Centre intégré universitaire de santé et de services sociaux de l'Estrie – Centre hospitalier universitaire de Sherbrooke

Québec

ᓄᓇᕗᑦ ᐃᓚᖃᓕᕆᓂᖅ ᑲᑎᒪᔨᖅ

RÉGIE RÉGIONALE DE LA SANTÉ ET DES SERVICES SOCIAUX DU NUNAVIK

NUNAVIK REGIONAL BOARD OF HEALTH AND SOCIAL SERVICES

**IMPLEMENTING GOOD PRACTICES IN SUICIDE PREVENTION IN NUNAVIK**

# RECOMMENDATIONS BASED ON ANALYSIS OF INFORMATION FROM CORONERS' REPORTS FROM 2000 TO 2013

*If the populations of "mainland" Canada, Denmark and the United States had suicide rates comparable to those of their Inuit populations, national emergencies would be declared.*

Upaluk Poppel
Representative of the Inuit Circumpolar Council
Presentation to the United Nations' Permanent Forum on Indigenous Issues, May 2005

*The political, economic and territorial autonomy of indigenous peoples is often ridiculed and their culture and languages ignored. Such circumstances can lead to sentiments of depression, isolation and discrimination along with resentment and distrust of public health and social services, à fortiori if those services do not take the cultural context into account.*

World Health Organization, 2014: 36

**WRITING**

Marie Masssuard, Planning and Programming Officer, Research (PPA-R) Service de courtage des connaissances et des pratiques de pointe, Centre intégré universitaire de santé et de service sociaux de l'Estrie – Centre Hospitalier Universitaire de Sherbrooke (CIUSSS de l'Estrie-CHUS)

**IN COLLABORATION WITH**

Normande Hébert, PPA-R, Service de courtage des connaissances et des pratiques de pointe, CIUSS de l'Estrie-CHUS

Marie-Andrée Roy, PPA-R, Direction de la santé publique de l'Estrie, CIUSS de l'Estrie-CHUS

Sylvinae Fumas, Administrative technician, Service de courtage des connaissances et des pratiques de pointe, CIUSS de l'Estrie-CHUS

Francis Lacasse, Bibliotechnician, Service de courtage des connaissances et des pratiques de pointe, CIUSS de l'Estrie-CHUS

Guillaume Baillargeaon, Documentation technician, Service de courtage des connaissances et des pratiques de pointe, CIUSS de l'Estrie-CHUS

**Proposed Reference**

Massuard, M. (2016) Recommendations based on analysis of information from coroners'reports from 2000-2013, *Implementing good practices in suicide prevention in Nunavik,* Centre intégré universitaire de santé et de service sociaux de l'Estrie – Centre Hospitalier Universitaire de Sherbrooke (CIUSSS de l'Estrie-CHUS), submittted to the Nunavik Regional Board of Helth and Social Services, 22 p.

CONTEXT

The present document is intended for the decision makers and organizations working in suicide prevention in Nunavik. More precisely, it is destined for the Nunavik Regional Board of Health and Social Services (NRBHSS), the members of the regional suicide-prevention committee, the members of the working committee for the present process and the *ministère de la Santé et des Services sociaux*.

This document is in line with a series of actions carried out in the context of the process of implanting good practices in suicide prevention in Nunavik, a process in which the following in particular were involved: the NRBHSS, the regional suicide-prevention committee, the Tulattavik Health Centre, the Inuulitsivik Health Centre, the Estrie IUHSSC-CHUS, the *Association québécoise de prévention du suicide* [Québec suicide-prevention association] and the *ministère de la Santé et des Services sociaux*. This initiative is based on the Québec process for improving practices in suicide prevention, launched in 2007.

Over the past 15 years, each Inuit community of Nunavik has felt the shock of several deaths by suicide. The number of suicides varies from one community to the next. However, there is consensus as to the scope of the phenomenon of suicide in Inuit communities. Although it is difficult to establish a direct relation to the number of suicides, it would not be erroneous to believe that a better safety net around suicidal individuals would help save lives.

The current process aims at setting up structured actions in suicide prevention in the Inuit communities based on recognized practices that take Nunavik's realities into account.

This document is based on information made available by coroners on suicide deaths in the Nunavik communities. It is structured along the highlights and recommendations from the analysis of the available data.

This analysis sheds light on the events during the lives of individuals recognized as being at risk of suicide and the events that occurred during the hours preceding the suicidal act (trigger event). The actions set up for suicide prevention in Nunavik should thus take these highlights into account.

Finally, in general in suicide prevention, we attempt to act on the individual factors that can upset the equilibrium in an individual's life to the point where he[1] commits suicide. Likewise, the treatments proposed for a suicidal person are usually individual, for example, through psychotherapy and medication. Among the Inuit, the recent colonization had a stressful effect on both individuals and the community (sociocultural effects).[1] The information in the coroners' reports does not allow direct assessment of the collective impacts of "colonial stress."[2] That is a limit of the present analysis. The collective factors are raised through other actions planned in the process of implanting sound practices in suicide prevention in Nunavik.

[1] In the interest of simplicity, the masculine or feminine form is used in this text to denote either sex.

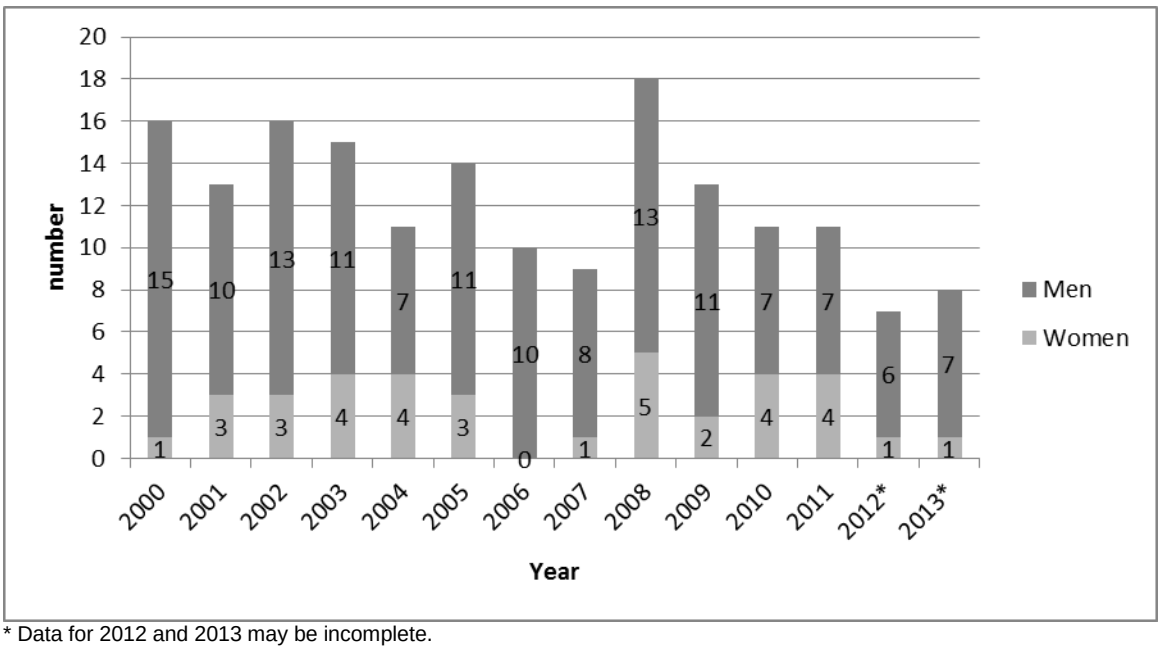
RESULTS

## 1. DISTRIBUTION OF DEATHS BY SUICIDE BETWEEN 2000 AND 2013

According to the *Bureau du coroner du Québec*, between 2000 and 2013, 172 individuals took their own lives in Nunavik. Although the coroners do not identify the individuals by ethnic group, it would be accurate to assume that all of them were Inuit.

The number of suicides was higher for 2000, 2002-2003 and 2008: from 15 to 18 suicides in all the Nunavik villages.

Figure 1: Distribution, by number, of the 172 deaths by suicide, by year, among men and women




* Data for 2012 and 2013 may be incomplete.

## 2. HIGHER NUMBER OF SUICIDES IN THE HUDSON VILLAGES

Between 2000 and 2013, the number of suicides varied from village to village. The average suicide rate in Nunavik for that period was 109.1 per 100 000 (extrapolated population).

Hudson Coast

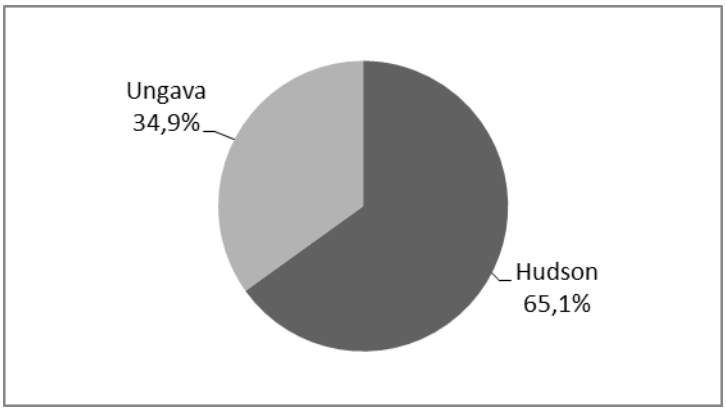
- There were 112 suicides on the Hudson coast (65.1%).
- The suicide rate was 128.8.

Ungava Coast

- There were 60 suicides on the Ungava coast (34.9%).
- The suicide rate was 84.8.

A suicide rate per village cannot be calculated due to the small population sizes. In effect, such calculation could be problematic given the instability caused by low figures.

Figure 2: Distribution of suicides by subregion, in percentages (N = 172)




*Comparison with Existing Data*

Suicide rates cannot be compared directly "because of the different compilation methods, time periods and sampling characteristics."[3] However, the rates calculated for the present document and those identified in the literature are all clearly "much higher than those observed among similar groups of the same age and the same male-female composition in the general population."[4]

*Comparison with Canadian Data*

Over the past 15 years, the suicide rate among Canada's Inuit was 10 to 13 times higher than for the general Canadian population.[5]

*Comparison with Québec Data*

In Québec, the suicide rate was 13.1 in 2012.[6] Nunavik's suicide rate in was therefore eight times higher than that of the province.

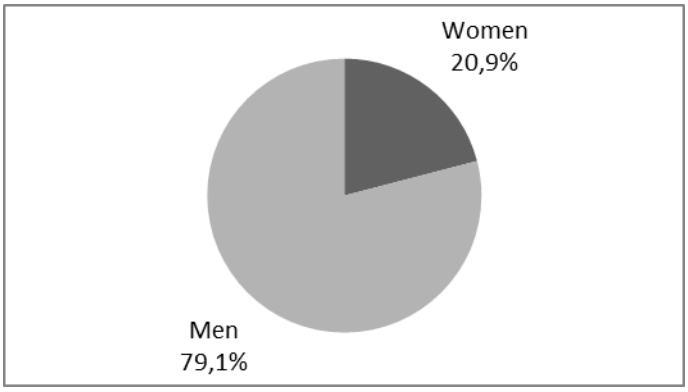
Table 1: Number of suicides per village between 2000 and 2013

| | Number of suicides | Average population (2001-2014) |
|---|---|---|
| **Hudson Bay** | **112** | **6210** |
| Umiujaq | 4 | |
| Akulivik | 10 | |
| Ivujivik | 11 | |
| Kuujjuaraapik | 14 | |
| Salluit | 23 | |
| Inukjuak | 24 | |
| Puvirnituq | 26 | |
| **Ungava Bay** | **60** | **5052** |
| Aupaluk | 3 | |
| Tasiujaq | 3 | |
| Kangiqsujuaq | 5 | |
| Kangirsuk | 6 | |
| Quaqtaq | 8 | |
| Kangiqsualujjuaq | 15 | |
| Kuujjuaq | 20 | |

### 3. HIGHER SUICIDE RATE AMONG MEN (N = 172 – 79.1%)

A total of 36 women and 136 men committed suicide between 2000 and 2013.

Figure 3: Suicide, by sex, in percentages (N = 172)




*Comparison with Existing Data*

The phenomenon of suicide is predominant among men across Arctic populations: Canada, Alaska and Russia.[7]

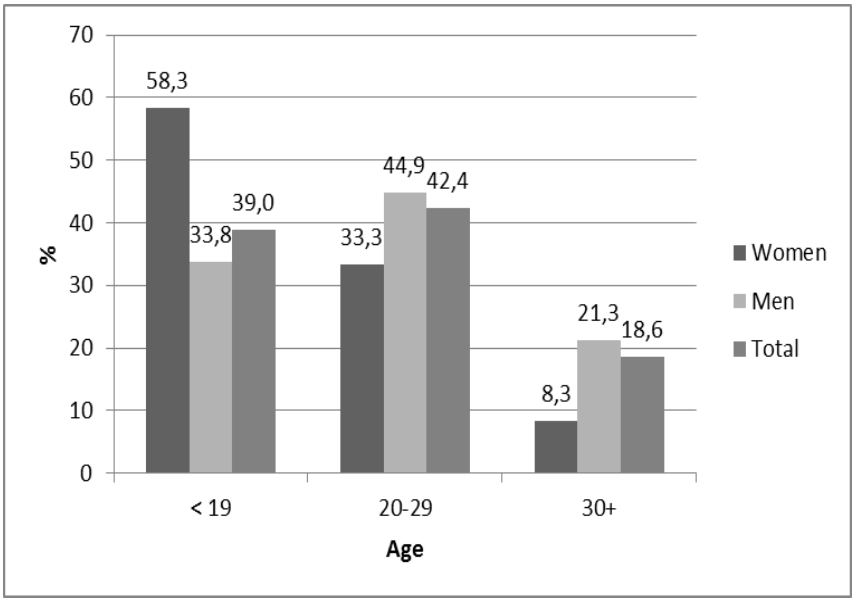
Among the general Québec population, the proportions are similar (77% among men in 2011).[8]

### 4. MAJORITY OF INDIVIDUALS WHO DIED WERE AGED 30 YEARS OR YOUNGER (N = 172 – 81.4%)

A large percentage of the individuals who committed suicide were 19 years old or younger (39%).

Among women, 58.3% were aged 19 years or younger, compared to 33.8% among men (p = 0.020). The average age at the time of suicide was 21 years for women and 24 for men.

Figure 4: Percentage of suicides, by sex and by age group (n women = 36; n men = 136)



*Comparison with Existing Data*

In Arctic populations, the age group with the highest suicide rate is also young persons, for example, 20-29-year-olds among the Nenet in Russia and 15-24-year-olds among the Sami.[9]

The difference in age at the time of suicide between women and men was also observed among non-agreement First Nations of Québec (51% of women were 19 years old or younger compared to 16.5% of men; p = 0.000).

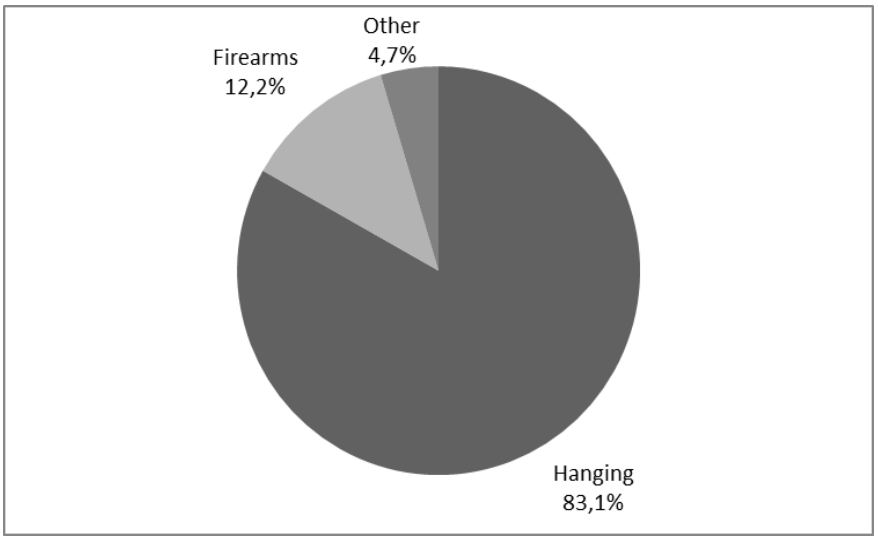
That is a difference observed with the general Québec population. For women in the general Québec population, the suicide rate is higher among those aged 50 to 64 years. For men in the general Québec population, the suicide rate is higher among those aged 35 to 49 years.[10]

## 5. HANGING IS THE METHOD MOST OFTEN USED (N = 172 -83.1%)

There was no significant difference between men and women or between age groups in terms of suicide method.

Overdose as suicide method was not identified in the coroners' reports. It is mentioned only once, the instance qualified by the coroner as "accidental." The report emphasizes the fact that the individual "was not suicidal" and that that particular death could not be categorized as a suicide.

Figure 5: Suicide method, in percentages (N = 172)




*Comparison with Existing Data*

In Nunavut, 80% of suicides were by hanging and 15.9% by firearm.[11]

Among the general Québec population, hanging was also the method most often used, but in lower proportions (54% among men and 40% among women).[12]

Close to half of the individuals who committed suicide by hanging were not completely suspended.[13]

Suicide by poison (solid or liquid substances) is frequent in Québec and elsewhere.[14] Between 2009 and 2001, 35% of women and 11.4% of men who committed suicide used this method.[15] The distinction is not clear between declared suicidal behaviour and other self-destructive behaviour associated with a high probability of mortality, such as alcohol or drug abuse and dangerous driving. A high number of accidental deaths could result from an undisclosed wish to die.[16]

## 6. Majority of Suicide Victims Took Their Lives in a Home (61.5% of 169), More Particularly 61 Suicides in a Closet (36.1% of Suicides)

A proportion of 75% of women committed suicide in a home compared to 57.9% of men. Men used an outbuilding (garage, shed, etc.) more often than women to commit suicide (32 suicides of the 33 occurred in an outbuilding; $p = 0.034$).

There was also a significant difference among age groups ($p = 0.004$). Suicides that occurred in an outbuilding were more often linked to individuals aged 19 years or younger (24.6% among those aged 19 years or younger, 19.4% among those aged 20 to 29 years and 9.4% among those aged 30 years or older).

Suicides that occurred in a monitored location such as a detention centre or a youth centre were more frequent among men (9 out of 11) and among individuals aged 30 years or older (7 out of 11). However, the low number of suicides that occurred in such locations requires caution in interpretation.

A total of 40 individuals committed suicide in the presence of others (with or without visual contact) (23%). An example of a case without visual contact is the suicide occurring in a bedroom with the rest of the family in the house. An example of a case with visual contact is an individual committing suicide in front of friends.

Table 2: Location of the suicide (N = 169)

| | % | Number |
|---|---|---|
| Individual's residence (particularly in closets) | 61.5 | 104 |
| Outbuilding (shed, garage) | 19.5 | 33 |
| Exterior (public place, river, etc.) | 12.4 | 21 |
| Monitored location (detention centre, youth centre) | 6.5 | 11 |

## 7. SUICIDES OCCUR AT ANY TIME OF YEAR AND DAY

There was no significant statistical difference in the number of suicides according to season or time of day. Two-thirds of the suicides occurred in spring and summer (Table 3).

Table 3: Suicides by season, percentage and number

| Season | % | Number |
|---|---|---|
| Spring | 30.2 | 52 |
| Summer | 29.1 | 50 |
| Fall | 25.6 | 44 |
| Winter | 15.1 | 26 |
| Total | 100 | 172 |

According to the information in the coroners' reports, two thirds of the suicides occurred at the end of the day and at night (Table 4). The actual time of the suicidal act was established in close to half of the cases (46.5%). The time of the attestation of death is almost always entered in the report. However, that time could not be used in quite a number of cases, as sometimes the body was found several hours, if not several days, after the death. Further, confirmation of death was also sometimes made some hours after the body was found.

Table 4: Suicides according to time of day, percentage and number

| Time | % | Number |
|---|---|---|
| Morning (6:00 – 11:59) | 13.8 | 11 |
| Afternoon (12:00 – 5:59) | 26.3 | 21 |
| Evening (6:00 – 11:59) | 27.5 | 22 |
| Night (12:00 – 5:59) | 32.5 | 26 |
| Total | 100 | 80 |

## 8. TWO THIRDS OF INDIVIDUALS FOR WHOM AN ANALYSIS WAS PERFORMED WERE INTOXICATED WITH ALCOHOL OR DRUGS AT THE TIME OF THEIR SUICIDE (38 out of 64)

The results of toxicological tests are available in 37% of the reports (64 out of 172 reports). Toxicological tests are absent in 63% of the reports. One of the reasons offered in one report is geographic remoteness, which would complicate testing of a biological specimen.

There were no significant differences between age groups and between the sexes in terms of being intoxicated at the time of suicide.

A positive test result was identified for 38 of the victims, i.e., specimens of bodily fluids contained an alcohol level higher than the legal limit or contained traces of drugs.

Moreover, in 14 of the deaths, intoxication was presumed but not confirmed by the coroner, as no validation test was performed. For example, a case of intoxication may be presumed if no specimens of bodily fluids were taken but the individual was seen in a state of intoxication during the hours preceding the suicidal act.

In the other coroner's reports, either no mention was made relative to intoxication or there were difficulties in drawing conclusions more precise than those reached by the coroner. For example, an individual found deceased in the morning was seen drunk the day before, but the time of death is unknown. The

information is not precise enough to conclude whether the individual was intoxicated at the time of the act or was experiencing a down from stimulants.

*Comparison with Existing Data*

Among the general Québec population, one in two individuals was intoxicated at the moment of performing the act.[17] The link between substance consumption and suicide is well documented in the scientific literature.[18] The following factors, associated with substance use, are recognized for increasing the danger of proceeding with the act: depressive state (down) after consumption of stimulants, aggravation in consumption patterns, relapse, acute intoxication.[19]

## 9. Several Individuals Expressed Their Intention to Proceed with the Act or Displayed Preparatory Behaviour

In 33 cases (19.2%), the coroner's notes indicate that the individual had expressed his intention to proceed with the act to those close to him within the hours or days preceding the suicide, and in 15 other cases (8.7%), the individual had planned the act (preparatory behaviour).

In 18 of these 48 cases in total (33 + 15), the coroner's notes clearly indicate that the individual had been left alone, and this even though signs of distress were obvious. In most of those cases, we learn that the threats of suicide had not been taken seriously or that someone close to the individual did not know what to do to support the person in distress.

*Comparison with Existing Data*

A contextual study on mental-health services in Nunavik[20] indicates that support and care for individuals with a psychiatric problem is often assumed by the families. That situation can be difficult to deal with, as much for the loved ones as for the individual with a psychiatric disorder, given the context of overcrowded housing, disruptions in traditional family roles and the growing intergenerational gap.[21]

## 10. The Individuals Experienced Events Recognized as Being Linked to Suicide

"It is difficult to understand why certain individuals commit suicide. Research on the topic targets four types of related factors that can raise or lower the suicide rate."[22] Thus the importance of estimating the risk of proceeding with the act during interventions with a suicidal individual.

Below are the four types of factors linked to suicide:

- predisposing: elements from the past which contribute to destabilizing the individual (e.g., family history of suicide, social isolation, psychiatric problems);
- contributing: elements that accentuate the individual's vulnerability (e.g., excessive consumption of alcohol or drugs and family instability);
- precipitating: elements that trigger suicidal behaviour or thought (e.g., breakup of a romantic relationship, death of a loved one);
- protective: elements that reduce the effects of the other factors and which protect against suicide (e.g., supportive social network, overall good health, optimistic nature, use of sound adaptation strategies).

The information contained in the coroners' reports do not permit distinguishing between predisposing factors and contributing factors. Precipitating factors (or trigger events) are presented under point 11. Further, very few protective factors were identified. This document therefore does not cover them.

In 128 of the 172 coroner's reports, it was possible to recognize whether the individual had experienced events that could have predisposed him to suicide.[2]

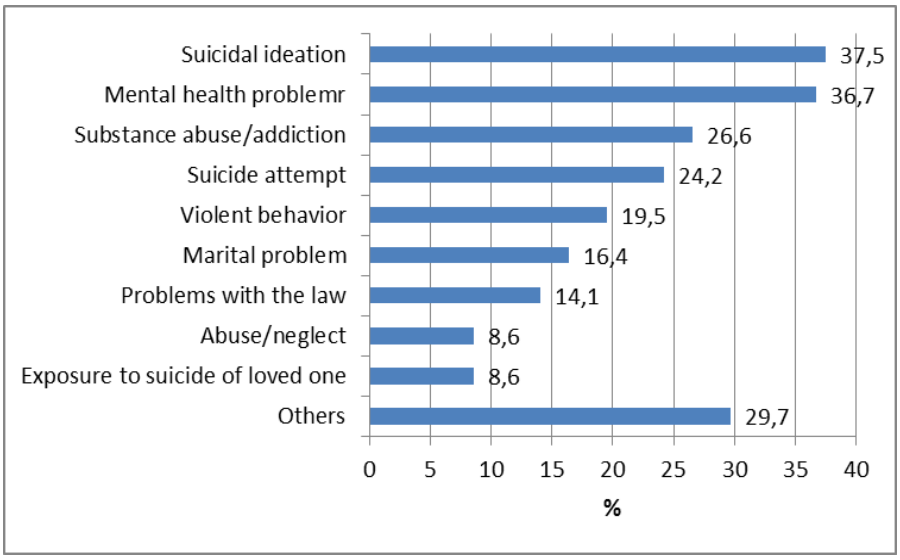
Eight individuals committed suicide with no suicide-related factor identified: "nothing indicated that he was suicidal"; "nothing explained this act, which surprised everyone who knew him."

In 44 coroner's reports, there was insufficient information to identify suicide-related factors. The data that follow are very likely underreported and thus do not provide an accurate portrait of suicide-related factors.

Table 5: Suicides by number of related factors present in the individual's life (N = 128)

| Number of related factors identified | Number of suicides | % |
|---|---|---|
| 0 | 8 | 6.3 |
| 1 to 2 | 72 | 56.3 |
| 3 to 4 | 35 | 27.3 |
| 5 to 7 | 13 | 10.2 |

Figure 6: Suicide-related factors, in percentages (N = 128)




Throughout the literature covered, it is recognized that the Inuit who died from suicide and the Inuit in general live with numerous suicide-related factors.[23] Moreover, the percentages mentioned in the literature are all higher than those identified in the coroners' reports.

[2] Predisposing factors: recent loss of employment, individual living along or homeless, difficulties related to child custody, financial problems, conjugal problems, legal problems, feelings of being rejected or socially isolated, academic difficulties, despair, violent behaviour, exposure to abuse, violence or neglect during childhood or adult life, living in a dysfunctional family, exposure to suicide of a loved one, problems with alcohol or drug use (abuse or addiction), history of suicide attempts or ideation, psychiatric disorder, presence of chronic disease or physical-health problems, poor adherence to medication plan or psychosocial follow-up.

### 10.1 Suicidal Ideation

A history of suicidal ideation was reported in 37.5% of the coroners' reports (48 individuals). These are, for example, individuals who have made suicidal verbalizations for several years or when angry or intoxicated.

*Comparisons with Existing Data*

A similar percentage is reported in the Nunavik health survey on the topic of suicidal ideation among the general population.[24]

### 10.2 Psychiatric Problems

Psychiatric disorders were mentioned in 36.7% of the coroners' reports (47 individuals). Depression and depressed moods were the psychiatric problems most often reported. These data exclude problems related to drug and alcohol addiction.

*Comparisons with Existing Data*

This statistic appears to be particularly underreported. According to Chachamovich et coll. (2015), 60.8% of individuals who committed suicide had experienced a major episode of depression.

### 10.3 Abuse and Addiction

A problem with substance abuse or addiction was reported in 26.6% of the coroners' reports (34 individuals). There were 29 instances concerning abusive consumption of or addiction to alcohol and 22 instances concerning the same for drugs. Certain individuals had a double problem of alcohol and drug use.

There were no significant differences between the sexes and between age groups concerning alcohol or drug abuse and addiction.

*Comparisons with Existing Data*

Cannabis Abuse/Addiction

- According to the psychological autopsies performed among the families of Nunavut Inuit who committed suicide,[25] 57.5% of the individuals who committed suicide had a problem of cannabis abuse or addiction within the six months preceding the suicidal act.

Alcohol Abuse/Addiction

- According to the same study, 37.5% of the individuals who committed suicide had a problem of alcohol abuse or addiction within the six months preceding the suicidal act.

### 10.4 Suicide Attempt

In 31 cases, mention is made that the individual had made at least one previous suicide attempt (24.2%). Fourteen of those individuals had made an attempt within the 12 months preceding the suicidal act. As this observation is not systematically entered in coroner's reports, we can presume that it is underreported.

*Comparisons with Existing Data*

According to Chachamovich et coll. (2015), 33.3% of the individuals who committed suicide had made at least one previous attempt.

According to Lavoie et coll. (2012: 15):

- *15% of the individuals who made an attempt would make another within the following year;*
- *in the first year after the attempt, the suicide rate was 50 to 100 times higher than that among the general population. The initial weeks after discharge from the emergency department were particularly risky for repeated attempts;*
- *the fact that an individual has already attempted suicide indicates that that act is among his potential solutions and increases his capacity to repeat it in a similar context.*

### 10.5 Violent Behaviour

In 19.5% of the cases, the coroner indicated that the individual who committed suicide had already displayed violent behaviour toward those around him in the past, including conjugal violence (25 individuals).

In 12 of the cases, the coroner clearly mentioned that the death occurred in the presence of other persons AND in a context of heightened violence, for example, in the presence of the spouse after he had assaulted her.

*Comparisons with Existing Data*

According to Chachamovich (2015), close to 60% of the individuals who committed suicide were known to have displayed violent behaviour in the past and 76% were known as having impulsive behaviour.

### 10.6 Conjugal Difficulties

In 61.4% of the cases, mention is made of a situation of conjugal difficulties in the individual's life (21 individuals).

The term *conjugal difficulty* covers separation, divorce, threat of separation, jealousy between spouses and so forth, a situation that dates several weeks, months or years. For example, the couple has been separated for several months and the individual in question has difficulty living with the situation.

Conjugal violence is not considered a conjugal difficulty but rather as violent behaviour for the aggressor (point 10.5) and as abuse for the victim (point 10.8).

When the conjugal difficulty arises during the hours preceding the suicide and the situation is new in the individual's life, the situation is then considered as the trigger event for the suicide. An example is a couple that breaks up during the day and the suicide occurs that night.

*Comparisons with Existing Data*

In general, going through a divorce, especially within the past three years, increases the risk of accident, violence and suicide, primarily among men.[26] Going through a separation or a divorce also increases feelings of shame in men and makes them more vulnerable to suicidal behaviour.[27]

### 10.7 Legal Problems

In 14.1% of the cases, the coroner's report indicates that the individual who committed suicide had already had legal problems (18 individuals). That statistic excludes situations where a parent had dealings with the Department of Youth Protection (DYP). In these cases, only men had legal problems.

*Comparisons with Existing Data*

In Nunavut, the Inuit who committed suicide were twice as likely to have had legal problems compared to the Inuit of Nunavut in (control group).[28]

### 10.8 Victim of Abuse and Neglect

According to the coroners' reports, 8.6% of the individuals who committed suicide had been victims of abuse and neglect. That percentage includes neglect during childhood which may or may not have necessitated intervention by Youth Protection, sexual and other forms of abuse, and conjugal violence.

*Comparisons with Existing Data*

Physical and sexual abuse are recognized as suicide-related factors.[29] According to Anctil (2008), one in five adults in Nunavik affirmed having been victim of sexual abuse as an adult.

In Nunavut, 47.5% of the individuals who committed suicide between 2005 and 2010 were victims of maltreatment during childhood.[30] Again in Nunavut (2007-2008), 31% of individuals stated having suffered physical violence during childhood. According to that survey, 52% of women and 22% of men also suffered severe sexual abuse during childhood.[31]

According to Hicks (2007), suicide occurs more frequently among young Greenland Inuit who grew up in an emotionally impoverished environment, with parents who had poor parental skills and who struggled with problems of addiction, substance abuse and violence.

### 10.9 Exposure to a Loved One's Suicide

Exposure to the suicide of a loved one is mentioned in only 8.6% of the cases, which, in the present context, does not seem particularly representative of Nunavik's reality.

Given the number of suicides per community and the small size of the communities, it seems obvious that more individuals would be affected by the suicide of a loved one. Further, certain coroners bring up the phenomenon of "waves of suicides."

The limited data available therefore do not permit adequate examination of this suicide-related factor.

## 11. The Majority of the Individuals Proceeded with the Act after an Event Linked to Conjugal Difficulties (47% of 87)

In 87 of the 172 reports, it was possible to identify an event that occurred during the hours preceding the suicidal act and which could have been a trigger.

There was a significant difference between the sexes ($p = 0.038$) in terms of the trigger event[3] that preceded the suicidal act.

- Among men, the principal trigger was linked to conjugal difficulties (47.9% of the men compared to 25% of the women). Triggers related to the legal system or a violent altercation were also primarily associated with men (20 of the 23 suicides characterized by that trigger).

- Among women, the trigger event varied greatly from one individual to the next. A proportion of 56.3% of the women experienced an event other than one linked to the couple's relationship or

[3] A trigger event is a crucial event that destabilizes the individual in terms of his capacity to deal with stress and increases his vulnerability. The trigger may be "the straw that broke the camel's back" (an accumulation of difficult situations experienced over the short or long term), such as an abrupt, unexpected event.

the legal system: suffered violence, overconsumed, experienced an accumulation of stressful events, etc.

There was also a significant difference between age groups (p = 0.031) in terms of the trigger event that preceded the suicidal act.

- Triggers related to conjugal difficulties were more frequent among those aged 30 years or younger (29 out of 38).

- Triggers related to the legal system or a violent altercation were more frequent among those aged 30 years or younger (12 out of 23).

*Comparison with Existing Data*

In the United States, in a study based on the point of view of First Nations communities, adults are concerned with the fact that young persons embark on a romantic relationship at an early age. For those youths, separation is often taken as a form of rejection that they do not know how to deal with; the suffering and the feeling of rejection are so strong that the option is to take one's life.[32]

Among the general population in Québec and New Brunswick, conjugal difficulties are also identified as important trigger factors (21%).[33]

### 12. Certain Individuals Were in Contact with a Professional Shortly before Proceeding with the Act

According to the available data, only 19 individuals were in contact with a professional in health and social services in the days preceding the suicidal act. Eleven other individuals were in contact with a guard of a detention centre, a police officer or a teacher.

*Comparison with Existing Data*

According to Lessard et coll. (2008), various factors can explain the low incidence of requests for help in the health and social services network, notably the low level of adaptation of services to the needs of Inuit, the mistrust relative to the efficacy of psychosocial interventions and the risk of stigma in small communities. In general, crisis situations are what lead to an individual's case being assumed by health and social services.

### 13. Message Explaining the Suicidal Act

A total of 78 individuals left a message (note or letter).

- The women were proportionately more numerous than the men in leaving a message (note or letter) (64.7% of the women compared to 27.9% of the men; p = 0.007).
- Individuals aged 20 to 29 years were proportionately fewer in leaving a message than those of the other age groups (20.6% compared to 44.1% among those aged 19 years or younger and 60% among those aged 30 years or older; p = 0.030).

SPECIFIC RECOMMENDATIONS

- Reduce access to the means
  - Remove hanger poles from closets, as they constitute one of the most often-used items for suicide by hanging.
  - Distribute trigger locks among firearm owners. Propose brief training to foster optimal use of trigger locks in order to reduce recourse to forearms as suicide method. Moreover, recap the rules of safe storage of firearms and ammunition.

- Target vulnerable groups
  - Promote services among men, as they are more numerous as suicide victims than women and are recognized as being less inclined than women to seek help from the health and social services network.[34]
  - Improve screening among young women under the age of 20 years, as they commit suicide proportionately more than males of the same age.
  - Take into account the presence of adverse elements among youths, such as neglect and major family conflicts. The presence of such elements early in an individual's life increases his vulnerability:[35]
    - consider the family situation in its entirety during interventions among youths characterized by suicidal ideation or behaviour;
    - train youth-protection interveners in screening methods.
  - Adjust the estimation of the risk of proceeding with the suicidal act according to critical moments when the individual is in interaction with the legal system, for example, when awaiting a sentence, a transfer or the return home.[36]
  - Consider the symptoms of mental disorders related to proceeding with the suicidal act (the individual's capacity for self-control, hope for change and self-care) in an individual who has not been diagnosed. This has been made possible through the training "Best practices in suicide Intervention" and the use of the Suicide Risk Estimation Tool developed by *Suicide Action M*ontreal and *Centre de réadaptation en dépendance-Institut universitaire (CRDM-IU*).
  - Systematically check for the presence of suicidal ideation among substance abusers (during follow-up and at the end of a treatment procedure) and remain vigilant at the end of a secure detoxification treatment.[37]
  - Remain alert for signs of suicidal ideation in individuals going through breakup of a romantic relationship, even though such breakup may not be recent.

- Improve front-line services
  - Set up safe sobering-up centres that are accessible at night and on weekends.
  - Propose specific services for individuals known for their violent, aggressive or impulsive behaviour (for example, workshops on anger management), as such behaviour limits the individual's capacity for self-control and increases the risk of suicide.[38]
  - Promote telephone hotlines that can respond in English. This service is presently available only through the Nunavut hotline.
  - Pursue initiatives that permit speaking out and sharing feelings, which allow raising unresolved trauma that often manifests through anger against oneself or against others.[39] "Many, many times

indigenous youth sense things are not right, but they don't know why the way things are the way they are."[40]

- Reduce waiting times for ambulances (or the arrival of first responders) and train first responders (for example, ambulance technicians).

  - According to Gunnell et coll. (2005), hanging is recognized as having a high rate of lethality (70%). However, survival is possible if the individual is found within the first five minutes. Front-line interveners may carry a knife to cut the rope (or cord, electrical cable, curtain, clothing, etc.) without harming the individual. Improvements in the interventions of first responders could raise the survival rates of individuals found while still alive, principally by reducing the first responders' response time and by using medical intubation equipment to limit the complications caused by cardiopulmonary arrest.

- Ensure coordination of services offered in relation to mental health, suicide prevention and substance-abuse prevention in order to take into account the complexity of the difficulties experienced by the individual.[41] Such coordination would cover the pooling of efforts to improve the determining factors of health which foster cultural pride (e.g., housing, employment).[42]

- Pursue the mobilization of the communities through the involvement of the Suicide Prevention Liaison Worker and ensure regional consistency of actions in suicide prevention.

❖ Document deaths by suicide

- Document, more systematically, intoxication of an individual when proceeding with the act. Such documentation will depend on the information gathered after the death (taking of specimens and toxicological analysis).

- Document, more systematically, the life trajectory of individuals who have died through suicide.

- The police report produced after a suicide could, for example, specify whether the individual:

  - was struggling with problems linked to drug and alcohol use;
  - had recently undergone conjugal difficulties (rupture of a conjugal relationship, jealousy, etc.);
  - had been victim of physical or sexual abuse, whether recent or not;
  - had been victim of neglect during childhood.

REFERENCES


Anctil, M (2008). *Enquête de santé auprès des Inuits du Nunavik* 2004*, Qanuippitaa? Comment allons-nous?* Highlights. *Institut national de la santé publique du Québec* (INSPQ) and Nunavik Regional Board of Health and Social Services (NRBHSS), 7 p.

Chachamovich, E. et coll. (2015). "Suicide among Inuit: Results from a Large, Epidemiologically Representative Follow-Back Study in Nunavut." *Canadian Journal of Psychiatry*, vol. 60, no 6, p. 268-274.

Chachamovich, E. and M. Tomlinson (sd). *Nunavut Suicide Follow-Back Study: identifying the risk factors for Inuit suicide in Nunavut*. Embrace Live Council, Nunavut Tunngavik Inc., Government of Nunavut and McGill Group for Suicide Studies, 56 p.

CRISE (2008). *Application des connaissances scientifiques en prévention du suicide*. http://www.criseapplication.uqam.ca/, (consulted October 20, 2015).

Guinard, P.-A. and C. Daignault-Clermont (2012). *Critères de qualité des services sociaux et de santé par les Inuit de la Baie d'Hudson*. Inuulitsivik Health Centre, Puvirnituq, 55 p.

Gunnell, D. et coll. (2005). "The epidemiology and prevention of suicide by hanging: a systematic review." *International Journal of epidemiology*, vol. 34, p. 433-442.

Health Canada. http://www.hc-sc.gc.ca/fniah-spnia/promotion/suicide/index-fra.php (consulted October 20, 2015).

Hicks, J. "The social determinants of elevated rates of suicide among Inuit youth." *Indigenous Affairs*, July, p. 30-37.

Kirmayer, L. J. et coll. (2007). *Suicide chez les Autochtones du Canada.* Aboriginal Healing Foundation, 189 p.

Kolves, K., N. Ide and D. De Leo (2011). "Marital breakdown, shame, and suicidality in men: a direct link?" *Suicide Life Threat Behav*, vol. 41, no 2, p. 149-59.

Lavoie, B. et coll. (2012). *Grille d'estimation de la dangerosité d'un passage à l'acte suicidaire : Fondements théoriques et pratiques*. Centre Dollard-Cormier – Institut universitaire sur les dépendances and Suicide Action Montréal, 45 p.

Legaré, G. and M. Gagné (2015). *La mortalité par suicide au Québec : 1981-2012—Mise à jour 2015*, *Institut national de la santé publique du Québec*, 16 p.

Lessard, L. et coll. (2008). *Étude contextuelle sur les services de santé mentale au Nunavik*. *Direction recherche, formation et développement, Institut national de la santé publique du Québec*, 34 p.

Morris, M. and C. Crooks (2015). "Structural and Cultural Factors in Suicide Prevention: The Contrast between Mainstream and Inuit Approaches to Understanding and Preventing Suicide." *Journal of Social Work Practice*, July, p. 1-18.

Silventoinen, K. et coll. (2013). "Changing associations between partnership history and risk of accidents, violence and suicides." *Journal of Epidemiology & Community Health*, vol. 67, no 3, p. 265-270.

Walls, M., D. Hautala and J. Hurley (2014). "Rebuilding our community: Hearing silenced voices on Aboriginal youth suicide." *Transcult Psychiatry*, vol. 51, no 1, p. 47-72.

Young, T.K, B. Revich and L. Soininen (2015). "Suicide in circumpolar regions: an introduction and overview." *International Journal of Circumpolar Health*, vol. 74, p. 27349.

Appendix 1. METHODOLOGICAL AND ETHICAL CONSIDERATIONS

The results presented in this document are based on the data from the 172 coroners' reports covering suicides that occurred in the Inuit communities between 2000 and 2013, inclusively. The reports were provided by the *Bureau du coroner du Québec*. It is possible that not all the reports from 2012 and 2013 were received. In effect, sometimes several months elapse between the individual's death and the final drafting of the report by the coroner. That may occur, for example, when the coroner awaits additional investigative results.

The table used for data compilation and analysis was heavily based on the work performed for the Estrie region.[43] The goal of that table was to draw up a profile of the individual and his life trajectory, taking into account significant elements relative to the act of suicide, the individual's social environment, state of mental and physical health, and so forth.

Data compilation was performed by two persons. Repeatability tests were conducted twice, resulting in 10% at the very end. That enabled limiting variability in the interpretation by the persons who compiled the raw data.

The coroners' reports are not uniform and vary in the quantity of information gathered. Where certain information is gathered systematically (sex, date of birth, cause of death, etc.), other information is absent from the reports in major proportions (job situation, contacts with the health and social services network, family situation, etc.). The variables that are reported infrequently are therefore of little use statistically. Those reported more frequently but not in 100% of the reports are to be considered with caution, as they are potentially underestimated.

Statistical data were presented where possible. For that purpose, data were cross-checked using *SPSS* (Chi square tests and Fisher's exact test). A level of confidence of 95% ($p<0.05$) was used to check for significant differences between the sexes and between the age groups. Further, for certain data, a multivariate analysis was performed to check the influence of age. Otherwise, the information was more descriptive and qualitative in nature.

In most of the sections, the data were compared with other data existing in the literature. The goal of such comparison was to qualify or support the data presented. The success of data comparison varied according to the literature covered. Moreover, a certain degree of caution is called for in the interpretation of the data compared, as the studies used were based on potentially different methods and populations.

Finally, the coroners' reports are public information. However, they contain nominal and sensitive information concerning deceased individuals. Access to the reports was therefore limited to the two persons assigned to the task of compilation. A unique numerical code was assigned to each report, replacing the individual's name. The identity of the individuals named in the coroners' reports is in no form mentioned in the present document. Further, the results were transmitted such that the identification of a particular situation or individual would prove difficult.

---

[1] Kirmayer, Fletcher and Watt 2009; Wexler et coll. 2008; Tester and McNicoll 2004; Young 2004 in Kral et coll. 2009
[2] O'Neil 1996 and Tester and McNicoll 2004 in Morris and Crooks 2015: 12
[3] Kirmayer et coll. 2007: 17
[4] Kirmayer et coll. 2007: 17
[5] Kirmayer et coll. 2007; Statistics Canada in Young, Revich and Soininen. 2015 and Health Canada's Web site
[6] Legaré and Gagné 2015: 3
[7] Young, Revich and Soininen 2015
[8] Légaré et coll. 2014
[9] Young, Revich and Soininen 2015

[10] Legaré et coll. 2015
[11] Chachamovich et coll. 2015
[12] Légaré et coll. 2014
[13] Gunnell et coll. 2005
[14] Institute of Health Economics 2010
[15] Legaré and Gagné 2015: 7
[16] Young, Revich and Soininen 2015
[17] Schneider 2009 in Lavoie et coll. 2012
[18] Pompilil et coll. 2012; Vijayakumar, Jumar and Vijayakumar 2011; Wilcox, Conner and Caine 2004 in Lavoie et coll. 2012
[19] Lavoie et coll. 2012
[20] Lessard et coll. 2008
[21] NRBHSS 2003; Streit 2003; Cooney and Padlayat 2000; Kativik Regional Council of Health and Social Services 1991; Beaudoin, Cooney and Provost 2005 in Lessard et coll. 2008
[22] Lane et coll. 2010: 8
[23] Anctil 2008
[24] Anctil 2008
[25] Chachamovich and Tomlinson sd
[26] Silventoinen and coll. 2013
[27] Kolves et coll. 2011
[28] Chachamovich and Tomlinson sd
[29] Chachamivich and Tomlinson sd.; Jokinen et coll. 2010 in Morris et Crooks 2015
[30] Chachamovich and Tomlinson sd
[31] Galloway and Saudny 2012 in Morris and Crooks 2015
[32] Walls, Hautala and Hurley 2014
[33] Lavoie et coll. 2012
[34] Lane et coll. 2010
[35] Séguin 2005
[36] Inungni Sapujjijiit Task Force on Suicide Prevention and Community Healing 2003 in Morris and Crooks 2015: 7; Webb 2011
[37] Lavoie et coll. 2012 and White and Jodoin 2004
[38] Lavoie et coll. 2012
[39] TI 2007; Inungni Sapujjijiit 2003 in Morris and Crooks 2015
[40] Weber 2012 in Morris and Crooks 2015
[41] Séguin 2005
[42] Morris and Crooks 2015: 7
[43] Boileau et coll. 2011