

Cree Health Survey 2003

Canadian Community Health Survey *Cycle 2.1*
Iiyiyiu Aschii



Mental health

June 2008



Conseil Crie de la santé et des services sociaux de la Baie James
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Cree Board of Health and Social Services of James Bay

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Québec 

**Canadian Community Health Survey, Cycle 2.1
Iiyiyiu Aschii, 2003**

Mental health

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FOREWORD

This publication presents the findings of a health survey carried out in 2003 among households of Iiyiyiu Aschii¹. A similar survey had been undertaken in the region by Santé Québec in 1991 (Santé Québec, 1994). Ten years later, the Public Health Department of the Cree Board of Health and Social Services of James Bay (CBHSSJB) urgently required a new picture of its population's state of health. The purpose of the 2003 survey was to gather up-to-date information on the region's main health problems and related factors in order to improve the planning, administration, and evaluation of various social and health programs.

According to the 2001 Public Health Act (*Loi sur la santé publique*), Quebec's public health departments must periodically assess the health of their respective populations. Since 2000-2001, the province's socio-sanitary regions – with the exception of Iiyiyiu Aschii and Nunavik – have participated in the Canadian Community Health Survey (CCHS) conducted by Statistics Canada.

In 2003 the Public Health Department of Iiyiyiu Aschii decided to take part in this vast project, which was already under way across Canada, and initiated a CCHS-type survey on its own territory (Statistics Canada, 2003). Because the CBHSSJB Public Health Department is connected to the network of Quebec's Department of Health and Social Services (*Ministère de la santé et des services sociaux*, MSSS), it was able to enlist the expert assistance of the *Institut national de santé publique du Québec* (INSPQ) in coordinating the analysis of the results. Professionals drawn from Quebec's health care community and the Public Health Department of Iiyiyiu Aschii, as well as academic experts in the field, were given the task of drafting the publications. The analyses include results on various aspects of health affecting residents of Iiyiyiu Aschii and they also provide comparisons with 1991 data from the region and 2003 data from the rest of Quebec (Santé Québec, 1994; Statistics Canada, 2003). These analyses are relevant for everyone concerned with the health of Iiyiyiu Aschii residents (professionals, administrators, planners, and researchers).

Ten publications were produced as part of this survey:

- *Demographic and social characteristics of the population living in Iiyiyiu Aschii*
- *Food habits, physical activity and body weight*

¹ Please note that the socio-sanitary region for the James Bay Cree Territory is referred to by its Cree name, Iiyiyiu Aschii, throughout this text.

- *Cigarette consumption*
- *Lifestyles related to alcohol consumption, drugs and gambling*
- *Preventive practices and changes for improving health*
- *Health status, life expectancy and limitation of activities*
- *Injuries and transportation safety*
- *Mental health*
- *Use and perceptions of health services*
- *Survey methods*

A final publication, *Survey highlights*, offers a rapid overall view of the health study's results.

Many people contributed to this study at every stage in its progress. Particularly deserving of mention are the roles played by Jill Elaine Torrie, Director of Specialized Services, and Yv Bonnier-Viger, Director of Public Health of the Cree Board, throughout the planning phase and during operations on the field. Above all, we wish to thank the Cree population for its remarkable level of collaboration.

METHODOLOGY OF THE CANADIAN COMMUNITY HEALTH SURVEY (CCHS), CYCLE 2.1, IYIYIU ASCHII, 2003

The survey was conducted during the summer of 2003 using a representative sample of residents aged 12 and older from the nine communities in Iiyiyiu Aschii: Chisasibi, Eastmain, Mistissini, Nemaska, Oujé-Bougoumou, Waskaganish, Waswanipi, Wemindji, and Whapmagoostui.

The original 1,000-person sample was randomly selected from residents of private households in the region. The final sample thus included both Aboriginal and non-Aboriginal residents. Most interviews (85%) were conducted in person during the summer of 2003 using computer-assisted interview software. Individuals who were absent during the first data collection period were interviewed by telephone at the end of autumn 2003.

There was a high participation rate. Of the 646 households selected, 581 agreed to participate in the survey (90%). Within these households, 920 of the 1,074 eligible individuals (86%) agreed to answer the questionnaire, for a combined response rate of 78%. The survey results were then adjusted based on the number of people aged 12 and older from Iiyiyiu Aschii living in private households, excluding residents of institutions such as seniors' homes. This survey does not include

children under the age of 12. All data presented in this document have been weighted to allow inferences to be made for the population as a whole.

However, it must be noted that the data are from a sample and are therefore subject to a sampling error, which must be taken into account. A coefficient of variation (CV) was used to quantify how precise the estimates were, and Statistics Canada's cut-off points were used to describe the precision of these estimates. An asterisk (*) next to an estimate indicates high sampling variability (CV between 16.6% and 33.3%). Estimates with unacceptable precision rates (CV > 33.3%) or based on fewer than ten respondents have been suppressed and replaced by the letter "U."

Statistical analyses of comparisons among the sexes, age groups and sub-regions were conducted at a threshold of $\alpha = 0.05$. Comparisons with the rest of Quebec were standardized to take into account the differences in age structure between the population of Iiyiyiu Aschii and that of the rest of Quebec, and were conducted at a threshold of $\alpha = 0.01$ (Statistics Canada, 2003).

When the questions asked were similar, the results were compared to those of a 1991 survey carried out in the region (Santé Québec, 1994). In light of differences in the samples between the two surveys, these comparisons are only made among Cree aged 15 and older and have been standardized to compensate for changes in the population's age structure. Only unadjusted rates are presented in the text in order to avoid possible confusion with the standardized rates.

More details on data processing are given in the above-mentioned *Survey methods* report.

INTRODUCTION

Mental health is a key component of a population's health status. However, very few studies have addressed this aspect of health among the Crees of Iiyiyiu Aschii or other Aboriginal peoples in Quebec and Canada. As a rule, mental health is considered from various angles such as mental disorders, suicide, drug addiction or community access to services (Barss, 1998; CCPS, 2002; CSSSPNLQ, 2003; Laverdure & Lavallée, 1989). A study dealing more specifically with hospitalisation rates linked to mental health was conducted in Iiyiyiu Aschii in the 1980's. This study also included interviews with mental health specialists. It showed that regional problems had more to do with psycho-sociological problems, essentially related to alcohol, violence, delinquency or parent-child relationships, than with serious pathologies (Laverdure & Lavallée, 1989). A more recent study, conducted by Minde and Minde among 1,000 Cree children referred by mental health services, established a link between the educational level of parents and the occurrence of psycho-sociological disorders (Minde & Minde, 1995).

A distinction must however be made between the concepts of mental health problems and mental disorders, which are often used indiscriminately. The Quebec Mental Health Committee (*Comité de la santé mentale du Québec - CSMQ*) made this distinction back in 1994. It defined a mental disorder as an identifiable disease, such as major depression, that can be diagnosed and that results in significant deterioration in the individual's cognitive, affective and relational capacities (CSMQ, 1994). On the other hand, mental health problems refer to a series of difficulties stemming from the disruption of the relationship between the individual and his or her environment. From this perspective, mental health refers to the psychological well-being of an individual at any given time, as manifested in the person's subjective level of well-being, their exercise of mental skills, the quality of their relationships and their capacity to adapt to their environment (CSMQ, 1994).

People's mental health is influenced by many factors that can be grouped into different levels using a systemic approach: the individual, their living environment, social conditions, norms, values and dominant ideologies (Bronfenbrenner, 1979). Indeed, factors such as gender, age, marital status, education level, type of community, physical health status, excessive use of alcohol or drugs, sense of community belonging, religious practice, the community's control of its own destiny, and the rate of changes within the community can all have a negative or positive impact on mental health (Blanchet et al., 1993; Chandler & Lalonde, 1998; Simard & Proulx, 1995).

This publication examines various aspects of the mental health of residents of Iiyiyiu Aschii, as recorded by the 2003 Canadian Community Health Survey (CCHS 2.1). The following aspects have been selected: the prevalence of reported mental disorders (such as mood and anxiety disorders), the respondents' self-evaluation of their mental health, and consulting a health professional for a mental health problem². This publication also addresses various elements linked to specific indicators of well-being, such as satisfaction with life, perceived happiness, the ability to deal with unexpected events, sources of stress and ways of attenuating their impact.

METHODOLOGICAL ASPECTS

The prevalence of certain mental disorders diagnosed by health professionals and reported by respondents is drawn from the Chronic Conditions module. The module collected information on mood disorders (depression, bipolar disorder, mania and dysthymia) and anxiety disorders (phobia, obsessive-compulsive disorder, and panic disorder). These disorders had to be diagnosed by a health professional and be long lasting, that is to say present for the last six months or expected to last for six months.

Respondents' views of their own mental health were measured by a question in the General Health module. This question, originally developed for the U.S. National Comorbidity Study (Kessler et al., 1994), has since been used in other mental health studies conducted in Ontario and Quebec (Légaré et al., 2000; Lesage et al., 1994; Offord et al., 1996). Self-assessments of health have been linked to reported morbidity, diagnosed morbidity, use of health services, use of medication, functional disabilities, and activity limitation (Levasseur, 1995).

The information on consultations with professionals for a mental health problem is drawn from the Contacts with Mental Health Professionals module and relates to having consulted a general practitioner, a psychiatrist, a psychologist, a nurse or a social worker in the 12 months preceding the survey.

Furthermore, the levels of satisfaction with life and perceived happiness were two additional indicators used to assess the positive aspects of one's mental health. While correlated to psychological distress, there is a distinctive aspect to being mentally healthy. Indeed, some authors interpret good mental health as an overall indicator of quality of life or satisfaction with life, along

with self-rated happiness (Massé et al., 1998). Assessment of one's satisfaction with life in this survey stems from the General Health module. Answers were dichotomized into two classes: "very satisfied or satisfied" and "neither satisfied nor dissatisfied or dissatisfied". Data pertaining to perceived happiness were drawn from the Health Utility Index module. Answers were dichotomized into people who were "happy and interested in life" or "somewhat happy" and people who were "somewhat unhappy", "unhappy, with little interest in life" and "so unhappy that life is not worthwhile".

Data pertaining to the ability to deal with unexpected or difficult events comes from the Stress module. The main source of everyday stress is indicated and a series of questions help assess the various strategies used to deal with stress.

SCOPE AND LIMITATIONS OF THE DATA

The section on chronic health care problems does not include all mental disorders that may affect an individual. As previously mentioned, it is limited to mood and anxiety disorders. The true number of persons affected by such disorders may also have been underestimated as only cases diagnosed by a health professional have been reported. Anyone who did not consult a health professional—whether for personal reasons or as a result of limited regional access to services—has thus been excluded (Lin et al., 1996). According to recent studies conducted in Canada, less than half (43%) of depressed individuals have discussed their symptoms with a health professional. An even smaller proportion (23%) have actually been treated (Diverty & Beaudet, 1997; Patten, 2002). There is no indication of under-diagnosis in regards to anxiety disorders. Such disorders are however subject to recall bias, not only among older people who were diagnosed many years ago but also among those who choose not to mention such problems. Furthermore, some individuals choose not to report such disorders, fearing an unfavourable reaction among their entourage.

Issues pertaining to one's own perception of mental health, happiness, or satisfaction with life, can also be subject to a social desirability bias, resulting in more positive reports.

Finally, issues pertaining to contacts with a health professional for a mental health problem could have been under-reported as a result of limited access to mental health services in isolated regions such as Iiyiyiu Aschii, and of the privacy constraints associated with these services in small communities.

² Given the differences in data administration and non-response management, which disallowed any comparison to data from the 1991 survey and for the rest of Quebec, psychological distress, which was assessed in the 1991 survey, has not been retained.

RESULTS

PREVALENCE OF SPECIFIC MENTAL DISORDERS

This survey focused on two types of common disorders, i.e. mood and anxiety disorders. These disorders had to be diagnosed by a health professional and last for a minimum of six months.

Overall, 4.7% of the regional population 12 and older, or roughly 480 residents, reported suffering from a mood disorder (Table 1). No significant variations were observed by gender or sub-region³, although there was some tendency for the rates to be slightly higher among residents of the inland communities (data not shown). As for anxiety disorders, these affected 2.9%* of people 12 and over, or roughly 300 Iiyiyiu Aschii residents, with no variation based on gender or place of residence. The prevalence of mood and anxiety disorders in the region is no higher than in the rest of Quebec (Table 1).

Table 1

Proportion of chronic mental disorders, by type of disorder (%), population 12 and over, Iiyiyiu Aschii and the rest of Quebec, 2003^a

	Iiyiyiu Aschii	Rest of Quebec
Mood disorders	4.7	3.8
Anxiety disorders	2.9*	3.8

^a Crude rates.

* Imprecise estimate. Interpret with caution (CV between 16.6% and 33.3%).

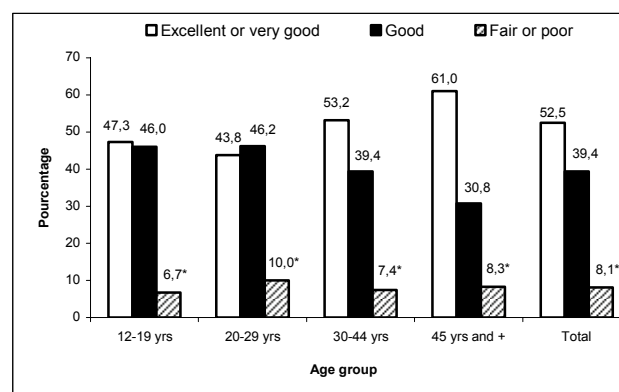
Source: CCHS 2.1 - Iiyiyiu Aschii and rest of Quebec, 2003.

PERCEPTIONS OF MENTAL HEALTH

Overall, 53% of Iiyiyiu Aschii residents describe their mental health as “excellent or very good health”, 39% as “good”, and 8% as “average or poor” (Figure 1). Perceived mental health does not vary significantly based on gender, employment status, or language spoken at home. It does however seem to vary with age, as more people 45 and over than any other age group reported being in good mental health. There also seems to be a correlation between the perception of one’s mental health

and education level⁴, as more people of higher education level report having “excellent or very mental good health” (data not shown).

Figure 1
Perception of one’s mental health by age group (%), population 12 and over, Iiyiyiu Aschii, 2003



* Imprecise estimate. Interpret with caution (CV between 16.6% and 33.3%).

Source: CCHS 2.1 - Iiyiyiu Aschii, 2003.

Compared to other Quebecers, a smaller number of Iiyiyiu Aschii residents report being in “excellent or very good” mental health while more of them report being in “fair or poor” mental health. These gaps are seen in both men and women and in all age groups.

Perception of one’s mental health does seem to vary based on place of residence. A significantly greater proportion of inland residents than coastal residents report being in “fair or poor” mental health (12% vs. 6%*). In line with studies conducted elsewhere in Canada, there is a close relationship between self-evaluation of one’s mental health and perception of one’s physical health. Only 4% of people who deem themselves to be in “excellent or very good” physical health reported being in “poor” mental health. That proportion reaches 30% among those who deem themselves to be in “fair or poor” physical health (data not shown).

Finally, respondents’ perception of their mental health appears to be linked to certain lifestyle habits and to religious affiliation. We note that people who admit to having used marijuana or cocaine in the previous year are more likely to describe their mental health as “fair” or “poor” (Table A1, Appendix). A similar pattern

* The asterisk (*) indicates a rough estimate (CV between 16.6% and 33.3%); these data are to be interpreted with caution.

³ The region of Iiyiyiu Aschii has been divided in two sub-regions for comparison. The coastal sub-region includes the villages of Chisasibi, Wemindji, Eastmain, Waskaganish and Whapmagoostui while the inland sub-region includes Nemiscau, Mistissini, Oujé-Bougoumou and Waswanipi.

⁴ Education level is defined according to number of years of schooling. The “lower” education level means less than 7 years (less than a secondary 1). The “middle” education level means 7 to 11 years (completed some or all of high school). The “higher” education level means 12 years or more (at least some college or other postsecondary education).

applies to alcohol consumption: those who report frequent drinking have a more negative perception of their mental health. These associations may be an effect of age, since young people are more likely than others to consume drugs and alcohol. Conversely, religious affiliation seems to have a positive effect on mental health. Thus, fewer residents who consider spiritual values as important in their daily lives report being in “fair or poor” mental health. People who say they have a religion also seem to be in better mental health, although this relationship does not reach statistical significance at the $\alpha = 0.05$ threshold (Table A1, Appendix).

CONSULTING FOR A MENTAL HEALTH PROBLEM

Overall, 9% of residents 12 and over reported having consulted a health professional for an emotional or mental health issue in the 12 months preceding the survey (Table A2, Appendix). The majority of them reported seeing a psychologist (65%), while the remainder were split in roughly equal proportions between consultations with a family doctor (21%), a social worker (20%) or other professional (19%).

Given the small number of people who reported having consulted a health professional for a mental health problem, few significant differences between age groups can be detected (Table A2, Appendix). But some patterns similar to those noted with self-rated mental health do emerge. For instance, more inland than coastal residents tend to consult for a mental health problem. People of lesser education attainment and those who speak Cree at home also tend to consult a mental health professional on a more frequent basis. Furthermore, a greater proportion of people who deem themselves to be in “fair or poor” mental health consult health professionals for a mental health problem as compared to those who report being in “good or excellent” mental health (Table A2, Appendix). Overall, the proportion of residents who consulted a professional in regards to their mental health is no different than in the rest of Quebec.

INDICATORS OF PSYCHOLOGICAL WELL-BEING ASSOCIATED WITH MENTAL HEALTH

Two indicators of well-being—level of satisfaction with life and perceived happiness—are usually associated with good mental health. The vast majority of Iiyiyiu Aschii residents, or nearly nine out of ten (88%), report being either “satisfied or very satisfied” with their life in general (Table A3, Appendix). Although more men than women report being satisfied (92% vs. 85%), there are no differences between age groups. People living in coastal areas tend to be more satisfied with their lives than people living in inland areas (92% vs. 83%). But there is no significant difference in satisfaction with life

based on education level, marital status or language spoken at home. Although the difference is slight, a significantly smaller proportion of Iiyiyiu Aschii residents 12 and over reported being satisfied (or very satisfied) with their social life than in the rest of Quebec (data not shown). A more refined analysis does however reveal that the difference applies only to women and young people in the 20 to 29 age group (data not shown).

When asked to describe their level of perceived happiness, nearly all respondents (94%) report being “happy or fairly happy” (Table A3, Appendix). Although the level of perceived happiness does not vary by gender, teenagers (12 to 19) appear to be less happy than their elders. While there is no significant difference based on residential sub-region, education level or marital status, people who speak some other language than Cree at home seem to be somewhat happier (98% vs. 93%). The level of perceived happiness among teenagers and people 30 to 44, regardless of gender, appears to be slightly but significantly lower in the region than in the rest of Quebec (data not shown).

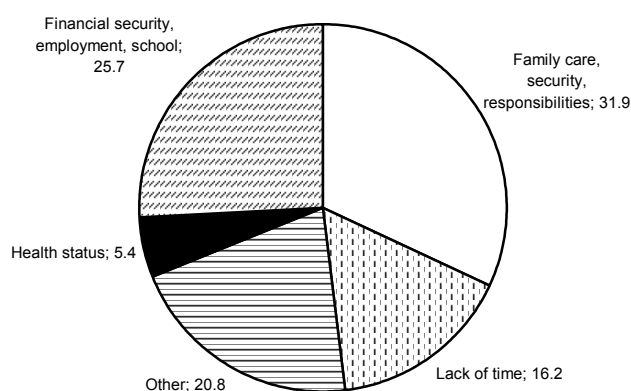
ABILITY TO ADAPT TO STRESSFUL EVENTS

One question assessed respondents’ perceived ability to deal with unexpected events, i.e. events usually considered stressful. Overall, half (49%) of residents 12 and over described their ability to deal with unexpected events as “excellent or very good” while another 14% described it as “fair or poor” (Table A4, Appendix). More men than women reported being able to deal with stressful events (53% vs. 44%). This ability to cope with stressful events seems to improve with age, increasing from 40% in teenagers to 60% in people 45 and over.

The ability to adapt to unexpected events is closely related to education level, increasing from 39% among people of lower education level to 62% among people of higher education level. Marital status also has an impact on the ability to adapt, as single people are less able to adapt to unexpected events. In contrast, separated, divorced or widowed individuals show the greatest ability to adapt. This correlation may very well be linked to age, as a majority of single people are young individuals. There also seems to be a link between the ability to adapt and the language spoken at home. People who speak another language than Cree at home tend to have a greater ability to adapt to unexpected events (45% vs. 61%). Finally, a greater proportion of Iiyiyiu Aschii residents under 45 than other Quebecers of the same age group rate their ability to adapt to unexpected events as “excellent or very good”. There is no statistical difference among people 45 and over (data not shown).

A series of questions were aimed at identifying the main sources of stress among people who reported being stressed (Figure 2). The main sources of stress are, in decreasing order: family care and responsibilities (32%), work, school and financial security matters (26%), overall lack of time (16%), personal state of health (5%) and other factors (21%). A breakdown of the data indicates that women are more likely than men to cite family care, security and responsibilities as their top source of stress. In contrast, more men report financial security, employment and school as their main source of stress. Other sources of stress do not vary based on gender (data not shown).

Figure 2
Main sources of stress (%), population 12 and over, Iiyiyiu Aschii, 2003



Source: CCHS 2.1-Iiyiyiu Aschii, 2003.

Many strategies are used to deal with stressful events. Respondents were asked to identify which coping strategies they usually use, based on a list of 14 provided in the survey (Table 2). The three most frequent ways of dealing with stress were looking on the bright side of things (91%), doing something enjoyable (89%), and trying to solve the problem (87%). Similar proportions of men and women reported using these three coping strategies. Following those three choices were strategies such as talking to others (74%), waiting for the situation to go away (69%) and praying or seeking spiritual help (66%), with in this case a significantly greater proportion of women adopting such behaviours. More than half of respondents also reported blaming themselves (57%), smoking more than usual (51%), or avoiding contact with other people (50%). More than one third of respondents—particularly women—reported behaviours such as eating more or less than usual (41%) or sleeping more than usual (34%). Finally, coping behaviours linked to alcohol (18%) and use of drugs or medications (12%) came in last, with more men than women reporting such behaviours.

Table 2
Strategies used (often or sometimes) to deal with stressful events (%), population 12 and over, Iiyiyiu Aschii, 2003

	Total	Men	Women
Looking on the bright side of things	90.8	90.1	91.5
Doing something enjoyable	89.3	88.3	90.4
Trying to solve the problem	86.5	85.9	87.1
Talking to other people	73.9	69.8 ¹	78.0 ¹
Waiting for the situation to go away	68.8	61.1 ¹	76.7 ¹
Praying or seeking spiritual help	66.4	60.9 ¹	72.1 ¹
Blaming oneself	57.4	55.0	59.8
Smoking more than usual	50.8	45.6 ¹	56.8 ¹
Avoiding other people	49.6	50.1	49.2
Eating more or less than usual	41.3	32.6 ¹	50.3 ¹
Exercising	39.3	42.6	36.0
Sleeping more than usual	34.1	31.7	36.7
Drinking alcohol	18.0	20.7 ¹	15.2 ¹
Using drugs or medications	11.8	14.2 ¹	9.3 ¹

¹ Estimates with the same exponent are significantly different at threshold $\alpha = 0.05$.

Source: CCHS 2.1-Iiyiyiu Aschii, 2003.

DISCUSSION AND CONCLUSION

The study's findings echo those of the 1989 survey conducted by Laverdure and Lavallée: although Iiyiyiu Aschii residents quite often report mental health issues, in the broad sense of an imbalance between the individual and his or her environment, mental pathologies are infrequent. Prevalences of mood disorders (depression, bipolar disorder, mania, dysthymia) and anxiety disorders are relatively low and comparable to those seen elsewhere in Quebec. This is interesting given that several other Canadian surveys indicate that First Nations people suffer from higher rates of depression and distress than other Canadians (FNRHS, 2005; Tjepkema, 2002; CSCR, 1998). The regional shortage of health professionals may explain, at least in part, the low rates of diagnosed mental disorders in Iiyiyiu Aschii. It has however been established that death by suicide, which is quite often imputable to mental disorders, is relatively rare in the region and is in fact significantly less frequent than in other Canadian native communities. Furthermore, the 1991 survey did not establish any difference between Iiyiyiu Aschii and the

rest of Quebec regarding reported suicidal thoughts attempts (Barss, 1998; Boyer, Prévaille, & Légaré, 1994).

Overall, 53% of Iiyiyiu Aschii respondents deemed themselves to be in “excellent or very good” mental health. As noted among other populations, not only do older people tend to report being in good mental health, they also seem quite adept at dealing with stressful and unexpected events (Légaré et al., 2000; Stephens et al., 1999; Tousignant, 1998). People of higher education level, people for whom spiritual values are important, and people with a religion also tend to enjoy better mental health. This is consistent with prior studies suggesting that religious affiliation might offer some protection against suicidal impulses (Boothroyd, 1998). Conversely, a greater proportion of people who drank alcohol on a regular basis, or used marijuana or cocaine during the year had a negative perception of their mental health. This trend, which has also been observed in previous studies (Boothroyd, 1998; Boothroyd et al., 2001) could to some extent be age-related.

The results of this survey do not show any link between perception of one’s mental health and employment status. Yet, according to the *Enquête sociale et de santé*, a Quebec survey conducted in 1998, the mental health of unemployed people, students and homemakers was not as good (Légaré et al., 2000). This link, highlighted in the 1998 study, could stem from an existing health problem preventing an individual from engaging in employment. Fewer job opportunities in the region and the practice of traditional activities, not always considered regular employment, could explain the lack of relation between employment and mental health perception in the present survey.

Generally speaking, fewer Iiyiyiu Aschii residents than other Quebecers report being in “excellent or very good” mental health. Yet the rates of serious mental disorders and of consulting a health professional for a mental problem are similar to the Quebec average. Local residents may simply perceive mental health in a different way and/or have reported their mental health self-evaluation differently in the questionnaire.

Some of the reported mental health problems could be linked to the fast pace of acculturation in the region since the 1950’s, which increased even further after the ratification in 1976 of the James Bay and Northern Quebec Agreement. Not only were entire communities relocated as a result of flooding from the hydroelectric dam, but local people had to relinquish their hunting and fishing lifestyle (which placed a high value on past experience), and replace it with lifestyle based on salaried employment, (for which education, rather than experience, is valued). Formerly isolated communities

were integrated into the Quebec road network, leading to more frequent and sudden contact with non-Cree culture. Some residents gained access to services such as television and the Internet for the first time (Torrie et al., 2005).

This rapid acculturation process could to some extent explain the reports of poorer mental health and more consultations for mental health problems in the inland communities compared to the coastal ones. Simard and Proulx (1995) suggest that the more limited and gradual process of contact with once-isolated coastal communities allowed them to “more calmly welcome the southern winds of change”, leading to better integration and fewer psycho-social problems (Simard & Proulx, 1995). An alternative explanation for the higher rates in inland communities could be the greater access to mental health professionals within these communities.

Curiously, there seems to be little relation between mental health (or consulting a professional for mental health problems) and two indicators of well-being, namely satisfaction with life and perceived happiness. As reported by Massé and collaborators (Massé et al., 1998), these indicators could be entirely distinct concepts. One also wonders whether the questions, as worded, were able to distinguish between different levels of happiness and satisfaction, since the vast majority of respondents (nearly 90% of them) reported being happy and satisfied with life.

If on average, Iiyiyiu Aschii residents do report being in poorer mental health than other Quebec residents, they nonetheless report good ability to deal with unexpected or stressful events. As a matter of fact, young adults in Iiyiyiu Aschii seem better able to cope than their Quebec counterparts. This ability to deal with unexpected events is linked to education and increases with age.

Family responsibilities are the main source of stress in the region, particularly among women. The main strategies used by Iiyiyiu Aschii residents of both sexes to deal with stress are looking on the bright side of things, doing something enjoyable, and trying to solve the problem. There are however some differences in the way men and women deal with stress. More men turn to alcohol or drugs while more women turn to eating more or less than usual, talking to others, seeking spiritual help, or simply waiting for the problem to go away.

KEY ISSUES

- The prevalence of mental disorders in Iiyiyiu Aschii is 4.7% for mood disorders and 2.9%* for anxiety disorders. These rates are similar to those noted elsewhere in Quebec.
- A slight majority of residents (53%) reported being in “excellent or very good” mental health while another 39% reported being in “good” mental health, and 8% in “fair or poor” mental health. Having a positive perception of one’s mental health seems to be linked to age, education, physical health and spiritual beliefs.
- More residents from inland communities than coastal reported being in “poor” mental health and/or having consulted a health professional for a mental problem. It is unclear whether this stems from a true variation in mental health between the two regions, or simply from different perceptions of mental health or differential access to mental health professionals.
- The vast majority of respondents reported being happy and satisfied with life. But there seems to be little relation between these variables and the perception of one’s mental health.
- One out of every two respondents reported having an “excellent or very good” ability to deal with unexpected problems.
- For women, family care and responsibilities are the main source of stress. In contrast, men are stressed by employment, schooling or income security issues.
- Generally speaking, men and women use similar strategies to dealt with stress, namely looking on the bright side of things (91%), doing something enjoyable (89%), or trying to solve the problem (87%).

REFERENCES

- Barss, P. (1998). Suicide and Parasuicide among the Cree of Eastern James Bay. Canada : *Circumstances and prevention*.
- Blanchet, L., Laurendeau, M. C., Paul, D., & Saucier, J. F. (1993). *La prévention et la promotion en santé mentale. Préparer l'avenir*. Québec: Gaëtan Morin.
- Boothroyd, L. (1998). *Suicidal Behaviour among the Cree of James Bay: Information from the 1991 Santé Québec Health Survey and Prevention Strategies*. Unpublished draft, August 18, 1998.
- Boothroyd, L., Kirmayer, L., Spreng S., Malus, M., Hodgins, S. (2001). *Completed suicides among the Inuit of northern Quebec, 1982-1996: a case-control study*. *Canadian Medical Association Journal*, 165(6): 749-755.
- Boyer, R., Prévaille, M., & Légaré, G. (1994). Mental Health. In Santé Québec. Daveluy, C., Lavallé, C., Clarkson, M., & Robinson, E. (dir.) (1994). *A Health Profile of the Cree, Report of the Santé Québec Health Survey of the James Bay Cree 1991*. Montreal : Ministère de la Santé et des Services sociaux, Government of Quebec.
- Bronfenbrenner, U. (1979). *The Ecology of Human Development Experiment by Nature and Design*. Cambridge: Mass.
- Comité consultatif sur la prévention du suicide (CCPS). (2002). *La prévention du suicide chez les jeunes des Premières Nations*.
- Centre for Studies of Children at Risk (CSCR). (1998). *Ontario First Nations Regional Health Survey Final Report*. Hamilton Health Sciences Corporation, in collaboration with the Technical Advisory Committee, Chiefs of Ontario.
- Chandler, M. J., & Lalonde, C. (1998). Cultural continuity as a hedge against suicide in Canada’s First Nations. *Transcultural Psychiatry*, 35, 191-219.
- Comité de la santé mentale du Québec (CSMQ). (1994). *Recommandations pour développer et enrichir la politique de santé mentale*. Sainte-Foy: Les Publications du Québec.
- Commission de la Santé et des Services sociaux des Premières Nations du Québec et du Labrador (CSSSPNQL). (2003). *Agir pour la vie. Proposition d'un plan d'action. Une démarche stratégique face à la problématique du suicide pour les communautés des Premières Nations du Québec*. Québec: Commission de la Santé et des Services sociaux des Premières Nations du Québec et du Labrador.
- Diverty, B., & Beaudet, M. P. (1997). La dépression : un trouble partiellement traité? *Rapports sur la santé*, 8(4), 9-19.
- First Nations Regional Health Survey (2005). Chapter 14: Mental Health, Mental Wellness and Personal Support. In *First Nations Regional Longitudinal Health Survey (RHS) 2002/03*: pp. 138-144. Accessed May 2006 at www.naho.ca.

- Kessler, R. C., McGonagle, K. A., Zhao, S., Nelson, C. B., & Hughes, M. (1994). Lifetime and 12-Month Prevalence of DSM-III-R Psychiatric Disorders in the United States : Results From the National Comorbidity Study. *Archives of General Psychiatry*, 51(1), 8-19.
- Laverdure, J., & Lavallée, C. (1989). *Profil de la clientèle et description des services de santé mentale, au sein de la population crie de la Baie James*. Montréal: Conseil cri de la santé et des services sociaux de la Baie James.
- Légaré, G., Préville, M., Massé, R., Poulin, C., St-Laurent, D., & Boyer, R. (2000). Santé mentale. In C. Daveluy, L. Pica, N. Audet, R. Courtemanche & C. Lapointe (Eds.), *Enquête sociale et de santé 1998* (pp. 331-353). Québec: Institut de la statistique du Québec.
- Lesage, A., Fournier, L., Cyr, M., Toupin, J., Brewin, C., & Bebbington, P. (1994). *Une procédure d'évaluation des besoins d'intervention en santé mentale. Une étude de faisabilité, de fiabilité et de validité menée sur un échantillon représentatif de la population adulte de l'est de Montréal*. Montréal: Centre de recherche Fernand-Seguin.
- Levasseur, M. (1995). Perception de l'état de santé. In MSSS (Ed.). *Et la santé ça va en 1992-1993? Rapport de l'enquête sociale et de santé 1992-1993*, Vol.1, pp. 199-209.
- Lin, E., Goering, P., Offord, D. R., Campbell, D., & Boyle, M. H. (1996). The Use of Mental Health Services in Ontario : Epidemiologic Finding. *Canadian Journal of Psychiatry*, 41(9), 572-577.
- Massé, R., Poulin, C., Dassa, C., Lambert, J., & Bélair, S. (1998). Élaboration et validation d'un outil de mesure du bien-être psychologique : L'EMMBEP. *Revue Canadienne de Santé Publique*, 89(5), 352-357.
- Minde, R., & Minde, K. (1995). Socio-Cultural Determinants of Psychiatric Symptomatology in James Bay Cree Children and Adolescents. *Canadian Journal of Psychiatry*, 40(6), 304-312.
- Offord, D. R., Boyle, M. H., Campbell, D., Goering, P., & Lin, E. (1996). One-Year Prevalence of Psychiatric Disorder in Ontarians 15 to 64 Years of Age. *Canadian Journal of Psychiatry*, 41(9), 559-563.
- Patten, S. B. (2002). Progress Against Major Depression in Canada. *Canadian Journal of Psychiatry*, 47(8), 775-780.
- Pearlin, L. et Schooler, C. (1978). The Structure of Coping. *Journal of Health and Social Behavior*, vol 19: 2-21.
- Santé Québec. Daveluy, C., Lavallée, C., Clarkson, M., & Robinson, E. (dir.) (1994). *A Health Profile of the Cree, Report of the Santé Québec Health Survey of the James Bay Cree 1991*. Montreal : Ministère de la Santé et des Services sociaux, Government of Quebec.
- Simard, J. J., & Proulx, S. (1995). L'état de santé des Cris et des Inuits du Québec nordique. Quelques indicateurs statistiques de l'évolution récente. *Recherches amérindiennes au Québec*, 25(1), 3-19.
- Statistique Canada, données de l'Enquête sur la santé des collectivités canadiennes cycle 1.1, tableaux produits par René Dion, Santé Canada, février 2004.
- Statistics Canada. (2003). *Canadian Community Health Survey (CCHS), Cycle 2.1*. Ottawa: Health Statistics Division, Government of Canada. [On-line]. http://www.statcan.ca/english/concepts/health/cycle2_1/index.htm
- Stephens, T., Dulberg, C., & Joubert, N. (1999). La santé mentale de la population canadienne : une analyse exhaustive. *Maladies chroniques au Canada*, 20(3), 131-140.
- Tjepkema, M. (2002). The health of the off-reserve Aboriginal population. *Health Reports*, vol 13 : 73-88.
- Torrie, J. et al. (2005). *The Evolution of Health Status and Health Determinants in the Cree Region (Eeyou Istchee): Eastmain-1-A Powerhouse and Rupert Diversion Sectoral Report*. Vol 2. Chisasibi: Cree Board of Health and Social Services of James Bay.
- Tousignant, M. (1998). *Les origines sociales et culturelles des troubles psychologiques*. Paris: Presses Universitaires de France.

APPENDIX

Table A1
Overall perception of mental health, based on specific variables (%), population 12 and over, Iiyiyiu Aschii, 2003

	Excellent or very good	Good	Fair or poor
Total	52.5	39.4	8.1
Sub-region			
Coastal	53.8	40.4	5.8* ¹
Inland	50.6	38.0	11.5 ¹
Used marijuana, cannabis, hashish in the last 12 months			
Yes	38.2 ¹	47.7 ²	14.1* ³
No	56.5 ¹	37.4 ²	6.1 ³
Used cocaine or crack in the last 12 months			
Yes	40.4 ¹	46.1	13.5*
No	53.8 ¹	39.0	7.3
Alcohol consumption rate in the last 12 months			
Once a week or more	44.9 ¹	46.0 ²	9.1*
1 to 3 times a month	50.3	40.1	9.6*
Less than once a month	49.7	41.4	8.9*
No consumption	58.4 ¹	34.9 ²	6.6*
Spiritual values important			
Yes	57.7 ¹	34.9 ²	7.4
No	45.3 ¹	46.4 ²	8.3*
Religious affiliation			
Yes	55.5	37.5	7.0
No	45.9	43.5	10.6*

* Imprecise estimate. Interpret with caution (CV between 16.6% and 33.3%).

^{1,2,3} Estimates with the same exponent are significantly different at threshold $\alpha = 0.05$.

Source: CCHS 2.1-Iiyiyiu Aschii, 2003.

Table A2

Having consulted a health professional over the last 12 months, based on some variables (%), population 12 and over, Iiyiyiu Aschii, 2003

	Consultation
Total	8.8
Age group	
12-19 years	5.5*
20-29 years	10.0
30-44 years	9.4*
45 years and over	9.4*
Sub-region	
Coastal	7.9*
Inland	10.2
Education	
Lower level	9.8
Middle level	9.2*
Higher level	8.1*
Language spoken at home	
Cree	9.2
Other	7.1*
Perception of one's mental health	
Excellent / Very good	8.6*
Good	7.6*
Fair / Poor	14.7*

* Imprecise estimate. Interpret with caution (CV between 16.6% and 33.3%).

Source: CCHS 2.1-Iiyiyiu Aschii, 2003.

Table A3

Psychological well-being indicators (overall satisfaction with life, perceived happiness) based on specific variables (%), population 12 and over, Iiyiyiu Aschii, 2003

	Overall satisfaction with life (very satisfied, satisfied)	Perceived happiness (happy, somewhat happy)
Total	88.4	94.1
Gender		
Men	91.6 ¹	94.6
Women	84.9 ¹	93.5
Age group		
12-19 years	91.0	90.0 ^{1,2}
20-29 years	84.2	95.4 ¹
30-44 years	89.4	93.6
45 years and over	88.5	96.2 ²
Sub-region		
Coastal	92.1 ¹	94.9
Inland	82.8 ¹	92.8
Education		
Lower level	86.0	93.5
Middle level	91.0	93.2
Higher level	90.2	95.8
Marital status		
Married, common law spouse	86.9	95.0
Single, never married	91.2	93.2
Separated, divorced, widowed	83.1	91.6
Language spoken at home		
Cree	87.9	93.1 ¹
Other	90.2	97.7 ¹

^{1,2} Estimates with the same exponent are significantly different at threshold $\alpha = 0.05$.

Source: CCHS 2.1-Iiyiyiu Aschii, 2003.

Table A4

Perception of one's ability to deal with unexpected problems, based on specific variables (%), population 12 and over, Iiyiyiu Aschii, 2003

	Excellent or very good	Good	Fair or poor
Total	48.6	37.3	14.1
Gender			
Men	52.6 ¹	34.0 ¹	13.4
Women	44.4 ¹	40.8 ¹	14.8
Age group			
12-19 years	39.8 ^{1,2}	44.9 ^{1,2}	15.3*
20-29 years	36.5 ^{3,4}	45.5 ^{3,4}	17.9 ¹
30-44 years	50.5 ^{1,3}	34.8 ^{1,3}	14.7
45 years and over	59.1 ^{2,4}	30.6 ^{2,4}	10.4* ¹
Sub-region			
Coastal	51.1	37.3	11.6 ¹
Inland	45.0	37.3	17.7 ¹
Education			
Lower level	39.4 ¹	43.2 ¹	17.4
Middle level	51.9 ^{1,2}	35.8	12.4*
Higher level	61.5 ^{1,2}	29.8 ¹	8.6 [*]
Matrimonial status			
Married, common law spouse	54.1 ¹	31.8	14.1
Single, never married	38.0 ^{1,2}	47.6 ¹	U
Separated, divorced, widowed	61.6 ²	27.0* ¹	14.3
Language spoken at home			
Cree	45.4 ¹	39.2 ¹	15.5 ¹
Other	60.8 ¹	30.4 ¹	8.8* ¹

^{1,2,3,4} Estimates with the same exponent are significantly different at threshold $\alpha = 0.05$.

* Imprecise estimate. Interpret with caution (CV between 16.6% and 33.3%).

U Unpublished data (CV > 33.3% or fewer than 10 respondents).

Source: CCHS 2.1-Iiyiyiu Aschii, 2003.