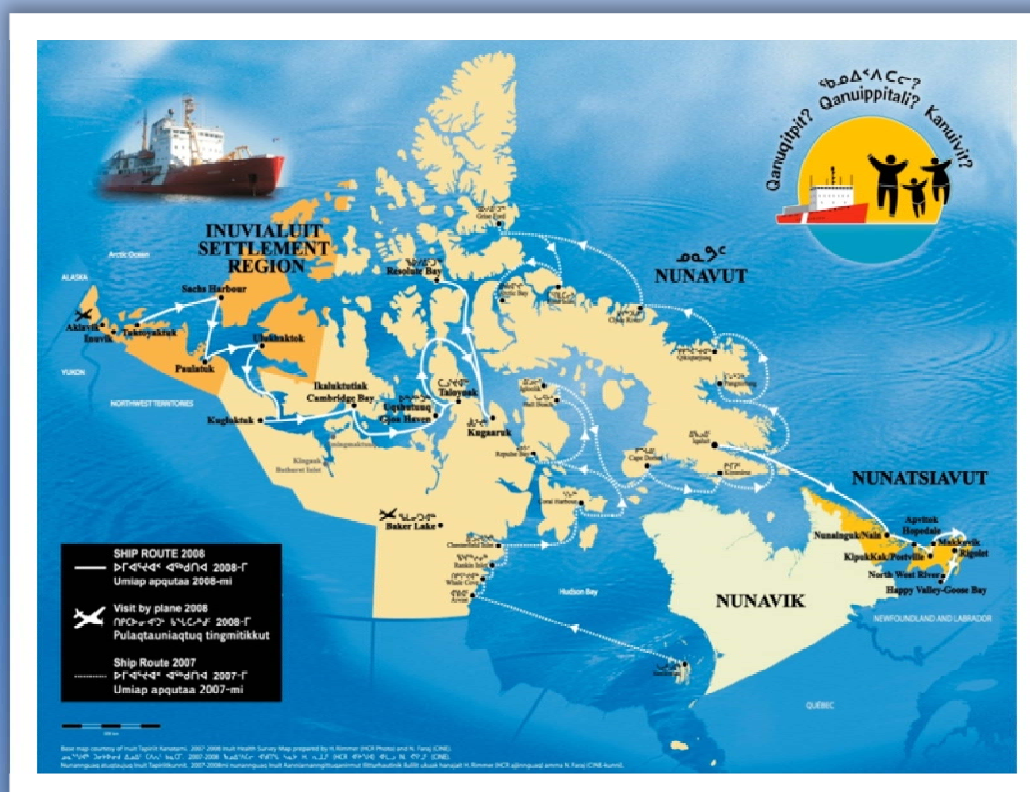


INUVIALUIT SETTLEMENT REGION



FUNDED AND SUPPORTED BY





IPY – INUIT HEALTH SURVEY

Centre for Indigenous Peoples' Nutrition and Environment

McGill University, Macdonald Campus, 21,111 Lakeshore Road, Ste-Anne-de-Bellevue, QC, H9X 3V9

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— www.inuithealthsurvey.ca —

May 2010

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Prepared by Prof. G.M. Egeland

International Polar Year Inuit Health Survey: Health in Transition and Resiliency

with the

Inuvialuit Settlement Region Steering Committee and contributions from
CINE staff members and graduate students

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Inuvialuit Settlement Region (ISR) Steering Committee Member Organizations:

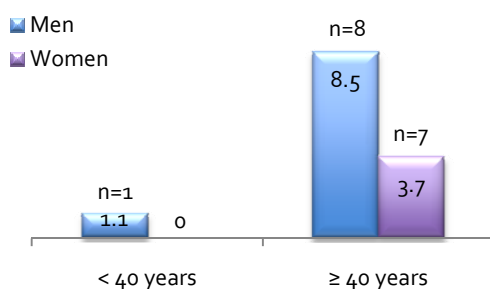
Inuvialuit Regional Corporation
Aklavik Community Corporation
Inuvik Community Corporation
Paulatuk Community Corporation
Sachs Harbour Community Corporation
Tuktoyaktuk Community Corporation
Ulukhaktok Community Corporation
Beaufort Delta Health and Social Services
Institute for Circumpolar Health Research
Government of the Northwest Territories, Department of Health and Social Services
University of Toronto
McGill University

Advisor to Inuvialuit Settlement Region Steering Committee:
Aurora Research Institute

- » Any animal can be infected, so raw and poorly cooked meat, as well as exposure to cat feces, can be sources of infection.
- » Freezing at very low temperatures for a long time may kill the parasite, but is not a guarantee.
- » Toxoplasmosis is the most common parasitic infection in the North, but not common in the ISR (6%).
- » It is more common in older people than younger people. In total, only 16 people tested positive.
- » Infection is life-long, but is not usually a problem except for women who become infected during pregnancy and for people with compromised immunity.



Toxoplasmosis in ISR (%)



Bacteria

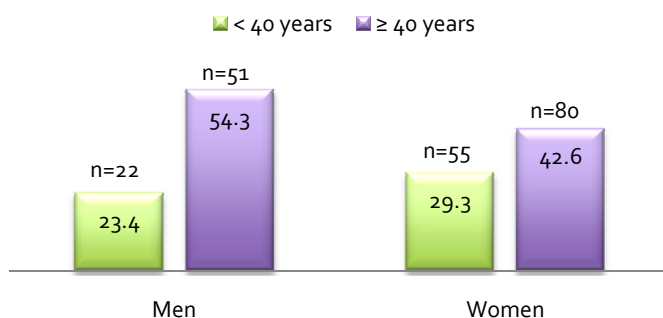
Helicobacter pylori

- » *H. pylori* is a bacterium that lives in the lining of the stomach and is associated with low level inflammation.
- » It is spread person-to-person through close contact and is likely related to household crowding.
- » All communities in the ISR were tested for *H. pylori*.
- » Fewer than 30% of men and women under 40 years of age and about half of men and women over 40 were positive for *H. pylori*.
- » Infection usually produces no symptoms, but can cause stomach pain and possibly ulcers. In rare cases it can cause stomach cancer.
- » An earlier study in Aklavik also found a high prevalence of *H. pylori*.



H. pylori infection is prevalent in the ISR where 74% of all participants tested positive.

Participants positive for *H. pylori* (%)



Acknowledgements

We would like to thank all Inuvialuit adults whose participation in the Inuit Health Survey in 2008 contributed to its great success. We would also like to thank the community corporations and community health centres for their support in making the survey possible.

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PARASITIC DISEASES AND BACTERIA

Parasitic diseases are rare in the ISR.

- » Blood samples from participants were tested to determine exposure to several parasites and to the bacteria called *Helicobacter pylori*.
- » It is important to remember that a positive test indicates exposure at some time during the person's life, and does not necessarily mean an active infection.

Parasitic Diseases

Echinococcosis

- » Caused by *Echinococcus sp.*, a tape worm. The form found in northern communities exists in wolves, moose and caribou.
- » Eating meat from infected animals or contact with dog feces are the routes for human infection.
- » The infection is very rare. Only two people had a positive test.



Trichinosis

- » Is caused by *Trichinella nativa*, a parasitic worm found in most bears and in 15-20% of walruses in northern communities.
- » This parasite can survive prolonged freezing.
- » The primary cause of infection is eating raw or poorly cooked meat from an infected animal.
- » Again, the infection is very rare. Only two individuals tested positive for *Trichinella* exposure.



Toxocariasis

- » In northern communities, people are exposed to a form of *Toxocara*, a parasitic worm that exists in dogs.
- » This form is spread by contact with dog feces, especially from puppies.
- » Toxocariasis is very rare. Only two people had positive tests.



Toxoplasmosis

- » Caused by *Toxoplasma gondii*, one of the most successful parasites in the world. There are more than 2 billion people infected globally.

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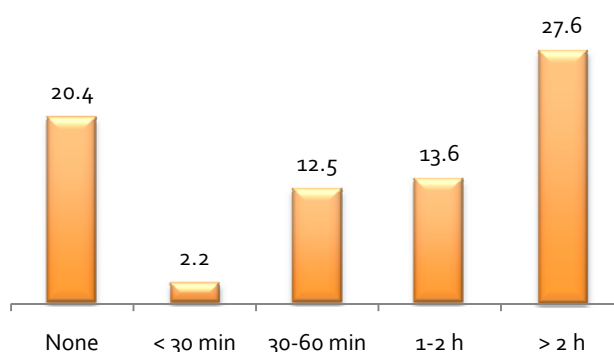
Sun Exposure

- » The body can make Vitamin D when the skin is exposed to sunlight during the summer months.
- » The survey found that more than 25% of participants spend more than 2 hours in the sun during the summer months, while 20% of participants do not spend any time in the sun.



People should get some sun every day for more Vitamin D.

Summer months sun exposure (%)



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- » Not having enough iron in your blood can make you feel weak, tired, and cold.
- » Not eating enough iron can lead to iron deficiency, the most common nutritional deficiency in the world.
- » Country foods like caribou meat, liver, duck, dried meat, and fish are good sources of iron. Beef, ham, and chicken are also high in iron.
- » Men appear to have good iron status.

Iron status among ISR participants

Definitions		Men (%)	Women (%)
Anemia (weak blood)	Low hemoglobin in blood	8	9
Iron deficiency	Low iron stores in the body	3	33
Iron deficiency + Anemia	Very low iron stores and low hemoglobin	1	7

Vitamin D

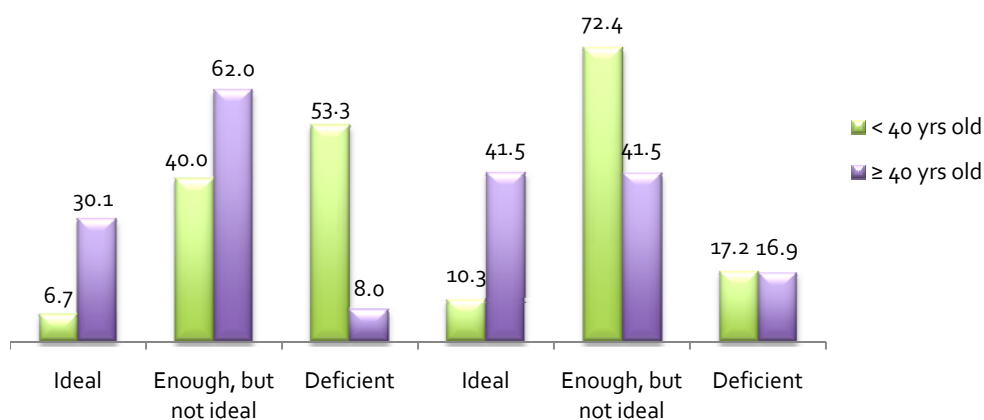
- » Vitamin D is important for good bone health. Not getting enough can lead to brittle bones.
- » Foods containing vitamin D include arctic char, blubber, liver, fatty fish, and vitamin D fortified milk.
- » Only about 10% of people under 40 years of age have the recommended level of Vitamin D.

Vitamin D status measured in blood

25(OH)D nmol/L	Status
> 75	Ideal
37.5 – 75	Enough, but not ideal
< 37.5	Deficient

Women's Vitamin D status (%)

Men's Vitamin D status (%)



The majority of Inuvialuit need more Vitamin D.

Executive Summary

This report provides a summary of the results from the Inuit Health Survey: Health in Transition and Resiliency conducted in the Inuvialuit Settlement Region in 2008.

BACKGROUND

Inuvialuit have expressed a desire to have health information that is of practical relevance so that informed decisions can be made in the face of the rapid changes that are affecting all dimensions of life in Arctic communities. In response to these concerns, a multifaceted participatory health research project for those 18 years of age and above was developed and undertaken in 6 communities in the Inuvialuit Settlement Region in 2008. The goal of the survey was to obtain an overview of the health status and living conditions of Inuvialuit living in the Inuvialuit Settlement Region.

FUNDING

Funding for this project was received from the Government of Canada's Program for International Polar Year, Canadian Institutes for Health Research, Health Canada, University of Toronto, Inuvialuit Regional Corporation, Indian and Northern Affairs, and ArcticNet.

ETHICS APPROVAL

All work was approved by McGill's Institutional Review Board, the Aurora Research Institute and community corporations through community-university agreements.

RESULTS

- » A total of 288 households and 362 individuals participated.

Home Environment

- » Almost half of the participants lived in private households. Many homes were in need of major repairs and families with children experienced overcrowding.

Language

- » English was reported as the dominant language spoken in Inuvialuit homes, which reflects the effect of Residential Schools.

Smoking

- » The majority of homes in the ISR had smokers.

Food Insecurity

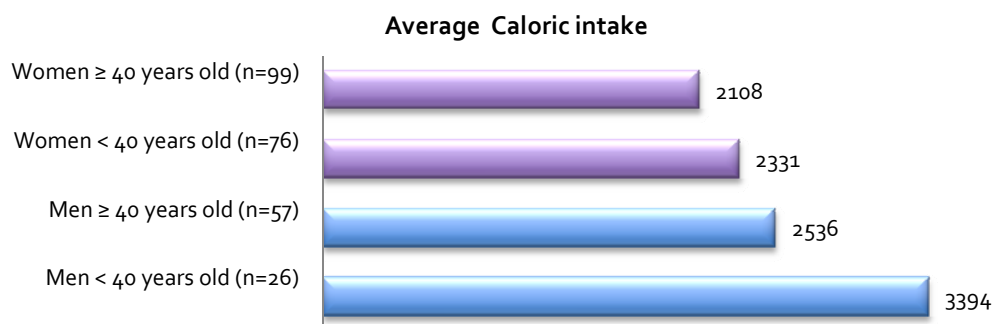
- » Food insecurity was a problem in homes in ISR communities. Unemployment, low income and high food costs were the main reasons for food insecurity.

Country Foods and Food Sharing

- » Participants preferred to eat country food but the high cost of obtaining it makes it difficult.
-

Calories, Fat, Protein, and Carbohydrates

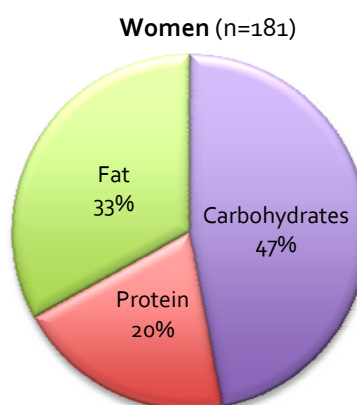
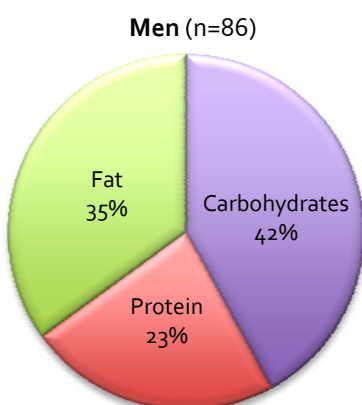
- » Men consumed more Calories than women, and younger adults consumed more Calories than older adults.
- » Average Caloric intake was higher among Inuvialuit compared with the rest of Canadians in the 2004 Canadian Community Health Survey (CCHS) (2).



- » Men consumed more Calories as protein and fat than women.
- » Women consumed more Calories as carbohydrates than men.

Acceptable intake ranges for carbohydrate, protein, and fat (3)

Carbohydrate	Protein	Fat
45 – 65 %	10 – 35%	20 – 35%



Folate

- » Folate is important for healthy pregnancies.
- » Folate in red blood cells showed adequate levels for women of reproductive age.

Iron Status and Anemia

- » Iron has many functions in our body.
- » One important function is transporting the oxygen we breath in throughout the body.

Iron deficiency is more common among women, especially young women.

- » Food sharing networks were strong in communities and more than two-thirds of households shared their country food with others in their community.

Cost of Living

- » Participants spent more money on food and shelter than other Canadian households.

HEALTH

Self-reported Health

- » Over 70% of participants reported their health to be good, very good or excellent.

Family Health History

- » Heart disease, diabetes, high blood pressure, cancer, and high cholesterol were common health problems among parents and siblings of participants.

Participants' Health History

- » Very few participants reported being told by a health professional that they had heart disease; but diabetes, cancer, high blood pressure and high cholesterol were common health problems.

Physical Activity

- » Participants walked on average 20 minutes per day on the 5 days in the week prior to the survey.

Smoking

- » At the time of the survey, smoking was very common among participants.

Education

- » More than 30% of participants completed secondary school.

Personal Income and Employment

- » The main source of income was work related and almost half of the participants had full-time employment.

CLINICAL FINDINGS

Weight

- » The majority of participants were classified as overweight and obese.
- » The majority of men and women had an “at-risk” waist circumference.

Blood Lipids

- » Many participants had healthy lipid levels.

Blood Pressure

- » The majority of participants had normal blood pressure.

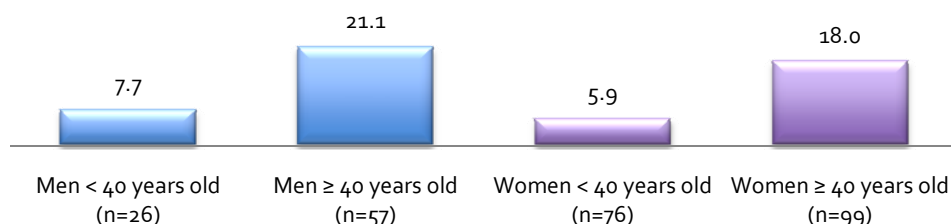
Type 2 Diabetes Mellitus (Honey-Sweet)

- » 10.6% of participants had a fasting glucose level that was too high and 5.6% had a 2-hour OGTT glucose level that was too high, suggesting either pre-diabetes or diabetes.

Country food consumption the day before each participant was interviewed for the survey:

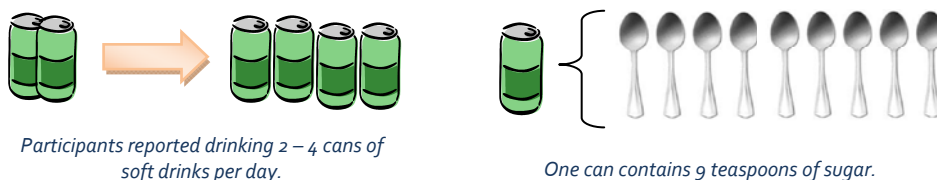
- The average proportion of total Calories that came from country food was higher among older participants than younger participants.
- Country food intake has decreased in the past decade (1).

% Calories from country food on the day before the interview



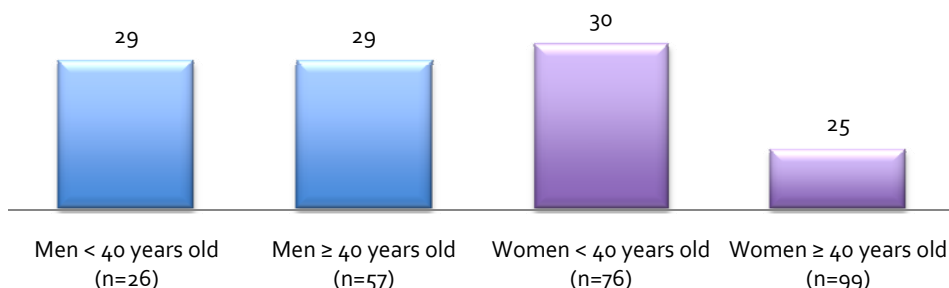
Market Food

- » Foods such as chips, pop, sweet drinks (made from crystals), and chocolate bars/candy are high in “empty Calories” – this means they are not healthy foods to eat on a daily basis. Many adults consumed these foods on the day before the interview.
- » The most commonly consumed market food was regular pop - almost 80% of adults reported drinking pop in the month prior to the interview.



- » Milk has more nutrients than sugary drinks, but was consumed less often and in smaller quantities than sugary drinks.
- » One quarter to one third of total Calories consumed came from high sugar foods and drinks.

% Calories from foods with more than 25% of energy as sugar on the day before the interview



Many studies have shown that higher intakes of sugar, especially the sugar from soft drinks, are associated with an increased risk of obesity (too much body fat), heart disease, and diabetes (2,4,5,6)

NUTRITION

Country Food

- » Older participants (≥ 40 years of age) ate more country food than younger participants (< 40 years of age).

Market Food

- » Almost 80% of adults reported drinking 2 - 4 cans of soft drink per day in the month prior to the survey.

Vitamin D

- » The majority of Inuvialuit need more Vitamin D.

Iron Status and Anemia

- » Iron deficiency is more common among women, especially younger women.

Parasitic Diseases

- » Parasitic diseases are rare in the ISR. Very few people tested positive for Echinococcosis, Trichinosis, Toxocariasis or Toxoplasmosis.

Bacteria

- » The majority of participants tested positive for *Helicobacter pylori*.
-

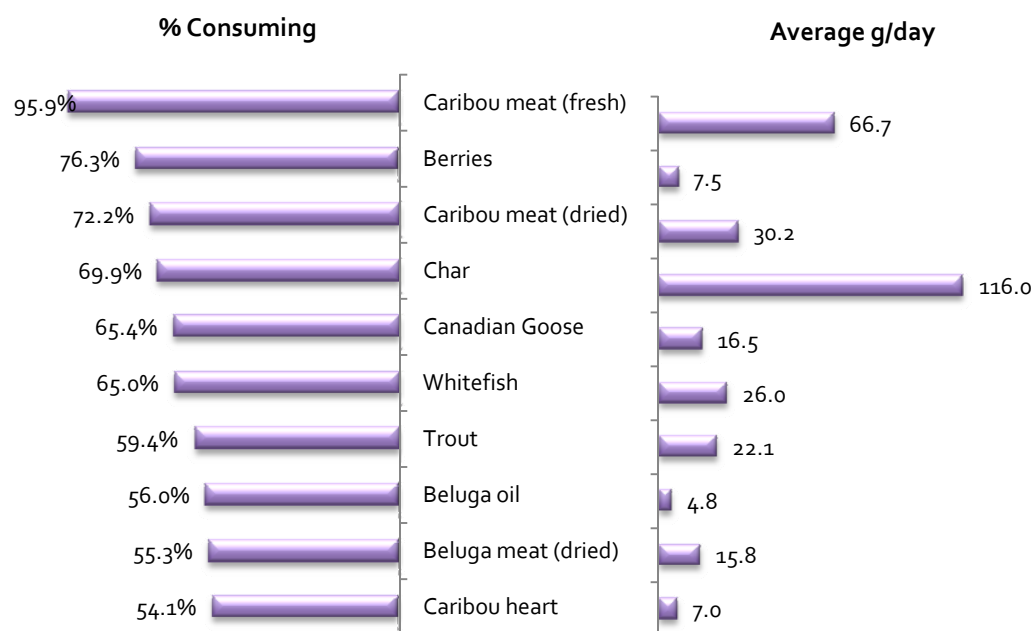
WHAT ADULTS ATE

Country Food

- » What we eat and drink along with other lifestyle factors, affects our risk for chronic diseases such as heart disease, diabetes (high blood sugar) and osteoporosis (weak bones).
- » Country food is a rich source of many nutrients.
- » Country food consumption in the 12 months prior to the survey:
 - Men ate more country food than women.
 - Fresh caribou meat and char were country foods that were eaten very often and in large quantities.
 - Older adults (≥ 40 years of age) ate more country food than younger adults (< 40 years of age).

Participants prefer to eat country food, but the high cost of obtaining it makes it difficult.

Most commonly consumed country food in the ISR (n=266)



»

This column shows the proportion (%) of participants, who reported eating each of the country foods listed.

This column shows on average, how much of each country food was eaten by each participant who reported consuming these foods.

OVERVIEW

- » The Inuit Health Survey in the Inuvialuit Settlement Region (ISR) was conducted in 2008.
- » The goal of the survey was to obtain an overview of the health status and living conditions of Inuvialuit living in the ISR.
- » A total of 288 households and 362 individuals 18 years of age or older participated. An average of 1.3 people per household participated.
- » Average age of participants in the survey was 44 years. More women than men and more individuals over 40 years of age took part in the survey.

Inuvialuit participation

	Age		Gender	
	<40 yr	≥40 yr	Men	Women
Number of participants	143	218	118	244

- » Two communities participated in the land-based portion of the Inuit Health Survey:

- Aklavik
- Inuvik

- » Four communities participated in the ship-based portion:

- Tuktoyaktuk
- Sachs Harbour
- Paulatuk
- Ulukhaktok

All data presented are based on the actual number of participants (n = number of participants).

- » Not every household was available to participate — 66% did participate, while 34% were unavailable or refused to participate.

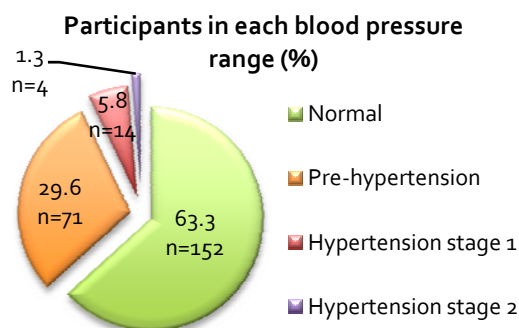


Recruiting participants



Transporting participants to and from the ship

- » Blood pressure was measured 3 times when participants were at rest.
- » It is important to keep blood pressure at “normal” levels because with high blood pressure or hypertension the heart has to work harder and your blood vessels take a beating (2).
- » Untreated high blood pressure is a risk for heart disease and stroke (2).

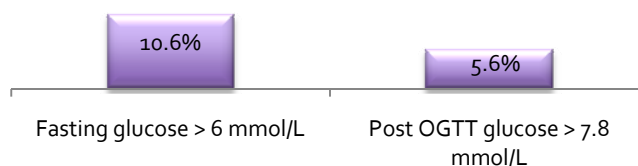


Blood pressure	Systolic pressure	Diastolic pressure
Normal	< 120	< 80
Pre-hypertension	120 - 139	80 - 89
Hypertension stage 1	140 - 159	90 - 99
Hypertension stage 2	≥ 160	≥ 100

Type 2 Diabetes Mellitus

- » When blood sugar is too high, the body cannot use the fuel (food) to function properly, and a person may have pre-diabetes or diabetes.
- » Fasting blood samples were used to test for blood sugar (glucose).
- » About one half of the survey participants in the ISR had a second blood sample taken two hours after drinking a flavoured glucose sugar drink. The test is called an oral glucose tolerance test (OGTT) and is a way of seeing how the body handles glucose.

Participants with "at risk" glucose levels



- » The survey found that 10.6% of participants in ISR had a fasting glucose level that was too high (> 6 mmol/L) which indicates either pre-diabetes or diabetes. 5.6% had a 2-hour OGTT glucose level that was too high (>7.8 mmol/L) which indicates pre-diabetes or diabetes.

References

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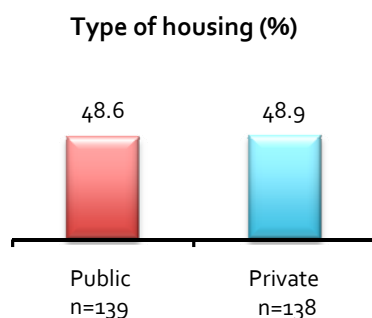
A survey cannot diagnose diabetes. However, results suggest that 11% of participants have fasting glucose levels that are too high, suggesting either pre-diabetes or diabetes.

RESULTS FROM HOME-BASED QUESTIONNAIRES

Many homes are in need of major repairs.

Home Environment

- » The home environment is important for the health and well-being of Inuvialuit.
- » About half of the participants in the ISR lived in private households.
- » 28% of participants lived in homes needing major repairs.
- » Mold was reported as a problem in 4% of homes in the ISR.
- » 8% of homes had mold and needed major repairs.



Houses in Inuvik

Families with children experience overcrowding in ISR.

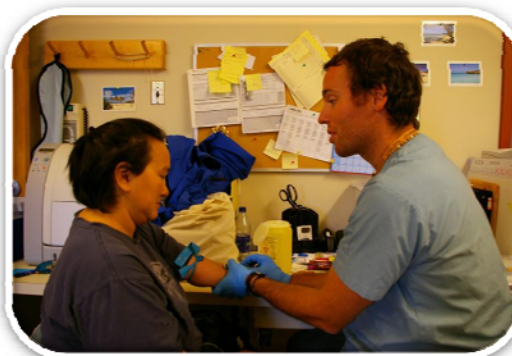
Homelessness and Crowding

- » During the 12 months prior to the survey, 22% of homes (n=60) provided shelter to homeless persons. An average of 2.3 people stayed a median of 9 weeks.
- » The average household consisted of 3.5 people. In other Canadian households the number is 2.5 (1).
- » Each home reported having an average of 3 bedrooms. Half of the homes had more than 2 people per bedroom.
- » Based on Statistics Canada's definition of crowding (1), which is having more than one person per room where rooms include kitchen, living room and bedrooms, more than 13% of homes (n=38) were crowded.
- » 62% of homes (n=166) had children. Of those, 23% (n=37) were crowded. Crowding was a problem in homes with children.
- » In contrast, among the 100 homes without children, the prevalence of crowding was only 1% (n=1).
- » According to the 2006 Census, only 3% of non-Aboriginal people living in Canada lived in a crowded dwelling (1).

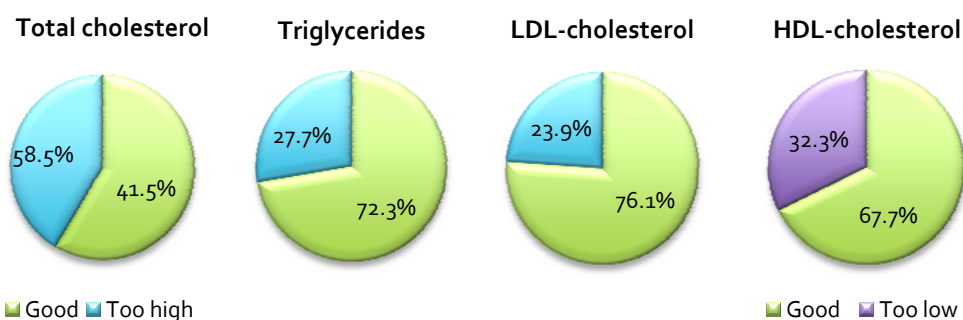


Blood Lipids

- » The type and amount of lipids (fats) circulating in the blood stream provide an indication of a person's risk for cardiovascular disease.
- » Nurses collected fasting blood samples in the morning from participants.
- » These samples were used to assess total cholesterol, high density lipoprotein cholesterol (HDL-cho) which is the healthy cholesterol, and low density lipoprotein cholesterol (LDL-cho) which is the unhealthy cholesterol.
- » 59% of ISR participants had a level of total cholesterol that was too high, 24% had high levels of the unhealthy cholesterol (LDL-cho), and 32% had low levels of healthy cholesterol (HDL-cho). Triglyceride levels were too high for 28% of participants.

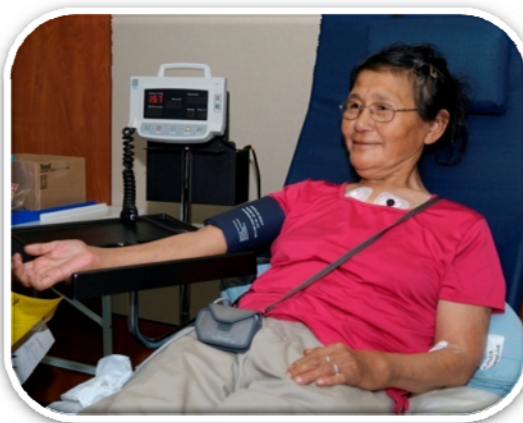


Participants' Lipid Levels



Blood Pressure

- » Blood pressure is the force needed to deliver blood to all parts of our body. Blood pressure is always given as 2 numbers, systolic pressure and diastolic pressure, a higher number over a lower number.
- » Nurses measured the systolic blood pressure (the pressure when your heart contracts = the higher number) and the diastolic blood pressure (the pressure when your heart is at rest = the lower number).



A survey cannot diagnose hypertension, but does give a picture of the likely extent of blood pressure problems in the ISR.

Language

- » English was reported as the dominant language spoken at home. In the ISR, 93% of participants spoke English at home.
- » Inuinnaqtun, Siglitin and/or Uummarmiutun were spoken in 12% of homes.
- » The high percentage of English spoken at home reflects the impact of Residential Schools (2).
- » Traditional languages are now being taught in public schools.



Smoking in Households

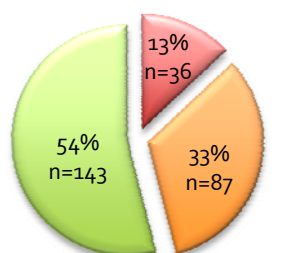
- » 82% (n=233) of households had smokers, and there were on average two smokers per home.
- » Smoking indoors was forbidden in 70% of homes.

FOOD SECURITY

- » The food security questionnaire, developed by the United States Department of Agriculture, was used (3). Indian and Northern Affairs Canada (INAC) modified the questionnaire based on discussions with Inuit interviewers (4).
- » More than half of the households reported that they had enough food to eat (food secure).

Food insecurity is a problem in homes in ISR communities.

Household food security (%)



■ Severe food insecurity
■ Moderate food insecurity
■ Food secure



- » Severe Food Insecurity is defined as disrupted eating patterns and reduced food intake among adults and or children (3).
- » About 13% of households reported severe food insecurity.
- » According to the Canadian Community Health Survey (CCHS) 2004, only 2.9% of Canadian households reported moderate or severe food insecurity (4).
- » 34% of households with children (n=57) were food insecure.
- » Unemployment, low income and high food costs were the main reasons for food insecurity.

CLINICAL FINDINGS

During the health survey, participants had their height (without shoes) and sitting height measured, as well as their weight and waist circumference.

Healthy Body Weight

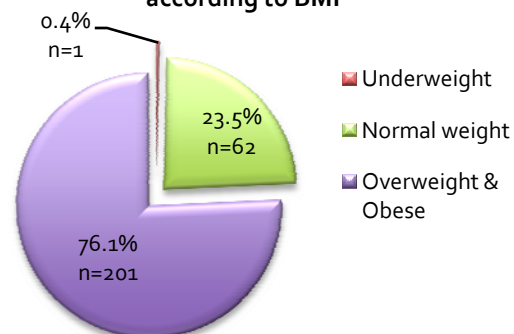
$$BMI = \frac{wt \text{ (kg)}}{[ht \text{ (m)} \times ht \text{ (m)}]}$$

- » Body mass index is commonly used to assess whether one has a healthy body weight for one's height. Body mass index is calculated by taking weight in kilograms and dividing it by [(height in meters) x (height in meters)].
- » 23% (n=62) of Inuvialuit had a healthy body weight.

Health risk classification according to BMI (1)

BMI	Classification	Risk of developing health problems
< 18.5	Under weight	Increased
18.5–24.9	Normal weight	Least
> 24.9	Overweight & Obese	Increased

Participants in each classification according to BMI



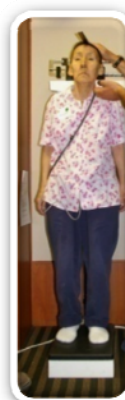
Waist Circumference

- » A waist circumference greater than 102 cm for men and greater than 88 cm for women is associated with a greater risk for health problems.
- » In the ISR, 76% of women (n=136) and 56% of men (n=49) had an “at-risk” waist circumference.

Standing Height

Average height of participants

	cm	ft/in
Men (n=87)	171.8	5'8"
Women (n=180)	158.7	5'3"



Sitting Height

- » Because BMI is influenced by leg length, someone with long legs will have a lower BMI than someone with shorter legs but a similar size torso.
- » When BMI was adjusted by sitting height, the % of participants in the healthy weight category went up and the % in the obese and overweight categories went down slightly.

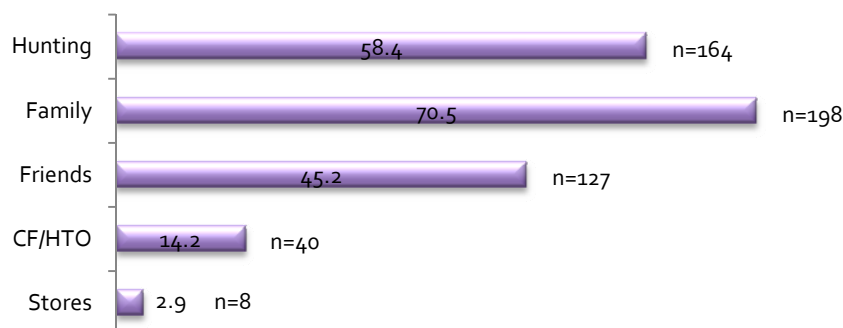
Food sharing networks are strong. The majority of households share their country food with others.

- » Historically, food insecurity has been a problem. Although food insecurity in ISR has improved, it is still higher than the Canadian experience.

Country Food and Food Sharing Networks

- » More than half of the households said that they had an active hunter in the home and 70% of households with children had an active hunter.
- » Also, food sharing networks are strong in ISR communities. More than two-thirds of households shared their country food with others in their community.

How country food was obtained (%)



- » Most households said they obtained country food from hunting and their families. Other important ways to obtain country food were from friends, stores, and community freezers/hunters and trappers organizations (CF/HTO).
- » About one-fourth of households preferred mainly country food, while the rest (74%) preferred a mix of both country and store-bought foods.
- » About one-half (49%) of homes in the ISR worry about contaminants in country food.



Ice house in Tuktoyaktuk

Availability of Country Food

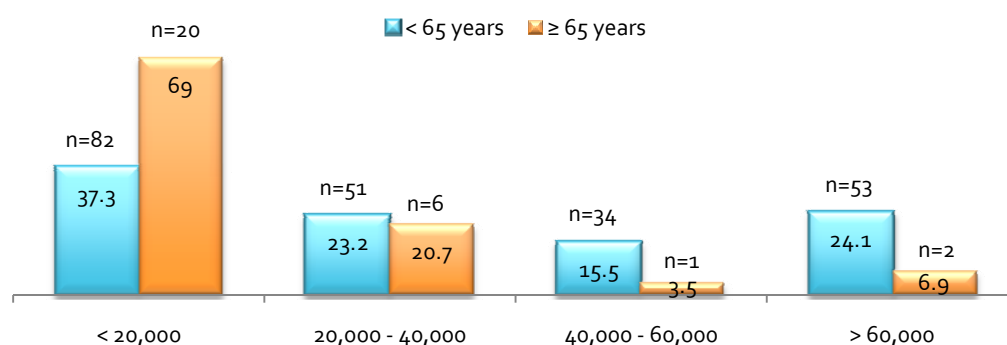
- » Most households (86%) preferred to eat more country food than they could get.
- » There were many reasons why participants could not get country food. The primary reasons were not having an active hunter in the home, not having a skidoo or boat, and the high cost of supplies and gas to go hunting and fishing.
- » When households ran out of country food, more than two thirds received food from family, friends, the community freezer or hunter and trapper organizations. Almost 60% bought more store food, many went hunting or fishing (30%), and over 25% went without.



Inuvialuit prefer to eat country food, but the high cost of obtaining it makes it difficult.

- » 5% of participants received income support.
- » 12% of participants received their income from other sources (employment insurance, workers' compensation, hunter support program, child support/foster care, dividends, interest and life insurance and child tax benefit).
- » 37% of participants under 65 years of age estimated their personal income to be less than \$20,000 per year.
- » Almost 70% of participants 65 years and above estimated their personal income to be less than \$20,000 per year.

Personal income (%)



Employment

- » At the time of the interview 44% of participants had full time employment.

Employment status

	n	%
Full time	113	43.8
Part-time /occasional work	66	25.6
Other	79	30.6

References

1. Tait H. *Aboriginal Peoples Survey, 2006: Inuit Health and Social Conditions*. Ottawa, ON: Statistics Canada, 2008. Available at: dsp-psd.pwgsc.gc.ca/collection_2008/statcan/89-637-X/89-637-x2008001 (accessed 8 March, 2010).
2. Statistics Canada. 2007. www.statcan.gc.ca/pub/82-221-x/2008001/structure/hs-es/conditions/../.lcchso3-en.xls (accessed October 19, 2009) (diabetes, blood pressure)
3. Gilmour H. *Physically active Canadians. Health reports, vol.18, no.3, August 2007*. Statistics Canada, catalogue 82-003, Available at: www.statcan.gc.ca/pub/82-003-x/2006008/article/phys10307-eng.pdf (accessed April 21, 2010).
4. www.hc-sc.gc.ca/fniah-spnia/substan/tobac-tabac/effects-effets-eng.php (accessed April 27, 2010) (smoking).
5. *Facts about smoking*. The Lung Association of Canada. www.lung.ca/home-accueil_e.php.

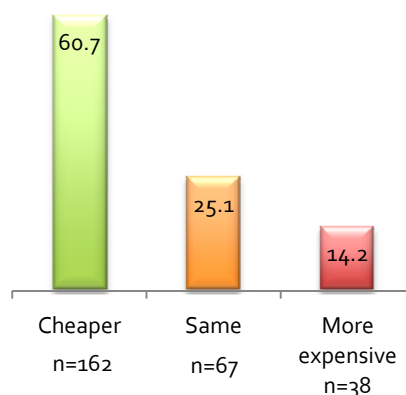
- » The majority of households felt getting country food was cheaper than store-bought food. There were 25% who said country food was as costly as store-bought food, and 14% who thought country food was more expensive.

Limitations to getting country food*

	n	%
No active hunter	105	43
No transportation	79	32
Gas & supplies too expensive	70	29
Scarce/hard to harvest	40	16
Weather/no time	34	14
Other	34	14

*Percentages do not add up to 100 because participants could give more than one answer.

Cost of country food vs. store-bought food (%)

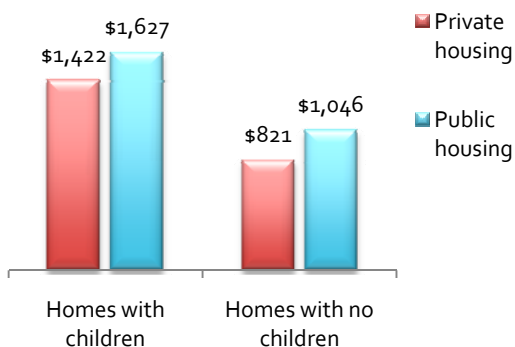


Cost of Living

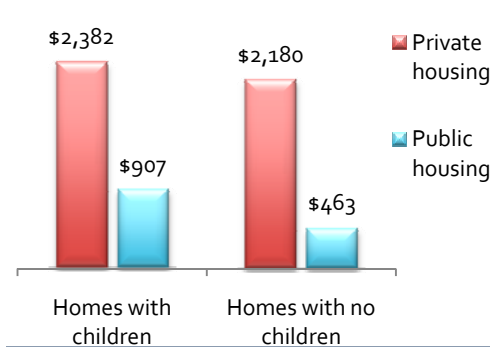
- » In the month prior to the survey, 20% (n=58) of households had someone receiving income support.
- » The average household in the ISR spent \$1,317 per month on food. The survey took place in August and amounts do vary throughout the year due to transportation costs.
- » The average amount for other Canadian households was about \$609 per month (5).
- » A large difference in food costs was noted between homes with children and homes without children.
- » The average household in the ISR spent \$1,471 on shelter per month. This amount includes rent or mortgage, electricity, heating fuel, gas, water and sewage, and garbage.
- » Homes with children spent between \$907 and \$2,382 on shelter each month. Homes without children spent between \$463 and \$2,180 on shelter each month.
- » According to Statistics Canada's Survey of household spending, the average Canadian household spent \$1,137 per month (5) on shelter in 2007.

Inuvialuit households spend more on food and shelter than other Canadian households.

Money spent on food per household each month



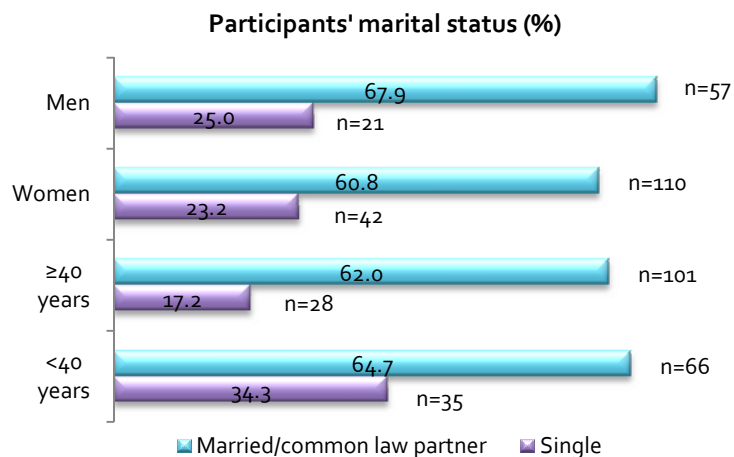
Money spent on shelter per household each month



SOCIAL DEMOGRAPHIC INFORMATION

Marital Status

- » This survey found that the majority of participants (> 60%) were married or had a common law partner.



Education

- » More than 30% of participants in the ISR completed secondary school.

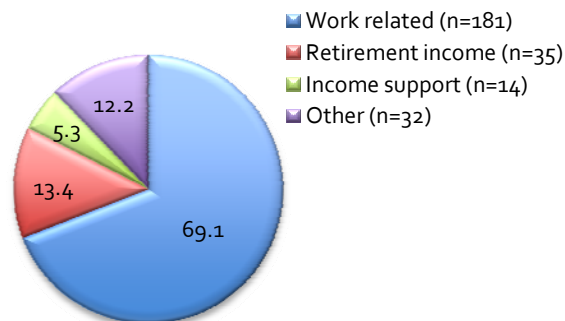
Highest level of schooling completed

	n	%
Less than secondary	141	53.6
Secondary completed	83	31.6
Any post secondary	39	14.8

Personal Income

- » 69% of participants received their income from wages and salaries, income from self-employment, carving, sewing, crafts/art and home daycare.
- » 13% of participants received their income from pensions, benefits from Canada/NWT pension plan, superannuation and annuities.

Income source (%)

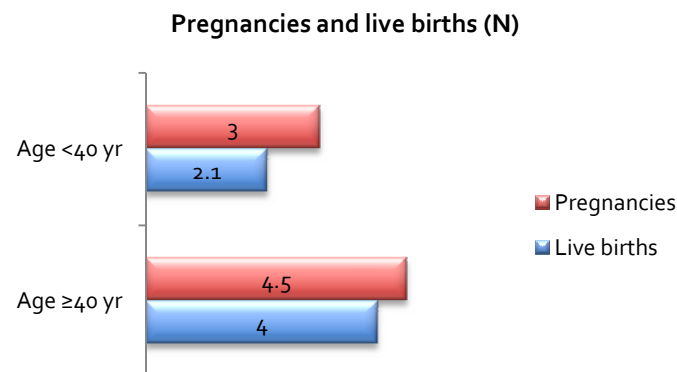


The majority of participants in ISR are married or have a common law partner.

The main source of income was work related. Almost half of the participants had full-time employment.

References

1. Statistics Canada. *2006 Census: Aboriginal peoples*. Available at: www41.statcan.gc.ca/2008/10000/-ceb10000_000-eng.htm (accessed October 1, 2009) (home repair, crowded household).
 2. Legacy of Hope Foundation. *2009: We Were So Far Away, The Inuit Experience of Residential Schools*. Available at: www.legacyofhope.ca/WeWereSoFarAway.aspx (accessed April 29, 2010).
 3. Nord, M., Andrews, M., & Carlson, S. *Household food security in the United States, 2006*. Economic Research Service - United States Department of Agriculture. Washington: United States Department of Agriculture, 2007.
 4. Office of Nutrition Policy and Promotion. *Canadian Community Health Survey Cycle 2.2, Nutrition (2004). Income-related household food security in Canada*. Ottawa: Health Canada, 2007.
 5. Statistics Canada. 2007: *Survey of household spending*, <http://www.statcan.gc.ca/pub/62-202-x/2006000/t001-eng.htm> (accessed October 14, 2009) (food, shelter).
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Physical Activity

- » 74% of participants walked, on average, 20 minutes per day on 5 days in the week prior to the survey. Men walked for almost 123 minutes on these days and women walked for 85 minutes.
- » 48% of respondents to the 2005 Canadian Community Health Survey, aged 12 years and older, reported that they walked less than half an hour each day in their leisure time (3).



Smoking Habits

- » At the time of the survey, 65% of participants reported that they were smoking cigarettes.
- » In comparison, only 22% of other Canadians smoked in 2007 (4).
- » About 29% of participants had already stopped smoking. More men than women, and more older people than younger people had quit smoking.

- » On average, men smoked 13 and women 10 cigarettes per day.
- » The average age when participants began smoking was 15.5 years.
- » It is well known that smoking causes cancer, emphysema, and heart disease. Quitting smoking is the best thing you can do to improve your health and quality of life (5).

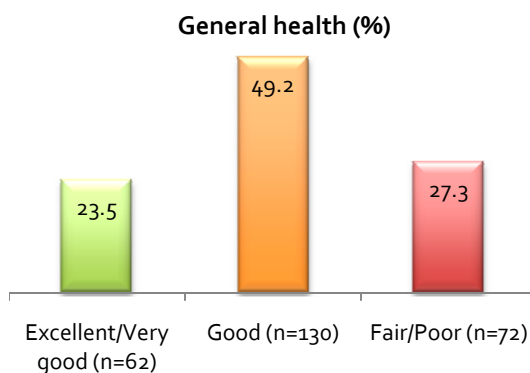


Smoking is very common in the ISR.

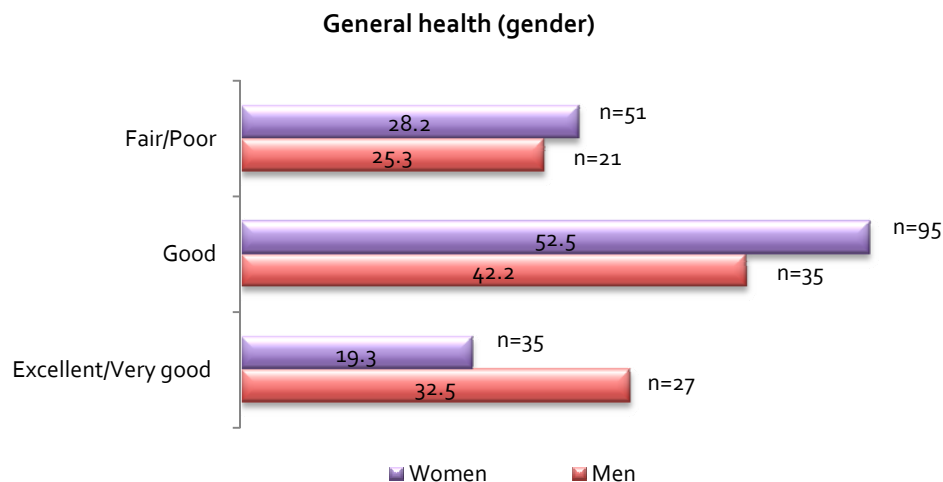
RESULTS FROM INDIVIDUAL QUESTIONNAIRES

Overview

- » In general, 23% of the participants thought their health was excellent or very good.
- » According to the Aboriginal Peoples Survey, 2006, half of Inuit aged 15 and over self-reported to be in excellent or very good health, but were less likely to report excellent or very good health than their Canadian counterparts (1).
- » More men than women said their health was excellent or very good.

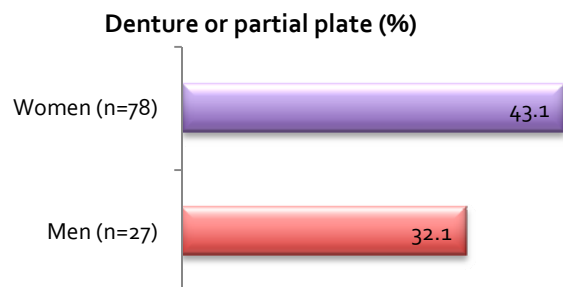


The majority of participants thought their health was good to excellent.



Dental Health

- » The survey found that more than half (55%) of the participants felt that their gums and teeth needed some work or had an ongoing problem.
- » Many participants had dentures or partial plates, especially female participants.



High Cholesterol

- » High cholesterol was a common health problem, especially for those age 40 and over.
- » The majority of participants with high cholesterol followed a treatment of medication. Many also followed a program of diet and exercise.

Participants' health history

	Age				Gender			
	<40 yr		≥40 yr		Men		Women	
	n	%	n	%	n	%	n	%
Diabetes	0	0.0	13	8.0	4	4.8	9	5.0
Cancer	1	1.0	17	10.4	3	3.6	15	8.3
High blood pressure	9	9.1	52	32.3	22	26.5	39	22.0
High cholesterol	3	3.0	33	21.3	12	14.3	24	14.1

Reproductive Health

- » 84% of women had had a Pap test within two years of the survey.
- » A further 7% of women had had a Pap test within 3-5 years of the survey.
- » 9% of women had either never had a Pap test or had not had one in more than 5 years.

Time of most recent Pap test



	Age			
	<40 yr		≥40 yr	
	n	%	n	%
Last 2 years	68	90.7	79	79.8
More than 2 years	2	2.7	10	10.1
Never or more than 5 years	5	6.7	10	10.1

- » Women 40 years of age and above had had 4.5 pregnancies and 4 live births.
- » Women below 40 years of age had had 3 pregnancies and 2.1 live births.

Most women had had a Pap test within two years of the survey.

Heart disease is a common health problem among parents and siblings of participants.

Diabetes, high blood pressure, cancer and high cholesterol are common health problems for parents and siblings of participants.

REPORTED FAMILY HEALTH HISTORY

Participants were asked about their parents' and siblings' health.

Heart Attack

- » 24% of participants reported that their parents were told by a doctor or a nurse that they had had a heart attack.
- » 13% of participants had siblings who were told they had had a heart attack.

Stroke

- » 17% of participants had parents who were told by a doctor or a nurse they had had a stroke.
- » 6% of participants had siblings who had been told they had had a stroke.

Reported family health history

	Parents		Siblings	
	n*	%	n*	%
Heart attack	59	24.2	31	12.8
Stroke	42	17.4	15	6.3
Other	51	22.2	39	16.7

* n = number of participants

Diabetes

- » 25% of participants reported that their parents were told by a doctor or a nurse that they had diabetes.
- » 13% of participants had siblings who had been told that they had diabetes.

High Blood Pressure

- » Almost half (45%) of participants had parents who were told by a doctor or a nurse that they had high blood pressure.
- » Almost one-third (28%) of participants had siblings who had been told that they had high blood pressure.

Cancer

- » Approximately one-third (29%) of participants had parents who had been told that they had cancer.
- » More than 16% of participants had siblings who had been told that they had cancer.



High Cholesterol

- » 25% percent of participants had parents who had been told they had high cholesterol.
- » 15% of participants had siblings who had been told they had high cholesterol.

Reported family health history

	Parents		Siblings	
	n*	%	n*	%
Diabetes	59	25.4	30	13.0
High blood pressure	86	45.0	56	27.9
Cancer	67	28.6	40	16.7
High cholesterol	40	25.0	26	14.6

* n = number of participants

PARTICIPANTS' MEDICAL INFORMATION

Participants were asked about their own health.

Diabetes

- » 5 % of all participants had been told by a doctor or a nurse that they had diabetes. There were no reports of diabetes for participants under 40 years of age but 8% of those age 40 and above had been told that they had diabetes.
- » The prevalence of diabetes in Canada was 5.8% in 2007 (2).
- » The majority of participants with diabetes used medication as the main treatment.

Cancer

- » More than 10% of participants age 40 and above reported they had been told they had a cancer. 8% of women and 3.6% of men reported having cancer.

High Blood Pressure

- » More than 30% of participants age 40 and above had been told they had high blood pressure. Also, more men (26%) reported having high blood pressure than women (22%).
- » According to the Canadian Community Health Survey (CCHS), about 16% of Canadians suffered from high blood pressure in 2007 (2).
- » The majority of participants with high blood pressure used medication as the main treatment. Diet and exercise were also important treatments.

Very few participants reported having been told they had heart disease or had had a stroke.

Diabetes, cancer, high blood pressure, and high cholesterol are common health problems among participants in the ISR.