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Qanuippitaa?  
HOW ARE WE?

MENTAL HEALTH,  
SOCIAL SUPPORT AND  
COMMUNITY WELLNESS





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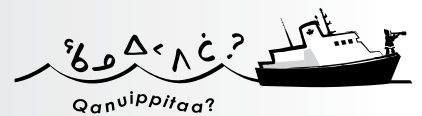
# MENTAL HEALTH, SOCIAL SUPPORT AND COMMUNITY WELLNESS

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## **BACKGROUND OF THE NUNAVIK INUIT HEALTH SURVEY**

The monitoring of population health and its determinants is essential for the development of effective health prevention and promotion programs. More specifically, monitoring must provide an overall picture of a population's health, verify health trends and how health indicators vary over distance and time, detect emerging problems, identify priority problems, and develop possible health programs and services that meet the needs of the population studied.

The extensive survey conducted by Santé Québec in Nunavik in 1992 provided information on the health status of the Nunavik population (Santé Québec, 1994). The survey showed that health patterns of the population were in transition and reflected important lifestyle changes. Effectively, the Inuit population has undergone profound sociocultural, economic, and environmental changes over the last few decades. The Inuit have changed their living habits as contact with more southerly regions of Quebec increased. A sedentary lifestyle, the switch to a cash-based domestic economy, the modernization of living conditions and the increasing availability and accessibility of goods and foodstuffs imported from southern regions have contributed to these changes. These observations suggest the need for periodic monitoring of health endpoints of Nunavik Inuit to prevent the negative impact of risk factor emergence and lifestyle changes on subsequent morbidity and mortality from major chronic diseases.

In 2003, the Nunavik Regional Board of Health and Social Services (NRBHSS) decided to organize an extensive health survey in Nunavik in order to verify the evolution of health status and risk factors in the population. The NRBHSS and the Ministère de la Santé et des Services sociaux (MSSS) du Québec entrusted the Institut national de santé publique du Québec (INSPQ) with planning, administering and coordinating the survey. The INSPQ prepared the survey in close collaboration with the Unité de recherche en santé publique (URSP) of the Centre hospitalier universitaire de Québec (CHUQ) for the scientific and logistical component of the survey. The Institut de la statistique du Québec (ISQ) participated in methodology development, in particular the survey design.

The general aim of the survey was to gather social and health information on a set of themes including various

health indicators, physical measurements, and social, environmental and living conditions, thus permitting a thorough update of the health and well-being profile of the Inuit population of Nunavik. The survey was designed to permit a comparison of the 2004 trends with those observed in 1992. Data collected in 2004 also allowed researchers to compare the Inuit to other Quebecers.

### ***Target population***

The health survey was conducted among the Inuit population of Nunavik from August 27 to October 1, 2004. According to the 2001 Canadian census, the fourteen communities of Nunavik have a total of 9632 inhabitants, 91% of whom identified themselves as Inuit. The target population of the survey was permanent residents of Nunavik, excluding residents of collective dwellings and households in which there were no Inuit aged 18 years old or older.

### ***Data collection***

Data collection was performed on the Canadian Coast Guard Ship Amundsen, thanks to a grant obtained from the Canadian Foundation for Innovation (CFI) and the Network of Centres of Excellence of Canada (ArcticNet). The ship visited the fourteen villages of Nunavik, which are coastal villages. The study was based on self-administered and interviewer-completed questionnaires. The study also involved physical and biological measurements including clinical tests. The survey was approved by the Comité d'éthique de la recherche de l'Université Laval (CERUL) and the Comité d'éthique de santé publique du Québec (CESP). Participation was voluntary and participants were asked to give their written consent before completing interviews and clinical tests. A total of 677 private Inuit households were visited by interviewers who met the household respondents to complete the identification chart and the household questionnaire. A respondent was defined as an Inuit adult able to provide information regarding every member of the household. The identification chart allowed demographic information to be collected on every member of the household. The household questionnaire served to collect information on housing, environment, nutrition and certain health indicators especially regarding young children.

All individuals aged 15 or older belonging to the same household were invited to meet survey staff a few days later, on a Canadian Coast Guard ship, to respond to an interviewer-completed questionnaire (individual

questionnaire) as well as a self-administered confidential questionnaire. Participants from 18 to 74 years of age were also asked to complete a food frequency questionnaire and a 24-hour dietary recall, and to participate in a clinical session. The individual questionnaire aimed to collect general health information on subjects such as health perceptions, women's health, living habits and social support. The confidential questionnaire dealt with more sensitive issues such as suicide, drugs, violence and sexuality. During the clinical session, participants were invited to answer a nurse-completed questionnaire regarding their health status. Then, participants had a blood sample taken and physical measurements were performed including a hearing test, anthropometric measurements, an oral glucose tolerance test (excluding diabetics) and toenail sampling. Women from 35 to 74 years of age were invited to have a bone densitometry test. Finally, participants aged 40 to 74 could have, after consenting, an arteriosclerosis screening test as well as a continuous measure of cardiac rhythm for a two-hour period.

### ***Survey sampling and participation***

The survey used a stratified random sampling of private Inuit households. The community was the only stratification variable used. This stratification allowed a standard representation of the target population. Among the 677 households visited by the interviewers, 521 agreed to participate in the survey. The household response rate is thus 77.8%. The individual response rates are obtained by multiplying the household participating rate by the individual collaboration rate since the household and individual instruments were administered in sequence. The collaboration rate corresponds to the proportion of eligible individuals who agreed to participate among the 521 participating households. In this survey, about two thirds of individuals accepted to participate for a response rate in the area of 50% for most of the collection instruments used in the survey. A total of 1056 individuals signed a consent form and had at least one test or completed one questionnaire. Among them, 1006 individuals answered the individual questionnaire, 969 answered the confidential questionnaire, 925 participated in the clinical session, 821 had a hearing test, 778 answered the food frequency questionnaire, 664 answered the 24-hour dietary recall, 282 had an arteriosclerosis test, 211 had a continuous measure of their cardiac rhythm for a two-hour period and 207 had a bone densitometry test. More details on the data processing are given in the Methodological Report.

## **INTRODUCTION<sup>1</sup>**

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Notions of mental health and wellness depend on core cultural values. For Inuit, these include respect and care for others in the extended family and community as well as for the land, animals and the environment. This respect and care are expressed by being open, welcoming and inclusive toward others and by basing decision making on discussion and consensus. The Inuit understanding of the healthy person gives importance both to self-sufficiency and to interdependence. Healthy individuals show resilience in their ability to solve problems through innovation and resourcefulness and in their ability to work together with others for a common cause.

Inuit concepts of health and well-being are informed by contemporary medical and psychological views as well as by specific knowledge rooted in Inuit cultural tradition. Inuit Tapirisit has adopted a definition of mental wellness as “self-esteem and personal dignity flowing from harmonious physical, emotional, mental and spiritual wellness and cultural identity” (Inuit Tapirisit of Canada, 2001: 7). Language, history as a people with a unique way of life, and cultural knowledge and traditions are all part of the sense of identity for Inuit in Nunavik.

Inuit ways of thinking about mental health include a dimension that can be called ‘ecocentric’ in that it gives a central role to connections with the land (*nuna*) and animals in the health and well-being of the person (Kirmayer et al., 1994; Gray, 1998). The person is in constant transaction with the environment both through subsistence activities, like hunting and fishing, and through the act of eating country food, including raw meat and fish. Living on the land can have a rejuvenating effect and people use camping, hunting and fishing as ways of regaining a sense of well-being.

There is no single term for mental illness in Inuktitut. Inuit recognize congenital, developmental, environmental, psychological, social and spiritual sources of mental health problems. The workings of the mind and capacity for thought or reason (*isuma*) can result in emotional and behavioral problems. For example, some mental health problems can result from too much thinking (*isumaaluttuq*). In interviews conducted in Nunavik in the

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<sup>1</sup> For ease of readability, the expression “Inuit” is used throughout the theme paper to define the population under study even though a small percentage of individuals surveyed identified themselves as non-Inuit. Refer to “Background of the Health Survey” for further details regarding the definition of the target population.

1990s with a wide range of community members and helpers with particular knowledge (Kirmayer et al., 1994), mental health problems were attributed to four types of causes: (1) physical or organic effects of the environment or human behavior; (2) psychological or emotional factors related to problems in child-rearing, interpersonal relations, and mental functioning; (3) spirit possession or other negative influences recognized by Christian religion; and (4) cultural change, marginalization and social disadvantage. Many people had multiple explanations for complex or severe mental health problems and emphasized psychological, familial, social, moral or religious explanations depending on what aspect of the person's condition was being discussed.

There is wide recognition that certain mental health problems have increased in recent years, most evident in the high prevalence of suicide among youth, and many people link this directly to the impact of sedentarization, economic and political marginalization, and the rapidity of culture change which has posed particular dilemmas for youth, families and communities (Gray, 1998). Understanding the sources of mental health, resilience and well-being is therefore of crucial importance to public health efforts in Nunavik.

This section presents major findings on mental health and well-being, as well as on the prevalence of common mental health problems, particularly suicide. It also summarizes information on some major social determinants of health, including levels of social support and community well-being. Finally, we summarize the types of help sought when a person is suicidal and the suggestions made by survey participants for suicide prevention.

## **METHODOLOGICAL ASPECTS**

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The data for this section come from the individual, confidential and household questionnaires of the Nunavik Inuit Health Survey 2004. Not all participants completed all of these questionnaires so the sample size varies. The confidential questionnaire, which contains questions about suicide and other mental health matters, was self-administered. However, respondents with limited literacy had the option of answering the confidential questionnaire with the help of an interviewer.

Statistical analysis involved comparisons with other characteristics derived from the survey (socio-demographic, lifestyle habits, violence) as well as comparisons with 1992 Santé Québec survey database. All data were weighted in order for estimations generated from the survey data to be representative of the entire population under study and not just the sample itself. Variance analysis adjusted for survey design (Aguirre-Torres, 1994) was used to compare means and the Chi-square test with a correction for design effect was used to compare proportions. Statistical analyses for comparisons have been conducted at a threshold of  $\alpha = 0.05$ .

Some comparisons have been made with results obtained during the 1992 Santé Québec survey where the questions asked are comparable. Given the sampling procedures in the two surveys, these comparisons include an adjustment in proportions or rates to take into account the change in the population's age structure. This adjustment is made on a five years age groups basis using Nunavik 2001 census of Statistics Canada as reference population. However, only raw data is reported in the text, tables and figures to avoid any possible confusion with adjusted proportions. Moreover, the comparisons with the 1992 Inuit survey also included an adjustment for survey design (Aguirre-Torres, 1994).

Association with place of residence was studied according to two different groupings. First, the Nunavik territory was divided in two regions because place of residence may influence life habits. The Hudson coast region includes the villages of Kuujjuarapik, Umiujaq, Inukjuak, Puvirnituaq, Akulivik, Ivujivik and Salluit while the Ungava coast region includes Kangiqsujuaq, Quaqtuaq, Kangirsuk, Aupaluk, Tasiujaq, Kuujjuaq and Kangiqsualujuaq. The other grouping used for comparisons was large communities (Kuujjuaq, Salluit, Puvirnituaq and Inukjuak) vs. small communities.

In terms of the education variable, it is important to specify that the choice of answers for post-secondary training were not well adapted to the context of the survey's target population. The answers given for this category reveal that there was likely confusion during data collection between training that requires a post-secondary diploma and training that does not (e.g. driver's license, fishing license, etc). Therefore, the number of people with post-secondary education was likely overestimated.

## Accuracy of estimates

The data used in this module comes from a sample and is thus subject to a certain degree of error. The coefficient of variation (CV) has been used to quantify the accuracy of estimates and the Statistics Canada scale was used to qualify the accuracy of estimates. The presence of an “E” footnote next to an estimate indicates a marginal estimate (CV between 16.6% and 33.3%). Estimates with unreliable levels of accuracy (CV > 33.3%) are not presented and have been replaced by the letter “F”.

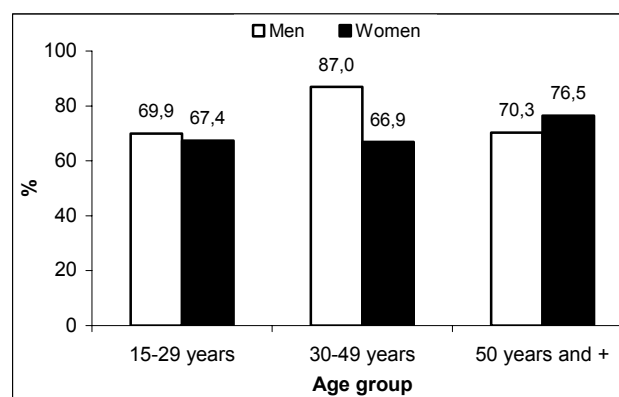
## I. LIFE SATISFACTION AND WELL-BEING

Simply asking people to rate their own overall health and life satisfaction can give a rough picture of their current state of well-being and quality of life. Subjective ratings of health and well-being are reliable predictors of objective health status and of health care utilization (Fayers & Sprangers, 2002; McDowell, 2006). Life satisfaction is strongly correlated with other measures of quality of life. In the Nunavik survey, two questions asked individuals about their perceptions of their general state of health and their overall satisfaction with their life, respectively.

The majority of people (73%) reported being satisfied or very satisfied with their life, 21% were neutral (neither satisfied nor dissatisfied), and 6% reported being dissatisfied or very dissatisfied. Socio-demographic characteristics that were associated with life satisfaction are shown in Table A1 (Appendix). Slightly more men (76%) than women (69%) reported being satisfied or very satisfied with their life and the highest rate of positive life satisfaction was found among men aged 30-49. For women, there was no significant difference in life satisfaction across age groups (Figure 1).

**Figure 1**

Life satisfaction by sex and age group (%), population aged 15 years and over, Nunavik, 2004



Source: Nunavik Inuit Health Survey 2004.

Other factors associated with higher levels of life satisfaction were: income, being married or having a common law partner, and having completed secondary school education. Those who were employed tended to report somewhat higher life satisfaction. There was no significant relationship between life satisfaction and community size or coastal region.

The majority of respondents (68%) reported good to excellent health. Overall, slightly more men (70%) than women (65%) reported having good health. As might be expected, for both men and women, younger respondents reported having good health more often than did those 50 years of age or older. There were no significant differences in general health by community size or coastal region.

Life satisfaction was related to self-reported health: 78% of those who reported having good to excellent health were satisfied or very satisfied with life in general, compared to only 61% of those who had poor health ( $p < 0.0001$ ).

It was not possible to compare the results of these questions with the 1992 Santé Québec health survey among the Inuit of Nunavik because there was no question on satisfaction with life in the earlier survey, and the question on perceived state of health in the 1992 survey asked respondents to compare themselves with those of similar age, while the 2004 survey made no reference to age.



The ratings of overall health in the Nunavik were lower than those found in other surveys. In the First Nations Regional Health Surveys, 80% of respondents report their health as good to excellent, while in the Canadian Community Health Survey, 88% reported good to excellent health (First Nations Information Governance Committee, 2005: 65). The gender difference, with men tending to report better health more frequently, is consistent with research in the general population (Eriksson et al., 2001).

## II. SOCIAL SUPPORT AND COMMUNITY PARTICIPATION

Relationships with others in one's family and community are basic social determinants of mental health and well-being. Relationships can also be sources of stress when they are marked by conflict or associated with emotional burden (Cohen, 2004). The degree of social support and the overall wellness of the community are both strong influences on individual health and well-being. The Nunavik survey asked respondents about various aspects of social support, participation in community activities, and community wellness or social capital (Grootaert et al., 2003; Mignone & O'Neil, 2005).

### ↪ Social support

Four questions addressed social support: two questions asked about the availability of informal forms of social support, one asked about feeling alone, and one asked about potential emotional burden due to relationships.

About 56% of adults reported having someone to have a good time with most or all of the time; about 1 in 3 reported having someone to turn to if troubled or in need of emotional support "most" or "all of the time" (Table 1). However, about 25% of respondents reported rarely or never having someone for this type of support. Less than 10% of adults answered "often" to the question "Are you ever alone, when you would in fact prefer to be with others?"

Of course, relationships with others can bring both support and potential stresses or emotional burden. Nearly 20% of adults reported that someone made them worry or demanded too much from them in their everyday lives either all or most of the time. Almost one in four female respondents compared to one in six male respondents felt they had someone to worry about or who demands too much of their time in everyday life all or most of the time

(Table 1). The highest level of emotional burden was for those in the 30-49 year old age group, in which 25% of respondents felt they had someone to worry about or who demanded too much of their time in everyday life all or most of the time (Table 2).

**Table 1**  
Social support by sex (%), population aged 15 and over, Nunavik, 2004

Social support	Total	Men	Women	Significance level
Have someone to have a good time with (all or most of the time)	56.4	53.9	59.0	0.10
Have someone to turn to for emotional support (all or most of the time)	34.7	30.7	39.0	0.004
Have someone who makes you worry or demands too much from you (all or most of the time)	19.5	16.1	23.0	0.004
Feel alone when preferring to be with others (often)	8.2	9.4	7.0	0.15

Source: Nunavik Inuit Health Survey 2004.

**Table 2**  
Social support by age group (%), population aged 15 and over, Nunavik, 2004

Social support	15-29 years	30-49 years	50 years and +	Significance level
Have someone to have a good time with (all or most of the time)	62.9	53.9	45.6	< 0.0001
Have someone to turn to for emotional support (all or most of the time)	31.4	40.9	30.4	0.004
Have someone who makes you worry or demands too much from you (all or most of the time)	18.7	24.8	10.8 <sup>E</sup>	< 0.0001
Feel alone when preferring to be with others (often)	8.7	8.4	6.5 <sup>E</sup>	0.15

<sup>E</sup> Interpret with caution.

Source: Nunavik Inuit Health Survey 2004.

## Community participation

Two questions on community participation, addressed the frequency of participation in recreational activities with others, and activities to benefit the community.

The level of participation in community activities is a reflection of both individual well-being and social support. Overall, about one in four adults often took part in activities where people came together to do work to benefit the community (Table 3). Men were more likely to take part in such activities. There were no significant differences across age groups.

Over 30% of adults participated in games, sports or recreational activities with others “often” or “very often.” Rates of participation in such recreational activities were higher for men than women (38% vs. 25%), and for those aged 15-29 (39%), compared to those aged 30-49 (28%) and for those aged 50 and over (20%).

**Table 3**

Participation in community activities and healing by sex (%), population aged 15 and over, Nunavik, 2004

	Total	Men	Women	Significance level
Participates in activities to benefit the community (often or very often) – past 12 months	24.2	28.2	19.9	0.002
Participates in recreational activities with others (often or very often) – past month	31.8	38.2	25.0	< 0.0001
Took part in activities to promote one's own healing or wellness – past 12 months	29.5	29.4	29.7	0.92

Source: Nunavik Inuit Health Survey 2004.

There were significant differences in the level of community involvement in large and small communities. A slightly greater proportion of those living in smaller communities participated in activities where people came together to do work to benefit the community (28% vs. 20%) and took part in recreational activities with others (35% vs. 29%). There were no differences between communities located on the Ungava and Hudson coasts.

In response to the question “*How strong is the feeling of togetherness or closeness in your village?*”, 27% of

respondents reported it was very close and 42% felt it was somewhat close. There were no significant differences in perceptions of closeness in the community by the individual’s age, gender or other socio-demographic characteristics.

This question about individuals’ perception of closeness in the community was the only item in the area of community wellness that was associated with a lower average level of psychological distress and lifetime suicide ideation. This suggests that perceiving one’s community as having a strong feeling of togetherness or closeness may be a protective factor for both psychological distress and suicide ideation. Of course, this association may reflect an influence in the other direction, because individuals who are distressed are likely to experience the community as less tightly knit.

## Healing and wellness activities

Nearly one third (30%) of adult Inuit respondents participated in a healing and wellness activity during the past 12 months (Table 3). There were no significant differences in rate of participation by age or gender. Participation in healing activities was more frequent in smaller compared to larger communities (33% vs. 27%) and in the communities of the Ungava coast compared to those of the Hudson coast (33% vs. 27%).

Table 4 shows the participation in the most common types of healing and wellness activities (church related, healing circle, and a diverse group of other activities). Overall, 40% of respondents participated in a church group related activity in the past 12 months, 27% participated in a healing circle, and 25% took part in a variety of other healing activities. Church group related healing and healing circles were more frequent among older individuals. Church group related healing was also more common in smaller communities, while other forms of healing were more frequent in the larger communities.

**Table 4**  
Participating in specific healing and wellness activities (%), population aged 15 and over, Nunavik, 2004

Type of activity	% Participating	Significance level
<b>Church group related</b>	40.1	
<i>Community size</i>		
Large communities	32.5	
Small communities	48.6	0.006
<i>Age group</i>		
15-29 years	41.1	
30-49 years	31.2	
50 years and +	55.0	0.008
<b>Healing circle</b>	27.0	
<i>Age group</i>		
15-29 years	16.8 <sup>E</sup>	
30-49 years	30.7	
50 years and +	40.6	0.003
<b>Other<sup>a</sup></b>	25.4	
<i>Community size</i>		
Large communities	32.3	
Small communities	17.5	0.002

<sup>a</sup> The category of “other” includes a broad range of activities that cannot be broken down for analysis because of small numbers.

<sup>E</sup> Interpret with caution.

Source: Nunavik Inuit Health Survey 2004.

### III. PSYCHOLOGICAL DISTRESS

The community prevalence of depression and other common mental health problems among Nunavik Inuit has not been previously reported. In a randomly selected sample of households in one community in Nunavut, Haggarty and colleagues (2000) found that over one quarter of the sample had experienced depressive symptoms in the past week. As well, close to one fifth of the sample suffered from anxiety in the past week.

In the 1992 Santé Québec survey, psychological distress was measured with an index of 14-items based on the Ilfeld Psychiatric Symptom Index (Santé Québec, 1994). There is no established cut-off on this measure to indicate caseness for this scale so it cannot be used to estimate the prevalence of common mental disorders in the community. In our own secondary analysis of these data (Paul & Kirmayer, 2005), higher levels of distress were associated with younger age, female gender, more than elementary school education, alcohol or substance use, history of sexual abuse, and stressful life events in the

past year including separation from family, loss of employment, disapproval or rejection by community, and someone in one’s household having a serious illness in the past year. Lower levels of psychological distress were associated with more frequent attendance at church and having a good relationship with the community. On a separate question, 3.6% of respondents reported experiencing depression at least once in their lifetime, and 5.1% reported periods of excessive nervousness or irritability (Santé Québec, 1994).

Measuring psychological distress across cultures poses special challenges (Kirmayer & Jarvis, 2005). A questionnaire devised for one population may not work in another cultural setting because people experience and express distress in different ways. Developing and validating measures for a specific population or cultural group requires a lengthy process of comparing questions to other ‘gold standards’ of distress. To date, survey research on mental health among Inuit has used questionnaires developed for the general population. This work has found consistent correlations between conventional measures of distress and other indicators of psychological distress including suicide, substance use and health service utilization. Thus, in the absence of locally validated measures, it is reasonable to use a measure that appears to translate well across a broad range of cultural settings. However, the results must be interpreted with caution because it is possible that the measure over- or under-identifies specific forms of distress and does not cover some other forms of distress among Inuit.

In the current survey, psychological distress was assessed with the K6, a widely used 6-items screening questionnaire for depression and other common mental disorders that asks how often in the last 30 days the individual has been feeling nervous, hopeless, restless, worthless, depressed, and that everything was an effort (Kessler et al., 2003). The K6 was chosen because it is brief, relatively simple in content, corresponds to modes of expression used by Inuit in clinical settings, and has been used in the general Canadian population as well as in many different cultures around the world. There were five response categories for each item: “all of the time”, “most of the time”, “some of the time”, “a little of the time”, and “none of the time”. The questionnaire was scored by summing the items, with scores ranging from a low of six to a high of 30. As a rough guide to severity, scores of 6-12 indicate a low level of distress, 13-18 a moderate level of distress, and 19-30 high levels of distress such as

would be found in clinical samples of people with major depressive disorder.<sup>2</sup>

A conservative cut-off score of 19 identified 13% of the population as possible cases of depression or other common mental disorder. This figure is consistent with studies in other populations, where rates are usually in the range of 8% to 12% (Andrade et al., 2003). It appears to be higher than that in the general population in Canada, where the prevalence of major depression is about 6% (Beaudet, 1996). However, the K6 is non-specific and may also identify people with other common mental health problems such as anxiety disorders (Kessler et al., 2003).

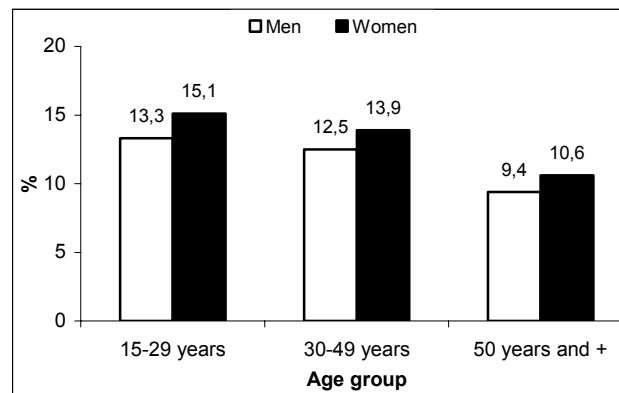
In response to a separate question on the household questionnaire asking the main respondent of the household about illnesses among anyone living in the same house, diagnosis of depression by a doctor or a nurse was reported for 2.4% (95% confidence intervals 1.6 - 3.3) of all household members (all ages). This rate is likely an underestimate of the actual prevalence of depression or other psychiatric disorders for several reasons: local ways of describing mental health problems were not included in the questionnaire; people may be reluctant to label others depressed because of stigma; they may be unaware of the mental state of some people in the household (particularly if people keep to themselves); many people with depression have likely not been medically diagnosed; people with other psychiatric disorders such as severe anxiety disorders would not be labelled depression by the doctor; and the survey question asks about conditions likely to last for 6 months or longer and many depressions are more short-lived and not viewed as chronic conditions.

The household questionnaire also indicated that 1.5% (95% confidence intervals 1.1 - 2.1) of household members were currently taking a tranquilizer, antidepressant, medication for nerves or a sleeping pill.

Table A2 (Appendix) shows the average level of distress broken down by socio-demographic characteristics. Higher levels of psychological distress were associated with female gender, younger age (15-29 years of age), lower income, and being single. The age pattern was similar for both genders (Figure 2). These associations are similar to those found in the general population in North America, where women, young adults and those who live

in relative poverty, all tend to have higher average levels of distress (Mirowsky & Ross, 2003). Slightly higher average levels of distress were also found in smaller communities.

**Figure 2**  
Comparison of mean level of psychological distress (K6) by sex and age group, population aged 15 and over, Nunavik, 2004



Source: Nunavik Inuit Health Survey 2004.

Table A3 (Appendix) shows that many other factors were associated with differences in the average level of psychological distress. As expected, higher levels of distress were associated with less life satisfaction. Social support was also significantly associated with distress (often feeling alone when one would prefer to be with others, and having someone that one often worried about or who demanded too much of their time).

Respondents who had a higher average level of distress also were more likely to have participated in an activity to promote their own healing and wellness in the past 12 months, perhaps because seeking out these activities was an attempt to cope with their distress.

Alcohol and other drug or substance use was associated with higher levels of psychological distress. This may reflect either the negative effects of substances on health and well-being or individuals' efforts to cope with distress through the use of substances. In addition, all forms of sexual abuse during childhood, as an adolescent, or as an adult were associated with psychological distress. The experience of being a victim of violence or domestic abuse as an adult was also associated with higher levels of distress (see Table A7 in Appendix for definitions of drinking problem, sexual abuse, physical violence and domestic violence).

<sup>2</sup> The K6 is often scored with items rated from 0 to 5; the cut-off has been adjusted to reflect the scoring used in the current analysis.

In addition to measuring levels of distress, three other scales were included in the confidential questionnaire in order to understand the impact of self-esteem, impulsivity, and boredom proneness on psychological distress and suicidal behaviour. A question on how proud one is to be an Inuk was also included to give an indication of sense of collective pride or esteem (Phinney & Chavira, 1992). Psychological distress was associated with lower levels of self-esteem, greater impulsivity, and boredom proneness. Respondents who declared they were usually proud of being an Inuk had lower average levels of distress compared to those who declared that they were sometimes, rarely or never proud of being an Inuk.

It was not possible to compare the level of depression or emotional distress (K6) with the level of distress in the 1992 Santé Québec health survey among the Inuit of Nunavik because the two measures differed. Comparison with the 2003 Canadian Community Health Survey was also not possible because the module that contained the K6 measure of psychological distress was not used in Quebec. Those aged 50 and over had a very low response rate for the distress questions (12% non-response rate as compared to 5% for other age groups), perhaps because this part of the survey was self-administered and some respondents in this age group may have had less reading ability. This limited the numbers available for analysis and some results cannot be reported.

#### IV. SUICIDE IDEATION OR ATTEMPTS

Suicide has been an important problem in Nunavik for the last several decades with increasing rates of death by suicide among young people, especially young men. The 1992 Santé Quebec survey, which obtained data on 203 persons between the ages of 15 and 24 years of age, found that 38% of the sample had suicidal ideation, 22% reported having attempted suicide in their lifetime, and 13% had attempted suicide in the year before the survey (Kirmayer et al., 1998). A community survey of 100 Inuit youth (ages 15-25) in one settlement on the Hudson coast, using an adaptation of the U.S. Adolescent Health Survey instrument, found a lifetime rate of attempted suicide of 34% (Kirmayer et al., 1996). As an index of severity, 11% of suicide attempts had resulted in an injury. Fully 5% of individuals reported they had made a suicide attempt in the last month. Only 16% of those who had ever made an attempt reported seeing a doctor, nurse or other health professional in relation to this attempt.

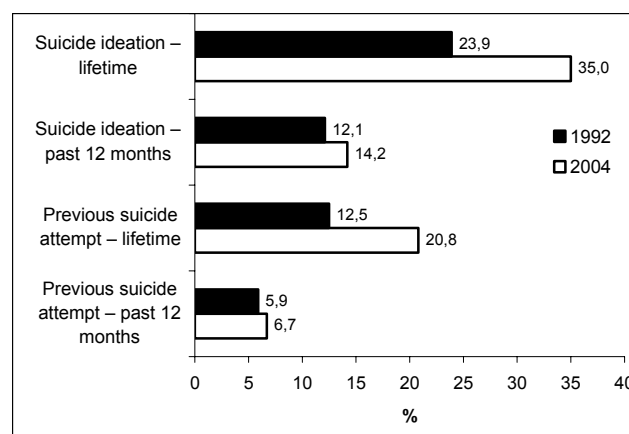
In this section we report prevalence and socio-demographic characteristics, risk and protective factors, and patterns of help seeking associated with suicide ideation and attempts. We will focus on lifetime (an indication of past and/or recent distress) and 12 month (an indication of recent distress) suicide ideation and attempts.

#### Prevalence and socio-demographic characteristics

Respondents were asked about suicidal ideation and suicide attempts both during their lifetime and in the past 12 months. One third of respondents reported having had suicidal ideation during their lifetime and one in five had made a suicide attempt. In the last 12 months, 14% had suicidal ideation and 7% made a suicide attempt.

The same four questions were asked in both the 1992 and 2004 Nunavik health surveys. As can be seen in Figure 3 (and Table A4, Appendix), the lifetime rate of suicide ideation and attempts in Nunavik increased significantly between 1992 and 2004. However, the 12 month rate was not significantly different between the two surveys. This suggests that the increases seen in lifetime rates reflect the cumulative effect of ideation and attempts occurring in the intervening years.

**Figure 3**  
 Comparison of the prevalence of suicide ideation and attempts (%), population aged 15 years and over, Nunavik, 1992 and 2004



Suicide ideation/attempts (lifetime),  $p < 0.0001$ ;  
 Suicide ideation/attempts (past 12 months), not significant,  $p > 0.05$ .

Sources: Nunavik Inuit Health Survey 2004 and Santé Québec survey 1992.

Table 5 presents socio-demographic characteristics associated with the prevalence of suicide ideation. Suicide ideation in the last 12 months was more frequent among

those who were 15 to 29 years of age, women, single, had some secondary school education, and an annual income less than \$20,000. The relationship to the level of education probably reflects the fact that the adolescent age group has the highest rates of suicide ideation and attempt.

**Table 5**

Rates of suicide ideation in the past 12 months by socio-demographic characteristic (%), population aged 15 years and over, Nunavik, 2004

Characteristic	%	Significance level
<b>Sex</b>		
Men	10.3	
Women	18.4	0.0002
<b>Age group</b>		
15-29 years	21.2	
30-49 years	12.4	0.0005*
50 years and +	F	
<b>Marital status</b>		
Single	19.2	
Married or common law	11.1	0.0004*
Separated, divorced or widowed	F	
<b>Education level</b>		
Elementary school completed or less	7.0 <sup>E</sup>	
Secondary school not completed	18.2	
Secondary school completed or higher	10.5 <sup>E</sup>	< 0.0001
<b>Income</b>		
Less than \$20,000	19.0	
\$20,000 and over	7.4 <sup>E</sup>	< 0.0001

\* Categories with unreliable estimate are excluded from the calculation of the significance level.

E Interpret with caution.

F Unreliable estimate.

Source: Nunavik Inuit Health Survey 2004.

Table 6 presents rates of having made a suicide attempt in one's lifetime broken down by socio-demographic groups and, where data are available, a comparison of rates in 1992 and 2004.

Lifetime suicide attempts were more frequent among those living on the Hudson coast, those who were 15-29 years of age, female, single, had some secondary school education, and had an annual income less than \$20,000. Again, the associations with education and

income probably reflect the fact that adolescents have a higher rate of attempted suicide.

**Table 6**

Comparison of rates of lifetime suicide attempt by socio-demographic characteristics (%), population aged 15 years and over, Nunavik, 1992 and 2004

Characteristic	1992	2004	Significance level
<b>Sex</b>			
Men	12.5 <sup>E</sup>	16.2	0.19
Women	12.6	25.7	< 0.0001
<b>Age group<sup>a</sup></b>			
15-29 years	19.3	30.5	< 0.0001
30-49 years	8.8 <sup>E</sup>	17.0	< 0.0001
<b>Marital status</b>			
Single	18.6	24.5	0.0002
Married or common law	8.6 <sup>E</sup>	18.8	0.026
<b>Education level</b>			
Elementary school completed or less	5.2 <sup>E</sup>	10.5 <sup>E</sup>	0.59
Secondary school not completed	20.4	24.3	0.0002
Secondary school completed or higher	7.6	22.4	0.006
<b>Job status</b>			
Work	10.7	21.2	0.003
Other <sup>b</sup>	14.1	19.8	0.022
<b>Income</b>			
Less than \$20,000	NA	25.4	
\$20,000 and over	NA	16.2	
<b>Coastal region</b>			
Hudson	13.2	23.7	< 0.0001
Ungava	11.5	17.0	0.040
<b>Community size</b>			
Large communities	12.7	21.4	0.0003
Small communities	12.2 <sup>E</sup>	19.9	0.011

<sup>a</sup> Few of those aged 50 and over declared any ideation or attempts in 1992 or 2004, so no comparisons could be conducted with those aged 15-29 and 30-49.

<sup>b</sup> Other: hunter support program, housework, retired or on pension, unemployment insurance, social welfare, student or other (disability, maternity leave, etc.).

NA Data not available.

E Interpret with caution.

Sources: Nunavik Inuit Health Survey 2004 and Santé Québec survey 1992.

There were significant increases in lifetime suicide attempts among those who lived on the Hudson coast and those who were females, aged 15-29 or 30-49, had some secondary school education or higher, and were

employed. The increase in both age groups suggests that the high rates of suicide are not simply the result of an effect on one cohort but reflect ongoing factors.

For suicide ideation and attempts in the last 12 months, the only significant change from 1992 to 2004 was for women, with increases in suicidal ideation from 14% in 1992 to 18% in 2004, and in suicide attempts from 4%<sup>E</sup> to 9%.

### Risk and protective factors

Table A5 (Appendix) shows risk and protective factors associated with suicide ideation in the past 12 months. Suicide ideation was associated with having someone who made one worry often or demanded too much, all forms of substance use, all forms of sexual abuse and interpersonal violence. Protective factors that reduced the likelihood of suicide ideation were being satisfied with one's life and having someone to talk to for emotional support.

Table A6 (Appendix) shows risk and protective factors associated with a history of having made a suicide attempt in one's life. Suicide attempts were associated with having someone who made one worry often or demanded too much, all forms of substance use, all forms of sexual abuse and interpersonal violence. The only protective factor identified was being satisfied with one's life.

Most research in the general population shows a strong relationship between depression and suicidal behaviour. However, to date, there has been no information on whether suicide in Nunavik is related to depression, other forms of emotional distress, personality characteristics or social adversity. Personal characteristics that may contribute to suicide include low self-esteem, impulsivity and boredom proneness. The 2004 Nunavik survey included four scales to assess these possible psychological risk or protective factors: depression or emotional distress (K6), self-esteem (Rosenberg Self-Esteem Scale), impulsivity (items from the Barrett Impulsivity Scale), and Boredom Proneness.

The Rosenberg Self-Esteem scale (Rosenberg, 1965) was originally developed to measure adolescents feelings of self-worth or self-acceptance. It is widely used and generally considered the standard against which other measures of self-esteem are compared. The items have face validity, and there is extensive information on its reliability and validity (Blascovich & Tomaka, 1991). The original scale has ten items; the Nunavik survey used a

6 items version of the scale based a shortened form developed by Rosenberg and Simmons (1972).

Impulsivity is the tendency to be reactive, irritable, get angry easily, and act abruptly, without extended deliberation and may be associated with suicide attempts (Brezo et al., 2006). Some suicide attempts may be impulsive acts that occur without much planning or previous thought, as a sudden reaction to upsetting events, or in a state of intoxication. Impulsivity was measured with five items from the Barratt Impulsiveness Scale (Baratt, 1959 and 1965).

Clinical experience and our previous research with young people in Nunavik suggested that boredom was an important cause of distress and was sometimes even offered as a reason for having made a suicide attempt (Kirmayer et al., 1996 and 1998). Boredom may be an important marker of distress that is not more overtly expressed (Jervis et al., 2003) and has been associated with substance abuse, risk-taking behaviours, delinquency, vandalism and criminal activity. Level of boredom was measured with six items from the Boredom Proneness Scale (Farmer & Sunberg, 1986). This scale was originally developed to examine the relationship between boredom and alcohol/substance abuse and other high-risk behaviours amongst disadvantaged youth in rural areas of Australia. Higher levels of boredom proneness have been found to be associated with behaviours that are also risk factors for suicidal behaviour.

All four scales were significantly related to both suicide ideation and suicide attempts (Table 7). Those with suicide ideation in the past 12 months or a previous lifetime suicide attempt had higher levels of psychological distress, impulsivity, and boredom proneness, and lower levels of self-esteem compared to those without the given suicidal behaviour. The same effects were found for both men and women and for the 15-29 and 30-49 age groups, except that the associations of self-esteem and boredom proneness with lifetime suicide attempt were not found for the 30-49 year old age group.

**Table 7**

Comparison of mean scores on psychological measures for those with and without the given suicide ideation or attempts<sup>a</sup>, population aged 15 years and over, Nunavik, 2004

	Mean	
	Suicide ideation – past 12 months	No suicide ideation – past 12 months
Psychological distress measure	17.3	12.3
Impulsivity scale	17.1	15.6
Boredom proneness scale	16.7	15.2
Self-esteem scale	18.5	21.1
	Suicide attempt – lifetime	No suicide attempt
Psychological distress measure	15.7	12.3
Impulsivity scale	16.8	15.6
Boredom proneness scale	16.2	15.2
Self-esteem scale	19.3	21.1

<sup>a</sup> Note: All comparisons significant at  $p < 0.0001$ .

Source: Nunavik Inuit Health Survey 2004.

### Help-seeking and prevention

Two questions examined the pattern of help-seeking for suicide. The first question asked individuals who reported suicide ideation in the last 12 months: “When you were thinking of suicide, did you see or talk to anyone about it?” Overall, 66% of those who had suicidal ideation in the last 12 months did seek help. There were no significant differences in rates of help-seeking by gender, but those in the 30-49 year old group sought help less often.

A list of ten sources of potential help was included as well as an open question in which the person could mention any other source of help. Sources of help included community resource people (elder, family, friend, teacher, and local minister, spiritual guide, or natural healer), mental health services (doctor, nurse or other health professional), and social services (such as Inuit social worker, non-Inuit social worker, community worker, and social assistant). The open-ended question did not elicit any additional sources of help not already mentioned in the questionnaire list.

Those feeling suicidal tended to use informal sources of help more often than formal sources (Table 8). By far the most common source of help sought was a friend,

followed by a family member. Helpers working in the social field, which included community worker, Inuit social worker, non-Inuit social worker, social assistant, and teacher were consulted by 39%. Among these, the most frequently consulted were Inuit social workers.

**Table 8**

Sources of help sought by those with suicide ideation in the past 12 months (%), population aged 15 years and over, Nunavik, 2004

Source of help	%
Friend	80.0
Family	43.0
Doctor, nurse, other health professional	28.0 <sup>E</sup>
Inuit social worker	27.2 <sup>E</sup>
Elder	26.8 <sup>E</sup>
Local minister/spiritual leader	15.9 <sup>E</sup>
Social assistant	15.2 <sup>E</sup>
Community worker	13.6 <sup>E</sup>
Non-Inuit social worker	9.5 <sup>E</sup>
Teacher	8.4 <sup>E</sup>

<sup>E</sup> Interpret with caution.

Source: Nunavik Inuit Health Survey 2004.

All adults were asked a second question on what sources of help they would recommend for someone who was thinking about suicide. In addition to community resource people and mental health and social services, the list of possible sources of help included items specific to Inuit experience, including “eating country food”, “going out on the land”, “talking to an elder” and “talking to a local minister, spiritual guide or natural healer”.

Overall, the most frequently recommended sources of help were talking to friends or family, talking to an elder, going out on the land, talking to a health professional, and eating country food (Table 9). The least frequently recommended source of help was taking medication. Adults who had a history of suicide ideation or attempt gave similar rankings of the sources but were less likely to recommend talking to a community worker or professional.



**Table 9**

Recommended sources of help for someone who is feeling suicidal (%), population aged 15 years and over, Nunavik, 2004

What do you think would help someone who is feeling suicidal?	All adults	Adults with lifetime suicidal ideation	Adults with lifetime suicide attempt
Talking to or spending time with friends or family	92.9	91.3	90.4
Talking to an elder	88.9	81.4	79.1
Going out on the land	79.5	74.7	75.4
Talking to a community worker or social worker	76.1	67.3	61.4
Talking to a local minister, spiritual guide, or natural healer	72.9	64.9	58.8
Talking to a doctor, nurse or other health professional	71.8	58.6	57.1
Going to a counsellor or psychotherapist	66.9	55.9	55.3
Eating country food	64.8	55.0	52.9
Dealing with it themselves	53.3	58.8	56.8
Taking a medication	29.1	20.0	18.4

Source: Nunavik Inuit Health Survey 2004.

A higher percentage of respondents living in villages on the Ungava coast recommended all sources of help, compared to respondents living in Hudson coast villages. A higher percentage of those in small villages compared to those in large villages recommended use of medication or dealing with feeling suicidal on one's own.

There were significant differences in recommended sources of help by age and gender. In general, the proportion of people endorsing each form of help increased with age. The rank ordering of sources of help was similar for all age groups, except that older people gave more frequent endorsements of talking to an elder and a minister or healer. Although the rank ordering of sources of help was the same for men and women, a higher proportion of males recommended most of the categories, except for dealing with it oneself, which was endorsed more often by women and, talking to friends and going to a counsellor which were suggested by an equal proportion of both sexes.

In addition to the sources of help listed in the survey (see Table 9), the following additional sources of help were mentioned by respondents in the category "other": prayer or other religious activity, being active in the community, sports and other physical and recreational activities, keeping busy, stop using drugs, and suicide group or police officer.

Finally, people were asked the following open-ended question: "What do you think could be done in your community to help people who may be suicidal?" About 75% of participants responded to this question but, of these, 19% stated they did not know or gave a vague answer that could not be coded. The specific suggestions made by the remaining participants were assigned to categories based on content and grouped together into five broad areas of intervention: (1) youth, (2) social or mental health services, (3) education and community organization, (4) healing, and (5) other. The most frequent category of suggestions, representing about one fifth of the responses, involved providing more activities for youth, including both recreational, community and cultural activities (e.g. youth outings on the land, hunting, traditional activities, sports; having a youth center or place to 'hang out', a community center, recreation center, swimming pool). The next most frequent categories of suggestions (about 10% of responses) involved having young people talk to elders and increasing available social, community and counselling services. Another group of suggestions pointed to the value of community education through radio, a community organization for suicide prevention, and specific suicide prevention training. The fourth group of suggestions involved various healing activities including healing circles, community-wide healing activities and spiritual or religious healings. The final category including a diverse range of ideas offered by one or a few individuals that included organizing family meetings, sending youth to another community for respite, staying with the suicidal person and never leaving them alone, a crisis hot line, and providing a place for the homeless.

## DISCUSSION

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The Nunavik Inuit Health Survey 2004 provides important information about the level of mental health and well-being of the population as well as identifying some factors that may contribute to psychological distress and suicide.

The majority of people in Nunavik reported being satisfied with their life and being in good health. However, the level of self-reported health was lower than that found in the general population in Canada. Life satisfaction was related to health, income, marital status, education and employment but not to community size or location.

Just over half of participants reported they had someone to have a good time with most of the time but only one third had someone to turn to in times of need most of the time. This is probably not due to a lack of contact, since less than 1 in 10 of adults reported that they were often alone when they wished to be with someone.

A brief screening measure indicated that about 13% of the adult population may have a mental health problem. Determining the actual level of depression or other specific disorders would require other methods, particularly a diagnostic interview. Higher levels of distress were found among those living in larger communities, women, youth 15-29 years of age, those with less income, and those who were single.

Low self-esteem, impulsivity and the tendency to feel bored were all associated with increased levels of suicide ideation and attempts. Further analysis of this data can clarify the relative importance of these different characteristics. However, suicide is not only related to individual differences but also reflects larger community factors. Those who described their community as close reported lower levels of psychological distress and suicide ideation. This suggests that community closeness or togetherness has a protective or positive effect on mental health. Of course, it is also possible that being distressed leads one to view one's community more negatively.

The three most frequent recommended sources of help for someone who was feeling suicidal were talking or spending time with family and friends, talking to an elder and going out on the land. Those who had made suicide attempts or had suicidal ideation mentioned the same sources of help at similar rates. There were many useful

suggestions on what might be done in the community to help those who are feeling suicidal. These included interventions directed to youth as well as community-wide organization and education.

The mental health component of the Nunavik survey has important limitations. The measures of psychological distress have not been adapted to Inuit culture or standardized in this population so it is not possible to interpret absolute levels on the measures with confidence. Non-response for the K6 and other measures on the confidential questionnaire tended to be higher for people who had less formal education or who were older and this may have introduced a bias. Future research should use culturally adapted measures, as well as structured diagnostic interviews in order to assess the validity of the constructs and determine what level or threshold of distress indicates a significant health problem.

## KEY ISSUES

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### Life satisfaction

- Overall, 73% people in Nunavik are satisfied or very satisfied with their life; 6% are dissatisfied or very dissatisfied with their life.
- Life satisfaction is greater for those who feel they are in good health, are male, married, have more education, and higher income.

### Social support

- Only one in three people report they have someone to turn to when they need emotional help all or most of the time.
- Women report higher levels of social support than men but also higher levels of emotional burden.

### Psychological distress

- About 13% of Inuit aged 15 years and over have high levels of emotional distress indicating a possible major depression or other mental health problem.
- Diagnosis of depression was reported for 2.4% of all household members by the main respondent of the household.
- Psychiatric medication use (tranquilizers, antidepressants, medication for 'nerves', or sleeping pills) was reported for 1.5% of all household members.

↪ Women, youth (aged 15-29) and those with lower incomes report higher levels of emotional distress.

↪ Emotional distress is also associated with alcohol and substance use, a history of sexual abuse, and exposure to domestic violence.

### ↪ **Suicide ideations and attempts**

↪ Rates of suicide ideation and attempts are very high:

- 35% had suicide ideation in their life and 14% in the past year;
- 21% made a suicide attempt in their life, 7% in the last 12 months;
- The lifetime rates of suicide ideation and attempts were substantially higher in 2004 compared to 1992; however, the rates of suicide ideation and attempts in the past 12 months have not significantly changed.

↪ There were significant increases in lifetime suicide attempts from 1992 to 2004 among those who lived on the Hudson coast and those who were females, aged 15-29 or 30-49, married, had some secondary school education, and were employed.

↪ Suicide ideation and attempts are much more common among young people and women.

↪ Suicide attempts are associated with higher levels of emotional distress, impulsivity, and the tendency to feel bored more easily, as well as with lower levels of self-esteem and lack of social support.

↪ Those who describe their community as close report lower levels of psychological distress and suicide ideation.

↪ Among people with suicidal ideation in the last 12 months, 66% sought help from some source. Of those who sought help, most talked to a friend (80%) or family (43%); only a minority sought help from a health professional (28%), social worker (27%), elder (27%) or a minister or spiritual leader (16%).

↪ Many people had suggestions for suicide prevention efforts. The most frequently mentioned were:

- Increase the availability of activities for youth (e.g. providing a youth center, sports and recreational facilities);
- Encourage youth to go out on the land to take part in hunting and other traditional activities;
- Increase community and cultural activities;

- Educate the community about suicide (using the local FM radio and the school) and other aspects of mental health and organize a community prevention and intervention group;

- Increase the availability of social and mental health services by improving access to resource people and hiring permanent psychologists or counsellors able to provide crisis intervention and psychotherapy;

- Promote healing circles, healing sessions, and other forms of secular and religious healing practices, engaging individuals, family and the whole community.

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## APPENDIX

**Table A1**

Life satisfaction by socio-demographic groups (%), population aged 15 years and over, Nunavik, 2004

Socio-demographic group	Satisfied or very satisfied with life in general	Significance level
<b>Sex</b>		
Men	76.2	
Women	68.9	0.009
<b>Age group</b>		
15-29 years	68.7	
30-49 years	77.0	
50 years and +	73.3	0.023
<i>Men by age group</i>		
15-29 years	69.9	
30-49 years	87.0	
50 years and +	70.3	< 0.0001
<i>Women by age group</i>		
15-29 years	67.4	
30-49 years	66.9	
50 years and +	76.5	0.20
<b>Marital status</b>		
Single	66.3	
Married or common law	77.9	
Separated, divorced or widowed	70.7	0.0002
<b>Education level</b>		
Elementary school completed or less	67.4	
Secondary school not completed	71.4	
Secondary school completed or higher	80.1	0.008
<b>Job status</b>		
Work	74.1	
Other <sup>a</sup>	68.2	0.055
<b>Income</b>		
Less than \$20,000	68.6	
\$20,000 and over	80.5	< 0.0001

<sup>a</sup> Other: hunter support program, housework, retired or on pension, unemployment insurance, social welfare, student or other (disability, maternity leave, etc.).

Source: Nunavik Inuit Health Survey 2004.

**Table A2**

Comparison of mean level of psychological distress (K6) by socio-demographic groups, population aged 15 and over, Nunavik, 2004

Socio-demographic group	K6 Mean	Significance level
<b>Sex</b>		
Men	12.3	
Women	13.9	< 0.0001
<b>Age group</b>		
15-29 years	14.2	
30-49 years	13.2	
50 years and + <sup>a</sup>	9.9	< 0.0001
<i>Men by age group</i>		
15-29 years	13.3	
30-49 years	12.5	
50 years and +	9.4	< 0.0001
<i>Women by age group</i>		
15-29 years	15.1	
30-49 years	13.9	
50 years and +	10.6	< 0.0001
<b>Marital status</b>		
Single	13.9	
Married or common law	12.5	
Separated, divorced or widowed	11.8	< 0.0001
<b>Education level</b>		
Elementary school completed or less	11.4	
Secondary school not completed	14.0	
Secondary school completed or higher	12.3	< 0.0001
<b>Income</b>		
Less than \$20,000	13.8	
\$20,000 and over	12.1	< 0.0001
<b>Community size</b>		
Large communities	12.8	
Small communities	13.5	0.007

<sup>a</sup> Partial non-response for the K6 index was higher for people who were older or had less education. This may reflect the fact that it was presented as part of the Confidential Questionnaire, which was self-administered (though assistance was available) and therefore more difficult for those with less reading ability or education.

Source: Nunavik Inuit Health Survey 2004.

**Table A3**

Comparison of average levels of distress by risk and protective factors, population aged 18 and over for sexual abuse and physical violence, population aged 15 and over for other factors, Nunavik, 2004

Risk or protective factor	Mean of those with factor	Mean of those without factor	Significance level
<b>Measurements taken on population aged 15 years and over</b>			
<b>Life satisfaction</b>			
Satisfied or very satisfied with life	12.6	14.1	< 0.0001
<b>Social support</b>			
Have someone who makes you worry or demands too much from you (all or most of the time)	15.2	12.5	< 0.0001
Feel alone when preferring to be with others (often)	14.8	12.9	0.0002
<b>Community wellness</b>			
Feeling of togetherness or closeness in one's village (very close or somewhat close)	12.8	13.8	0.002
Participates in recreational activities with others – past month (very often or often)	13.5	12.8	0.022
Has taken part in activities to promote one's own healing or wellness – in the past 12 months	13.5	12.9	0.045
<b>Alcohol abuse and substance use</b>			
Had a drinking problem – lifetime <sup>a</sup>	14.3	12.7	< 0.0001
Drinks alcohol 3 or more times a week – past 12 months	14.1	13.0	0.047
Has 6 or more glasses on each occasion – past 12 months	13.6	12.7	0.002
Marijuana use – past 12 months	13.9	11.7	< 0.0001
Inhalant, glue, solvent use – past 12 months	16.0	12.9	< 0.0001
Cocaine use – past 12 months	14.9	12.9	< 0.0001
Injection drug use – past 12 months	15.9	13.0	0.002
<b>Measurements taken on population aged 18 years and over</b>			
<b>Sexual abuse</b>			
Experienced sexual abuse while growing up <sup>a</sup>	14.2	12.1	< 0.0001
Believe was sexually abused	14.6	12.3	< 0.0001
Forced or attempted forced sexual activity – childhood	14.3	12.5	< 0.0001
Forced or attempted forced sexual activity – ages 13-17	14.6	12.4	< 0.0001
Forced or attempted forced sexual activity – adulthood	14.2	12.5	0.0001
Forced or attempted forced sexual activity – lifetime	14.0	12.0	< 0.0001
Forced or attempted forced sexual activity by family member other than the spouse	15.2	13.7	0.009
<b>Other forms of physical violence<sup>a</sup></b>			
Experienced at least one form of physical violence as an adult	13.7	11.9	< 0.0001
Experienced one form of domestic violence	14.0	12.4	0.0001

<sup>a</sup> Definitions of drinking problem, sexual abuse, physical and domestic violence are presented in the Table A7 (Appendix).

Source: Nunavik Inuit Health Survey 2004.



**Table A4**

Comparison of the prevalence of suicide ideation and attempts (%), population aged 15 years and over, Nunavik, 1992 and 2004

Type of behaviour	1992	2004	Significance level
Suicide ideation – lifetime	23.9	35.0	< 0.0001
Suicide ideation – past 12 months	12.1	14.2	0.11
Previous suicide attempt – lifetime	12.5	20.8	< 0.0001
Previous suicide attempt – past 12 months	5.9	6.7	0.32

Sources: Nunavik Inuit Health Survey 2004 and Santé Québec survey 1992.

**Table A5**

Comparison of rates of suicide ideation in the past 12 months by risk and protective factors (%), population aged 18 and over for sexual abuse and physical violence, population aged 15 and over for other factors, Nunavik, 2004

Risk or protective factor	Rate (%) among respondents		Significance level
	With factor	Without factor	
<b>Measurements taken on population aged 15 years and over</b>			
<b>Life satisfaction</b>			
Satisfied or very satisfied with life	11.2	22.3	< 0.0001
<b>Social support</b>			
Have someone to turn to for emotional support (all or most of the time)	10.8	16.1	0.02
Have someone who makes you worry or demands too much from you (all or most of the time)	22.3	12.2	< 0.0001
<b>Community wellness</b>			
Feeling of togetherness or closeness in one's village (very close or somewhat close)	12.8	16.5	0.11
<b>Alcohol and substance use</b>			
Had a drinking problem – lifetime <sup>a</sup>	20.7	12.1	0.001
Has 6 or more glasses on each occasion – past 12 months	19.7	11.0	< 0.0001
Marijuana use – past 12 months	18.9	6.2 <sup>E</sup>	< 0.0001
Inhalant, glue, solvent use – past 12 months	34.7 <sup>E</sup>	12.5	< 0.0001
Cocaine use – past 12 months	29.1 <sup>E</sup>	12.9	< 0.0001
Hallucinogens use – past 12 months	35.7 <sup>E</sup>	13.6	0.001
<b>Measurements taken on population aged 18 years and over</b>			
<b>Sexual abuse</b>			
Experienced sexual abuse while growing up <sup>a</sup>	22.1	8.0	< 0.0001
Forced or attempted forced sexual activity – childhood	24.5	10.5	< 0.0001
Forced or attempted forced sexual activity – ages 13-17	21.3	11.4	0.0004
Forced or attempted forced sexual activity – adulthood	19.7	11.7	0.004
Forced or attempted forced sexual activity – lifetime	19.8	8.6	< 0.0001
<b>Other forms of physical violence <sup>a</sup></b>			
Experienced at least one form of physical violence as an adult	17.2	7.9 <sup>E</sup>	< 0.0001

<sup>a</sup> Definitions of drinking problem, sexual abuse, physical and domestic violence are presented in the Table A7 (Appendix).

Source: Nunavik Inuit Health Survey 2004.

**Table A6**

Lifetime rates of suicide attempt by risk or protective factors (%), population aged 18 and over for sexual abuse and physical violence, population aged 15 and over for other factors, Nunavik, 2004

Risk or protective factor	Rate (%) among respondents		Significance level
	With factor	Without factor	
<b>Measurements taken on population aged 15 years and over</b>			
<b>Health status and life satisfaction</b>			
Satisfied or very satisfied with life	18.0	28.3	0.0002
<b>Social network</b>			
Have someone who makes you worry or demands too much from you (all or most of the time)	33.7	17.7	< 0.0001
<b>Alcohol abuse and substance use</b>			
Had a drinking problem – lifetime <sup>a</sup>	27.1	18.1	0.002
Has 6 or more glasses on each occasion – past 12 months	26.9	16.7	< 0.0001
Drinks alcohol 3 or more times/week – past 12 months	31.4	19.9	0.009
Marijuana use – past 12 months	26.1	11.9	< 0.0001
Inhalant, glue, solvent use – past 12 months	38.8 <sup>E</sup>	19.3	0.003
Cocaine use past – past 12 months	41.9	18.9	< 0.0001
Hallucinogens use – past 12 months	52.1 <sup>E</sup>	19.7	< 0.0001
<b>Measurements taken on population aged 18 years and over</b>			
<b>Sexual abuse</b>			
Experienced sexual abuse while growing up <sup>a</sup>	30.5	13.5	< 0.0001
Forced or attempted forced sexual activity – childhood	39.1	14.8	< 0.0001
Forced or attempted forced sexual activity – ages 13-17	32.8	16.7	< 0.0001
Forced or attempted forced sexual activity – adulthood	26.5	18.3	0.011
Forced or attempted forced sexual activity – lifetime	29.3	13.2	< 0.0001
Forced or attempted forced sexual activity by family member other than spouse	43.7	22.0	< 0.0001
<b>Other forms of physical violence<sup>a</sup></b>			
Experienced at least one form of physical violence as an adult	28.2	9.3	< 0.0001

<sup>a</sup> Definitions of drinking problem, sexual abuse, physical and domestic violence are presented in the Table A7 (Appendix).

<sup>E</sup> Interpret with caution.

Source: Nunavik Inuit Health Survey 2004.

**Table A7**

Definitions of drinking problem, sexual abuse, physical violence and domestic violence index used in tables A3, A5 and A6.

**1. Had a drinking problem – lifetime**

Having answered “Yes” to at least two of the following four questions. The four questions are known as the CAGE index.

- *Have you ever felt you should cut down on your drinking?*
- *Have people around you annoyed you by criticizing your drinking?*
- *Have you ever felt bad or guilty about your drinking?*
- *Have you ever had a drink first thing in the morning to steady your nerves or get rid of a hangover?*

**2. Experienced sexual abuse while growing up:**

Having answered “Yes” to at least two of the four following questions:

***While growing up:***

- *Someone tried to touch me in a sexual way, or tried to make me touch them;*
- *Someone threatened to hurt me or tell lies unless I did something sexual with them;*
- *Someone tried to make me do sexual things or watch sexual things;*
- *I believe that I was sexually abused.*

**3. Experienced at least one form of physical violence as an adult:**

Having answered “Yes” to at least one of the five following questions:

Have you as an adult ever been subjected to one or more of the following forms of violence?

- *Pushed, shaken or struck lightly;*
- *Kicked, struck with a fist or object;*
- *Thrown against furniture, into walls, down stairs, or similar;*
- *Strangulation attempt, assault with a knife or a firearm;*
- *Other form(s) of violence.*

**4. Experienced at least one form of domestic violence:**

Having answered “Yes” to at least one of the three following questions:

***Have you as an adult been subjected to threats of violence that were so serious that you became afraid by:***

- *Current spouse/partner, previous spouse/partner;*
- *Current boyfriend/girlfriend, previous boyfriend/girlfriend;*
- *Other family membe/ relative.*



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