and well-being in the region.

Nearly all Nunavimmiut (87%) go out on the land occasionally or often. Only a very small percentage of individuals (13%) report never going on the land in the year prior to the survey. Most individuals go hunting and fishing at least once in each season, and berry picking when berries are available. A smaller proportion of individuals participate in seafood harvesting in the region. Fishing and hunting were more commonly practiced among Ungava Bay residents than Hudson Bay and Hudson Strait residents, while seafood harvesting was more commonly practiced among Hudson Strait residents.

The prevalence of summer hunting, spring fishing, and berry picking at least once in the year prior to the survey were greater in 2017 than 2004. Regular hunting (at least once a week) in all seasons was less common in 2017 than 2004, whereas regular fishing remained stable. Youth (aged 16 to 19) were more likely to go hunting in spring and summer, fishing in the spring, and berry collecting in 2017 than 2004. Young adults (aged 20-30) were more likely to report going fishing in the fall and berry collecting in 2017 compared to 2004. Older adults (aged 31-54) were less likely to participate in regular hunting (once a week or more) in the spring, summer and fall, regular fishing in the spring, and regular berry picking in 2017 than 2004. Among Elders (aged 55 and over) regular hunting in spring, summer and winter, and regular fishing in the winter were also less prevalent in 2017 than 2004.

Difficulties in finding, hunting and catching wildlife species were reported by Nunavimmiut in the survey. About half of Nunavimmiut hunters reported that caribou and beluga were harder to find, hunt or catch compared to previous seasons, while approximately half

reported that there was no change in the difficulty to find, hunt and catch seal, walrus and geese. Interestingly, one-third said geese were actually easier to find, hunt or catch more recently. When looking at changes in difficulties to find, hunt or catch species between the 2004 and 2017 surveys, no significant differences among active hunters were found overall. However, between regions within Nunavik, a greater percentage of active hunters in the Ungava Coast reported difficulties for the period before the 2017 survey than the period before the 2004 survey. These differences in reported harvesting challenges may reflect changes in species availability or accessibility which can be influenced by a number of different factors including climate, environmental change and variability, and species ecology.

In 2017, just over 50% of Nunavimmiut who reported hunting at least once a year said they used a firearm in the year prior to the survey, suggesting that a number of Nunavimmiut who take part in hunting activities are not handling firearms. Using a firearm was more common among hunters of Hudson Strait than Hudson Bay and among males than females. Just over one-third reported someone cleaning guns inside the house. Gun cleaning behaviour among hunters, which is potentially important regarding lead exposure, was not different among age groups, ecological regions or based on the pregnancy status of individuals.

The majority of Nunavimmiut reported preparing at least one bird, and at least one caribou or muskox, in the year prior to the survey. Just less than 50% reported preparing at least one sea mammal. Foxes, wolves, and dogs were prepared by far fewer individuals (15%), as were bears (7%). A small proportion of individuals reported preparing a large number of animals (10 or more). Regional, age and sex differences in animals prepared likely reflect differences in species' availability, and experience.

The survey collected information on ammunition use. Among Nunavimmiut hunters who reported using bullets, 38% used only leaded bullets, 8% used only unleaded bullets, and 55% used a mix of leaded and unleaded bullets. Males were more likely to use a mix of leaded and unleaded bullets (59% vs. 31% of females) whereas females were more likely to use only leaded bullets (63% vs. 33% of males). Lead shots, for which there has been a regional voluntary ban in the late 1990s, were still being used by 72% of shot-users in 2017 – specifically, 32% of shot-users who only used lead shot plus 40% of shot-users who used a mix of lead and unleaded shot. A small proportion of Nunavimmiut used slugs (7% of overall population). The majority of Nunavimmiut hunters who used slugs reported using only lead slugs (57%), while 17% used only unleaded slugs and 27% used a mix of both.

When asked about the public health messages regarding the concerns about the use of lead shot and exposure to this contaminant, approximately one-third of Nunavimmiut reported hearing the messages previously. This was more common among residents of Ungava Bay, males and Elders than other groups. Considering the importance of this issue for women of child-bearing age and pregnant women, it is relevant to note that women above 50 years old were more likely to report hearing this message than women of child bearing age (pregnant or not).

Among Nunavimmiut hunters who used shot, those who heard the public health message about the concern related to the use of lead shot were more likely to use only unleaded shot (37%) than those who did not hear the public health message (about 19%).

Nearly one-third of Nunavimmiut using a firearm said that they cleaned 5-10 cm around the wound of an animal where it had been hit. Less than one-third said they extracted the bullet and cut less than 5 cm around the wound while about 20% cleaned more than 10 cm around the wound. Twenty (20%) said they did nothing to clean around the wound. Research has shown that these behaviours may be valuable in minimizing the risk of exposure to lead from lead bullets since lead-free options are not easily available in the region and therefore greater evaluation of this awareness and reaction is needed.

Finally, participants were asked about their awareness and reaction to messages in the region about the exposure to mercury through the consumption of some country foods and its impacts on human health. Indeed, public health

country food messaging in Nunavik has focused on promoting the consumption of a diversity of country foods for all, while reducing the most contaminated ones, namely beluga meat (especially beluga *nikku*), during vulnerable lifetime periods, especially prenatal life. Just greater than 50% of individuals reported hearing messages on this topic previously. Males were more likely to have heard the information than females, and women of 50 years old and over were more likely to report hearing the information than women of child bearing age (pregnant or not before the survey). Awareness was also more common among residents of Ungava Bay and Hudson Strait than Hudson Bay communities. Among those who reported hearing the messages on this topic before, 8 out of 10 (80%) reported not modifying their eating habits, whereas 2 out of 10 (20%) did in some ways. Among individuals who were aware of the messages and reported modifying their eating habits, eating less of some country food species was the most commonly adopted response – even for some species that are not an important source of mercury exposure. Dietary changes reported did not differ between region, age, sex, or pregnancy status.

Spending time on the land and participating in land-based activities provide great benefits to Inuit health and are vital parts of everyday life in the region. In order to ensure that these activities remain components of a healthy lifestyle, it is important to identify factors that can help support these activities, and to continue monitoring Nunavimmiut participation over time, as well as their awareness and response to the public health information.

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Qanuilirpitaa? 2017 is a population health survey carried out in Nunavik from August to October 2017. A total of 1 326 Nunavimmiut aged 16 and over from all 14 villages participated to this survey.

Nakurmiik to all Nunavimmiut who contributed to this important health survey!

For more information: nrbhss.ca/en/health-surveys